

Desktop Archaeological Impact Assessment Report,
Buncrana Pier,
Buncrana,
Lough Swilly,
Co. Donegal.

15th February 2018

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1 Introduction

This archaeological impact assessment report (AIA) was undertaken as part of an application for a Dumping at Sea (DAS) licence by Donegal County Council to undertake maintenance dredging works at Bunrana Pier, in Lough Swilly, Co. Donegal (Figs. 1-2). The proposed dredging works are being undertaken in order that the RNLi Lifeboat can launch at all stages of the tide throughout the year and also to facilitate the seasonal ferry service to Rathmullan on the west shore of Lough Swilly. It is intended to move c.8,000 tons of sandy sediment in two events of c.4000 tons over a period of 5-6 days. The sediment that has built up alongside Bunrana Pier (Fig. 2) will be moved by plough dredging dumpsite that encompasses the limits of the pier (Figs. 3-4). From there it is intended that the dumped sandy material will migrate naturally in the channel. The build-up of sandy sediment occurs at Bunrana Pier due to natural deposition from the Mill River that debouches into Lough Swilly there and also from marine tidal deposition. Plough dredging works have been undertaken at Bunrana in the recent past.

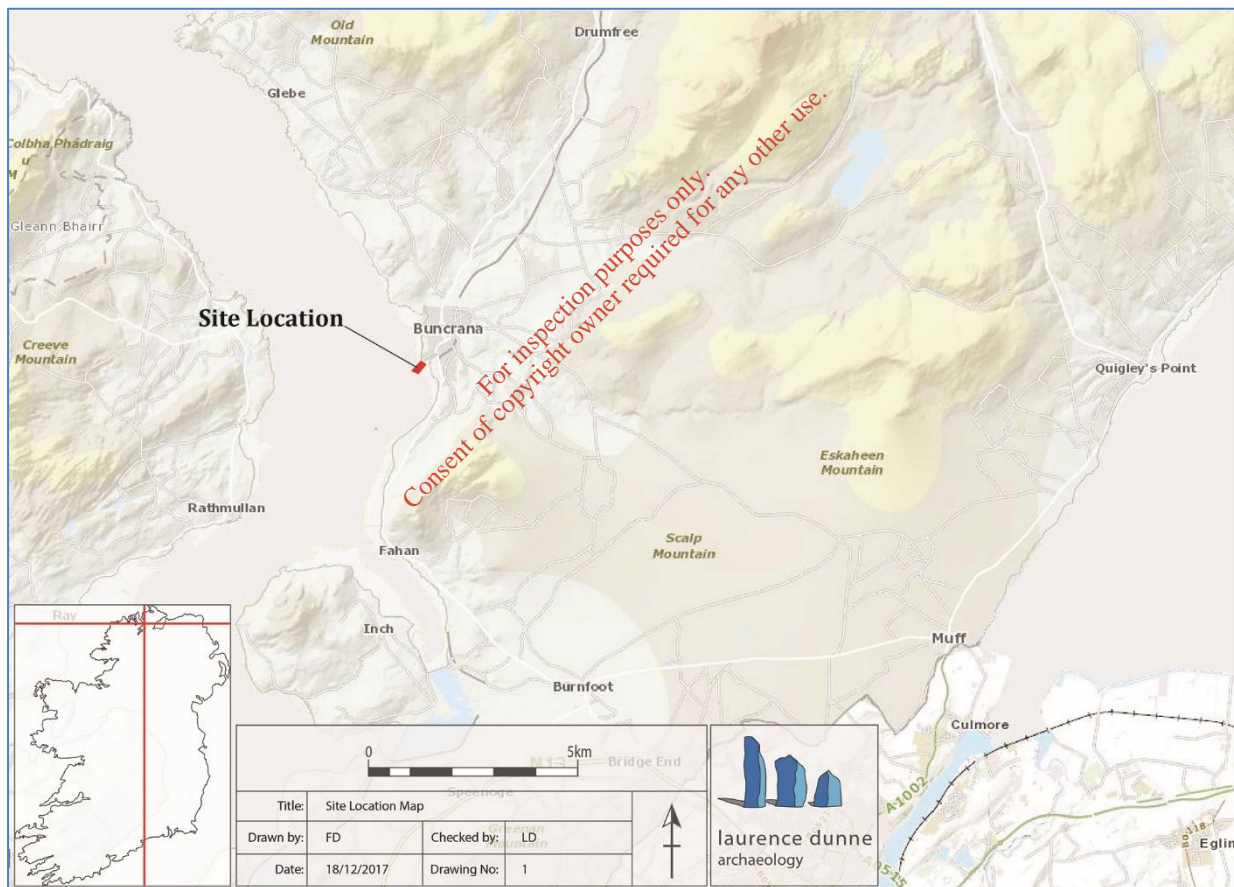




Figure 1: Site location map.

Figure 2: Proposed plough dredging area and deposition.

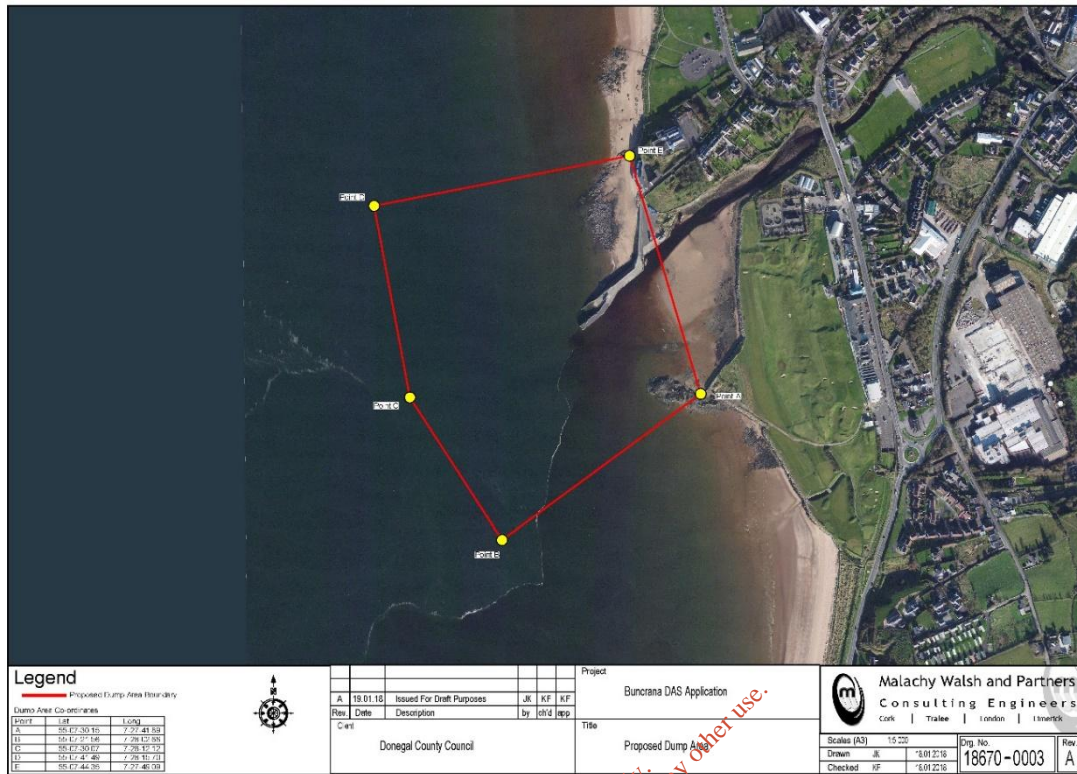


Figure 3: Proposed Dump Area Boundary

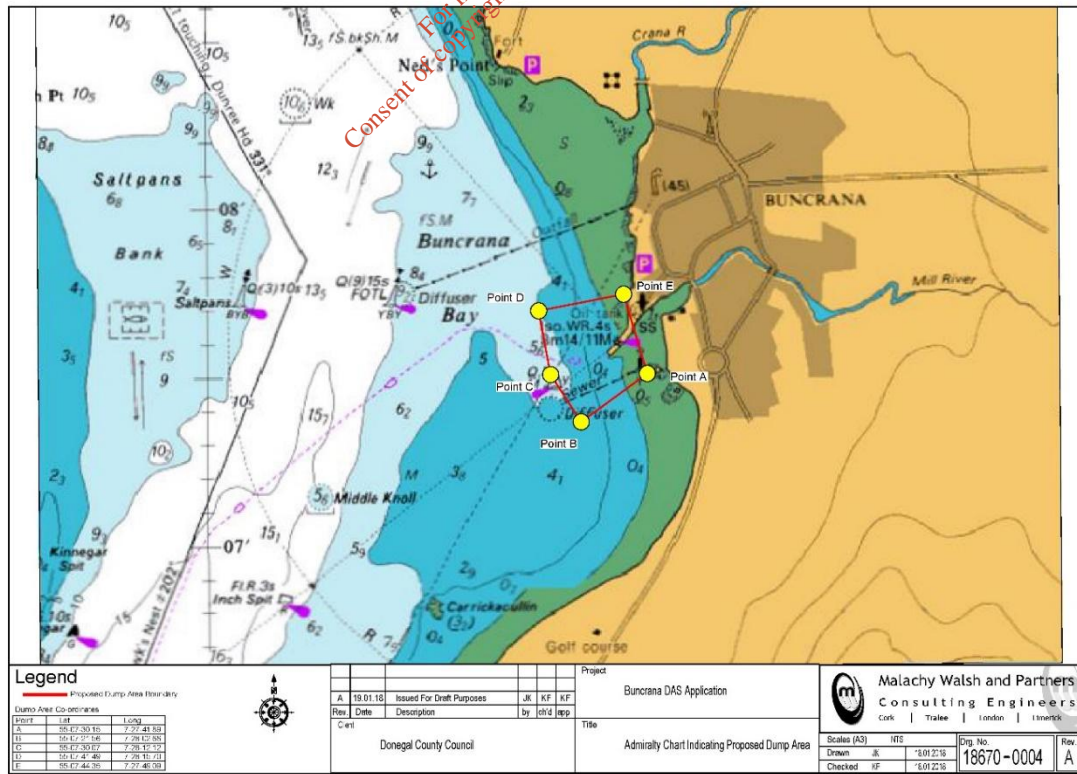


Figure 4:

2 Conventions, Legislation and Guidelines

This AIA was also undertaken with due regard to the following national and international protective conventions, legislation and guidelines and legislation:

- National Monument Act, 1930, amended 1954, 1987, 1994 and 2004
- Heritage Act, 1995.
- The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous) Provisions Act, 1999.
- Framework and Principles for the Protection of the Archaeological Heritage, 1999, Department of Arts, Heritage, Gaeltacht and the Islands.
- Local Government (Planning and Development) Act, 2000.
- European Convention on the Protection of the Archaeological Heritage (the 'Valletta Convention') ratified by Ireland in 1997.
- Council of Europe Convention on the Protection of the Architectural Heritage of Europe (the 'Granada Convention') ratified by Ireland in 1997.
- International Council on Monuments and Sites (ICOMOS), advisory body to UNESCO concerning protection of sites and recommendation of World Heritage sites ratified by Ireland in 1992.

3 Scope of Desktop Report

Documentary sources

Several published and unpublished documentary sources were examined (see References section below).

Sites and Monuments Records / Record of Monuments and Places

The Sites and Monuments Records (SMR) / Record of Monuments and Places (RMP) compiled by the Archaeological Survey of Ireland comprises lists, classifications of monuments and maps of all recorded monuments with known locations and zones of archaeological notification. The monument records are searchable online from the National Monuments Service (NMS) of the DAHG at www.archaeology.ie.

Shipwreck Inventory of Ireland

The Shipwreck Inventory of Ireland for the Buncrana area held by the Underwater Archaeology Unit of the National Monuments Service was accessed as the essential baseline of the underwater desktop research. The inventory is principally a desktop survey of information gathered from a broad range of cartographic, archaeological and historical sources, both documentary and pictorial pertaining to shipwrecks around Irish shores of which there is a current estimate of 15,000.

Record of Piers and Harbours

The Record of Piers and Harbours is a draft unpublished document compiled by the National Monuments Service. It draws on various historical sources dealing with historical piers and harbour development in Ireland.

Excavations Bulletin

The Excavations Bulletin and its online database which contains summaries of all archaeological excavations (marine and terrestrial) carried out in Ireland, was also examined (www.excavations.ie).

Cartography

Several historic maps and charts were examined to trace the development of Buncrana Pier and assess its archaeological potential. These included the 17th Century Down Survey of Donegal, Mackenzie's Charts of 1799 and 19th/20th Century Ordnance Survey Maps (see references section below).

Aerial Photography

A variety of aerial photography was examined including infra-red aerial images undertaken by the Marine Institute and aerial orthophotos from the National Monuments Service website, www.archaeology (see references below).

Geophysical Data

The INFOMAR data produced by the Geological Survey of Ireland for Lough Swilly was examined for evidence of archaeological potential in the proposed licence areas.

Consultation

Consultation took place with archaeologist Karl Brady of the Underwater Archaeology Unit (UAU) of the Dept. of Arts, Heritage, Regional, Rural and Gaeltacht Affairs regarding the impact of the proposed plough dredging works and the current data of shipwrecks in the Buncrana area.

4 Description of Site

Buncrana Pier is a large concrete construct that forms the quay for fishing boats and the RNLI, Tyne class all-weather vessel lifeboat (Plate 1). The pier also forms the departure point for the now defunct Buncrana / Rathmullan car ferry.



Plate 1: RNLI, 'Tyne' Class Lifeboat at Buncrana Pier.

5 Receiving Environment

Buncrana is a seaside town situated on the east side of Lough Swilly on the Inishowen Peninsula of Co. Donegal c.15km NW of Derry. The c.39km lough is linked to the open sea between the Fanad and Inishowen Peninsulas. Lough Swilly is 3.5km wide at Buncrana.

Drainage of the area encompassing Buncrana is predominantly via the Mill River that debouches into Lough Swilly alongside Buncrana Pier at Saltpans Point. The Mill River, that rises in the Glaskmore Hills, also forms a natural townland boundary between Ballymacarry Lower to the S and Ardaravan to the north. At a distance of 1.0km to the north of Buncrana the River Crana, also known as the Castle River, issues into Buncrana Bay.

Ultimately, the archaeological receiving environment or study area is broadly coterminous between the two rivers and the Buncrana Bay area (Fig. 3)

The White Sands Strand, which has a Blue Flag' status stretches south from Buncrana Golf Links in Ballymacarry Lower for c.1.7km.

6 Archaeological & Historic Background (Figs. 5 – 6 & Table 1)

Prehistory

Terrestrially the earliest monumental archaeology manifest in the study area encompassing Buncrana appears to date from the Early Bronze Age (EBA). This is best exemplified, in a megalithic context, by a wedge tomb DG029-044, known as the 'Giant's Den' situated c.2.1km to the south-east, and orthostatically by five standing-stones c.1.3km to the east (Fig. 6 & Table 1). Standing stones appear to have served a variety of functions - ritual and profane. Many were used as burial markers to designate the location of a cist grave, which was a simple slab-lined grave containing, cremated remains or frequently single flexed articulated burials. They were usually accompanied by grave-goods. Certainly, standing stones appear to have been largely of ritual significance. Other standing stones are believed to have served as territorial markers to denote the extent of tribal or familial land boundaries.

Other non-megalithic EBA sites in the area include the discovery during archaeological monitoring by Maurice Hurley in 2007 uncovered '*...a spread of charcoal-rich material containing six sherds of pottery... together with six fragments of cremated bone and three flakes of quartz. Preliminary examination of the pottery suggests the sherds were part of a bowl food vessel. The spread revealed the heavily truncated and disturbed remains of an Early Bronze Age cremation burial*' (Bennett 2010, 78-9). A cist burial was found during quarrying works in Ardaravan in 1978, c.0.8km east from the Buncrana Pier. The heavily damaged cist was excavated by Prof. O'Kelly who found the '*cremated remains of a single adult, 25 and 30 years of age, of indeterminate sex (NMI 128) ... but the cist contained no artifacts*' (www.archaeology.ie). A midden site, DG029-043, was found by Brunnicardi in 1914 in the sandhills along the White Strand c.1.3km south of Buncrana Pier in Luddan townland (Figs. 5-6). The midden material discovered included flint flakes, hammer stones, fragments of pottery and part of a saddle quern (www.archaeology.ie). The midden is now subsumed within Buncrana Golf Links.

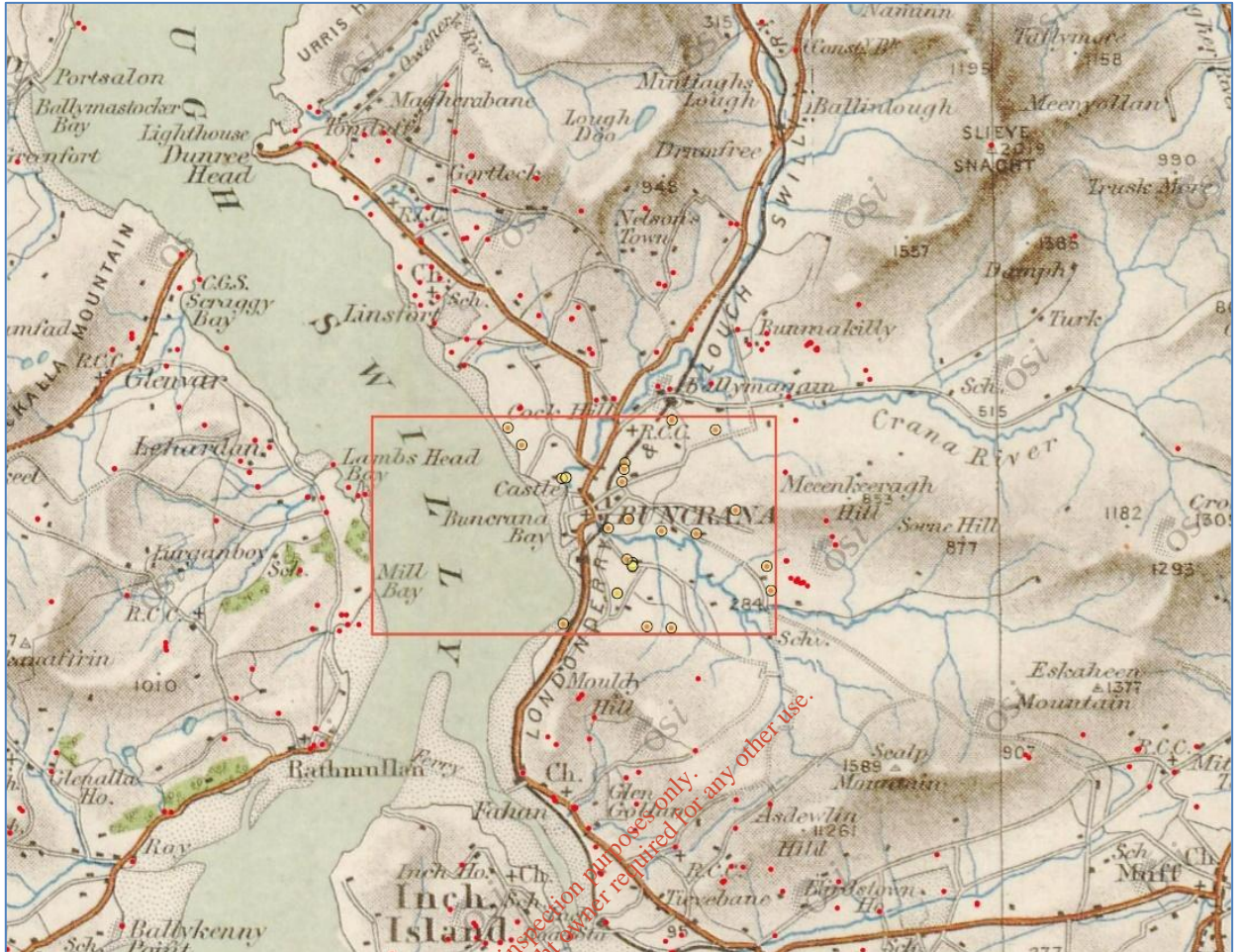


Figure 5: Study Area outlined in red. Terrestrial monuments also highlighted (Table 1).



Figure 6: Archaeological Study Area

Table 1: Recorded Terrestrial Sites in Study Area

SMR No.	Class	Townland	ITM Eastin	ITM Northin
DG029-020----	Enclosure	BALLYMAGAN UPPER, LOWER & CLONBLOSK	636278	933721
DG029-021----	Field system	CLEENAGH	637109	933533
DG029-023----	Ritual site - holy well	BALLYNARRY	633407	933253
DG029-025001-	Castle - tower house	TULLYARVAN	634253	932627
DG029-025002-	House - 18th/19th century	TULLYARVAN	634168	932608
DG029-025003-	Bawn	TULLYARVAN	634253	932627
DG029-026----	Ringfort - cashel	BALLYMACARRY	635380	932910
DG029-027----	Ringfort - cashel	BALLYMACARRY	635358	932785
DG029-028----	Ringfort - cashel	ARDARAVAN	635325	932548
DG029-030----	Cist	ARDARAVAN	635061	931662
DG029-031----	Standing stone	ARDARAVAN	635434	931834
DG029-032----	Enclosure	AGHILLY AND LENYNARNAN	636076	931614
DG029-033----	Ringfort - unclassified	AGHILLY AND LENYNARNAN	636735	931557
DG029-034----	Cairn - unclassified	BAUVILLE KEEOGES and CLONGLASH	637493	932008
DG029-038001-	Standing stone	GRANSHA	635521	931003
DG029-038002-	Standing stone	GRANSHA	635521	931003
DG029-039001-	Standing stone	GRANSHA	635518	930945
DG029-039002-	Standing stone	GRANSHA	635516	930937
DG029-040----	Ringfort - unclassified	TULLYDUSH LOWER	638087	930931
DG029-041001-	Burial ground	LUDDAN	635235	930418
DG029-041002-	Bullaun stone	LUDDAN	635235	930418
DG029-042----	Enclosure	TULLYDUSH LOWER	638163	930467
DG029-043----	Midden	LUDDAN	634197	929835
DG029-044----	Megalithic tomb - wedge tomb	GRANSHA	635801	929784
DG029-045----	Enclosure	GRANSHA	636255	929753
DG029-047----	Burial	BALLYNARRY	633138	933574
DG029-063----	Cremated remains	GRANSHA	635410	931063

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Plate 2: View from N of Wedge Tomb, DG029-044 in Gransha, 2.1km SE of Buncrana (Cody 2002).



Plate 3: Standing Stone DG029-038002 in Gransha td, 1.3km east of Buncrana. There is no trace of a second standing stone recorded at the same location. Image extracted from Google Street).

Medieval Period

The of Inishowen – *Inis Eóghain* was the original homeland of the *Cenél Eóghain* and from which they expanded over much of Ulster. The original capital of the Northern Uí Néill lay within its southern boundaries at Aileach (MacCotter 2008, 227). The *trícha-cét* was the Gaelic politico-territorial unit that was later evolved into the cantred and barony with the arrival of the manorial system of the Anglo/Normans. Essentially, they were coeval with the earlier territories under a new name. The territory of the *Cenél Eóghain* stretched from the tip of Inishowen to the Blackwater area near Armagh (Nicholls 2003, 151)

In a secular early medieval context, the archaeology of the study area is best represented by five ringforts (Table 1). It is possible that the two enclosures in the study area may be the remains of ringforts also. Ecclesiastically, Templemoyle Burial Ground, DG029-041001 in Luddan townland may be an early foundation.

In the 12th and 13th centuries the kingship of the *Cenél Eóghain* was disputed by two families the MacLoughlins and O'Neill. By 1196 Hugh O'Neill held the kingship until his death in 1230 except for a brief period in 1201 when Mac Loughlin wrested it back (Nicholls 1972, 127). After Hugh's death, Donnell Mac Loughlin succeeded to the kingship after disposing two O'Neill claimants. In 1241 the Mac Loughlins assisted by the O'Donnells of Tirconnell battled with Brian O'Neill at Caimirighe. In the process Donnell Mac Loughlin as well as ten O'Donnell claimants to the *Cenél Eóghain* kingship were slain. Following which the MacLoughlins diminished to a minor clan in Inishowen while the O'Neills gained full control and from whom the territory known as *Tír Eóghain* Tyrone evolved (ibid 128).

In 1280 Niall O'Neill was described as the king of Inishowen, however by 1300 the peninsula was in the possession of the Earl of Ulster. Following the earl's death in 1333 ownership of Inishowen was gained by the O'Doughertys from Tirconnell who held it until the rebellion and death of Sir Cahir O'Dougherty in 1608 (ibid). Sir Cahir O'Dougherty had been personally insulted by Sir George Powlett, the recently appointed vice-provost of Derry. O'Dougherty responded by assaulting Derry and putting Powlett and his garrison to the sword and burning the city. For five months Cahir continued his rebellion until he was shot through the head in a subsequent engagement, after which his followers dispersed and the rebellion and last blow for independence in Ulster came to an end (Marmion 1855, 394). Cahir O'Dougherty also possessed Buncrana Castle that consisted of a tower house (DG029-025001), and a bawn (DG029-025003) strategically situated to control a fording point of the Crana River. Situated in the townland of Tullyarvan, it was described in 1601 as a small castle inhabited by Connor McGarrett O'Doherty. It was granted to Sir Arthur Chichester at the time of the Ulster Plantation and he leased it to Henry Vaughan in 1611. The Vaughan family resided there until the present house (DG029-025002) was built in 1718 c.70m west of the tower house.

Buncrana Castle is now a national monument (No. 435). The ruined and much altered tower-house is situated beside the Crana River beside which was an important salmon fishery weir. Most of the original features of the castle are obscured by later alterations (www.archaeology.ie; Littleton & O'Donoghue 2017). In August 2017 an unprecedented flood revealed the original cobbled metalled surface of the ancient ford at Buncrana Castle on the west or seaward side of Castle Bridge that was built by George Vaughan in 1718 (Plate 4).



Plate 4: Buncrana Castle.



Plate 5: View of metallated cobbling of surface of ancient ford revealed beside Buncrana Castle.

7 Cartography

The earliest historic map that denotes Lough Swilly sourced for this desktop study is on a Map of Ireland from 1572 drawn for Sir Thomas Smith (Fig. 7). The map also prominently denotes the O'Dougherty clan.



Figure 7: Extract from Sir William Smith's Map of Ireland from 1572.

From 1600 the mapping of Ulster and Lough Swilly denote Buncrana. The earliest of which was Richard Bartlett's very fine coloured map of Ulster from 1602 (Fig.8).



Figure 8: Extract from Richard Bartlett's very fine map of Ulster from 1602. Note *Bun Cranagh Castle* and *O'Doghortie* territory of *Innis-Owen*.

In the Down Survey map of c.1653 Buncrana is spelled *Buncrancha*. An icon depicting Buncrana Castle is also denoted (Fig. 9).

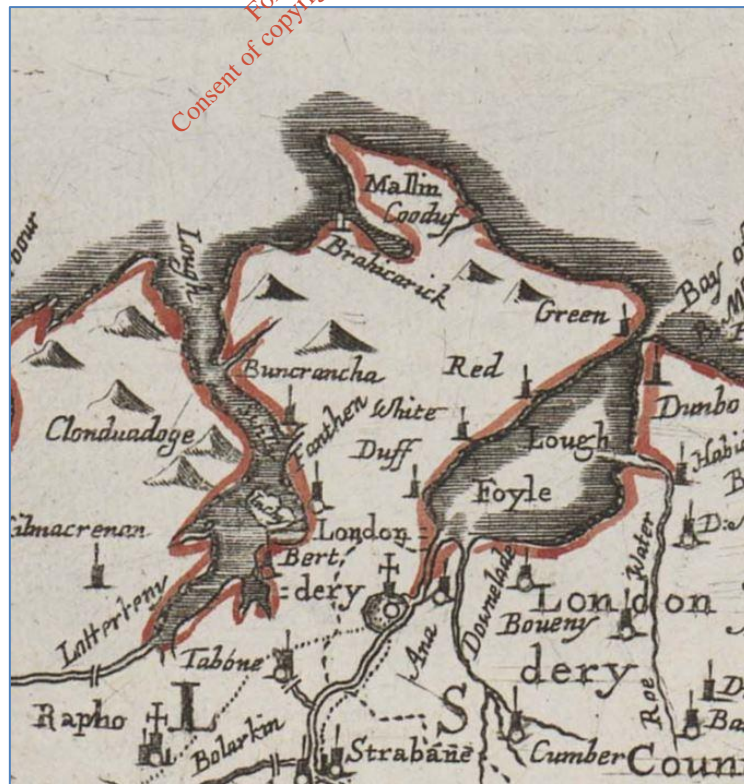


Figure 9: Extract from Down Survey map of c.1653. note spelling of *Buncrancha*.

Sea Charts

The earliest useful chart of the North-West Coast that included soundings and anchorages etc. was undertaken in 1776 by a Scot, Murdoch Mackenzie who was a cartographer and hydrographer in the Royal Navy (Fig. 10). The chart also correctly shows the village of Buncrana-spelt *Burn-Crannack* on the north side of the Mill River that was re-sited there in 1718 by Sir George Vaughan. *Burn-Crannack Castle* is also denoted. This new castle, essentially a country house, was also built Vaughan in 1718 to the east of the earlier O'Dougherty Castle (tower house, Plate 4). The icon of the new Buncrana Castle used by Mackenzie accurately depicts the advanced three-bay architecture of the house (Fig. 8). The National Inventory of Architectural Heritage (NIAH, Reg. No. 40815001) record that *'this house remained in the ownership of the Vaughan family until c.1835 when it passed into the ownership of the Todd family after the male line of the Vaughan family became extinct. It later became the seat of Alexander Airth Richardson, son of Jonathon Richardson MP. Theobald Wolfe Tone (1763 - 1798), a founding member of the United Irishmen, was apparently held at Buncrana Castle subsequent to his capture by the British Navy from the French warship La Hoche, as part of a French expedition force, off Buncrana in October 1798, which adds further historical interest to this already significant structure'* (www.buildingsofireland.ie).

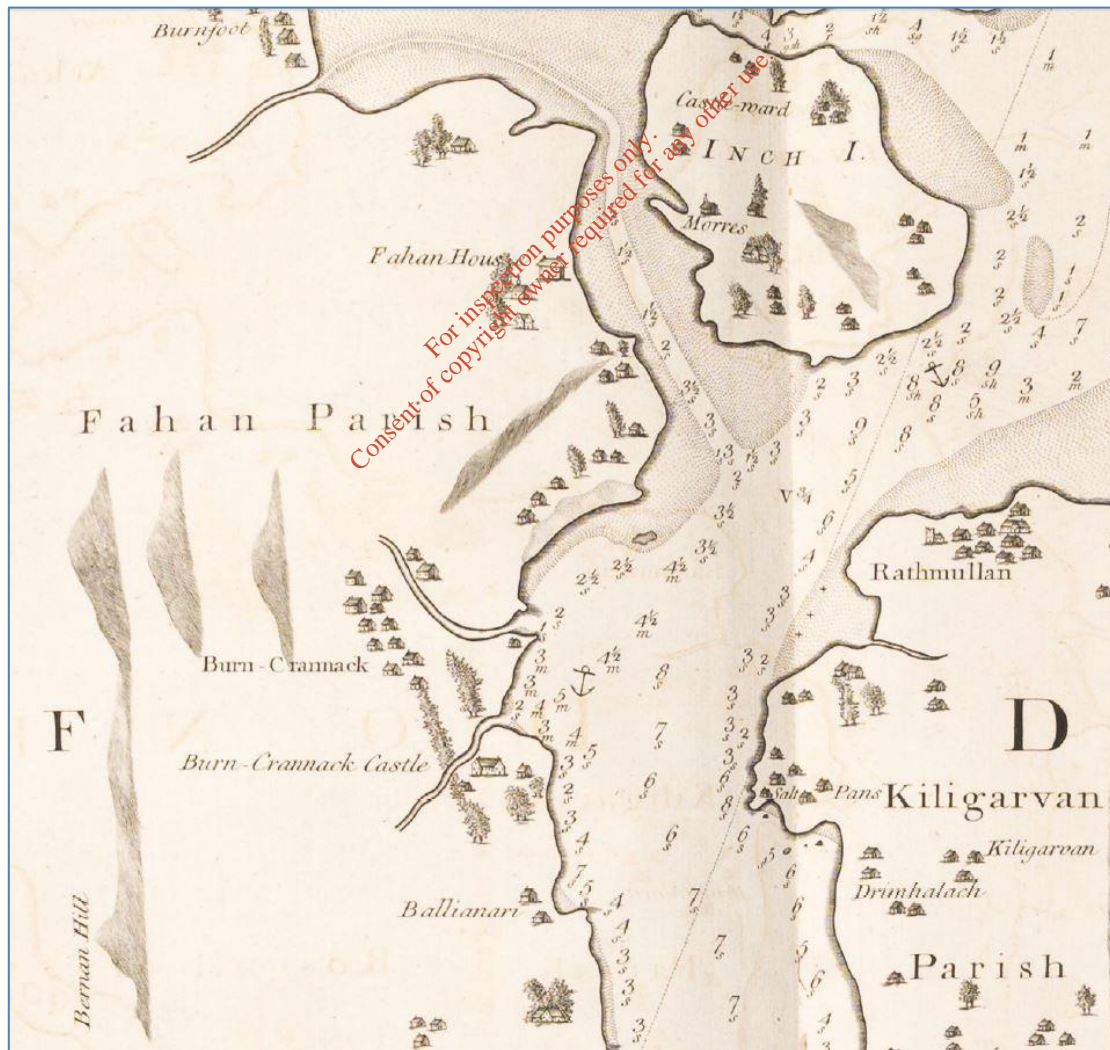


Figure 10: Lough Swilly. Extract from Mackenzie chart of 1776. North is to the bottom. Note the anchorage off Buncrana, spelt *Burn Crannack*. Further note the village of Buncrana situated along the north side of the Mill River.



Plate 6: Buncrana Castle-Sir George Vaughan's country house built in 1718.

8 Buncrana in the 19th Century

In 1799 a coastal fortification was built at Ned's Point. Neds Point battery was greatly expanded in 1812 to counter the threat of French invasion (Fig. 11). It was one of at least seven batteries built on both shores of Lough Swilly. The batteries included eight of the captured French 42-pounder cannons from the 74-gun *Hoche* that was captured along with eight frigates and Wolf Tone by a squadron of the Royal Navy in 1798 off the Donegal heading for Lough Swilly. A 42-pounder cannon was situated at Neds Point also (McEnery 2006, 53). It was originally named Signal Point battery and later changed to Neds or Neids Point. A Martello Tower and battery was built at Muckamish opposite on the west shore which between the two batteries provided cross-fire. The Neds Point battery was omitted from the 2nd Ed. OS map for security reasons. However, it is depicted on the 1st Ed. OS 6" map with an ordnance ground abutting it to the north of it (Fig. 9). An earlier temporary battery was built on Saltpan Hill at Salt Pan Point in 1799 (Kerrigan 1995, 236, 238). The site is above Buncrana Pier where the Lough Swilly Hotel was built. The battery at Saltpan Hill mounted a 42-pounder cannon on a traversing platform. Contemporary sketches from 1799 by Captain Sir William Augustus Smith, who was officer in charge of the defences there until 1801, indicate a front-pivoted platform and gun protected by a parapet on the seaward side (ibid 241). The *Hoche* was eventually repaired and renamed HMS Donegal and took part in the Battle of Trafalgar (McEnery 2006, 53). The Saltpan Hill and Neds Point batteries were guarded by a sergeant's party of the Seventy-Ninth Regiment and the Buncrana Yeomanry (ibid 106).



Figure 11: Extract from 1st Ed OS map 1833. Note Neds Point Battery and Buncrana Castle.

Fishing at Bunrana in the 19th Century

The files of the Ports & Harbours of Donegal from the OS Memoirs of 1823 record that *'This shore is altogether exposed and does not afford an eligible site for either pier or quay. But, off the mouth of the Cranagh river or under Bunrana castle, there is safe anchorage for vessels of any burthen and boats can enter the river with but little flood water. And here they bring nearly all the fish caught in Lough Swilly for sale. The bar or entrance of the Bunrana into the Lough is rather over mud than sand. It is very open to the west and north west where the water is pretty broad so that to shelter the boats a landing place or pier on each side of the river appears to be necessary.'*

Half a mile up the shore and just south of the Salt Pan point, the boats frequent the Mill River, the situation of which is very similar to that of Bunrana.' There seems to be some confusion here with the local geography as Salt Pan point and the Mill River are at Bunrana (?).

'The most secure anchoring places are under Bunrana Castle, or off the river in (according to the size of the vessel) from 2 to 8 fathoms' (OS Memoirs 1823 & Fig. 10).

In 1837 a report from the Fisheries Commissioners of the fishing industry in Lough Swilly was undertaken, from which several extracts are transcribed hereunder. In 1836 the Commissioners record that the boats fishing from Bunrana consisted of six trawlers of about 10-12 tons each and a few boats using long-lines. The trawl boat of 10-tons costs about £35-£40 (Lieut. Holland, p52). Salt costs 2s 8d or 3s per CWT. Fish caught are sold in the markets at Carr and Bunrana. A 20lb cod cost 6d or 8d each! No fish curing carried on there (p50). Herring enter Lough Swilly in June & July. Haddock & cod taken on lines using lug, buckey (whelks), herring and scallops for bait. No mussel bank and scallops are dredged for bait not food. The six trawlers operating in Swilly for last 30 years (1806) (ibid)-from 8-10 tons burden use a beam trawl and are 26' long-they never trawl outside the headlands (ibid) Trawling begins on the 17th March and ends 1st Nov. The Commissioners recommended that a pier should be built at the Mill river at Bunrana. The local magnate Mr. M'Clintock stated he would give £500 towards its erection if the Government build it (P.51). Unfortunately, Bunrana had to wait another thirty-seven years before a pier was built. The 1st Ed. OS 6" map of 1839 is devoid of any construct at Salt Pan Point including the earlier 1799 battery (Fig. 12).

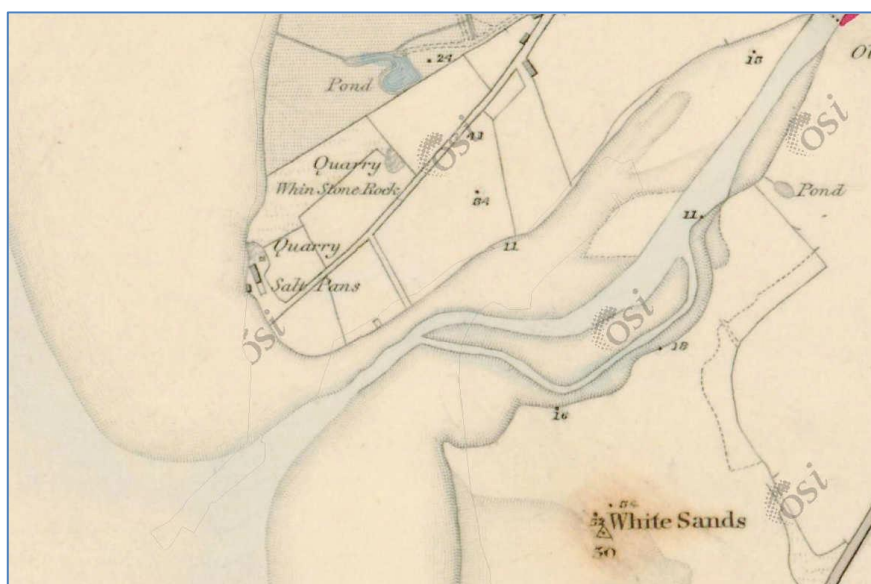


Figure 12: Extract from the 1st Ed. OS 6" map of the mouth of the Mill River. A water mark of the future pier and coast is superimposed. Note the sand banks built up on each side of the narrow river channel.

Arrival of the Railway and Hotel

The establishment of the narrow-gauge Londonderry and Lough Swilly Railway Company (L&LSR) between Buncrana and Derry in 1864 opened up Buncrana as an important seaside town for tourists and commerce alike. Three years later the Lough Swilly Hotel was built at Salt Pan Point. This was the first hotel built in Donegal (Plates 9-11). On the foreshore at Buncrana Bay at the time was a bathing house, a quarry and salt pans highlighting a mixed recreational / industrial usage of the estuary shore in this area. By 1890 the Buncrana Golf Club was established in the sandhills of White Strand.

For many years the Lough Swilly Hotel became tourist central for Buncrana. In the 1870's Queen Victoria stayed in the hotel. In 1903 King Edward VII and his wife Alexandria arrived by boat from Belfast to Buncrana and after visiting the hotel proceeded by train to Derry. His visit although short also added to the popularity of Buncrana. In 1911 George V also visited the hotel which appeared to make it a favoured tourist destination for the royals. The hotel closed in the 1980's and became a furniture showroom until 2004 after which it fell into a state of disrepair and burnt down in 2012.

Licensed test excavations (09E0017) were undertaken by Christopher Farrimond at the site of the former Lough Swilly Hotel on 12 January 2009. Although the site lies within an archaeologically sensitive area, no archaeological artefacts, deposits or remains were identified during the test-trenching works within the boundaries of the proposed development site (www.excavations.ie).

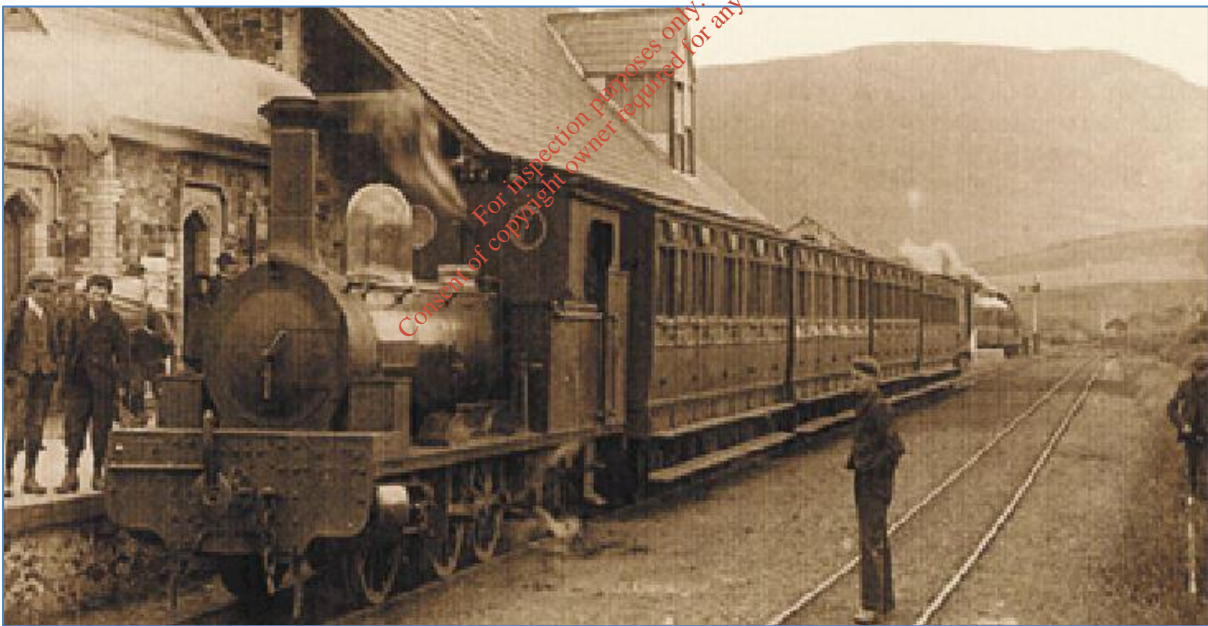


Plate 7: L&LSR at Buncrana Station.

Buncrana Pier

In 1874 the construction of Buncrana Pier was completed. The pier originally consisted of two sections that extended S for 100m and then a further 60m SW in a general 'dog's-leg' shape into Lough Swilly.

On the 8th August 1885 Buncrana Pier was described by T. Stephenson of the Board of Trade thus '*This pier is masonry work, and was designed by Mr. Forsyth in 1868, a date prior to the general adoption of concrete for harbour works. It has been built in a rather rough and careless manner, and the end of it has been at different times damaged. It was, however, at the time of my visit, in a fair*

state of repair, though in a state liable to further damage by heavy storms. There are no line fishing boats here, but two trawlers, two schooners, and one smack were lying at the pier, and three trawlers fishing in the bay. The vessels were loading peat for Campbeltown. North west wind is worst for sea.' 8th August' (Stephenson 1885, 12)

In 1896 Buncrana Light was added to the end of the pier (Plates 7-8), no doubt reflecting the increasing importance of the pier as a fishing port. In the same year the railway was extended to Carndonagh (Ferris 2011, 89).



Plate 8: View of Buncrana Pier from NE from Lawrence Collection with schooner resting on the shore at low tide.



Plate 9: Extract blow-up from Plate 4. Note lighthouse under construction at the pier head which gives a photograph date of 1896.



Plate 10: View from exterior of pier from S at low tide. Note small boats to right of schooner along the Mill River (Lawrence Collection).



Plate 11: View from S with the lough Swilly Hotel in background and Coastguard Station on right (Lawrence Collection).



Plate 12: View from SW of pier. Note semaphore pole/flagstaff to left of hotel (Lawrence Collection).

Buncrana Pier in the 20th Century

In 1903 in a Report on the Sea and Inland Fisheries of Ireland, the Department offered a grant of up to £2000 to build an extension to Buncrana Pier. Questions of ownership of the foreshore at Buncrana arose in 1907-1910 over plans to extend and widen the pier as well as undertake dredging works (OPW Archives Piers and Harbours, OPW 8024/10; Board of Trade; Black Series; Harbour Improvements, Ref.8280.1-3).

In 1911 dredging operations were undertaken following a grant of £4,425 from the Development Commissioners. The Report on the Sea and Inland Fisheries of Ireland for 1912 records that “*ladder dredger plant consisting of a shallow draft ladder dredger, two hopper barges and a small tug, all of which were secured by a fortunate chance on exceptionally favourable terms. The plant at once commenced work at Buncrana to meet the pressing necessities of the case, and was subsequently laid up there for the winter, during which alterations needed to adapt it for the Department’s special requirements were carried out. Judging by the measure of success which attended the work done at Buncrana before these alterations were operative, excellent results from this plant should be obtained in the future.*” A subsequent note from the same report records that “*the Department’s Suction Dredger ‘Fag an Bealach’ was fully occupied during the year at Buncrana*”. “*The dredging here has been carried out partly by the Suction Dredger and partly by the new dredging plant. Some difficult ground was met with*”.

In 1914 there are notes from the Board of Trade referring to further improvements including the deposition of dredged material in Lough Swilly from harbour works at Buncrana (Board of Trade; Black Series; Harbour Improvements, Ref: 9288.6).

8.1.1 World War 1

In October 1914 the entire British Grand Fleet, comprising over 40 ships, was temporarily based in Lough Swilly while Scapa Flow in the Orkneys was being fortified from submarines. Its commander, Admiral Viscount Jellicoe, divided his time between Rathmullan on the west side and Buncrana on the east. When in Buncrana he stayed in the Lough Swilly Hotel and communicated by semaphore. Although the basing of the Grand Fleet was temporary Lough Swilly played an important role during WW1 as a base for Q-ships and thirteen dazzle painted convoy-sloops and at least one submarine D-6, all under the command of Rear Admiral Miller. The Q-ship *Chagford*, formerly the 2,095-ton steamship and admiralty collier *Bracondale*, was based at Buncrana in 1918. Shortly after going on patrol on August 2nd 1918, the *Chagford* was sunk by torpedo by U-44 off Tory Island on the 5th August. U-44 was also damaged by the *Chagford* and was unable to dive and was afterwards rammed and sunk by *H.M.S. Oracle* on the 12th August (Keble-Chatterton 1923, 228-231; Keble-Chatterton 1934, 233-4 & 258; Bourke 2000, 114-5).

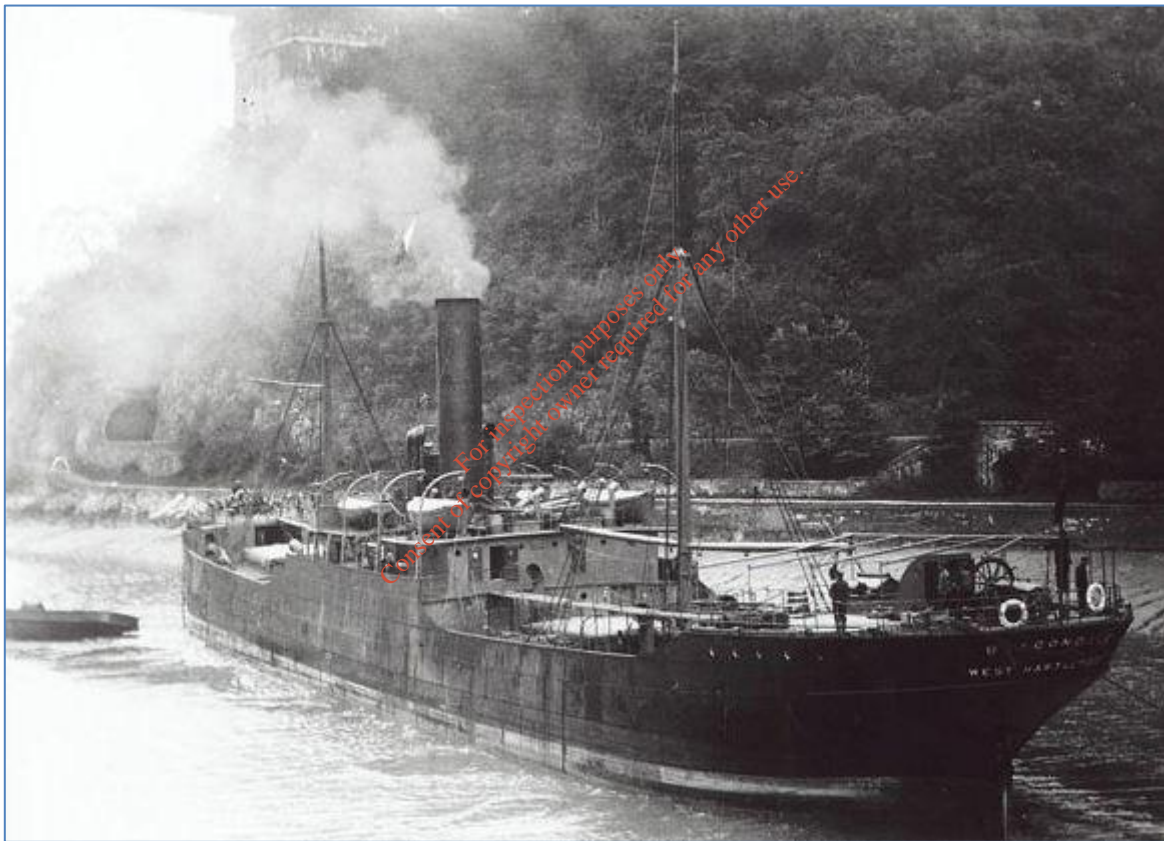


Plate 13: Q-ship *Chagford*.

8.1.2 Buncrana Pier Expansion

Between 1929 and 1933 the Buncrana Pier was extended and a large area of land abutting the original pier was reclaimed for ancillary services etc. The work was completed by the Board of works under the Piers and Harbour order of 1929. During the 1930s-1940s the Harbour Commissioners log book records an average of 4-5 ships per month primarily carrying coal, flour and molasses. The large defunct tank on the pier was built in 1944 to hold the molasses. However, increase in road transport saw a huge decline in trade through the pier and ultimately it became virtually redundant (MAU, Cultural Heritage Chapter, 1999, 71).

A much larger area of land was reclaimed in 1991 to facilitate the construction of a wastewater treatment plant that greatly reduced the mouth of the river and dramatically altered the southern bank from Victoria Bridger to the shoreline 250m distant which is now entirely artificial.

In 1999, in advance of dredging works at Buncrana Pier, a geophysical survey including sidescan sonar and magnetometry was carried out by Donal Boland of MAU with negative results. However, a possible worked timber was located protruding out of the sand. Subsequent licensed excavations by Billy Quinn of Moore Ltd in 2002 (licence 02E1822) recovered the timber that they described as ‘*a worked timber with five bored holes, one of which contained a dowel. It is not known from where the timber originated or what its function was*’ (ibid 71). Although no dimensions are given, it is this authors opinion that the piece is possibly a ship’s timber and that the dowel referred to is a treenail and the other four holes-treenail-holes. Further trenching revealed no other finds (www.excavations.ie).

9 Buncrana Shipwrecks

The current shipwreck files held by the Underwater Archaeology Unit (UAU) of the National Monuments Service (NMS) list twenty record entries for Buncrana (Table 2). Two of the entries, 7854 & 7856 are most likely the same vessel, *William IV* that sank in 1839 which is also the earliest entry in the UAU Shipwreck files.

Interestingly, *William IV* was a Tralee based brig that was wrecked along with forty-one other ships during the ‘Big Wind’ - *Óiche Na Ghaoithe Mhóra*, a hurricane that occurred on the 6th / 7th January 1839 (Forsythe, Breen, O’Callaghan; Wilson 1999, 19). The brig, on a voyage to Liverpool with a cargo of oats, was driven from her moorings at Buncrana in the storm. Her crew of seven were rescued by four men who lived nearby (Larn & Larn 2002, Vol. 6, Section 7). The precise location of the wreck of *William IV* is unknown.

Prior to the construction of Buncrana pier three schooners were lost off Buncrana Beach *viz*: the *Royal Victoria* in 1860 and the *Gem* and *Splendid* in 1862. The following year the brig *Alabama* was also lost off Buncrana.

No shipwrecks are recorded at Buncrana between 1863 and 1901 or possibly 1907? The entry in the UAU Shipwreck Inventory for Buncrana ambiguously records the place of loss of the spritsail *Triumph* in 1901 as ‘*Buncrana and Newbridge, between, Co Donegal*’.

On the 2nd June 1907 the schooner *Ellen Anne* and the lugger *Ringdove* were lost at Buncrana. The UAU Shipwreck Inventory records that the *Ringdove* sank at the Rock north of Buncrana Pier and the *Ellen Anne* off Buncrana Strand. It seems too much of a coincidence to this author that the wrecking events are not connected?

Handsome Jane, was a 6-ton Buncrana ketch that sank in ballast at moorings at Buncrana Pier on the 17th July 1909. The ketch was stranded and lost near the pier after breaking from her moorings during a gale. Her crew were ashore at the time (Larn & Larn 2002, Vol. 6, Section 7).

On the 27th January 1910, the *Helena*, a converted sailing ship, with a cargo of coal was at moorings, 10 yards (c.9m) off Buncrana Pier, when it was run down by steam-drifter Roosevelt. The Helena caught fire and foundered (ibid). The following month, the wooden fishing trawler *Monica*, out of Coleraine, was at moorings at Buncrana Pier when she caught fire, burnt to the waterline and sank on the 23rd February 1910 (ibid).

The Admiralty steam trawler *HMT Nathaniel Cole*, 275tons, foundered off Buncrana, in Lough Swilly, Ireland for unknown reasons, February 6th, 1918. She was built in 1917 by Smith's Dock Co. She was armed with 1 x 12pounder gun. The wreck has not been found. All crew were lost

Fire also was the reason for the demise of the *Strathmore*, a 56-ton Admiralty Drifter, that caught fire off Buncrana on the 20th August 1918 and sank (ibid).

In 1924, the 220-ton *S.S. Florence* of Liverpool was on a voyage from Mulroy Bay to Manchester with a cargo of cut-blocks of Donegal granite when it hit rocks when leaving berth at *Port-Na-Long* and sprang a leak. The *Florence* was towed into Lough Swilly but sank in 5 fathoms, 0.5miles in the Channel off Buncrana. The crew were saved and lodged by Free State troops. The masts of the ship were visible above water and an unlit green wreck marker buoy was positioned as the wreck was a hazard to shipping (ibid).

10 Aircraft Crashes

On the 21st December 1940 a Bristol Blenheim bomber aircraft with a crew of three crashed off Buncrana after running out of fuel. The aircraft took off from RAF Aldergrove on the afternoon of the 21st to carry out a convoy escort mission. On the return journey they encountered bad weather and running low on fuel, were forced to parachute from the aircraft. The captured crew were brought to K-Lines internment camp at the Curragh. Wreckage of the aircraft was brought to Athlone Barracks over 24 - 25 December. Sergeant Sydney Hobbs escaped in July 41 and was killed in a flying accident in Scotland just one month later when his Beaufighter T4648 stalled on landing at Dyce. The pilot, Sergeant Herbert Ricketts, was released from internment in October 1943 as part of the general release. He returned to operations and was killed, 31 March 1945 when the Stirling transport he was flying was shot down over Norway. The other crewmember was Douglas Newport (www.curragh.info/klines).

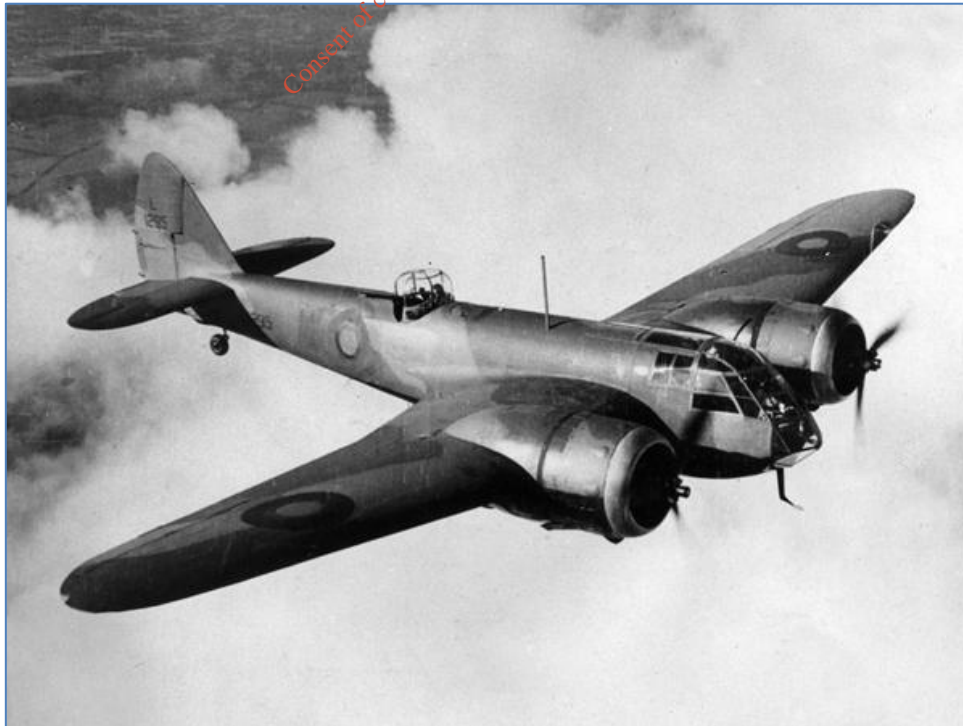


Plate 14: Bristol Blenheim RAF Bomber, WW2.

Table 2

Vessel Id.	Wreck No	Name	Date Loss	Place of Loss	Class
14443	W14443	Craigconis (SS)	25/05/1911	Buncrana	Steam Drifter
7856	W07856	William the Fourth	06/01/1839	Buncrana	Brig
7658	W07658	Strathmore	20/08/1918	Buncrana	Steam Drifter
7222	W07222	Chagford (SS)	07/08/1918	Buncrana	Ship
7717	W07717	Unknown	Unknown	Buncrana	Unknown
7515	W07515	Nathaniel Cole	06/02/1918	Buncrana / 55 30 09N, 008 01 50W,	Trawler
12588	W12588	Triumph	24/01/1901	Buncrana and Newbridge, between, Co Donegal.	Spritsail
7335	W07335	Florence (SS)	03/01/1924	Buncrana Light, Lough Swilly, 5 cables 317 degrees from / 55 08 19N, 007 29 29W,	Steamship
7499	W07499	Monica (MV)	23/02/1910	Buncrana pier, Co Donegal	Motor Fishing Vessel
7371	W07371	Helena	27/01/1910	Buncrana pier, Lough Swilly, 10 yards from	Hulk
7569	W07569	Ringdove	02/06/1907	Buncrana Pier, Rock to N. of	Lugger
17253	W17253	Ellen Anne	02/06/1907	Buncrana Strand	Schooner
17907	W17907	Gem	27/10/1862	Buncrana, beach off [of?], Lough Swilly	Schooner
17908	W17908	Splendid	27/10/1862	Buncrana, beach off [of?], Lough Swilly	Schooner
17714	W17714	Royal Victoria	19/02/1860	Buncrana, Lough Swilly	Schooner
17937	W17937	Alabama	21/01/1863	Buncrana, Lough Swilly, off	Brig
14845	W14845	Eleanor	24/05/1893	Buncrana, near	Schooner
7357	W07357	Handsome Jane	17/07/1909	Lough Swilly, Co Donegal, Buncrana Pier	Ketch
7854	W07854	William IV	03/04/1838	Lough Swilly, Co Donegal, near Buncrana	Unknown
11165	W11165	Unknown	Unknown	N. of outcrop called Black Rock at Ballymacarry Strand, Buncrana	Unknown

11 Proposed Dredging Operations

It is intended to plough dredge 8,000 tons of sandy material over two 5/6-day events from the immediacy of Buncrana Pier and move it to the proposed dumpsite situated around the head of the pier (Fig. 3-4). The build-up of this material is consequent to seasonal deposition from the Mill River and consequently has a low potential of impacting on potential shipwrecks or other underwater archaeological features or artefacts. The area of the pier has been dredged several times since the completion of the pier in 1874. In that context, further suction dredging was undertaken when the pier was extended in 1911 and possibly again in 1914. More recently, there was much activity in the study area associated with the construction of the wastewater facility in 1991 and further dredging operations in 2002 and 2008. Although the UAU Inventory of Shipwrecks lists twenty entries for Buncrana, only a single possible ship's timber is recorded from the pier area in all the previous works there.

12 Impacts

Plough dredging essentially grades or levels the seabed by dragging a plough behind the vessel. Given that the area was dredged several times in the past the likelihood of impacting significant archaeological material is classified as negligible. Unless cultural material gets caught in the plough and needs to be raised there is no opportunity to monitor the dredging.

13 Mitigation

No archaeological mitigation measures are necessary.

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