# COASTAL ZONE ASSESSMENT SURVEY FIRTH OF CLYDE & ISLE OF BUTE

## Report No. 876

Commissioned by The SCAPE Trust & Firth of Clyde Forum on behalf of Historic Scotland





### CFA ARCHAEOLOGY LTD

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#### Coastal Zone Assessment Survey Firth of Clyde and Isle of Bute

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#### 1. INTRODUCTION

#### 1.1 Background

- 1.1.1 This report is one of several similar studies that have been produced to investigate and characterise the state of coastal erosion and the threat this poses to the cultural heritage sites along the coastline of Scotland. The results presented here are based on the results of two coastal assessment surveys carried out in December 2003 within the Inner Clyde by CFA Archaeology Ltd. The study area (Fig. 1) includes the coastline surrounding the island of Bute and the lower tidal reaches of the River Clyde. Collectively these areas form part of the Inner Clyde.
- 1.1.2 Previous coastal surveys carried out by Glasgow University Archaeological Research Division (GUARD) in 2002 in three areas of the Firth of Clyde included areas of the Ayrshire coastline, parts of the Cowal Peninsula and the whole of Cumbrae Island. Both programmes of work stemmed from the earlier recognition of the importance of the coastal zone to Scottish archaeology and the need for information to allow Historic Scotland to determine the nature of specific threats to archaeology and formulate solutions for specific areas (Ashmore 1994). More recent coastal zone assessments have secured external funding from other parties and as a result greater public involvement is now required. The Scottish Coastal Archaeology and Palaeo-environment Trust (SCAPE) has overseen the establishment of newly formed Shorewatch groups within each of the aforementioned study areas. Local involvement is now seen as a crucial way of allowing locally interested parties to become actively involved in coastal archaeology and in the long term monitoring of the coastline in their respective areas (Fraser *et al* 2003).
- 1.1.3 In addition to the archaeological dimension, these surveys have been conducted against a broader regional interest in the management of the Firth of Clyde. The Firth of Clyde Forum (FCF) has generated a large corpus of information designed to promote management objectives for the area centred on a cultural and environmental perspective. The FCF has been established to promote integrated approaches to managing the environmental, economic and community resources of the Firth of Clyde. The Forum's area extends from the tidal limit of the river in Glasgow's City Centre, westwards along the sea lochs to the Mull of Kintyre, and southwards down the Ayrshire Coast to Loch Ryan, taking in the islands of Arran, Bute and the Cumbrae Island.

#### 1.2 **Project aims**

- 1.2.1 The objectives of this project were:
  - to conduct coastal survey along specific sections of the Firth of Clyde in order to increase our knowledge of coastal archaeological sites in the Firth of Clyde
  - to identify which particular sites are presently at risk from active coastal erosion and to predict which sites are likely to be at risk in the future.

• to train and encourage newly established Shorewatch groups.

#### **1.3** Acknowledgements

1.3.1 The authors are grateful for advice and support provided by Mr Tom Dawson of the SCAPE Trust. Julia McPherson at the Firth of Clyde Forum is also thanked for her assistance during this project. Thanks are also forwarded to Dr Alex Hale at RCAHMS for his advice and comments on crannogs and fishtraps. Warm thanks are extended to the Firth of Clyde Shorewatch teams and the team leaders Mr John Mcdonald and Mrs Anne Bray. Mrs Ann Spiers of the Bute Natural History Society is also thanked for her advice during the survey of Bute. Mr Stuart Jeffrey at WoSAS and Mr Andrew Stephenson at Historic Scotland are also thanked for providing GIS information during the course of the survey. Karen Clarke, Kevin Hicks, Ross White and Sam Badger at CFA are thanked for their assistance. The authors would also thank Mr Douglas Hoad, the Clydeport Hydrographer for information concerning the River Clyde. Final thanks go to Patrick Asmore at Historic Scotland for laying the first foundations for Scottish coastal zone assessment surveys.

#### 2. METHODOLOGY

#### 2.1 Introduction

- 2.1.1 The methodology used during the study was based on that set out in Historic Scotland's Procedure Paper 4: *Coastal Zone Assessment Survey* (1996), and discussions in *Archaeology and the Coastal Erosional Zone: Towards a Historic Scotland Policy* (Ashmore 1994). Previous coastal zone assessments on the Solway Firth (Cressey and Toolis 1996) and the Moray Firth (Cressey and Hale 1998) have also provided a standard for this type of research. During this project a staged-approach was adopted and included the following elements:
  - *Phase 1* Preliminary desk-based survey. CFA conducted a rapid scan assessment to identify archaeological and geomorphological zones along the full length of the coastal units cited above.
  - *Phase 2* Comprehensive desk based assessment. CFA carried out a full desk-based assessment in accordance with Historic Scotland procedures.
  - *Phase 3* Coastal survey and Shorewatch group involvement. This phase saw the implementation of the fieldwork and the creation of two Shorewatch groups.
  - *Phase 4* Report Compilation. The compilation of the report involved the creation of a Geographical Information System that amalgamated all respective data sets.

#### 2.2 Preliminary desk-based survey

2.2.1 During this initial stage, contact was made with the relevant bodies listed in Historic Scotland's Procedure document and our Project Outline. It was at this stage that contact was made with all relevant bodies involved in coastal issues associated with the Firth of Clyde coastline. Information on the coastal geomorphology and geology was amalgamated at this stage.

#### 2.3 Desk-based assessment

- 2.3.1 West of Scotland Archaeology Service (WoSAS) provided GIS information. This consisted of a Microsoft Access database of all known sites and monuments within the survey areas extracted from the local Sites and Monuments Record (SMR). Map-based information of the survey areas was provided in ArcView and consisted of 1:10,000 and 1:50,000 scale maps and digitised Ordnance Survey First Edition 6 inch to 1 mile maps.
- 2.3.2 Historic Scotland provided information on all the Listed Buildings within the coastal survey transects. This information was provided in an Excel spreadsheet and added to the database of known archaeological sites and monuments.
- 2.3.3 The desk-based assessment involved an examination of material from various sources and included the following information:
  - Examination of documentary sources held in various libraries, including the National Library and the University of Edinburgh Library.
  - Examination of the National Monuments Record of Scotland (NMRS) held at the Royal Commission on the Ancient and Historical Monuments of Scotland (NMRS) which contains a record of all known sites and monuments in Scotland.
  - An examination of available cartographic sources held at the National Library of Scotland's (NLS) map library included First Edition Ordnance Survey maps and historical maps dating from the 18<sup>th</sup> -19<sup>th</sup> centuries.
  - An examination of all relevant historical plans housed within the National Archives of Scotland (NAS). Maps scrutinised included Admiralty Charts and other historical maps.

#### 2.4 Coastal assessment survey parameters

2.4.1 The coastal survey area included three specific zones. The first zone is the intertidal zone including the area between the Mean High Water Spring Tide (MHWST) and the Mean Low Water Spring Tide (MLWST). The second zone was the shoreline. This zone includes the immediate area behind the MHWST line. The third zone included the hinterland, varying between 50m and a 100m from the edge of the coastal edge.

- 2.4.2 The following areas were surveyed:
  - Inner Clyde north coastline (estimated survey length 28km): Erskine Bridge (NS 463 725) Helensburgh (NS 499 691).
  - Inner Clyde south coastline (estimated survey length 25km): From the east bank of the mouth of the Black and White Cart rivers (NS 499 691) to the confluence of the two rivers (NS 496 681) and then to Port Glasgow (NS 320 749)
  - The Island of Bute coastline (estimated survey length 0- 83km).
- 2.4.3 The archaeological surveys were undertaken following procedures outlined in Historic Scotland's Procedure document. Two teams of archaeologists working in pairs surveyed the study areas described above. The island of Bute presented no problems in terms of access. Due to health and safety reasons, access was restricted along the shoreline at the Cardross sewage works and at the BP petroleum storage facility near Bowling Harbour and Port Glasgow on the Firth of Clyde.
- 2.4.4 General condition information of existing and newly recorded archaeological sites were recorded onto coastal zone assessment sheets. Each site was allocated an identifying location number. The location of each site was established using a hand-held Global Positioning System (GPS) instrument that provided a ten-figure grid reference. Information on the character of the coastline was also collected during the survey and this information was fed back to the project geomorphologist for checking during targeted site visits. Known archaeological sites and monuments within the survey transect were visited wherever possible. Some sites could not be located due to vegetation cover or to tidal conditions and included fish-traps and marine crannogs within the Firth of Clyde that could only be seen at very low water. However, sites that could not be accessed at the time of the survey were listed in an inventory for later examination by the Shorewatch groups.

#### 2.5 Coastal geology and geomorphology

2.5.1 A comprehensive review of the available documentary and cartographic sources covering the coastal geology/geomorphology and erosion criteria within the study area was undertaken by Dr Michael Cressey, CFA's Environmental Scientist. Targeted site visits were carried out for field inspection. Field notes, digital photographs and other topographical information were added to the coastal geomorphology maps.

#### 2.6 Shorewatch group training

2.6.1 Two Shorewatch Groups were established during the early stages of this study. The Argyll and Bute Group working out of Helensburgh are currently monitoring intertidal areas within the north sector of the Firth of Clyde. The Renfrewshire Shorewatch group are monitoring all the known intertidal crannogs and the former Erskine Harbour on the south side of the firth.

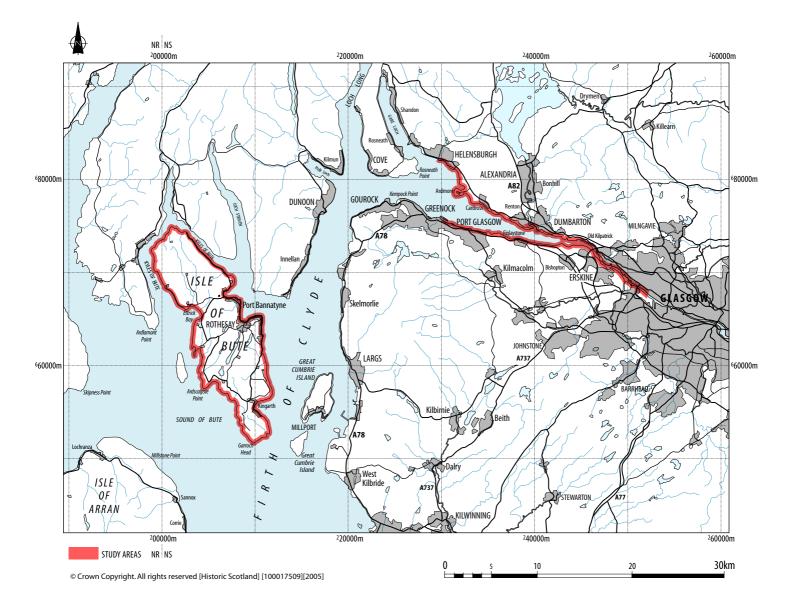


Fig.1 - Location plan outlining the Bute and Inner Clyde Study Areas.

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2.6.2 The SCAPE Trust provided a new Shorewatch Information Pack which includes a revised set of recording and monitoring forms along with detailed information explaining how to use them. The results from the Shorewatch surveys carried out so far have been incorporated into this report.

#### 2.7 Report Format

- 2.7.1 In this report we use the term *shoreline* to refer to the distinct boundary between land and sea that changes with the tides. A *coastal unit* defines the areas between numbered cut-off points that demarcate individual sections of coastline which has been classified according to its eroding, stable, and stable or accreting status.
- 2.7.2 The report is split into two sections. Section 1 deals with the Island of Bute. Section 2 deals with the Inner Clyde. The results are presented sequentially for each coastal unit and follow the standard format (Ashmore 1994). Elements include an introductory section followed by sections detailing the coastal geology/morphology, coastal erosion and archaeological gazetteer and maps. Pertinent issues are highlighted through two case studies, which are followed by a section incorporating results and observations. This is followed by a list of references and appendices.
- 2.7.3 Each survey area is accompanied by three individual maps. These maps contains data on the Built Heritage and Archaeology and Erosion Class. The gazetteer entries follow the same layout and include the following categories:

#### Hinterland Geology and Coastal Geomorphology

Identification number and name of coastal section National grid reference Distance of coastal section Typical deposit type on the foreshore Height of cliff Hinterland geomorphology Description

#### Erosion

Identification number and name of coastal section National grid reference Distance of coastal section Type of erosion present Description

#### Built Heritage and Archaeology

Identification number and coastal section National grid reference National Sites and Monument Record Number Site name or type Condition Period/date Recommendation

#### 3. THE PHYSICAL ENVIRONMENT OF THE STUDY AREAS

#### 3.1 Late Quaternary landforms and environments on the Island of Bute

- 3.1.1 Much of the shoreline of the Island of Bute consists of bedrock that is draped by a thin mantle of lag gravels and boulders. At many localities the shoreline consists of the formal margin of the Quaternary Main Rock Platform. In other areas this platform is absent and a more steeply sloping rock surface is present. The Main Rock platform and its associated cliff are best developed outside the Loch Lomond Stadial ice limits, although extensive remnants of the platform and cliff have been identified within the ice limit by Sutherland (1981). The best examples of the feature occur on Bute at Dunagoil (Plate 3 NGR: NS 085 534) and at Scalpsie Bay (NGR: NS 065 575). At the latter location, the Main Rock Platform is 400m wide and its frontal margin now forms a low rock platform along the shoreline. It is noteworthy that the platforms are well developed in both sheltered and exposed locations. Although these features are being modified by modern coastal processes they were formed largely during the Loch Lomond Stadial and thus are inherited features. At many locations the platform is overlain by a thin veneer of sand, shingle or lag gravels.
- 3.1.2 Ritchie (1975) has classified the beaches of Bute. Sandy beaches have a typical character at the head bays and are usually dominated by wide flat beaches, with gravel coming to the surface at each end; this often merges landward with a narrow shingle storm beach. At St Ninian's Bay the central shoreline is flanked by a shell beach, whilst at Ettrick, Scalpsie and Kilchattan Bay the beach is succeeded landward by small dune systems. Much of the beach surface remains wet at low tide (Ritchie 1975) and thus aeolian transport of material is limited but many of the shorelines have embryo dunes developing. Much of the material in these bays has been derived from the erosion of glacial sediments, probably from the flanking headlands but the offshore zone is probably the main source of sediment supply.

#### Raised marine shorelines

3.1.3 Sutherland (1981) provided a detailed assessment of the Holocene marine features in the Cowal Peninsula. Along much of the coastline all that remains of the higher Holocene sea levels is a thin veneer of gravel on a steeply sloping terrace, similar to the steep gravel beaches of the current shoreline. Between Ettrick Bay and Stravannan Bay platforms up to 400m wide are present with degraded cliffs and former sea caves present.

#### Sand Dunes

3.1.4 Small dune systems are present at Kilchattan Bay, Scalpsie Bay and Ettrick Bay. In most cases the dunes consist of a low sand ridge (1-2m high) with marram grass. At Stravannan the beaches are succeeded landward by raised marine sediments mantled by windblown material. The aeolian sand is up to 1m thick and tends to form a gently undulating surface. The machair sediment is thought to have originated in the mid-Holocene (Ritchie 1975). Similarly the small dune systems are believed to be Holocene features that have subsequently been reactivated.

#### Coastal wetlands and mudflats

3.1.5 Coastal wetlands and mudflats only tend to occur at the heads of sea lochs or within sheltered embayments (Firth and Collins 2002). Saltmarsh on Bute is not extensive and is to be found in areas that were not directly affected by the full force of the wave action. Isolated patches of saltmarsh were recorded to the west of St Ninian's Bay and east of Scalpsie Bay and at the heads of the smaller bays towards the south of Scalpsie Bay. The survey found that these areas are susceptible to erosion. The marsh is colonised on a thin mantle of clay rich sediment that rests directly on top of shingle.

#### Sea defences

3.1.6 Sea defence works in the form of sea walls are mainly confined to the coastal resorts of Rothesay, Port Bannatyne and Kilchattan and where coastal roads fringe the shoreline. Small-scale defence works were noted at Etterick Bay. Here sections of low sea wall protect the bay margins.

#### Sites of Special Scientific Interest (SSSI)

3.1.7 The north end of the island of Bute has been designated a SSSI and encompasses an area of 934.1ha. The area is of outstanding beauty with native deciduous woodland and moorland habitats; which is home to over 70 types of breeding birds (Firth and Collins 2002).

#### **3.2** Late Quaternary landforms and environments of the River Clyde

- 3.2.1 The coastal fringe within the study area of the River Clyde is dominated by marine sediments of mainly Late Quaternary age. Raised marine shorelines are present along the north shore between Helensburgh to Dumbarton. Further inland boulder clay is dominant over near-surface bedrock. Ardmore Peninsula (Plate 14) is derived solely from raised marine deposits with the Main Lateglacial Shoreline and the later Flandrian beaches represented. The later Flandrian raised shoreline is visible along the south side of the river between Greenock and Glasgow. Geotechnical borehole data from Erskine Bridge (NS 463 751) confirmed the depth of marine deposits at -4.25m which overlay marine clay that was attributed to the so-called Clyde Beds (Jardine 1980). This Late Devensian marine deposit is well represented within the study area and has elsewhere found to contain locally abundant foraminifera, ostracods and mollusc shells, the latter of which include species that represent high arctic conditions.
- 3.2.2 The present intertidal area within the study region is a mixture of shingle and gravel, sand and mud flats. Freshwater alluvium is mainly confined to the Dumbarton golf course area where the River Leven has discharged a large volume of sediment, probably following the Younger Dryas period when fluvioglacial sand and gravel was deposited on the Leven Valley floor.

#### Sand Dunes

3.2.3 No sand dunes are recorded within the study area owing to the lack of sheltered bays and the type of offshore environment required to supply areas where dunes are likely to form.

#### Coastal wetlands and mudflats

3.2.4 Low energy conditions favour the formation of saltmarsh and such environments have formed at Ardmore, near Cardross (NGR: NS 323 788). Here the edge of the marsh is affected by local erosion. To the east of Dumbarton, saltmarsh is also present and although new sediment is accreting at the base of the low cliff, sections of it are slumping. Mud flats are extensive to the east of Ardmore Peninsula. These are exposed towards the Long Dyke channel that is a man-made feature constructed in the 19<sup>th</sup> century. The abandoned Harbour at Erskine is now infilling with sediments and the sheltered conditions are favouring the formation of tidal wetland vegetation.

#### Sea defence works

3.2.5 The coast of the Inner Clyde region has experienced intensive human activity, which has resulted in significant modifications to the present shore (Firth and Collins 2002). The shores of the River Clyde between the tidal limit and the Erskine Bridge (NGR: NS 462 724) are for the most part protected by sea walls. Harbour developments with associated sea walls are present at Helensburgh, Craigendoran and Bowling Harbour and at the adjacent oil terminal and storage facilities. On the south side of the Erskine Bridge flood embankments front the town of Erskine and further east at the confluence of the White Cart and Black Cart Rivers. Here earthwork dykes have been constructed indicative of land reclamation.

#### Sites of Special Scientific Interest (SSSI)

3.2.6 Two SSSI's are present within the River Clyde and both have been designated for their geological interest. Ardmore Point (Plate 14, NGR: NS 3150 7850) encompassing an area of 134.8ha is of Upper Palaeozoic age containing the contact zones between the Upper and Lower Old Red Sandstone. Dumbarton Rock (NGR: NS 400 745) is a Permo-Carboniferous igneous volcanic plug famous for its fossil flora contained within volcanic ash (Firth and Collins 2003).

#### 3.3 Wave climate

3.3.1 The Firth of Clyde has been classified as a mesotidal area, with tides at the head of the firth being described as semi-diurnal (high tides every 12 hours) (Pethick 1984, Pugh 1987, Firth and Collins 2002). Based on hydrological modelling it is apparent that Spring tidal ranges increase towards the head of the estuary and the amplitude of the Spring tides is roughly 1.6 times that of Neaps. The average sea level is considered by Firth and Collins (2002) to be relatively uniform throughout the area but tends to decline towards the head of

the fjords. Table 1 below lists the predicted tidal range for the ports close to
the study areas. This data shows that there is no significant difference
between the tidal ranges of Bute and the River Clyde.

Site	MHWST	MLWST	Spring Tidal Range	MHWNT	MLWNT	Neap Tidal Range
Rothesay	1.78	-1.22	3.0	1.28	-0.62	1.9
Greenock	1.78	-1.22	3.0	1.28	-0.62	1.9
Helensburgh	1.78	-1.22	3.0	1.28	-0.72	1.9

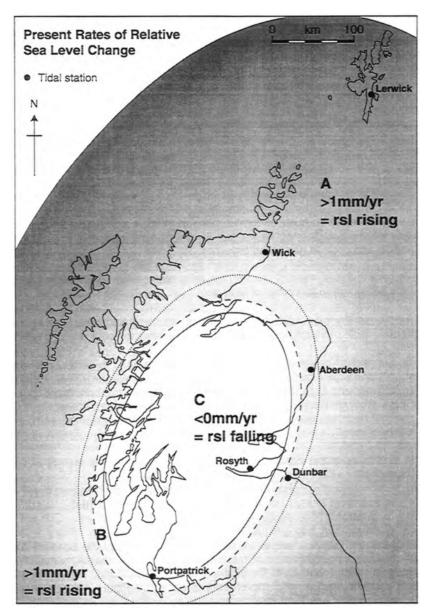
Table 1 Predicted tidal ranges at the main ports close to the study areas with values in metres OD. (MHWST=Mean high water spring tides, MLWST= Mean low water spring tides, MHWNT= Mean high water neap tides, and MLWNT = Mean low water neap tides) Data derived from 1994 Admiralty, after Firth and Collins (2004, Table 2.1)

3.3.2 The enclosed nature of the Firth of Clyde with its characteristic narrow fjords has a dampening effect which limits the wave field effecting the coastline of this area (Firth and Collins 2002). Wave climate modelling by Wallingford (1996) indicate that the majority of the waves in the region come from the southwest and west. Wave height in the off shore zone rarely exceeds 1.6m in height whilst in the inshore zone they rarely exceed 1.2m in height. The Firth of Clyde is therefore not greatly effected by swell waves since they rarely extend into the area from the Irish Sea. The fjord coastline within the Firth of Clyde has inherently low wave magnitudes due to the shelter afforded by the surrounding landscape. Shelter will in effect reduce wind speed that in turn lessens wave fetch resulting in a marked reduction in wave energy in comparison to more open areas of the Scottish coastline outside the Firth of Clyde.

#### Patterns and predictive rates of sea level rise in the Firth of Clyde.

3.3.3 The predictive rates of sea level rise and its effect on the intertidal areas within the study area have been recently well documented (Dawson et al 2001, Firth and Collins 2002). A critical factor in evaluating future sea level changes is the importance of natural vertical land movements. These are the rates at which the coastline is rising or falling as a result of isostatic adjustments. By combining the proposed rates of uplift with the patterns associated with the Main Postglacial Shoreline, maps illustrating the maximum and minimum rates of crustal movement can be produced. Firth and Collins (2002, Illus 11.2 & 11.3) propose that within the Clyde region, the minimum rates of uplift are estimated to range from 0.6-0.95 mm/yr, whilst the maximum rates lie between 2.0-2.3mm/yr. The lower estimates are considered by these researchers to be a better approximation since they closely correlate with the uplift rates identified from the most recent geological evidence. The impact of patterns of relative sea level change around Scotland at the present time will vary according to a number of different parameters. Dawson et al 2001 considered the following factors in their examination on the likely impact resulting from a future rise in sea level:

- Areas experiencing relative sea level rise are becoming progressively more susceptible to the effects of storm surge activity. However it is noted that this will vary according to exposure.
- The impact of sea surface rise will be less noticeable in areas with a strong sediment supply and where coastal progradation is taking place, for example the Moray Firth coastline, parts of the north east and east of Scotland, parts of northern Scotland and parts of south-west Scotland. In areas where sediment supply is scarce, the effect of a sea surface rise will be more noticeable.
- In areas where the coastal features are easily eroded, the impact of sea level rise will have greater effect than in other, more resistant areas.
- 3.3.4 Dawson *et al* (2001) results were based on the uplift data of Shennan (1989) together with the UK Climate Impacts Programme (UKCIP) emissions scenario that envisages that most of the projected sea level rise in the next century will be as a result of thermal expansion. Their data shows that the study area lies within Zone B where intermediate rates of uplift is predicted at c. 0.5-1.00mm per annum (Figure 2). Their "best estimate" for the next 50 years is a predicted rise of around 16cm and by the year 2100 a rise of 31.5cm is predicted. However these authors provide a cautionary statement that their sea level return period analyses are not linked to patterns of storminess change derived from the analyses of the North Atlantic Oscillation Index and other empirical storm data. These authors rightly note that storm frequency will be a major causative factor in relative sea level change in the short term.
- 3.3.5 Storm frequency has been a central point in assessing the vulnerability of the Scottish coastline, particularly where 'softer' sediment forms a main component of a given coastal cell. Its location in relation to direct wave impact during the tidal cycle will have a bearing on the relative rates of recession and in some cases, if conditions are right, on accretion. Previous coastal zone assessment surveys already undertaken on behalf of Historic Scotland have highlighted the vulnerability of the softer regions of the Scottish coastline and the effects of storm activity that has, and continues to have, an effect on coastal archaeology. Cressey and Toolis 1996 and Cressey et al 2001 show that within parts of the Solway Firth, cliffs containing softer sediment, including clay and loosely consolidated materials such as shingle and sand, were extremely vulnerable to rapid coastal erosion. This was especially bad in areas where building refuse had been dumped in attempts to slow down cliff recession. It was found that during high spring tides these areas were badly affected by excessive scouring and abrasion as the dump material was hammered against the base of the soft cliffs.
- 3.3.6 The enclosed nature of the Firth of Clyde with its narrow system of fjords severely limits the wave field affecting the coastline of this area. As a result the height and direction of waves reaching the coast are highly dependent on the wind direction (Firth and Collins 2002).



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Fig.2 - Present rates of relative sea level change (after Dawson 2001).

#### 4. ARCHAEOLOGICAL BACKGROUND OF THE STUDY AREAS

#### 4.1 Island of Bute

#### Prehistoric

- 4.1.1 There is a wealth of prehistoric archaeological sites and monuments on the Island of Bute. These include megalithic monuments, rock shelter caves and numerous promontory forts all focused mainly on the west coast of the island. The sites of Dunagoil (NS 087 532) and Little Dunagoil (NS 087 532) are typical of many such small-scale nuclear forts exemplified by Dunadd in the Kilmartin Valley, on the Argyll and Bute mainland. Excavations at Little Dunagoil by Dorothy Marshall in 1964 found that this particular site was occupied from the Late Bronze Age up to the 13<sup>th</sup> century ad. Finds included structural remains, a socketed axe mould (LBA), pottery dating from the Iron Age, and a possible Norse comb fragment. A new survey undertaken in 1994 of the forts and environs of Dunagoil revealed a number of structures hitherto unrecorded (Harding *et al* 1994). Further mould fragments were recovered from molehills during a site survey.
- 4.1.2 Barrows, cist burials and cairns are also well documented but sadly few of these features survive today. There are at least two cists and several mounds in the valley between Dunagoil and Little Dunagoil. Two mounds were opened in the 19<sup>th</sup> century but nothing survives of these sites. There is a burial chamber at NS 087 532 (NS05SE7) and a group of field clearance cairns presumably of prehistoric date.

#### Medieval or later settlement

- 4.1.3 The *Bute Settlement Survey* currently being carried out by members of the Bute Natural History and Archaeology Society is recording settlement and cultivation remains to place these medieval or later sites in their landscape context. Their results are summarised annually in DES.
- 4.1.4 Planning procedures (NPPG5 and PAN 42) now aim to minimise the impact of development on buried archaeological remains and the results have seen a growing number of hitherto unrecorded archaeological remains. Recent extensions to a sand and gravel quarry at Kingarth (NS 0955 5605) revealed the remains of a structure, possibly of Neolithic date, and a series of field boundary features of medieval or later date (Mudie 2001). Worked Aran pitchstone and other worked pieces of quartz were recovered from a series of pits and were considered to be of prehistoric date (Rees 2001).

#### Industrial Period

4.1.5 Rothsay Harbour dates from 1752. It is an extensive undertaking for local and overseas trade and to accommodate the Loch Fyne herring fleet. It also has fine example of Victorian architecture associated with paddle steamer transportation. Rothsay's steamboat pier was built in 1815 and developed as a major resort with large vessels of more than 100 tons that took passengers to

Liverpool, Dublin and Belfast (Lavery 2001). Maclagan (1995) has carried out a survey of the quays, piers and ferry ports which now or formerly served the island of Bute. The high frequency of 19<sup>th</sup> century steamer piers underlines the past importance of trade and tourism to the island.

#### 4.2 Inner Clyde

#### Later prehistoric period

4.2.1 The intertidal zone within the Firth of Clyde has a large corpus of sites commonly known as marine crannogs. The River Clyde has long been a major transportation route and the large number of logboats found along its length testify to its use aided by landing and access points between the crannogs that appear to have acted as nodal points. Logboat finds are concentrated between Glasgow and Dumbuck, 34 boats have been recovered from the river or from around former river channels since 1800 (Mowat 1966). Redevelopment and construction works have brought many of these to light. The most comprehensive excavation of a marine crannog to date was undertaken in 1898 on the Dumbuck site in the Firth of Clyde by John Bruce and William Donelley (Bruce 1900). Bruce (1908) then went on to investigate Langbank East and West in the Firth of Clyde between 1901-2. Investigations of another marine crannog in the Firth of Clyde took place during 1984, when the Erskine site was planned using photogrammetry (Hanson and Macdonald 1985). More recent work undertaken during 1995-7 by Alex Hale and Rob Sands (2000) involved survey and contour mapping as well as palaeoenvironmental sampling and radiocarbon dating. The work carried out at Dumbuck suggested that this site, and possibly Langbank West were built on the end of promontory features, projecting into the water from palaeoshorelines. By way of contrast, Erskine was built on a raised area adjacent to deeper-water channels suitable for access by shallow-draught boats, such as log boats, even at low tide (Hale 2000 op.cit.).

#### Medieval or later

- 4.2.2 Medieval structures are represented by Newark Castle (NS 3281 7451) which is a tower. The east wing dates from the 15<sup>th</sup> Century, the rest of the monument is later and includes a keep four storeys high.
- 4.2.3 Within the intertidal zone near Ardmore Point on the north side of the study area are three large fish traps. The largest is situated at Cardross. This feature is one of the largest of its kind in Scotland and is approximately 300m in length comprising linear walls of a dump construction (Plate 12 & 13). A ruined cottage close to the site is likely to be related to the trap. Additional traps have also been recorded further west around Hill of Ardmore. The newly formed Shorewatch group is currently surveying these sites.

#### Industrial

4.2.4 The River Clyde is famous for its ship building heritage and there are extensive remains within the study area. Dumbarton and Port Glasgow once

had large ship building dry dock and harbour facilities. The legacy of these industries can still be seen but a great deal has been cleared for development. The numerous jetties and landing piers associated with the steam transportation industry have now largely been removed and those that survive are now in a state of dereliction (Craigendoran steamer piers being a good example). Between Langbank and Port Glasgow on the south side of the River Clyde are a large number of rectangular enclosures visible at low tide. These are the remains of tidal lagoons formed by rows of wooden stakes which served as holding ponds for timber imported to the numerous shipyards at Port Glasgow from countries including America, Norway and the Baltic States. The logs after being stapled and chained together were towed down the Clyde to the storage ponds. By 1890 timber was succeeded by iron for ship construction and as the demand for timber fell, the ponds eventually fell out of use. Dredging the river started in 1781 and was continued by Thomas Telford during the early 1800s. This led to a massive shift in trade to Glasgow and the decline of Port Glasgow followed soon after (Maynard 1969). For an in-depth history of the maritime importance of the River Clyde the reader is referred to Lavery (2001).

4.2.5 The Forth and Clyde canal terminates at Bowling Basin on the north bank of the River Clyde and was completed in 1849. There are two basins present with modifications to suit the needs of the Lanarkshire and Dumbartonshire Railway. Following the closure of the canal in 1963 the basins at Bowling were maintained as part of a small section of working canal in order to supply fresh water moorings for pleasure craft on the Clyde (RCAHMS).

#### 5. SURVEY DATA OF THE ISLE OF BUTE

#### BUTE MAP 1: BUTTOCK POINT to SHALUNT

**Hinterland Geology and Coastal Geomorphology**: The northern tip of Bute and along the East Kyle channel is dominated by Dalradian schists which exhibit foliated and cleaved quartz-mica schists dipping to the south-east at about 40° (Hill and Buist 1994). Raised beach deposits are present at Buttock Point and Balnackailly Bay. At Rhuba Bodach marine deposits have formed a small cuspate foreland. The shoreline is backed by rising ground. The beach is dominated by shingle throughout. At Ardmalish Point Dunoon Pyhlites are bordered by marine deposits, which also occur further inland. The characteristic sea loch shoreline is strewn with rock, stone and boulders. The intertidal zone is relatively narrow with no distinct coastal edge, only a low grassy surface that backs onto the main road.

**Erosion Class**: The Kyle of Bute separates this area of coastline from the Cowal Peninsula and thus it is relatively sheltered from direct wave impact. This section of coastline was found to be both accreting and eroding where softer marine sediments are prone to collapse from the low cliffs. The softer cliff edge that is dominated by marine deposits is prone to local erosion. The displaced sediment is focused along the HWMST area between the low outcropping rock platform. In the vicinity of Rubha Blodaich at least 40m of cliff displayed active erosion where shingle is being washed from the cliffs. Cattle erosion is also exacerbating the problem.

**Built Heritage & Archaeology**: The sites recorded in this cell were confined to the coastal edge and foreshore. Three possible fish traps were noted, as well as a landing place at Rubha A' Bhodaich. The remains of a wooden boat of possible of 19<sup>th</sup> Century date were found situated within the edge of a stream outlet. At least 1.5m of beach deposit overlay the boat; it is likely that the migrating river channel has eroded and sealed much of this feature. In the hinterland a disused quarry was identified at Shalunt Wood. Several deserted settlements were noted around Ardmaleish Point, although they were not seen during the course of the survey. The deserted settlement at Culnashambrug now has an inhabited cottage on its site, thus obscuring any view of the characteristics of the old settlement.

#### **1. BUTTOCK POINT**

NH 0105 7500 0.2km Mainly rock platform Low edge (<5m) *Raised beach* The hinterland consists of raised beach deposits. Rock platforms, boulder and a shingle beach dominates the shoreline.

#### 2. EAST of BUTTOCK POINT

NH 0130 0115 0.3km Mainly rock platform Low edge (<5m) *Raised beach* Degraded cliff overlain by shallow superficial drift deposits on outcropping rock. The shoreline l is dominated by low rock platforms with a boulder and shingle beach.

#### **3. BEAR CRAIG**

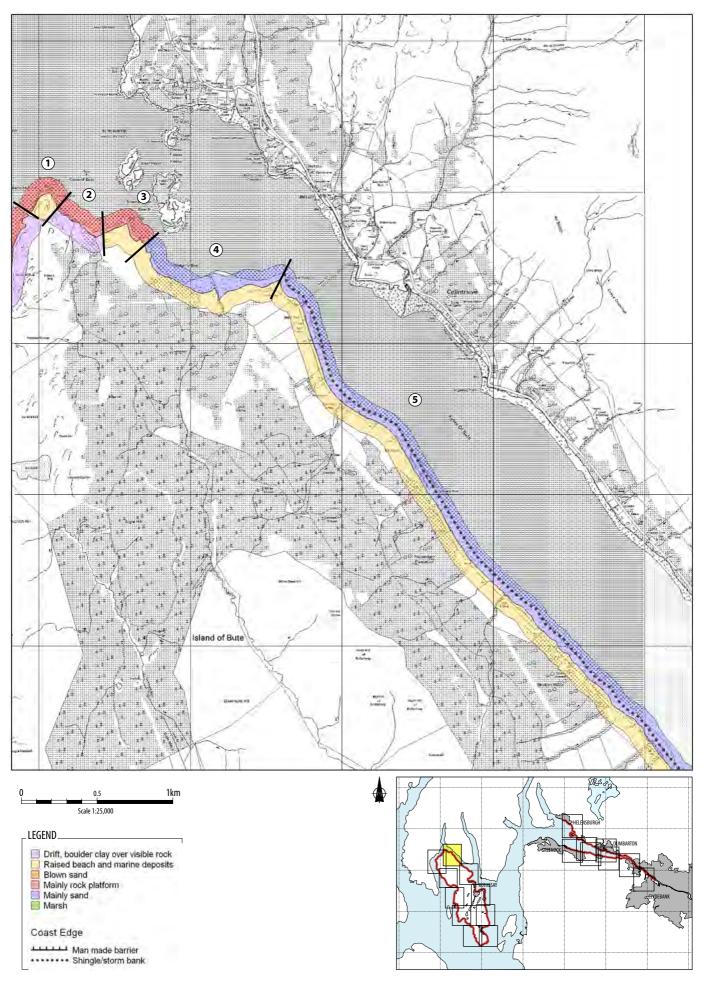
NH 0160 7480 0.2km Mainly rock platform Low edge (<5m) *Raised beach* A degraded cliff overlooks a small peninsula that is overlain by marine deposits. The foreshore is dominated by low rocky platforms, boulders and shingle.

#### 4. BALNAKILLY BAY

NH 0200 7440 0.8km Drift and marine deposits Low edge (<5km) *Raised beach* Drift and marine deposits dominate the hinterland. Shingle and sand dominate the foreshore.

### 5. RUBHA BLODAICH to ARDMALEISH POINT

NH 0260 7450 to NH 0750 6970 7km Boulders and shingle Low edge (<5m) *Raised beach* Degraded cliff overlain by marine deposits. Dunoon Phylites outcrop at Ardmaleish Point. Outcropping rock platforms and shingle beach are present for the whole of this unit. The shoreline is typical of a sea loch environment and is very uniform in character.



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#### **1. BEAR CRAIG** to **EAST OF BALNAKILLY BAY**

NS 0160 7470 1.7.km Both accreting and eroding Although this section of coastline is relatively sheltered from intense high–energy wave this area was found to be both accreting and eroding. Shingle is being banked at the HWMS. Scouring by wave action is leading to local erosion of the low rocky platforms. Shingle is being focused at varying points due to longshore sediment displacement.

#### 2. BALNAKILLY BAY

NS 0270 7440 0.7km Definitely eroding Active erosion is occurring at the cliff overlooking this section of shoreline. Soft unconsolidated marine sediment is collapsing as a result of weathering. Some of this erosion is being exacerbated by livestock.

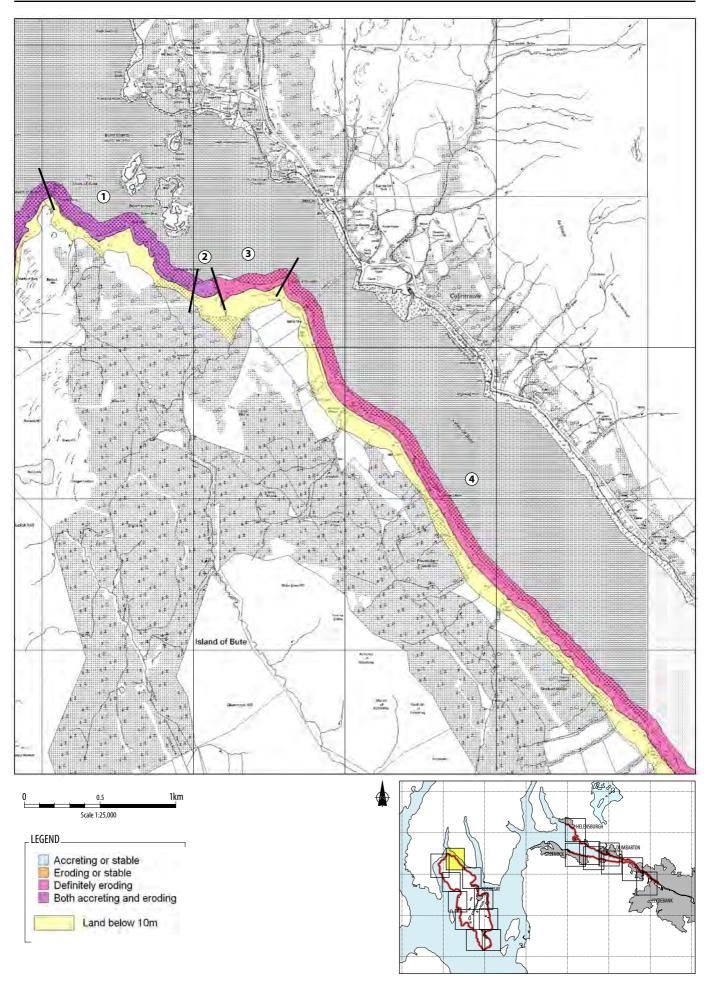
## **3. BALNAKILLY BAY to RUBHA BLODAICH**

NS 0270 7440 0.7km Definitely eroding Active erosion is occurring at the cliff overlooking this section of shoreline. Soft unconsolidated marine sediment is collapsing as a result of weathering. Some of this erosion is being exacerbated by livestock.

### 4. RUBHA BLODAICH to ARDMELEISH POINT

NS 0270 7440 0.7km Both accreting and eroding 2.4km This section of coastline is fairly exposed to south easterly gales running through Kyles of Bute. Although no active erosion was noted this unit was classified as both accreting and eroding as scouring by wave action is leading to the

accretion of shingle along the HWMST.



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#### BUTE MAP 1: BUILT HERITAGE AND ARCHAEOLOGY

#### Sites on the Coast Edge & Foreshore

1. BALNAKALLY BAY NS 01796 74466 Boundary feature or Fish trap Fair Unknown Monitor

2. BALNAKALLY BAY NS 01974 74388 Fish trap (possible) Poor Unknown Monitor

4. RUBH A BHODAICH NS07SW 44 NS 0265 7445 Landing place Uncertain Unknown Nil

5. RUBH A BHODAICH NS 02694 74284 Boundary feature or Fish trap Fair Unknown Monitor

8. RUBODACH PLANTATION NS 0409 7231 Fish-trap (possible) Fair Unknown Monitor

#### Sites on the Hinterland

3. RUBH A BHODAICH **NS07SW 3** NS 0253 7432 Barrow Uncertain 4th Mil BC-1<sup>st</sup> AD Nil

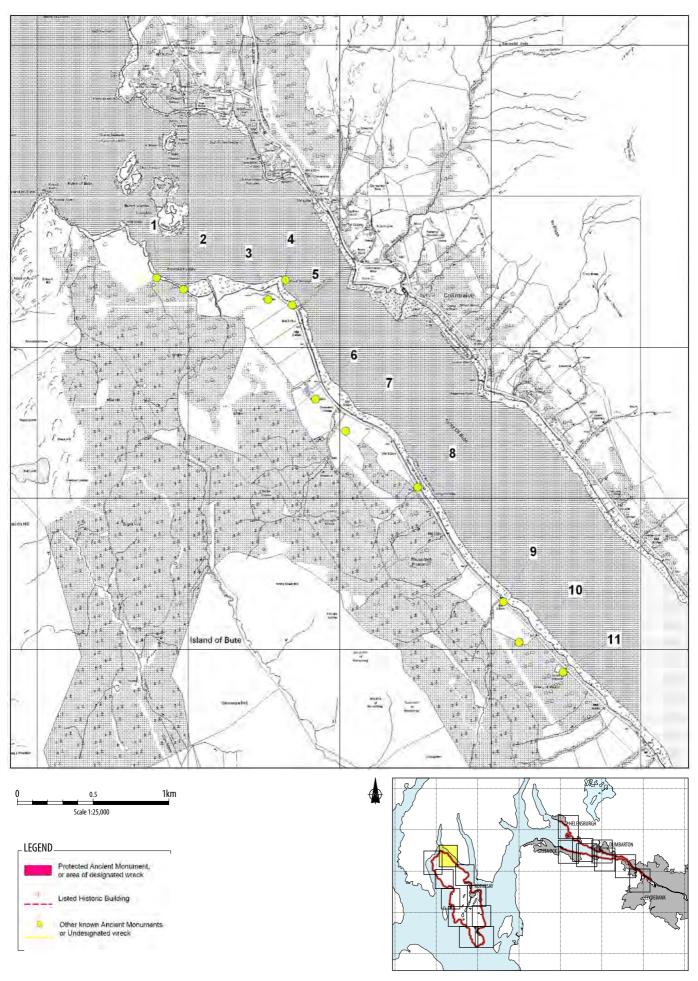
6. RHUBODACH NS07SW 33 NS 0285 7366 Bronze Dagger Uncertain 4<sup>th</sup> Mil BC-1<sup>st</sup> AD Nil

7. TAWNIE NS07SW 33 NS 0305 7345 Settlement Poor 18<sup>th</sup>-19<sup>th</sup> AD Monitor

9. RUBODACH PLANTATION NS 0409 7231 Fish-trap (possible) Fair Unknown Monitor

10. SHALUNT BUTT NS 0420 7205 Building, road, dyke Poor Unknown Nil

11. SHALUNT WOOD NS 0449 7185 Quarry (disused) Good Unknown Nil



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#### **BUTE MAP 2: ARDMALEISH POINT to ARDBEG**

**Hinterland Geology and Coastal Geomorphology**: Dalradian schists continue to dominate this coastal region. The Kames Bay area is dominated by Dunoon Phylites which give way to Dalradian Schists towards Port Bannatyne where the boundary between these two lithologies is fairly well defined. Marine deposits are represented along the coastal edge. At Kames Bay sand and shingle is present on a wide intertidal area. The bay has no distinct coastal edge. The beach slopes gently to an irregular grassy surface which in turn slopes upwards to the main road leading to Rhubodach Ferry. The bay is flanked by a typical sea-loch coastline of rocks, stones and boulders. This gives way to shingle and exposed rock platform at Ardbeg Point.

**Erosion Class**: This coastal unit displays both accretion and local erosion. The coastline becomes increasingly more exposed from north to south with low rock platforms and shingle present. At the head of Kames Bay, shingle and sand is accreting in front of a continuous sea wall. Towards Port Bannatyne, hard sea defences continue to lend stability to this area of coastline.

**Built Heritage & Archaeology**: The sites in this area included a disused quarry at Ardmaleish Point and deserted settlements. The coastal sites identified ranged from a possible fish trap to maritime structures like Port Bannatyne Pier. The majority of the heritage sites were centred around Port Bannatyne itself.

#### 1. ARDMALEISH POINT to TI-AN-TUDOR

NS 0775 6950 2km Boulders and shingle Low edge (<5m) *Raised beach* The hinterland is dominated by raised beach deposits. The shoreline is comprised of degraded cliff with boulders and shingle present up to the HWMS line.

#### 2. KAMES BAY

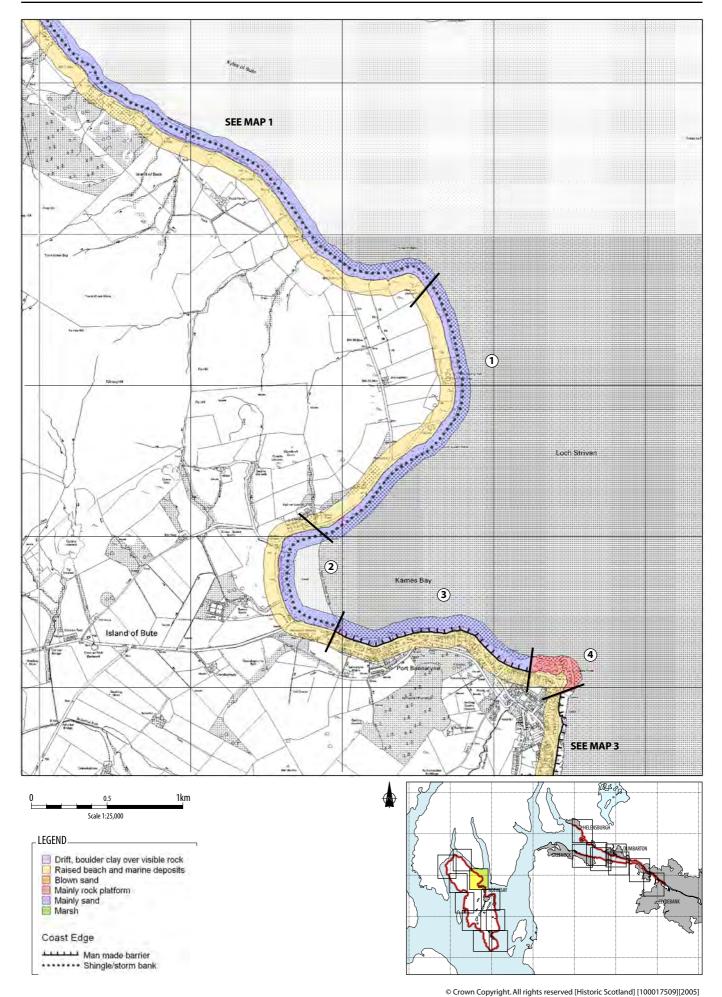
NS 0660 6770 1km Shingle Low edge (<5m) *Raised beach* Marine deposits dominate the hinterland. Kames Bay is protected by a continuous sea-wall. The beach is wide and entirely composed of shingle and stones.

#### **3. PORT BANNATYNE**

NS 0777 6740 1.3km Boulders Low edge (<5m) *Raised beach* Port Bannatyne is built on marine deposits. Seawalls protect this small coastal town. The foreshore is dominated by gravel and boulder beds.

#### **4 ARDBEG POINT**

NS 0840 6710 0.30km Mainly rock platform Low edge (<5m) *Raised beach* Ardbeg point is an rock platform outcrop overlain by superficial marine deposits forming a small peninsula.



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#### **1. ARDMELEISH POINT to KAMES BAY**

NS 0270 7440 2.4km Both accreting and eroding This section of coastline is fairly exposed to south easterly gales running through Loch Striven. Although no active erosion was noted this unit was classified as both accreting and eroding as scouring by wave action is leading to the accretion of shingle along the HWMST.

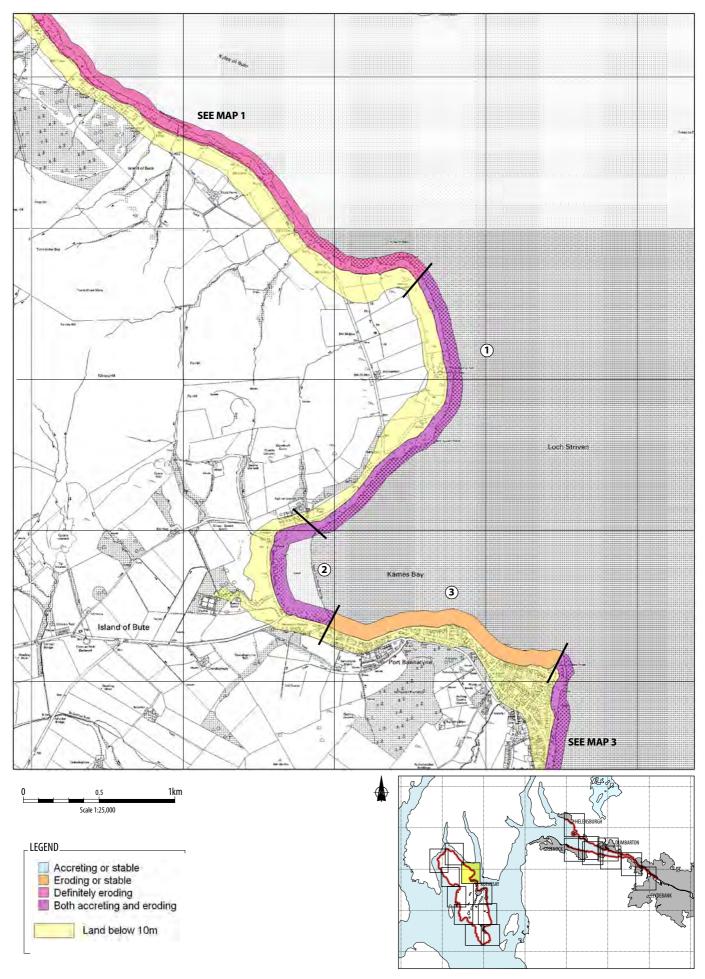
#### 2. KAMES BAY

NS0660 6770 0.6km Accreting or Stable Sea defences are protecting Kames Bay from erosion. Sand and shingle are banked at the HWMS mark showing that sediment is being focused within the bay.

#### 3. KAMES BAY to ARDBEG POINT

NS 0800 6730 1.9km Both accreting and eroding This section of coastline is protected by sea defence works along the seafront at Bannatyne. Shingle and sand is being distributed along the HWMS mark as a result of longshore drift. It is likely that this will be displaced and concentrated according to storm frequency.

#### Shalunt to Port Bannatyne



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#### **BUTE MAP 2: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

12. SHALUNT NS 051 712 Fish trap Uncertain Unknown Nil 13. SHALUNT COTTAGE NS 05442 70944 Fish trap (possible) Fair Unknown Monitor 14. CULNASAMRUG **NS07SE 17** NS 0580 7070 Settlement Fair 19<sup>th</sup>-20<sup>th</sup> AD Nil 15. CORLAICH **NS07SE 13** NS 0670 7000 Deserted settlement Uncertain Unknown Nil 16. CORLAICH **NS06NE 13** NS 0678 6986 **Buildings** Uncertain Unknown Nil 17. CLACHAMRACH **NS06NE22** NS 0720 6960 Settlement Uncertain 19<sup>th</sup>-20<sup>th</sup> AD Nil 18. ARDMALEISH POINT **NS06NE 4** NS 0678 6986

Dun, Cairn, Dykes & Quarries Poor 1<sup>st</sup> mill- 4<sup>th</sup> AD Nil

19. ARDMALEISH POINT **NS06NE 19** NS 0677 691 Spearhead Uncertain 1<sup>st</sup> mill- 4<sup>th</sup> AD Nil 28. PORT BANNATYNE **NS06NE 46** NS 0680 6810 Pier Poor 19<sup>th</sup>-20<sup>th</sup> AD Nil 30. ARDBEG POINT NS 0801 6720 Fish-trap of jetty Fair Unknown Monitor **31. POINTHOUSE NS06NE 30** NS 0803 6708 Building Uncertain Unkown Nil

#### Sites on the Hinterland

20. TIGH AN TUDOR **NS06NE 34** NS 0680 6810 Settlement Uncertain Unknown Nil

Listed Buildings (see Appendix 1)

21. WESTER KAMES CASTLE NS 0617 6805 Listed A Uncertain Unknown Nil

22. KAMES CASTLE AND WALLED GARDEN, GAREDENER'S COTTAGE NS 062 674 Listed B Uncertain Unknown Nil

23. KAMES CASTLE GATELODGE NS 0664 6745 Listed B Uncertain 15<sup>th</sup>-18<sup>th</sup> AD Nil

24. Grouped entry PORT BANNATYNE MARINE ROAD, QUAY Listed C(s) MARINE ROAD, PORT **ROYAL HOTEL Listed** C(s)40-43, 59-69 MARINE ROAD Listed C(s) MARINE ROAD.4-19 VICTORIA PLACE Listed C(s)Uncertain Unknown Nil

#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

25. PORT BANNATYNE, CASTLE STREET, GENERAL NS 072 672 Listed C(s) Not Seen Unknown Nil

26. PORT BANNATYNE , MAINS ROAD, ARDENTIGH WALL & GATE NS 074 672 Listed C(s) Not Seen Unknown Nil

27. PORT BANNATYNE, 42 SHORE ROAD NS 075 673 Listed C(s) Not Seen Unknown Nil

29. Grouped entry PORT BANNATYNE 2-4, 6 SHORE ROAD Listed C(s)FIRCLIFF, 42 HIGH ROAD Listed B ETTRICK BANK, 44 & 46 HIGH ROAD Listed C(s) APPIN, 26-27 SHORE ROAD Listed C(s) 28-30 SHORE RAOD, ARDGOWAN HOUSE Listed C(s)PORT BANNATYNE CHURCH Listed B Not Seen Unknown Nil

#### Sites on the Coast Edge & Foreshore

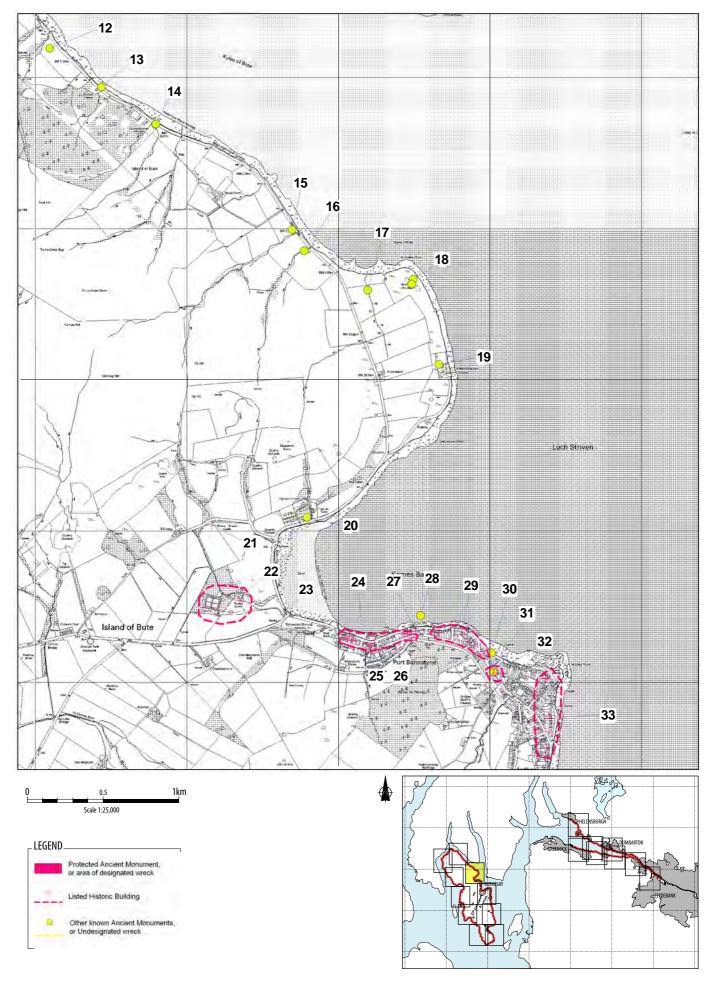
#### Sites on the Hinterland

32. Grouped entry PORT BANNATYNE POINTHOUSE LANE, FORMER COACHHOUSE Listed C(s) 22 & 24 HIGH STREET, FORMER POINT HOUSE Listed B HIGH ROAD, BUS GARAGE OFFICE Listed C(s) Not Seen Unknown Nil

33. Grouped entry ROTHESAY
53 & 63 ARDBEG ROAD
Listed C(s)
2 MARINE PLACE,
SURGERY Listed C(s)
7 & 8, 19-21 MARINE PLACE
Listed C(s)
Not Seen
Unknown
Nil

#### BUTE MAP 2 - BUILT HERITAGE AND ARCHAEOLOGY

#### Shalunt to Port Bannatyne



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#### BUTE MAP 3: ARDBEG to SCOULAG POINT

Hinterland Geology and Coastal Geomorphology: Dalradian schists and grits dominate the area around Rothesay Bay. The Highland Boundary Fault-line runs through this coastal unit forming a clear boundary between Dalradian schists and Upper Old Red Sandstone. Towards Bogany Point, an intrusive Permo-Carboniferous dyke trends east to west. Raised marine deposits dominate the hinterland whist shingle and sand dominates the foreshore. Most of this coastal cell contains rock abrasion platforms and shingle beaches. Rothesay Bay is defended by sea walls. The artificial nature of this section of coastline is described in Leask (1996 152). Around the Milburn Bridge area Lower Carboniferous sediments outcrop on the shore. A number of fault lines are also present, one of which forms a distinct boundary between the aforementioned Lower Carboniferous deposits and Ascog Bay which is dominated here by Upper Old Red Sandstone. Tertiary intrusions also occur at Ascog Bay. This north-south Tertiary dyke is unusual with upstanding outer portions of basalt surrounding an eroded highly berated middle. West of Ascog Bay a tombola connects Eilean Aoide with the mainland. Raised marine deposit continues along the hinterland. Shingle and exposed rock platform is present along the length of this unit.

**Erosion Class**: This unit of coastline was found to be stable owing to the hard sea defences present for much of the coastline although there are local pockets of shingle accretion and local erosion along the HWMST at Ascog Bay and Kerrycroy Bay. Occasional low berms of shingle are present at the HWMST in front of the concrete sea walls but this material is highly mobile and well distributed on each high tide. At Bogany Point there is evidence of erosion due to excessive overtopping wave action. Towards Scoulag Point more of the intertidal area is exposed at MHWST. There is evidence of shingle accretion between the exposed rock platforms.

**Built Heritage & Archaeology**: The built heritage in this area mainly relates to Rothesay's past as a tourist destination, and all dates to within the past two hundred years. The bathing station at Skeoch Wood and the numerous and grandly built public conveniences that were dotted around the esplanade and pier area are the best indicators of Rothesay's tourist orientated heyday. Seawalls and defences protect most of the coastline in this area. The hinterland remains include churches and the old Regal Cinema on Argyle Street. These sites are unlikely to be affected by coastal erosion due to the scale and strength of the coastal defences, but some, like the cinema, are in a poor state of repair due to being abandoned and falling into neglect. The coastal sites are all maritime structures like Rothesay Pier and various other smaller jetties along the coast. The poorly preserved and eroding remains of Craigmore Steamer Pier and Craigmore Old Pier, were also noted there. The piers were abandoned when the ferry connections to Rothesay Pier were cancelled. Around Ascog coastline, a salt pan (NS16SW 2) was observed to be in a poor state and in danger of erosion as some of the walls have already been abraded by wave action. Ascog Free Church is in good condition, and further to the south, the Ascog Boathouse (NS16SW 17) was noted as being in a fairly good condition, although the related slipway was in poor condition.

# **BUTE MAP 3: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY**

#### **1. ROTHESAY BAY**

NH 0900 6500 4.5km Stones and shingle Low edge (<5m) *Raised beach* Rothesay Bay is a wide structural bay corresponding to the Loch Fad-Scalpsie Bay axis. Rock abrasion platforms with narrow shingle and stone beaches are covered at high tide. Its entire length is protected by a concrete sea wall. Rothesay town is built on top of raised beach deposits.

# 2. CRAIGMORE to ASCOG BAY

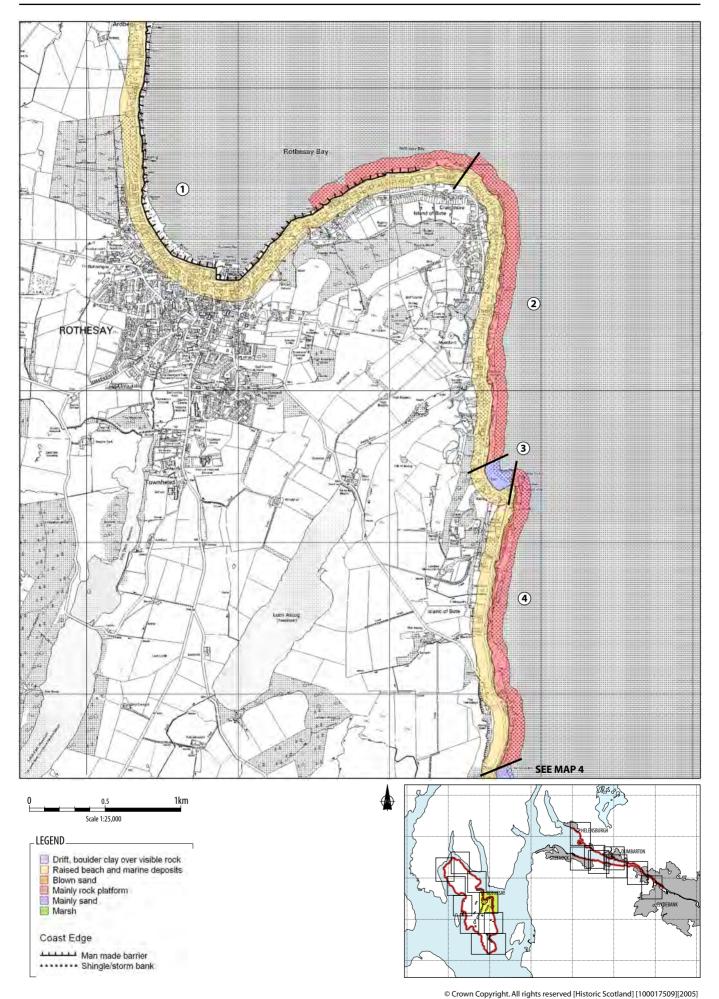
NH 1070 6450. 2km Rock platforms and shingle Low edge (<5m) *Marine deposits* Raised beach deposits dominate the hinterland. Shingle beach with some exposed rock platform at MLWM. Sea defences are present at Monford.

#### 3. ASCOG BAY

NH 1070 6340 Mainly shingle Low edge (<5m) Raised beach Occasional Tertiary dyke intrusion around Ascog Bay and nearby Point. Ascog bay consists of three small inlets that join together at low tide to form a southward facing bay. West of Ascog bay a tombola connects Eilean Aoide with the mainland. The beaches in this bay are mainly composed of shingle, gravel and sub-angular cobbles with large shell fragments on the upper beach and sandbanks exposed at low tide. Ritchie (1975) suggested that geomorphological activity was restricted to short term changes particularly during storm events.

#### 4. ASCOG BRIDGE

NH 1070 6240 2km Mainly rock platform Low edge (<5m) *Marine deposits* This section of coastline is uniform comprising low rock abrasion platforms interspersed by boulders and shingle. Outcropping Tertiary dykes are exposed on the shoreline. The hinterland consists of marine deposits.



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#### 1. ARDBEG POINT to CRAIGMORE

NS 0850 6500 4.9km Both accreting and eroding Rothesay Bay is considered to be both accreting and erosion. Concrete sea walls and promenades defend the sea front. Sand and shingle is thrown up against the base of the sea walls and tends to be shifted around during the different phases of

#### 2. MONTFORD

the tidal cycles.

NS 1070 6430

2.5km

Both accreting and eroding This section of coastline is fairly exposed to south easterly gales but is defended towards Craigmore by sea walls. Towards Ascog bay exposed low rocky platforms are prone to scouring and shingle is accreting at the HWMS mark.

# 3. ASCOG BAY

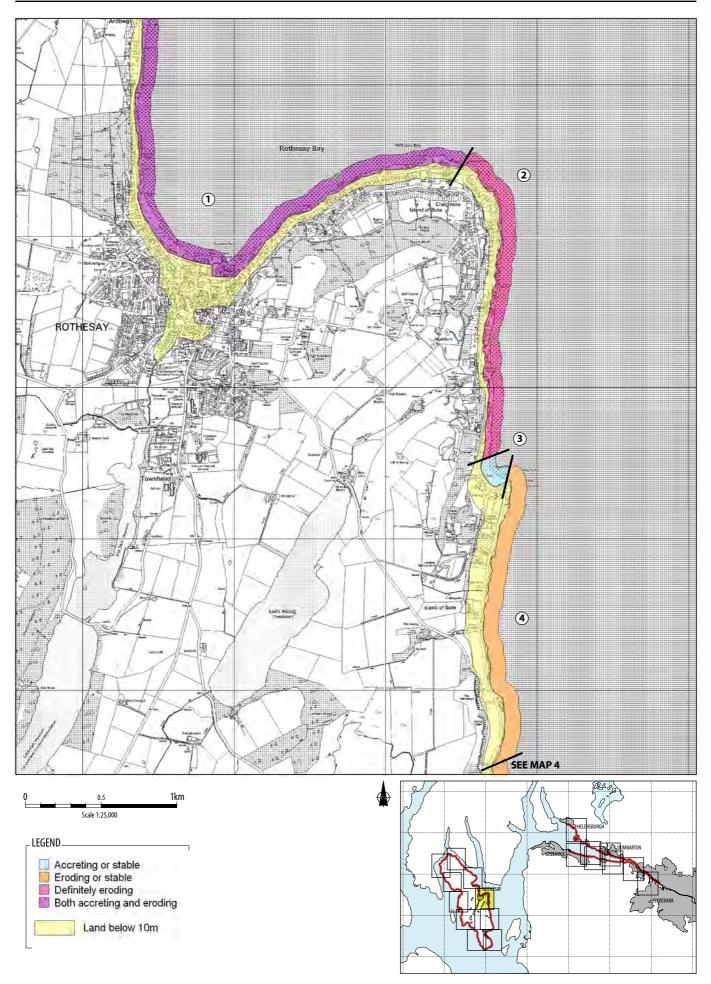
NH 1070 6340 Accreting or stable 0.5km

The beach in this bay are mainly composed of shingle, gravel and sub-angular cobbles with large shell fragments on the upper beach and sandbanks exposed at low tide. Shingle is being concentrated into a low bank at the HWMS mark.

# 4. ASCOG POINT to KERRYCROY BAY

NS 1080 6200 2.4km

Both accreting and eroding This section of coastline is experiencing both accretion and erosion. The low abrasion platforms are being scoured during storm conditions and shingle is being banked up at the HWMS mark.



# BUTE MAP 3: BUILT HERITAGE AND ARCHAEOLOGY

#### Sites on the Coast Edge & Foreshore

35. SKEOCH WOOD NS06NE 63 NS 0836 6556 Bathing Station (disused) Poor 19<sup>th</sup>-20<sup>th</sup> AD Monitor

#### 36. ROTHESAY

NS06SSE 69 0839 6540 Red Shed, Boatyard Uncertain Unknown Nil

#### 38. ROTHESAY

**NS06SE 111** NS 0853 6488 Cinema Poor 19<sup>th</sup>-20<sup>th</sup> AD Nil

39. WEST FREE CHURCH NS06SE 110 NS 0849 6485 Church Poor 19<sup>th</sup>-20<sup>th</sup> AD Nil

41. ROTHESAY, GALLOWS CRAIG NS06SE 68 NS 086 647 Uncertain Unknown Nil

54. BOGANY POINT NS16NW 13 NS 105 654 Cist Uncertain Unknown Nil 57. ASCOG NS16SW 17 NS 105 645 Cist and food vessel Uncertain 4thMil-1<sup>st</sup> AD Nil

59. ASCOG NS16SW 1 NS 1067 6397 Coin Hoard Uncertain Unknown Nil

#### 60. MONTFORD NS16SW 11 NS 107 639 Stone implement

Uncertain Unknown Nil

65. ASCOG NS 0776 6308 Slipway (possible) Poor 19<sup>th</sup>-20<sup>th</sup> AD Monitor Sites on the Hinterland

# Listed buildings (see Appendix 1)

34. Grouped entry ROTHESAY 1, 18-21, 24-25 ARDBEG RD Listed C(s) 14 ARDBEG ROAD Listed B ARDBEG BAPTIST CHUCRH Listed B Uncertain Unknown Nil

37. Grouped entry ROTHESAY ARGYLE STREET Listed C(s) ARGYLE PLACE Listed B and C(s)ARGYLE TERRACE Listed B and C(s) ROTHESAY ACADEMY Listed B VICTORIA STREET Listed B and C(s) VICTORIA STREET, ST PAUL'S EPISCOPAL CHURCH Listed B WINTER GARDENS Listed A **GUILDFORD COURT HOTEL** Listed C(s) WESTLAND ROAD Listed B and C(s) WEST PIER, SHELTER Listed C(s)**ROTHESAY CASTLE Listed B** WEST PRINCES STREET Listed C(s) RUSSELL STREET Listed C(s) YORK TERRACE Listed C(s) MILL STREET Listed B STUART STREET Listed B **BUTE MUSEUM Listed B** UPPER UNION STREET Listed B MADEIRA, PRIVATE HOTEL Listed C(s) HEWISON HOUSE Listed C(s) MONTAGUE STREET Listed B and C(s) BUTE ESTATE OFFICE Listed А HIGH STREET Listed B and C(s)

#### Sites on the Hinterland

37. Continued FORMER UNITED FREE CHURCH Listed C(s) WEIGHBRIDGE HOUSE Listed C(s)JOHN STREET Listed C(s) EAST PRINCES STREET Listed B and C(s) KING STREET Listed B COLUMSHILL STREET Listed B and C(s) COLUMSHILL PLACE Listed B ACADEMY TERRACE Listed C(s)ALBERT PLACE Listed B and C(s)ALMA TERRACE Listed C(s) BATTERY PLACE Listed B and C(s)MOUNT PLEASANT ROAD Listed B and C(s) MINISTER'S BRAE Listed B and C(s)**BISHOP STREET Listed B and** C(s)BISHOP TERRACE Listed B and C(s)BRIDGE STREET Listed B ARGYLE STREET, WEST FREE CHURCH Listed B ST ANDREWS R.C. CHURCH HALL Listed B CASTLE STREET Listed B and C(s)**BRIDGEND STREET LISTED** C(s)CHAPEL HILL, FREE CHURCH Listed B ST ANDREW'S ROMAN CATHOLIC CHURCH, COLUMSHILL ROAD Listed A Not Seen Unknown Nil 40. ROTHESAY, 2-36 BRIDGE ST. **NS06SE 69** NS 085 647 Watching Brief N/a Unknown Nil

42. ROTHESAY PIER PUBLIC TOILET **NS06SE 64** NS 0883 6482 Listed B Gentlemen's public toilets Good  $18^{th}-20^{th}\;AD$ Nil 43. ROTHESAY, MARKET CROSS **NS06SE 7** NS 088 646 Listed C(s) Uncertain Unknown Nil 44. ROTHESAY, 65 WATERGATE **NS06SE 185** NS 089 646 Sheriff Court House Uncertain Unknown Nil 45. ROTHESAY, ALBERT PLACE **NS06SE 65** NS 089 647 Gentlemen's Urinal Building Uncertain Unknown Nil 46. ROTHESAY HARBOUR **NS06SE 53** NS 089 647 Harbour Good 18<sup>th</sup>-20<sup>th</sup> AD Nil 47. ROTHESAY, 6-8 EAST PRINCES ST **NS06SE66** NS 090 646 Listed C(s) Residence Uncertain

Unknown Nil

#### Sites on the Hinterland

**48. ROTHESAY PIER** 53. ROTHESAY, Mt STUART NS06SE 166 RD, ST BRENDAN'S CHURCH NS 089 648 **NS06NE 71** Good 18th-20th Cen NS 098 653 Nil Listed B Uncertain 49. CRAIGMORE PIER 18<sup>th</sup>-20<sup>th</sup> AD NS06NE 45 Nil NS 093 651 55. Grouped entry Uncertain CRAIGMORE PUBLIC 18<sup>th</sup>-20<sup>th</sup> AD TOILET Listed B Nil ROTHESAY, WELLPARK ROAD, ROCK VILLA Listed C 50. Grouped entry ROTHESAY (s)ROTHESAY, EASTLANDS MOUNTSTUART ROAD ROAD, EDGEHILL Listed C(s) Listed B and C(s) ROTHESAY, EASTLANDS CHRICHTON ROAD Listed B ROAD, HILLPARK Listed C(s) and C(s) CRAIGMORE HOTEL Listed ASCOG, AGNES PATRICK STEVENSON RESIDENTIAL B SCHOOL Listed C(s) **GLENFAULDS COTTAGE** MILLBANK HOUSE Listed B Listed B MILLBANK HOUSE, WEST FIRWOOD. STABLES, COACH-HOUSE GLENBURN ROAD Listed B AND DOWER HOUSE Listed EAST FIRWOOD. C(s)GLENBURN ROAD Listed B ASCOG. 1 MILLBURN **GLENBURN HOTEL Listed B** COTTAGES Listed C(s) Uncertain ASCOG, MILLBURN HOUSE 18<sup>th</sup>-20<sup>th</sup> AD Nil Listed B ASCOG, THE OLD MANSE Listed C(s) 51. CRAIGMORE U.P. ASCOG, ST MARGARET'S CHURCH / HALL Listed B **NS06NE 65** ASCOG, SOUTHPARK NS 097 665 **RESIDENTIAL SCHOOL** Church Listed B Uncertain SCOG, SOUTHPARK, LODGE 18<sup>th</sup>-20<sup>th</sup> AD Listed C(s) Nil CRAIGMORE, 24 CRAIGMORE ROAD Listed 52. LAIGH BOGANY C(s)**NS06NE 14** ASCOG, LAIDLAW NS 098 653 MEMORIAL HOME Listed A Farmhouse ASCOG, BALMORY ROAD. Uncertain BALMORY HOUSE Unknown GATELODGE Listed C(s) Nil ASCOG, BOAT HOUSE Listed C(s) ASCOG HALL, LODGE Listed C(s)

#### Sites on the Hinterland

55. Continued ASCOG, THE HERMITAGE AND SUMMER HOUSE Listed C(s)ASCOG HOUSE, ASCOG LODGE Listed B ASCOG HOUSE, PINK LODGE Listed C(s) 7, 15, 16, 22, 23, 27, 28, 35 CRAIGMORE ROAD Listed B and C(s) ARDENCRAIG ROAD. ARDENCRAIG Listed B ARDENCRAIG ROAD, ARDENCRAIG, LODGE Listed C(s) CRAIGMORE, ARDENCRAIG ROAD, ROCKHILL CASTLE Listed B OTHESAY, ARDENCRAIG ROAD. TOR HOUSE Listed A ASCOG FREE CHURCH Listed B ASCOG, ASCOG HALL Listed В ASCOG BAY, SALT PAN Listed B ASCOG HOUSE Listed B ASCOG BANK Listed B Uncertain Unknown Nil

56. ARDENCRAIG GARDENS **NS16SW 33.1** NS 105 646 Garden, greenhouse Uncertain Unknown Nil

58. ASCOG MILL NS 105 640 Field System; Turf Walls; March Dyke; Corn Kiln (possible); Mills Uncertain 15<sup>th</sup>-17<sup>th</sup> AD Unknown

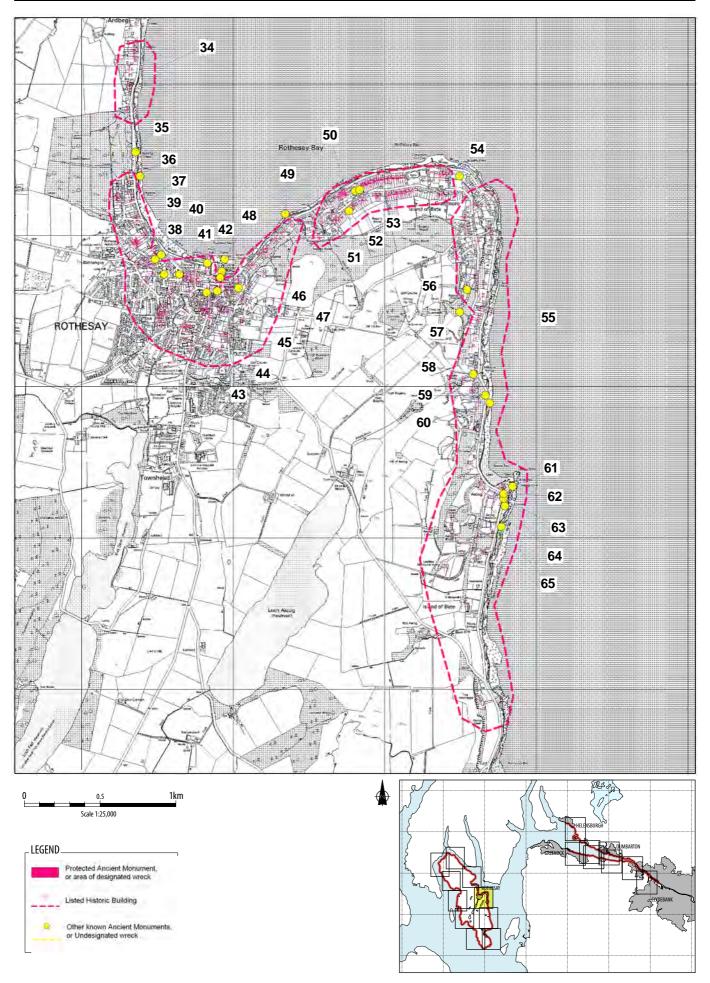
61. ASCOG NS16SW 22 NS 108 633 Quay Uncertain 18<sup>th</sup>-20t AD Nil

62. TYRONE COTTAGE & STELLA MATATINA **NS16SW 9** NS 107 633 Cottages Uncertain Unknown Nil

63. ASCOG COTTAGE NS16SW 8 NS 107 632 Residence Uncertain Unknown Nil

# 64. ASCOG NS16SW 4

NS 108 632 Coal workings Uncertain Unknown Nil



# BUTE MAP 4: KERRYCROY to KERRYTONLIA POINT

**Hinterland Geology and Coastal Geomorphology**: This unit of coastline is dominated by Upper Old Red Sandstone overlain by marine deposits formed on top of well-pronounced raised beaches. Various minor Tertiary intrusions also occur along the shore. The foreshore is dominated by shingle, sand and exposed rock platform.

**Erosion Class**: Classified as mainly stable there were local pockets of erosion noted along sections of this particular unit. Where waves overtop low cliffs then there is a tendency for slope failure. The rate of erosion is predominately geared by wave activity during storm surges and general weathering of unconsolidated sediment. Longshore drift activity has shifted the shingle into low berms that are formed at the HWMST.

**Built Heritage & Archaeology**: The sites recorded in this cell were confined to the extreme north and south. In the north the remains of the old ferry house at Scoulag Point are associated with a large slipway or jetty. Both are in poor condition and the inside of the ferry house displayed signs of impending coastal erosion in the form of a build up of maritime detritus. A possible fish trap was noted at Kerrylamont Bay. It consisted of fifteen wooden posts running down from the beach into the sea, upstanding to a maximum of 1.5 metres.

#### **1. KERRCROY BAY**

NH 1080 6140 0.2km Mainly boulders and shingle Low edge (<5m) *Marine deposits* This picturesque bay is flanked by abrasion platforms. The beach is composed of reddish shingle and gravel with boulders at both margins. A sea wall defends the hinterland which is dominated by marine deposits.

### 2. SOUTH of KERRYCROY

NH 1120 5980 lkm Mainly rock platform Low edge (<5m) *Marine deposits* This section of coastline is dominated by abrasion platforms down to the LWMST. The hinterland comprises marine deposits. This area is part of a landscaped garden area associated with Mount Stewart.

#### 3. NORTH of SCOULAG POINT

NH 1110 6040 0.10km Boulders and shingle Low edge (<5m) *Marine deposits* A small embayment is flanked either side by abrasion platforms. The beach is dominated by shingle and boulders. The hinterland continues to be dominated by marine deposits.

#### 4. SOUTH of SCOULAG POINT

NH 1120 5970 0.9km Mainly rock platform Low edge (<5m) *Marine deposits* Low rock abrasion platforms dominate the shoreline. Raised marine deposits dominate the hinterland.

#### **5. KERRYLAMONT**

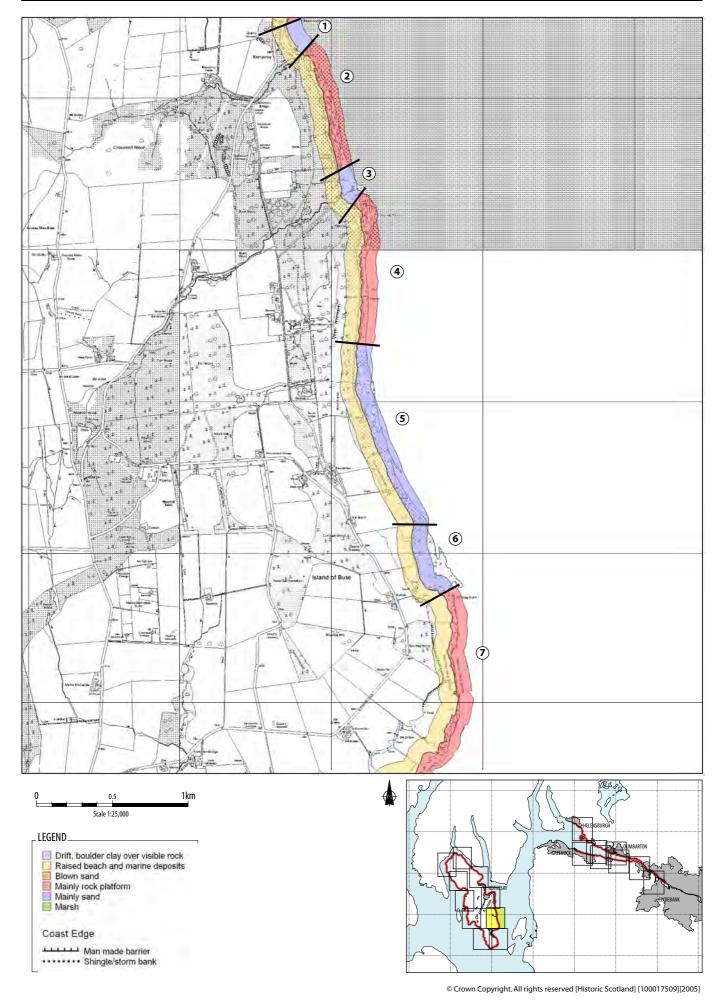
NH 11505870 1.3km Mainly rock platform Low edge (<5m) *Marine deposits* Low rocky platforms overlain by marine deposits. Foreshore dominated by sand towards LWMS. Some outcropping rock platform in parts.

# 6. KERRYLAMONT BAY

NH 1160 5800 0.5km Boulders and sand Low edge (<5m) *Marine deposits* A soft raised beach slopes down to the shoreline. The foreshore is approximately 200m wide down to the LWMS and dominated by gravel and sand near the HWM. Cobbles and boulders flank a wider area of sand towards the LWMS.

# 7. BRUCHAG POINT to west of KERRYTONLIA POINT

NS 1180 5660 2m Mainly rock platform Low edge (<10m) Marine deposits Former marine platform backed by an old shoreline with sea caves at 10m OD. Indented cliff overlooking rocky skerries. The shoreline is rocky with platforms and some areas of shingle.



# **BUTE MAP 4: EROSION**

#### **1. KERRYCROY BAY**

NH 1080 6140 0.3km Accreting or stable Kerrycroy Bay is receiving sediment nourishment by way of entrapment within the bay. The head of the bay is defended by a low sea wall and this tends to concentrate shingle at the HWMS mark.

#### 2. KERRYCROY BAY to MOUNT STEWART

NS 1120 6000 2.4km Both accreting and eroding The low rocky abrasion platforms and boulder strewn is eroding at an unknown rate. Shingle is banking up at the HWMS mark. Some active erosion was notes at the base of Scoulag Pier where it joins the shoreline.

### **3. KERRYLAMONT**

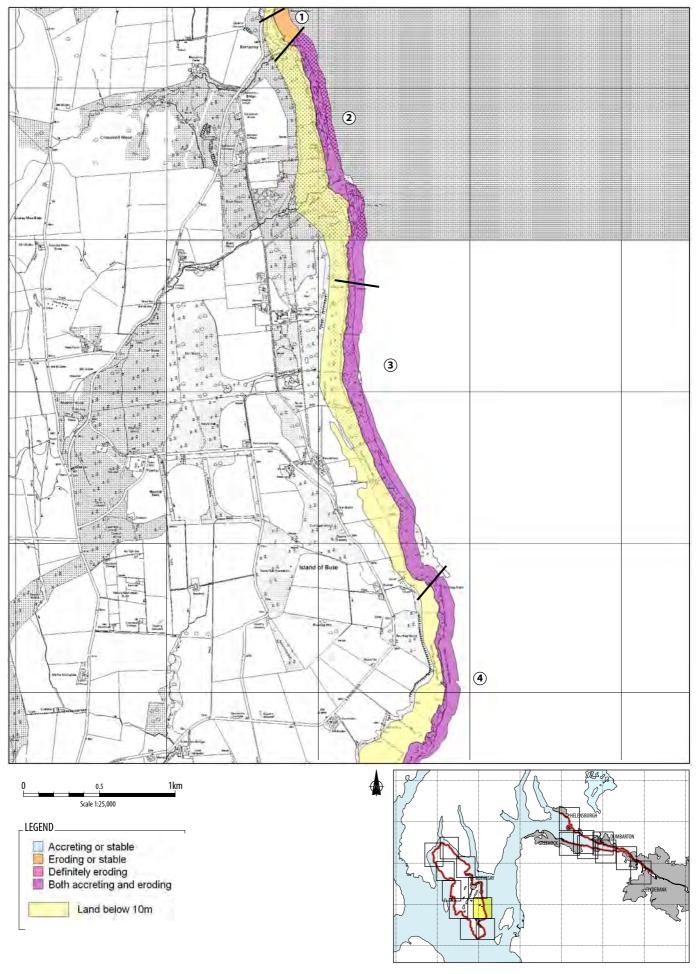
NS 1150 5860 2.3km Accreting or stable This section of coastline is classified as accreting or stable. Sediment is being focused along the shoreline at Kerrylamont Bay. Shingle is accreting along the HWMS line further north.

#### 4. KERRYTONLIA POINT

NS0130 5630 3.4km

Definitely eroding

This section of coastline is eroding albeit at a slow rate. The indented nature of the cliff line shows that recession is occurring both to this and on the abrasion platforms below. Deep gullies tend to be filled with boulders and shingle that are thrown up onto the cliff and platforms ant this action is leading to continued erosion. The rate of recession is difficult to quantify.



# BUTE MAP 4: BUILT HERITAGE AND ARCHAEOLOGY

#### Sites on the Coast Edge & Foreshore

68. KERRYCROY QUAY NS16SW 21 NS 108 613 Quay Poor 18<sup>th</sup>-20<sup>th</sup> AD Unknown

71. SCOULAG PORT NS16SW 20 NS 1118 6022 Jetty Poor Unknown Monitor

72. SCOULAG, OLD FERRY HOUSE **NS16SW 19** NS 1118 6022 House Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

75. KERRYLAMONT BAY NS 11538 58083 Fish trap (possible) Poor Unknown Nil

76. KERRYTONLIA NS15NW 7 NS 1150 5680 Fort 4<sup>th</sup> Mil-1<sup>st</sup> BC Nil

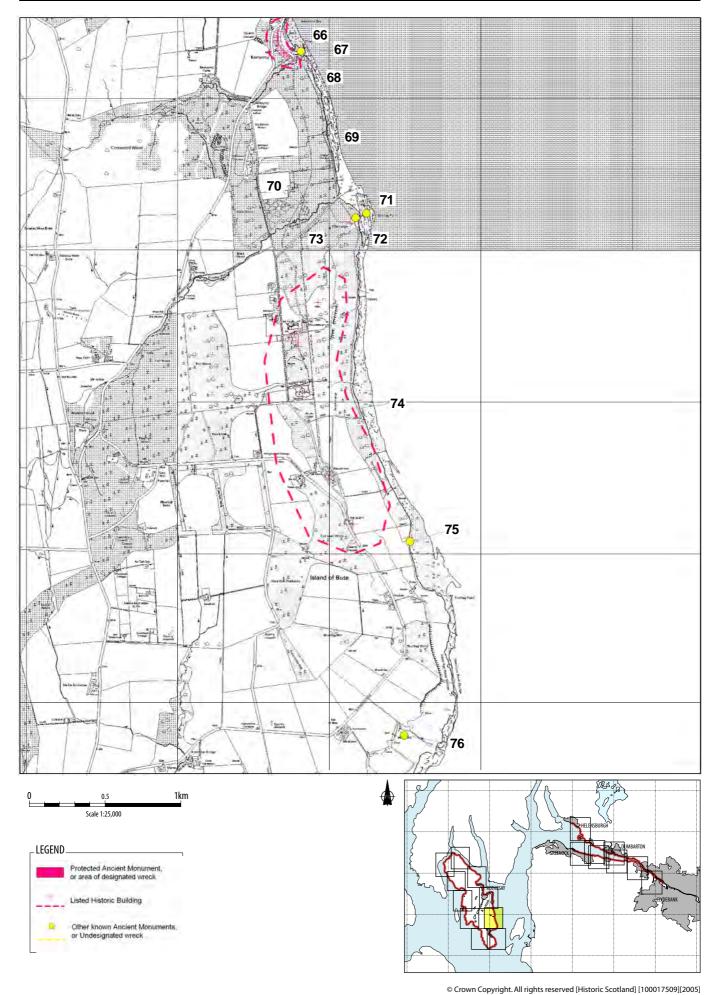
#### Sites on the Hinterland

#### Listed buildings (see Appendix 1)

66. Group entry KERRYCROY, 1-14 KERRYCROY VILLAGE Listed B MOUNT STUART HOUSE. NORTH LODGE Listed B Uncertain 18<sup>th</sup>-20th Nil 67. KERRYCROY, QUAY AND BRIDGE NS 108 613 Listed B Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 69. MOUNT STUART CHURCH NS 110 605 Listed A Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 70. MOUNT STUART HOUSE, **BEEHIVE WELL** NS 108 603 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil

73. MOUNT STUART HOUSE, EAST LODGE NS 111 601 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil

74. MOUNT STUART HOUSE (and properties) NS 108 594 Listed A, B and C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil



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# **BUTE MAP 5: KERRYTONLIA POINT to GARROCH HEAD**

Hinterland Geology and Coastal Geomorphology: From Kerrytonlia to Kilchattan Bay Jetty, the hinterland is dominated by Old Red Sandstone geology. The unit has an impressive raised shoreline with sea caves. Tertiary activity is present along the present shoreline, which is very indented and overlooks rocky skerries and boulder beds. Marine deposits at the head of Kilchattan Bay continue in land. At least three fossil shorelines appear to be represented in this area. Kilchattan Bay is an extensive, southeast facing, sediment filled bay. The asymmetric intertidal beach is more than 400m wide. In places areas of stones shingle and boulders are revealed at low tide. Rock outcrops flank the bay. At Creag a Mhara a fault line demarcates an area dominated by lava flows. South of this area Old Red Sandstone is dominant. North of Glencallum Bay a major intrusive olivine-dolerite sheet is crossed by a fault. Raised beaches dominate the hinterland that overlooks a series of indented cliffs. Rocky outcrops and platforms are dominant along with boulder and shingle beaches. From Glencallum Bay to Garroch Head, schists and undifferentiated rocks are present. Intrusive olivine-dolerite formations are also well represented. The coastal edge is very indented and tertiary dykes are present along the shore. Exposed rock platform and boulders dominate this shoreline.

**Erosion Class**: Between Kerrytonlia Point and Kilchattan Bay, the coastline is classified as stable and eroding. Erosion of the shoreline is ongoing at a very slow rate and is mainly caused by abrasion of the rock platforms through wave hammer and scouring by coarse material thrown up during storm conditions. Along the length of Kilchattan Bay there is a bank of sand resting on the lowest raised shoreline terrace. The bay head is stabilised by marram grasses. From Kilchattan Bay Jetty to Rubh'an Eun, some local erosion is occurring between the outcropping rock platforms where the low cliff is exposed to wave action and overtopping. This is releasing softer sediment onto the shoreline in areas that are prone to accretion where wave activity and tidal conditions favour the build up of material. Between Glencallum Bay and Garroch Head, the coast is exposed to south-westerly gales. Despite this, the section is relatively stable. The highly indented nature of the coastline is testament to the ongoing recession of the backing cliffs. Loss of superficial cover deposits on the cliff edge is difficult to determine, but is likely to be constant, owing to their unconsolidated nature.

**Built Heritage & Archaeology:** A hill fort and two barrows (NS15NW 3) are noted in the NMRS at Kerrytonlia. A quay at Kilchattan Bay was in good condition. Most hinterland sites were located on top of the cliffs more than 50m back from the MHWST. The remains of maritime structures were noted at Kilchattan, and further south the ruin of a small settlement was seen at White Port, in poor condition. Hawk's Nib also displayed signs of erosion, although this appeared to be largely due to aeolian processes, rather than wave action, particularly to the rear of the point, or 'Nib'. The area around the cave at Hawk's Nib was very overgrown, but appeared not be too badly affected by erosion as it was in a more sheltered position. Glencallum Bay Lighthouse was also observed to be in good condition. A cairn and cist feature were recorded in Glencallum Bay (NS15SW 9). This cairn had been excavated earlier in the 20<sup>th</sup> Century and the cist left exposed. The sheltered location of the cairn meant that it was unlikely to be severely affected by coastal erosion, although it was in a fairly poor state due to the passage of time and weathering.

# **BUTE MAP 5: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY**

#### 1. KILCHATTAN BAY

NS 1000 5550 1.6km Sand Low edge(<5m) Marine deposits SE facing sediment filled bay. Largest bay on Bute and the only significant sand beach on the east coast. Asymmetrical beach with sand, stones and boulders. An alluvial fan is present towards the middle of the beach. Low dune banks are present resting on top of raised marine deposits. A shore-wall protects the south end of the bay near Kilchattan village.

# 2. KILCHATTAN BAY to RUB AN EUN POINT

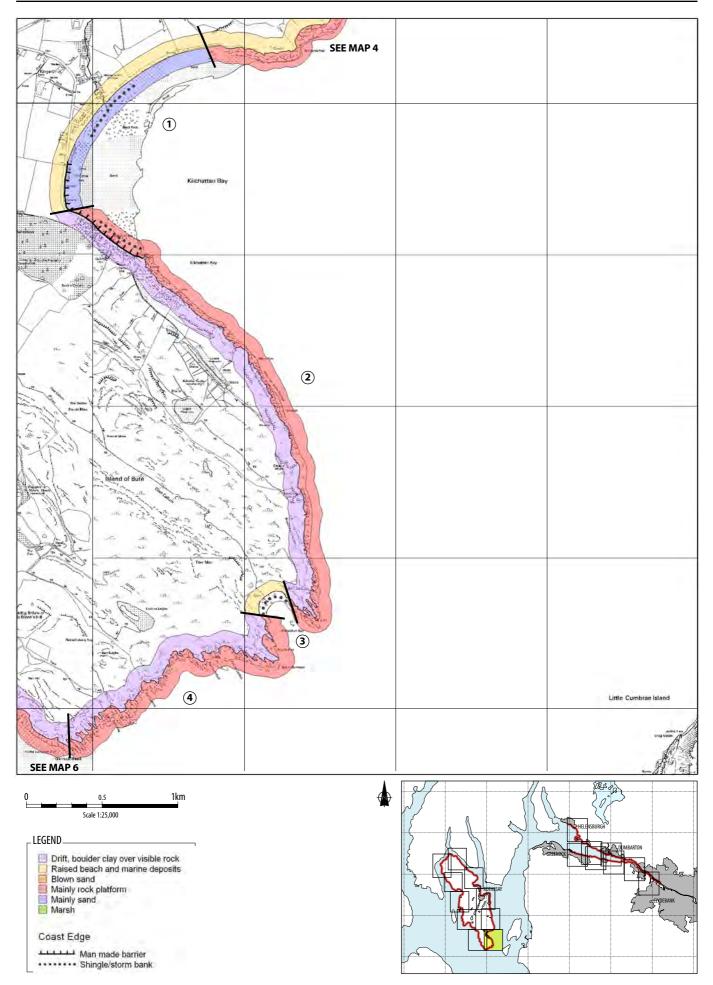
NS 1100 5400 3.1km Mainly rock platform Cliff (>10m) *Marine deposits* Highly indented cliff edge overlooking steepsloping abrasion platforms. Deep channels filled with boulders and shingle present. Tertiary activity with intrusive dyke formation locally present. Shallow outcropping stone covered by a thin mantle of boulder clay.

#### **3. GLENCALLUM BAY**

NS 1110 5280 0.2km Sand and shingle Low edge (<10m) *Marine deposits* This exposed bay is surrounded by flanking rock platforms focusing shingle up to the head of the bay. The hinterland is mainly outcropping rock with a mantle of boulder clay.

# 4. ROINN CLUMHACH to GARROCH HEAD

NS 1060 5240 1.7km Mainly rock platform Cliff <10m Superficial drift deposits Superficial drift deposits overlying the irregular highly indented coastal edge are being lost due to weathering activity. Exposed abrasion platforms with deep shelving skerries are subjected to scouring below. Although classified as definitely eroding it is very difficult quantify the rate of cliff recession.



# **BUTE MAP 5: EROSION**

### 1. KILCHATTAN BAY

NS 1000 5550 1.9km Accreting or stable This bay is accreting with both freshwater alluvium and is nourished by sand and gravel. An alluvial fan is present towards the middle of the beach. A shore-wall protects the south end of the bay near Kilchattan village lending stability to this particular area.

#### 2. BREIDOCH

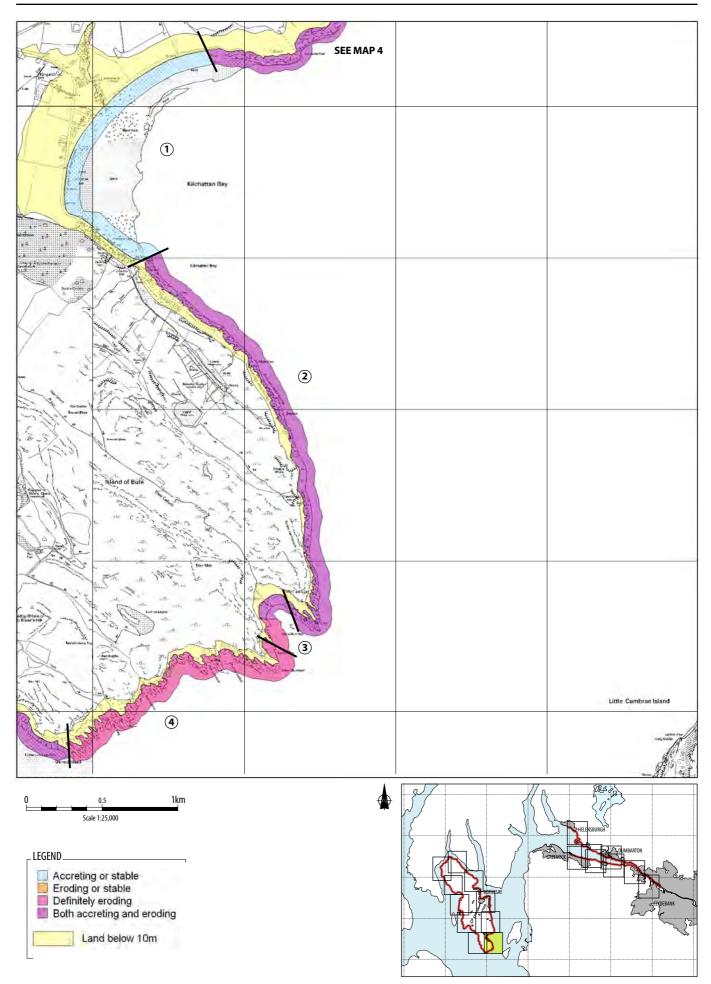
NS 1125 5400 3.2km Eroding or stable This section of coastline is considered to be eroding or stable. Erosion is occurring both to the cliff edge and on the abrasion platforms below. The rate of erosion is considered to be at a slow rate.

### **3. GLENCALLUM BAY**

NS 1110 5280 0.4km Accreting or stable Glencallum Bay is exposed to wave action and is exposed to south easterly gales. Shingle is banked up at the HWMS. The flanking rock abrasion platform acts as a funnel and focuses sediment to the head of the bay during storm activity.

# 4. ROINN CLUMHACH to GARROCH HEAD

NS 1060 5240 2.2km Definitely eroding Cliff (<10m) The exposed location of this section of coastline is considered to be definitely eroding. The formation of abrasion platforms and the highly indented cliff shows that erosion is ongoing albeit at a slow rate.



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# **BUTE MAP 5 : BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

77. KERRYTONLIA **NS15NW 3** NS 1113 5637 Barrows Uncertain 3<sup>rd</sup> Mil BC-1<sup>st</sup> BC Nil

81. KILCHATTAN BAY NS15NW 16 NS 1035 5505 Quay Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

84. BALLOCHNAMUIRICH NS 1030 5480 Settlement Poor Unknown Nil

86. KILCHATTAN PIER NS15SW 17 NS 105 547 Pier Fair 18<sup>th</sup>-20<sup>th</sup> AD Nil

87. BOUD **NS15SW 23** NS 1065 5455 Settlement Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil

96. GLENCALLUM BAY NS15SW 9 NS 1105 5275 Poor Cairn/cist (excavated) Unknown Nil

97. GLENCALLUM BAY NS15SW 16 NS 1105 5275 Poor Flint scraper Unknown Nil

#### Sites on the Hinterland

88. WHITE PORT
NS 10946 54345
House (ruin)
Poor
Unknown
Nil
89. WHITE PORT

NS 109 543 Building Uncertain Unknown Unknown

90. BREIDOCH NS15SW 23 NS 1110 5390 Structures Uncertain Unknown Nil

91. KILCHATTAN NS15SW 12 NS 11281 53726 Stone heaps Poor Unknown Nil

92. HAWK'S NIB NS15SW 10 NS 1135 5341 Cave / midden (excavated) Fair 18<sup>th</sup>-20<sup>th</sup> AD Monitor

93. GLENCALLUM NS15SW 20 NS 112 529 Farmsteading Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil

95. INN BUTT, GLENCALLUM BAY NS15SW 27 NS 110 538 Farmstead, enclosure, garden Poor 18<sup>th</sup>-20<sup>th</sup> Century Nil

# **BUTE MAP 5 : BUILT HERITAGE AND ARCHAEOLOGY Continued**

LIGHTHOUSE

NS 114 525

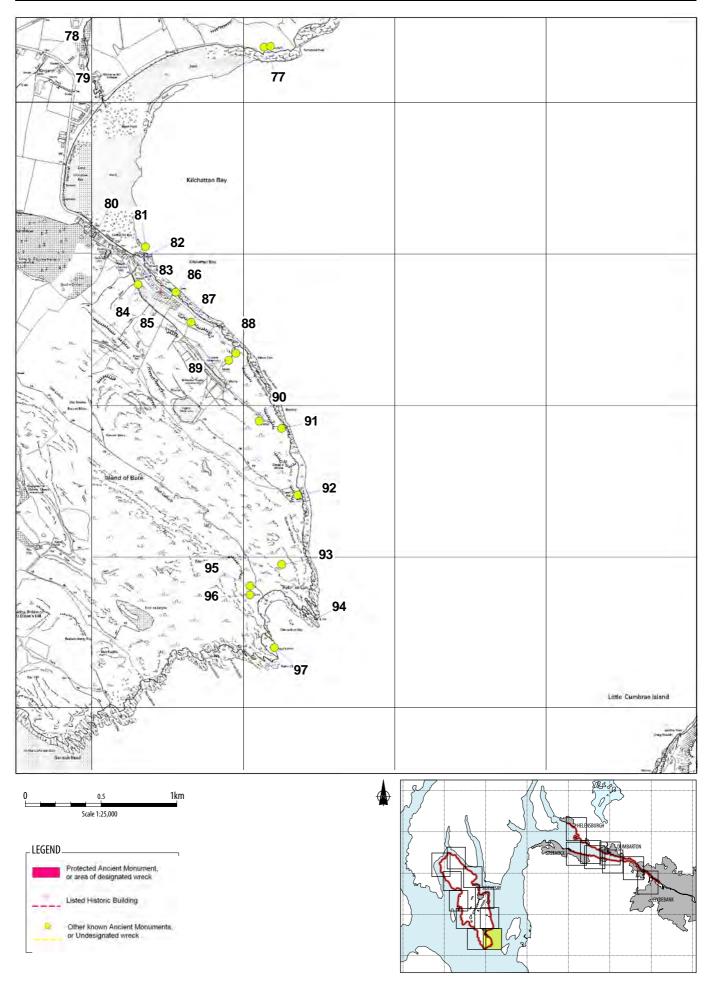
Listed C(s) Good

18<sup>th</sup>-20<sup>th</sup> AD

Nil

#### Sites on the Coast Edge & Foreshore

# Sites on the Hinterland 94. GLENCALLUM BAY, Listed Buildings (see Appendix 1) 78. KINGARTH, BRICK COTTAGE NS 096 563 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 79. KINGARTH, THE TILERIES NS 097 562 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 80. KILCHATTAN CHURCH NS 100 551 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 82. KILCHATTAN, OLD OUAY NS 103 549 Listed C(s) Poor 15<sup>th</sup>-17<sup>th</sup> AD Nil 83. KILCHATTAN BAY, ST BLANE'S HOTEL NS 103 548 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil 85. KILCHATTAN BAY, ASHGROVE AND HAZELBANK NS 104 547 Listed C(s) Uncertain



# BUTE MAP 6: GARROCH HEAD to STRAVANNAN BAY

**Hinterland Geology and Coastal Geomorphology**: Old Red Sandstone and lavas form the principal base deposits and are overlain by marine deposits towards Port Dornoch. The coastal edge is sinuous and highly indented. Boulders and exposed rock platforms are present throughout this unit. From Port Dornoch to Barr Point, the shoreline is mainly dominated by raised beach with exposed low rock abrasion platforms. At Dunagoil Bay a raised beach terrace slopes down to the beach and has been modified by drainage, and at the seaward end, by blown sand. Old Red Sandstone occupies an area to the south of the bay. This is tilted and forms a c.50m wide abrasion platform. Boulders and shingle dominate the intertidal area with sand present at Dunagoil Bay. From Barr Point to Lubas Point, the hinterland geology is dominated by Old Red Sandstone which is overlain by successive episodes of marine sediment deposition. Lubas Point is a volcanic crag with fine views of Lubas Bay, and a beach composed of dark grey angular boulders. At Stravannan Bay three episodes of former marine shoreline formation are represented and extend well inland.

**Erosion Class**: From Garroch Head to Port Dornoch, the coastline is exposed to south-westerly gales and is classified as stable and eroding. The abrasion platforms are being formed as a result of ongoing cliff recession, at an uncertain rate. From Port Dornoch to Barr Point, the coastline is classified as stable, although the abrasion platforms present throughout the area outside of Dunagoil Bay show that erosion is ongoing albeit at a rate that is not measurable. Stability is afforded by grassy terraces at the head of the bay. From Barr Point to Lubas Port, the coastline is classified as definitely eroding. Isolated areas of erosion were identified along the raised beach and till deposits. These sand and clay dominated deposits tend to be affected by mass movement and slumping, creating an admixture of clay soil from the till overburden. From Lubas Port to Stravannan Bay, the coastline is classified as accreting and eroding. Accretion is occurring at the head of Stravannan Bay, where wind-blown sand is building up. Areas of broken machair, with localised minor wind and grazing erosion, are present behind the frontal machair ridge at the north end of the bay near an old dyke. The rock abrasion platforms flanking the bay are eroding slowly.

Built Heritage & Archaeology: Few sites were noted, although towards Port Dornach a cluster of sites was observed. In a small valley leading to the shore at Barr Hill two drystone dykes, upstanding to c.0.75m high, were possibly used to prevent livestock from getting down to the shore, since they seem to block the only access to the water in this area. At Port Dubh a small boathouse, jetty and slipway are in poor condition, although of substantial construction. A cast iron boat winch lies opposite the slipway. Dunagoil Fort (NS05SE 4) is located at Port Dornach and is in good condition. A cluster of sites were noted around Port Dornach towards Dunagoil Bay. These were mainly prehistoric sites such as Dunagoil Fort and Little Dunagoil Fort. Several caves were noted in the craggy outcrops upon which these forts sat. Some of the caves have been excavated in the past to reveal middens of varying antiquity. Cultivation remains in the form of rig and furrow marks were also seen close by. The high concentration of sites suggests that the area was once busy and populous and probably of some importance. In the intertidal zone of this cell an eroding fish trap was seen in Lubas Bay. In the hinterland, Dunstrone Fort and a field system were noted.

#### 1. GARROCH HEAD to LITTLE DUNAGOIL 5. LUBAS PORT FORT

NS 0900 5260 2.5km Mainly rock platform Cliff (<10m) Drift deposits This section of coastline, as with the previous one, is subjected to the full fetch of south westerly gales. Abrasion platforms dominate the shoreline. The hinterland consists of boulder clay over outcropping bedrock.

### 2. DUNAGOIL BAY

NS 0860 5355 0.4km Mainly sand and shingle Low edge (<5m) Marine deposits Low level basin area with distinct level terraces on the hinterland area. A raised beach terrace slopes down to the beach. The beach consists of reddish sand, shingle and boulders. Sand is exposed down to the LWMS area.

### 3. NORTH of DUNAGOIL BAY

NS 08205400 0.40km Mainly rock platform Low edge (<5m) Drift deposits on outcropping rock This small section of coastline lies between Dunagoil Bay and Lubas Bay and consists of shelving rock abrasion platforms down to the LWMST. The hinterland rises steeply and contains superficial deposits of boulder clay.

#### 4. LUBAS BAY

NS 083 5430 0.5km Mainly sand and boulders Low edge (<5m) Drift deposits on outcropping rock A small bay with shingle banked at MHWMS. Raised beaches overlook the bay.

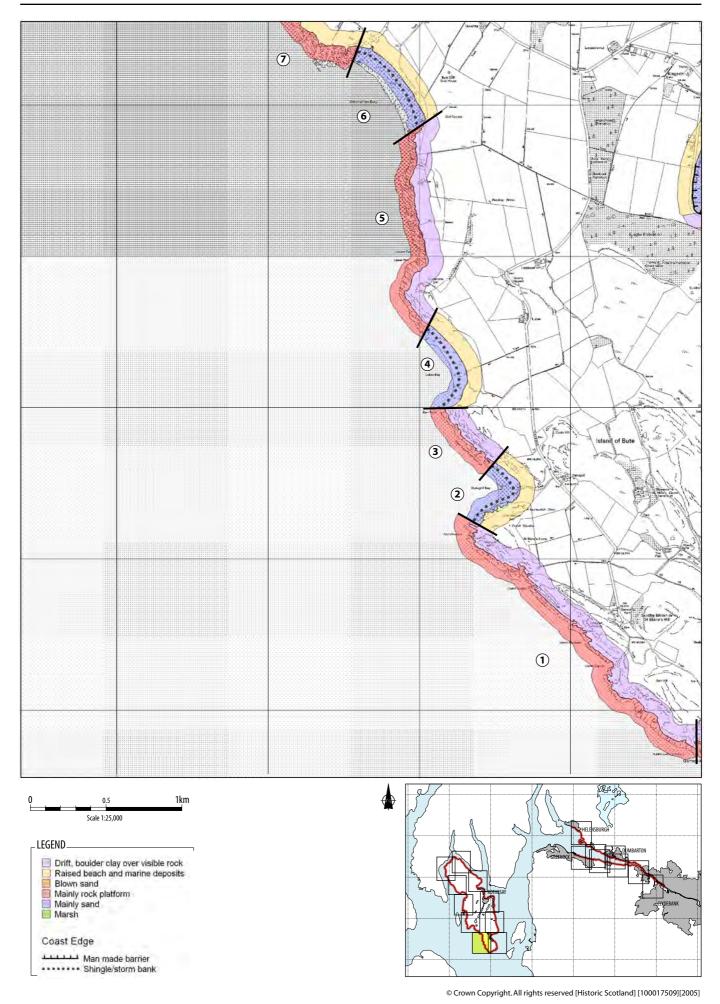
NS 0740 5640 0.7km Mainly rock platform Low Cliff (<5m) Marine deposits This section has a wide exposed abrasion platform coastline exposed down to the LWMST. The hinterland has raised beach deposits overlying solid geology.

# 6. STRAVANNAN BAY

NS 0780 5620 0.7km Sand and shingle Low Cliff (<5m) Marine deposits The hinterland is dominated by machair environment breaking into irregular dune-like topography near the south stream inlet. Sand and shingle dominate the beach. The margins of the bay are flanked by exposed rock platforms down to the LWMS.

### 7. NORTH of STRAVANNAN BAY

NS 0670 5695 0.7km Mainly rock platform Cliff (<10m Drift deposits This section of coastline, as with the previous one, is subjected to the full fetch of south westerly gales. Abrasion platforms dominate the shoreline. The hinterland consists of boulder clay over outcropping bedrock.



# 1 GARROCH HEAD to LITTLE DUNAGOIL FORT

NS 0900 5260 2.9km Definitely eroding This section of coast is very exposed and this has resulted in extensive abrasion platforms, deep skerries and an indented cliff.

#### 2. DUNAGOIL BAY

NS 0860 5355 0.6km Accreting or stable The bay is receiving shingle which is banked at the HWMS mark. The flanking cliffs tend to focus this material to the head of the bay during storm conditions.

# 3. DUNAGOIL BAY to BARR POINT

NS 0800 5450 0.8km Definitely eroding Exposed section of abrasion platform eroding slowly.

### 4. LUBAS BAY

NS 0830 5430 0.6km Both accreting and eroding Lubas Bay is being nourished by gravel. Some cattle erosion is leading to local erosion at the HWMS.

#### **5. LUBAS PORT**

NS 0790 5500 1.8km Definitely eroding This section of coastline has exposed low rock abrasion platforms and deep skerries that are effected by scouring.

## 6. STRAVANNAN BAY

NS 0780 5600 0.9km Accreting or stable Shingle and sand is accreting along the head of the bay.

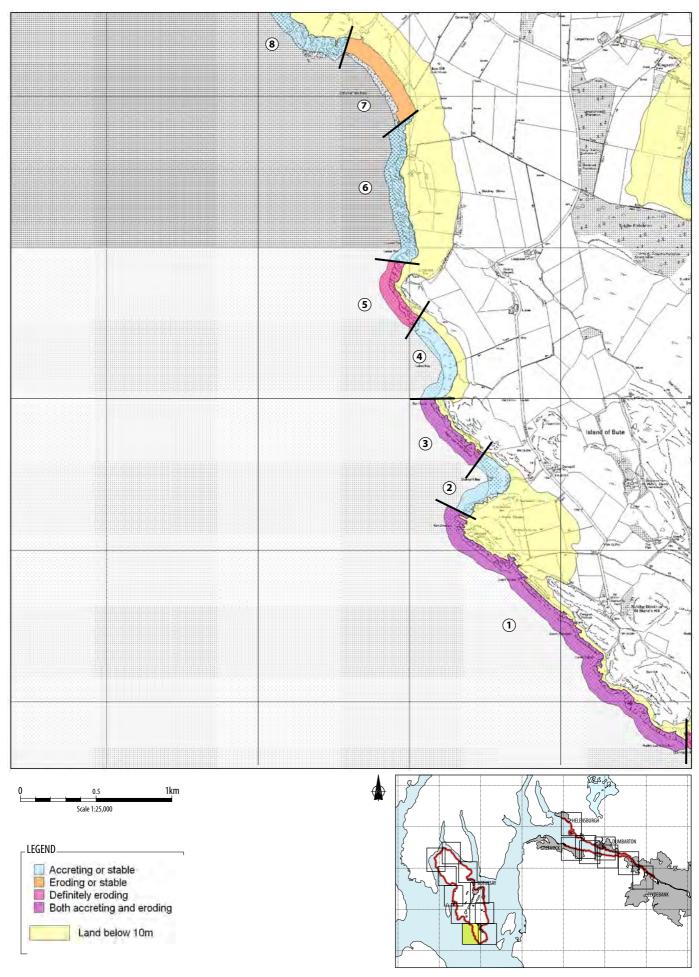
#### 7. NORTH of STRAVANNAN BAY

NS 0730 5640 0.6km Definitely eroding Rock abrasion platform eroded into skerries.

### 8. NORTH of STRAVANNAN BAY

NS 0730 5660 1.3 km Definitely eroding

Rock abrasion platform is exposed and being eroded by scouring. Raised beach fronted by fossil shoreline. Irregular cliff overlooking a promontory with exposed rock platforms. At Gullachan Bay has a shingle beach flanked by rock platform.



# BUTE MAP 6: BUILT HERITAGE AND ARCHAEOLOGY

#### Sites on the Coast Edge & Foreshore

100. PORT DUBH NS 08788 52812 Boathouse/jetty/slipway Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

#### 102. DUNAGOIL

NS05SE 15 NS 0869 5308 Field Clearance Cairns Uncertain 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

#### 103. PORT DORNACH NS05SE 31 NS 0835 5315 Landing place Good Unknown Nil

104. DUNAGOIL **NS05SE 29** NS 0851 5316 Cultivation remains (rig) Good 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

#### 105. DUNAGOIL NS05SE 30 NS 0875 5335 Farmstead Uncertain Unknown Unknown

106. LUBAS BAY NS 08308 54243 Fish trap (possible) Poor Unknown Survey

109. LUBAS PORT NS05SE 34 NS 0800 5484 Buildings/Field systems Good 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

#### Sites on the Hinterland

98. BARR HILL NS 0966 5194 Dyke Poor Unknown Nil

99. BARR HILL NS 0907 5259 Dyke Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil

#### 101. Group entry

DUNAGOIL NS 0854 53169 Mound Good Unknown Nil

#### LITTLE DUNAGOIL

NS05SE 3 NS 0871 5332 Cup-marked Stone; Longhouse Uncertain 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

# DUNAGOIL

NS05SE 4 NS 0846 5312 Fort Good 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

## DUNAGOIL

NS05SE 7 NS 0859 5322 Cist; chambered cairn (poss) Uncertain 1<sup>st</sup> Mil BC-4<sup>th</sup> AD Nil

# DUNAGOIL

NS05SE 11 NS 0841 5312 Cave/midden Good 4<sup>th</sup> Mil BC-1BC Survey/Monitor

# **BUTE MAP 6: BUILT HERITAGE AND ARCHAEOLOGY Continued**

#### Sites on the Coast Edge & Foreshore

110. KINGARTH NS 084 553 SAM 400 Standing Stones Uncertain 4thMil-1BC Nil

#### Sites on the Hinterland

LITTLE DUNAGOIL NS05SE 12 NS 0856 5309 Cave, midden Good Unkown Survey

# DUNAGOIL NS05SE 13

NS 0870 5310 Cists, barrows Uncertain 4<sup>th</sup> Mil BC-1BC Nil

LITTLE DUNAGOIL **NS05SE 14** NS 0865 5330 Fort, enclosure, dyke, caves and longhouses Fair 1<sup>st</sup> Mill BC –1<sup>st</sup> Mill AD Nil

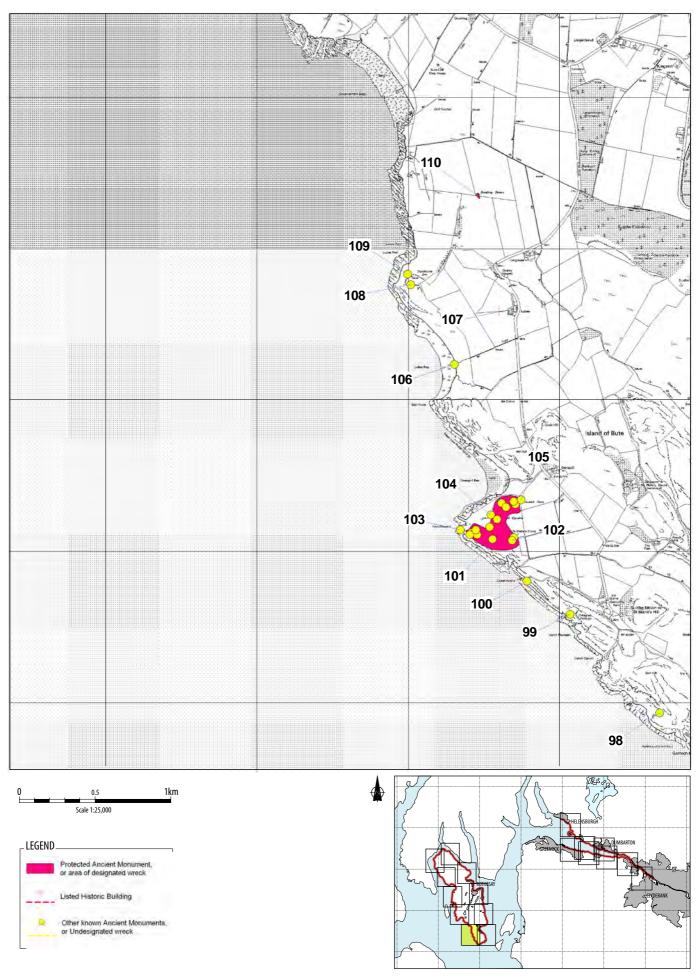
# DUNAGOIL NS05SE 25

NS 0845 5315 Rock shelter Uncertain Unknown Nil

107. LUBAS FARM AND STEADING NS05SE 38

NS 086 545 Listed C(s) Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil

108. DUNSTRONE NS05SE 1 NS 0802 5477 Fort Fair Unknown Nil



# BUTE MAP 7: GALLACHAN BAY to ST NINIAN'S POINT

**Hinterland Geology and Coastal Geomorphology**: Old Red Sandstone is the main geology. A raised shoreline is fronted by a well-pronounced fossil shoreline. Tilted sandstone strata is present to the north of Stravannan Bay. Gallachan Bay has a shingle beach flanked by rock platform. A raised beach backed by a cliff with sea caves is present. Scalpsie Bay marks the zone where the Loch Fad trough reaches the west coast. Upper Old Red Sandstone is present confined to an area at the back of Scalpsie bay within two fault lines, the northern one being a continuation of the Highland Boundary Fault. To the north of this feature, Dalradian schists dominate the basal lithology. From Scalpsie Bay to Carrick Point, Dalradian schist is the dominant geology. The hinterland includes a former marine terrace backed by fossil shoreline. Tertiary activity is present at the south end of St Ninian's Bay. St Ninian's Point is a promontory flanked by boulders either side of a causeway leading to the point. Dalradian schists dominate this coastal unit.

**Erosion Class**: This section of coastline is classified as stable and accreting, although some local erosion is present along the exposed margins of the HWMST and hinterland area. Erosion is mainly confined to areas prone to scouring by wave activity. North of Stravannan Bay, an abrasion platform is prone to scouring during storm conditions leading to local erosion, at a slow rate. At Gallachan Bay the beach is composed of shingle derived from local conglomeritic beds. The beach and platform areas are affected by local pockets of accretion, since the bay faces open fetches from the SW quadrant. Sand is accreting near the HWM with smaller banks present offshore. Scalpsie Bay is both accreting and eroding. At either end of the bay there is shingle and gravel. A system of low dunes have formed at its head. North of Scalpsie Bay, abrasion platforms forming rock outcrops dominate and are classified as eroding or stable. North of Carrick Point, the shoreline is also resilient to scouring being formed of very hard rock. Isolated areas of erosion are present at the head of St Ninian's bay. The low cliff of sand and marine shell is susceptible to erosion due to its unconsolidated nature. Further inland some cattle erosion is also present. The peninsula at the head of the bay has been eroded and now the sea can pass through from both sides of the peninsula at the HWMST.

Built Heritage & Archaeology: The sites recorded at Scalpsie Bay include a series of posts set in lines which were part of the WW2 invasion defences (Ann Spiers pers comm). Dun Scalpsie was also seen, although it was a little more than 100m from the coast edge. Its central defensive walls have been robbed in parts to construct possible shooting butts. On the side facing the sea a great deal of stonework has slipped downslope. A limekiln at Ardscalpsie Point is in good condition. A fish trap at Mecknoch is made of stone and in a poor state. Three stone slabs, cover stones of cists, are present in a field at Little Kilmory. These cover stones were in a fair condition and have not been affected by cultivation as the field is used for livestock grazing. They are set back from the coastal edge on a small hill-crest, and are unlikely to be affected by coastal erosion at the present. Several possible stone fish traps in poor condition were noted at Sallan Port. St Ninian's Chapel and its associated remains were noted as being in poor condition. A small landing jetty was seen at St Ninian's Point, although this too was in poor condition. Two small eroded standing stones are present at the head of St Ninian's Bay. The heritage remains in this cell were in poor condition, damaged both by livestock and marine erosion.

#### **1 GALLACHAN BAY**

NS 0700 5600 0.2km Mainly rock platform Low Cliff (<5m) *Marine deposits* Gallachan Bay is a small embayment flanked by tilted sandstone strata that have been shaped into a low serrated abrasion platform. The beach is comprised of shingle. Sand is present near the HWMST area. Raised beach sediment dominates the hinterland.

### 2 NORTH of GALLACHAN BAY

NS 0630 5750 1.4km Mainly rock platform Low Cliff (<5m) *Marine deposits* This section of coastline has outcropping rock platform on the foreshore. Further north the coastline becomes more indented with large boulders present. The hinterland is dominated by raised marine deposits.

#### **3. SCALPSIE BAY**

NS 0570 5830 0.7km Mainly sand Low edge (<10m) *Marine deposits* 

The hinterland is predominantly marine deposits underlying dune and machair formation. Further inland the undulating land is marked by a series of low ridges marking the position of former sea level heights. This fossil shore is overlooked by a steep cliff at the north end. The bay has a wide sandy beach flanked by shingle and rocky outcrops at each end. Sand is present down to the LWMST.

4. SCALPSIE BAY to PORT na h-AILLE NS 0450 5760
2km
Mainly rock platform
Low edge (<10m)</li> *Raised beach*Dalradian schist is the dominant geology. Four
Tertiary dykes outcrop near Ardscalpie Point.
The hinterland geomorphology is represented by a raised beach backed by a series of degraded sea
cliffs. The shoreline has an indented cliff overlooking boulder and shingle beaches.

# 5. PORT na h-AILLE to CARRICK POINT

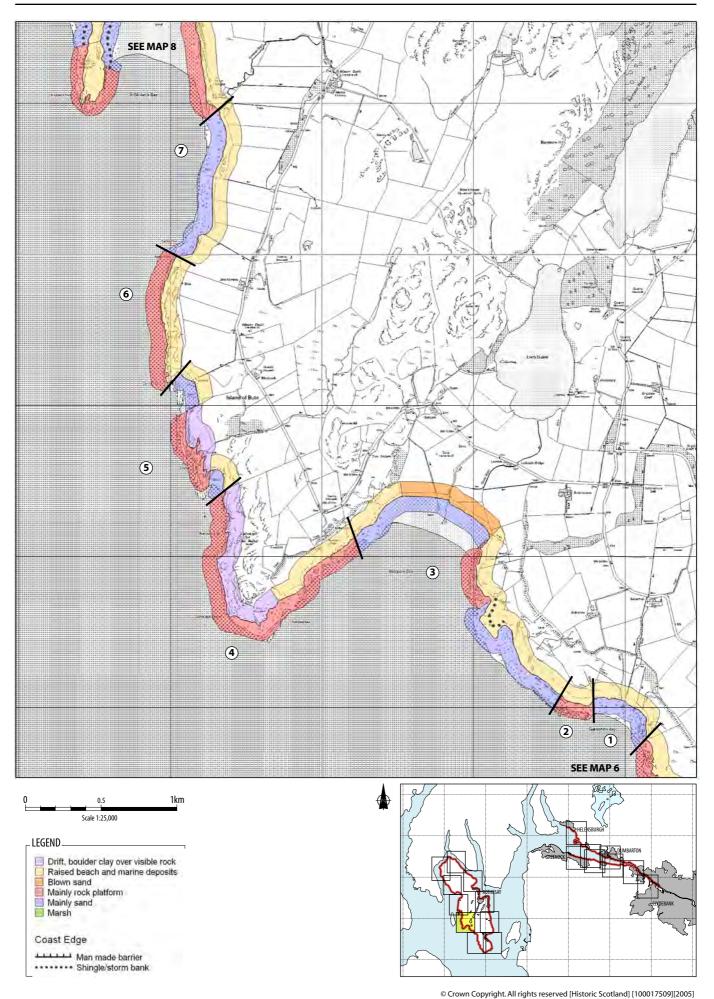
NS 0420 5880 0.8km Sand Low edge (<10m) *Mainly rock platform* The hinterland is a former marine terrace backed by fossil shoreline. The cliff edge is very irregular overlooking exposed rock platforms. One small sandy embayment is present south of Carrick Point.

#### 6. CARRICK POINT to SALIN PORT

NS 0390 5970 0.8km Mainly rock platform Low edge (<5m) *Raised beach* The hinterland is a former marine platform backed by fossil cliff overlooking low abrasion platforms.

# 7. SALIN PORT to ST NINIANS BAY

NS 0430 6060 0.8km Raised marine deposits Low edge (<5m) *Marine deposits* The hinterland dominated by raised beach deposits backed by fossil cliff. The shoreline is irregular with a boulder dominated beach as far as St Ninian's Bay.



FICL/876/0/27/7/04

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# 1. GALLACHAN BAY

NS 0700 5700 0.8km Accreting or stable Shingle and boulders are accreting at the head of the bay. No other evidence of erosion shows that conditions are for the moment stable.

### 2. NORTH of GALLACHAN BAY

NS 0630 5750 1.8km Definitely eroding This section of coastline has an irregular low cliff edge that is being eroded in parts during storm activity. Livestock erosion is also occurring leading to localised patches of erosion.

#### 3. SCALPSIE BAY

NS 0570 5830 0.9km Both accreting and eroding Scalpsie Bay is highly exposed during low water conditions, which is leading to accumulations of wind-blown sand and the formation of a low dune system. Visitors and cattle are eroding the low dune. Areas exposed are liable to increased loss of sediment as a result of deflation.

# 4.. SCALPSIE BAY to ARDSCALPIE POINT NS 0500 5800

1.6km

#### Eroding or stable

This section of coastline is exposed. This has led to the formation of low rock platforms and skerries. Boulder hammer during storm conditions is leading to erosion of the shoreline.

# 5. ARDSCALPIE POINT to CARRICK POINT

NS 0420 5870 2.3km Definitely eroding This section of coast is exposed to the full fetch of south westerly gales and the highly indented nature of the cliff .

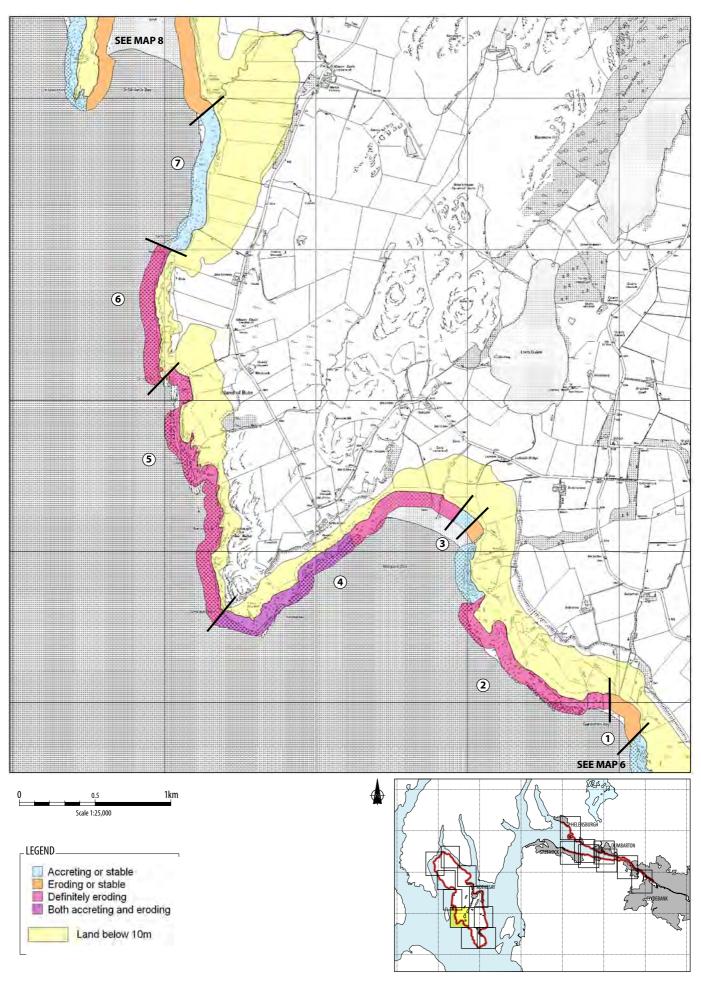
#### 6. CARRICK POINT to SALIN PORT

NS 0400 5950 1.2km Eroding or stable This section of coastline is afforded some shelter from Inchmarnock Island. Erosion is occurring although albeit at a slow rate.

# 7. SALIN PORT to ST NINIANS POINT NS 0400 6120

1.2km Eroding or stable

This stretch of coastline is effected by local erosion on a small scale and as a result of local cattle activity.



# BUTE MAP 7: BUILT HERITAGE AND ARCHAEOLOGY

#### Sites on the Coast Edge & Foreshore

111. ARDNAHOE NS 062 573 Fish Trap Uncertain Unknown Uncertain

#### 112. SCALPSIE BAY

NS 06015 58244 NS 05907 58286 NS 05823 58328 NS 05723 58363 NS 05608 58370 Anti-glider landing posts Fair WW2 Monitor

120. ARDSCALPSIE NS05NW 14 NS 049 579 Cup-markings Uncertain Unknown Nil

121. ARDSCALPSIE POINT NS 04562 57623 Lime kiln (possible) Fair 18<sup>th</sup>-20<sup>th</sup> AD Monitor

122. CLACHAN ARD / CLACH CARNIE **NS05NW3** NS 0445 5812 Dun Poor 4<sup>th</sup> Mil BC-1BC Nil

123. PORT LODDAN NS 04186 58726 Bridge footings (possible) Fair Unknown Survey 124. MECKNOCH NS 04190 59036 Fish trap (possible) Poor Unknown Nil

125. MECKNOCH NS 042 591 Fish Trap Uncertain Unknown Monitor

126. LITTLE KILMORY NS05NW 15 NS 040 594 Cup and ring-markings Uncertain Unknown Nil

127. LITTLE KILMORY NS05NW 4 NS 0408 598 Cists Fair 4<sup>th</sup> Mil BC-1BC

Monitor

# Sites on the Hinterland

113. SCALPSIE MILL (BUTT) **NS05NE 47** NS 058 584 Settlement Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Nil

114. THOM'S WATER CUTS / ARDSCALPSIE TO SW OF SCALPSIE SAM 7114 NS 050582-NS054588 Aqueduct (drain) Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

115. SCALPSIE BAY NS05NE 33 NS 0530 5835 Cairn (possible) Uncertain Unknown

116. AIRD BUTT **NS05NE** NS 052 582 Settlement Uncertain Unknown Uncertain

Nil

117. SCALPSIE BAY, HAYSTACK ROCK **NS05NE 70** NS0504 5808 Unclassified Uncertain Unknown Uncertain

118. ARDSCALPSIE SHORE / HAYSTACK **NS05NW** NS0498 5801 Platform; Garden Uncertain Unknown Uncertain

# BUTE MAP 7: BUILT HERITAGE AND ARCHAEOLOGY Continued

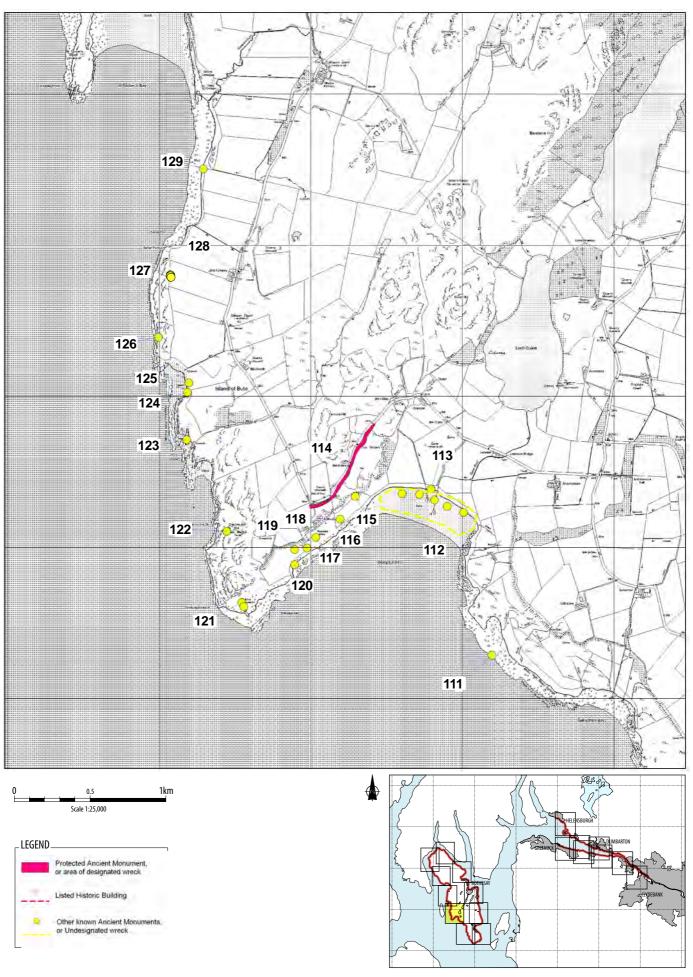
## Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

119. ARDSCALPSIE / ARDSCALPSIE SHORE **NS05NW 25** NS049 580 Building Platform Uncertain Unknown Uncertain

128. LITTLE KILMORY, FORMER GRANARY/WATER MILL **NS05NW 28** NS 04514 59824 Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Uncertain

129. SALLAN PORT NS 04297 60515 Fish trap Poor Unknown Monitor



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# BUTE MAP 8: ST NINIAN'S POINT to ETTRICK BAY

**Hinterland Geology and Coastal Geomorphology**: The stretch of coastline between Rubha An Amair and Island McNeil sees Dunoon Phylites emerge towards the north end. Raised beach deposits are backed by a fossil cliff. The highly irregular cliff at the south of this unit gives way to more regular cliff overlooking exposed rock platform down to the MHWM. Dunoon Phylites outcrop either side of Ettrick Bay. These are overlain by marine deposits that traverse across to the east coast of Bute. The bay is wide with sand flanked by shingle. Rocky platforms outcrop towards Kildavannan Point. Ettrick Bay is a wide flat bay with a c.2% gradient with a low sand bar system on its south side. Low rock headlands mark the boundaries of the bay; these are essentially exhumed rock platforms of the backing fossil cliffs. Neither dunes or machair are present behind the bay.

**Erosion Class**: The intertidal area is considered to be eroding or stable. The backshore area is dominated by eroding saltmarsh which has also been damaged by cattle. The soft spongy peaty soil below the marsh is easily lost where the low cliff meets the shoreline. This section of coastline is exposed to wave action and abrasive scouring. Ettrick Bay is classified as stable. The bay is being nourished by sand from off-shore. There are no discernible areas of erosion visible along the HWMST. Where small streams enter the bay their mouths appear to be stable. Shoreline stabilisation seems to have already been effective when a rubble road was laid along the shoreline bank, as the road is not degraded.

Built Heritage & Archaeology: This cell contains few marine structures on the foreshore, because it is less sheltered than the bay. A possible well was noted at the southern end of St Ninian's Point, which consisted of drystone walls with slabs that partially covered the well and steps leading down into it. A possible stone fish trap was noted at Little Ettrick. A number of sites were noted in the hinterland and were consequently not in danger of normal marine erosion processes. A number of field boundaries and rig-and-furrow marks were seen running back from the shore area to the cliffs, where the remains of Castle Cree were situated. A possible large cairn was noted near Nether Ardroscadale, which was overgrown and displayed evidence of cattle erosion. At Ettrick Bay, two possible fish traps, one wooden and one made of stone, were recorded. In the bay itself a recent shipwreck was recorded. A possible demolished World War II observation post was noted at Kildavannan Point, in a poor condition. Also seen at Kildavannan Point was a small rock cut shelter, with cement bonded stone walls, possibly representing a small fishing boat shelter. The remains of two bridges and an upstanding bridge were noted at Drumachloy. The earliest bridge was stone built, possibly consisting of two arches, although it was quite ruinous. The second bridge appeared to be made of rough conglomerate concrete with some pieces of cast iron attached, suggesting that it was designed to take the weight of heavy vehicles, possibly associated with World War II defensive sites in the area.

# **BUTE MAP 8: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY**

#### 1. ST NINIAN'S BAY

NS 0400 6150 0.8km Boulders Low edge (<5m) *Raised beach* St Ninian's Bay lies at the head of a south facing structural trough and is sheltered by Inchmarnock Island. The hinterland is mainly marine derived deposits forming low lying grazing land. A low cliff drops gently to the boulder strewn HWMST. The main sand beach is wide and flat. Rock outcrops are common. Shingle is widely distributed. A low raised beach forms a peninsula at St Ninian's Point.

# 2. ST NINIAN'S POINT to RHUBA an AMAIR

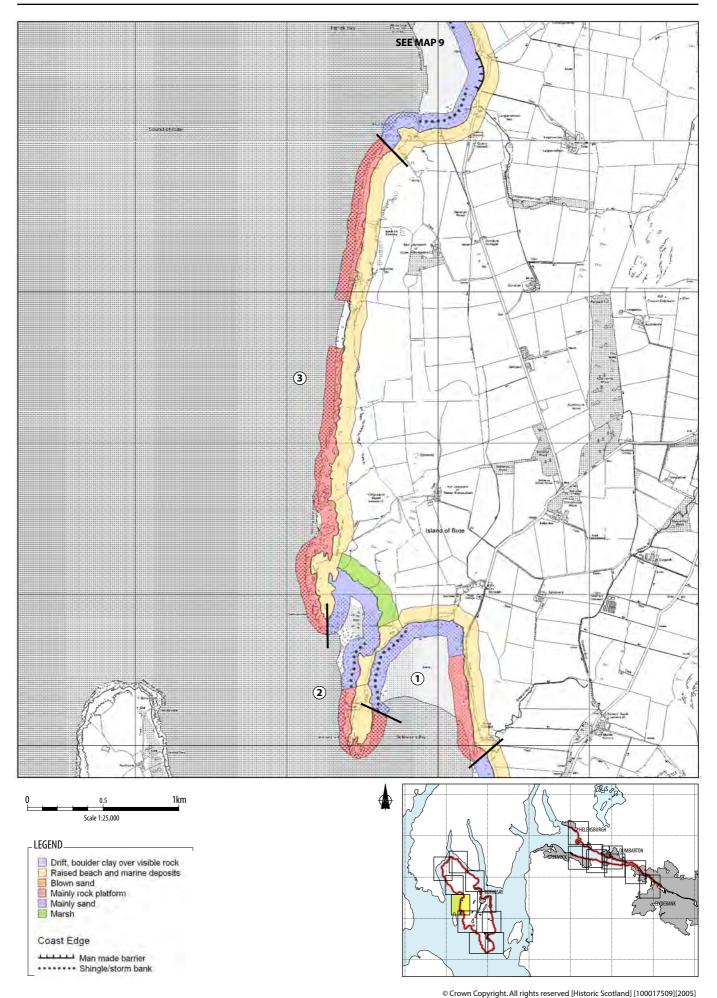
NS 0340 6140 1.5km Boulders and degrading saltmarsh Low edge (<5m) *Marine deposits* The hinterland dominated by marine deposits. The shoreline irregular with sand and shingle embayment and exposed rock platform at Rhub an Amair. A large expanse of saltmarsh is present to the north of St Ninian's Point. Local areas of shingle and large erratic boulders dominate the intertidal area.

#### 3. RUBHA AN AMAIR to ISLAND MCNEIL

NS 0330 6300 3.5km Mainly rock platform Low edge (<10m) *Marine deposits* Raised beach deposits backed by fossil cliff. Highly irregular cliff at the start of this unit give way to more regular cliff overlooking exposed rock platform.

#### St Ninian's Point to Ettrick Bay

#### BUTE MAP 8 - HINTERLAND GEOLOGY AND FORESHORE GEOMORPHOLOGY



## **BUTE MAP 8: EROSION**

#### 1. ST NINIAN'S BAY

NS 0310 6150 2kn Both accreting and eroding St Ninian's Bay shows evidence of accretion and erosion. The foreshore is very rocky and scoured towards the MHWMST. The neck of the western peninsula is breached by spring tides at NS 0360 6160.

#### 2. ST NINIAN'S BAY HEAD

NS 0405 6180 40m Definitely eroding A 40m stretch of the low cliff at the head of the bay is eroding. The cliff consists of c. 75% marine shell and is very friable and is breached by spring tides at NS 0360 6160.

# **3. ST NINIAN'S POINT** to **RUBHA AN AMAIR**

NS 0430 5850 2km Definitely eroding This area of coastline is susceptible to fairly high wave impact energy and as such it is considered to be eroding yet stable.

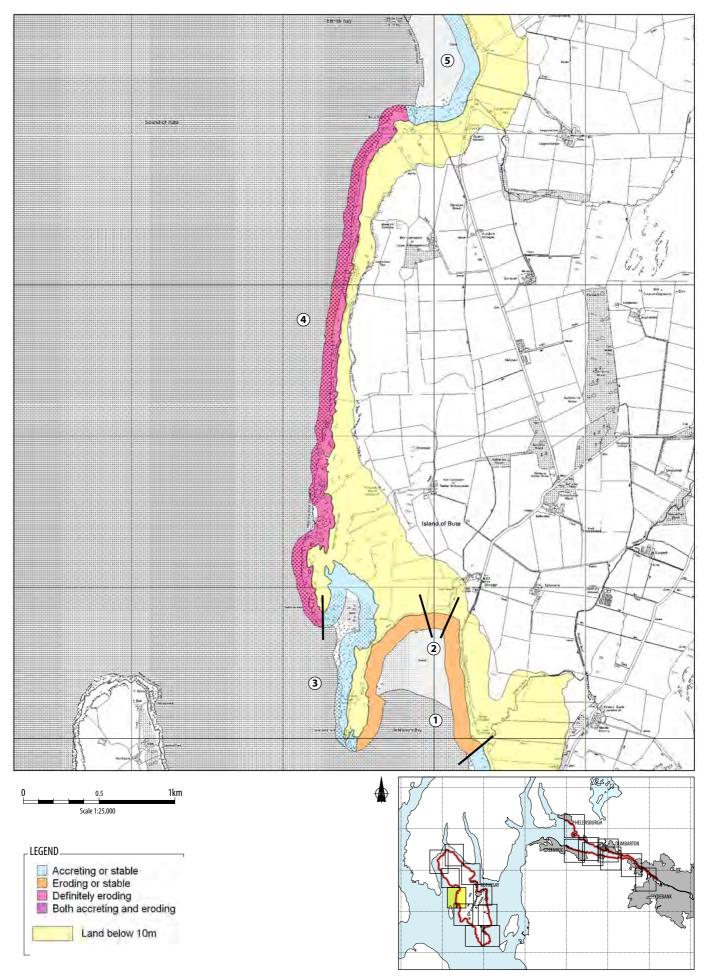
#### 4. RUBHA AN AMAIR to ISLAND MCNEIL

NS 0330 6300 3.8km Eroding or stable This area of coastline is susceptible to fairly high wave impact energy and as such it is considered to be eroding yet stable. 2.9km Accreting or stable

#### 5. ETTRICK BAY

NS 0500 6600 3km Stable

Ettrick Bay was found to be stable. Shingle and sand is accreting at the HWMS. The bay head is stable being covered with vegetation. The effect of freshwater burns outfalling into the bay is negligible. A section of concrete sea wall has lent stability to the southern end of the bay.



# **BUTE MAP 8: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

130. SALLAN PORT NS 04261 60996 NS 04279 60960 NS 04315 60945 Fish traps Poor Unknown Monitor 130. STRAAD (part of group) NS 042 609 Fish Trap Uncertain Unknown Uncertain 133. ST NINIAN'S BAY NS06SW 29 NS 039 618 Landing place Uncertain Unkown Nil 134. STRAAD NS 03703 61771 Standing stones Poor 4th Mil BC-1st BC Nil 135. ST NINIAN'S BAY NS 03666 61717 Cultivation remains (rig) Poor 18<sup>th</sup>-20<sup>th</sup> AD Survey 136. ST NINIAN'S POINT NS 03557 61361 Fish trap (possible) Poor Unknown Nil 137. ST NINIAN'S POINT NS 03557 61271 Jettv Poor Unknown

138. ST NINIAN'S POINT / THE WHITE HOUSE / CURING HOUSE **NS06SW 22** NS 03547 61222 Building; Cottage; Platform; Enclosure Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil 139. ST NINIAN'S POINT NS 03458 61156 Well (possible) Fair  $5^{th} - 10^{th} AD$ Monitor 141. ST NINIAN'S POINT NS 0350 6140 Noosts (possible) Poor Unknown Survey 142. ST NINIAN'S BAY **NS06SW 28** NS 035 615 Landing place Uncertain Unknown Nil 143. NETHER ARDROSCADALE **NS 06 SW19** NS 03344 62845 Cairn (poss.) Poor Unknown Monitor 148. LITTLE ETTRICK NS 036 650 Fish trap (possible) Poor Unknown Monitor

#### Sites on the Hinterland

131. DAISY COTTAGE
SOUTH / DAISY COTTAGE
EAST / BUTT LEANY
LOWER
NS06SW
NS 0436 6100
Settlement
Uncertain
18<sup>th</sup>-20<sup>th</sup> AD
Uncertain
132. GREENAN BURN
NS06SW 24

NS06SW 24 NS 043 611 Deserted settlement Uncertain Unknown Uncertain

140. ST NINIAN'S CHAPEL **NS06SW 4 SAM 417** NS 03508 61273 Chapel/Burial Ground Poor 5<sup>th</sup> AD –10th AD Monitor

144. NETHER ARDROSCADALE NS 03344 62845 Field boundary Poor Unknown Nil

145. NETHER ARDROSCADALE NS 03368 63062 Field boundary Poor Unknown Nil

146. CASTLE CREE NS06SW 8 NS 0356 6413 Structures; Cultivation Remains /{Dun} Poor Unknown Survey

Monitor

# **BUTE MAP 8: BUILT HERITAGE AND ARCHAEOLOGY Continued**

## Sites on the Coast Edge & Foreshore

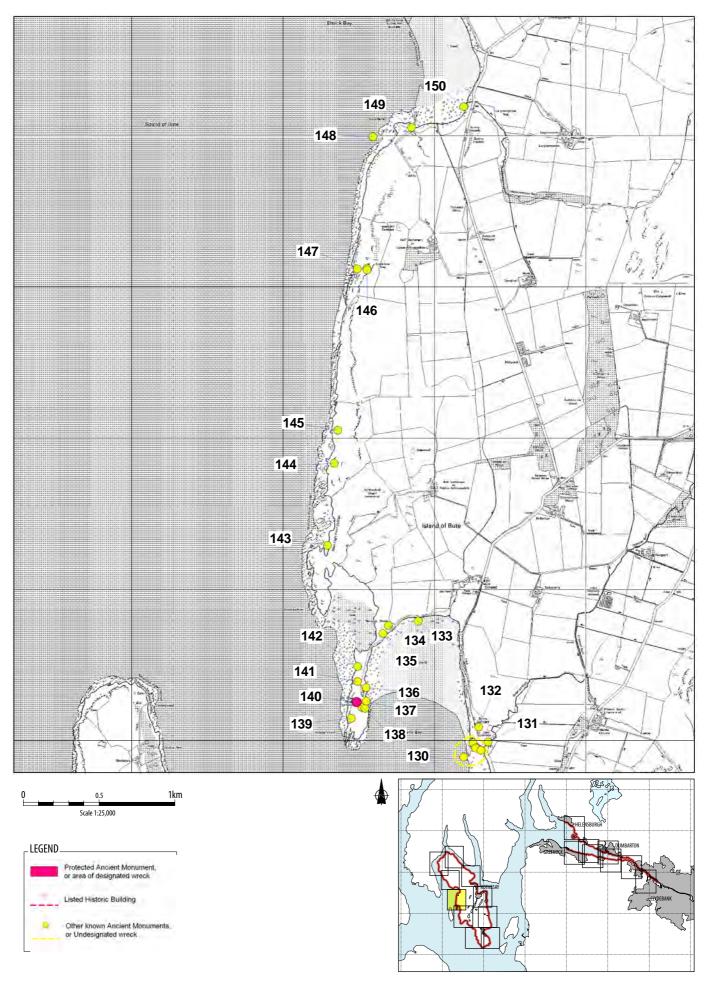
149. LITTLE ETTRICK NS 03855 65063 Fish trap (possible) Poor Unknown Nil

150. LITTLE ETTRICK NS 042 652 Fish trap (possible) Poor Unknown Nil

#### Sites on the Hinterland

147. UPPER ARDROSCADALE NS 03498 64126 Cultivation remains (rig) Poor Unknown Nil

#### BUTE MAP 8 - BUILT HERITAGE AND ARCHAEOLOGY



# BUTE MAP 9: KILDAVANNAN POINT to LENIHULINE

**Hinterland Geology and Coastal Geomorphology**: Dalradian schists and grits are overlain by superficial deposits of marine sand and gravel. The hinterland is steeper and undulating. The coastal edge is fairly regular and overlooks rock platform and boulders.

**Erosion Class**: The section of coastline is sheltered by Cowal, which protects the shoreline from the impact of high-energy waves. Classified as stable, no discernible active erosion is occurring.

**Built Heritage & Archaeology**: This cell contained only one site on the foreshore, a landing place at Port Glas, in fair condition. Several sites were noted in the hinterlands, mostly associated with settlement and farming. A chambered cairn, called Michael's Grave, was recorded near Kilmichael Cottage, and observed to be in a fair condition. This cairn was more than 50 metres from the coast edge and not in any danger of coastal erosion. Some gabian baskets were identified as part of the coastal defences in this cell. These baskets were seen to be protecting the road along the coast and some erosion had evidently been taking place.

# **BUTE MAP 9: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY**

#### **1. ETTRICK BAY**

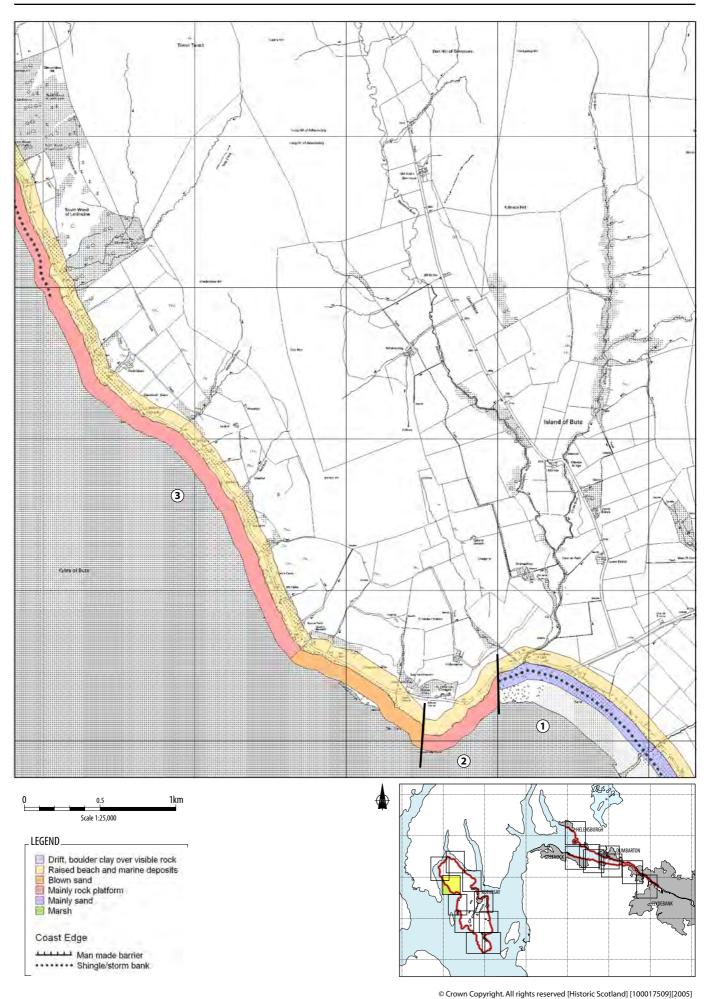
NS 0400 6600 2km Sand and shingle Low edge (<5m) *Marine deposits* Dunoon Phylites outcrop either side of the bay. The hinterland is predominantly dune cover over marine deposits. Wide sandy bay flanked with shingle. Rocky platforms outcrop towards Kildavannan Point.

# 2. ETTRICK BAY to KILDAVANN POINT

NS 0280 6620 2km Mainly rock platform Low edge (<5m) *Marine deposits* Superficial marine deposits overlying schists and grits of Dalradian age. The hinterland is steeper along a slightly sinuous coastal edge. Mainly rock platform with boulders along this section of coastline.

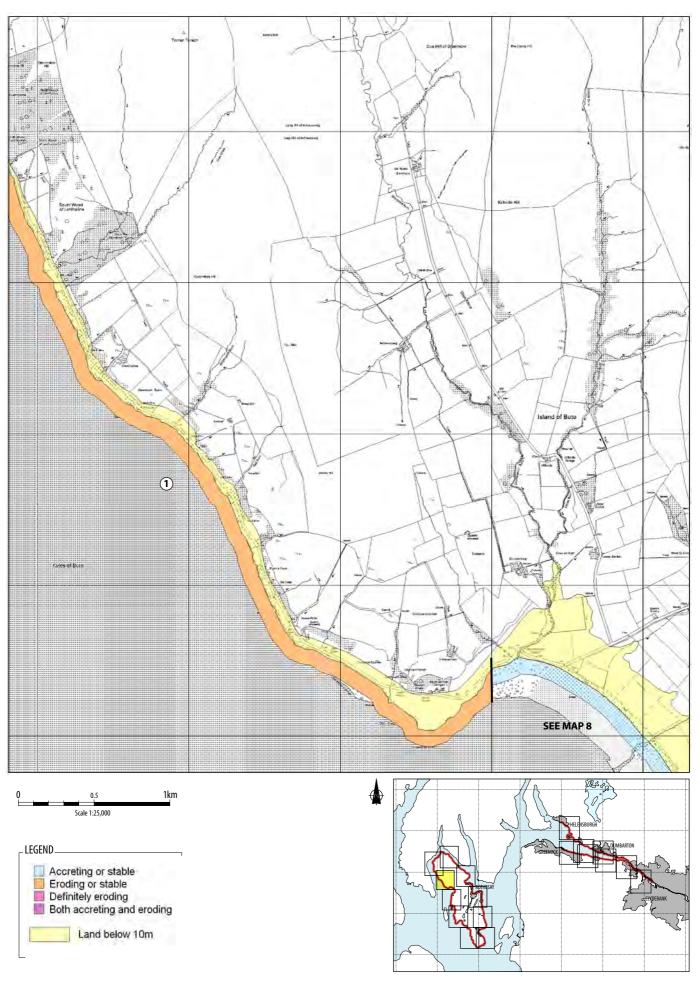
# 3. KILDAVANN POINT to MICHAEL'S GRAVE

NS 0100 6800 7.5km Mainly rock platform Low cliff (<5m) *Marine deposits* Outcropping rock and marine deposits overlying schist and gritstone. Sinuous coastal edge with small embayments with shingle abundant.



# 1. KILDAVANNAN POINT to MICHAEL'S

**GRAVE** NS 0100 6800 5.5km Eroding or Stable This long stretch of coastline is considered to be eroding or stable. No specific active erosion was identified during the survey. This area is sheltered by the Cowal peninsula and this lessens the impact of direct wave impact.



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# **BUTE MAP 9: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

151. ETTRICK BAY NS 03630 66237 Shipwreck Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil

152. DRUMACHLOY NS 03201 66575 Bridges, remains of Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil

153. KILDAVANNAN POINT NS 02800 66196 Shelter (fishing?) Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil

154. KILDAVANNAN POINT NS 02537 66079 Observation Post (WW2) (poss.) Poor WW2 Monitor

156. PORT GLAS NS06NW 81 NS 01581 66837 Landing place Fair Unknown Nil

157. LENIHALL SHORE BUTT / LENIHALL **NS06NW 60.02** NS 010 679 Structure; Cultivation Remains {Building} Uncertain 18<sup>th</sup>-20<sup>th</sup> AD Uncertain

158. LENIHALL 1-3, BUTE NS06NW 50 NS 0105 6795 Cup-marked Stones Uncertain Unknown Uncertain

#### Sites on the Hinterland

155. SCARREL NS06NW 53 NS 022 644 Cup-marked stone Uncertain Unknown Nil

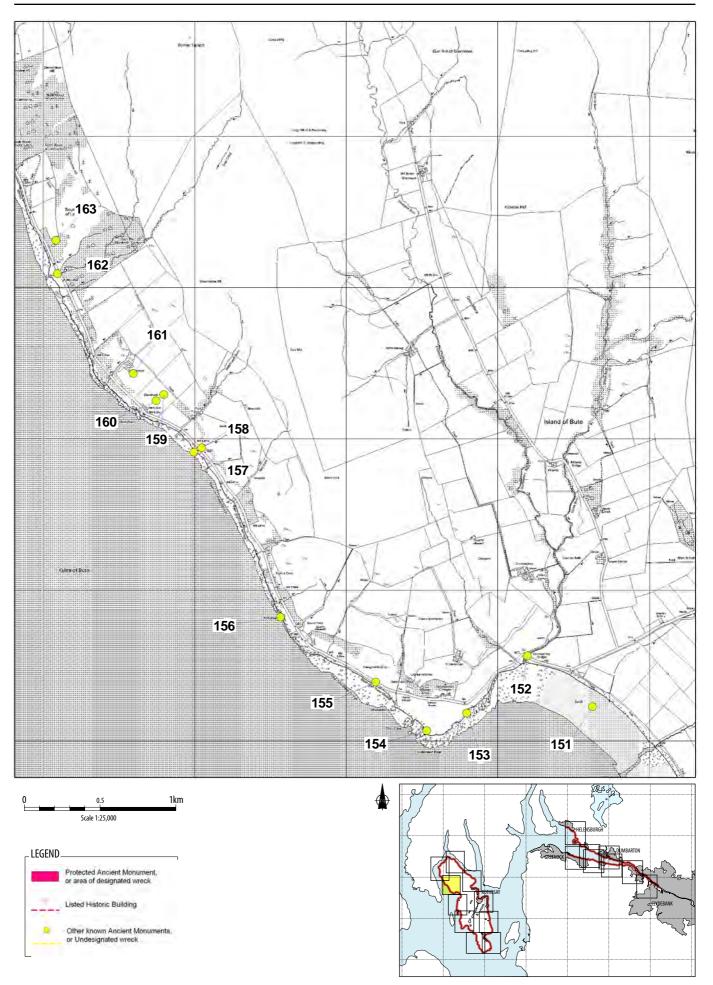
159. LEANLOISGLE NS06NW 68 NS 008 683 Settlement Uncertain Unknown Nil

160. GLECKNABAE NS06NW 8 NS 0075 6826 Chambered Cairn; Shell Midden; Cist 4<sup>th</sup> Mil BC-1BC Unknown Nil

161. CLACHIERAN, BUTE NS06NW 12 NS 0060 6844 Burial-ground Uncertain Unknown Nil

162. SOUTH WOOD OF LENIHULINE **NS06NW 82** NS 001 691 Platforms Uncertain Unknown Nil

163. SOUTH LENIHULINE NS06NW 59 NS 0009 6932 Buildings; Corn Kiln; Enclosures; Road Uncertain Unknown Nil



# BUTE MAP 10: MICHAEL'S GRAVE to BUTTOCK POINT

**Hinterland Geology and Coastal Geomorphology**: Dalradian schist and grits continue northwards to the most northerly point of Bute. Raised beach deposits are represented at St Michaels Grave and Rhuba Dubha point. Some intrusive activity is also present at the latter location. The coastal edge is sinuous with small embayments present and overlooks shingle and boulders partially exposed along the narrow shoreline. Raised beach deposits are present on Buttock Point, and Tertiary intrusive material is present. The hinterland rises steeply.

**Erosion Class**: This area of coastline is considered to be stable with little or no discernible sections that are eroding. Its sheltered position, behind the mainland of Cowal, is protecting this area of coast from the impact of high-energy waves.

**Built Heritage & Archaeology**: The heritage remains included two wooden fish traps and a possible stone fish trap on the foreshore. A ferry port or landing place, in fair condition, is present at Kilmichael.

#### 1. MICHAEL'S GRAVE to OLD FERRY CRAIG

NS 9920 7100 2.5km Mainly rock platform Low cliff (<5m) *Marine deposits* Outcropping rock and marine deposits overlying schist and gritstone. Sinuous coastal edge with small embayments with shingle abundant.

#### 2. OLD FERRY CRAIG

NS 9920 7170 0.8km Mainly rock platform Low cliff (<5m) *Marine deposits* Outcroping rock and marine deposits overlying schist and gritstone. Sinuous coastal edge with small embayments with shingle abundant.

#### 3. RHBHA DUBH

NS 9870 7220 0.25km Mainly rock platform Low cliff (<10m) *Marine deposits* A small promontory highly indented with rock platforms down to HWM. The hinterland rises steeply and consists of raised beach deposits over outcropping bedrock.

#### 4 BLACK FARLAND

NS 9900 7260 1.2km Boulders and rock platform Low cliff (<10m) *Marine deposits* This section of coastline has a boulder strewn coastline with a hinterland dominated by marine deposits.

#### **5 CORVAL HILL**

NS 9970 7340 0.4kmkm Boulders and platforms Low cliff (<10m) *Drift deposits* This section of coastline has a short section of superficial drift overlying outcropping rock dominating the hinterland. The beach is the same as the previous coastal unit.

#### 6. DRUIM NAM MARAICH

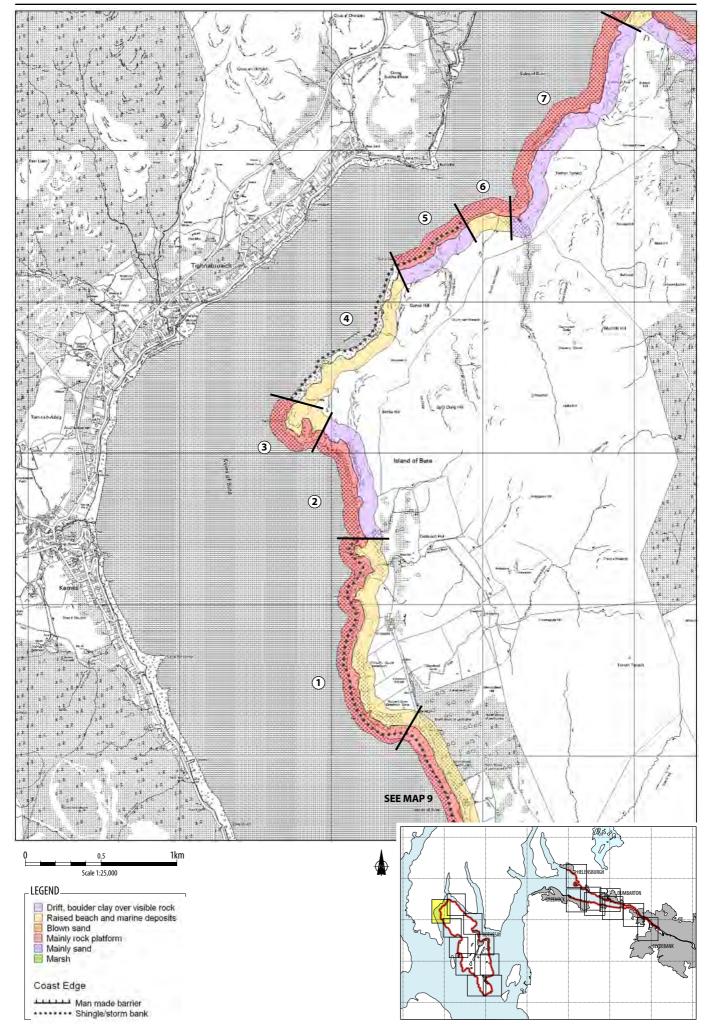
NS 0000 7360 0.3km Boulders and rock platform Low cliff (<10m) *Marine deposits* This section of coastline has the same beach type as the previous unit but its hinterland contains marine deposits that mantle outcropping rock.

#### 7. DRUIM NAM MARAICH to BUTTOCK POINT

NS 0070 7430 1.5km Mainly rock platform Low cliff (<10m) *Drift* Rock platform dominates this section of coastline. The hinterland comprises steeply rising ground that consists of superficial drift deposits that

mantle outcropping rock.

#### BUTE MAP 10 - HINTERLAND GEOLOGY AND FORESHORE GEOMORPHOLOGY



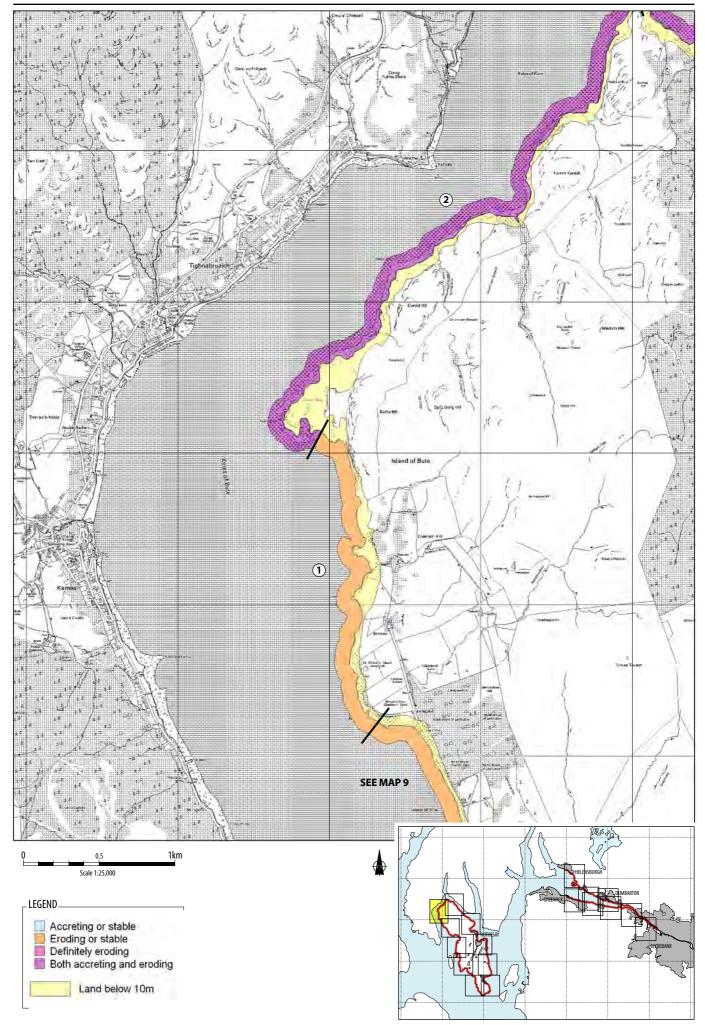
# **BUTE MAP 10: EROSION**

## 1. MICHAEL'S GRAVE to RUBHA DUBH

NS 9920 7100 2.9km Eroding or stable No sections of active erosion were identified therefore this stretch of coastline is classified as eroding or stable.

# 2. RUBHA DUBH to BUTTOCK POINT

NS 0000 7360 4.5km Eroding or stable This section of coast is eroding albeit at a slow rate. In comparison to the more southerly sections immediately below, this section is fairly sheltered.



## **BUTE MAP 10: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

164. KILMICHAEL FERRY PORT **NR97SE 39** NR 99268 70277 Landing place; inn Fair Unknown Monitor

165. KILMICHAEL FERRY HOUSE **NR97SE 27** NR 9930 7027 Buildings Uncertain Unknown Uncertain

172. KILMICHAEL NR 991 714 Wooden fish trap Uncertain Unknown Uncertain

174. OLD FERRY HOUSE / OLD FERRY / KILMICHAEL OLD FERRY HOUSE **NR97SE 25** NR 9927 7143 Building: Ferry House; Enclosure; Quay; Fish Trap (possible) Fair Unknown Monitor

176. KILMICHAEL, BUTE NR97SE 17 NR 9950 7325 Stone Axe Uncertain Unknown Nil

#### Sites on the Hinterland

166. St MICHAEL'S GRAVE **NR97SE 3 SAM 416** NR 99473 70315 Chambered cairn Fair 5<sup>th</sup> -10<sup>th</sup> AD Monitor

167. GLENVOIDEAN HILL SAM 5600 NR 997 705 Chambered cairn Uncertain Unknown Uncertain

168. ST MICHAEL'S CHAPEL, KILMICHAEL, BUTE NR97SE 3 SAM 415 NR 992705 Uncertain Unknown Uncertain

169. KILMICHAEL NR97SE 4 NR 9924 7058 Well Uncertain Unknown Uncertain

170. KILMICHAEL **NR97SE 9** NR 9930 7082 Cist; Food Vessel; Flint Knife Uncertain 4<sup>th</sup> Mil BC-1st BC Uncertain

171. KILMICHAEL NR97SE 67 NR9939 7084 Farm and Boundary Wall Uncertain Unknown Uncertain

# BUTE MAP 10: BUILT HERITAGE AND ARCHAEOLOGY Continued

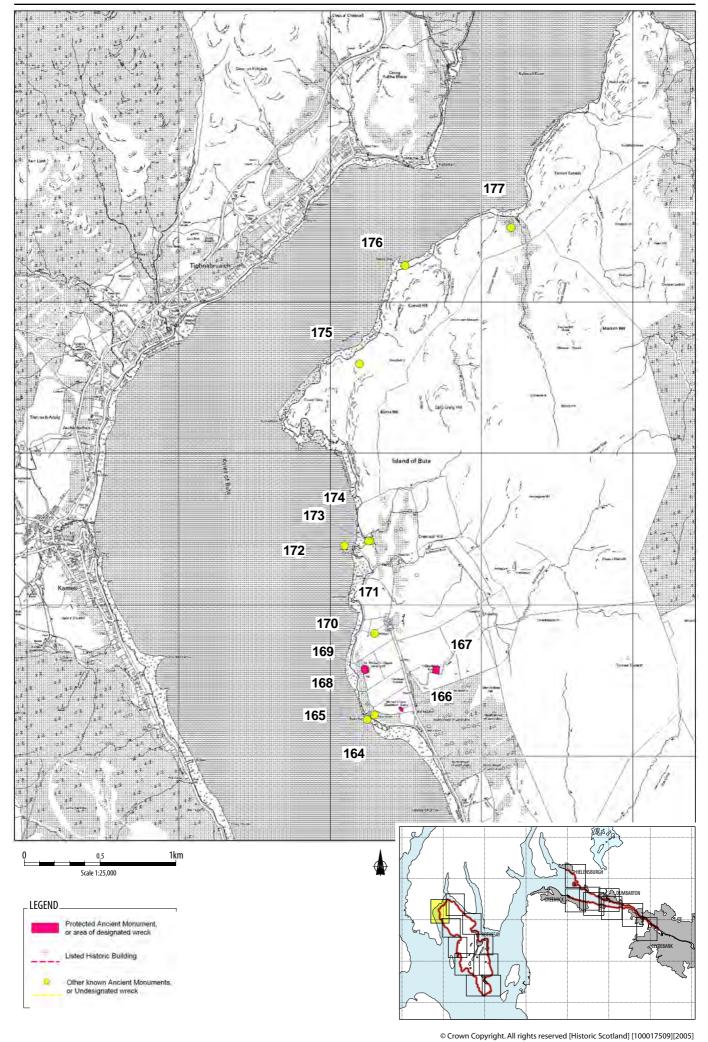
#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

173. CRETRIACH HILL **NR97SE 46** NR 9926 7143 Structure Uncertain Unknown Nil

175. BLACK FARLAND NR97SE 41 NR 992 726 Building Uncertain Unknown Nil

177. LAGGANMOUTH **NS07SW** NR 002 735 Building Uncertain Unknown Nil



FICL/876/0/27/7/04

# 6. SURVEY MAPS OF THE RIVER CLYDE

## CLYDE MAP 1: CRAIGENDORAN PIERS to ARDMORE ISLAND

**Hinterland Geology and Coastal Geomorphology**: Undifferentiated glacial till overlain by marine deposits dominate the hinterland. Remnants of a raised shoreline are also present. The coastline is irregular and wide expanses of mudflats are exposed down to the MLWMST. Ardmore Island has an extensive former raised shoreline. At least two former raised shorelines are represented on Ardmore Island. The site is designated an SSSI according to its geological importance. The contact zone between the Palaeozoic Upper and Lower Old Red Sandstone is represented and outcrops on the north-west corner of the island. The c. 30m high cliff has a distinct wave-cut notch at its base showing that this feature is an earlier shoreline that has risen well above the present beach level as a result of isostatic uplift. A sea cave is present at NS 3150 7873. The coastal edge in front of the cliff is heavily planted with estate woodland.

**Erosion Class**: This section of coastline was found to be undergoing coastal erosion. At Craigendoran Railway station and to the east, the sea walls protecting the railway line are undergoing local erosion. The principal factors involved here are wave action and scouring at the base of the weaker sandstone fabric associated with the older ashlar sea defences. Erosion is more active at the junction of the sandstone ashlar stonework and the more recent concrete seawall, especially where remedial repairs are failing. The coastline near Ardmore Crossing (NS 3240 7930) is predominantly salt marsh which is eroding. Building rubble has been dumped at one location where the erosion is close to a field.

**Built Heritage & Archaeology**: The archaeology in this area is minimal above the high water mark. Within the intertidal area a large rectangular fish trap is present. The size of the trap suggests that this feature functioned as a small industry rather than as an opportunistic venture. A ruined cottage overlooks the fish-trap and it is highly probable that at some period in the past the occupants of this site managed the fish-trap. Both broad and narrow rig is present at Ardmore and are in parts truncated by the modern footpath and affected by coastal erosion. A small concrete shelter was also seen in the hinterland, badly deteriorated, and is associated with a WWII lookout post. The principal feature is the remains of a large fish trap situated on the north side of the island. The interior of the above mentioned sea cave was found to be empty. In front of the entrance a large mound of spoil rich in midden material was seen. This is the remains of interior cave floor layers excavated in the 1960s and finds included Iron Age pottery.

# CLYDE MAP 1: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

#### 1. WEST OF CAIRNDHU POINT to CRAIGENDORAN PIERS

NS 2770 8350 4 km Mainly sand Low edge (<10m) *Marine deposits* Devensian age marine deposits dominate with old raised shoreline present some 0.5km inland. Sea defences with sand and shingle are exposed at low water.

# 2. CRAIGENDORAN PIERS to SEWAGE WORKS

NS 3200 8000 1.8 Mainly mud and sand Low edge (<10m) *Marine deposits* Marine deposits and outwash gravels present with a fossil shoreline. Irregular coastal edge. Wide intertidal sandflats and shingle.

#### **3. SEWAGE WORKS**

NS 3200 8000 1.9km Mainly mud and sand *Marine deposits* Low edge (<10m) Irregular coastal edge. Wide intertidal sandflats and shingle, more boulders present at MHWMST than in the previous unit.

#### 4. NORTH EAST OF ARDMORE ISLAND

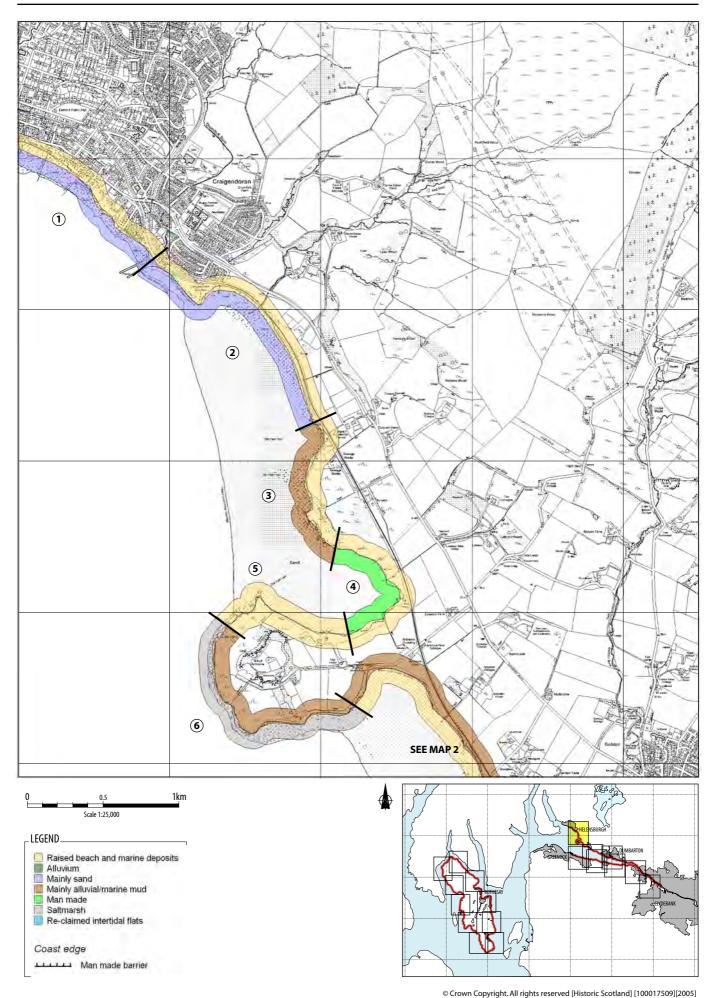
NS 3250 7920 1km Mainly mud Low edge (<10m) *Raised beach* Marine deposits and remnant fossil shoreline. Degraded cliff and exposed rock platforms and tidal mudfalts on south side of the island. Saltmarsh gives way to mud and shingle at MHWMST.

#### **5 NORTH SIDE OF ARDMORE ISLAND**

NS 3150 7900 1.8km Low edge (<10m)) *Raised beach* Marine deposits and remnant fossil shoreline. Degraded cliff and exposed rock platforms and tidal mudflats on south side of the island.

#### 6. SOUTH SIDE OF ARDMORE ISLAND NS 3160 7830 1.8km Low edge (<10m) *Raised beach* Marine deposits and remnant fossil shoreline.

Degraded cliff and exposed rock platforms. Tidal mudflats on south side of the island. Mud flats and shingle present.



#### 1. WEST OF CAIRNDHU POINT to CRAIGENDORAN PIERS

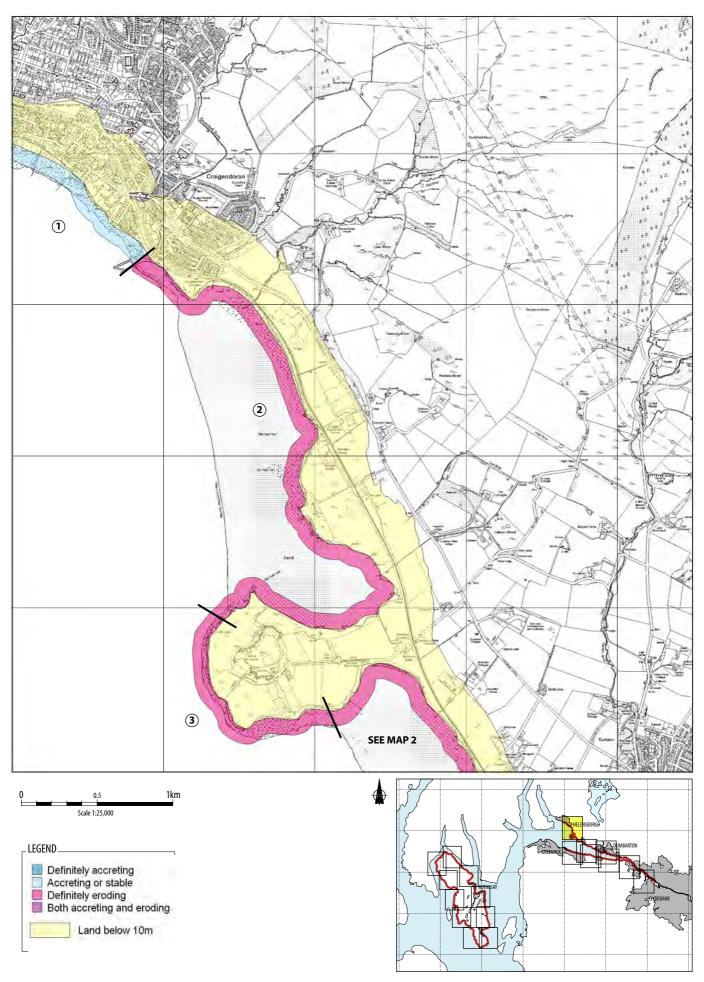
NS 2770 8350 4 km Accreting or stable This section of coastline is heavily defended by sea walls that protect Helensburgh. Sand and mud is accreting and the seawalls are lending stability.

# 2. CRAIGENDORAN PIERS to ARDMORE ISLAND

NS 3200 8000 4Km Definitely eroding Parts of this section of coastline were found to be eroding. Up to 50m of cliff section are eroding at NS 3190 8015. A 30m tract of salt marsh is severely eroding at 3120 7885.

#### 3. ARDMORE ISLAND

NS 3130 7860 1.8km Definitely eroding The western and southern parts of Ardmore Island are undergoing erosion. The main problem here is scouring at the MHWMST.



# **CLYDE MAP 1: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore Sites on the Hinterland 2. CRAIGENDORAN PIER Listed Building (see Appendix 2) NS38SW 30 NS 3187 8130 1. Grouped entry HELENSBURGH Pier 4, 76, 78 KING STREET EAST Listed C(s) Fair 18<sup>th</sup>-20<sup>th</sup> AD 127 CLYDE STREET EAST Listed C(s) 3 CRAIGENDORAN AVENUE Listed C(s) Monitor 4-9 CRAIGENDORAN AVENUE Listed C(s) 3. CRAIGENDORAN JUNCTION ROCKFORT LODGE Listed C(s) RIMSDALE AND TRAIGH-NA-MARA Listed **NS38SW 29** C(s)NS 3127 8117 QUEEN'S COURT Listed C(s) **Railway Station CROMALT HOUSE Listed B** Good $18^{th}\,{-}20^{th}\,AD$ CROMALT COACH HOUSE AND STABLES Listed B Nil ROCKLAND Listed A 4. CRAIGENDORAN OLD SLIPWAY **ROCKLAND LODGE Listed B** TIGH-NA-MARA Listed B NS 3122 3122 TARANDOUN COTTAGE Listed C(s) Launch site 18<sup>th</sup>-20<sup>th</sup> AD **ROCKFORT LODGE Listed B** RIMSDALE AND TRAIGH-NA-MARA Listed Fair Nil C(s)QUEEN'S COURT Listed C(s) 5. CRAGENDOREN OLD PIER **CROMALT HOUSE & STABLES Listed B ROCKLAND** Listed A NS 3120 8105 **ROCKLAND LODGE Listed B** Pier 18<sup>th</sup>-20<sup>th</sup>AD TIGH-NA-MARA Listed B TARANDOUN COTTAGE Listed C(s) Poor 149-151 CLYDE STREET EAST Listed C(s) Nil 153 CLYDE STREET Listed C(s) 165 CLYDE STREET Listed C(s) 6. CRAIGENDOREN FISH-TRAP ? WILLOWBANK Listed C(s) NS 3120 8105 82 AND 84 CLYDE STREET EAST Listed C(s) Fish-trap EAST BAY, PUBLIC SHELTER & 18<sup>th</sup>-20<sup>th</sup>AD Poor LAVATORIES Listed C(s) 104 AND 106 CLYDE STREET EAST Listed Survey C(s)7. CRAGENDORAN SEA WALL PRINCES STREET EAST Listed C(s) NS 3143 8110 **GIFFNOCK HOUSE Listed B** ST JOSEPH'S RC CHURCH Listed B Sea defence 121 CLYDE STREET EAST Listed B Fair 18<sup>th</sup>-19<sup>th</sup> AD Uncertain 18<sup>th</sup>-20<sup>th</sup> Cen Nil Unknown Nil 10. CARDROSS COTTAGE (RUIN) 8. CAMIS ESKAN HOUSE & WALLED NS 3196 8001 GARDEN Poor 18<sup>th</sup>-20<sup>th</sup> AD **NS38SW 26** NS 3195 8125 Monitor Listed C(s) Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

## MAP 1: BUILT HERITAGE AND ARCHAEOLOGY Continued

#### Sites on the Coast Edge & Foreshore

11. CARDROSS FISH-TRAP NS 3162 7990 CAVE Fish-trap Poor 18<sup>th</sup>-20<sup>th</sup> AD Sea Cave Survey Fair 12. CARDROSS Nil TRACK NS 3200 7970 Old Track Poor 18<sup>th</sup>-20<sup>th</sup> AD Good Nil Nil 13. HILL of ARDMORE FISH-TRAP **NS37NW 27** NS 3161 7913 Fish –trap Poor Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil Survey 14. HILL of ARDMORE, RIG & FURROW NS 3158 7898 Good Cultivation remains Poor Nil 18<sup>th</sup>-20<sup>th</sup> AD Nil 15. HILL of ARDMORE Pill-box **ENCLOSURE** Poor NS 3159 7898 WW2 Livestock Enclosure Monitor Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil 16 HILL of ARDMORE FISH-Good TRAP? NS 3184 7895 Nil Fish-trap Poor 18<sup>th</sup>-20<sup>th</sup> AD Nil Jetty Poor 17. ARDMORE POINT RIG & **FURROW** Nil NS 3179 7891 Cultivation remains Fair 18<sup>th</sup>-20<sup>th</sup> AD Monitor

18. HILL of ARDMORE **NS37 NW6** NS 3150 7870 4th Mil BC-1st Mill BC 19. HILL of ARDMORE NS 3132 7852 Boat Noost 17<sup>th</sup>-20<sup>th</sup> AD 20. HILL of ARDMORE NS 3141 7850 Rig and Furrow 18<sup>th</sup>-20<sup>th</sup> AD 23. HILL of ARDMORE NS 3132 7858 **Boat Noost** 17<sup>th</sup>-20<sup>th</sup> AD 24. HILL of ARDMORE NS 3144 7839 25. HILL of ARDMORE NS 3150 7840 Rig and Furrow 17<sup>th</sup>-20<sup>th</sup> AD 26. HILL of ARDMORE NS 3190 7821 18<sup>th</sup>-20<sup>th</sup> AD

#### Sites on the Hinterland

9. CAMIS ESKAN HOUSE, EAST LODGE **NS38SW 25** NS 3235 8030 Listed C(s) Good 18<sup>th</sup>-20 AD Nil 21. HILL of ARDMORE **SAM 5464** NS 315 785 Tower Good 18<sup>th</sup>-20<sup>th</sup> AD Nil 22. CARDROSS ARDMORE HOUSE **NS37NW 13** NS 3214 7864 Listed B Residence Good 18th-20th AD Nil 29. MOORPARK HOUSE **NS37NW 36** NS 3247 8143 Listed B Residence Good 18th-20th AD Nil

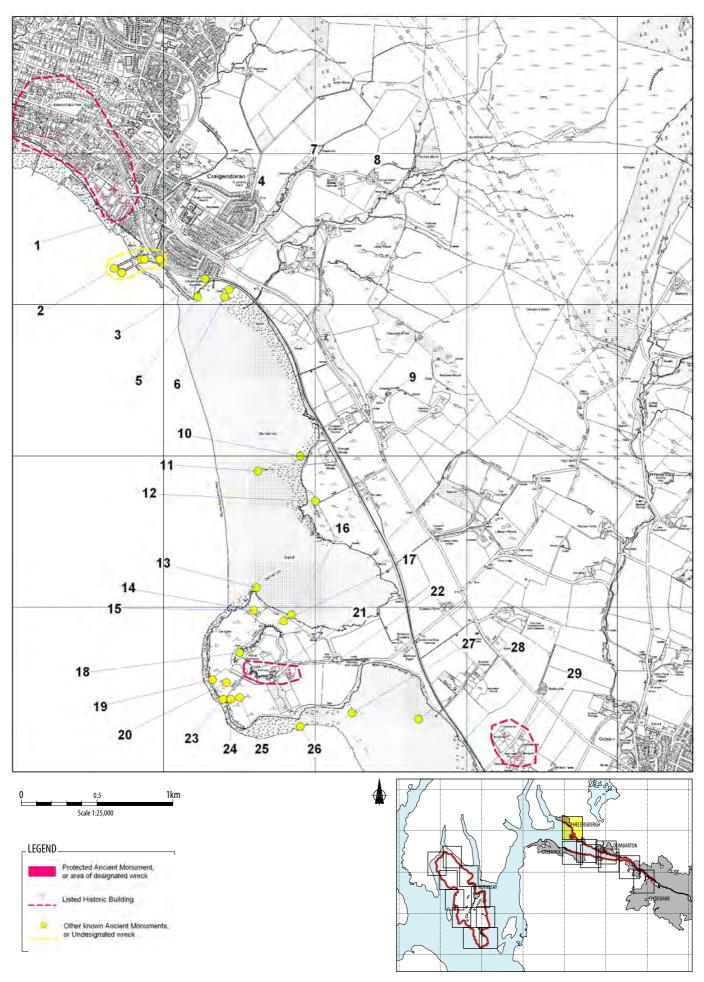
# MAP 1: BUILT HERITAGE AND ARCHAEOLOGY Continued

#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

27. HILL of ARDMORE NS 3224 7830 Ballast dump/Fish-trap Fair 17<sup>th</sup>-20<sup>th</sup> AD Nil

28. CARDROSS NS 3268 8260 Wreck Poor 20<sup>th</sup> AD Nil



# CLYDE MAP 2: CARDROSS to west of DUMBARTON TOWN

**Hinterland Geology and Coastal Geomorphology**: Raised beach deposits overlie undifferentiated glacial till. The shoreline is irregular and comprises a large expanse of mud and boulders.

**Erosion Class**: This section of coastline is both accreting and eroding. Sediment nourishment towards the shoreline is considered to be reasonably high in this highly dynamic tidal environment. Accretion of mud is ongoing towards the MHWST area but is easily lost during periods of rough weather through the tidal cycles.

**Built Heritage & Archaeology**: Coastal defence features dominated this cell, in the form of sea walls, probably mainly constructed to protect the railway line that runs very close to the coast in this area. A possible fish trap was also observed in the east of this cell. This cell has no notable archaeological remains on the hinterland, with the exception of a World War II anti-aircraft battery at Murray's farm (NMRS no. NS37SW 19). A 20<sup>th</sup> century wreck was identified at NS 3268 7826 during the recent Shorewatch survey.

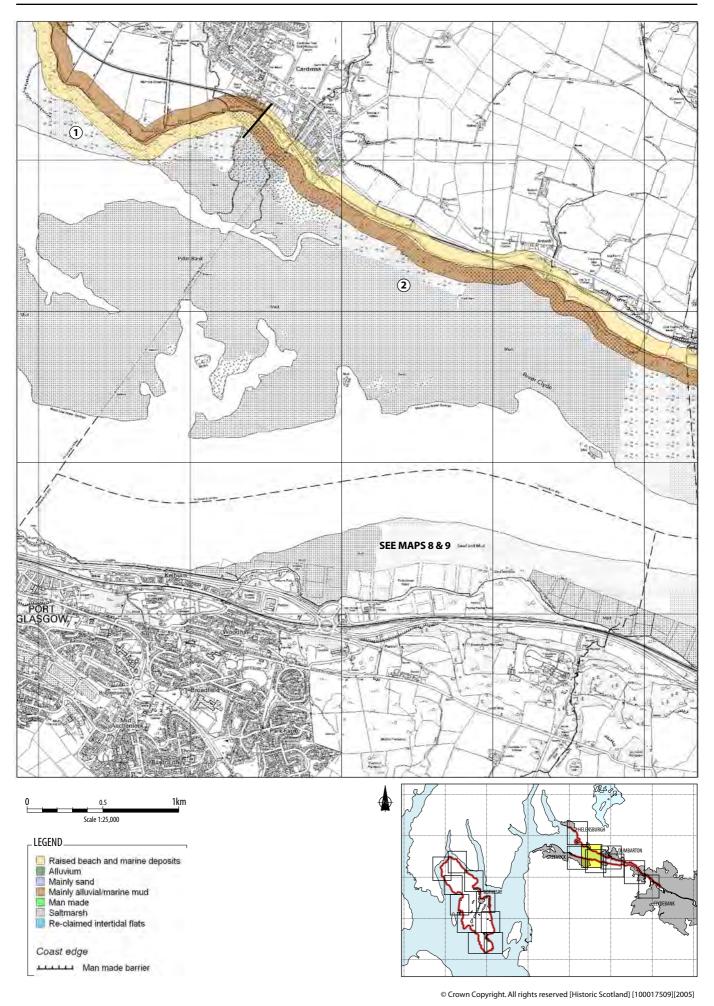
# CLYDE MAP 2: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

### 1. ARDMORE ISLAND to CARDROSS

NS 3370 7710 2.7 km Mainly mud Low edge (<10m) *Marine deposits* Marine deposits dominate the hinterland. Shoreline irregular, comprising mud and sand.

# 2. CARDROSS to west of DUMBARTON

TOWN NS 3600 7630 3.7 km Mainly mudflats Low edge (<10m) *Marine deposits* Raised beach deposits and raised beach deposits present. Intertidal area mainly mud.



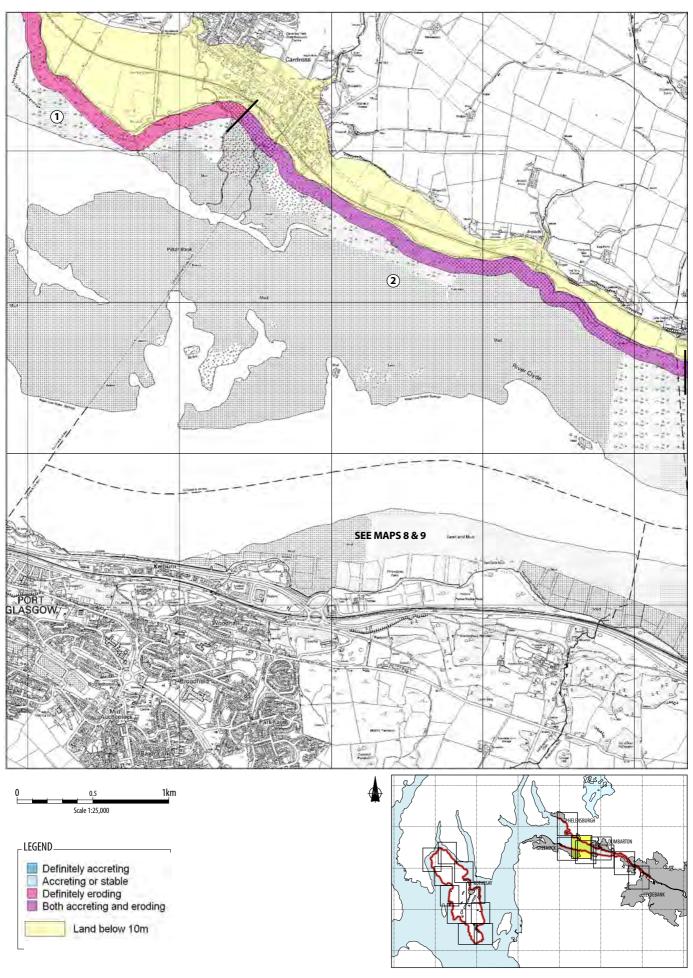
# **CLYDE MAP 2: EROSION**

## 1. ARDMORE ISLAND to CARDROSS

NS 3370 7710 2.7 km Both accreting and eroding This section of coastline is both accreting and eroding.

### 2. CARDROSS to DUMBARTON TOWN SEWAGE WORKS

NS 3600 7630 3.7 km Both accreting and eroding This section of coastline is suffering erosion. The low soft sediments within the cliff are prone to slope failure at the HWMS mark.



## **CLYDE MAP 2: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

30. BROOKS CROSSING NS 3370 7710 Fish trap Good 18<sup>th</sup> –20<sup>th</sup> Century Monitor

31. BROOKS CROSSING NS 3300 7650 Fish trap Poor 18<sup>th</sup> –20<sup>th</sup> Century Monitor

32. ARDMORE POINT NS 3190 7821 Ballast dump/Fish-trap Fair 17<sup>th</sup>-20<sup>th</sup> AD Nil

33. BROOKS, R. CLYDE NS 3300 7748 Fish-trap Poor Uncertain Monitor

34. CARDROSS NS 3334 7734 Boat Landing Good 18<sup>th</sup>-20<sup>th</sup> Century Nil

35. CARDROSS BATTERY NS37NW 19 NS 3370 7728 Anti-aircraft Battery Unknown WW2

36. CARDROSS NS 3370 7710 Fish-trap Poor 17<sup>th</sup>-20<sup>th</sup> AD Monitor

Nil

37. MURRAYS, R. CLYDE NS 3370 7705 Banks, Fish-trap (possible) Poor Uncertain Monitor

38. CARDROSS NS 3196 8001 Ruined Cottage Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

43. CARDROSS SHORE NS 34527 77177 Posts Poor  $18^{th} - 20^{th}$  AD? Monitor

44. CARDROSS NS 34632 77026 Marker beacon (poss.) Good 18<sup>th-</sup>20<sup>th</sup> AD Nil

45. CARDROSS NS 3473 7680 Jetty or breakwater Fair Unknown Nil

46. CARDROSS SHORE NS 35407 76527 Sea wall Good 18<sup>th</sup>-20<sup>th</sup> Century Nil

48. CARDROSS NS 3473 7680 Jetty or breakwater Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

#### Sites on the Hinterland

Listed buildings (see Appendix 2)

39. Grouped entry CARDROSS CARDROSS STATION ROAD Listed B CARDROSS WAR MEMORIAL Listed C(s) CARDROSS DRINKING FOUNTAIN Listed C(s) Not Seen Unknown Nil

40. CARDROSS RAILWAY STATION NS 3447 7732 Listed B Not Seen Unknown Nil

41. Grouped entry CARDROSS CARDROSS ARDENVOHR HOUSE Listed C(s) CARDROSS OLD CORN MILL Listed B CARDROSS SHIRA LODGE Listed C(s) CARDROSS AUVHINFORE HOUSE, LODGE & GATES Listed C(s)CARDROSS MANSE Listed B CARDROSS MOORES BRIDGE Listed C(s) CARDROSS FORMER PARISH CHURCHES Listed B CARDROSS MAIN RD WHITE HOUSE Listed B Not Seen 17<sup>th</sup>-20<sup>th</sup> Cen Nil

42. CARDROSS OLD PARISH CHURCH SAM 7339 NS 349 772 Not Seen Unknown Nil

# **CLYDE MAP 2: BUILT HERITAGE AND ARCHAEOLOGY Continued**

#### Sites on the Coast Edge & Foreshore

#### 49. DUMBARTON SHORE NS37NE 23 NS 364 762 Axe-hammer Uncertain Uncertain

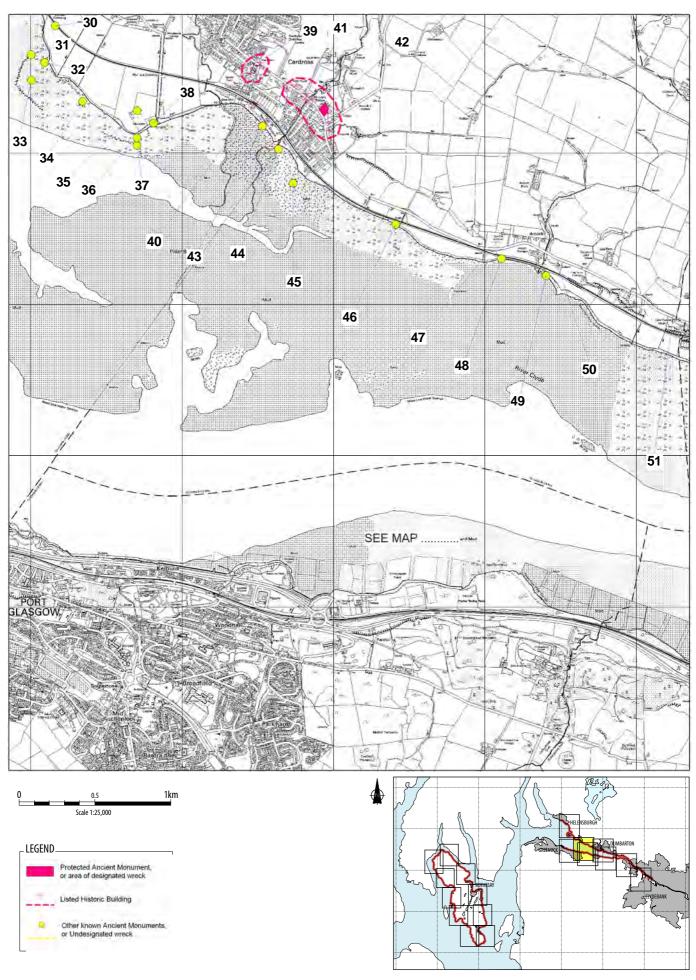
Nil

#### Sites on the Hinterland

47. ARDOCH GARDENS NS 3607 7641 Listed C(s) Not Seen Unknown Nil

50. CARDROSS, ARDOCH HOUSE NS 3647 7625 Listed C(s) Not Seen Unknown Nil

51. CARDROSS ROAD, CATS CASTLE NS 3723 7589 Listed C(s) Not Seen Unknown Nil



# **CLYDE MAP 3:** West of **DUMBARTON** (incl. east & west bank of River Leven) to **DUNGLASS WHARF**

**Hinterland Geology and Coastal Geomorphology**: Marine deposits overlie undifferentiated glacial till. The shoreline is artificial in parts and comprises mainly mud and freshwater alluvium derived from the River Leven. Dumbarton Rock is a volcanic plug of Tertiary age.

**Erosion Class**: This section of coast is considered to be stable as it is heavily defended by sea walls. East of Dumbarton Rock, a tract of saltmarsh is eroding in the region of Dumbuck.

**Built Heritage & Archaeology**: In this cell, the majority of the archaeological sites relate to industrial activities, including shipbuilding, on the shoreline and the bank of the River Leven. The coastline is reinforced with a seawall. A war memorial was noted in Levengrove Park, close to the shore. Dumbarton Rock, upon which Dumbarton Castle is situated, stands at the junction of the River Leven and the Clyde.

Just above the low water mark, in the middle of the cell, is the site of Dumbuck Crannog (NMRS no. NS47SW 8), which has been the subject of recent research (Hale and Sands 2000). Part of the military road that joined Dumbarton with Tarbet, Tyndrum and Inveraray survives as a modern road.

# CLYDE MAP 3: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

### 1. West of DUMBARTON to A82 ROAD

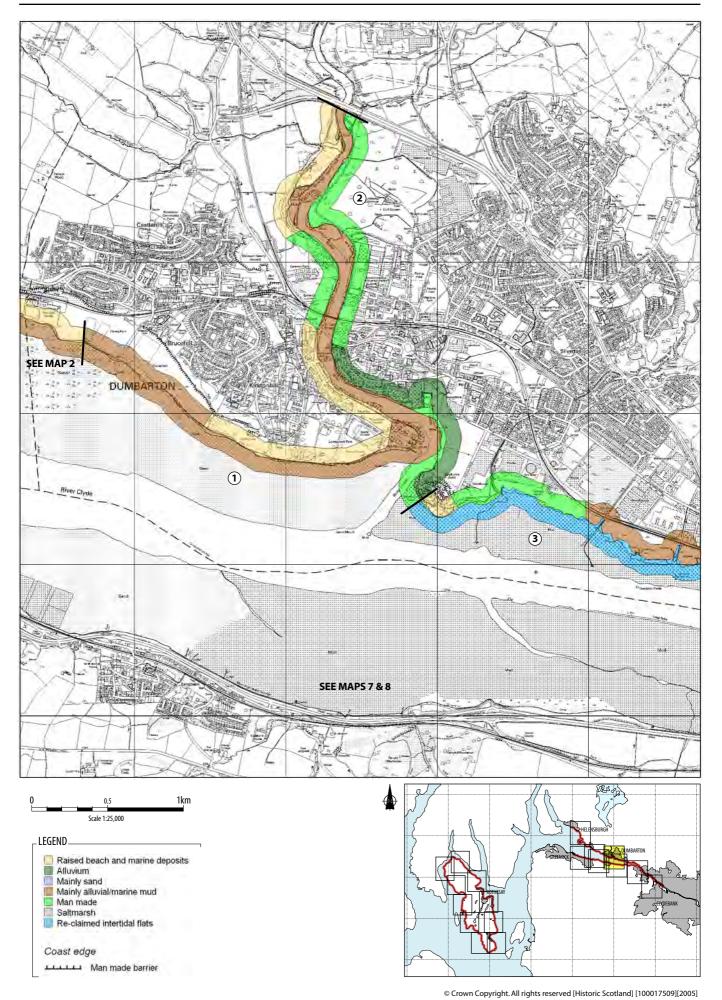
BRIDGE (East bank of River Leven) NS 3900 7500 2.4 km Alluvium Low edge (<10m) *Marine deposits* Marine deposits and made ground. Freshwater alluvium mud.

# 2. A82 ROAD BRIDGE to DUMBARTON CASTLE

NS 3930 7640 3km Mudflats Low edge (<10m) *Marine deposits* Marine deposits and made ground. Freshwater alluvium derived from the upper reaches of the River Leven. Marine mud flats on shoreline. Freshwater alluvium more extensive here than on the west bank of the river. Land around Dumbarton Castle is artificial ground.

# **3. DUMBARTON CASTLE to DUNGLASS WHARF**

NS 4150 7420 2.7km Mudflats and saltmarsh Low edge (<10m) *Marine deposits/Artificial Ground* Marine deposits overlooking degraded saltmarsh and mud flats. Artificial land at Dunglass Wharf.



FICL/876/0/27/7/04

### 1. DUMBARTON TOWN SEWAGE WORKS to RIVER LEVEN RAILWAY BRIDGE (East

bank of River Leven) NS 3940 7520 1.5 km Both accreting and eroding

Estuarine mud is accreting at the HWMS. Hard defence works tend to focus this towards the mouth of the River Leven. The coastal edge towards Brucehill is eroding.

# 2. RIVER LEVEN A82 to DUMBARTON RAIL CROSSING

NS 3930 7640 1.5km Both accreting and eroding This west bank of the River Leven is receiving both freshwater alluvium and marine mud. This area is still within the tidal reach and marine mud is dominant and forming banks that are stabilised by saltmarsh. Riverside development is also lending stability to this area.

# **3. DUMBARTON RAIL CROSSING** to **A82** NS 3950 7520

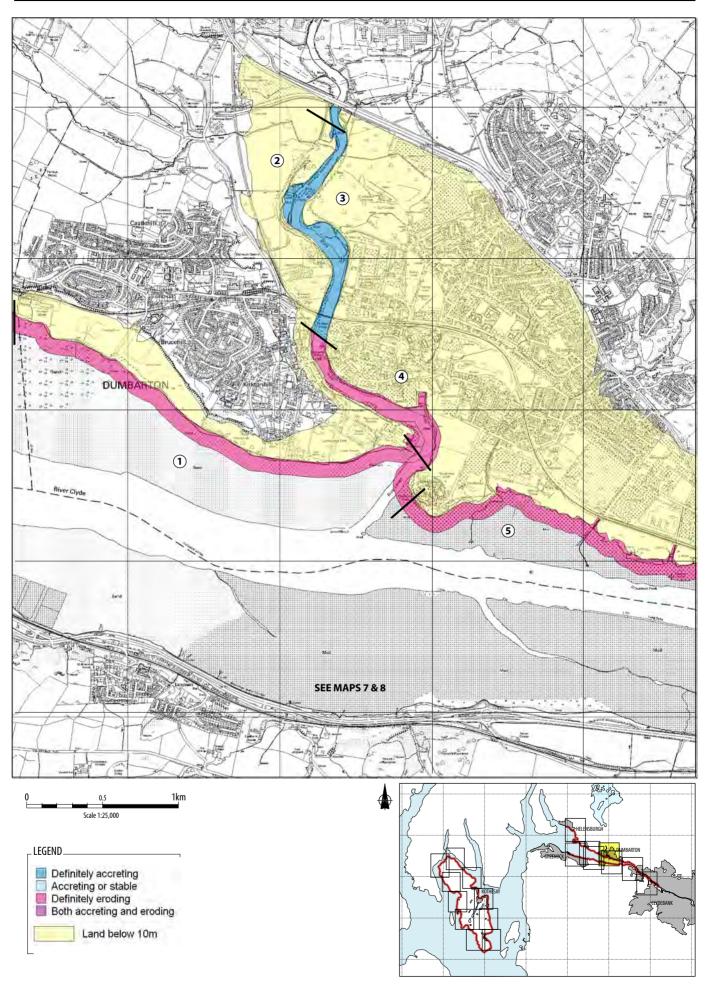
1.4km Both accreting and eroding Marine mud is exposed at low water and a steady volume of freshwater alluvium is also contributing to the sediment budget along this section of coastline. Although heavily developed, sediment tends to be mobile where scouring activity occurs, especially along the base of concrete walls.

# 4. DUMBARTON A82 to DUMBARTON CASTLE

#### NS 3950 7520 1.5km Both accreting and eroding Marine mud is exposed at low water and a steady volume of freshwater alluvium is also contributing to the sediment budget along this section of coastline. Although heavily developed, sediment tends to be mobile where scouring activity occurs, especially along the base of concrete walls.

# 5. DUMBARTON CASTLE to DUNGLASS WHARF

NS 4150 7420 3.4km Both accreting and eroding Active erosion is occurring on the edge of the low cliff forming the edge of an area of saltmarsh. Drain outfall areas are particularly susceptible to slope failure. Some accretion in front of marsh.



## **CLYDE MAP 3: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

52. DUMBARTON SHORE NS 3734 6755 Fish Trap (poss.) Poor Unknown Monitor 53. DUMBARTON SHORE NS 37507 75533 Seawall Good 18<sup>th</sup>-20<sup>th</sup> AD Nil 55. KIRKTONHILL SHORE NS 38204 75170 Seawall Good 18<sup>th-</sup>20<sup>th</sup> AD Nil

59. DUMBARTON SAM 9654 NS 3970 7500 St Surfs Church Not seen 12<sup>th</sup>-14<sup>th</sup> AD Nil

60. DUMBARTON NS37SE 1 NS 3950 7470 Findspot (slate tool) 4<sup>th</sup> Mil-1<sup>st</sup> Cen BC Nil

63. RIVER LEVEN NS 39437 76725 Brick hut Fair 20<sup>th</sup> AD Monitor

64. DUMBARTON NS37NE 47.1 NS 3970 7500 Shipyard 19-20<sup>th</sup> AD Not seen Nil

65. DUMBARTON NS 37SE 31 NS 3972 7486 Shipyard Not seen Nil 66. DUMBARTON NS 37NE 24 NS 3980 7500 Roman Harbour (poss) Not seen 1st-4th Cen AD Nil 67. DUMBARTON **NS37NE 47** NS 3980 7508 Whisky Distillery Good 19<sup>th</sup>-20<sup>th</sup> AD Nil 68. DUMBARTON **NS37NW 16** NS 4005 7510 Shipyard Not seen 19<sup>th</sup>-20<sup>th</sup> AD Nil 69-72, 74. DUMBARTON NS47SW 91 NS 4001 7491 Shipyard/jetty/docks Not seen 19<sup>th</sup>-20<sup>th</sup> AD Nil 73. DUMABRTON

NS 400 747 Sea wall Good 18<sup>th</sup>-20<sup>th</sup> Cen Nil

75. DUMBARTON NS37SE 2

NS 3995 7455 Steatite bead Not seen 4<sup>th</sup> Mill BC-1<sup>st</sup> Cen Nil

#### Sites on the Hinterland

#### Listed Buildings (see Appendix 2)

54. Grouped Entry DUMBARTON, CARDROSS ROAD, CONVENT OF NOTRE DAME Listed R DUMBARTON, CARDROSS ROAD, CONVENT OF NOTRE DAME, CHAPEL Listed B Not seen 18<sup>th</sup>-20<sup>th</sup> Cen Nil 56 Grouped Entry DUMBARTON, 15 DIXON DRIVE Listed C (s) DUMBARTON, KIRKTONHILL, HELENSLEE ROAD, KEIL SCHOOL, STATUE OF WILLIAM MACKINNON Listed B. DUMBARTON. WEST BRIDGEND. BLACK BULL INN Listed B DUMBARTON, KIRKTONHILL, HELENSLEE ROAD, KEIL SCHOOL Listed **B** DUMBARTON, KIRKTONHILL, HELENSLEE ROAD, KEIL SCHOOL, LODGE Listed B DUMBARTON, HELENSLEE ROAD, LEVENFORD HOUSE COUNTY LIBRARY Listed A DUMBARTON, HELENSLEE ROAD, LEVENFORD HOUSE. GATEWAY AND GARDEN WALLS Listed B DUMBARTON, 10, 12 DIXON DRIVE Listed B DUMBARTON, HELENSLEE ROAD, BRIDGE Listed C(s) DUMBARTON, KIRKTONHILL, HELENSLEE ROAD, KEIL SCHOOL, TECHNICAL BLOCK Listed B **DUMBARTON. 2. 4 DIXON DRIVE** Listed C(s) DUMBARTON, LEVENGROVE PARK, LODGE Listed B Not seen 18<sup>th</sup>-20<sup>th</sup> Cen Nil

# CLYDE MAP 3: BUILT HERITAGE AND ARCHAEOLOGY Continued

Sites on the Hinterland

### Sites on the Coast Edge & Foreshore

0		
76. DUMBARTON	86. DUMBUCK	62. Grouped Entry
NS 3996 7437	NS47SW 8	DUMBARTON, HELENSLEE ROAD,
Seawall	NS 4157 7392	LEVENFORD HOUSE, LODGE Listed B
Good		DUMBARTON, 6, 8 DIXON DRIVE
$18^{\text{th}} - 20^{\text{th}} \text{AD}$	Crannog	
	Poor	Listed C(s)
Nil	4 <sup>th</sup> Mill- 1 <sup>st</sup> Cen BC	DUMBARTON, CASTLE STREET,
	Monitor	NAPIER MAUSOLEUM Listed C(s)
77-80. DUMBARTON		DUMBARTON, CASTLE STREET, SHIP
CASTLE & CHAPEL		MODEL EXPERIMENT TANK Listed A
NS47SW 5.01		DUMBARTON, CHURCH STREET,
SAM 90107		BURGH HALL Listed A
NS 3998 7441		DUMBARTON, CHURCH STREET,
Chapel		MUNICIPAL BUILDINGS Listed B
-		DUMBARTON, CHURCH STREET,
Not seen		
4 <sup>th</sup> -6 <sup>th</sup> AD		MUNICIPAL BUILDINGS, PETER
Nil		DENNY STATUE Listed B
		DUMBARTON, 69 GLASGOW ROAD,
81. DUMBARTON		DISTRICT COUNCIL OFFICES Listed
NS47SW 89		C(s)
NS 0200 7448		DUMBARTON, 17-19 HIGH STREET,
Military road		BANK OF SCOTLAND Listed B
Not seen		DUMBARTON, HIGH STREET,
Uncertain		GLENCAIRN TENEMENT Listed B
Nil		DUMBARTON, 127-135 HIGH STREET
1411		Listed B
82. DUMBARTON		DUMBARTON, 143-147 HIGH STREET,
SHORE		BELL LEISURE CENTRE Listed B
		DUMBARTON, HIGH STREET, ST
NS 40243 74424		AUGUSTINE'S EPISCOPAL CHURCH,
Timber pond (poss.)		HALL Listed A
Fair		
$18^{\text{th-}}20^{\text{th}}\text{ AD}$		DUMBARTON, HIGH STREET, ST
Nil		AUGUSTINE'S EPISCOPAL CHURCH
		Listed A
83. DUMBARTON		DUMBARTON, MACLEAN PLACE,
SHORE		DUMBARTON OLD PRISON, FORMER
NS 4029 7442		GATEWAY Listed B
Pier or loading platform		DUMBARTON, STATION ROAD,
(poss.)		DUMBARTON CENTRAL STATION
Poor		Listed A
18 <sup>th-</sup> 20 <sup>th</sup> AD		DUMBARTON, 1, 2 STATION ROAD,
Monitor		PUBLIC HOUSE Listed C(s)
montor		DUMBARTON, HIGH STREET,
84. DUMBARTON		RIVERSIDE PARISH CHURCH Listed A
SHORE		DUMBARTON, CHURCH STREET,
NS 4032 7444		SHERIFF COURT Listed B
		DUMBARTON, CHURCH STREET,
Seawall		MUNICIPAL BUILDINGS, COLLEGE
Good 18 <sup>th-</sup> 20 <sup>th</sup> AD		BOW Listed B
		Not seen
Nil		18 <sup>th</sup> -20 <sup>th</sup> Cen AD
		Nil

## **CLYDE MAP 3: BUILT HERITAGE AND ARCHAEOLOGY Continued**

#### Sites on the Coast Edge & Foreshore

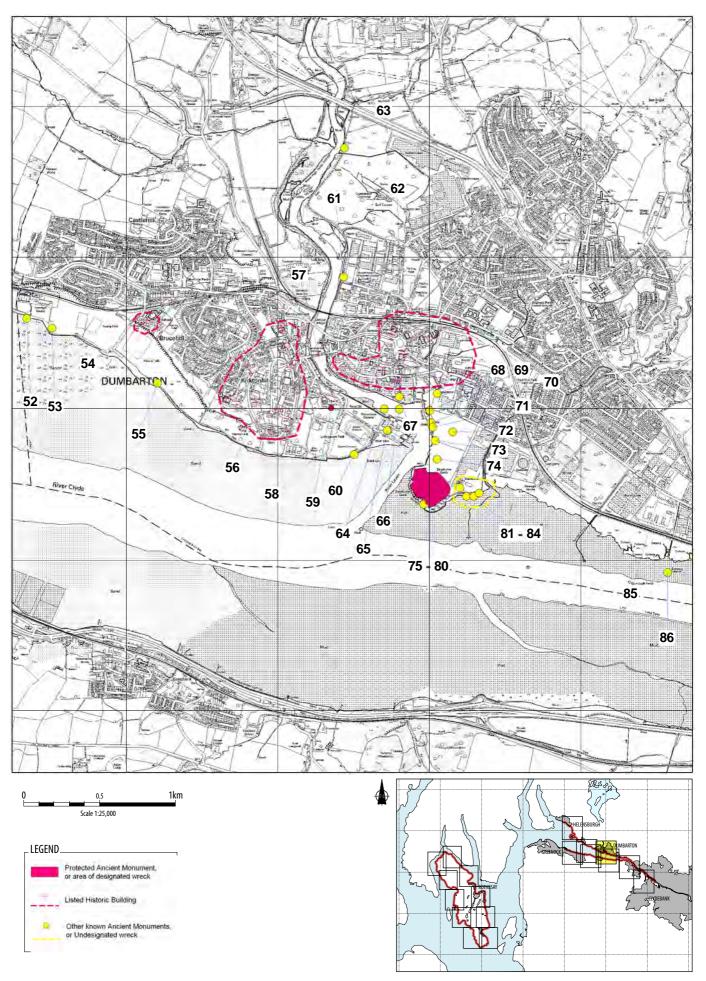
#### Sites on the Hinterland

57. DUMBARTON, BRIDGE STREET, RIVER LEVEN, DUMBARTON BRIDGE NS 3926 7535 Listed B Good 18<sup>th</sup>-20<sup>th</sup> Cen Nil

58. DUMBARTON, LEVENGROVE PARK, WAR MEMORIAL NS 3924 7467 Listed C(s) Good 20<sup>th</sup> Cen Nil

61. Grouped entry DUMBARTON, STRATHLEVEN PLACE, ST PATRICK'S ROMAN CATHOLIC CHURCH Listed B DUMBARTON, STRATHLEVEN PLACE, DRUMOYNE Listed B Not seen 18-20<sup>th</sup> Cen Nil

85. OLD KILPATRICK, GLASGOW ROAD, DUMBUCK HOTEL NS 4153 7450 Listed B Good 18<sup>th</sup>-20<sup>th</sup> Cen Nil



# **CLYDE MAP 4: DUNGLASS WHARF to ERSKINE BRIDGE**

**Hinterland Geology and Coastal Geomorphology**: Marine deposits overlie undifferentiated tills. The coastline is irregular and includes a tract of degraded saltmarsh. The foreshore is dominated by mud and sand.

**Erosion Class**: This section of coastline is affected by both accretion and erosion. Slope failure is affecting the immediate coastal edge as the soft mud cliff is prone to undercutting.

**Built Heritage & Archaeology**: This cell had a relatively high concentration of sites according to the NMRS data. These sites were mainly condensed into the area where the Forth & Clyde Canal joined the River Clyde at Bowling Harbour. The western end of this cell was occupied by a fuel depot, and therefore was inaccessible, which meant that some sites such as Dunglass Castle were not seen. Bowling Harbour contained a number of boat wrecks, and is listed on the NMRS as a ship graveyard (NMRS no. NS47SW 64).

# CLYDE MAP 4: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

### 1. DUNGLASS WHARF & BOWLING

HARBOUR

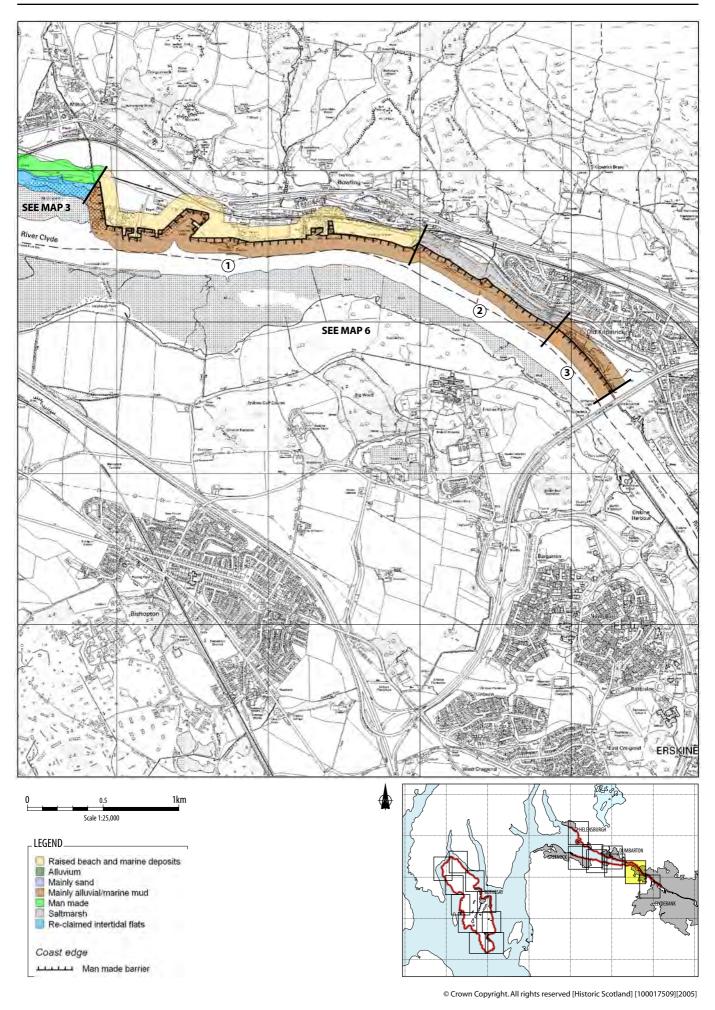
NS 4550 7320 2.2 km Mud Low edge (<10m) *Artificial ground* Mainly artificial ground associated with Harbour structures. Hinterland heavily modified by industrial development.

## 2. BOWLING HARBOUR to OLD

KIRKPATRICK NS 4590 7300 1.2 km Mud Low edge (<10m) *Marine deposits* Mainly artificial ground at MHWMST. Marine gravel present on Hinterland.

# 3. OLD KIRKPATRICK to ERSKINE BRIDGE

NS 4640 7270 1.2 km Mud Low edge (<10m) *Marine deposits* Saltmarsh formed behind earth embankment. Intertidal area mainly mud and shingle down to LWMST. Hinterland highly developed on marine deposits.



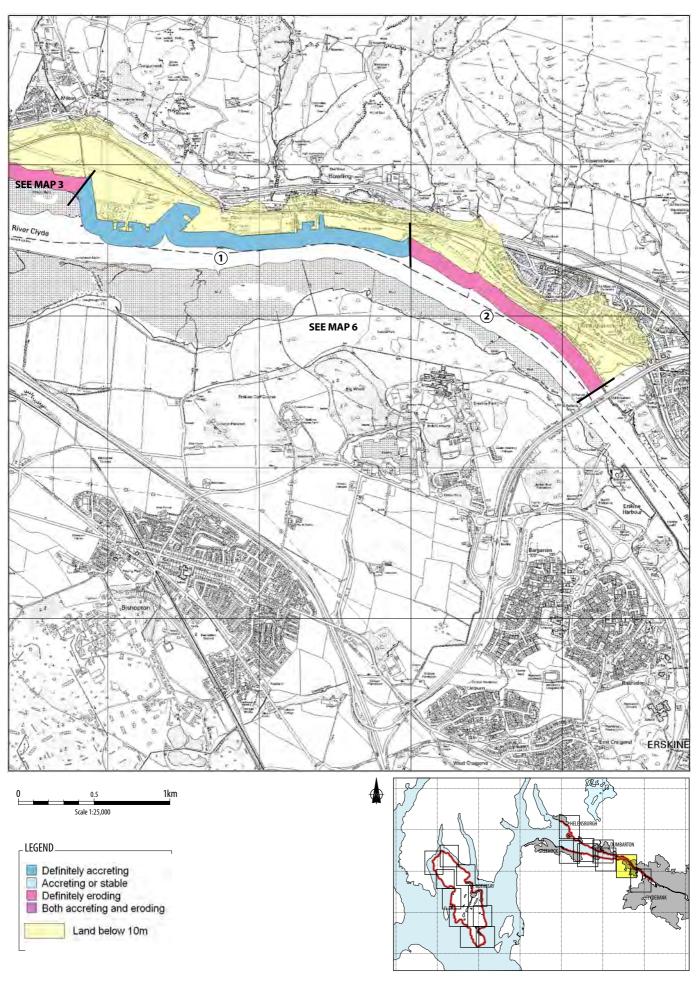
## **CLYDE MAP 4: EROSION**

# 1. DUNGLASS WHARF to BOWLING

LOCKS NS 4550 7320 2.6km Accreting or stable Dunglass Wharf is an artificial structure. Estuarine mud is accreting along the base of the wharf. Bowling harbour is accreting due to lack of use. Due to the sheer size of this development the conditions along its base are considered to be stable.

#### **2. BOWLING LOCKS to ERSKINE BRIDGE** NS 4650 7300

1.6km Both accreting and eroding Although heavily defended by sea walls this section is accreting. Estuarine mud banked up against the sea walls is displaced during high spring tides.



# **CLYDE MAP 4: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

87. MILTON ISLAND NS47SW 13 NS 4250 7385 Canoe Uncertain 4<sup>th</sup> Mill- 1<sup>st</sup> Cen BC Nil

# 88. MILTON NS47SW 60

NS 4255 7395 Roman Objects Uncertain 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil

89. BOWLING, R. CLYDE NS47SW 12 NS 4350 7350 Canoes Uncertain 4<sup>th</sup> Mill- 1<sup>st</sup> Cen BC Nil

90. DUNGLASS NS47SW 48 NS 4365 7357 Uncertain 17<sup>th</sup> Cen AD Nil

91. DUNGLASS POINT NS47SW 61 NS 4365 7355 Pottery Uncertain 4<sup>th</sup> Mill- 1<sup>st</sup> Cen BC Nil

93. DUNGLASS NS47SW 19 NS 4375 7352 Roman Fort Not seen 1<sup>st</sup> Cen AD Nil

102. BOWLING, R. CLYDE NS47SW 27 NS 4450 7350 Swords Uncertain Uncertain Nil 103. DUMBUCK NS47SW 28 NS 4650 7350 Roman ford (poss) Not seen 1-4<sup>th</sup> AD Nil

110. BOWLING SHORE NS 45012 73462 Wooden posts Poor  $18^{th} - 20^{th}$  AD Nil

#### Sites on the Hinterland

92. DUNGLASS CASTLE B **NS47SW 7** NS 4374 7353 Castle Poor 16<sup>th</sup>-18<sup>th</sup> AD Nil 94. DUNGLASS CASTLE NS47SW 123 NS 4377 7353 Memorial Obelisk Not seen 17-19<sup>th</sup> AD Nil 95-96. BOWLING **NS47SW 77** 4410 7370 Whiskey Distillery Uncertain 18<sup>th</sup>-20<sup>th</sup> Ad Nil 97. BOWLING **NS47SW 68** NS 4425 7365 Shipyard Not seen 18<sup>th</sup>-19<sup>th</sup> AD Nil 98-100. BOWLING NS47SW 67 NS 4427 7369 Railway Station/ Good 18<sup>th</sup>-20<sup>th</sup> AD Nil 108. BOWLING NS47SE 114 NS 4508 7358 Chimney Uncertain 19<sup>th</sup>-20<sup>th</sup> AD Nil

## **CLYDE MAP 4: BUILT HERITAGE AND ARCHAEOLOGY Continued**

#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

101, 104, 106-7, 109, 111, 112-115 BOWLING HARBOUR & FORTH – CLYDE CANAL **NS47SW 64** NS 4450 7355 Harbour/ Forth Canal Poor 18<sup>th</sup>-19<sup>th</sup> AD Nil

105. BOWLING, DUMBARTON RD. NS47SW 64.2 NS 4492 7364 Tenement building Uncertain 19<sup>th</sup>-20<sup>th</sup> AD

116. FERRYDYKE BRIDGE NS47SE 63 NS 4587 7306 Bridge, keepers house & stables Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

117. OLD KIRKPATRICK **NS47SE 37** NS 4590 7305 Roman distance slab Uncertain 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil

118. OLD KIRKPATRICK **NS47SE 13** NS 4590 7305 Roman distance slab Uncertain 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil

119. OLD KILPATRICK SAM 7673 NS 459 731 Antonine Wall and fort, Gavinburn Bus Depot Not seen 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil

# **CLYDE MAP 4: BUILT HERITAGE AND ARCHAEOLOGY Continued**

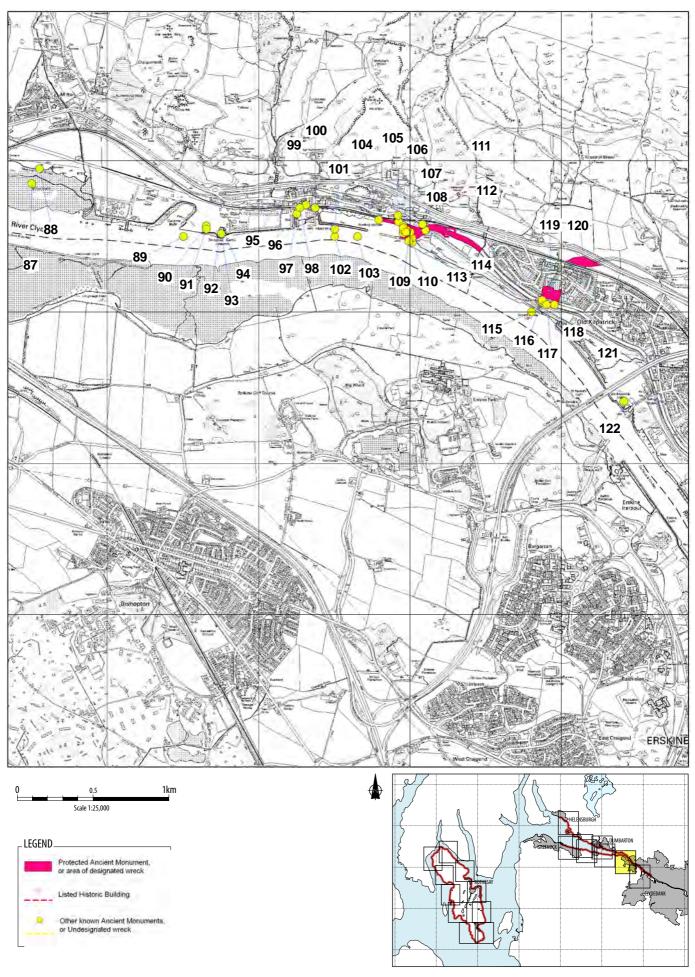
#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

120 OLD KILPATRICK SAM 7063 NS 460 733 - NS462 733 Antonine Wall, Railway to Great Western Road Not seen 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil

121. OLD KIRKPATRICK NS 4660 7270 Old Cessesion Church Listed B Good 19<sup>th</sup>-20<sup>th</sup> Cen Nil

122. OLD KIRKPATRICK **NS47SE 199** NS 6410 7241 Barrage Balloon Site Not seen WW2 Nil



# CLYDE MAP 5: WHITE CART BRIDGE to ERSKINE HARBOUR

**Hinterland Geology and Coastal Geomorphology**: The hinterland is dominated by marine deposits formed in a very low lying riverine delta. The land may have been reclaimed as it lies below a flood bank. Freshwater alluvial and estuarine silts are present along the banks of the River Cart. Embankments defend land formed by the reclamation of salt marsh as far as the Erskine Harbour.

**Erosion Class**: This coastal cell was found to contain sections that were seriously eroding. The coastline along Newshot Island consists of salt marsh that is eroding as a result of wave impact. The low cliff is approximately 1.5-2m high and is undercut at several places. Small islands of saltmarsh stand in isolation as the cliff is retreating. Erskine Harbour is experiencing accretion as it is acting as a focus for sediment entrapment.

**Built Heritage & Archaeology**: This cell contains a variety of remains, ranging from a possible fishing weir to a stone jetty and possible loading platforms. Park Quay has fallen into disrepair but, judging by its proportions, was once quite an important dock for medium sized boats. Numerous timber hulks are present. Erskine Harbour is also in a poor condition, as it has been allowed to become overgrown and silted up. Newshot Island is part of the salt marsh that has not been reclaimed behind the embankments along the Clyde. The reclamation works dominate the land at the western end of this cell, and landscaping works have been carried out around the Park Quay area.

# CLYDE MAP 5: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

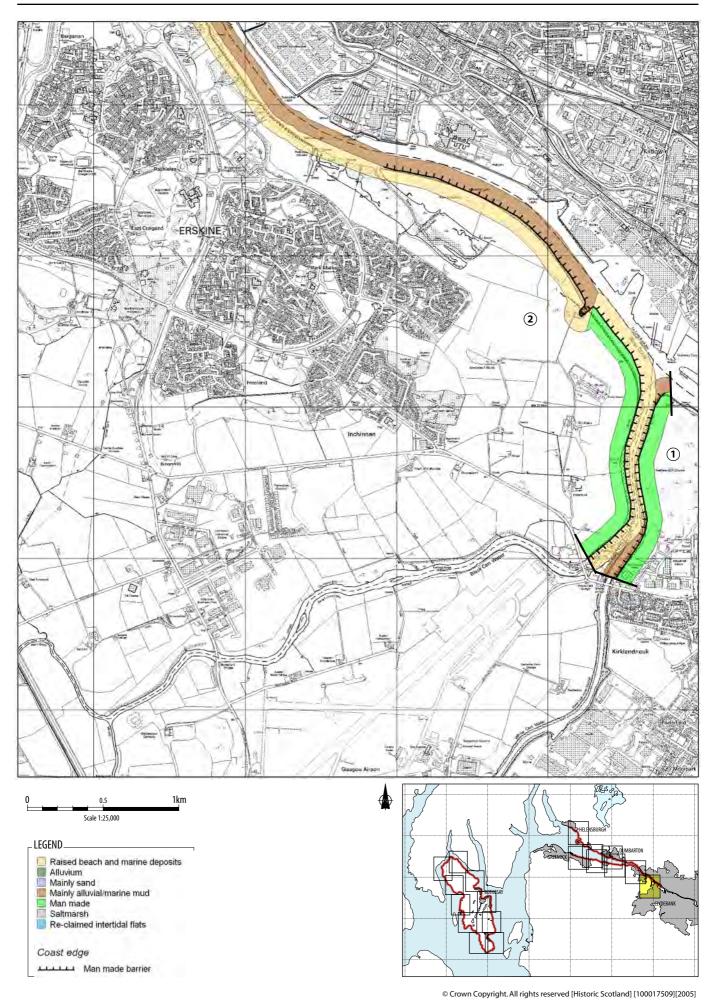
# 1. BLYTHSWOOD POINT to WHITE CART

BRIDGE

NS 4960 6860 1.4km` Mud Low edge (<5m) *Marine deposits* Marine derived deposits with tidal mud flats along river edge.

# 2. WHITE CART BRIDGE to ERSKINE HARBOUR

NS 4880 7052 6km Mudflats Low edge (<5m) *Marine deposits* Marine derived deposits with tidal mud flats along river edge. Sand and mudflats with degraded saltmarsh to rear of Newshot Island.



### 1. BLYTHSWOOD POINT to WHITE CART BRIDGE

NS 4960 6860 1.4km

Accreting or stable This east bank of the White Cart Water is accreting with estuarine mud and silt. Freshwater alluvium is also contributing to the supply of sediment along the banks of the river.

# 2. WHITE CART BRIDGE to NEWSHOT ISLAND

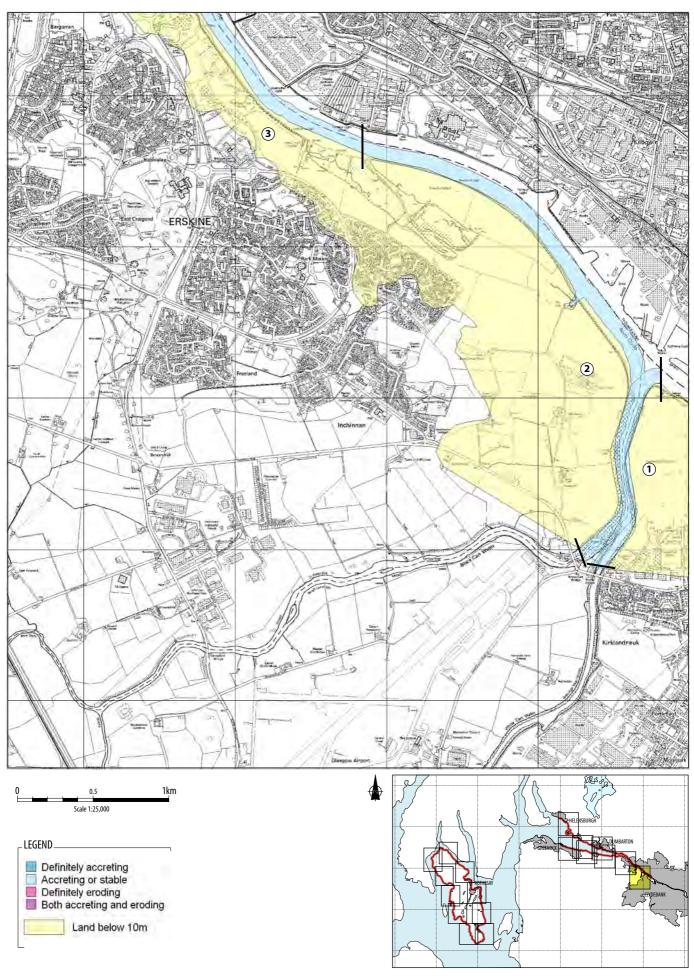
NS 4880 7052 3.6km Definitely eroding Slope failure is occuring for most of the edge of Newshot Island. This has regressed up to 4-5m in parts. The low cliff is seriously undercut by wave action.

# 3. NEWSHOT ISLAND to NORTH BARR

NS 4800 7030 2.5km Definitely accreting The former harbour is slowly filling up with estuarine silt.

## 4. NORTH BARR

NS 4640 7990 2.4km Both accreting and eroding Riverside defensive works are lending stability to this unit. Mud is accreting alongside flood defences is being displaced during the tidal cycle. Erskine Harbour is also heavily infilled with mud and vegetation.



# **CLYDE MAP 5: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

123. RENFREW NS46NE 128 NS 4969 6837 Barrage Balloon Site Uncertain WW2 Nil

#### 129. INCHINNAN **NS46NE 62** NS 4950 6850 Black Cart River (transport) Good 18<sup>th</sup>20th Nil

130. RIVER CART NS46NE 21 NS 4955 6895 Urn Uncertain 4<sup>th</sup> Mil BC-1<sup>st</sup> Cen AD

131. INCHINNAN NS46NE 62 NS 4960 6900 River Cart (transport) Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

132. RIVER CLYDE NS46NE 6 NS 4960 6910 Roman coin Unknown 1<sup>st</sup>-4<sup>th</sup> C AD Nil

133. NEWSHOT ISLAND NS 48126 70134 Fishing weir (poss.) Fair 18<sup>th</sup> – 20<sup>th</sup> AD Monitor

134. NEWSHOT ISLAND NS 47563 70525 Wooden platforms (poss.) & stone jetty Poor 18<sup>th</sup> – 20<sup>th</sup> AD Nil 135. PARK QUAY NS 47443 70662 Quay Poor 18<sup>th</sup> – 20<sup>th</sup> AD Monitor

136. DALMUIR, R. CLYDE **NS47SE 61** NS 4740 7090 Logboat Uncertain 4<sup>th</sup> Mill-BC-1<sup>st</sup> Cen AD Nil

### Sites on the Hinterland

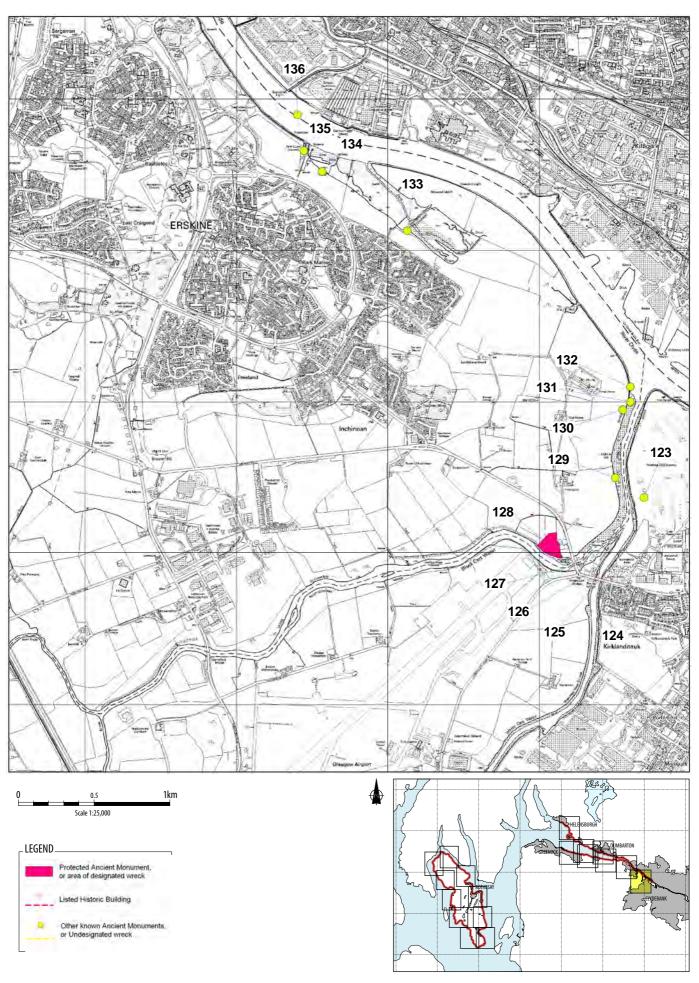
124. RENFREW NS46NE 45 NS 4939 6782 Argyll Stone & St Conval's Chariot Uncertain 18<sup>th</sup> –20<sup>th</sup> Cen Nil

125. RENFREW NS64NE 45 NS 4939 6782 White Cart Lift Bridge Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

126. RENFREW NS64NE 41 NS 9300 6785 White Cart Bridge Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

127. RENFREW NS46NE 19 NS 4923 6792 Inchinnan Bridge Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

128. INCHINNAN NS 6496 6810 Inchinnan Church Good 17-19<sup>th</sup> Ad Nil



# CLYDE MAP 6: ERSKINE HARBOUR to north of DOVE COTTAGE

**Hinterland Geology and Coastal Geomorphology**: The hinterland is dominated by marine deposits resting on undifferentiated glacial till. The foreshore fronting Erskine Park is mainly marine mud flats. Degrading saltmarsh is present towards Dove Cottage.

**Erosion Class**: This section of coastline was classified as both accreting and eroding. Marine mud is building up in parts at the MHWM and being displaced through the tidal cycle.

**Built Heritage & Archaeology**: This cell had a high concentration of archaeological sites including three prehistoric logboats, a prehistoric canoe, and three intertidal crannog sites. Other finds of timbers and posts also suggest prehistoric activity. A fish-trap was recorded at Longhaugh Point. Two find spots produced Roman coins and objects and a silver ring. Inland, Erskine House was noted as being in good condition and still in use as a hospital.

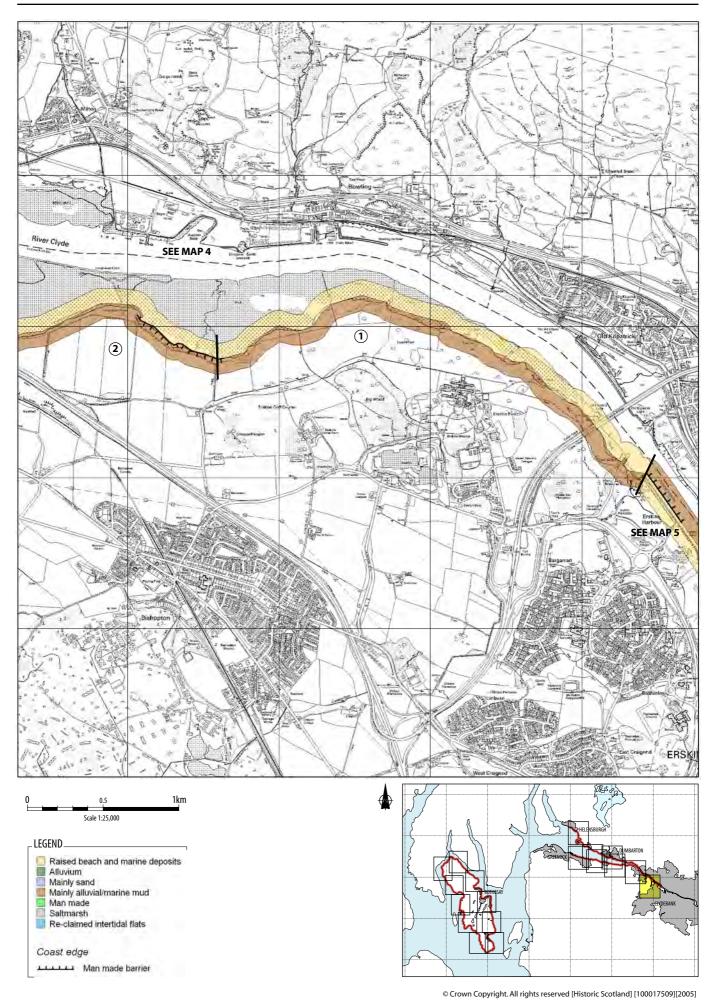
# CLYDE MAP 6: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

### 1. ERSKINE HARBOUR to north of DOVE

COTTAGE NS 4450 7300 5km Mudflats Low edge (<10m) *Marine deposits* Marine deposits with tidal mud flats along river edge.

# 2. DOVE COTTAGE to FERRYHILL PLANTATION

NS 4200 7290 4km Mudflats Low edge (<10m) *Marine deposits* Marine deposits with tidal mud flats along river edge.



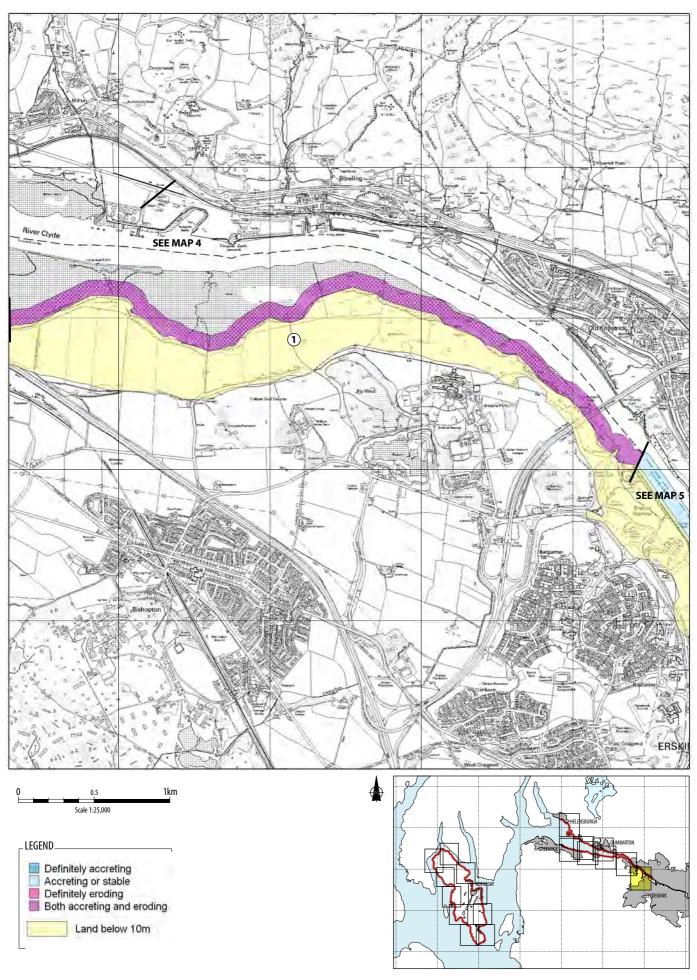
## **CLYDE MAP 6: EROSION**

#### **ERSKINE HARBOUR to DOVE COTTAGE**

NS 4200 7290 3.3km

Both accreting and eroding

Flood defence works protect the shoreline that is accreting with mud up to the HWMS mark. Loss and displacement of sediment is occurring during the tidal cycle towards the MHWMST.



#### **CLYDE MAP 6: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

138. ERSKINE NS 4640 7194 Erskine Harbour Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

139. ERSKINE HARBOUR NS 4639 7290 Wooden posts Poor Uncertain Monitor

140. ERSKINE R. CLYDE NS47SE 62 NS 4640 7194 Logboat Uncertain 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Nil

141. BOTTOMBOW ISLE NS 4636 7190 Timbers Poor Uncertain Monitor

142. ERSKINE HARBOUR NS 4640 7201 Mole Uncertain Uncertain Nil

143. ERSKINE FERRY NS 4629 7204 Seawall, stones and plinth Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

144. ERSKINE FERRY NS47SE 45 NS 4645 7215 Canoe Uncertain 4<sup>th</sup> Mil BC-1<sup>st</sup> Cen AD Nil 148. ERSKINE BRIDGE NS47SE 70 NS 4620 7240 Bridge Good 20<sup>th</sup> AD Nil

149. RIVER CLYDE NS47SE 47 NS 4575 7281 Crannog (poss.) 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Not seen

#### 153. ERSKINE

NS47SE 56 NS 4554 7288 Crannog Poor 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Monitor

154. ERSKINE. R. CLYDE NS47SW 70 NS 4490 7310 Logboat Uncertain 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Nil

155. ERSKINE

NS47SW 36 NS 4425 7315 Silver Ring Uncertain Uncertain Nil

## 156. ERSKINE

NS47SW 69 NS 4400 7300 Logboats Uncertain 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Nil

158. LONGHAUGH POINT NS47SW 22 NS 4355 7283 Crannog Uncertain 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Nil

#### Sites on the Hinterland

137. ERSKINE NS47SE 111 NS 4665 7140 North Barr Farm Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

146. ERSKINE NS47SE 180 NS 4624 7209 Erskine House Ferry Lodge Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

150 ERSKINE HOUSE NS47SE1 NS 4535 7228 Erskine House Piggery 18<sup>th</sup>-20<sup>th</sup> AD Not seen Nil

151. ERSKINE HOSPITAL NS47SE 1 NS 4532 7228 Hospital 19-20thAD Good Nil

152. ERSKINE HOUSE NS47SE 1 NS 4520 7253 Erskine House 19<sup>th</sup>-20<sup>th</sup> AD Good Nil

157. ERSKINE **NS47SW 124** 

NS 4354 7243 124 Dove Cottage 18<sup>th</sup>-20<sup>th</sup> AD Good Nil

#### CLYDE MAP 6: BUILT HERITAGE AND ARCHAEOLOGY Continued

159. SLATEFORD

Nil

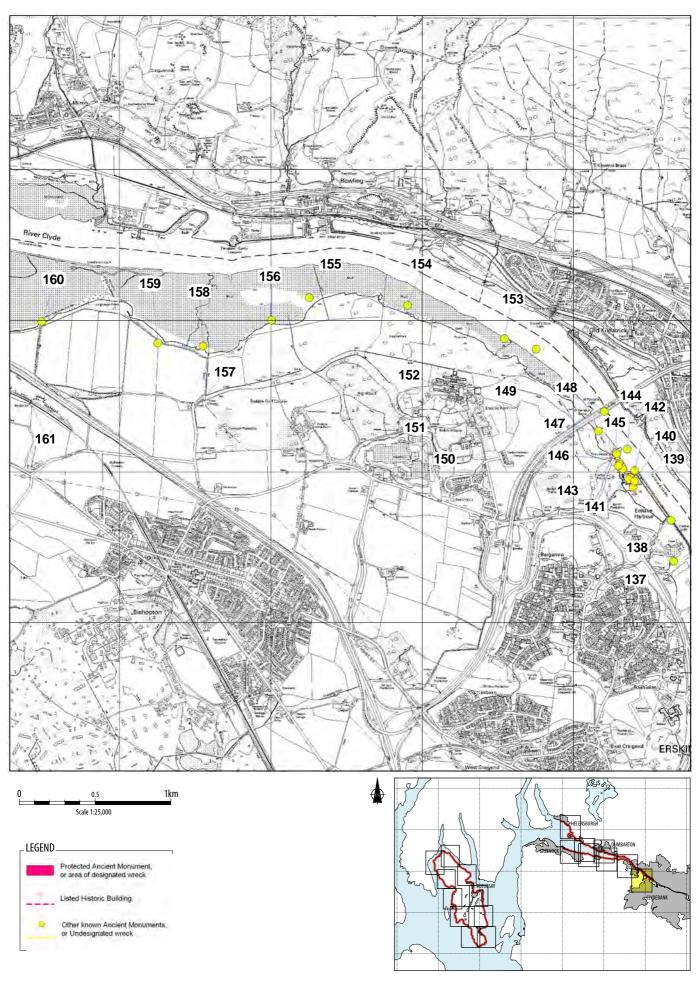
#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

145. ERSKINE FERRY NS 4628 7212 Jetty Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

NS47SW 35 NS 4325 7285 Roman coins & Objects Uncertain 1<sup>st</sup>-4<sup>th</sup> Cen AD Nil 160. LONGHAUGH POINT NS 4248 7299 Fish-trap Uncertain 18<sup>th</sup>-20<sup>th</sup> AD

147. ERSKINE BRIDGE **NS47SE 57** NS 4616 7227 Crannog (poss.) Uncertain 4<sup>th</sup> MilBC-1<sup>st</sup> Cen AD Nil



## CLYDE MAP 7: DOVE COTTAGE to FERRYHILL PLANTATION

**Hinterland Geology and Coastal Geomorphology**: This unit of coastline is very linear and is defended by flood banks. The land towards Longhaugh Point is low lying and probably reclaimed, mainly derived from marine deposits. The shoreline is both estuarine mud and shingle.

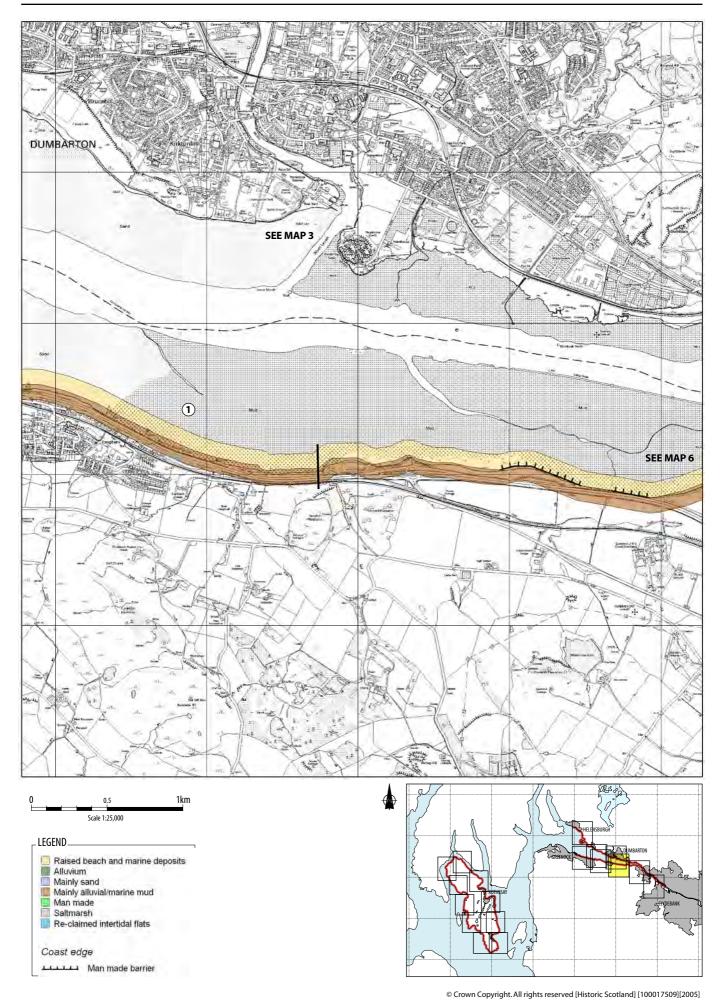
**Erosion Class**: This unit of coastline is considered to be stable. Some accretion of estuarine mud was noted at NS 41659 729907. In general sea wall protection measures are lending stability to this particular coastal unit.

**Built Heritage & Archaeology**: This cell includes a seawall along part of the coastline, probably to help prevent flooding of the nearby motorway. Possible timber ponds were seen, although they were in such poor condition it was difficult to identify them definitely. Possible stone fish traps were also seen. At the far west of this cell is the intertidal crannog of Langbank West (at NGR NS 3822 7365) close to the village of Langbank. The margins of the site are clearly discernable from the surrounding stone-strewn, gravel foreshore.

# CLYDE MAP 7: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

## 1. FERRYHILL PLANTATION to

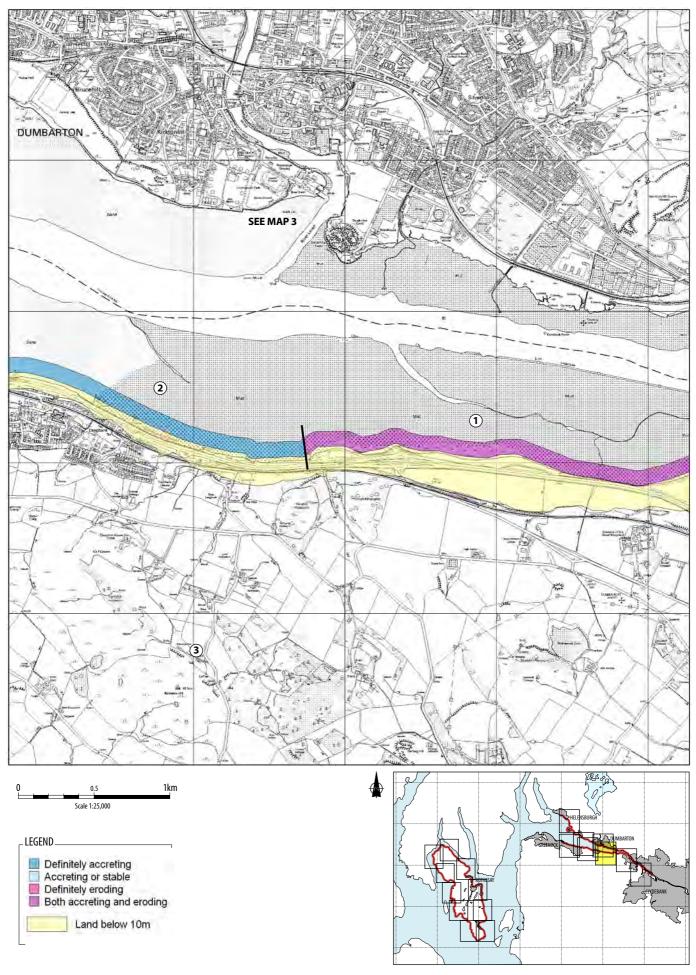
FINLAYSTONE POINT NS 3700 7386 4.6km Mudflats Low edge (<10m) *Marine deposits* Marine deposits, man made coastal edge, mud flats on the foreshore.



## **CLYDE MAP 7: EROSION**

## 2. DOVE COTTAGE to East of LANGBANK

NS 4050 7300 6km Both accreting and eroding This length of riverside is uniform in character with accreting sediment from the tidal flats. Local erosion is confined to the wash zone towards the MHWMST where shingle is exposed during the tidal cycle.



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### **CLYDE MAP 7: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

162. LONGHAUGH POINT NS 4208 7284 Sea Wall Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

163. LANGBANK EAST NS 3949 7300 Timber pond (poss.) Poor  $18^{th} - 20^{th}$  AD Monitor

164. LONGHAUGH POINT NS 42485 72992 Fish trap (poss.) Good Unknown Nil

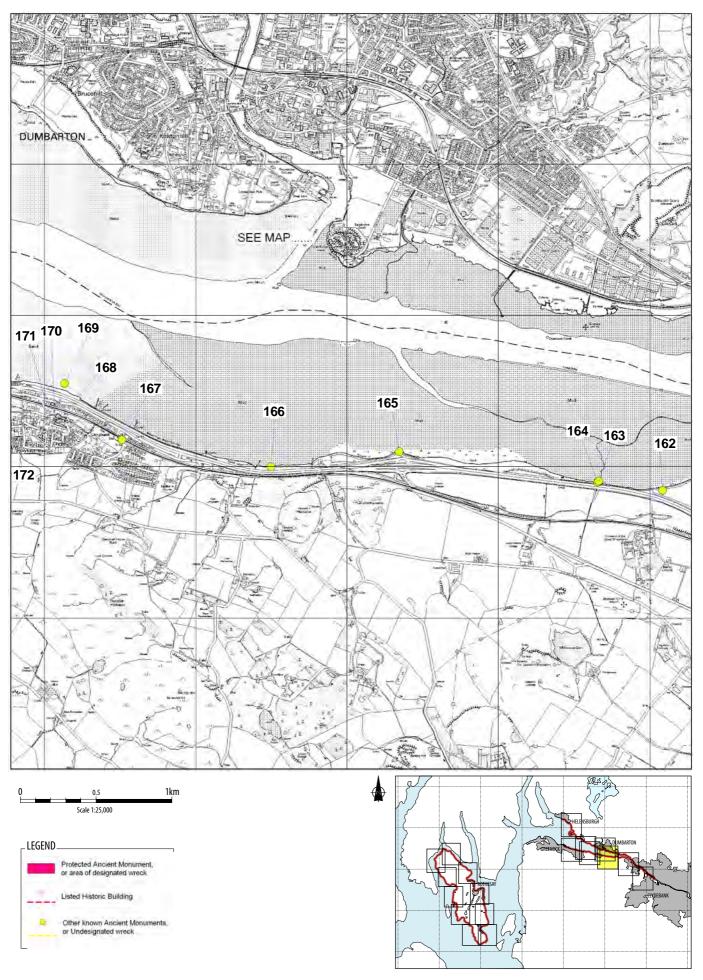
165. LANGBANK EAST NS 4034 7310 Timber pond Poor 18<sup>th</sup>-20<sup>th</sup> AD Monitor

166. LANGBANK EAST NS 39494 73001 Timber pond (poss.) Poor  $18^{th} - 20^{th}$  AD Monitor

169. LANGBANK WEST NS 3813 7355 Crannog Poor 4<sup>th</sup> Mil BC-1<sup>st</sup> Cen AD Monitor

#### Sites on the Hinterland

167. LANGBANK STATION **NS37SE 25** NS 3851 7318 **Railway Station** Good 19<sup>th</sup>-20<sup>th</sup> AD Nil 168 ST VINCENTS COLLEGE NS 3811 7333 Listed B Good 19-20<sup>th</sup> AD Nil 170. ST VINCENTS COLLEGE CHAPEL NS 3806 7331 Listed B Not Seen 18<sup>th</sup>-20<sup>th</sup> Cen Nil 171. ST VINCENTS COLLEGE LODGE NS 3803 7334 Listed C(s) Not Seen 18<sup>th</sup>-20<sup>th</sup> Cen Nil 172. 1-4 WOODSIDE COTTAGES, MAIN STREET, LANGBANK NS 3785 7346 Listed B Good 19-20<sup>th</sup> AD Nil



## CLYDE MAP 8: FERRYHILL PLANTATION to FINLAYSTONE POINT

**Hinterland Geology and Coastal Geomorphology**. The hinterland comprises marine deposits overlying glacial till. At Ferryhill Plantation the coastal edge is close to the A80. The foreshore is dominated by mud and gravel.

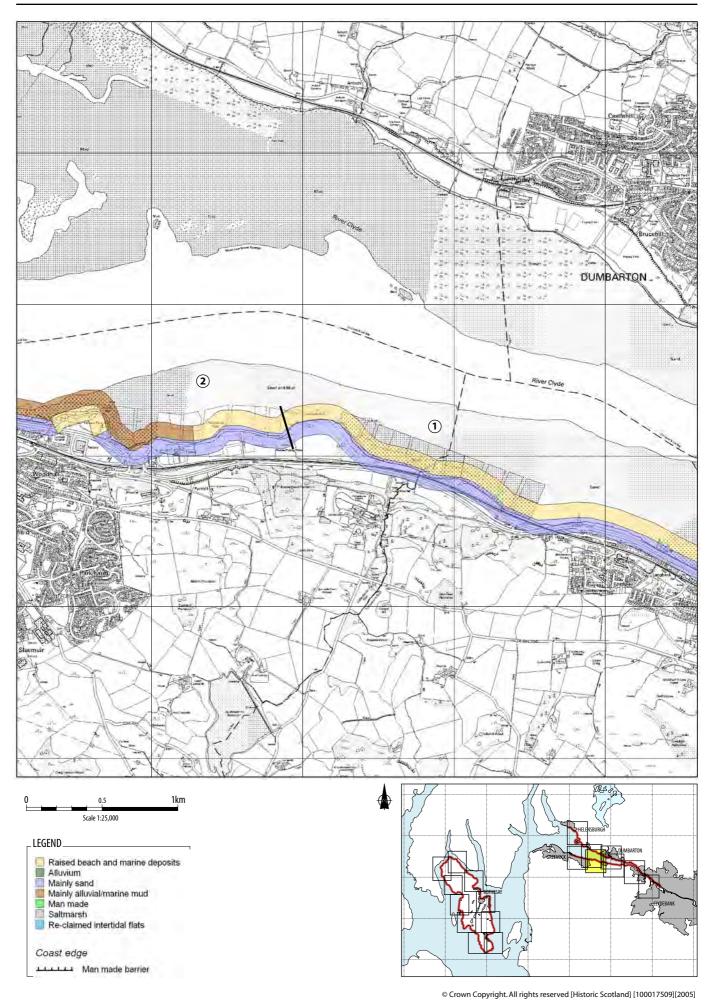
**Erosion Class**: Both accretion and erosion is occurring. In the proximity of sea walls the coastline is stable with some local areas prone to sediment accretion where mud has not been displaced during the tidal cycle.

**Built Heritage & Archaeology**: To the west of the Langbank West crannog an extensive system of timber ponds associated with the Port Glasgow ship building industry are present. Rectangular wooden stakes protrude from the mud flats forming lagoons in which rafts of imported timber were stored. These ponds are marked on the current OS 1:25000 scale maps. A seawall has been constructed along the Langbank foreshore to protect the road and railway lines that run quite close to the shoreline.

# CLYDE MAP 8: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

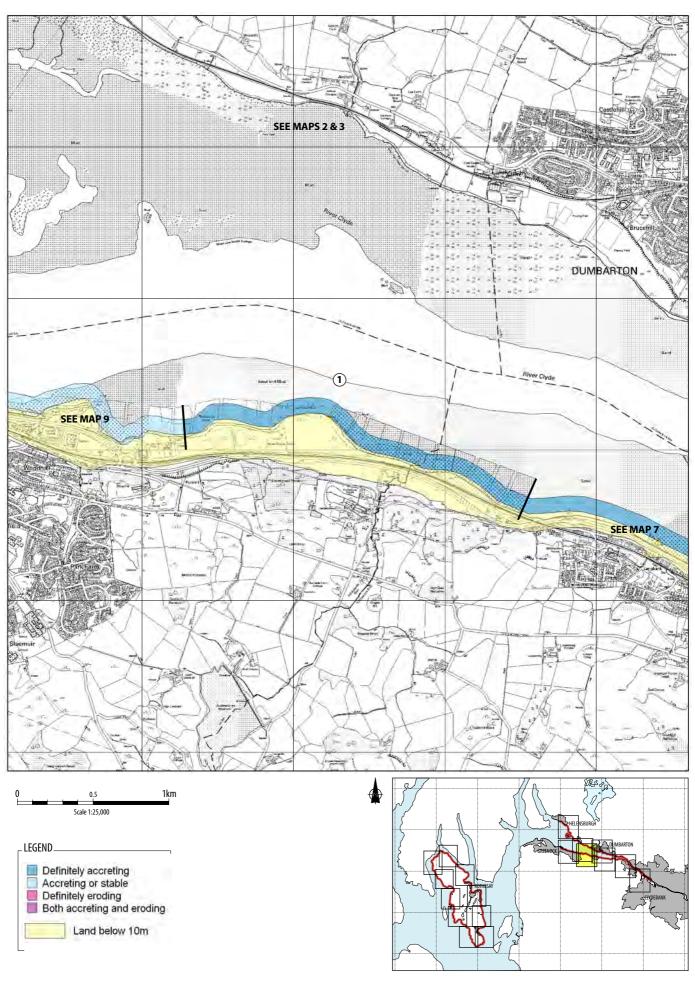
#### 1. FERRYHILL PLANTATION to FINLAYSTONE POINT

NS 3700 7386 4.6km Mudflats Low edge (<10m) *Marine deposits* Marine deposits, man made coastal edge, mud flats on the foreshore.



### **CLYDE MAP 8: EROSION**

#### East of LANGBANK to FINLAYSTONE POINT NS 3700 7330 3.7km Definitely accreting The remains of extensive timber ponds associated with ship building is leading to sediment accretion. The ponds are trapping silt that is accreting within this coastal unit.



### **CLYDE MAP 8: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

173. LANGBANK WEST NS 3766 7353 Seawall Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

176 FINLAYSTONE BANK NS 37617 73545 Timber ponds Fair 18<sup>th</sup> – 20<sup>th</sup> AD Monitor

178. KELBURN SHORE NS 3472 7419 Seawall Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

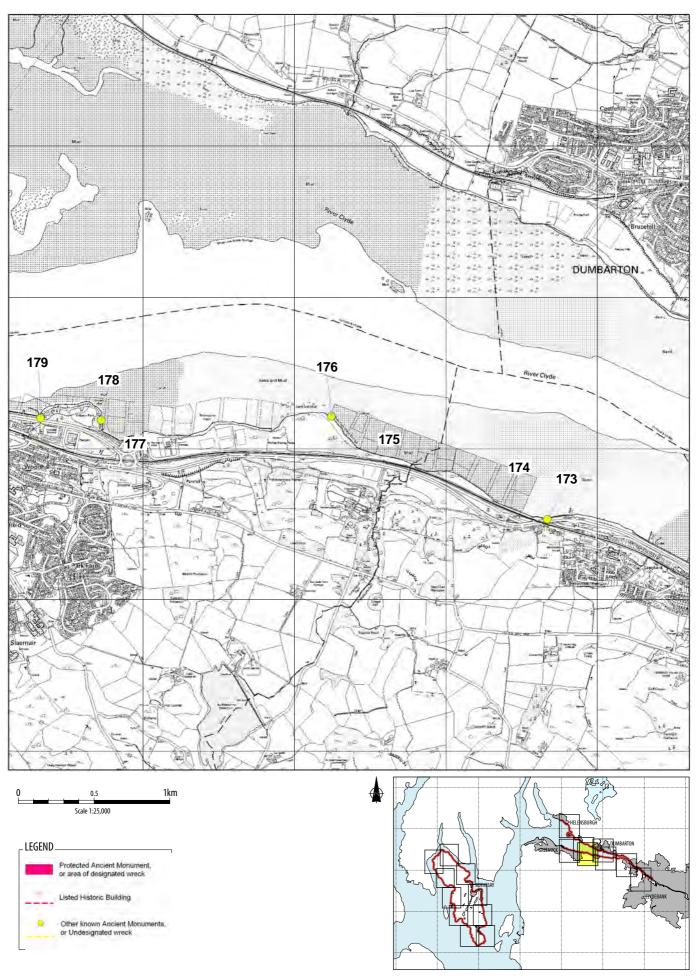
179. PORT GLASGOW NS 3431 7420 Seawall Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

#### Sites on the Hinterland

174. FINDLAYSTONE HOUSE NS 3741 7352 Findlaystone House East Lodge Listed B Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

175. FINDLAYSTONE HOUSE NS 3645 7371 Findlaystone House Listed A Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

177. PORT GLASGOW NS 3495 6375 Broadfield Hospital Listed A Good 19<sup>th</sup>-20<sup>th</sup> AD Nil



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## **CLYDE MAP 9: FINLAYSTONE POINT to PORT GLASGOW**

**Hinterland Geology and Coastal Geomorphology:** Port Glasgow is built on marine deposits overlying glacial till. The foreshore has been greatly altered by industrial development associated with a long history of shipbuilding.

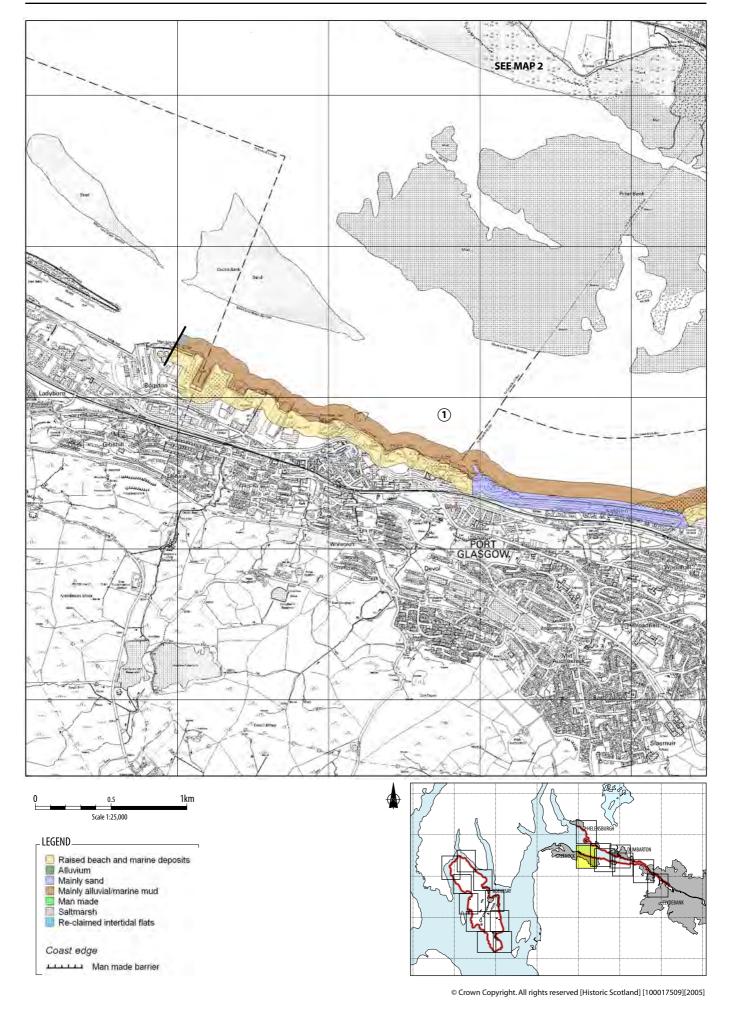
**Erosion Class**: Only a part of this section of coastline could be monitored due to difficulty of access. Where access could be gained the coastline was found to be stable. Various sea defence measures have been employed along this coastal unit, including gabion baskets, concrete and stone walls and boulder dumps.

**Built Heritage & Archaeology**: This cell was dominated by industrial sites, including quays and warehouses in the west and a waterfront park and walkway in the east. Timber ponds were present in the east. A seawall was present for much of the length of this cell, although there are some areas in the east where no seawall has been built.

# CLYDE MAP 9: HINTERLAND GEOLOGY AND COASTAL GEOMORPHOLOGY

## 1. FINLAYSTONE POINT to PORT

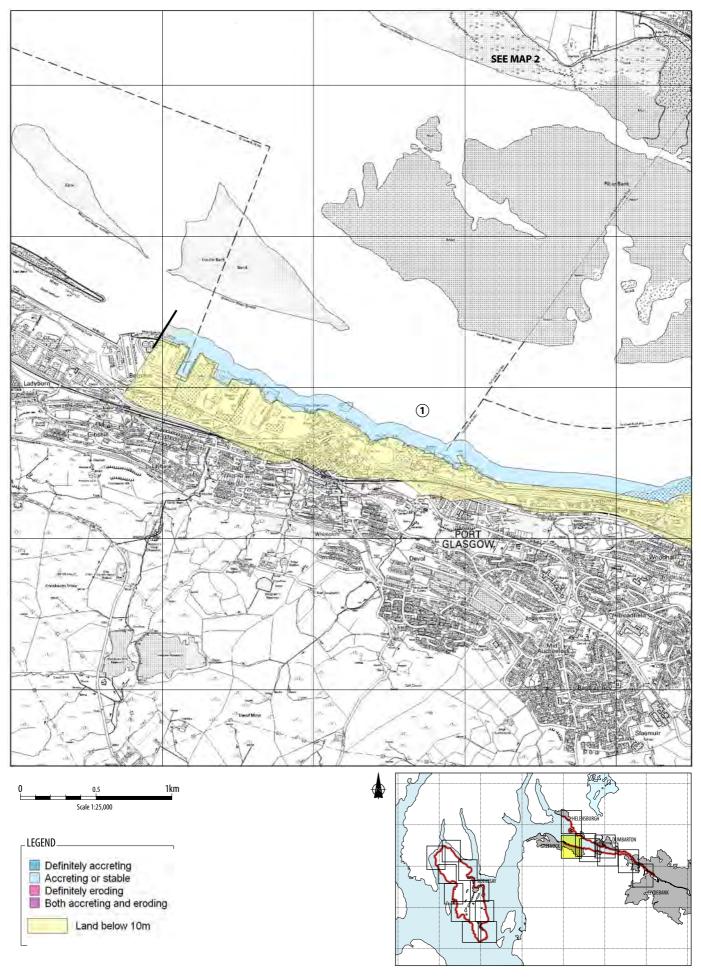
GLASGOW NS 3700 7386 4.6km Mudflats Low edge (<10m) *Marine deposits.* Artificial man-made coastal edge, with mud flats on the foreshore.



## **CLYDE MAP 9: EROSION**

#### PORT GLASGOW

NS 3700 7386 3.7 km Accreting or stable Defended coastal edge leading to stability with accreting mud banks at HWMST.



#### **CLYDE MAP 9: BUILT HERITAGE AND ARCHAEOLOGY**

#### Sites on the Coast Edge & Foreshore

181. KELBURN SHORE NS 33459 74517 Timber ponds (poss.) Poor 18<sup>th</sup> – 20<sup>th</sup> AD Monitor

182. KELBURN SHORE NS 33731 74295 Timber ponds Poor 18<sup>th</sup> – 20<sup>th</sup> AD Monitor

184. KELBURN SHORE NS 33905 74272 – NS 35983 74214 Timber ponds Fair  $18^{th} - 20^{th}$  Ad Monitor

187. KELBURN SHORE NS 33044 74460 Wooden pier / jetty Good 18<sup>th</sup> – 20<sup>th</sup> AD Nil

188. PORT GLASGOW NS37SW 60 NS 3290 7440 Lamont's Castle Shipyard Uncertain 18<sup>th</sup>-20<sup>th</sup> Nil

193. PORT GLASGOW NS37SW 37 NS 3265 7455 Fergusan Ailsa Shipyard Uncertain 18<sup>th</sup>-19<sup>th</sup> AD Nil

194. PORT GLASGOW NS37SW 170 NS 3263 7451 Barrage Balloon Site Uncertain WW2 Nil 196. PORT GLASGOW NS37SW 152 NS 3222 7486 West Quay Lighthouse Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

197. PORT GLASGOW NS37SW 150, 142, 153 NS 322 748 West Harbour, Warehouses, Customs House, west quay Good 18<sup>th</sup>-20<sup>th</sup> AD Nil

## Sites on the Hinterland

180. PORT GLASGOW NS37SW 154 NS 3399 7380 Roman Catholic Church Listed A Good 19<sup>th</sup>-20<sup>th</sup> AD Nil

183. PORT GLASGOW NS37SW 26 NS 3365 7425 Gasworks Uncertain 19<sup>th</sup> –20<sup>th</sup> AD Nil

185. PORT GLASGOW NS37SW 116 NS 3296 7414 Clune Park Primary school Listed B Uncertain 19<sup>th</sup>-20<sup>th</sup> AD Nil

186. PORT GLASGOW NS37SW 115 NS 3295 7419 Clune Park C o S Church Listed B Uncertain 19<sup>th</sup>-20<sup>th</sup> AD Nil

189-191. PORT GLASGOW NS37SW 1.00 NS 3281 7451 Newark Castle, vault and chapel Listed A Good 14<sup>th</sup>-18<sup>th</sup> AD Nil

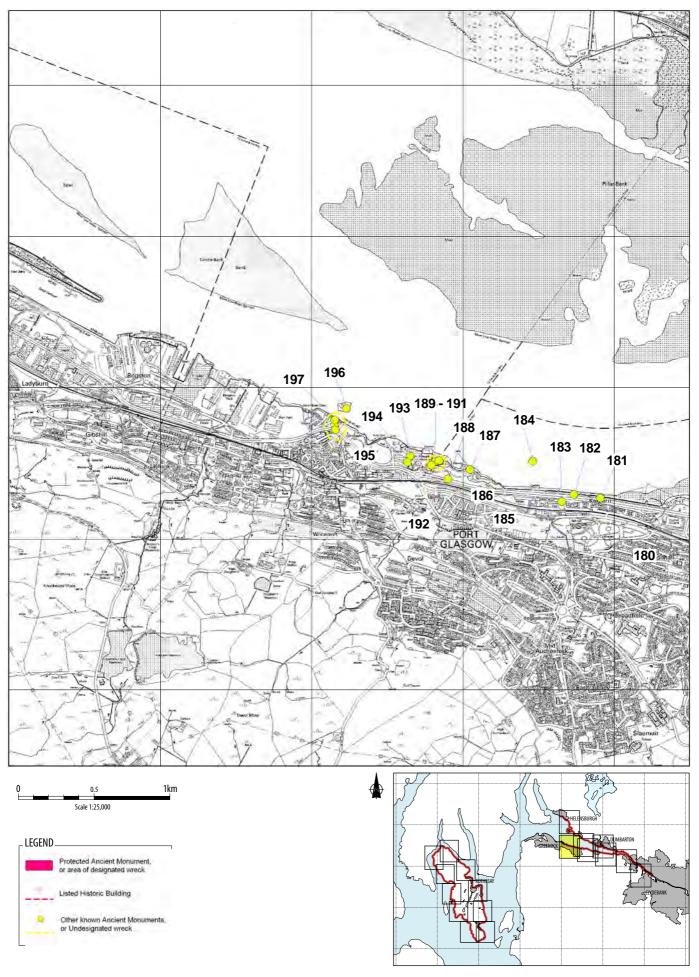
192. PORT GLASGOW **NS37SW 148** NS 3270 7426 6-10 Newark Street Good 19<sup>th</sup> -20<sup>th</sup> AD Nil

## CLYDE MAP 9: BUILT HERITAGE AND ARCHAEOLOGY Continued

#### Sites on the Coast Edge & Foreshore

#### Sites on the Hinterland

195. PORT GLASGOW NS37SW 29 Gourock Ropeworks Listed A Uncertain Uncertain Nil



## 7. SURVEY RESULTS FOR THE ISLAND OF BUTE

- **7.1** Based on the results of the field survey this section examines the findings relating to the erosion record of the Island of Bute.
- 7.1.1 The total length of the coastline is based on the digital measurement of each coastal unit mapped on each of the coloured 1:25, 000 map sheets (Bute Maps 1-10 above). The combined length of all units is 82.1km. This figure was used to establish the percentage frequency of each erosion class.

*Erosion Classifications (Fig 3 & 4)* 

7.1.2 Erosion classes used are as defined in the Historic Scotland procedure document. Analysiss of the results are shown in a series of histograms and summarised in Table 2 below.

Erosion Class	Number of units	Total length (km)	Total length (%)
Eroding or Stable	9	27.5	33
Definitely Eroding	9	16.9	20.4
Accreting/Eroding	11	27.5	33
Accreting/Stable	10	10.6	12.8

Table 2: Summary statistics of the erosion class lengths of Bute

7.1.3 Both the *Eroding or Stable* and the *Accreting and Eroding* classifications attain a combined length of 27km and 10.6km respectively representing 33% of the survey area. The *Definitely Eroding* class attains a combined length of 16.9km, representing 20.4% of the survey area. The *Accreting or Stable* classification has the shortest combined distance at 10.6km, representing 12.8% of the survey area.

Period Categories of archaeological sites and monuments (Figs 5 & 6)

- 7.1.4 The results for the period categories for all the sites and monuments examined show a bi-modal distribution with 110 sites (59%) of unknown date. Typically sites which were assigned to this category include possible intertidal fish-trap sites, boat landing places, building platforms and poorly preserved settlement remains that are difficult to date without further investigation. Forty-five sites (25%) were assigned to the 18<sup>th</sup> and 20<sup>th</sup> century. This group is rich in industrial remains such as harbours, piers and jetties as well as the numerous listed buildings along the east coast of the island (mainly in and around Rothesay). Nine sites representing (8%) of the total number of sites (n= 180) are dated to the 4<sup>th</sup> millenium BC-1<sup>st</sup> century BC. This broad date range includes the later prehistoric monuments and features associated with Dunagoil promontory fort.
- 7.1.5 There are no Late 20<sup>th</sup> century, 11<sup>th</sup>-14<sup>th</sup> century and pre-4<sup>th</sup> millenium sites within the study area. The survey recorded only two WW2 sites and these are represented by a ruined look-out station and a system of posts to prevent planes landing in Scalpsie Bay on the west coast. These remains are poor and it is suggested that the origional number of WW2 sites must have been greater,

especially given the strategic importance of the Firth of Clyde during the Second World War.

#### Condition classifications of all site and monuments (Figs 7 & 8)

7.1.6 The classifications *Good*, *Fair* and *Poor* have been assigned to the general condition of all sites and monuments seen within the study area. The data shows that 62 sites and monuments were observed as Poor (29%). The other two condition classes attained 10 and 12% of the total number of archaeological sites recorded respectively. Sites within the intertidal area were found to be in a poor state of preservation. For example, possible fish-traps sites survived as nothing more than a low line of eroding posts or boulders. Similarly piers and jetties were generally found to be in a poor state. Sites within the hinterland are markedly better preserved. The prehistoric sites and monuments on the west coast of Bute associated with promontory forts and duns, were generally in a good condition.

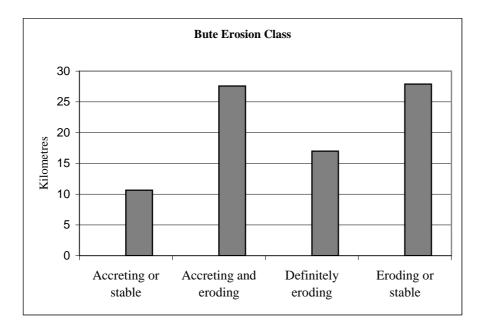


Figure 3 Bute distance versus erosion/stability classification

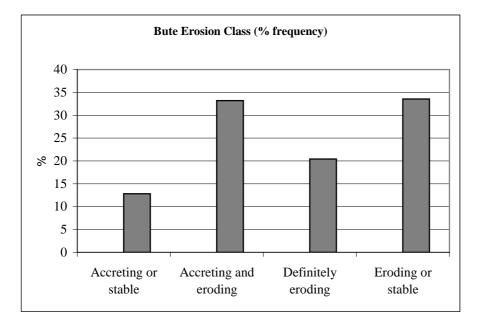


Figure 4 Bute percentage frequency of distance versus erosion/stability classification

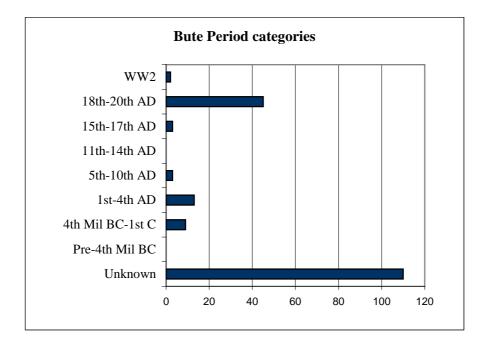


Figure 5 Bute period categories of all sites and monuments

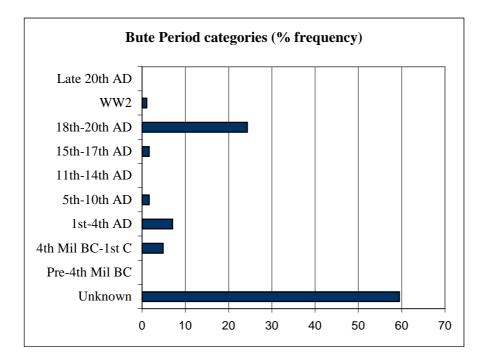


Figure 6 Bute percentage freqency period categories of all sites and monuments

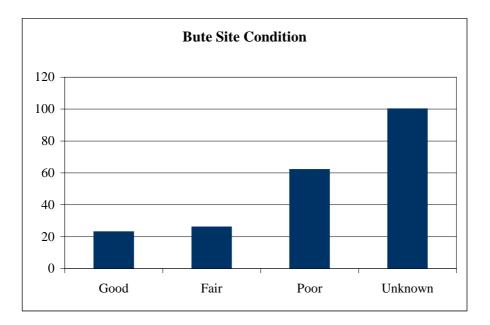


Figure 7 Bute frequency and condition of all archaeological sites

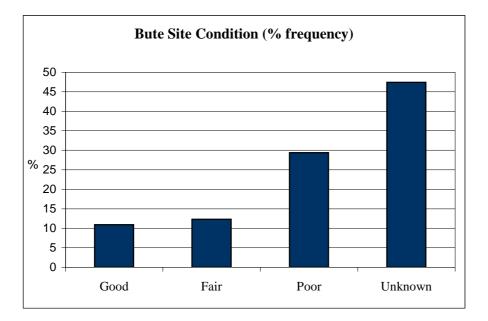


Figure 8 Bute percentage frequency and condition of all archaeological sites

## 8. SURVEY RESULTS FOR THE RIVER CLYDE

- **8.1** Based on the results of the field survey this section examines the findings relating to the erosion record of the River Clyde.
- 8.1.1 The total length of the coastline is based on the digital measurement of each coastal unit mapped on each of the coloured 1:25, 000 map sheets (Clyde Maps 1-10 above). The combined length of all units is 58 km. This figure was used to establish the percentage frequency of each erosion class.

Erosion Classes for the Clyde (Figs 9 & 10)

8.1.2 The River Clyde survey area has produced three types of erosion class. These include *Accreting or Stable*, *Accreting and eroding* and the *Definitely Eroding* classes. Seventeen kilometres of coastline is classified as *Definitely Eroding* representing 30% of the survey area.). The *Accreting and eroding* class represents 19km or 35% of the survey area. The *Accreting or stable* class has attained the greatest distance at just over 20km (c.40% of the survey area).

Erosion Class	Number of units	Total length (km)	Total length (%)
Definitely eroding	5	17	25
Both	7	19	35
Accreting/eroding			
Accreting/stable	7	22	40

Table 3 Summary statistics of the erosion class lengths of the Clyde

The results demonstrate that sediment accretion is geographically extensive 8.1.3 and that active erosion is also occurring for at least 25% of the coastline within the survey area. Most of the active erosion appears to be confined to areas including Hill of Ardmore, Cardross and Dumbuck on the north side of the river where both 'soft' cliff sections and saltmarsh are eroding (see Figure 3 and 4). On the south side of the river, the cliff fronting Newshot Island is eroding, with up to 4-5m of saltmarsh lost behind the cobble revetment walls. 75% of the study area is currently affected by sediment accretion. The moderate tidal range in the Firth of Clyde results in weak currents. Firth and Collins (ibid) note that the primary source of sediment entering the Clyde area is from glacigenic and marine derived material situated on the margins of the estuary which will include erosion of both the coastline and nearshore sediment within the wider Firth of Clyde. There are no specific figures for fluvial born sediment derived from the River Leven and Black and White Cart Water or the upper reaches of the River Clyde. Dredging operations along the River Clyde have now virtually ceased (John Macdonald pers comm). This is mainly due to the decline in trade and shipbuilding that in the recent past required deep water shipping lanes.

Period categories of archaeological sites and monuments (Figs 11 & 12)

8.1.4 Over 100 sites and monuments were dated to between the 18<sup>th</sup> and 20<sup>th</sup> century (62%). The rest of the sites and monument attain values of below 10%.

Twenty-one sites (13%) were classified as unknown and include features that were difficult to classify without further investigation.

- 8.1.5 WW2 features are very rare (4%) and where these were found to survive, they were generally found to be in a poor state of preservation. Given the strategic importance of the River Clyde during the war it is very surprising that features from this period category were not more frequent. As we have seen, this pattern was observed for Bute and possibly demonstrating the vulnerability of WW2 monuments.
- 8.1.6 The large number of 18<sup>th</sup>-20<sup>th</sup> century sites include fish-traps on the northern shore. On the southern shore timber ponds, possible fish-traps and wooden piers and the numerous sea walls and harbours erected as part of the industrialisation of the River Clyde.
- 8.1.7 Roman, Dark Age and Earlier medieval and sites and monuments are low in frequency. Isolated findspots include urns and a finger ring. Sites such as the Dunglass Roman forts, Dumbarton Castles with its associated chapel contributes to these particular period categories.
- 8.1.8 Prehistoric features assigned to the 4<sup>th</sup> millennium BC –1<sup>st</sup> Century AD include the presence of inter-tidal crannogs, several logboats and prehistoric findspots. No Mesolithic sites or related finds are represented within the study area. The only cave with associated shell midden (NMRS NS37 NW6) is that recorded on the Hill of Ardmore (see Site 18 in Map 1). Although such a site might have been considered to be a typical coastal site of the Mesolithic period, excavation showed that the site contained only Iron Age finds.
- 8.1.7 The hinterland is dominated by built heritage features, most of which are listed. These buildings are depicted on Maps 1-10 as grouped entries and listed in Appendix 2. The largest numbers of listed buildings were present in the coastal towns of Helensburgh and Dumbarton.

Status classes of all site and monuments (Figs 13 & 14)

8.1.8 The results for the condition category of sites and monuments show that the majority of the sites (32%) recorded are in a good condition. Approximately 25% of these sites were in a poor condition and the rest were considered to be in a fair condition (7%). The consideration of the condition of the sites has potentially been skewed by the numerous listed buildings at Helensburgh and Dumbarton and the various sites classified as find-spots and log-boats whose condition is not known.

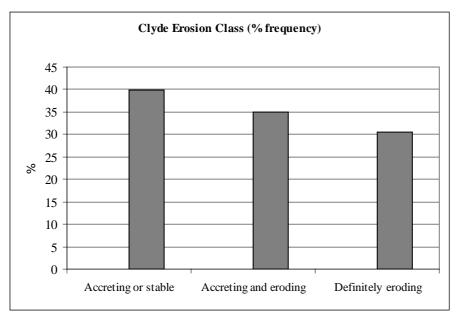


Figure 9 Clyde distance versus erosion/stability classification.

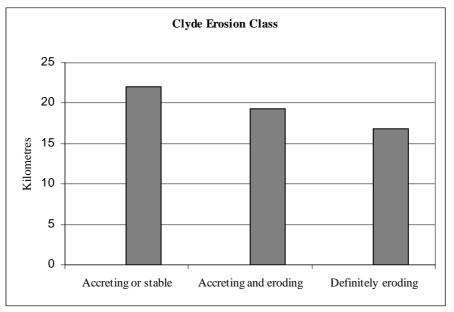


Figure 10 Clyde percentage frequency of distance versus erosion/stability classification.

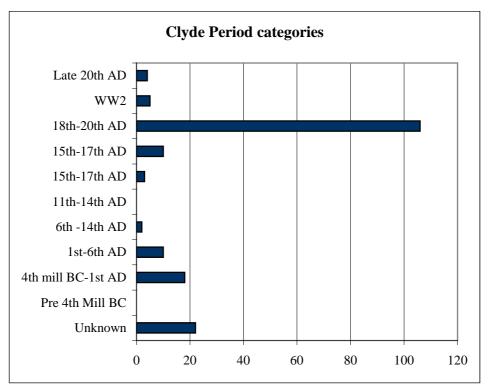


Figure 11 Clyde period categories of all sites and monuments.

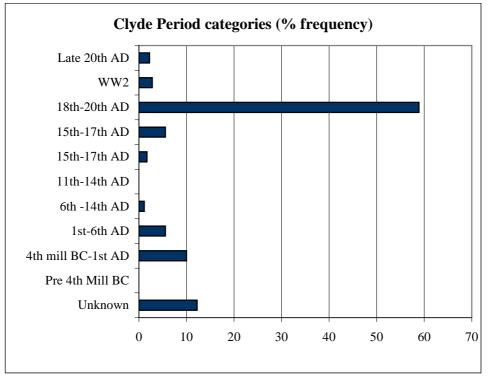


Figure 12 Clyde percentage frequency period categories of all sites and monuments.

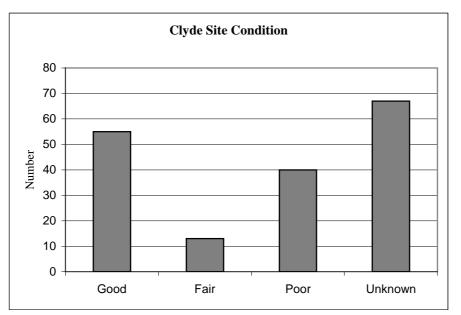


Figure 13 Clyde frequency and condition of all archaeological sites.

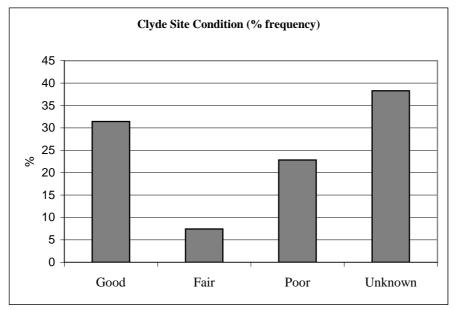


Figure 14 Clyde percentage frequency and condition of all archaeological sites.

## 9. CASE STUDIES: FISH-TRAPS & CRANNOGS

## 9.1 Fish-traps

- 9.1.1 The importance of fish-traps within the study areas will now be examined. These features appear to have been much more numerous within the Firth of Clyde than the archaeological record would suggest.
- 9.1.2 In a recent reappraisal of Scottish fish-traps based on historical accounts and field survey, Hale (2003) showed that estuarine fish-traps were built in a variety of forms, utilising different construction materials and often situated in particular places within estuaries and referred using colloquial terminology, such as 'yairs'. Invariably they are set at right angles to the coastline or at least at an angle that provides a barrier against which fish cannot swim and are subsequently forced into traps by receding tidal waters. In other cases the structures could be situated across ebb and flow channels to exploit migrating fish during the local tidal cycle. There are a number of different designs ranging from simple alignments of boulders to more complex traps including elaborate systems combining wattle-work forming stake and bag nets. There are still good examples of this type of net surviving on the Solway Firth that have only been abandoned in recent times.
- 9.1.3 Other Scottish coastal zone assessments have highlighted the frequency of fish-traps. In Cressey and Hale (1998), 62 fish-traps were recorded within the Beauly and Cromarty Firths. Here, calmer estuarine conditions favoured placing stake nets close to the confluence of freshwater river channels to trap migratory fish such as salmon and sea trout. It was demonstrated that fish-trap sites were also once numerous on the North Sea coastline but these did not survive owing to coastal erosion. Hale (2003) has also demonstrated that historical maps and documentary accounts provide evidence of other types of fish-traps known as 'weirs' and 'cruives' and these can be found in the lower and tidal reaches of Scottish rivers. These tended to be smaller structures than their maritime cousins and were generally tailored to fit the topography of the local riverbed. The archaeological record for such sites is poor due to the erosive nature of Highland rivers, especially in times of spate. Hale (2003) notes that today we see the remains of more recently built cruives that can comprise modern bonding materials such as concrete.

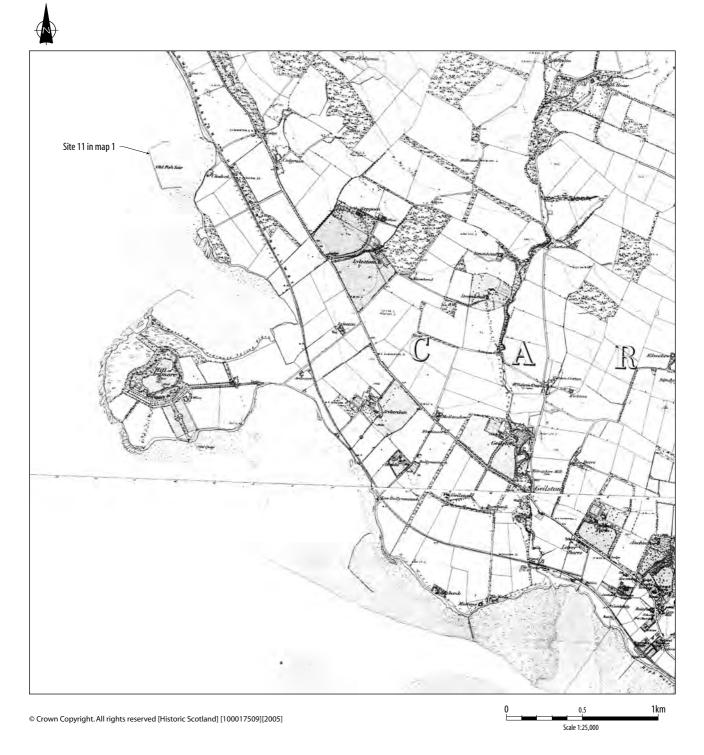
#### 9.2 Bute fish traps

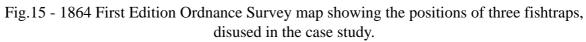
9.2.1 Ferrier (1969) considered that at least nine fish-traps were visible on the intertidal areas of Bute. During the course of his survey, he recorded only one on the east coast of Bute. This was located in the relatively sheltered East Kyle towards the north-east end of the island. The rest of the traps, eight in all, were confined to the west side of the island and found to be closely associated with fresh water streams. Of the traps that he recorded, only the one found at Glecknabae (NGR: NS 0030 6830) was rectangular in shape and consisted of lines of boulders. The rest of the traps were found to comprise lines of boulders forming short walls built across a natural inlet. In most cases the walls were buried in sea weed anchored to the foundation stones. He made

a very interesting point that it was useless to look for fish traps at high water, and that at low water, the stones may be buried in weed and that half-tide on the ebb presented in general the most suitable period for their recognition. It seems likely then that Ferrier was identifying the areas of ponding that occurred for brief periods of time when sea water is still retained behind the rock barriers. On a cautionary note, he further explained that it was very easy to confuse fish-traps with landing jetties, broken volcanic dykes or even old boundary walls running into the sea. The scarcity of fish-traps on the east coast was explained by lack of formal survey, the exposure to heavy wave action in storms, and to the presence of the Mount Stuart Estate, the Burgh of Rothesay and the other main centres of settlement. With regard to heavy wave action, it is argued by this author that wave action would not limit the presence of fish-traps and it is more likely to be either estate control or possibly tidal range factors that limited their use. It seems likely that fish was plentiful and certainly more productive as a result of boat fishing within the Kyle of Bute.

#### 9.3 Clyde fish-traps

- 9.3.1 The north side of the Inner Firth of Clyde has a collection of fish-traps that fall into the category of yairs. Two are depicted on the 1864 First Edition Ordnance Survey (Fig 15) map as 'Old Fish Yair' and are highly visible on aerial photographs (Plate 14). The largest fish-trap is situated to the north of Ardmore Hill at NGR NS 3170 8010 and is rectangular in shape and at least 300m in length. The structure consists of a line of boulders approximately 3m wide. An inlet channel is present approximately in the middle of the feature. There has been a great deal of accretion of estuarine mud within the fish-trap and during a recent Shorewatch survey it was found that sea water was still retained within the feature for quite some time after the tide had receded. This is demonstrated in Plate 2 that clearly shows rapid flowing water running out of the entrance of the trap. It seems logical that a gill net could be placed across the entrance just before the turn of the tide. Fish trapped within the stone enclosure would naturally swim with the greatest flow of water through the central channel and into the net (Hale pers comm). It is estimated that the trap walls would have stood to a height of about half a metre, and these were certainly of sufficient height for a person to walk along and draw a net across the entrance by hand. It is further surmised that migrating Spring and Autumn salmon running up to the Rivers Clyde and Leven were the main fish exploited. Dabs and flounders were also likely to have been caught.
- 9.3.2 On the north side of Hill of Ardmore (NGR: NS 3160 7920) another fish-trap was recorded during the recent survey (Fig 15). This survives as a long curvilinear mound of boulders. At its terminus a line of small wooden stakes was found strongly suggesting that these were associated with a stake net that was positioned well within the sheltered bay. Again, as with the previously mentioned fish-traps, this one appeared to also hold water to a depth of about 0.4m well after the tide had receded. Accretion of estuarine sediment and the displaced nature of the boulders do not allow for a true estimate of the actual depth of water that would have been trapped behind the walls when the trap was in operation.





- 9.3.3 A third fish-trap was also identified during the Shorewatch field visit to the south of the Hill of Ardmore (NGR: NS 3579 7610). This fish-trap survives as a crescent-shaped line of boulders approximately 25m long and about 2m wide. Interestingly, this feature is shown on the 1864 First Edition Ordnance Survey map as an "*old fish yair*" and it is situated running at right angles to a sinuous river channel located between the foreshore and the Piller Bank. It seems plausible that migrating fish running up the channel on a flood tide could have run into the barrier wall and then funnelled into a stake net positioned towards the shore. Migratory fish running down the River Clyde on the ebb tide could also have been trapped. The current 1:25,000 Ordnance Survey map no longer shows the channel which clearly demonstrates how river channels on tidal flats can radically alter over time
- 9.3.4 This case study has demonstrated that there is a wealth of information to be gleaned on the fish-traps within the study area. It is hoped that further research will be carried out on these features in the near future.

#### 9.4 Marine Crannogs

9.4.1 Section 4.2.1 above mentioned the presence of five known marine crannogs within the Firth of Clyde. These sites are currently being re-examined by the newly formed Clyde Shorewatch groups as part of their long-term monitoring projects. The significance of these sites has been illustrated by Hale 2000. This case study will focus only on the three crannog sites on the southern shore – Erskine, Langbank East and Langbank West (Fig 14). The Dumbuck crannog has been investigated in great detail as it has been the subject of several seasons fieldwork by Alex Hale and Rob Sands and forms the basis of the Dumbuck Research Project (Hale 2000). Table 4 below lists the radiocarbon dates for the Dumbuck and Erskine crannogs.

Lab code	Site	Material dated	Years BP uncal
GU-7472	Dumbuck 1	Oak pile	$2090 \pm 50$
GU-7471	Dumbuck 2	Alder flooring timber	$1910 \pm 50$
GU-7472	Dumbuck 3	Oak Pile	$2040 \pm 50$
GU -7473	Dumbuck 4	Alder flooring timber	$2060\pm50$
GU-2328	Erskine	Oak timber	$1950 \pm 50$
GU-2187	Erskine	Oak timber	$1970 \pm 50$
GU-2383	Erskine	Oak timber	$2170 \pm 60$
GU-2186	Erskine	Alder timber	$2210 \pm 50$

Table 4 Radiocarbon dates from marine crannogs in the Firth of Clyde (Hale 2000)

#### Erskine Crannog

9.4.2 Erskine Crannog (NGR: NS 4555 7288) is exposed for approximately four hours during low tide. In 1997, Hale (2000) confirmed that the upstanding remains consist of a mass of timbers and stones, 100m from the southern shore of the Firth on the edge of a large sandbank. Hale (2000) investigated what changes if any had occurred in the geomorphology of the structure since a previous photogrammetric site survey was carried out in 1984 (Hanson and McDonald 1985). Hale noted that a number of timbers, especially on the north

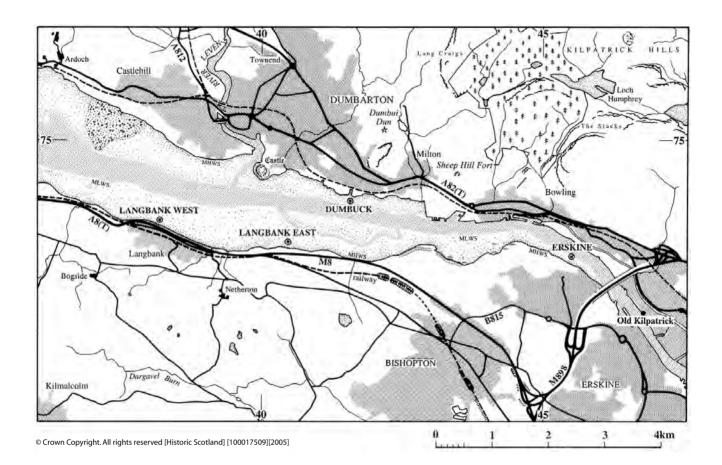


Fig. 16- Distribution map of inter-tidal crannogs within the River Clyde (after Hale 2000)

- 9.4.3 and north-east side of the site had disappeared, probably as a result of tidal scour. Timbers on the south and south-east of the site were also found to be absent and it seemed probable that these timbers had been re-buried by sediments as a result of accretion.
- 9.4.4 Visits to the site by the Shorewatch group carried out on 15 March 2004 have shown that there has been a great deal of sediment accretion. Many of the timbers are now partially buried. Mr John McDonald suggests that dredging operations along the river Clyde have virtually ceased. This was confirmed by Mr Douglas Hoad the Clydeport Hydrographer who stated that dredging operations have been reduced in recent times. The reduction of dredging and the fact that the Erskine crannog is situated on the inner radius of a bend in the river might explain why the sitye is accreting at the MLWM. However the situation is likely to change in this very dynamic environment.

## 9.5 Langbank East Crannog

9.5.1 Langbank East (NGR: NS 4050 7336) is 95m offshore from the southern HWMST and 300m from the LWMST which allows an extended exposure period of six hours during each low tide (Hale 2000). The site is 45m east/west and 30m north/south at its widest point and forms an irregular shaped stone structure, one course high, 20m long and 15m wide. Two parallel lines of stone between the site and the shoreline were considered to be the remains of a causeway. After carrying out a contour survey, Hale concluded that these features may have been demarcating the route of a later ford and that the crannog itself sat on a break of slope that may have been the possible remains of a buried palaeo-shoreline. No radiocarbon dates are available for this site.

#### 9.6 Langbank West Crannog

- 9.6.1 Langbank West (NGR: NS 3822 7365) is situated near the southern shore, north of the village of Langbank. The site is exposed for approximately five hours during low tide. The site comprises an raised oval mound of stones and estuarine sediments, 30m in length and 20m wide. The margin of the site is clearly visible from the surrounding stone-strewn, gravel foreshore. In 1997 Hale (2000) noted the presence of three small wooden piles protruding from the intertidal sediment. No radiocarbon dates are available for this site. In the near future the Shorewatch group are going to investigate if these piles can still be seen and assess the general state of the site as part of a longer term monitoring programme.
- 9.6.2 The case studies have summarised the character of two contrasting archaeological sites in the intertidal zone. A common link between these sites is their vulnerability to coastal erosion processes in an extremely dynamic environment. These sites are continually at risk from tidal scour. Another threat to submerged timber is biological attack by marine plant and organism colonisation, in particular the boring mollusc of the Teredinidae family known as the shipworm (Hale 1997). It is clear that exposed timbers associated with both marine crannogs and fish-traps are at risk while exposed to the elements.

## 10. SUMMARY AND RECOMMENDATIONS

#### 10.1 Summary

- 10.1.1 Three hundred and sixty five sites and monuments have been subjected to analyses during the rapid coastal assessment on the island of Bute and within the River Clyde. Of this number 101 were newly discovered sites. It has been demonstrated that a range of archaeological sites within the intertidal areas is being affected by a range of coastal erosion processes. The impact of this can be seen generally to correspond to different groups of chronologically distinct archaeological sites and monuments and remains, within varying topographical locations. Briefly the results have revealed that on the Island of Bute, just under 30% of all the sites examined are in a poor state. Within the Clyde estuary, a slightly different picture emerges with over 40% of the sites classified as in a poor state of preservation. It seems likely that the industrial development of the Firth of Clyde has to a large extent effected many sites and monuments. Importantly more intertidal sites were recorded in the Firth of Clyde due to the concentration of sites and monuments within this type of environment. The largest group of sites, comprising monuments and remains of an industrial and maritime nature from the post-mediaeval and industrial periods, are adversely affected primarily by wave impact and general erosion.
- 10.1.2 This survey represents a snapshot of the condition of the archaeological remains that were visible in late 2003. It is clear, that in addition to the rapid nature of the survey, there are a number of other biases inherent in the results. Chief amongst these large number of listed buildings which tend to fall within the 18<sup>th</sup>-20<sup>th</sup> centuries. During the Inner Clyde survey the tidal conditions were at their neap cycle which is not the optimum period in the tidal cycle to fully examine these sites. Fortunately the Shorewatch monitoring programme has now subsequently visited areas that could not be seen during late 2003 and their results have been integrated into this report.
- 10.1.3 The nature of the intertidal deposits is another factor in the recognition of sites. Where such sediments are still mobile, it is likely that a different array of archaeological remains may become visible from time to time. As this process is relatively constant and fluid, any time-limited survey is going to reflect only on the character and range of remains that may globally be present in such environments. It was recognised in 1996 (Cressey and Toolis 1996) that the only way to off-set the inherent bias from a single site visit was to develop a system of local monitoring. Thankfully the establishment of new Shorewatch groups within Scotland is now achieving this aim.

#### **10.2 Recommendations**

- 10.2.1 The following recommendations are proposed and all will involve the members of the Shorewatch teams:
  - All the fish-traps located on the north shore of the River Clyde should be subjected to a detailed EDM and contour survey. This would allow a better understanding of their local geomorphological setting.

- The fish-traps should be subjected to a documentary study and include estate papers and any other historical documents that may shed light on their ownership. Such information may produce statistics on the type and frequency of fish being caught which is an aspect that is so far lacking in their understanding. Other aspects of ownership, tenure and repair history should also be investigated.
- A set of new radiocarbon dates on the Langbank East and Langbank West crannogs should be undertaken. The two sites are of great importance in terms of the history and use of the intertidal zone within the Firth of Clyde during the Later Prehistory. A new set of radiocarbon dates would help establish if the Langbank sites are contemporary with the Dumbuck and Erskine crannogs.
- A programme of incremental monitoring should be carried out based on the method devised by Hale (1997) on the Erskine crannog in order to establish how much sediment is now being lost or accreted on the site over a period of 12 months. This would see the implementation of fixed monitoring points placed at certain points across the site. The measurements could be tabulated at the end of the 12 months and a report made on the findings. The results would be useful in assessing whether a longer-term management strategy would be desirable.
- A detailed photographic survey should be carried out in order to provide the SMR and NMRS with a comprehensive photographic record of the present state of the crannogs and fish-traps. This will provide a record of their current state of preservation in the early 21<sup>st</sup> century providing bench-mark criteria for future research.

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#### **11.1** Cartographic sources

1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 17 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 21 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 22 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 28 6" to 1 mile

1861 First Edition Ordnance Survey *Renfrewshire* Sheet 2 6" to 1 mile 1861 First Edition Ordnance Survey *Renfrewshire* Sheet 3 6" to 1 mile 1861 First Edition Ordnance Survey *Renfrewshire* Sheet 4 6" to 1 mile

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1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 17 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 21 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 22 6" to 1 mile 1864 First Edition Ordnance Survey *Dumbartonshire* Sheet 28 6" to 1 mile

1861 First Edition Ordnance Survey *Renfrewshire* Sheet 2 6" to 1 mile 1861 First Edition Ordnance Survey *Renfrewshire* Sheet 3 6" to 1 mile 1861 First Edition Ordnance Survey *Renfrewshire* Sheet 4 6" to 1 mile 1861 First Edition Ordnance Survey *Renfrewshire* Sheet 8 6" to 1 mile

1868 First Edition Ordnance Survey *Bute* Sheet 111 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 173 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 194 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 203 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 204 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 214 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 215 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 215 6" to 1 mile 1868 First Edition Ordnance Survey *Bute* Sheet 215 6" to 1 mile

#### **11.2** Historical maps

Admiralty Chart 1856 The Clyde and Loch Fyne: Hydrographic Office London

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## **11.3** Aerial Photographic Record

Sortie	Frames	Date	Scale	NMRS Lib
CPE/Scot/UK312	5198-5201	23.2.48	1:10000	B215
106G/Scot/UK	3273-3275	15.5.46	1:10000	B97
106G/Scot/UK	4263-4267	15.5.46	1:10000	B97
CPE/Scot/UK256	5154-5161	11.8.47	1:10000	B175
CPE/Scot/UK256	5014-5009	11.8.47	1:10000	B175
CPE/ScotUK 276	5175-5173	23.8.47	1:10000	B182
Fairey 7345/12	333-330	11.9.73	1:10000	B749
Fairey 7345/12	328-320	11.9.73	1:10000	B749
Fairy7343/44	533-545	9.6.75	1:10000	B783

The Inner Clyde (Helensburgh-Erskine Bridge)

# The Inner Clyde (Port Glasgow to White Cart River)

Sortie	Frames	Date	Scale	NMRS Lib
106G/Scot/UK92	3024-3029	15.5.46	1:10000	B97
CPE/Scot/UK265A	5080-5088	14.8.47	1:10000	B169
CPE/Scot/UK276	5249-5261	23.8.47	1:10000	B182
CPE/Scot/UK277	5143-5144	24.8.47	1:10000	B193
Fairey 7343/12	311-313	11.9.73	1:10000	B749
Fairey 7343/30	382-371	16.5.75	1:10000	B768
Fairey 7343/45	559-568	9.6.75	1:10000	B784

The Isle of Bute

Sortie	Frames	Date	Scale	NMRS Lib
CPE/Scot/UK325	5001-5053	26.3.1948	1:10000	B218
106G/Scot/UK94	3001-3116	15.5.1946	1:10000	B42
106G/Scot/Uk161	4001-4125	21.8.1946	1.10000	B141
51588	049-051	10.6.1988	1:24000	C275
51588	120-117	10.6.1988	1:24000	C275
51588	126-130	10.6.1988	1:24000	C275
51588	226-222	10.6.1988	1:24000	C275
51388	011-016	10.6.1988	1:24000	C273

## **APPENDIX 1**

# BUTE Table of Listed Buildings

Name	Class	Map sheet	Easting	Northing	g Parish	Category	Scheduled
Bute, Wester Kames Castle	Castle	NS06NE	206170	668050	North Bute	А	
Bute, Wester Kames Castle	Castle	NS06NE	206170	668050	North Bute	А	
Bute, Ascog Bay, Salt Pan	Salt pan	NS16SW	210780	663340	Kingarth	В	
Bute, Kames Castle, Gardener's Cottage	Residential	NS06NE	206211	667447	North Bute	C(s)	
Bute, Kames Cottage, Gatelodge, Boundary Wall And Gatepiers	s Lodge; boundary wall; gatepiers	NS06NE	206648	667457	North Bute	В	
Bute, Kames Castle, Walled Garden, Outbuildings And Cottage	Walled gardens; greenhouse; outbuilding	NS06NE	206165	667526	North Bute	В	
Bute, Kames Castle	Tower-house	NS06NE	206350	667550	North Bute	В	
Bute, Rothesay Castle	Castle; cross-slab	NS06SE	208780	664570	Rothesay	В	
Bute, Mount Stuart House, Sundial	Sundial	NS15NW	210830	659070	Kingarth	В	
Ascog, Ascog House, Ascog Lodge	Residential	NS16SW	210447	663147	Kingarth	В	
Ascog, Ascog House, Pink Lodge	Lodge	NS16SW	210643	663371	Kingarth	C(s)	
Bute, Ascog House	House	NS16SW	210450	663030	Kingarth	В	
Mount Stuart	Church; mausoleum; burial ground	NS16SW	211010	660560	Kingarth	А	
Bute, Mount Stuart House, South Lodge	Residential	NS15NW	210872	658879	Kingarth	C(s)	
Bute, Mount Stuart House, Game Larder	Game larder	NS15NW	210784	659404	Kingarth	В	
Mount Stuart House, Bruachag Lodge	Lodge	NS15NW	211159	658196	Kingarth	C(s)	
Mount Stuart House, Laundry Cottage	Residential	NS15NW	210772	659456	Kingarth	C(s)	
Mount Stuart House, Former Meat Store	Farming and fishing	NS15NW	210802	659367	Kingarth	C(s)	
Bute, Mount Stuart House	Country house; gardens	NS15NW	210830	659480	Kingarth	А	
Mount Stuart House, Monument	Monument	NS15NW	210932	659658	Kingarth	В	
Kilchattan, Old Quay	Quay	NS15SW	210340	654980	Kingarth	C(s)	
Bute, Kerrylamont Farm	Farmhouse; farmsteadings	NS15NW	211000	658520	Kingarth	А	
Bute, Kerrylamont Farm, Dairy	Dairy	NS15NW	211000	658520	Kingarth	А	
Bute, Rothesay, Ardencraig Road, Tor House	Residential	NS16NW	210560	665020	Rothesay	А	
Bute, Kilchattan Bay, Kingarth And Kilchattan Bay Church Of	Religion	NS15NW	210021	655140	Kingarth	C(s)	

Name	Class	Map sheet	Easting	Northing	Parish	Category	Scheduled
Scotland							
Bute, Ascog Bank	Residential	NS16SW	210560	663500	Kingarth	В	
Bute, Ascog, Laidlaw Memorial Home	Residential	NS16SW		662810	Kingarth	А	
Bute, Ascog, Balmory Road, Balmory House Gatelodge	Gatelodge	NS16SW	210529	662895	Kingarth	C(s)	
Bute, Rothesay, 46 Mountstuart Road	Residential	NS16NW	210003	665382	Rothesay	В	
Bute, Ascog Free Church	Funerary; religion	NS16SW	210790	663330	Kingarth	В	
Little Kilmory, Former Granary/Water Mill	Granary; water mill	NS05NW	204514	659824	North Bute	В	
Rothesay, Craigmore Public Toilet	Public lavatory	NS16NW	210710	665280	Rothesay	В	
Bute, Ascog Hall, Lodge	Lodge	NS16SW	210717	663041	Kingarth	C(s)	
Bute, Ascog, Ascog Hall	Residential	NS16SW	210620	663010	Kingarth	В	
Bute, Rothesay, 25 Crichton Road	Residential	NS16NW	210050	665280	Rothesay	C(s)	
Bute, Rothesay, 26 Crichton Road	Residential	NS16NW	210064	665281	Rothesay	C(s)	
Bute, Rothesay, Ardencraig Road, Ardencraig	Residential	NS16SW	210549	664671	Rothesay	В	
Bute, Rothesay, Ardencraig Road, Ardencraig, Lodge	Lodge	NS16SW	210597	664727	Rothesay	C(s)	
Bute, Rothesay, 15 Craigmore Road	Residential	NS16NW	210701	665043	Rothesay	C(s)	
Bute, Rothesay, 57 Mountstuart Road	Residential	NS16NW	210384	665408	Rothesay	В	
Bute, Craigmore, 35 Craigmore Road,	Residential	NS16SW	210580	664270	Rothesay	В	
Bute, Rothesay, 58 Mountstuart Road	Residential	NS16NW	210393	665414	Rothesay	В	
Bute, Craigmore 27, 28 Craigmore Road	Residential	NS16SW	210620	664450	Rothesay	В	
Bute, Craigmore, 24 Craigmore Road	Residential	NS16SW	210640	664520	Rothesay	C(s)	
Bute, Rothesay, 16 Craigmore Road	Gate pier	NS16NW	210703	665016	Rothesay	C(s)	
Bute, Rothesay, 7 Craigmore Road	Gate pier	NS16NW	210675	665215	Rothesay	C(s)	
Bute, Craigmore, 23 Craigmore Road	House	NS16SW	210650	664600	Rothesay	В	
Bute, Lubas Farm And Steading	Steading	NS05SE	208604	654592	Kingarth	C(s)	
Bute, Rothesay, 27 Crichton Road	Residential	NS16NW	210085	665277	Rothesay	C(s)	
Bute, Craigmore, Ardencraig Road, Rockhill Castle	Castle and gardens	NS16SW	210620	664970	Rothesay	В	
Bute, Ascog, Southpark Residential School	School	NS16SW	210610	662870	Kingarth	В	
Bute, Ascog, Southpark, Lodge	Lodge	NS16SW	210671	662909	Kingarth	C(s)	
Bute, Rothesay, 28 Crichton Road	Residential	NS16NW	210089	665278	Rothesay	C(s)	
Bute, Rothesay, 53 Mountstuart Road	Residential	NS16NW	210110	665389	Rothesay	В	
Bute, Rothesay, 22 Craigmore Road, Old Craigmore House	Residential	NS16SW	210659	664684	Rothesay	C(s)	

#### Name

Bute, Rothesay, 54 Mountstuart Road Bute, Rothesay, 23 Crichton Road Kerrycroy, 1 Kerrycroy Village Kerrycroy, 3 Kerrycroy Village Bute, Rothesay, 24 Crichton Road Bute, Rothesay, 49 Mountstuart Road Kerrycroy, 4 Kerrycroy Village Bute, Rothesay, 50 Mountstuart Road Kerrycroy, 5 Kerrycroy Village Glencallum Bay, Lighthouse Bute, Rothesay, 29 Crichton Road Kerrycroy, 6 Kerrycroy Village Bute, Port Bannatyne, Marine Road, Ouav Bute, Rothesay, 30 Crichton Road Kerrycroy, 7, 8 Kerrycroy Village Bute, Kilchattan Bay, St Blane's Hotel Bute, Rothesay, 55 Mountstuart Road Kerrycroy, 10 Kerrycroy Village Bute, Kilchattan Bay, Hazelbank Bute, Rothesay, 56 Mountstuart Road Kerrycroy, 11 Kerrycroy Village Bute, Kilchattan Bay, Ashgrove Bute, Rothesay, 51 Mountstuart Road Kerrycroy, 12 Kerrycroy Village Bute, Rothesay, 52 Mountstuart Road Kerrycroy, 13 Kerrycroy Village Kerrycroy, 14 Kerrycroy Village Bute, Mount Stuart House, Beehive Well Bute, Rothesay, 45-46 Crichton Road Bute, Asog, Agnes Patrick Steveonson Residential School Bute, Rothesay, 47 Crichton Road

#### Map **Easting Northing Parish** Category Scheduled sheet В Residential NS16NW 210123 665384 Rothesay NS16NW 210026 665270 C(s)Rothesay Residential NS16SW 210665 661450 В Kingarth Residential NS16SW 210662 661419 Kingarth B [B group] NS16NW 210033 665280 Rothesav C(s)Residential NS16NW 210049 665389 В Rothesay Residential NS16SW 210662 661412 Kingarth B [B group] Residential NS16NW 210063 665386 Rothesay В Residential NS16SW 210661 661390 Kingarth B [B group] Lighthouse NS15SW 211477 652590 Kingarth C(s)NS16NW 210109 665289 Rothesav C(s)Residential NS16SW 210667 661384 Kingarth B [B group] NS06NE 207240 667310 North Bute C(s)NS16NW 210117 665283 Rothesav C(s)Residential NS16SW 210667 661358 Kingarth B [B group] Commercial: residential NS15SW 210334 654866 Kingarth C(s)Rothesay Residential NS16NW 210364 665408 В Residential NS16SW 210687 661327 Kingarth В Residential NS15SW 210448 654753 Kingarth C(s) NS16NW 210372 665408 Residential Rothesay В NS16SW 210702 661313 В Residential Kingarth Residential NS15SW 210454 654748 C(s)Kingarth NS16NW 210083 665384 В Residential Rothesay NS16SW 210707 661305 В Residential Kingarth В Residential NS16NW 210092 665387 Rothesay Residential NS16SW 210724 661291 Kingarth В Residential NS16SW 210732 661286 В Kingarth NS16NW 210821 660310 Kingarth C(s)Residential NS16NW 210364 665270 Rothesay C(s)NS16SW 210610 663733 Kingarth C(s)Residential NS16NW 210384 665278 Rothesay C(s)

Class

Gate pier

Gate pier

Gate pier

Gate pier

Ouav

Well

Education

Name	Class	Map sheet	Easting	Northing	g Parish	Category	Scheduled
Bute, Ascog, 1 Millburn Cottages	Residential	NS16SW	210517	664047	Kingarth	C(s)	
Port Bannatyne, Castle Street, General	Residential	NS06NE	207220	667200	North Bute	C(s)	
Bute, Rothesay, 59 Mountstuart Road	Residential	NS16NW	210405	665408	Rothesay	В	
Port Bannatyne Church	Church	NS06NE	207870	667280	North Bute	В	
Bute, Rothesay, 60 Mountstuart Road	Residential	NS16NW	210414	665408	Rothesay	В	
Bute, Ascog, Boat House	Boat house	NS16SW	210783	663225	Kingarth	C(s)	
Bute, Rothesay, 47 Mountstuart Road	Residential	NS16NW	210022	665382	Rothesay	В	
Bute, Millbank House	Residential	NS16SW	210624	663905	Kingarth	В	
Bute, Millbank House, Stables, Coach-House And Dower	Dower house; coach-house; stables	NS16SW	210584	663980	Kingarth	C(s)	
House							
Bute, Rothesay, 48 Mountstuart Road	Residential	NS16NW			Rothesay	В	
Mount Stuart House, East Lodge	Lodge	NS16SW			Kingarth	C(s)	
Bute, Rothesay, 31 Crichton Road	Residential	NS16NW			Rothesay	C(s)	
Bute, Rothesay, Glenburn Road, Glenburn Hotel	Residential	NS06NE	209590		Rothesay	В	
Bute, Rothesay, 32 Crichton Road	Residential	NS16NW			Rothesay	C(s)	
Bute, Rothesay, 33 Crichton Road	Residential	NS16NW			Rothesay	C(s)	
Bute, Rothesay, 34 Crichton Road	Residential	NS16NW			Rothesay	C(s)	
Mount Stuart House, North Lodge	Lodge	NS16SW	210757	661258	Kingarth	В	
Bute, Rothesay, 48-49 Crichton Road, Craigmore Hotel	Hotel	NS16NW	210395	665277	Rothesay	В	
Bute, Ascog, The Hermitage And Summer House	Summer house	NS16SW	210629	661941	Kingarth	C(s)	
Bute, Rothesay Pier Gentlemen's Public Toilets	Public convenience	NS06SE	208820	664830	Rothesay	В	
Bute, Rothesay, Wellpark Road, Rock Villa	Residential	NS16NW		665207	Rothesay	C(s)	
Bute, Ascog, Millburn House	Residential	NS16SW		664070	Kingarth	В	
Bute, Rothesay, Eastlands Road, Hillpark	Residential	NS16NW			Rothesay	C(s)	
Bute, Ascog, The Old Manse	Manse	NS16SW			Kingarth	C(s)	
Bute, Rothesay, Eastlands Road, Edgehill	Residential	NS16NW			Rothesay	C(s)	
Bute, Ascog, St Margaret's	Nunnery	NS16SW			Kingarth	В	
Bute, Kilmicael Farm And Boundary Wall	Farmhouse; boundary wall	NR97SE	199390		North Bute	C(s)	
Bute, Rothesay, 33 Mountstuart Road	Residential	NS06NE	209847	665335	Rothesay	В	
Bute, Kerrycroy, Quay And Bridge	Pier; bridge	NS16SW	210831	661330	Kingarth	В	
Kingarth, Brick Cottage	Residential	NS05NE	209687	656305	Kingarth	C(s)	

#### Name

Bute, Rothesay, 1 Argyle Place Bute, Rothesay, 20-21 Ardbeg Road Bute, Rothesay, 34 Mountstuart Road Bute, Kingarth, The Tileries Bute, Rothesay, Argyle Street, 1-5 Marine Court Bute, Rothesay, 37 Mountstuart Road Bute, Rothesay, 38 Mountstuart Road Bute, Rothesay, 39 Mountstuart Road Bute, Rothesay, 2 Marine Place, Surgery Bute, Rothesay, 7 Marine Place Bute, Rothesay, 8 Marine Place Bute, Rothesay, 19 Marine Place Bute, Rothesay, 35 Mountstuart Road Bute, Rothesay, 36 Mountstuart Road Bute, Rothesay, 20 Marine Place Bute, Rothesay, 21 Marine Place Bute, Rothesay, Castle Street, Town Hall Bute, Rothesay, 1 Crichton Road Bute, Rothesay, 2 Crichton Road Bute, Rothesay, 14 Argyle Place Bute, Rothesay, 26 Argyle Place Bute, Rothesay, 41 Argyle Street Bute, Rothesay, 11 Argyle Place Bute, Rothesay, 19-20 Mountstuart Road Bute, Rothesay, 21 Mountstuart Road Bute, Rothesay, 22 Mountstuart Road Bute, Rothesay, 23 Mountstuart Road Bute, Rothesay, 24 Mountstuart Road Bute, Rothesay, 25 Mountstuart Road Bute, Rothesay, 26 Mountstuart Road Bute, Rothesay, 27 Mountstuart Road

#### Class

Class	Map sheet	Easting	Northing	Parish	Category	Scheduled
Residential	NS06NE	208373	665122	Rothesay	C(s)	
Residential	NS06NE	208354	666187	Rothesay	C(s)	
Residential	NS06NE	209860	665341	Rothesay	В	
Residential	NS05NE	209784	656235	Kingarth	C(s)	
Residential	NS06NE	208423	665023	Rothesay	C(s)	
Residential	NS06NE	209895	665354	Rothesay	В	
Residential	NS06NE	209909	665354	Rothesay	В	
Residential	NS06NE	209917	665359	Rothesay	В	
Health	NS06NE	208396	666683	Rothesay	C(s)	
Residential	NS06NE	208398	666770	Rothesay	C(s)	
Residential	NS06NE	208393	666792	Rothesay	C(s)	
Residential	NS06NE	208388	667030	Rothesay	C(s)	
Residential	NS06NE	209872	665348	Rothesay	В	
Residential	NS06NE	209882	665351	Rothesay	В	
Residential	NS06NE	208377	667033	Rothesay	C(s)	
Residential	NS06NE	208374	667036	Rothesay	C(s)	
Town hall	NS06SE	208850	664580	Rothesay	В	
Residential	NS06NE	209679	665106	Rothesay	C(s)	
Residential	NS06NE	209685	665112	Rothesay	C(s)	
Residential	NS06NE	208330	665282	Rothesay	C(s)	
Residential	NS06NE	208319	665386	Rothesay	В	
Residential	NS06NE	208429	665010	Rothesay	C(s)	
Gate pier	NS06NE	208330	665246	Rothesay	C(s)	
Residential	NS06NE	209701	665258	Rothesay	В	
Residential	NS06NE	209710	665267	Rothesay	В	
Residential	NS06NE	209715	665270	Rothesay	В	
Residential	NS06NE	209722	665278	Rothesay	В	
Residential	NS06NE	209729	665282	Rothesay	В	
Residential	NS06NE	209736	665286	Rothesay	В	
Residential	NS06NE	209742	665291	Rothesay	В	
Residential	NS06NE	209749	665294	Rothesay	В	

Name	Class	Map sheet	Easting	Northing	g Parish	Category	Scheduled
Port Bannatyne, 61, 62, 63 Marine Road	Residential	NS06NE	207103	667285	North Bute	C(s)	
Port Bannatyne, 28, 29 And 30 Shore Road, Ardgowan House Boundary Walls And Gatepiers	Residential	NS06NE	207654	667336	North Bute	C(s)	
Port Bannatyne, 42 Shore Road And Boundary Wall	Residential	NS06NE	207512	667345	North Bute	C(s)	
Port Bannatyne, Marine Road, 10 And 11 Victoria Place	Residential	NS06NE	207429	667328	North Bute	C(s)	
Port Bannatyne, Marine Road, 9, 12 And 13 Victoria Place	Residential	NS06NE	207440	667330	North Bute	C(s)	
Port Bannatyre, 39 Marine Road	Residential	NS06NE	207230	667147	North Bute	C(s) [B group]	
Port Bannatyne, 2, 3 And 4 Shore, Boundary Wall And Gatepiers	Residential	NS06NE	207907	667255	North Bute	C(s)	
Port Bannatyne, Pointhouse Lane, Off High Road, Former Coachhouse	Coachhouse	NS06NE	208032	667091	North Bute	<b>C</b> (s)	
Port Bannatyne, 22 And 24 High Street, Former Point House, Boundary Walls And Railings	Residential	NS06NE	208053	667069	North Bute	В	
Bute, Rothesay, Argyle Street, West Free Church	Church	NS06SE	208490	664840	Rothesay	В	
Port Bannatyne, Appin, 26 And 27 Shore Road, Boundary Wal Gatepiers And Gates	l, Residential	NS06NE	207671	667336	North Bute	<b>C</b> (s)	
Port Bannatyne, 59 And 60 Marine Road	Residential	NS06NE	207121	667280	North Bute	C(s) [B group]	
Port Bannatyne, 64 And 65 Marine Road And Outbuilding	Residential	NS06NE	207089	667287	North Bute	C(s) [B group]	
Port Bannatyne, 66 Marine Road, Outbuilding And Boundary Wall	Residential	NS06NE	207067	667296	North Bute	C(s) [B group]	
Rothesay, Bishop Street	Houses; council offices	NS06SE	208960	664600	Rothesay	Č(s)	
Rothesay, Bishop Street	Houses; council offices	NS06SE	208960	664600	Rothesay	C(s)	
Port Bannatyne, 67 Marine Road	Residential	NS06NE	207054	667301	North Bute	C(s) [B	
						group]	
Rothesay, 10, 12 Bishop Street, Post Office	Post office	NS06SE	208950	664640	Rothesay	В	
Port Bannatyne, 68 And 69 Marine Road	Residential	NS06NE	207042	667306	North Bute	C(s) [B group]	
Port Bannatyne, 41, 42 And 43 Marine Road	Residential	NS06NE	207204	667254	North Bute	C(s) [B group]	
Port Bannatyne, Fircliff, 42 High Road And Boundary Walls	Residential	NS06NE	207965	667188	North Bute	B	

Name	Class	Map sheet	Easting	Northing	g Parish	Category	Scheduled
Port Bannatyne, Ettrick Bank, 44 And 46 High Road, Boundary Wall And Gatepiers	Residential	NS06NE	207947	667213	North Bute	C(s)	
10,12,14 Bridgend Street	Commercial; residential	NS06SE	208600	664650	Rothesay	C(s)	
Port Bannatyne, High Road, Bus Garage Office	Commercial	NS06NE	208028	667053	North Bute	C(s)	
St Andrews R.C. Church Hall	Religion	NS06SE	208620	664670	Rothesay	В	
Bute, Rothesay, Fauldtrees Road, Glenfaulds Cottage	Residential	NS06NE	209652	665157	Rothesay	В	
Bute, Rothesay, High Street, Bute Estate Office	Administration	NS06SE	208850	664520	Rothesay	А	
Bute, Rothesay, 2 Argyle Place	Residential	NS06NE	208367	665134	Rothesay	C(s)	
Bute, Rothesay, Bute Museum	Museum	NS06SE	208800	664510	Rothesay	В	
Bute, Rothesay, 7 Crichton Road	Residential	NS06NE	209749	665168	Rothesay	C(s)	
Port Bannatyne, 40 Marine Road	Residential	NS06NE	207218	667246	North Bute	C(s) [B	
						group]	
Port Bannatyne, 37 Marine Road, Port Royal Hotel	Hotel	NS06NE	207243	667255	North Bute	C(s) [B	
			<b>2</b> 0 <b>7</b> 400		N. J. D.	group]	
Port Bannatyne, Marine Road, 4, 5, 18 And 19 Victoria Place	Residential	NS06NE	207488		North Bute	C(s)	
Bute, Rothesay, 3, 5, 7, 9, 11 Columshill Place	Residential	NS06SE	208513		Rothesay	B	
Port Bannatyne, Marine Road, 6, 16 And 17 Victoria Place	Residential	NS06NE			North Bute	C(s)	
Port Bannatyne, Marine Road, 7, 8, 14 And 15 Victoria Place	Residential	NS06NE	207461		North Bute	C(s)	
Port Bannatyne, 6 Shore Road And Boundary Wall	Residential	NS06NE	207822		North Bute	C(s)	
Port Bannatyne, Mains Road, Ardentigh, Boundary Wall And	Residential	NS06NE	207408	667224	North Bute	C(s)	
Gatepiers	<b>TT</b> .	Magaz	200520	664400			
4 Columshill Place	Housing	NS06SE	208530		Rothesay	C(s)	
Bute, Rothesay, 10 Crichton Road	Residential	NS06NE	209798		Rothesay	C(s)	
6 Columshill Place	Houses	NS06SE	208520		Rothesay	C(s)	
Bute, Rothesay, 11 Crichton Road	Residential	NS06NE		665209	Rothesay	C(s)	
8 Columshill Place	Houses	NS06SE	208510		Rothesay	C(s)	
Bute, Rothesay, 14 Crichton Road	Residential	NS06NE	209855		Rothesay	C(s)	
16 &18 Columshill Street	Housing	NS06SE	208550		Rothesay	C(s)	
20,22,24 Columshill Street, Rothesay	Residential	NS06SE	208550	664500	Rothesay	C(s)	
Bute, Rothesay, 15 Crichton Road	Residential	NS06NE	209865	665240	Rothesay	C(s)	
Bute, Rothesay, 28 Battery Place	Residential	NS06NE	209331	665029	Rothesay	C(s)	
26-28 Columshill Street, Rothesay	Housing	NS06SE	208550	664490	Rothesay	C(s)	

Name	Class	Map sheet	Easting	Northing	g Parish	Category	Scheduled
30 Columshill Street	Houses	NS06SE	208550	664480	Rothesay	C(s)	
Bute, Rothesay, 45 Mountstuart Road	Residential	NS06NE	209994	665380	Rothesay	В	
32 Columshill Street & 2 Columshill Place	Housing	NS06SE	208540	664480	Rothesay	В	
Bute, Rothesay, 3 Crichton Road	Residential	NS06NE	209701	665125	Rothesay	C(s)	
Rothesay, St Andrew's Roman Catholic Church, Columshill Road	Church	NS06SE	208570	664560	Rothesay	А	
Rothesay, St Andrew's Roman Catholic Church, Columshill Road	Church	NS06SE	208570	664560	Rothesay	А	
Bute, Rothesay, 4 Crichton Road	Residential	NS06NE	209706	665131	Rothesay	C(s)	
Bute, Rothesay, 19 Crichton Road	Residential	NS06NE	209943	665268	Rothesay	C(s)	
Bute, Rothesay, 20 Crichton Road	Residential	NS06NE	209952	665271	Rothesay	C(s)	
Bute, Rothesay, 21 Crichton Road	Residential	NS06NE	209961	665269	Rothesay	C(s)	
Bute, Rothesay, 1 Ardbeg Road	Gate pier; outbuilding	NS06NE	208303	665841	Rothesay	C(s)	
Bute, Rothesay, 41 Mountstuart Road	Residential	NS06NE	209931	665366	Rothesay	В	
Bute, Rothesay, 42 Mountstuart Road	Residential	NS06NE	209941	665370	Rothesay	В	
Bute, Rothesay, 53 Ardbeg Road	Gate pier; outbuilding	NS06NE	208377	666574	Rothesay	C(s)	
Bute, Rothesay, 31 Argyle Terrace	Residential	NS06NE	208239	665239	Rothesay	C(s)	
Bute, Rothesay, High Street, Market Cross	Market cross	NS06SE	208826	664522	Rothesay	C(s)	
Bute, Rothesay, 14 Ardbeg Road	Gate pier; outbuilding	NS06NE	208319	666101	Rothesay	В	
Bute, Rothesay, Ardbeg Road, Ardbeg Baptist Church	Church	NS06NE	208320	665998	Rothesay	В	
Bute, Rothesay, 51 &53 High Street	Residential	NS06SE	208830	664520	Rothesay	В	
Bute, Rothesay, 33 Argyle Terrace	Residential	NS06NE	208236	665264	Rothesay	В	
Bute, Rothesay, 61, 65, 67 High Street	Commercial; residential	NS06SE	208840	664490	Rothesay	В	
Bute, Rothesay, 35 Argyle Terrace	Residential	NS06NE	208237	665270	Rothesay	В	
Bute, Rothesay, 43 Mountstuart Road	Residential	NS06NE	209954	665373	Rothesay	В	
Bute, Rothesay, 90 High Street	Residential	NS06SE	208730	664270	Rothesay	C(s)	
Bute, Rothesay, 44 Mountstuart Road	Residential	NS06NE	209966	665376	Rothesay	В	
Bute, Rothesay, John Street	Residential	NS06SE	208680	664500	Rothesay	C(s)	
Bute, Rothesay, Madeira, Private Hotel	Residential	NS06SE	208760	664720	Rothesay	C(s)	
Bute, Rothesay, Battery Place, 1-4 Beatie Court	Residential	NS06NE	209387	665082	Rothesay	В	
Bute, Rothesay, 9-10 Mountstuart Road	Residential	NS06NE	209609	665210	Rothesay	В	
Bute, Rothesay, 24 Ardbeg Road	Residential	NS06NE	208355	666227	Rothesay	C(s)	

Name	Class	Map sheet	Easting	Northing	Parish	Category	Scheduled
Bute, Rothesay, 25 Ardbeg Road	Residential	NS06NE	208355	666240	Rothesay	C(s)	
Bute, Rothesay, 63 Ardbeg Road	Gate pier; outbuilding	NS06NE	208325	666696	Rothesay	C(s)	
Bute, Rothesay, 18-19 Ardbeg Road	Residential	NS06NE	208351	666175	Rothesay	C(s)	
Bute, Rothesay, Ministers Brae, General	Residential	NS06SE	208850	664240	Rothesay	C(s)	
Bute, Rothesay, 64-86 Montague Street	Residential	NS06SE	208740	664700	Rothesay	C(s)	
Bute, Rothesay, 1,3,5,Montague Street	Residential	NS06SE	208890	664660	Rothesay	C(s)	
Bute, Rothesay, 21,23,25 Montague Street	Residential	NS06SE	208850	664660	Rothesay	C(s)	
Bute, Rothesay, 60 & 62 Montague Street	Residential	NS06SE	208750	664700	Rothesay	В	
Bute, Rothesay, 70,72,74 Montague Street	Residential	NS06SE	208720	664700	Rothesay	C(s)	
Bute, Rothesay, 70,72,74 Montague Street	Residential	NS06SE	208720	664700	Rothesay	C(s)	
Bute, Rothesay, 19-23 Mill Street		208670	NS06SE	664400	ROTHESAY	В	
Bute, Rothesay, Victoria Street, St Paul's Episcopal Church	Church	NS06SE	208670	664730	Rothesay	В	
Bute, Rothesay, 3 Stuart Street	Residential	NS06SE	208780	664520	Rothesay	В	
Bute, Rothesay, 27-37 Victoria Street	Residential	NS06SE	208780	664720	Rothesay	C(s)	
Bute, Rothesay, 2 Upper Union Street	Residential	NS06SE	208690	664400	Rothesay	В	
Bute, Rothesay, Victoria Street, Victoria Hotel	Residential	NS06SE	208720	664720	Rothesay	В	
Bute, Rothesay, 27-37 Victoria Street		208780	NS06SE	664720	ROTHESAY	C(S)	
Bute, Rothesay, 39 & 41 Victoria Street	Residential	NS06SE	208730	664720	Rothesay	В	
Bute, Rothesay, 63,65,67 Victoria Street	Residential	NS06SE	208700	664740	Rothesay	C(s)	
Bute, Rothesay, 69 & 71 Victoria Street	Residential	NS06SE	208680	664740	Rothesay	C(s)	
Bute, Rothesay, 73 Victoria Street	Residential	NS06SE	208670	664740	Rothesay	C(s)	
Bute, Rothesay, Winter Gardens	Recreation	NS06SE	208750	664770	Rothesay	А	
Bute, Rothesay, Guildford Square, Weighbridge House	Farming and fishing; transport and communications	NS06SE	208874	664730	Rothesay	C(s)	
Bute, Rothesay, Chapel Hill, Free Church	Church	NS06SE	208415	664845	Rothesay	В	
Bute, Rothesay, 1-2 East Princes Street	Commercial; residential	NS06SE	208991	664659	Rothesay	C(s)	
Bute, Rothesay, 3 East Princes Street, Public House	Public house	NS06SE	209001	664664	Rothesay	C(s)	
Bute, Rothesay, Academy Road, Rothesay Academy	Academy	NS06SE	208318	664867	Rothesay	В	
Bute, Rothesay, 1 Alma Terrace	Gate pier	NS06SE	208369	664560	Rothesay	C(s)	
Bute, Rothesay, Minister's Brae, Marionslea	Gate pier	NS06SE	208845	664269	Rothesay	В	
Bute, Rothesay, 19-21 East Princes Street	Commercial; residential	NS06SE	209035	664712	Rothesay	В	

#### Name

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		sheet				_	
Bute, Rothesay, 23-25 East Princes Street	Commercial; residential	NS06SE	209043		Rothesay	В	
Bute, Rothesay, 44 Minister's Brae, Hewison House	Residential	NS06SE		664264	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 1 Academy Terrace	Residential	NS06SE	208374	664948	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 2 Academy Terrace	Residential	NS06SE	208372	664953	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 3 Academy Terrace	Residential	NS06SE	208369	664958	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 4 Academy Terrace	Residential	NS06SE	208365	664964	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 5 Academy Terrace	Residential	NS06SE	208362	664969	Rothesay	C(s)	
Bute, Rothesay, Academy Road, 6 Academy Terrace	Residential	NS06SE	208359	664975	Rothesay	C(s)	
Bute, Rothesay, 7-9 Albert Place	Commercial; residential	NS06SE	208942	664694	Rothesay	В	
Bute, Rothesay, 10-12 Albert Place	Commercial; residential	NS06SE	208929	664696	Rothesay	C(s)	
Bute, Rothesay, 7-9 Argyle Street	Commercial; residential	NS06SE	208588	664804	Rothesay	C(s)	
Bute, Rothesay, 4 King Street	Residential	NS06SE	208717	664631	Rothesay	В	
Bute, Rothesay, Former United Free Church	Church	NS06SE	208849	664462	Rothesay	C(s)	
Bute, Rothesay, Albert Place, Former Royal Hotel	Hotel	NS06SE	208967	664693	Rothesay	В	
Bute, Rothesay, 43 East Princes Street	Residential	NS06SE	209125	664810	Rothesay	C(s)	
Bute, Rothesay, 44 East Princes Street	Residential	NS06SE	209133	664814	Rothesay	C(s)	
Bute, Rothesay, Glenburn Road, East Firwood	Residential	NS06SE	209571	664995	Rothesay	В	
Bute, Rothesay, Glenburn Road, West Firwood	Residential	NS06SE	209562	664990	Rothesay	В	
Bute, Rothesay, Bishop Terrace, Beechwood Hotel	Hotel	NS06SE	209204	664760	Rothesay	В	
Bute, Rothesay, 4 Columshill Place	Residential	NS06SE	208533	664489	Rothesay	C(s)	
Bute, Rothesay, 30 Mount Pleasant Road	Residential	NS06SE	208948	664358	Rothesay	C(s)	
Bute, Rothesay, 32 Mount Pleasant Road	Residential	NS06SE	208948	664353	Rothesay	C(s)	
Bute, Rothesay, 34 Mount Pleasant Road	Residential	NS06SE	208947	664347	Rothesay	C(s)	
Bute, Rothesay, 7, 9 Mount Pleasant Road, Council Offices	Offices	NS06SE	209054	664438	Rothesay	В	
Bute, Rothesay, 7, 9 Castle Street	Administration	NS06SE	208908	664567	Rothesay	В	
Bute, Rothesay, 3-4 Bishop Terrace	Residential	NS06SE	209060	664581	Rothesay	C(s)	
Bute, Rothesay, 8-9 Bishop Terrace	Coach house; dovecot; gate pier	NS06SE	209116	664675	Rothesay	C(s)	
Bute, Rothesay, 38 Bridge Street	Residential	NS06SE	208471	664755	Rothesay	В	
Bute, Rothesay, Castle Street, Trinity Church	Church; gate pier; hall; lamp	NS06SE	208918	664500	Rothesay	В	
Bute, Rothesay, 26 Castle Street	Church hall	NS06SE	208922	664533	Rothesay	C(s)	
Bute, Rothesay, 34 Castle Street	Residential	NS06SE	208965	664515	Rothesay	C(s)	

Easting Northing Parish

Map

Category

Scheduled

Class

Name	Class	Map sheet	Easting North	ng Parish	Category	Scheduled
Bute, Rothesay, 36, 38 Castle Street	Residential	NS06SE	208973 66451	) Rothesay	C(s)	
Bute, Rothesay, 20 Battery Place	Residential	NS06SE	209278 66497	5 Rothesay	В	
Bute, Rothesay, 21-22 Battery Place	Residential	NS06SE	209289 66498	5 Rothesay	C(s)	
Bute, Rothesay, 5 Bishop Terrace	Gate pier	NS06SE	209074 66460	5 Rothesay	C(s)	
Bute, Rothesay, 1 York Terrace	Residential	NS06SE	208452 66481	7 Rothesay	C(s)	
Bute, Rothesay, 1a York Terrace	Residential	NS06SE	208446 66482	3 Rothesay	C(s)	
Bute, Rothesay, 9-10 Battery Place	Residential	NS06SE	209194 66488	3 Rothesay	C(s)	
Bute, Rothesay, Westland Road, Chapelhill Villa	Residential	NS06SE	208371 66481	5 Rothesay	C(s)	
Bute, Rothesay, 17 Russell Street	Residential	NS06SE	208720 66440	3 Rothesay	C(s)	
Bute, Rothesay, 19 Russell Street	Residential	NS06SE	208706 66440	1 Rothesay	C(s)	
Bute, Rothesay, 21 Russell Street	Residential	NS06SE	208695 66440	5 Rothesay	C(s)	
Bute, Rothesay, West Pier, Shelter	Shelter	NS06SE	208823 66477	6 Rothesay	C(s)	
Bute, Rothesay, 1-5 Guildford Square, Guildford Court Hotel	Hotel	NS06SE	208916 66469	8 Rothesay	C(s)	
Bute, Rothesay, Westland Road, Ivybank	Residential	NS06SE	208428 66471	7 Rothesay	В	
Bute, Rothesay, 2, 4, 6, 8 West Princes Street	Commercial; residential	NS06SE	208919 66467	) Rothesay	C(s)	
Bute, Rothesay, 11 Battery Place	Residential	NS06SE	209205 66489	1 Rothesay	C(s)	
Bute, Rothesay, 15-16 Battery Place	Residential	NS06SE	209233 66492	2 Rothesay	C(s)	
Bute, Rothesay, 14 Battery Place	Residential	NS06SE	209225 66491	5 Rothesay	C(s)	

## **APPENDIX 2**

# Clyde Table of Listed Buildings

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Newark Castle	Castle	NS37SW	232810 674510	Port Glasgow	Α	Y
Erskine Hospital	Farmsteading	NS47SE	245322 672326	Erskine	В	
Erskine House, Piggery	Piggery	NS47SE	245352 672289	Erskine	В	
Erskine House	Country house; hospital	NS47SE	245200 672530	Erskine	А	
Cardross, Former Parish Churches	Churches; burial ground	NS37NW	234930 677280	Cardross	В	Y
Findlaystone House, East Lodge	Lodge	NS37SE	237410 673527	Erskine	В	
Finlaystone House	Castle; country house	NS37SE	236458 673717	Kilmacolm	А	
Dumbarton Castle	Fort; castle	NS47SW	239988 674485	Dumbarton	А	Y
Ardmore	Tower-house	NS37NW	231570 678570	Cardross	В	Y
Dunglass Castle	Castle	NS47SW	243745 673537	Old	В	
				Kilpatrick		
Cardross, Main Road, Moore's Bridge	Road bridge	NS37NW		Cardross	C(s)	
Cardross Manse	Manse	NS37NW	234960 677260	Cardross	C(s)	
Cardross, Old Corn Mill	Mill	NS37NW	234970 677150	Cardross	C(s)	
Renfrew, 'Argyll Stone' & 'St Conval's Chariot	Cross	NS46NE	249470 667820	Renfrew	В	
Cardross, Ardmore House, Stables	Stable; stable block	NS37NW	231832 678562	Cardross	C(s)	
Dumbarton, High Street, Glencairn Tenement	Commercial; residential	NS37NE	239500 675220	Dumbarton	В	
Cardross, Ardmore House	Residential	NS37NW	231714 678572	Cardross	В	
Cardross, Ardmore House, East Lodge	Gate; gate-lodge	NS37NW	232140 678640	Cardross	C(s)	
Dumbarton, High Street, Riverside Parish Church	Church	NS37NE	239769 675186	Dumbarton	А	
Helensburgh, Clyde Street East, Queen's Hotel	Hotel	NS38SW	230480 681910	Helensburgh	C(s)	
Dumbarton, Castle Street, Ship Model Experiment Tank	Museum; shipyard	NS47NW	240037 675207	Dumbarton	А	
Renfrew, Greenock Road, Inchinnan Bridge	Road bridge	NS46NE	249230 667920	Inchinnan	А	
Auchinfore House, Lodge & Gates	Lodge	NS37NW	234812 677393	Cardross	C(s)	
Cardross Golf Club, Club House	Club house	NS37NW	234750 677450	Cardross	В	
Camis Eskan House, East Lodge	Residential	NS38SW	232350 680300	Cardross	В	

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Ardoch Gardens	Garden	NS37NE	236070 676410	Cardross	C(s)	
Camis Eskan House, Walled Garden	Residential	NS38SW	231950 681250	Cardross	C(s)	
Camis Eskan House, West Lodge	Residential	NS38SW	231400 681300	Cardross	В	
Cardross Station	Railway station	NS37NW	234470 677320	Cardross	C(s)	
Cardross, Station Road, Parish Church	Church; gates	NS37NW	234450 677530	Cardross	В	
Port Glasgow, Gourock Ropeworks	Ropeworks; sugar refinery	NS37SW	232590 674390	Port Glasgow	А	
Clydebank, John Brown's Shipyard, Titan Cantilever Crane	Crane	NS46NE	249485 669758	Clydebank	А	
Dumbarton, Bridge Street, River Leven, Dumbarton Bridge	Road bridge	NS37NE	239268 675358	Dumbarton	В	
Cardross, Brooks Road, Brooks House	Residential	NS37NW	233247 678143	Cardross	В	
Cardross, Brooks Road, Moorpark	Coach house; house	NS37NW	233337 678034	Cardross	C(s)	
Cardross, Brooks Road, Moorepark House, Moorepark Cottage	Residential	NS37NW	233358 677984	Cardross	C(s)	
Cardross, Brooks Road, Moorepark House	Residential	NS37NW	233317 678001	Cardross	В	
Cardross, Main Road, Ardenvohr	Residential	NS37NW	234693 677408	Cardross	C(s)	
Cardross, Main Road, Shira Lodge	Lodge	NS37NW	234858 677354	Cardross	C(s)	
Cardross, Main Road, War Memorial	War memorial	NS37NW	234511 677598	Cardross	В	
Port Glasgow, Broadfield Hospital	Hospital; country house; castle	NS37SW	234950 673750	Port Glasgow	A	
Cardross, Main Road, Drinking Fountain	Drinking fountain	NS37NW	234511 677583	Cardross	C(s)	
Cardross, Main Road, The White House	Residential	NS37NW	234962 677199	Cardross	C(s)	
Renfrew, Inchinnan Road, White Cart Bridge	Road bridge	NS46NE	249300 667850	Renfrew	А	
Helensburgh Central Station	Railway terminus	NS28SE	229780 682350	Helensburgh	В	
Renfrew, Inchinnan Road, Rolling Lift Bridge Over White Cart	Road bridge	NS46NE	249390 667820	Renfrew	А	
Langbank, Main Street, 1-4 Woodside Cottages	Residential	NS37SE	237853 673463	Erskine	В	
Helensburgh, 2 Adelaide Street	Residential	NS38SW	230270 682020	Helensburgh	В	
Dumbarton, Station Road, Dumbarton Central Station	Railway station	NS37NE	239758 675601	Dumbarton	А	
Langbank, Middlepenny Road, St Vincent's College	School; community centre	NS37SE	238108 673328	Erskine	В	
Langbank, Middlepenny Road, St Vincent's College	School; community centre	NS37SE	238108 673328	Erskine	В	
Langbank, Middlepenny Road, St Vincent's College, Chapel	Chapel	NS37SE	238064 673312	Erskine	В	
Langbank, Middlepenny Road, St Vincent's College, Lodge	Lodge	NS37SE	238033 673340	Erskine	C(s)	
Dumbarton, 38 Helenslee Road, Methlan Park House	Residential	NS37SE	238952 674849	Dumbarton	В	
Dumbarton, Methlan Park House, Lodge And Gates	Lodge; gateway	NS37SE	239056 674855	Dumbarton	C(s)	

Name	Class	Map sheet	Easting Northin	g Parish	Category	Scheduled
Dumbarton, 69 Glasgow Road, District Council Offices	Office	NS47NW	240256 675246	Dumbarton	C(s)	
Helensburgh, 148 Clyde Street East, Cromalt	Residential	NS38SW	230550 681770	Helensburgh	В	
Helensburgh, 148 Clyde Street East, Cromalt, Coach House And Stable	Stable	NS38SW	230570 681750	Helensburgh	В	
Dumbarton, Levengrove Park, War Memorial	War memorial	NS37SE	239246 674679	Dumbarton	C(s)	
Helensburgh, 150 Clyde Street East, Rockland	Residential	NS38SW	230600 681710	Helensburgh	А	
Helensburgh, 150 Clyde Street East, Rockland, Lodge	Lodge	NS38SW	230670 681760	Helensburgh	B [A group]	
Dumbarton, 10, 12 Dixon Drive	Residential	NS37SE	238984 674998	Dumbarton	В	
Helensburgh, Clyde Street East, Pavilion	Pavilion	NS38SW	230190 682070	Helensburgh	C(s)	
Dumbarton, 6, 8 Dixon Drive	Residential	NS37SE	239026 674985	Dumbarton	C(s)	
Helensburgh, 121 Clyde Street East	Residential	NS38SW	230100 682130	Helensburgh	В	
Dumbarton, 2, 4 Dixon Drive	Residential	NS37SE	239070 674940	Dumbarton	C(s)	
Helensburgh, 127 Clyde Street East	Residential	NS38SW	230110 682130	Helensburgh	C(s)	
Dumbarton, 15 Dixon Drive, Shamrockbank	Residential	NS37SE	238878 674939	Dumbarton	C(s)	
Helensburgh, 149 - 151 Clyde Street East	Residential	NS38SW	230200 682110	Helensburgh	C(s)	
Helensburgh, 153 Clyde Street East	Residential	NS38SW	230240 682100	Helensburgh	C(s)	
Forth And Clyde Canal, Bowling Basin, Drawbridge	Road bridge	NS47SE	245137 673556	Old Kilpatrick	В	Y
Helensburgh, 165 Clyde Street East	Residential	NS38SW	230280 682090	Helensburgh	C(s)	
Dumbarton, Church Street, Sheriff Court	Courthouse; county buildings	NS37NE	239821 675361	Dumbarton	В	
Forth And Clyde Canal, Bowling Lock-Keeper's Cottages	Lock-keeper's houses	NS47SE	245250 673547	Old Kilpatrick	В	
Forth And Clyde Canal, Bowling Basin, Upper Basin	Canal basin	NS47SE	245191 673548	Old Kilpatrick	В	Y
Forth And Clyde Canal, Bowling Upper Canal Basin, West Lock	Lock	NS47SE	245150 673560	Old Kilpatrick	В	Y
Forth And Clyde Canal, Bowling Upper Canal Basin, East Lock	Lock	NS47SE	245246 673526	Old Kilpatrick	В	Y
Helensburgh, 82 - 84 Clyde Street East	Residential	NS38SW	230010 682130	Helensburgh	C(s)	
Dumbarton, Maclean Place, Dumbarton Old Prison, Former Gateway	Gateway	NS37NE	239835 675364	Dumbarton	В	
Helensburgh, 104 - 6 Clyde Street East	Residential	NS38SW	230300 682010	Helensburgh	C(s)	
Helensburgh, 108 - 110 Clyde Street East, Rimsdale And Traigh - Na -	Residential	NS38SW	230330 681990	Helensburgh	C(s)	

Name Mara	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Helensburgh, 152 Clyde Street East, Tigh - Na - Mara	Residential	NS38SW	230630 681660	Helensburgh	В	
Helensburgh, 154 Clyde Street East, Rockfort, Lodge	Lodge	NS38SW	230720 681720	Helensburgh		
Helensburgh, 154 Clyde Street East, Rockfort	Residential	NS38SW	230640 681590	Helensburgh	• •	
Forth And Clyde Canal, Bowling Harbour, Railway Swing Bridge And	Swing bridge; viaduct	NS47SE	245119 673550	Old	B	
Approach Viaducts	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Kilpatrick		
Forth And Clyde Canal, Bowling Harbour, Customs House	Customs house	NS47SE	245090 673555	Old	В	
				Kilpatrick		
Helensburgh, 57 Princes Street East	Residential	NS38SW	230040 682250	Helensburgh		
Helensburgh, 150, 152 Princes Street East, Giffnock	Residential	NS38SW	230400 682060	Helensburgh		
Bowling, Dumbarton Road, Littlemill Distillery, Maltings And Kilns	Whisky distillery	NS47SW	244102 673708	Old	C(s)	
	<b>D</b> 11 11			Kilpatrick	5	
Bowling, Dumbarton Road, Littlemill Whiskey Distillery, Exciseman's	Residential	NS47SW	244171 673762	Old	В	
House Dumbarton, Strathleven Place, St Patrick's Roman Catholic Church	Church	NIC27NIE	239961 675461	Kilpatrick	р	
	Church Residential	NS37NE NS38SW	239961 673461 230570 681900	Dumbarton	$\mathbf{B}$	
Helensburgh, 217 Clyde Street East, Willowbank Dumbarton, Church Street, Burgh Hall		NS385W NS37NE	230370 681900 239804 675285	Helensburgh Dumbarton	C(s) A	
Helensburgh, 3 Craigendoran Avenue	Burgh hall; office; school Residential	NS38SW	239804 073283 230770 681670	Helensburgh	A C(s) [B	
Helensburgh, 5 Chargendoran Avenue	Residential	110000 11	230770 081070	Helelisburgli	group]	
Dumbarton, 17-19 High Street, Bank Of Scotland	Bank	NS37NE	239652 675194	Dumbarton	B	
Helensburgh, 4 - 9 Craigendoran Avenue	Residential	NS38SW	230750 681650	Helensburgh		
Helensburgh, 46, 48 George Street, Towerville	Residential	NS38SW	230300 682470	Helensburgh	• •	
Dumbarton, Cardross Road, Convent Of Notre Dame	Convent	NS37NE	238130 675581	Dumbarton	B	
Dumbarton, Cardross Road, Convent Of Notre Dame, Chapel	Chapel	NS37NE	238095 675566	Dumbarton	B	
Dumbarton, Helenslee Road, Carmelite Monastery	Monastery	NS37NE	238856 675044	Dumbarton	B	
Helensburgh, 19 Havelock Street	Residential	NS38SW	230450 682390	Helensburgh	C(s)	
Dumbarton, Church Street, Municipal Buildings	Municipal buildings	NS37NE	239774 675530	Dumbarton	В	
Dumbarton, Church Street, Municipal Buildings, Peter Denny Statue	Statue	NS37NE	239752 675494	Dumbarton	В	
Dumbarton, Church Street, Municipal Buildings, College Bow	Monument	NS37NE	239788 675512	Dumbarton	В	
Dumbarton, Levengrove Park, Lodge	Lodge	NS37NE	239136 675148	Dumbarton	В	
Helensburgh, 74, 76, 78 King Street East	Residential	NS38SW	230250 682260	Helensburgh	C(s)	
Helensburgh, William Street, St Michael's Church Hall	Hall	NS28SE	229240 682580	Helensburgh		

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Helensburgh, St Michael's Church	Church	NS28SE	229230 682500	Helensburgh	А	
Helensburgh, William Street, St Michael's Church, Rectory	Religion; residential	NS28SE	229220 682470	Helensburgh	C(s)	
Helensburgh, Lomond Street, St Joseph's R.C. Church	Church	NS38SW	230070 682380	Helensburgh	В	
Dumbarton, Kirktonhill, Helenslee Road, Keil School, Statue Of William Mackinnon	Statue	NS37NE	238723 675029	Dumbarton	В	
Dumbarton, Kirktonhill, Helenslee Road, Keil School, Technical Block	School; stable	NS37NE	238800 675287	Dumbarton	В	
Dumbarton, Kirktonhill, Helenslee Road, Keil School, Lodge	Lodge	NS37NE	238818 675236	Dumbarton	В	
Dumbarton, Kirktonhill, Helenslee Road, Keil School	School	NS37NE	238655 675067	Dumbarton	В	
Dumbarton, Helenslee Road, Levenford House County Library	House; library	NS37NE	239031 675410	Dumbarton	А	
Dumbarton, Helenslee Road, Levenford House, Gateway And Garden Walls	Gateway; garden wall	NS37NE	239071 675435	Dumbarton	В	
Dumbarton, Helenslee Road, Levenford House, Lodge	Gate-lodge	NS37NE	239089 675283	Dumbarton	В	
Helensburgh, Clyde Street East, Community Education Centre	School	NS28SE	229870 682150	Helensburgh	В	
Dumbarton, High Street, St Augustine's Episcopal Church, Hall	Hall	NS37NE	239705 675272	Dumbarton	А	
Dumbarton, High Street, St Augustine's Episcopal Church	Church	NS37NE	239690 675254	Dumbarton	А	
Dumbarton, 127-135 High Street	Commercial; residential	NS37NE	239442 675282	Dumbarton	В	
Dumbarton, 143-147 High Street, Bell Leisure Centre	Club; leisure centre	NS37NE	239381 675307	Dumbarton	В	
Helensburgh, 4 Clyde Street East, Information Centre	Administration	NS28SE	229630 682230	Helensburgh	C(s)	
Helensburgh, 95, 96 Clyde Street West, Flowerbank	Residential	NS28SE	229160 682430	Helensburgh	C(s)	
Dumbarton, West Bridgend, Black Bull Inn	Public house	NS37NE	239039 675553	Dumbarton	В	
Dumbarton, West Bridgend, Bridgend Church Hall	Hall	NS37NE	239030 675513	Dumbarton	В	
Dumbarton, West Bridgend, Bridgend Church	Church	NS37NE	239024 675533	Dumbarton	В	
Helensburgh, 16 Clyde Street East	Commercial; residential	NS28SE	229700 682210	Helensburgh	C(s)	
Helensburgh, 60 Clyde Street East	Residential	NS28SE	229950 682150	Helensburgh	C(s)	
Helensburgh, Clyde Street East, Tarandoun Cottage	Cottage; gates; gatepiers	NS38SW	230676 681754	Helensburgh	C(s)	
Helensburgh, 12 Clyde Street West, Imperial Hotel	Hotel	NS28SE	229360 682280	Helensburgh	C(s)	
Helensburgh, 17 - 19 Clyde Street West	Commercial; residential	NS28SE	229530 682290	Helensburgh	C(s)	
Old Kilpatrick, Glasgow Road, Dumbuck Hotel	Hotel	NS47SW	241534 674504	Old	В	
				Kilpatrick		
Helensburgh, 36 Clyde Street West	Offices	NS28SE	229440 682330	Helensburgh	В	
Forth And Clyde Canal, Bowling Basin, Canal House Basin	Canal basin	NS47SE	245032 673529	Old Kilpatrick	В	

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Forth And Clyde Canal, Bowling Basin, Canal House Basin	Canal basin	NS47SE	245032 673529	Old Kilpatrick	В	
Helensburgh, 42 - 45 Clyde Street West	Commercial; residential	NS28SE	229410 682340	Helensburgh	В	
Helensburgh, 105, 106 Clyde Street West	Residential	NS28SE	229050 682460	Helensburgh	C(s)	
Port Glasgow, Robert Street, Clune Park Church Of Scotland	Church	NS37SW	232955 674195	Port Glasgow	В	
Dumbarton, Strathleven Place, Drumoyne	Residential	NS37NE	239995 675479	Dumbarton	В	
Port Glasgow, Robert Street, Clune Park Primary School	School	NS37SW	232967 674147	Port Glasgow	В	
Helensburgh, Charlotte Street, Park Church	Church	NS28SE	229970 682410	Helensburgh	В	
Helensburgh, Colquhoun Square, West Kirk	Church	NS28SE	229520 682430	Helensburgh	В	
Helensburgh, Colquhoun Square, Bank Of Scotland	Bank	NS28SE	229560 682450	Helensburgh	В	
Helensburgh, Colquhoun Square, Celtic Cross	Cross	NS28SE	229520 682430	Helensburgh	В	
Dumbarton, Helenslee Road, Bridge	Road bridge	NS37NE	239080 675272	Dumbarton	C(s)	
Helensburgh, 19 - 25 Colquhoun Square	Commercial; residential	NS28SE	229500 682450	Helensburgh	В	
Dumbarton, 1, 2 Station Road, Public House	Public house	NS37NE	239680 675546	Dumbarton	C(s)	
Dunglass Castle, Obelisk Memorial To Henry Bell	Memorial	NS47SW	243770 673531	Old	В	
				Kilpatrick		
Dove Cottage	Residential	NS47SW	243547 672473	Erskine	В	
Helensburgh, 18 Colquhoun Street, Post Office	Post office	NS28SE	229480 682410	Helensburgh		
Helensburgh, 38 - 40 Sinclair Street	Commercial; residential	NS28SE	229660 682340	Helensburgh		
Helensburgh, 17, 19 John Street	Commercial; residential	NS28SE	229290 682470	Helensburgh		
Helensburgh, 27 John Street	Residential	NS28SE	229310 682540	Helensburgh	. ,	
Helensburgh, 32 - 44 John Street	Residential	NS28SE	229370 682520	Helensburgh	. ,	
Helensburgh, 46 - 56 John Street	Residential	NS28SE	229340 682550	Helensburgh	. ,	
Helensburgh, 70 John Street	Residential	NS28SE	229430 682740	Helensburgh		
Clydebank, Hall Street, Baths & Fire Station Tenement	Recreation; residential	NS47SE	249510 670154	Clydebank	В	
Helensburgh, 61 - 65 Princes Street West	Commercial; residential	NS28SE	229320 682470	Helensburgh		
Helensburgh, King Street East, Baptist Church	Church	NS28SE	229740 682490	Helensburgh		
Helensburgh, 22 - 28 King Street East	Residential	NS28SE	229940 682370	Helensburgh		
Helensburgh, 25, 27 King Street West, Strathclyde Regional Council Registry Office	Offices	NS28SE	229600 682500	Helensburgh	C(s)	
Helensburgh, 51 - 55 King Street West	Residential	NS28SE	229420 682560	Helensburgh		
Port Glasgow, 6, 8, 10 Newark Street	Commercial; residential	NS37SW	232707 674267	Port Glasgow	В	

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Helensburgh, 37, 39 William Street	Residential	NS28SE	229230 682630	Helensburgh	В	
Helensburgh, 76 Princes Street East	Hall	NS28SE	229900 682260	Helensburgh	В	
Helensburgh, Princes Street West, Congregational Church	Church	NS28SE	229440 682420	Helensburgh	В	
Cardross, Ardoch	Residential	NS37NE	236479 676257	Cardross	В	
Helensburgh, 61 - 65 Princes Street West	Commercial; residential	NS28SE	229320 682470	Helensburgh	C(s)	
Cardross Road, Cats Castle	Residential	NS37NE	237237 675899	Cardross	В	
Helensburgh, 73 - 79 Princes Street West	Residential	NS28SE	229260 682480	Helensburgh	C(s)	
Port Glasgow, 2 Parkhill Avenue, Holy Family Roman Catholic Church	Church	NS37SW	233994 673809	Port Glasgow	Α	
And Presbytery						
Helensburgh, 8 - 12 Princes Street West	Commercial; residential	NS28SE	229630 682390	Helensburgh	В	
Helensburgh, 14 - 28 Princes Street West	Commercial; residential	NS28SE	229610 682400	Helensburgh	В	
Helensburgh, 30 - 34 Princes Street West	Commercial; residential	NS28SE	229590 682400	Helensburgh	C(s)	
Helensburgh, 62 - 66 Princes Street West	Commercial; residential	NS28SE	229460 682450	Helensburgh	В	
Helensburgh, 76 - 78 Princes Street West	Commercial; residential	NS28SE	229440 682460	Helensburgh	В	
Helensburgh, 150 Princes Street West, Rosebank		NS28SE	229120 682610	Helensburgh		
Helensburgh, 1 Princes Street East, Municipal Buildings	Offices	NS28SE	229680 682400	Helensburgh	В	
Helensburgh, King Street West, Columba Church Hall	Hall	NS28SE	229650 682530	Helensburgh	C(s)	
Helensburgh, Sinclair Street, St Columba Church	Church	NS28SE	229670 682520	Helensburgh	В	
Helensburgh, 24 West Clyde Street, National Bank Of Scotland	Bank	NS28SE	229510 682310	Helensburgh	В	
Helensburgh, 33 - 41 Sinclair Street	Commercial; residential	NS28SE	229630 682430	Helensburgh	C(s)	
Helensburgh, 22 -34 Sinclair Street	Commercial; residential	NS28SE	229850 682310	Helensburgh	C(s)	
Helensburgh, Sinclair Street, Victoria Halls	Hall	NS28SE	229780 682660	Helensburgh	В	
Erskine House, Ferry Lodge	Residential	NS47SE	246240 672090	Erskine	В	
Erskine House, Ferry Lodge	Residential	NS47SE	246240 672090	Erskine	В	
Helensburgh, 9 Argyle Street East	Residential	NS28SE	229840 682570	Helensburgh	C(s)	
Dumbarton, Castle Street, Napier Mausoleum	Mausoleum	NS37NE	239801 675188	Dumbarton	C(s)	
Helensburgh, 5 Argyle Street West	Residential	NS28SE	229700 682580	Helensburgh	C(s)	
Helensburgh, 10 Argyle Street West, Rosemount	Residential	NS28SE	229630 682680	Helensburgh	C(s)	
Glenarbuck House	Residential	NS47SE	245320 673778	Old	В	
				Kilpatrick		
Helensburgh, James Street, La Scala Cinema	Cinema	NS28SE	229410 682380	Helensburgh		
Helensburgh, 10, 12 James Street, Clydesdale Bank	Bank	NS28SE	229420 682390	Helensburgh	В	

Name	Class	Map sheet	Easting Northing	g Parish	Category	Scheduled
Helensburgh, 1 - 14 Glenan Gardens	Residential	NS28SE	229320 682710	Helensburgh	C(s)	
Old Kilpatrick, Old Secession Church	Church	NS47SE	246607 672709	Old	В	
				Kilpatrick		
Helensburgh, 5, 5a, 7 William Streeet	Residential	NS28SE	229170 682470	Helensburgh	В	
Helensburgh, 17 William Street	Residential	NS28SE	229200 682540	Helensburgh	C(s)	
Helensburgh, 25, 27 William Street	Residential	NS28SE	229220 682570	Helensburgh	В	
Helensburgh, 91, 93 Sinclair Street	Residential	NS28SE	229710 682583	Helensburgh	C(s)	
Helensburgh, John Street, Provost Lamp Standards	Lamp post	NS28SE	229386 682695	Helensburgh	В	



Plate 1 - Mound of stones near Dunagoil with raised beach behind. (Site 102, Built Heritage and Archaeology, Bute Map 6)



Plate 2 - Remains of Drumachloy Bridge. (*Site 152, Built Heritage and Archaeology, Bute Map 9*)



Plate 3 - Derilict wooden pier at Port Bannatyne, NE Bute. (*Site 28, Built Heritage and Archaeology, Bute Map 2*)



Plate 4 - Possible fish-trap or long-line stakes at Balnakally Bay, NE Bute. (*Site 5, Built Heritage and Archaeology, Bute Map 1*)



Plate 5 - Eroding marine deposits at St Ninian's Bay on the west coast of Bute. (Unit 2, Erosion Class, Bute Map 8)



Plate 6 - Eroding raised beach at Balnakilly Bay, NE Bute. (Unit 2, Erosion Class, Bute Map 1)

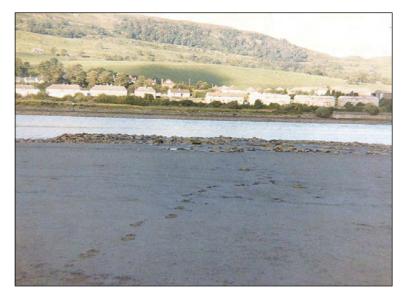


Plate 7 - Distance shot of Erskine Crannog 1986. (*Site 153, Built Heritage and Archaeology, Clyde Map 6*)



Plate 8 - Close up of piles at Erskine Crannog in 1986. (*Site 153, Built Heritage and Archaeology, Clyde Map 6*)



Plate 9 - Close up of piles at Erskine Crannog in 1986. (*Site 153, Built Heritage and Archaeology, Clyde Map 6*)

## **Erskine Bridge Crannog March 2004**



Plate 10 - Erskine Crannog at the low water mark with accreting sediment in the foreground. (Site 153, Built Heritage and Archaeology, Clyde Map 6) Courtesy of Renfrewshire Shorewatch Group



Plate 11 - Exposed timber piles at Erskine Crannog (*Site 153, Built Heritage and Archaeology, Clyde Map 6*) Courtesy of the Renfrewshire Shorewatch Group.



Plate 12 - The remains of a stone-built fishtrap east of Craigendoran. (Site 11, Built Heritage and Archaeology, Clyde Map 1)



Plate 13 - Entrance to the fish-trap above - note the outflow of water. (*Site 11, Built Heritage and Archaeology, Clyde Map 1*).



Plate 14 - Vertical aerial view of the Hill of Ardmore showing the positions of two fishtraps. (Sites 11 & 13, Built Heritage and Archaeology, Clyde Map 1)



Plate 15- Eroding cliff east of Craigendoran. (Unit 2, Erosion Class, Clyde Map 1)



Plate 16 - Ruined farmhouse above eroding cliff, east of Craigendoran Since this photograph was taken this section of the cliff has been supported by dump sea-defences. (*Unit 2, Erosion Class, Clyde Map 1*)