

Map 4: Cowal Peninsula: Cluniter to Ardyne Point

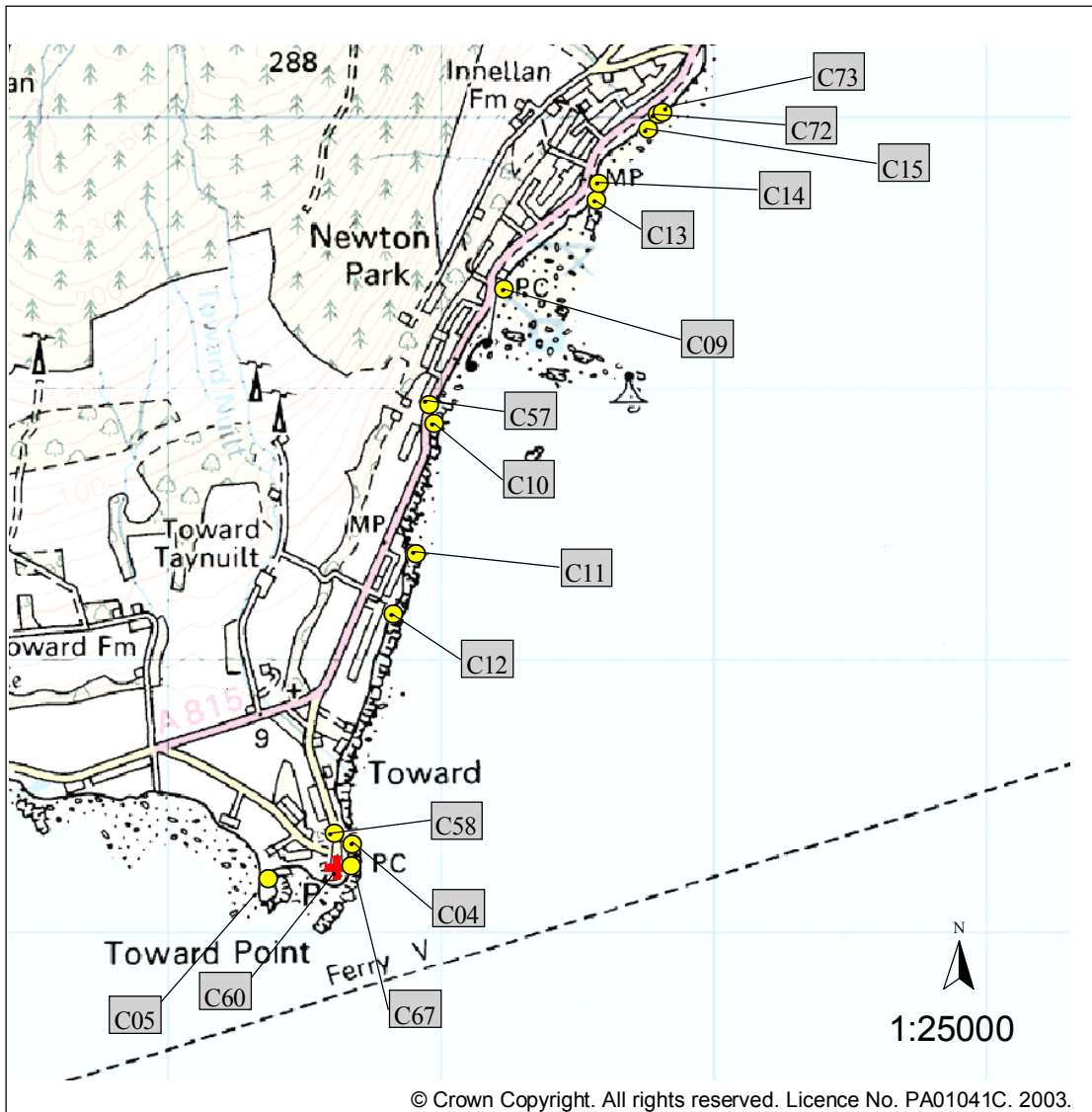
Map Content Descriptions

1. Built Heritage and Archaeology

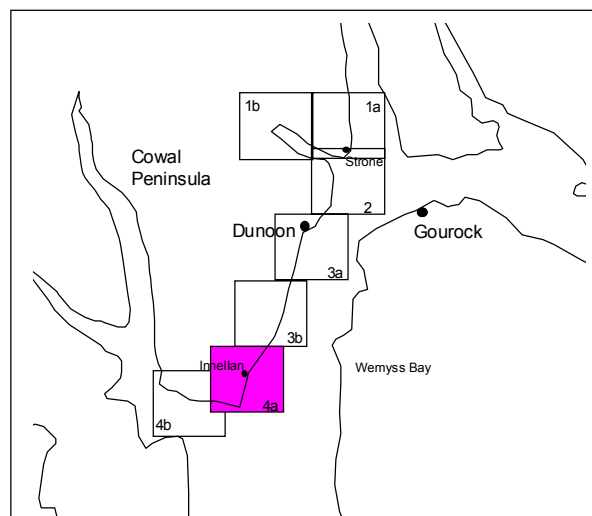
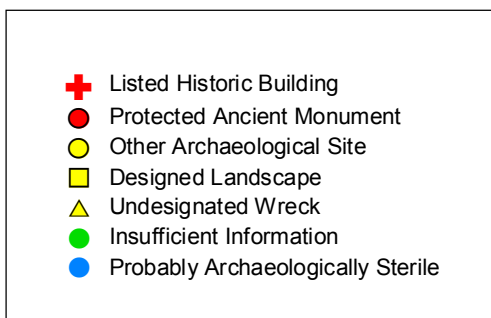
A total of twenty four sites were recorded in the area covered by Map 4. Of these six were previously recorded and eighteen were new sites noted during the field survey. Sites located on the eastern facing coastline were dominated by piers, jetties and boulder alignments located in the intertidal zone. Toward Point lighthouse and related structures form a complex of listed buildings at Toward Point. The southern facing coastline contrasts with the eastern facing coast in that the hinterland and coast edge of the former is less built up and the sites here relate to the hinterland area rather than the coast edge. The disused Lime Kiln (C05) is situated on a promontory and may be under threat from coastal processes due to its close proximity to the high tide mark.

2. Hinterland Geology, Coastal Geomorphology and Erosion Class

This section of coastline extended from Innellan on the eastern facing shore round Toward Point and along to Ardyne Point at the south western tip of the Cowal Peninsula. A mixture of sand deposits and rock platform shape the intertidal area of both the eastern and southern coasts. Sea wall defences are much more prominent on the eastern coast compared to the southern due to the majority of built up areas being located in this area. The majority of the coastline covered by Map 4 was categorised as erosional and stable. Only one small section of actively eroding coast was present south of Toward Farm and did not threaten any visible archaeological remains. The disused oil rig yard at Ardyne Point has heavily modified the natural coastline.



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Map 4a: Built Heritage & Archaeology Gazetteer

Site No C04
Grid Ref NS 13676 67317
Site Name Toward Point
Site Type quay/pier
Date 18th-20th cent
Condition Good
Recommendation Nil

Site No C13
Grid Ref NS 14573 69689
Site Name Ferry Rocks
Site Type Boulder Alignment
Date Unknown
Condition Fair
Recommendation Monitor

Site No C05
Grid Ref NS 13369 67191
Site Name Toward Point
Site Type Lime kiln
Date 18th-20th cent
Condition Fair
Recommendation Survey

Site No C14
Grid Ref NS 14583 69748
Site Name Ferry Rocks
Site Type Structure
Date 18th-20th cent
Condition Fair
Recommendation Monitor

Site No C09
Grid Ref NS 14233 69364
Site Name Toward
Site Type Boulder Alignments
Date Unknown
Condition Good
Recommendation Monitor

Site No C15
Grid Ref NS 14764 69952
Site Name Innellan
Site Type Slipway (possible)
Date Unknown
Condition Poor
Recommendation Monitor

Site No C10
Grid Ref NS 13975 68867
Site Name Toward
Site Type Jetty
Date Unknown
Condition Good
Recommendation Monitor

Site No C57
Grid Ref NS 13960 68940
Site Name Innellan
Site Type Chapel;
Date Unknown
Condition Unknown
Recommendation Nil

Site No C11
Grid Ref NS 13909 68388
Site Name Toward
Site Type Jetty & slipways
Date Unknown
Condition Fair
Recommendation Nil

Site No C58
Grid Ref NS 13610 67360
Site Name Toward Point
Site Type Radio Station
Date Unknown
Condition Unknown
Recommendation Nil

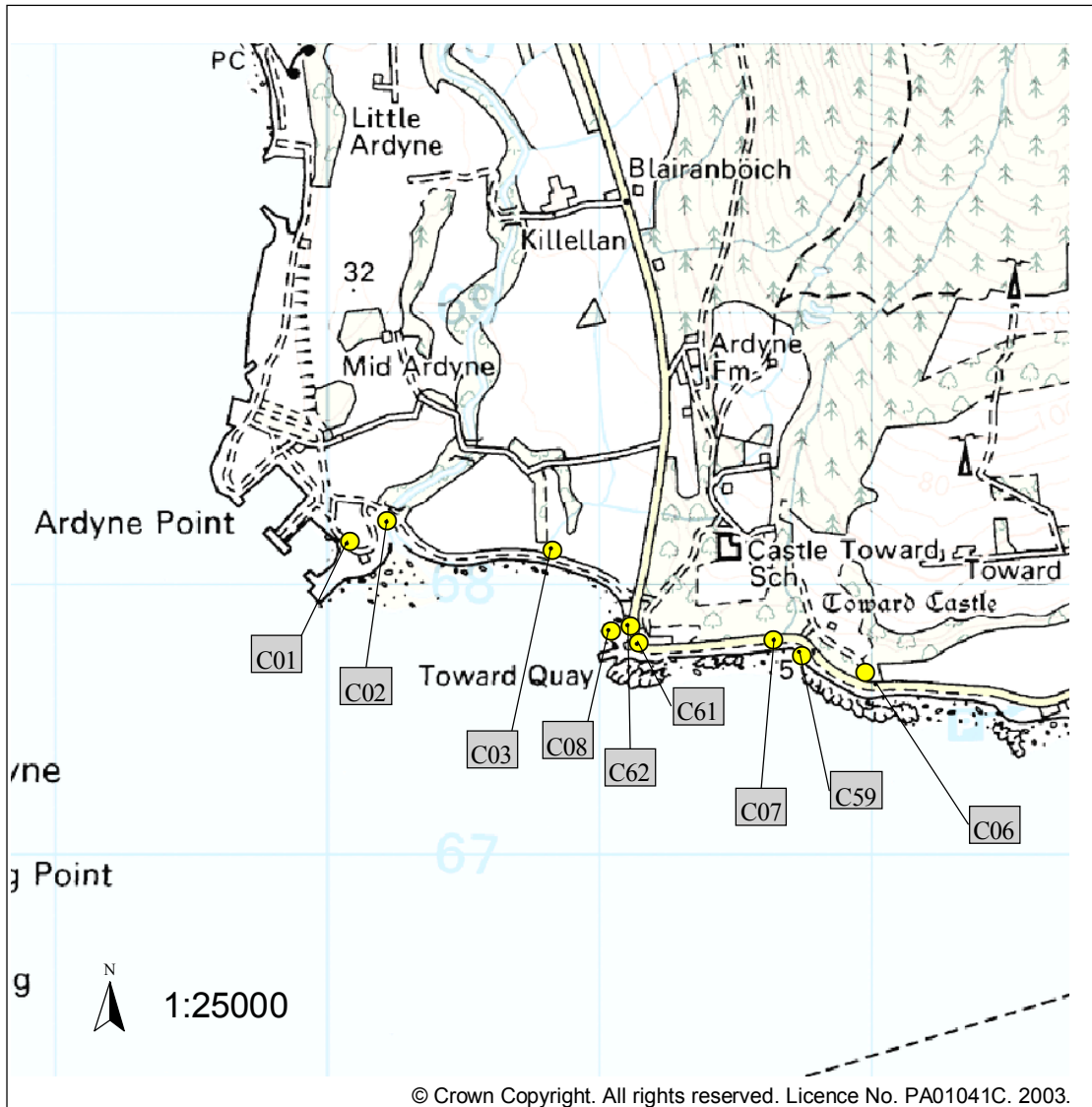
Site No C12
Grid Ref NS 13826 68167
Site Name Toward
Site Type Boathouse, slipway
Date Unknown
Condition Poor
Recommendation Nil

Site No C60
Grid Ref NS 13620 67230
Site Name Toward Point
Site Type Lighthouse/Buildings
Date 18th-20th cent
Condition Good
Recommendation Nil

Site No C67
Grid Ref NS 13672 67239
Site Name Toward Point
Site Type Jetty
Date Unknown
Condition Poor
Recommendation Monitor

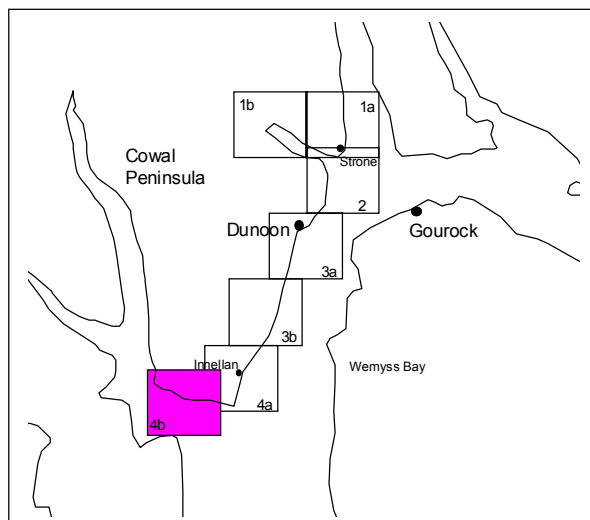
Site No C73
Grid Ref NS 14817 70016
Site Name Innellan
Site Type Slipway (possible)
Date Unknown
Condition Poor
Recommendation Monitor

Site No C72
Grid Ref NS 14796 70006
Site Name Innellan
Site Type Boulder alignment
Date Unknown
Condition Poor
Recommendation Monitor



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- + Listed Historic Building
- Protected Ancient Monument
- Other Archaeological Site
- Designed Landscape
- ▲ Undesignated Wreck
- Insufficient Information
- Probably Archaeologically Sterile



Map 4b: Built Heritage & Archaeology Gazetteer

Site No C01
Grid Ref NS 10086 68154
Site Name Ardyne Point
Site Type Industrial; oilrig yard
Date 20th cent
Condition Fair
Recommendation Nil

Site No C07
Grid Ref NS 11644 67789
Site Name Castle Toward
Site Type Culvert
Date 18th-20th cent
Condition Good
Recommendation Nil

Site No C02
Grid Ref NS 10223 68230
Site Name Ardyne Point
Site Type Bridge
Date 20th cent
Condition Fair
Recommendation Monitor

Site No C08
Grid Ref NS 11048 67823
Site Name Toward Quay
Site Type Quay, Slipways
Date 18th-20th cent
Condition Good
Recommendation Nil

Site No C03
Grid Ref NS 10832 68120
Site Name Ardyne Point
Site Type Building
Date Unknown
Condition Poor
Recommendation Nil

Site No C59
Grid Ref NS 11750 67730
Site Name Toward Castle
Site Type Kiln
Date Unknown
Condition Unknown
Recommendation Nil

Site No C06
Grid Ref NS 11984 67670
Site Name Castle Toward
Site Type Gateway
Date Unknown
Condition Fair
Recommendation Nil

Site No C61
Grid Ref NS 11150 67780
Site Name Toward Castle, South
Site Type Building
Date 18th-20th cent
Condition Good
Recommendation Nil

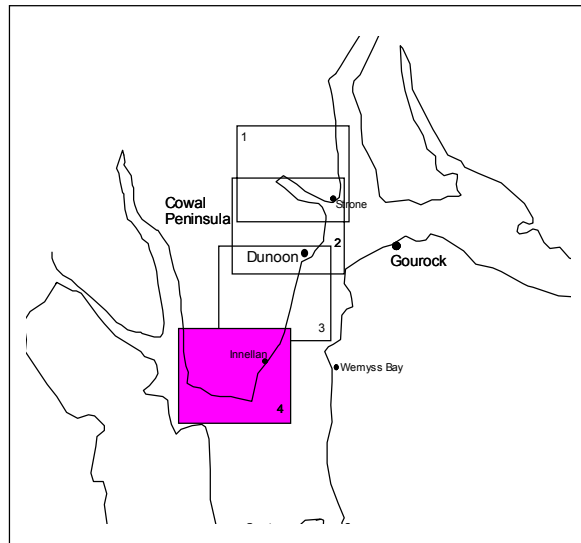
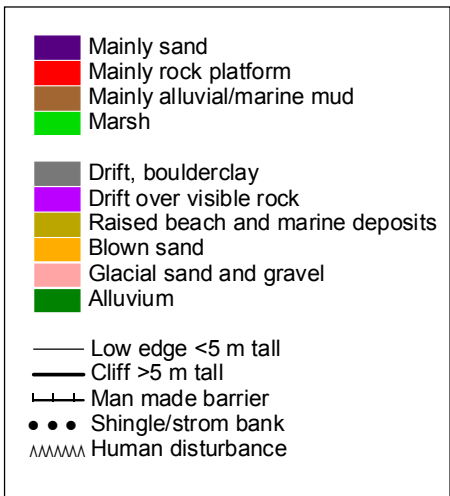
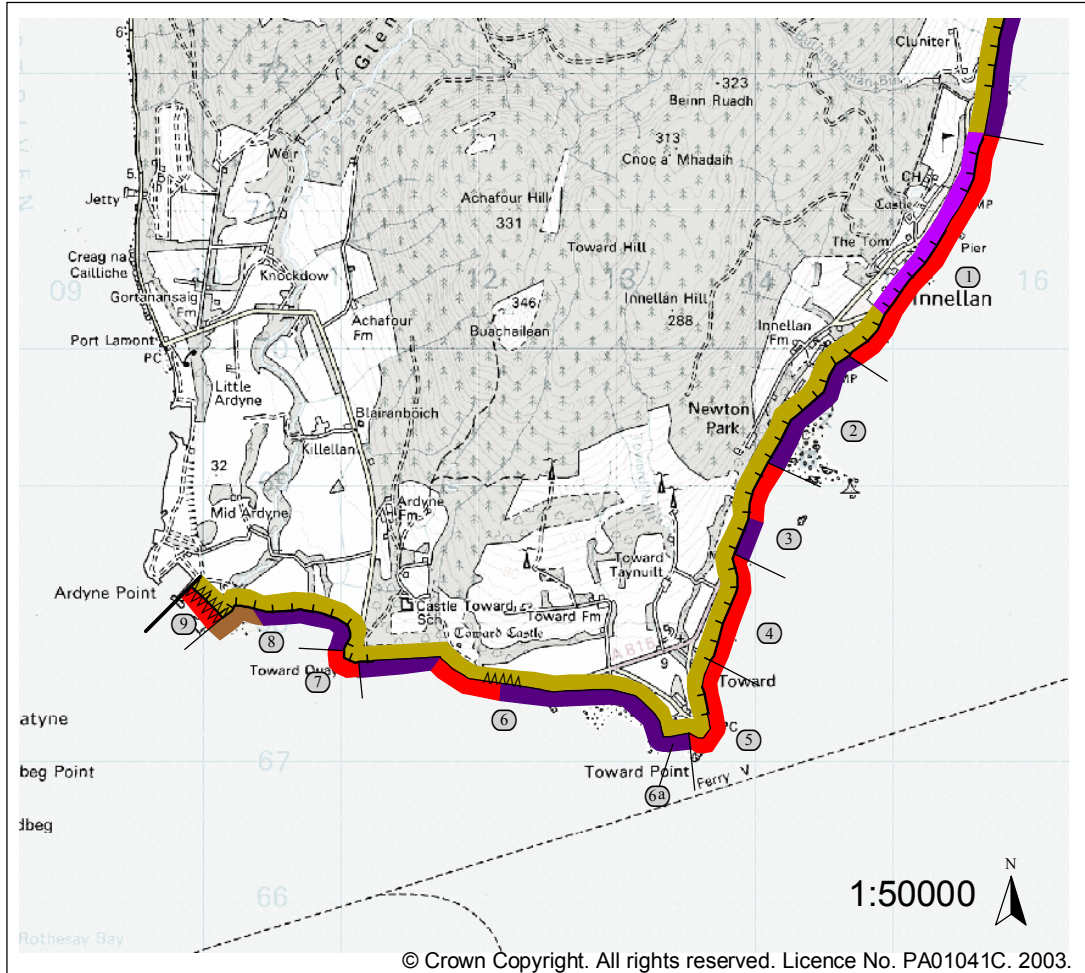
Site No C62
Grid Ref NS 11120 67840
Site Name Toward point
Site Type Mile Plate
Date 18th-20th cent
Condition Fair
Recommendation Nil

HINTERLAND GEOLOGY & COASTAL GEOMORPHOLOGY

Cowal Peninsula

Survey Date : 29 October 2002

MAP 4



Map 4: Toward

Hinterland Geology and Coastal Geomorphology

1 Innellan

NS 1529 7073

1.92 km

Mainly rock platform

Sea Wall

Drift over visible rock

A near vertical rock cliff is present along much of this section of coastline (>5 m in places). Much of the cliff is topped with a seawall. The intertidal area is very narrow north of the Police station and widens southwards. Limited littoral sediment (fine gravels) is only present in isolated pockets.

2 The Parch Beacon

NS 1441 6956

0.97 km

Mainly Sands/Gravels

Sea Wall

Raised beach

In contrast to adjacent sections of shoreline the intertidal area associated with the Parch Beacon is several hundred meters wide. There are moderate sand and gravel deposits across the centre and fringing the rock platform. A cement seawall is present above MHWS and riprap protects the frontal edge of the car park.

3 Toward North

NS 1402 6683

0.71 km

Mainly rock platform

Sea Wall

Raised beach

Bedrock dominates this section of the coast. The land is bound by a seawall, which is generally stable but shows signs of disrepair, in places. The intertidal area is approximately 130 m wide and has a variety of sediments, including gravels and some boulders, increasing in coverage towards the south of this section.

4 Toward

NS 1387 6809

0.82 km

Mainly rock platform

Sea Wall

Raised beach

In contrast to all other protection works mentioned previously, this section of coastline has been managed with piecemeal protection, where residents have built seawalls to protect their own gardens and property. These are generally built on top of the rock platform. In some areas little or no sediment is present on the foreshore. More stable areas have pockets of gravels present in the intertidal. The hinterland is formed by emerged beach deposits.

5 Toward Point

NS 1367 6733

0.69 km

Mainly rock platform

Low edge <5 m

Raised beach

Toward Point has a narrow intertidal area with isolated pockets of gravels associated with stream mouths. A Stevenson lighthouse build at the turn of the 18th century is located above the rock platform. A small section of sea wall defences is present. The hinterland is formed by emerged beach deposits.

6 Toward Castle Section

NS 1224 6749

2.64 km

Mainly sands

Low edge <5 m

Raised beach

This Section contains a bed rock base which has a veneer of intertidal gravels and sands. The first bay (6a) lies between two headlands/rock jetties where there is a small sand beach. The remainder of this section is generally a veneer of sediment (mainly gravels) and aggregate overlying the bedrock. A low edge <5 m exists in front of emerged beach deposits.

7 Toward Quay

NS 1103 6770

0.17 km

Mainly rock platform

Man made barrier

Raised beach

At Toward Quay a rock platform forms a promontory in which a jetty and harbour have been constructed. Man made barriers exist at the coast edge with patchy areas of a low edge <5 m high. The hinterland is composed of emerged beach deposits.

8 Ardyne Beach

NS 1063 6804

1.15 km

Mainly sands

Sea defences

Alluvium

The shoreline is made up of a narrow strip of intertidal sands and gravels, the coastal edge is protected by aggregate and building waste, which may have been deposited during earlier periods when the pier at Ardyne point was more heavily used. The hinterland is primarily farmland and may be alluvial/raised beach. At the western limit of the beach the Ardyne Burn supplies sands and muds to the foreshore – alluvial fan. The sediments provided by the Ardyne burn provide intertidal sediments only, and the coastal edge remains protected by aggregate to the east and Rip-rap towards Ardyne point.

9 Ardyne Point

NS 1003 6815

0.32 km

No access

Man made barrier

Raised beach

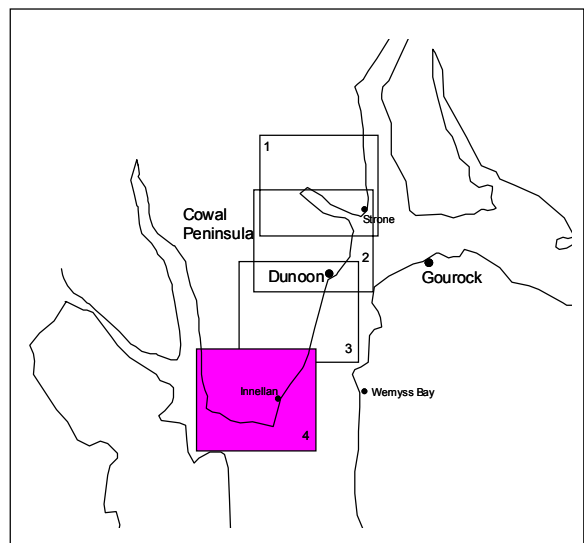
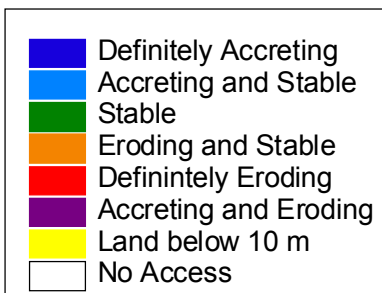
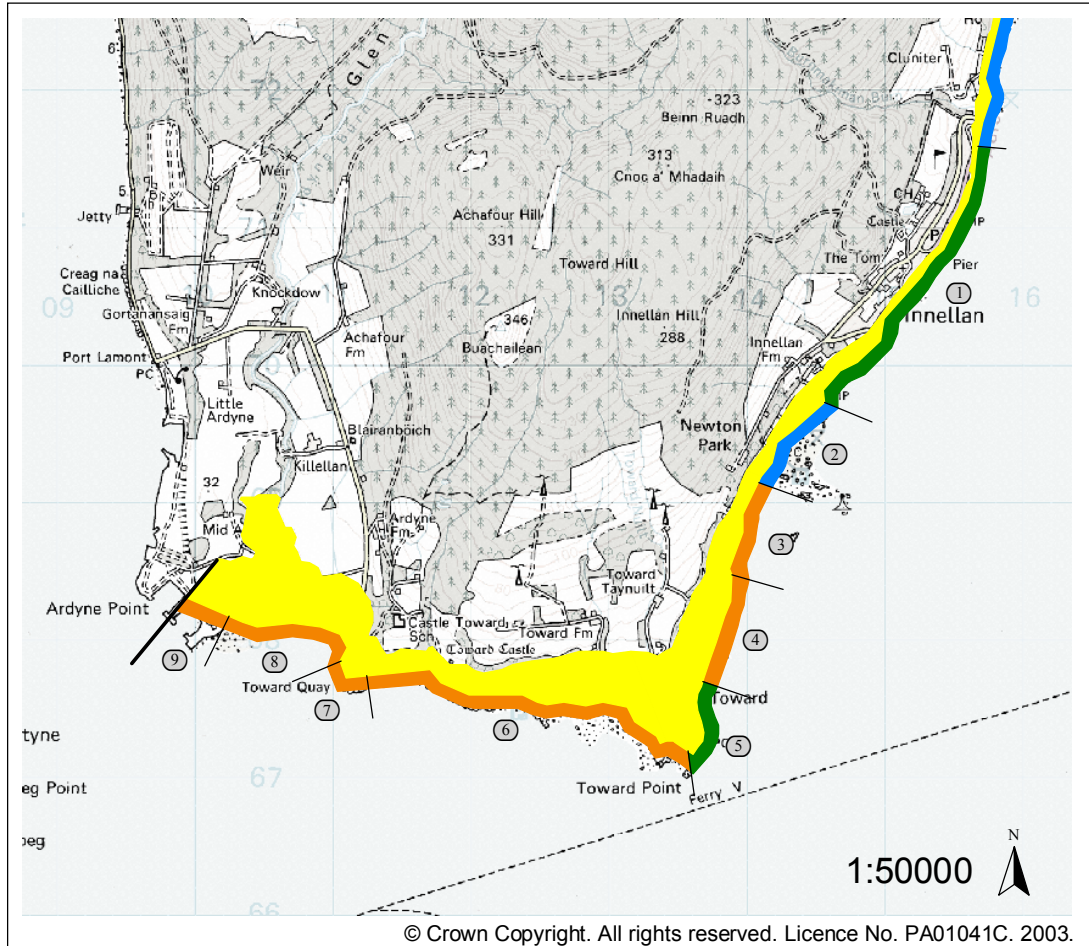
The final section is built up and is partially reclaimed land. Rip-rap extends from the burn mouth to the harbour edge. No inter tidal sediments were visible beyond the built up area. The inland raised beach area has been significantly modified by humans.

EROSION CLASS

Survey Date : 29 October 2002

Cowal Peninsula

MAP 4



Map 4: Toward

Erosion Class

1 Innellan

NS 1529 7073

1.92 km

LT: Erosional - Low

ST: Stable - Low

A near vertical rock cliff is present along much of this section of coastline which is currently stable but an erosional feature over the longer term. Much of the cliff is topped with a seawall.

2 The Parch Beacon

NS 1441 6956

0.97 km

LT: Stable/Erosional - Low

ST: Stable/Accretional - Low

The intertidal area associated with the Parch Beacon is several hundred meters wide with moderate sand and gravel coverage. This shows a low wave energy environment. A cement seawall is present above MHWS and riprap protects the frontal edge of a car park. These protections are stable and show no signs of undercutting.

3 Toward North

NS 1402 6683

0.71 km

LT: Erosional - Low

ST: Stable/Erosional - Low

Bedrock dominates this section of the coast. The land is bound by a seawall, which is generally stable but shows signs of disrepair.

4 Toward

NS 1387 6809

0.82 km

LT: Erosional - Low

ST: Stable/Erosional - Low

Residents have built seawalls to protect their own gardens and property. In some cases vertical brick walls have been constructed at MHWS directly on top of bedrock, others have invested significantly with tall riprap walls. In some areas little or no sediment is present on the foreshore suggesting higher wave energies. More stable areas have pockets of gravels present in the intertidal. Adjacent to these 'hard solutions' some residents are protecting their gardens by depositing aggregate at MHWS.

5 Toward Point

NS 1367 6733

0.69 km

LT: Erosional - Low

ST: Stable - Low

This section of the shoreline is currently stable. The lack of sediment reflects the higher wave energy associated with this promontory. Small pockets of sediment occur associated with stream mouths. A Stevenson lighthouse built at the turn of the 18th century is located above the rock platform; it shows no signs of being undercut.

6 Toward Castle Section

NS 1224 6749

2.64 km

LT: Erosional - Low

ST: Stable/Erosional - Low

A bay lies in the east of the section, between two headlands/rock jetties. There is a small sand beach. No signs of undercutting are present along the back beach. The remainder of this section is generally a veneer of sediment (mainly gravels) and aggregate overlying the bedrock. The section is erosional and shows signs of slight undercutting and attempts of piecemeal protection. A tarmac area of ground to the west of the school is eroding and has a cliff face of approximately 1 m in height and 20 m in length. The material eroding in this area shows that the tarmac area is reclaimed land.

7 Toward Quay

NS 1103 6770

0.17 km

LT: Erosional - Low

ST: Stable/Erosional - Low

The rock platform and harbour area shows no signs of undercutting at present.

8 Ardyne Beach

NS 1063 6804

1.15 km

LT: Erosional - Low

ST: Stable/Erosional - Low

The coastal edge along the bay is protected by a vast amount of aggregate and building waste, which may have been deposited during earlier periods when the pier at Ardyne point was more heavily used. At the western limit the sediments provided by the Ardyne burn supplies intertidal sediments only, and the coastal edge remains protected by aggregate to the east and Rip-rap towards Ardyne point showing the erosional potential of the coast edge despite the deposition of alluvial sediments.

9 Ardyne Point

NS 1003 6815

0.32 km

LT: Erosional - Low

ST: Stable/Erosional - Low

Rip-rap extends from the burn mouth to the harbour edge. Just to the north of the survey area the cement and tarmac ground levels around the harbours were being significantly undercut and result in a hazardous area.