3.8 Camascoille to Garvie Bay

1. **Hinterland Geology and Coastal Geomorphology:** This section of coastline comprises the edge of an undulating peat covered plateau on the south side of Enard Bay, characterised by numerous small headlands and inlets, dominated by the estuary of Achnahaird Bay. The predominant bedrock is Torridonian sandstone, though Lewisian gneiss extensively outcrops in the Cnoc Mòr an Rubha Bhig area. On the north facing Torridonian sandstone stretches of coastline, the bedding planes are exposed on edge, forming a series of steep headlands interspersed with deep geos and inlets. On the east side of Achnahaird Bay, however, the bedding planes dip seaward and the coast edge is composed of sloping rock slabs which are comparatively resistant to wave erosion. The west side of Garvie Bay displays extensive evidence of storm beach development, with the development of a tombolo (Rubh' a' Choin) and bars blocking a number of valleys. The foreshore consists predominantly of rock platforms with cobble and boulder beaches in small bays and inlets, however sandy stretches of beach occur in some sheltered bays and inlets. Achnahaird Bay represents the most extensive section of sand foreshore and adjacent coastal dune system in the study area, though the head of the bay is largely composed of tidal marsh.

2. **Erosion Class:** The predominant character of this coastline is very similar to the preceding Rubha Còigeach peninsula (Section 3.7), though with a more sheltered aspect. Much of the coast is comprised of rocky headlands indented by boulder filled coves and geos clearly indicating erosional conditions; however, the overall rate of regression is probably very slow. Interestingly, the development of massive storm beaches along the west side of Garvie Bay illustrates the effects of high energy wave activity from the north west, on a stretch of coastline seemingly in the lee of the prevailing winds. Archaeological evidence dates this activity to before the mid 18th century.

   The narrow estuary of Achnahaird Bay has a highly complex morphology and erosional state, and is unique in the study area. Essentially, sand is being deposited across an extensive tidal flat through a combination of aeolian, fluvial and tidal processes, and subsequently transported by wind to an adjacent coastal dune and machair complex to the west. The bay has a high tidal range, which appears to be increasing, as both sides of the bay and a raised area in the centre of the bay are experiencing increasing inundation and conversion to salt marsh. This is evident through a inspection of early maps of the area (e.g. Peter May's Map of the Barony of Coigach 1756 (SRO/RHP 85395) & 1st ed. O.S. 1875) and the visible affects on adjacent stone and turf dykes (Plate 11). The dune system is highly unstable, and extensive areas are being denuded, due to a combination of factors, including a possible decrease in the supply of sand to the system, stock trampling and rabbit burrows. High visitation levels also present an erosional threat to the dune system. Much of the area around the estuary is low lying and highly susceptible to marine inundation, as indicated by occurrence of salt marsh at the head of the bay.

3. **Built Heritage and Archaeology:** Achnahaird Bay has clearly been a focus for settlement over a long period of time, with a large number of structures including a dun (NC 01 SW 3), hut circles (NC 2023 9127 & NC 2023 9128), subrectangular buildings (NC 2023 9129), weirs, lazy bed cultivation plots and dyke systems occurring around the estuary. A particularly significant structural complex and midden is exposed in a badly eroding section of the dune system on the west side of the bay (NC 01 SW 2). It is probable that the development of the dune system has caused a shift of focus in the post-medieval settlement pattern further west away from the bay. Elsewhere along the coast sites are less densely distributed, however several isolated 19th century buildings (e.g. NC 2029 9146), kelp kilns (e.g. NC 2033 9148), an enclosure (NC 2038 9141) and a salmon 'creave' (NC 2029 9137) are clustered around inlets and the mouths of valleys dammed by massive storm beaches (Plate 6). The kelp kilns are a feature of particular interest, as they are composed of hollows created within storm beaches, and effectively provide a *terminus ante quem* for the storm beach formation activity (Plate 5). Few sites are directly threatened by coastal erosion, with the exception of low lying elements of field systems around Achnahaird Bay. The structures and midden deposits at Achnahaird Sands are however the most significant and seriously threatened archaeological features in the entire study area, and require immediate action.

3.8.1 Hinterland Geology and Coastal Geomorphology

1. RUBHA A' CHAIRN
NC 200 915
2.6 km
Mainly rock platform / boulder
Cliffs(< 60m)
Peat / soil over visible rock
A highly indented, exposed stretch of coast composed of steep rocky slopes, high cliffs, stacks, geos, caves and wide boulder strewn rock platforms. The bedrock is weakly bedded Torridonian sandstone dipping to the west.

2. CAMAS NAN SOITHECHEAN
NC 201 914
0.3 km
Mainly cobble & boulder beach
Cliffs(< 50m)
Peat / soil over visible rock
An enclosed bay backed by steep rocky slopes below a flat peat covered shelf, containing an extensive boulder and cobble beach. The bedrock is weakly bedded Torridonian sandstone with the strata exposed on edge.

3. RUBHA LEARAIN
NC 201 914
1.0 km
Mainly rock platform / boulder
Cliffs (< 25m, becoming lower to the south)
Peat / soil over visible rock
An indented stretch of coastline on the west side of Achnahaird Bay backed by steep rocky slopes and low cliffs below a flat peat covered shelf. The foreshore is principally rock platform with occasional boulder and cobble beaches in small coves. The bedrock is weakly bedded Torridonian sandstone with the strata exposed against the dip.

4. ACHNAHAIRD SANDS
NC 201 913
3.5 km
Mainly sand, with marsh at the south end
Low edge < 5m
Peat / soil over visible rock and raised beach, with blown sand on the west side
An enclosed bay containing an extensive sandy foreshore and surrounded by peat covered shelves and isolated raised beach deposits. A large adjoining sand dune & machair system is situated to the west. The sides of the bay are fringed by low shingle ridges. The southern end of the bay is composed of semi-tidal salt marsh. A tidal stream flows around the southern and eastern side of the marsh and sand flats.

5. RUBHA BEAG
NC 202 914
1.3 km
Mainly rock platform / boulder
Low edge < 5m
Peat / soil over visible rock
The east side of Achnahaird Bay is composed of sloping rocky shelves and platforms backed by grassy slopes and peat covered shelves at the base of a low hill (Cnoc Mór an Rubha Bhig). A cobble beach is situated in a small enclosed bay below an isolated raised beach.

6. CAMAS A' BHOTAIN
NC 202 914
1.4 km
Mainly rock platform / boulder
Low edge < 5m with occasional cliffs (< 15m)
Peat / soil over visible rock, with isolated raised beach deposits in occasional coves
An indented section of coastline at the base of a low rocky hill (Cnoc Mór an Rubha Bhig). The coast edge is defined by two rocky promontories, and backed by short, steep rocky slopes and low cliffs. The predominant bedrock is Torridonian sandstone with westward dipping strata, interspersed with occasional outcrops of Lewisian gneiss. The foreshore is primarily rock platform with occasional boulder and cobble beaches in small coves.

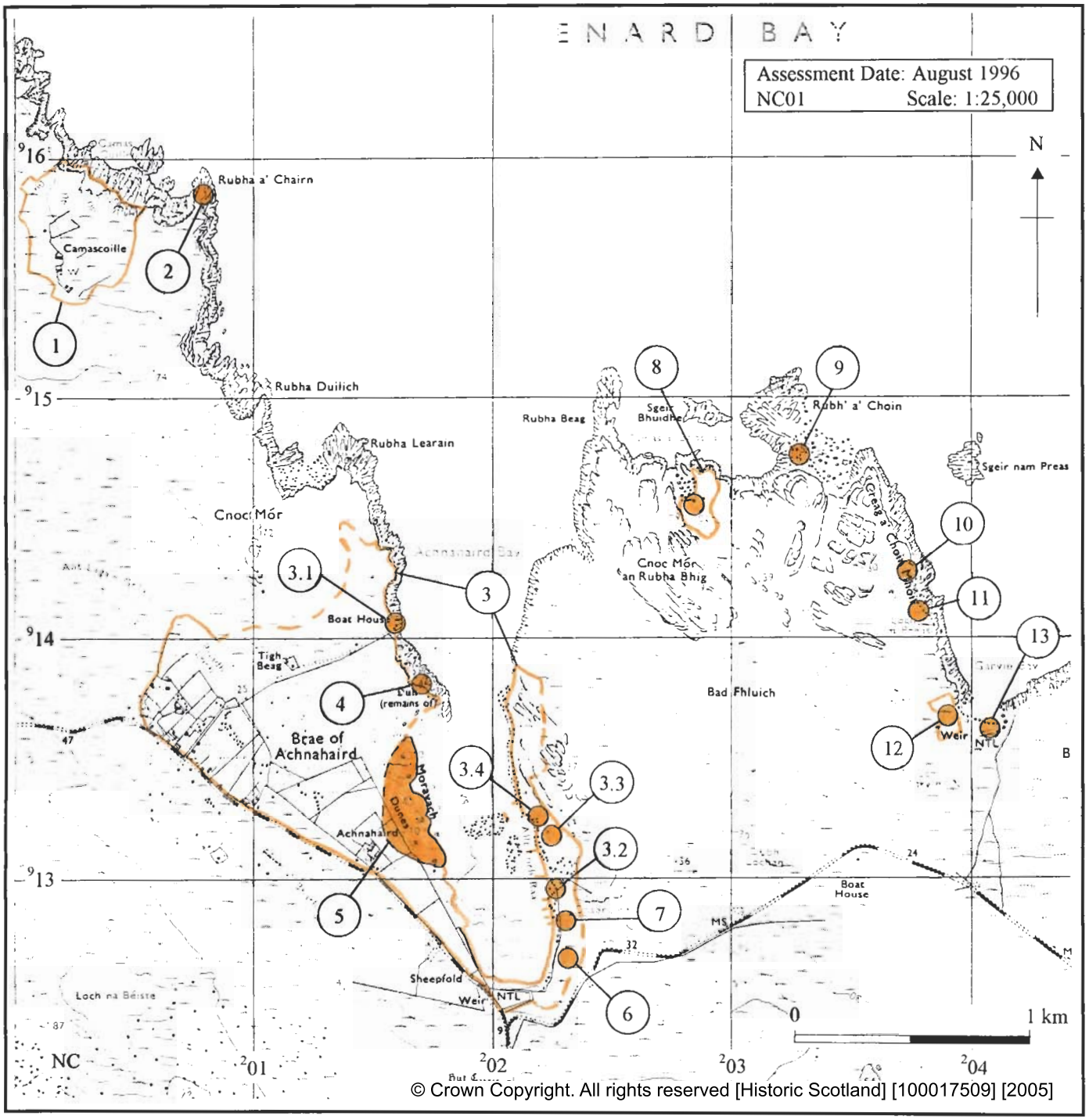
7. RUBH' A' CHOIN
NC 203 914
1.2 km
Mainly rock platform / boulder, with shingle, cobbles, boulders and sand to the east
Low edge < 5m and storm beach
Peat / soil over visible rock
A tombolo created by a large cobble and boulder storm bar linking a skerry with the mainland. The storm bar is underlain by rock platforms. The eastern foreshore is composed of an extensive shingle, cobble & boulder beach with occasional exposures of sand. This landform is situated at the base of a low rocky hill, fringed by sloping rock slabs and steep grassy slopes.

8. CREAG A' CHOIN MHÓIR
NC 203 914
0.5 km
Mainly rock platform / boulder
Cliffs (< 25m, becoming lower to south)
Peat / soil over visible rock
An indented stretch of coastline below a low rocky hill on the west side of Garvie Bay, characterised by steep rocky slopes and low cliffs. The foreshore is principally rock platform with occasional boulder and cobble beaches in small coves.

9. LOCH NAM PREAS
NC 203 914
0.15 km
Mainly sand (over rock platform)
Storm beach
Raised beach
An extensive cobble & boulder storm bar blocks the mouth of a minor valley (Allt nam Preas ?), impounding a small freshwater marsh, with extensive sand deposits and frequent exposures of rock platform occurring on the foreshore.

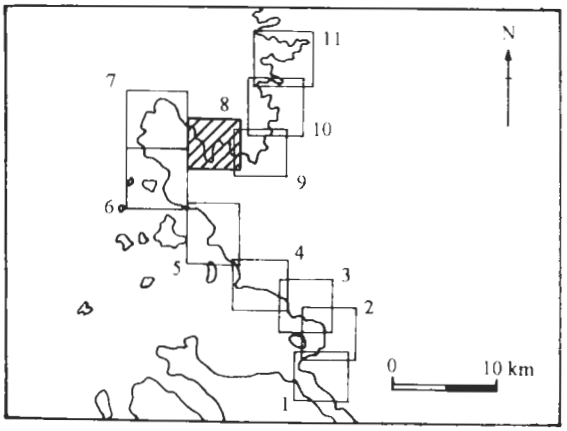
10. GARVIE BAY (WEST)
NC 203 913
0.4 km
Mainly rock platform / boulder
Low edge < 5m
Peat / soil over visible rock
An indented stretch of coastline on the west side of Garvie Bay backed by steep rocky slopes and low cliffs below a flat peat covered shelf. The predominant bedrock is Torridonian sandstone interspersed with occasional outcrops of Lewisian gneiss. The foreshore is principally rock platform with occasional boulder and cobble beaches in small coves.

10. GARVIE BAY (EAST)
NC 204 913
0.2 km
Mainly sand
Storm beach
Raised beach
An extensive cobble & boulder storm bar blocks the mouth of the River Garvie valley, impounding a small freshwater loch (Loch Garvie). The foreshore is composed almost entirely of sand.

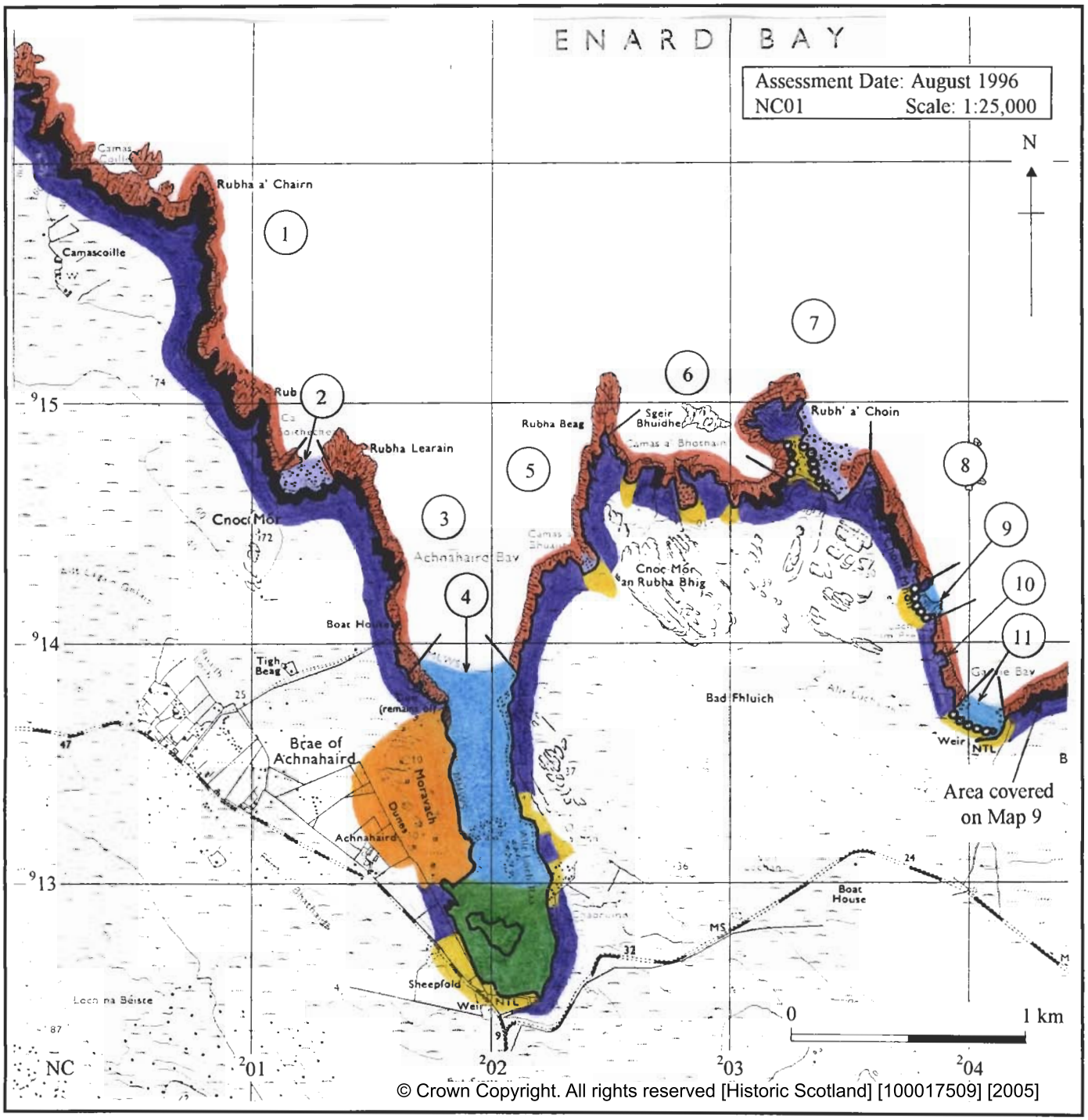


Key:

Protected Ancient Monument	
Listed Historic Building	
Other known Ancient Monument	
Undesignated wreck	
Site complex	
Undetermined boundary	

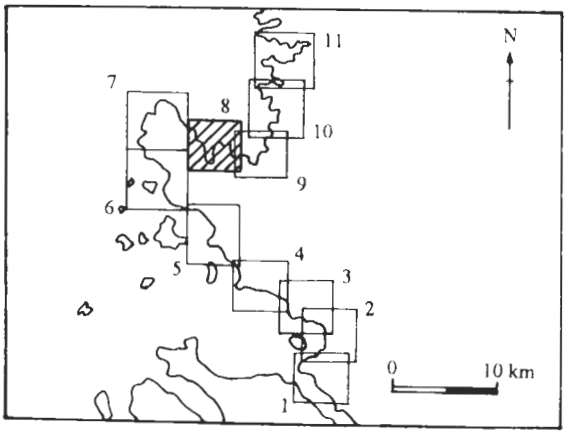


MAP 8 CAMASCOILLE TO GARVIE BAY Hinterland Geology and Coastal Geomorphology



Key:

Hinterland Geology	
Peat / soil over visible bedrock	
Raised beach and marine deposits	
Blown sand	
Alluvial deposits	
Coast Edge	
Low edge (<5m)	
Cliff (>5m)	
Man made barrier	
Storm beach	
Human disturbance	
Coastal Geomorphology	
Mainly rock platform/boulders	
Mainly shingle/cobbles/boulders	
Mainly sand	
Marsh	



3.8.2 Erosion Class

1. RUBHA DUBH
NC 200 916
0.6 km
Definitely eroding
The coast edge in this section displays clear characteristics of steady erosion, including steep unstable cliffs and slopes, sea stacks, narrow promontories, wide boulder strewn rock platforms, fresh rockfall, geos and caves. The coastline has a north-easterly aspect, and forms the rear slope of a high hill (96m ASL). The rate of regression is likely to be slow.

2. CAMASCOILLE
NC 200 915
0.5 km
Eroding or stable
A wide bay sheltered between short headlands contains wide, boulder strewn rock platforms and a steep rocky backslope with minor erosion scars indicating a general trend towards erosion. A shingle and cobble beach along the HWM at the rear of the bay indicates that recently the section has been experiencing a period of relative stability. The rate of regression is likely to be slow.

3. RUBHA A' CHAIRN
NC 200 915
1.2 km
Definitely eroding
The section is partially sheltered on the west side of Enard Bay, but the strata has been exposed on edge. There is clear evidence of steady erosion, including steep unstable cliffs, narrow promontories interspersed with deep geos, wide boulder strewn rock platforms and fresh rockfall. The rate of regression is likely to be slow.

4. CAMAS NAN SOITHECHEAN
NC 201 914
0.7 km
Eroding or stable
A wide bay sheltered between short headlands contains wide, boulder strewn rock platforms and steep rocky backslope, indicating a general trend towards erosion. A shingle and cobble beach along the high tide mark at the rear of the bay indicates a period of relative stability. The rate of regression is likely to be slow.

5. RUBHA LEARAIN
NC 201 914
1.0 km
Eroding or stable
This stretch of coast consists of weakly bedded sandstone cliffs with a westward dipping strata. The section is in a partially sheltered position on the west side of Achnahaird Bay, but has been exposed against the dip. There is clear evidence of steady erosion, including steep unstable cliffs, narrow promontories interspersed with geos, wide boulder strewn rock platforms and fresh rockfall. The rate of regression is likely to be slow.

6. ACHNAHAIRD SANDS
NC 201 913
3.5 km
Both accreting and eroding
This semi-tidal estuarine environment contains an extensive sandy foreshore which may have been created through the supply of beach material from the erosion of glacial till deposits on adjoining cliffs. Fluvial deposition from Allt Loch Raa and Allt Lagain Ghlais has also contributed to the supply of beach material. There are clear indications of active aeolian erosion in an adjacent dune complex and machair to the west, and the inundation of adjacent peat deposits at a rising HWM at the head of the bay.

7. RUBHA BEAG
NC 202 914
1.3 km
Eroding or stable
The coast edge in this section is eroding very slowly. The coastal aspect is north westerly, and the bedrock is exposed along the gently dipping bedding planes. Low slabs and shelves of westward dipping Torridonian sandstone present an effective barrier to rapid erosion, and the rate of regression is likely to be slow.

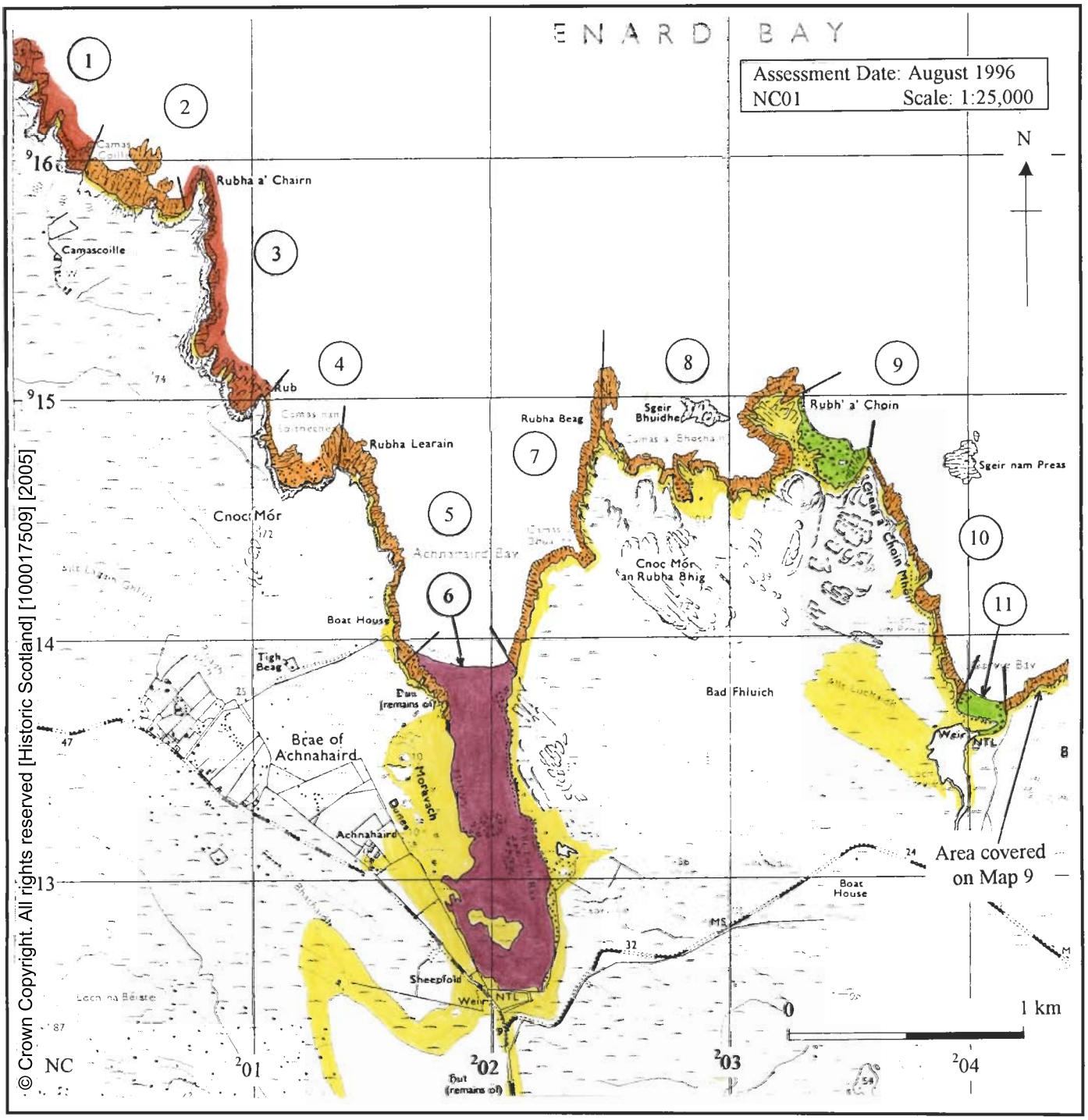
8. CAMAS A' BHOTAIN
NC 201 914
2.0 km
Eroding or stable
This section is partially sheltered by offshore skerries, but the bedding planes have been exposed on edge. There is clear evidence of a general erosional trend, including steep, unstable cliffs, narrow promontories interspersed with deep geos, wide boulder strewn rock platforms and fresh rockfall. The rate of regression is likely to be slow.

9. RUBH' A' CHOIN
NC 203 914
0.6 km
Stable
An enclosed bay with a north easterly aspect, situated in a sheltered position behind a promontory and storm bar. The presence of an extensive sand, shingle and cobble foreshore indicate a stable environment, though there are no indications of active accretion.

10. CREAG A' CHOIN MHÓIR
NC 203 914
1.15 km
Eroding or stable
The section is in a partially sheltered situation on the west side of Garvie Bay, with the strata exposed against the dip. There is some evidence of an erosional trend, including steep rocky slopes and occasional cliffs, rock platforms and boulder accumulation in occasional inlets. The rate of regression is likely to be slow.

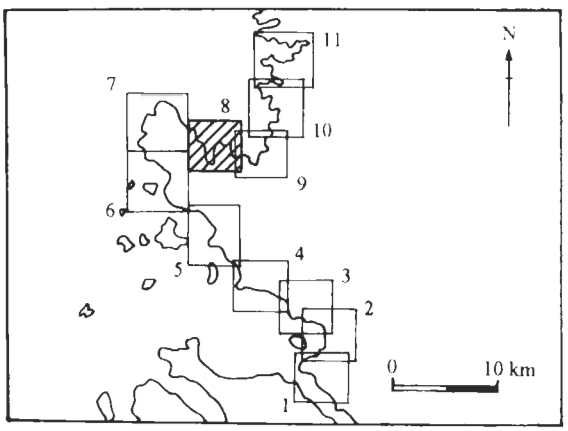
11. GARVIE BAY
NC 204 913
0.2 km
Stable
A north facing beach at the head of Garvie Bay. A sand & cobble beach foreshore abuts an overgrown storm bar, but there is no indication of progressive accretion.

MAP 8 CAMASCOILLE TO GARVIE BAY Erosion Class



Key:

Erosion Class	
Definitely accreting	
Accreting or stable	
Stable	
Eroding or stable	
Definitely eroding	
Both accreting and eroding	
Land below 10m	



3.8.3 Built Heritage and Archaeology

1. CAMASCOILLE
Township, field systems, cultivation, trackway
NC 2004 9158
16th-20th Century
Fair
Nil

2. RUBH A' CHÀIRN
Cairn (?)
NC 01 NW 1
Natural
Non-site
Nil

3. ACHNAHAIRD
Township, cultivation, field systems, boat nausts, weirs, earthworks
NC 2015 9131
(includes Achnahaird House; NC 01 SW 34)
3.1 Boat house
NC 2016 9141
3.2 Buildings
NC 2023 9129
3.3 Building
NC 2023 9132
3.4 Boat naust
NC 2022 9133
16th - 20th Century
Fair
Nil

4. ACHNAHAIRD
Dun
NC 01 SW 3
Late Prehistoric
Fair
Monitor

5. ACHNAHAIRD SANDS
Building complex, cairn, midden
NC 01 SW 2
5th - 19th Century
Poor
Survey

6. ALLT LOCH RAA
Hut circle
NC 2023 9127
Late prehistoric
Fair
Nil

7. ALLT LOCH RAA
Hut circle, enclosures
NC 2023 9128
Late prehistoric
Fair
Nil

8. CAMAS A' BHOTHAIN
Buildings, cultivation, boat naust, slipways, marker cairn
NC 2028 9146
16th - 20th Century
Fair
Nil

9. RUBH' A' CHOIN
Kelp kilns (?), structures
NC 2033 9148
18th - 20th Century
Fair
Nil

10. CREAG A' CHOIN MHÒIR
Kelp kiln (?)
NC 2037 9143
18th - 19th Century
Fair
Nil

11. GARVIE BAY
Enclosure, structures / kelp kilns (?)
NC 2038 9141
18th - 19th Century
Fair
Nil

12. GARVIE BAY
Building, hut circle, cultivation
NC 2039 9137
Late prehistoric - 19th Century
Fair
Nil

13. LOCH GARVIE
Structure / kelp kiln (?), 'salmon creave' (weir)
NC 2041 9136
18th - 20th Century
Fair
Nil