

4.12 *Map 12: Kyle of Tongue (S)*

4.12.1 *Map Content Descriptions*

1. *Built Heritage and Archaeology:*

A total of 14 sites were recorded around the S side of the Kyle. Two are classified as being of unknown period and potentially the earliest site visited was the township at Kinloch (NC 5564 5306; NMRS Number NC 55 SE 17; Gazetteer no 10) which may be Medieval in origin. The only other major site recorded in this area was the deserted settlement on the E side of the Kyle (NC 5602 5474; NMRS Number NC 55 SE 35; Gazetteer no 2).

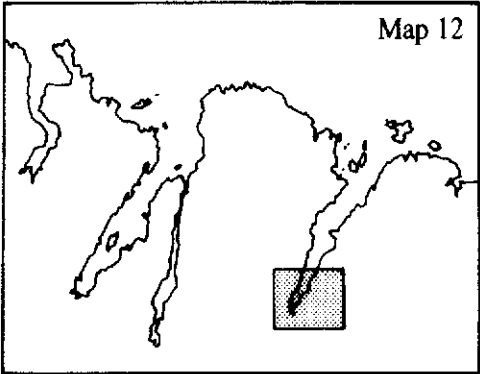
2. *Erosion Class:*

As noted in 4.11.1 above, the W side of the Kyle suffers from erosion in stretches as evidenced by fresh erosion-scars in the peat above the HWM. The salt-marsh around the flood-plain at the S end of the Kyle is considered to be in an unhealthy state. Whether the reasons for this are over-grazing, or a knock-on effect from the construction of the causeway, requires further study. There is a minor erosional problem at the NE outflow of the River Kinloch where sediment is also accreting from the hinterland water-course. The rock platforms and cliff which begins to climb towards Caisteal Bharraich at the N of this area is stable.

3. *Hinterland Geology and Coastal Geomorphology:*

This area is a continuation of that described in 4.11.1 above, being the S tip of the sea-loch. There is little difference in the hinterland geology or coastal geomorphology of the area covered in this map from that of the previous one. The only major differences are the development of the salt-marsh at the S end of the Kyle, and the alluvial/marine mud deposits in the mouths of the Allt Ach'an t-Strathain and River Kinloch. The health of the salt-marsh is in question, and a prolonged study of the reasons for this are recommended in the light of the more general analysis suggested of the effects of the construction of the causeway on the coastal environment of the Kyle.

Map 12



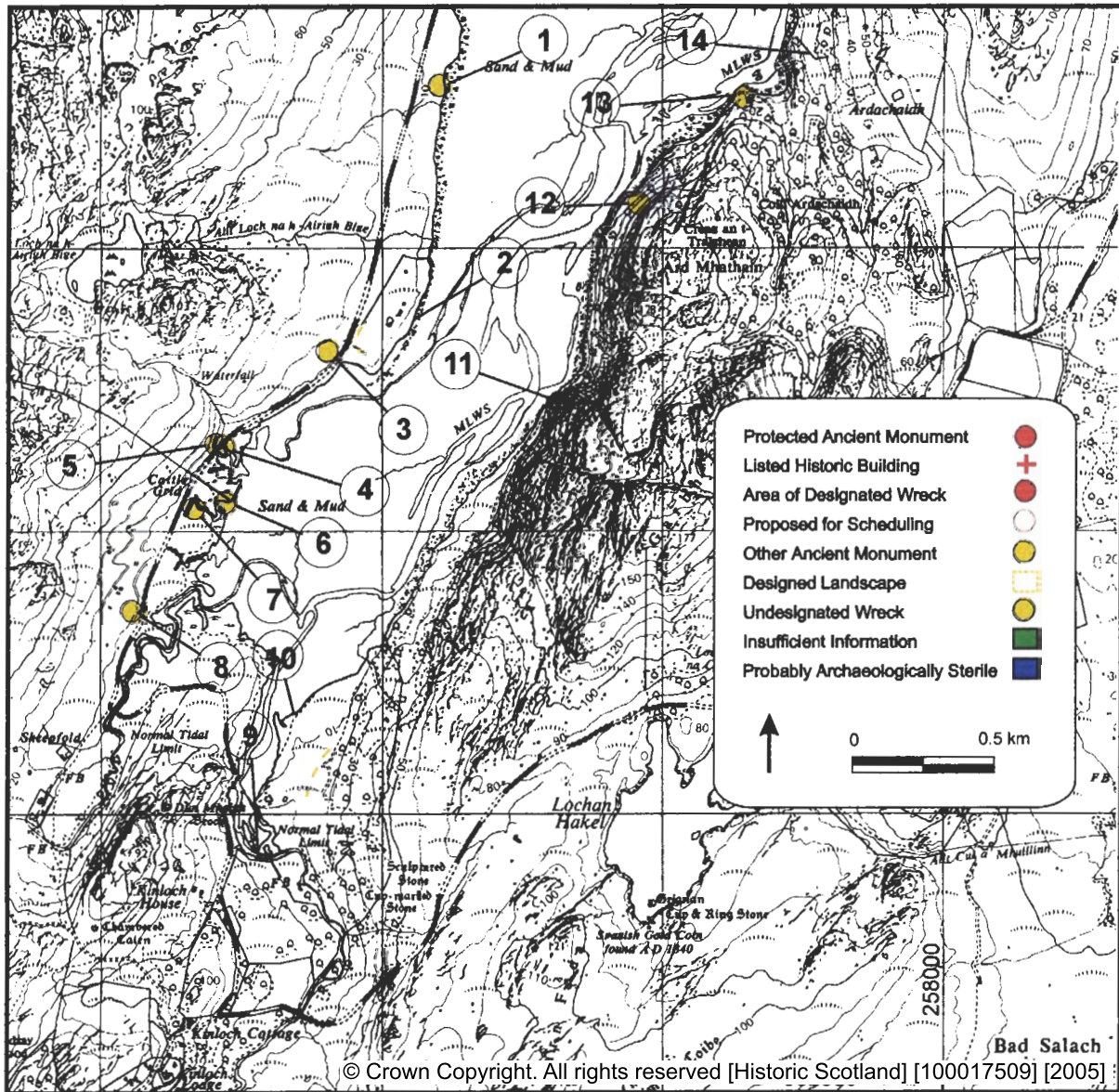
MAP 12 KYLE OF TONGUE (S)

Built Heritage and Archaeology

NC46/56

Scale 1:25,000

Surveyed November 1997



Map 12: Kyle of Tongue (S)

4.12.2 The Built Heritage and Archaeology: Gazetteer

1. KYLE OF TONGUE (W)

G/R: NC 5621 5556
Location: Hinterland, a few m from coast-edge above HWM
1:10 560 Map: NC 55 NE
Site Type: ?Dyke
Date: Post-Medieval
Condition: Poor
Recommendation: Survey

2. KYLE OF TONGUE

G/R: NC 5602 5474
Location: Coast-edge above HWM and extending c 150 m into Hinterland
1:10 000 Map: NC 55 SE
Site Type: Deserted settlement
Date: Post-Medieval
NMRS Number: NC 55 SE 35
Condition: Fair
Recommendation: Survey

3. KYLE OF TONGUE

G/R: NC 5584 5460
Location: Hinterland, c 20-30 m from coast-edge above HWM
1:10 000 Map: NC 55 SE
Site Type: Quarry
Date: Modern
Condition: Fair
Recommendation: Nil

4. KYLE OF TONGUE (W)

G/R: NC 5541 5432
Location: Hinterland, c 10-20 m from HWM
1:10 000 Map: NC 55 SE
Site Type: Quarry
Date: Modern
Condition: Fair
Recommendation: Nil

5. AN GARBH-ALLT

G/R: NC 5543 5430
Location: Hinterland, 10 m from coast-edge and HWM
1:10 000 Map: NC 55 SE
Site Type: Bridge
Date: Post-Medieval
Condition: Fair
Recommendation: Monitor

6. KYLE OF TONGUE (W)

G/R: NC 5546 5412 (centred)
Location: Intertidal zone, HWM and extending 5 m into Hinterland
1:10 000 Map: NC 55 SE
Site Type: Possible revetement
Date: Modern/?Post-Medieval
Condition: Poor
Recommendation: Nil

7. KYLE OF TONGUE (W)

G/R: NC 5533 5411
Location: HWM
1:10 000 Map: NC 55 SE
Site Type: Structural features
Date: Unknown
Condition: Poor
Recommendation: Monitor

8. KINLOCH

G/R: NC 5516 5372
Location: Hinterland, c 40 m from HWM
1:10 000 Map: NC 55 SE
Site Type: Quarry
Date: Modern
Condition: Fair
Recommendation: Nil

9. KINLOCH

G/R: NC 5553 5287
Location: Hinterland, 10-20 m from HWM
1:10 000 Map: NC 55 SE
Site Type: Dyke
Date: ?Post-Medieval
Condition: Poor
Recommendation: Monitor

10. KINLOCH

G/R: (a) NC 5564 5306
(b) NC 5566 5307
Location: Coast-edge above HWM, extending up to 300-400 m into Hinterland
1:10 000 Map: NC 55 SE
Site Type: Township
Date: ?Medieval/Post-Medieval
NMRS Number: NC 55 SE 17
Condition: Poor
Recommendation: Survey

11. GARBH CHNOC

G/R: NC 5664 5450
Location: Coast-edge above HWM and extending over 50 m into Hinterland
1:10 000 Map: NC 55 SE
Site Type: Dyke
Date: Unknown
Condition: Poor
Recommendation: Nil

12. KYLE OF TONGUE (E)

G/R: NC 5693 5518
Location: Coast-edge above HWM and extending 100+ m into Hinterland
1:10 560 Map: NC 55 NE
Site Type: Dyke
Date: Post-Medieval
Condition: Poor
Recommendation: Survey

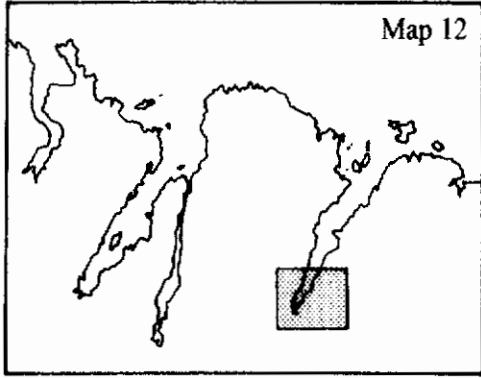
13. KYLE OF TONGUE (E)

G/R: NC 5729 5655
Location: Hinterland, up to 40 m from coast-edge above HWM
1:10 560 Map: NC 55 NE
Site Type: Dyke
Date: Post-Medieval
Condition: Fair
Recommendation: Nil

14. KYLE OF TONGUE (E)

G/R: NC 5750 5570
Location: Hinterland, up to 106 m from HWM
1:10 560 Map: NC 55 NE
Site Type: Dyke
Date: Post-Medieval
Condition: Poor
Recommendation: Nil

Map 12



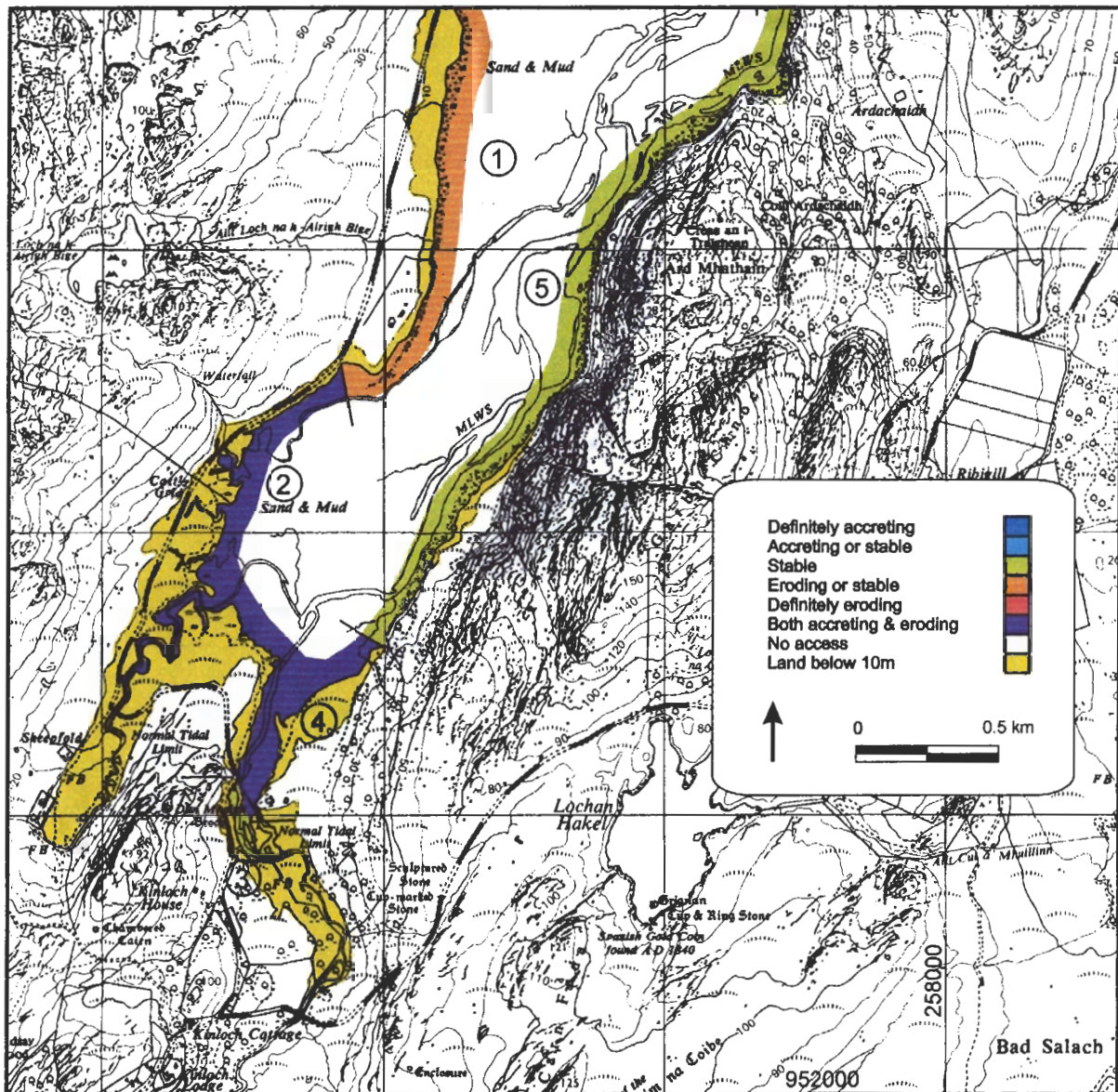
MAP 12 KYLE OF TONGUE (S)

Erosion Class

NC46/56

Scale 1:25,000

Surveyed November 1997



Map 12: Kyle of Tongue (S)

4.12.3 Erosion Class: Gazetteer

1. ALLT LOCH NA H-AIRIGH BIGE

NC 256 955

1.425 km

Eroding or stable

This stretch of coastline continues on from that described in no 3 for Erosion Map 11 (4.11.3 above) with the same processes at work. There are areas where the HWM appears to be cutting back into the hinterland with fresh erosion scars. This may be to do with the construction of the causeway interfering with the rate of tidal flow or could be from wind and wave-action with the problem exacerbated by grazing pressures. This erosion problem is only evident in stretches with much of the rest of this coastline appearing stable. Further monitoring of the whole Kyle is required to ascertain the cause of the areas of erosion and to examine whether the construction of the causeway has been a factor. The coastal zone may now have stabilised after the initial changes associated with the road link had caused some damage.

2. SW OF KYLE OF TONGUE

NC 255 953

2.125 km

Both accreting and eroding

The salt-marsh at the head of the Kyle does not generally appear to be in a healthy state. The reason for this may be due to the pressures of grazing denuding the sediment below of vegetation and removing the agent which binds it. It is unclear from this survey whether the marsh is currently re-establishing itself or is in the process of being actively eroded. Thus this area has been put into the *both accreting and eroding* category of the survey as, whilst some sections may be being eroded, other parts may be actively growing. As J A Steers pointed out 25 years ago in *The Coastline of Scotland* (1973: 28), the "...development of the marsh will repay study; it appears to be far more muddy than is usual in Scottish marshes." This study is still awaited and a longer-term monitoring of the marsh will shed light on how healthy it is. Steer's study was published before the construction of the causeway and he was clear that the marsh is developing. If this is no longer the case, then the effects of the causeway on this whole coastal environment requires further research.

The construction of the causeway across the Kyle must be having some effect on the sediment budget of the area, but this cannot be identified in a brief field-visit, and a longer-term study would be required to identify this. There are a number of sections S of the causeway which appear to have some evidence of erosion, but again these are impossible to define with certainty. Again the salt-marsh at the head of the Kyle (NS 555537) does not appear healthy, which could be due to over-grazing.

3. KINLOCH

NC 255 952

0.7 km

Stable

The mouth and banks of the Kinloch River appear to be stable. This river, which flows into the Kyle, may cause some localised stability problems when in spate but no areas of active erosion or accretion were noted at the time of this survey.

4. NE OF KINLOCH

NC 255 953

0.8 km

Both accreting and eroding

The alluvial deposits at the N of the mouth of the River Kinloch are eroding where the outflow of the river and the tidal-action of the Kyle have torn away sections of the bank. Both of these processes are also depositing sediment in pockets of this stretch of the coastline. Much of this area is below 10 m above sea-level and should be monitored in the areas where erosion could lead to inundation of the hinterland.

5. GARBH CHNOC

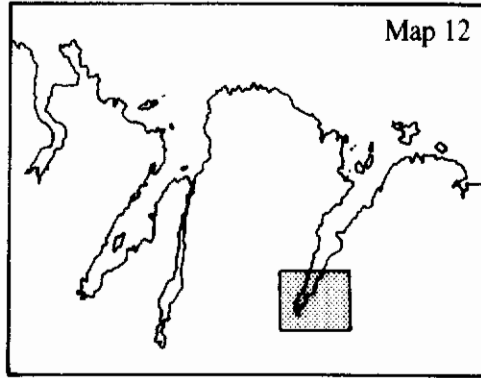
NC 256 954

2.625 km

Stable

This stretch of the coastline is a continuation of the area described in no 4 of Erosion Map 11 (4.11.3 above) and is characterised by stable, shrub-covered rock cliffs which show no sign of either active erosion or accretion

Map 12



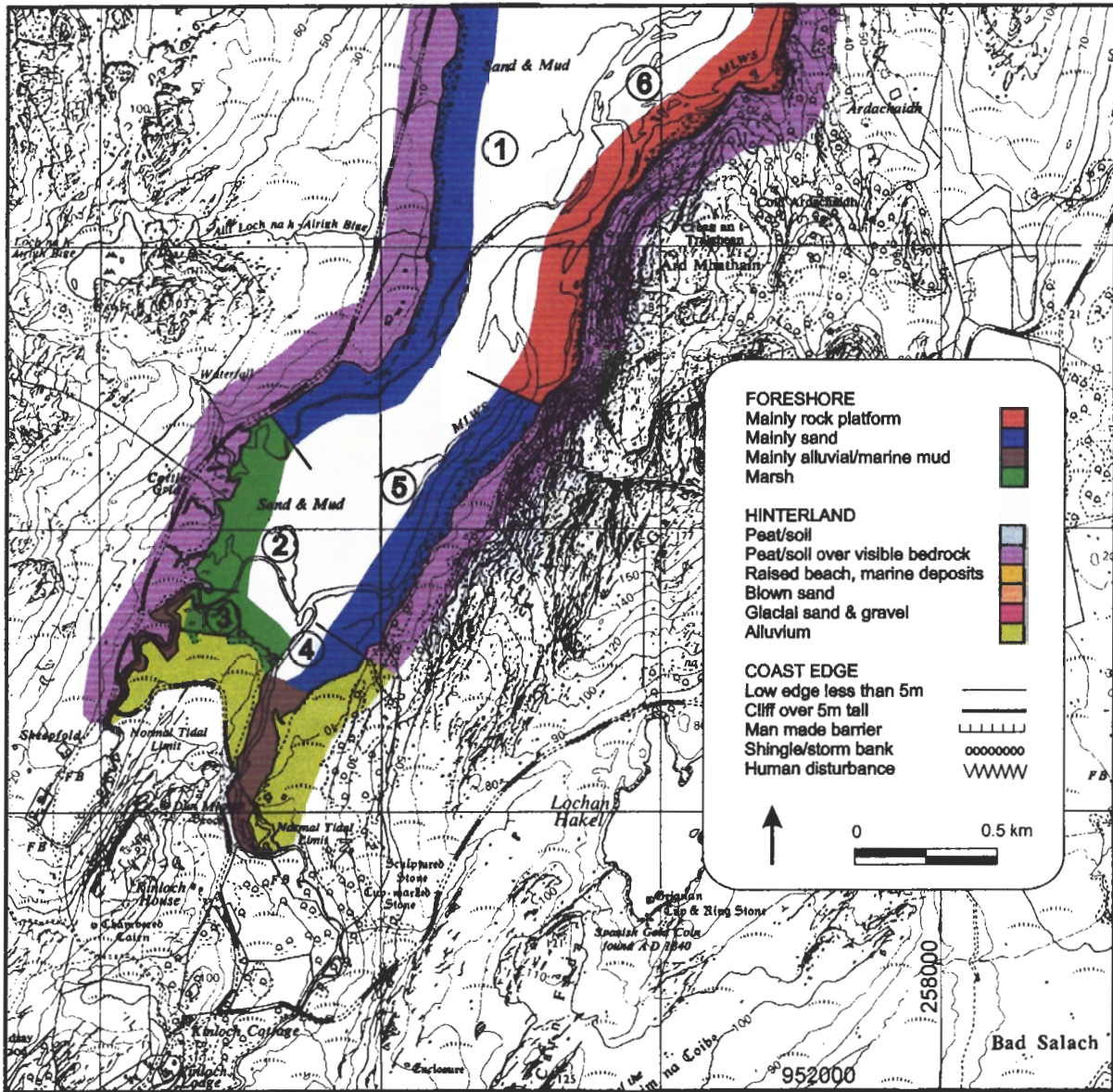
MAP 12 KYLE OF TONGUE (S)

Hinterland Geology and Coastal Geomorphology

NC46/56

Scale 1:25,000

Surveyed November 1997



Map 12: Kyle of Tongue (S)

4.12.4 Hinterland Geology and Coastal Geomorphology: Gazetteer

1. ALLT LOCH NA H-AIRIGH BIGE

NC 256 955

1.7 km

Mainly sand/coarse boulder beaches

Low edge < 5 m

Peat/soil over visible rock

This area continues on from that described in no 2 in Map 11 above (4.11.4) and consists of low-tide sand-flats bordered by coarse boulder beaches. The immediate hinterland is peat bog below 10 m above sea-level and the edge between the foreshore and hinterland rarely exceeds 1-2 m.

2. SW END OF KYLE OF TONGUE

NC 255 954

0.675 km

Marsh

Low edge < 5 m

Peat/soil over visible rock

The intertidal zone at the S end of the Kyle is dominated by salt-marsh. There are a maze of stream-beds cut through this development. The edge between this and the hinterland peat is very low and a large swathe of the land at the rear lies below 10 m.

3. ALLT ACH' AN T-STRATHAIN

NC 255 953

1 km

Mainly alluvial/marine mud

Low edge < 5 m

Peat/soil; alluvium

As the most westerly of the two streams that flow into the Kyle at the S, this stream has an alluvial/marine mud bed within the tidal limits. The banks are low with the W being peat and the E alluvium. The head of the stream cuts through the marsh that has developed there.

4. E OF ALLT ACH' AN T-STRATHAIN-E OF KINLOCH RIVER

NC 255 953

2.25 km

Marsh

Low edge < 5 m

Alluvium

The E bank of the Allt Ach' an t-Strathain, both banks of the Kinloch River and the hinterland area between the two, are characterised by alluvial deposits. The tidal limit of the River Kinloch has a marine/alluvial mud bed. The salt-marsh noted in the previous entry continues eastwards to the W side of the mouth of the Kinloch River. At the NE end of the mouth of that river the sand-flats of the Kyle are evident. The coastal edge of this area is low-lying.

5. GARBH CHNOC

NC 256 954

1.125 km

Mainly sand/coarse beach boulders

Low edge < 5 m

Peat/soil over visible bedrock

This stretch of the coast has a localised coarse boulder foreshore on the sand-flats of the Kyle. A low edge separates the Kyle and the immediate hinterland, although the hinterland then rises sharply to 10 m and continues to climb to the rock outcrop of Garbh Chnoc.

6. ARD MHATHAIN

NC 257 955

1.625 km

Mainly rock platform

Cliff > 5 m tall

Peat/soil over visible rock

A continuation of the area described in no 3, Map 11 above (4.11.4). The densely vegetated rock cliffs of this area have an almost vertical edge, which drops from 10 m to the sand-flats below. The hinterland is steeply sloped behind the 10 m contour and continues to climb sharply to over 100 m. The coast is almost completely inaccessible in this area.