

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 20th 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 steep-sloping 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

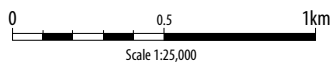
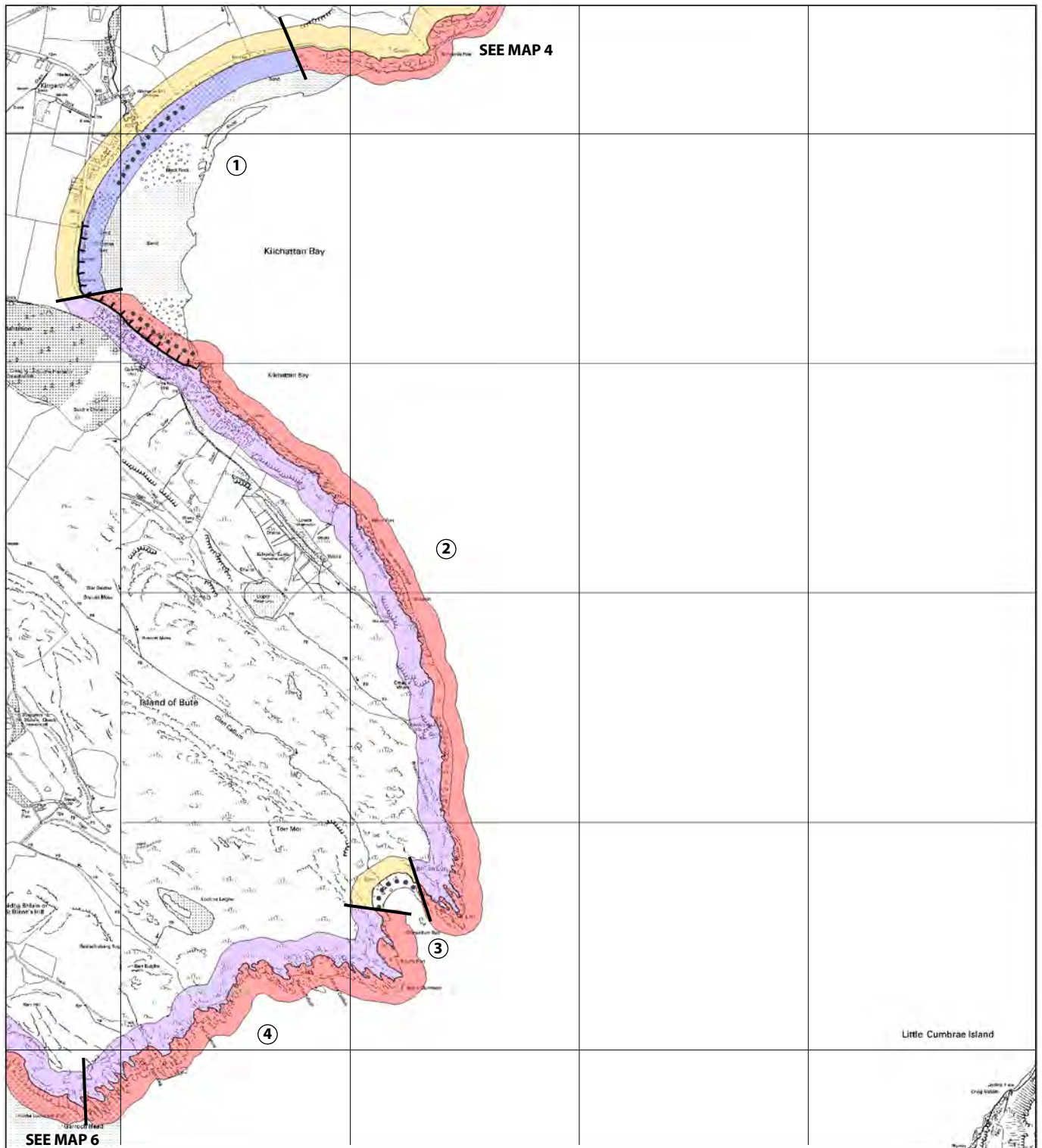
1.7km

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 to quantify the rate of cliff recession.

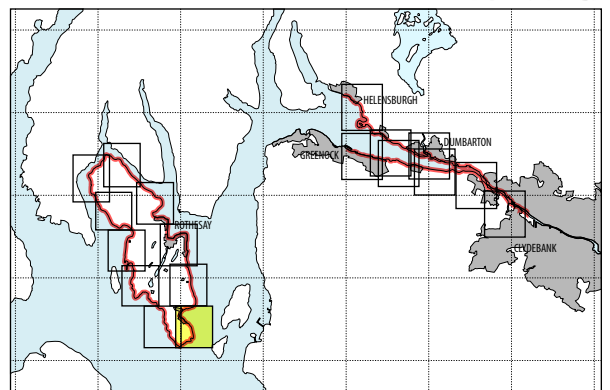


LEGEND

- Drift, boulder clay over visible rock
- Raised beach and marine deposits
- Blown sand
- Mainly rock platform
- Mainly sand
- Marsh

Coast Edge

- Man made barrier
- Shingle/storm bank



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. BREIDDOCH

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

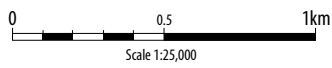
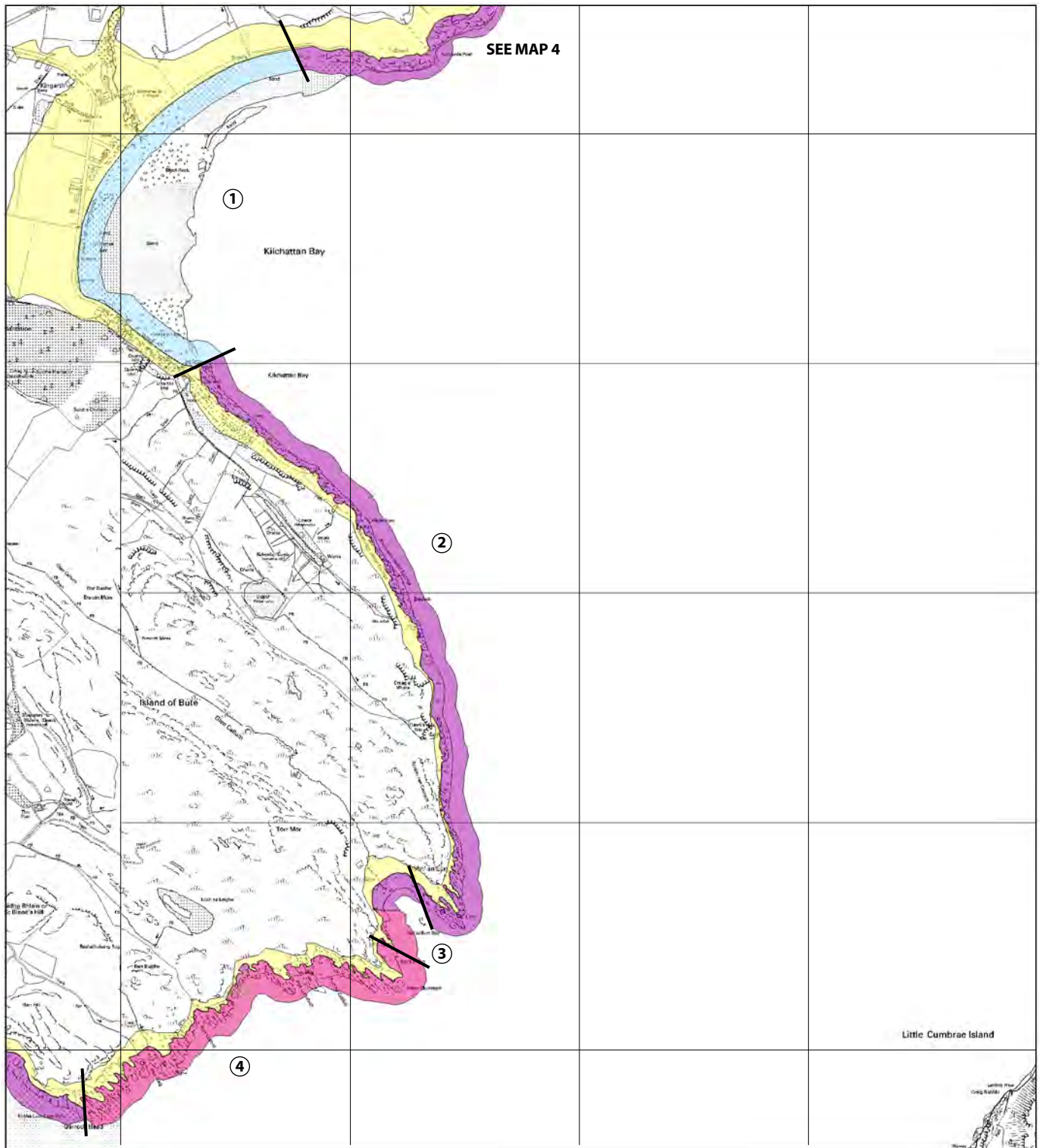
NS 1060 5240

2.2km

Definitely eroding

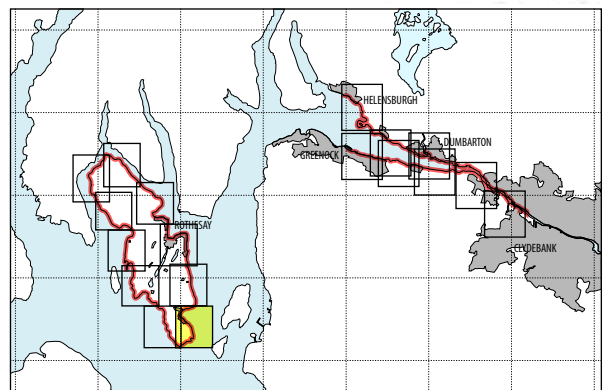
Cliff (<10m)

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.



LEGEND

- Accreting or stable
- Eroding or stable
- Definitely eroding
- Both accreting and eroding
- Land below 10m



BUTE MAP 5 : BUILT HERITAGE AND ARCHAEOLOGY

Sites on the Coast Edge & Foreshore

77. KERRYTONLIA

NS15NW 3

NS 1113 5637

Barrows

Uncertain

3rd Mil BC-1st BC

Nil

81. KILCHATTAN BAY

NS15NW 16

NS 1035 5505

Quay

Good

18th-20th AD

Nil

84. BALLOCHNAMUIRICH

NS 1030 5480

Settlement

Poor

Unknown

Nil

86. KILCHATTAN PIER

NS15SW 17

NS 105 547

Pier

Fair

18th-20th AD

Nil

87. BOUD

NS15SW 23

NS 1065 5455

Settlement

Poor

18th-20th 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

18th-20th AD

Monitor

93. GLENCALLUM

NS15SW 20

NS 112 529

Farmsteading

Uncertain

18th-20th AD

Nil

95. INN BUTT,
GLENCALLUM BAY

NS15SW 27

NS 110 538

Farmstead, enclosure, garden

Poor

18th-20th Century

Nil

BUTE MAP 5 : BUILT HERITAGE AND ARCHAEOLOGY Continued

Sites on the Coast Edge & Foreshore

94. GLENCALLUM BAY,
LIGHTHOUSE
NS 114 525
Listed C(s)
Good
18th-20th AD
Nil

Sites on the Hinterland

Listed Buildings (see Appendix 1)

78. KINGARTH, BRICK
COTTAGE
NS 096 563
Listed C(s)
Uncertain
18th-20th AD
Nil

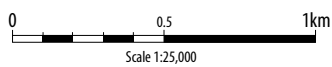
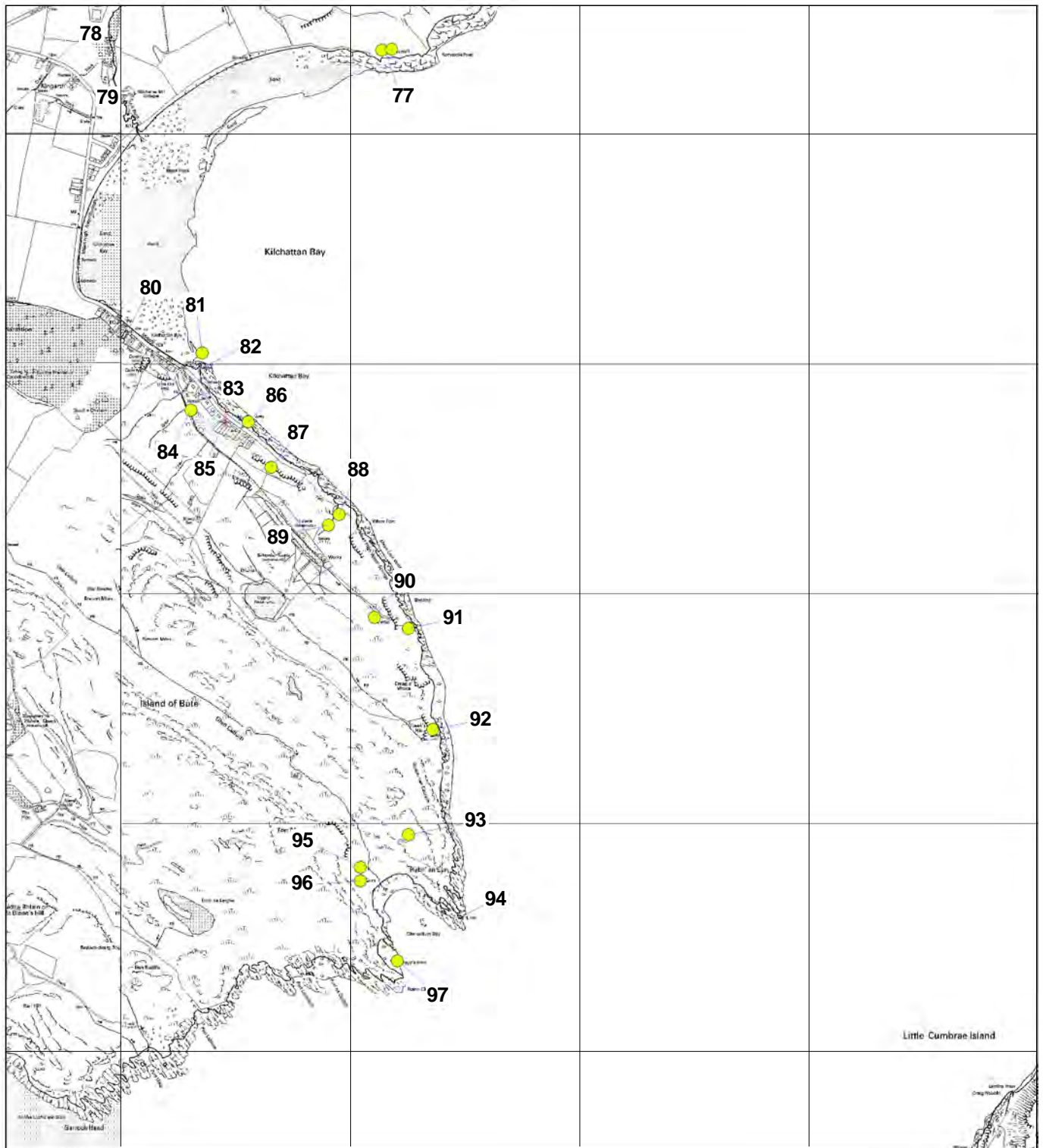
79. KINGARTH, THE
TILERIES
NS 097 562
Listed C(s)
Uncertain
18th-20th AD
Nil

80. KILCHATTAN CHURCH
NS 100 551
Listed C(s)
Uncertain
18th-20th AD
Nil

82. KILCHATTAN, OLD
QUAY
NS 103 549
Listed C(s)
Poor
15th-17th AD
Nil

83. KILCHATTAN BAY, ST
BLANE'S HOTEL
NS 103 548
Listed C(s)
Uncertain
18th-20th AD
Nil

85. KILCHATTAN BAY,
ASHGROVE AND
HAZELBANK
NS 104 547
Listed C(s)
Uncertain
Unknown
Nil



LEGEND

- Protected Ancient Monument, or area of designated wreck
- Listed Historic Building
- Other known Ancient Monuments, or Undesignated wreck

