

MAP 27: NEWTON HILL TO SANDGREEN

Hinterland Geology and Coastal Geomorphology: This region of the coast consists of the mid and upper tidal reach of Fleet Bay. The hinterland geomorphology surrounding the coast is predominantly till over exposed outcropping rock. Boulder and shingle beaches are common. At the head of the Fleet Bay salt-marsh has colonised the region in the vicinity of the canalised River Fleet. South of the entrance to the River Fleet, the hinterland rises and becomes more irregular towards Rough Point. At low tide the bay is empty exposing low tidal mud flats and former river channels. The land surrounding the Fleet canal is low lying and below 5m O.D.

Erosion Class: The coastline from Ringdoo Point to Cardoness Pinnacle is irregular and incised and considered to eroding or stable. Beyond Cardoness Pinnacle to Rough Point the coastline is classified as accreting or stable.

Built Heritage & Archaeology: This section contains a scattered distribution of sites located along the edges of Fleet Bay, predominantly dating to the eighteenth, nineteenth and twentieth centuries. These sites include the listed buildings of Cardoness Estate, Ardwall House, Skyreburn Bridge, Cally Park, and stake nets, breakwaters and floodbanks around Fleet Bay. None of these sites is threatened and requires no monitoring. In addition, two eleventh and twelfth century monuments survive on the west side of Fleet Bay; Green Tower Motte and a cross-slab, originally found at Ardwall Isle, but now located in the grounds of Ardwall house. The former is under no threat from coastal erosion; of more significance to its condition is animal impact.

Map 27: Hinterland Geology and Coastal Geomorphology

**1. RINGDOO POINT to DRUMMUCKLOCK
CARAVAN PARK**

NX 556 524

4km

Cliff (< 5m)

Till over exposed rock

Lower estuary of Fleet Bay. The hinterland consists of till over exposed rock platform. The shoreline is fractured into a series of small rocky bays. Low tidal flats with sand and mud at MHW. M.

**2. DRUMMUCKLOCK CARAVAN PARK to
A75T BRIDGE**

NX 583 546

2.3k

Low edge (< 10m)

Till and alluvium

The head of Fleet Bay consisting of till on the hinterland. Incised salt-marsh has formed within the bay head. Towards the A75 road bridge alluvial mud has formed along a canal.

3. A75T BRIDGE to ROUGH POINT HILL

NX 580 535

3km

Low edge (<5m)

Till over exposed rock

East side of upper reach of Fleet Bay with till overlying greywackee platforms. Salt-marsh is established alongside the main river channel. Boulders and estuarine mud occurs at Rough Point.

4. ROUGH POINT HILL south to BARR HILL

NX 573 520

4km

Cliff (< 10m)

Till over exposed rock

Highly irregular coastline deeply incised with wide gullies. Till overlies outcropping greywackee platforms. Boulders, intermixed with sand and estuarine mud is common along the shoreline.

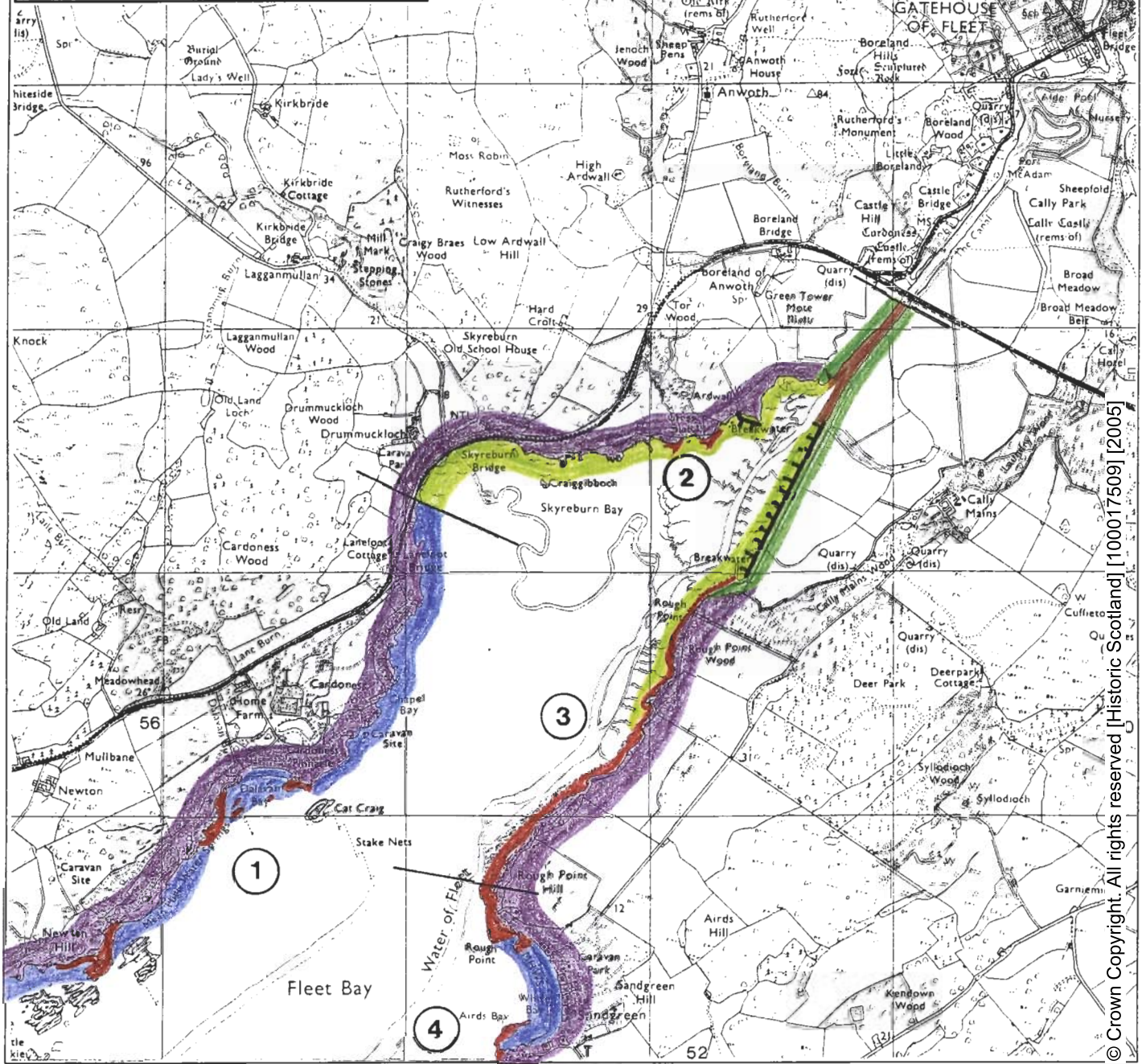
MAP CLASS: Hinterland Geology and Foreshore Geomorphology

Assessment date: October 1996

Scale: 1:25 000

NEWTON HILL TO SANDGREEN

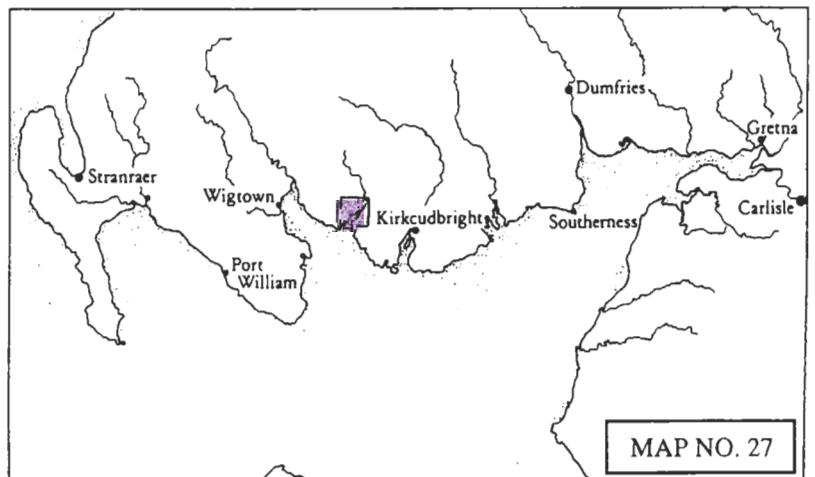
NGR: NX 56-60/52-57



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KEY

Hinterland Geology	Derwent Code	Colour
Drift, boulder clay	French Grey	
Drift, boulder clay over visible rock	Dark Violet	
Raised beach and marine deposits	Golden Brown	
Blown sand	Pink Madder Lake	
Glacial sand and gravel	Magenta	
Alluvium	Emerald Green	
Coastal Geomorphology		
Mainly rock platform	Deep vermilion	
Mainly sand	Ultramarine	
Mainly alluvial/marine mud	Venetian Red	
Marsh	May Green	
Coast Edge		
Low edge (<5m)	Thin black line	
Cliff (>5m)	Solid black line	
Man made barrier	Black line with spines	
Shingle beach	Small circles	
Human disturbance	Black carats	



MAP NO. 27

MAP 27: EROSION

1. RINGDOO POINT to CARDONESS

PINNACLE

NX 557 524

2.5km

Eroding or stable

With an exposed irregular coastal edge this unit forms the western shore of Fleet Bay. The coastal edge has been modified into a series of small sandy bays with rocky platforms lying offshore. Wave erosion is occurring on the outcropping geology but mass movement is not significant at the present

2. CARDONESS PINNACLE to ROUGH

POINT WOOD

NX 576 544

3.5km

Accreting or stable

This unit forms the inner tidal reach of Fleet Bay. Both sides of the bay are backed by salt marsh and mud flats. High sediment loads are being focused at the mouth of the canalised Water of Fleet. Owing to the richness in shoreline vegetation this unit appears to be stable.

3. ROUGH POINT WOOD to ROUGH POINT

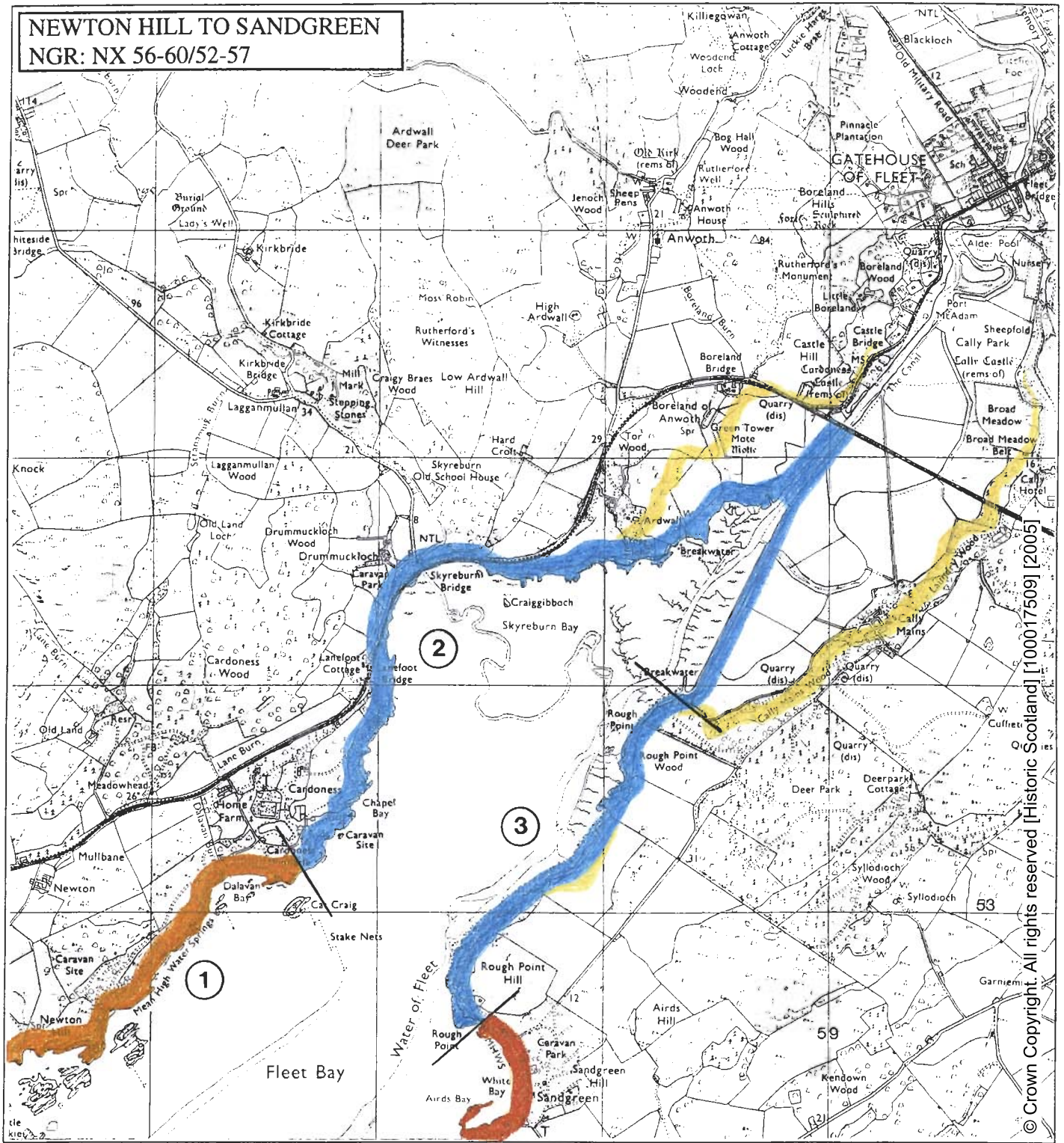
NX 575 530

1.7km

Accreting or stable

This unit is generally stable owing to the consolidating nature of the salt marsh near Rough Point Wood. Towards Rough Point Hill the intertidal zone becomes rocky with boulders and accreting mud banks.

NEWTON HILL TO SANDGREEN
NGR: NX 56-60/52-57

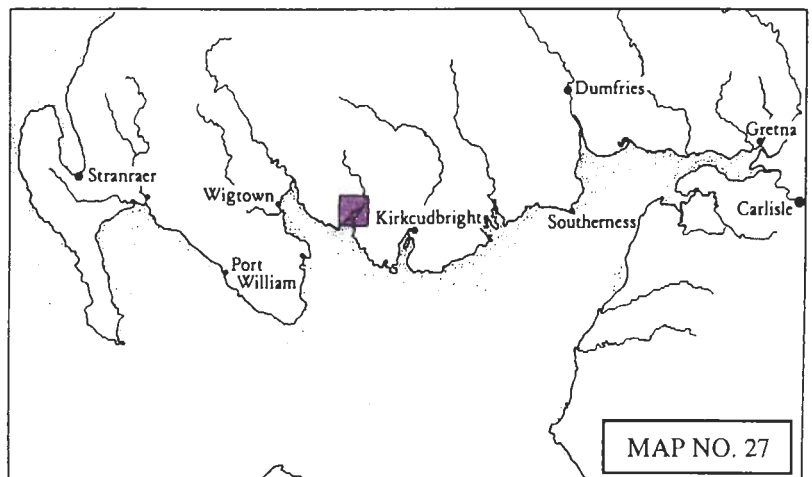


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KEY

Erosion class	Derwent Code	Colour
Definitely accreting	Prussian Blue	
Accreting/stable	Light Blue	
Stable	Grass Green	
Stable/eroding	Deep Chrome	
Definitely eroding	Deep Vermilion	
Both accreting and eroding	Imperial Purple	
No access	Blank	
Land below 10m	Straw Yellow	

MAP CLASS: EROSION
 Assessment date: 03.10.96
 Scale 1:25 000



MAP NO. 27

MAP 27: BUILT HERITAGE AND ARCHAEOLOGY

Sites on the Coast Edge & Foreshore

NX 5670 5300

FLEET BAY

Stake Nets

Uncertain

Good

Nil

NX 59 55

CALLY PARK

Designed Landscape

19th/20th century

Good

Nil

NX 5880 5478

CALLY MAINS

Flood Bank

Uncertain

Good

Nil

NX 5835 5398

CALLY MAINS

Breakwater

Uncertain

Good

Nil

Sites in the Hinterland

NX 56 53

CARDONESS ESTATE

Buildings and Chapel

Statutory Listed Buildings

18th-20th century

Good

Nil

NX55SE 9

NX 5717 5454

SKYREBURN BRIDGE

Old Road Bridge

19th century

Good

Nil

NX 5812 5474

ARDWALL HOUSE

House

Statutory Listed Building

18th century

Good

Nil

NX55SE 4

NX 5819 5460

ARDWALL HOUSE

Cross-Slab

11th century

Uncertain; access denied

Nil

NX 5847 5507

GREEN TOWER MOTTE

Motte & Bailey

Scheduled Ancient Monument

12th century

Good

Nil

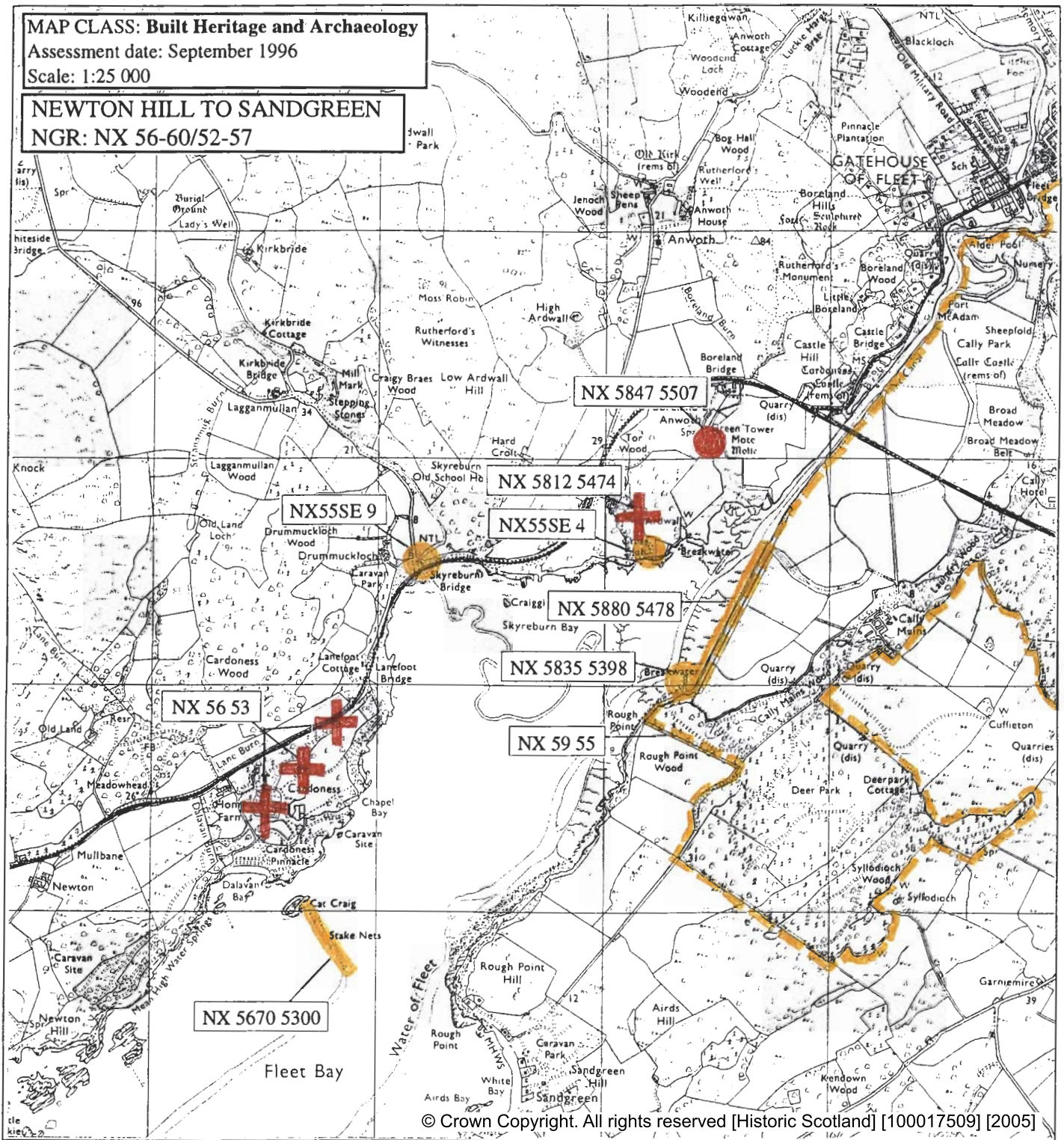
MAP CLASS: Built Heritage and Archaeology

Assessment date: September 1996

Scale: 1:25 000

NEWTON HILL TO SANDGREEN

NGR: NX 56-60/52-57



KEY

Site location	Symbol	Colour	Significance
NGR ref. - eg.	Roundel - Solid, (or area)	Red	Protected Ancient Monument
	Cross	Red	Listed Historic Building
NX 143 368	Roundel - Open, (or area)	Red	Monument formally proposed by Historic Scotland for designation
	Roundel - Solid, (or area)	Yellow	Other known Ancient Monument
NMRS ref. - eg.	Dashed outline	Yellow	Gardens/Designed landscape
	Roundel - Solid, (or area)	Yellow	Undesignated wreck
NX13 SW17	Area	Green	Insufficient information; more work needed
	Area	Blue	Probably archaeologically sterile

