Managing the Teifi Estuary, West Wales: Stepping beyond physical understanding

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What are the assets?

Rich & diverse wildlife

Strong Welsh culture

Outstanding landscape

Maritime heritage

Poppit fish-trap

Produced by CCW on: 9 March 2009

Scale 1:2423

Medieval fish-trap off Poppit – 260 m long !

National & international media exposure

THE DAILY TELEGRAPH | TUESDAY, MARCH 17, 2009

The big picture Enter the next round of our travel photography competition telegraph.co.uk/thebigpicture

Looks fishy Medieval river trap found on Google Earth

An ancient fish trap has been discovered off the coastline of Wales after research carried out on Google Earth.

The 853ft-long construction is thought to have been built 1,000 years ago, around the time of the Domesday Book, using large rocks placed on a river bed.

Scientists believe significant numbers of people worked together to build the structure.

The trap in the estuary of the River Teifi, near Cardigan, West Wales, lay undiscovered for a millennium until a strange underwater shape was spotted from a plane flying overhead.

Archaeologists then examined the area using Google Earth, the website picture of the globe built from satellite and aerial photographs. They clearly saw a large V-shape and divers were sent down to examine the structure.

The trap is believed to have been made from locally quarried rock, or possibly boulders carried in by glaciers during the last Ice Age.

The structure is about 3ft wide and protrudes about 12in above the underwater sand, although the water in it would have been shallower 1,000 years ago, when the sea level was lower.

Fish would have swum into the estuary but become trapped in the structure as the water ran out with the outgoing tide.

Dr Ziggy Otto, a marine environment lecturer at Pembrokeshire College who examined the trap, said: "It would have taken a number of fishermen to work on a structure of this size.

"The fish were herded into the trap and when the tide went out they would be scooped out with nets."

Nick Allen

BBC Low graphics Help

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Ancient fish trap found off coast

The V-shaped trap was first discovered from aerial photographs at Poppit, Pembrokeshire

A huge ancient fish trap has been found in an estuary after it was spotted in aerial photographs on Google Earth.

The 260m (853ft) man-made V-shaped structure could be more than 1,000 years old, experts believe.

They think it was designed to catch migratory fish, such

South W
Find out
what is
the regi

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Daily Mail, Tuesday, March 17, 2009

How to fish, 1000AD

FOR a millennium it has lain undisturbed beneath the waves a stone's throw from one of Britain's best-loved beaches.

But now modern technology has revealed this ancient fish trap, used at the time of the

By David Derbyshire
Environment Editor

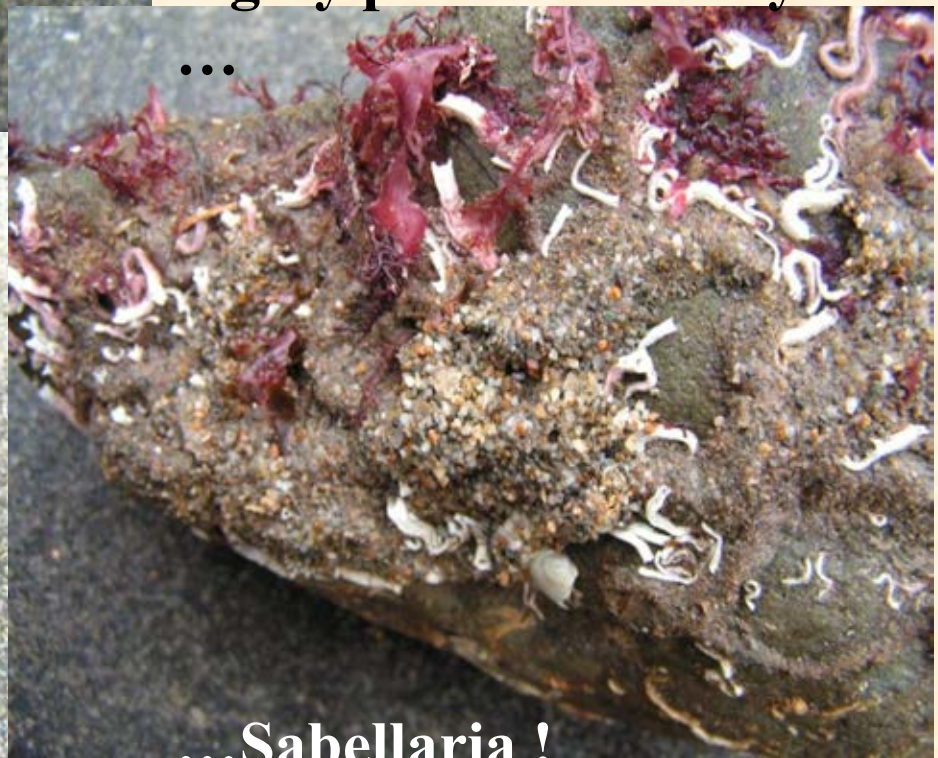
ping fish behind its stone walls as the tide flowed out. At its point is a gap where fisher-

an amazing structure,' he said. 'It looks well defined on the photographs, but when you are in the water it looks just like a natural reef.'

Although it was only recently spotted on aerial photographs, an armchair archaeologist

The Poppit Fish-trap –

entirely man-made,
but now functioning
as a natural rocky
reef, with several species of red
algae, sea anemones, encrusting
tube-dwelling worms, including the
highly protected honeycomb worm
…



…Sabellaria !

Wildlife and Nature Conservation

TWO Special Areas of Conservation (SACs):

(1) Cardigan Bay SAC

Bottlenose dolphins, Grey seals and Lampreys
Sandbanks, reefs and sea caves

(2) Afon Teifi SAC

Otter, Salmon, Bullhead, Lampreys, Floating water plantain, plus important freshwater habitats


Aber Yr Afon Teifi / Teifi Estuary
Cylch Rheoli Aber yr Afon Teifi
Teifi Estuary Management Zone
Ardal Gadwraeth Arbennig Bae Ceredigion
Cardigan Bay SAC
Ardal Gadwraeth Arbennig Afon Teifi
Afon Teifi SAC
Arfordir Treftadaeth
Heritage Coast
Ffin y Sir
County Boundary
Parc Cenedlaethol Arfordir Penfro
Pembrokeshire Coast National Park
Graddfa/Scale 1:50,000
Ceredigion
Pembrokeshire
CARDIGAN
(ABERTEIFI)
Adgynhyrchwyd o fapiau'r Arolwg Ordnans gyda chaniatâd R.G.E.M. © Hawlfraint y Goron. Byddai adgynhyrchu heb ganiatâd yn torri Hawlfraint y Goron ac fe allai arwain at gamau cyfreithiol neu achosi FH sifil. Cyngor Sir Ceredigion, Rhif y Drwydded LA 09006L.
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Aerial view of Cardigan Island

<u>Good times to visit</u>

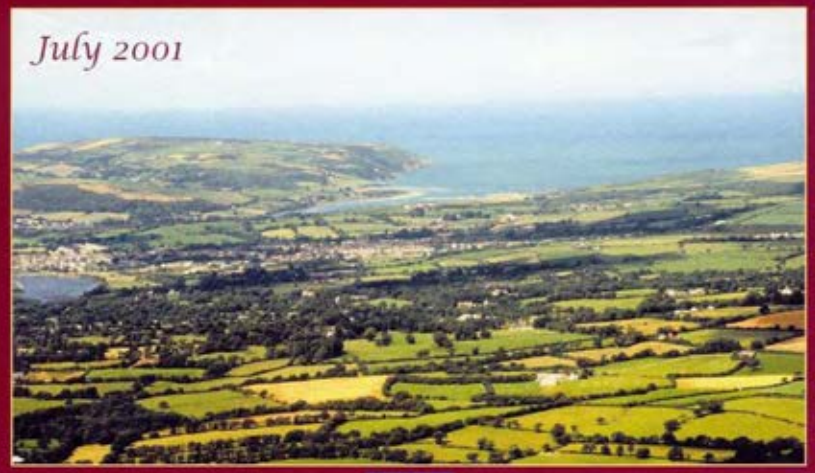
Coastal flowers: April – September

Breeding birds: May – July

Breeding Grey seals: September – November


Teifi Estuary
Management Plan

TEIFI ESTUARY ENVIRONMENTAL MANAGEMENT INITIATIVE (TEEMI)



This project was part-financed by the European Agricultural Guidance and Guarantee Fund (EAGGF)

Published in July 2001 after public consultation.

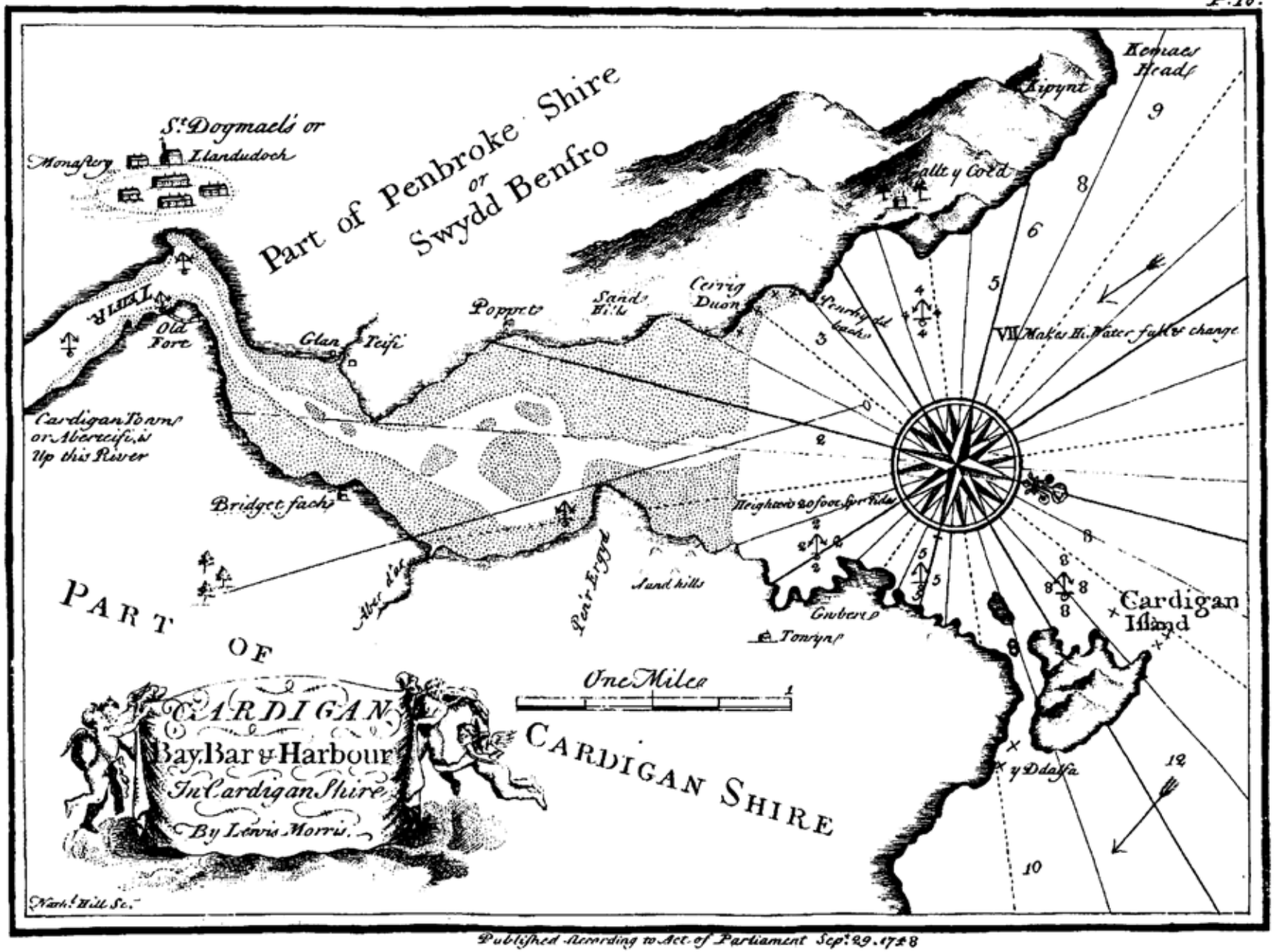
The EMP addresses:

- **Agriculture, rural land use & management**
- **Nature conservation & wildlife**
- **Landscape & Heritage**
- **Fisheries**
- **Harbours, boating & navigation**
- **Tourism, recreation & access**
- **Water resources**
- **Waste management & pollution**
- **Coastal defence**
- **Development, infrastructure & transport**

Still the first and only EMP for an all-Welsh estuary!

July 2001

Improved access, management, interpretation and education



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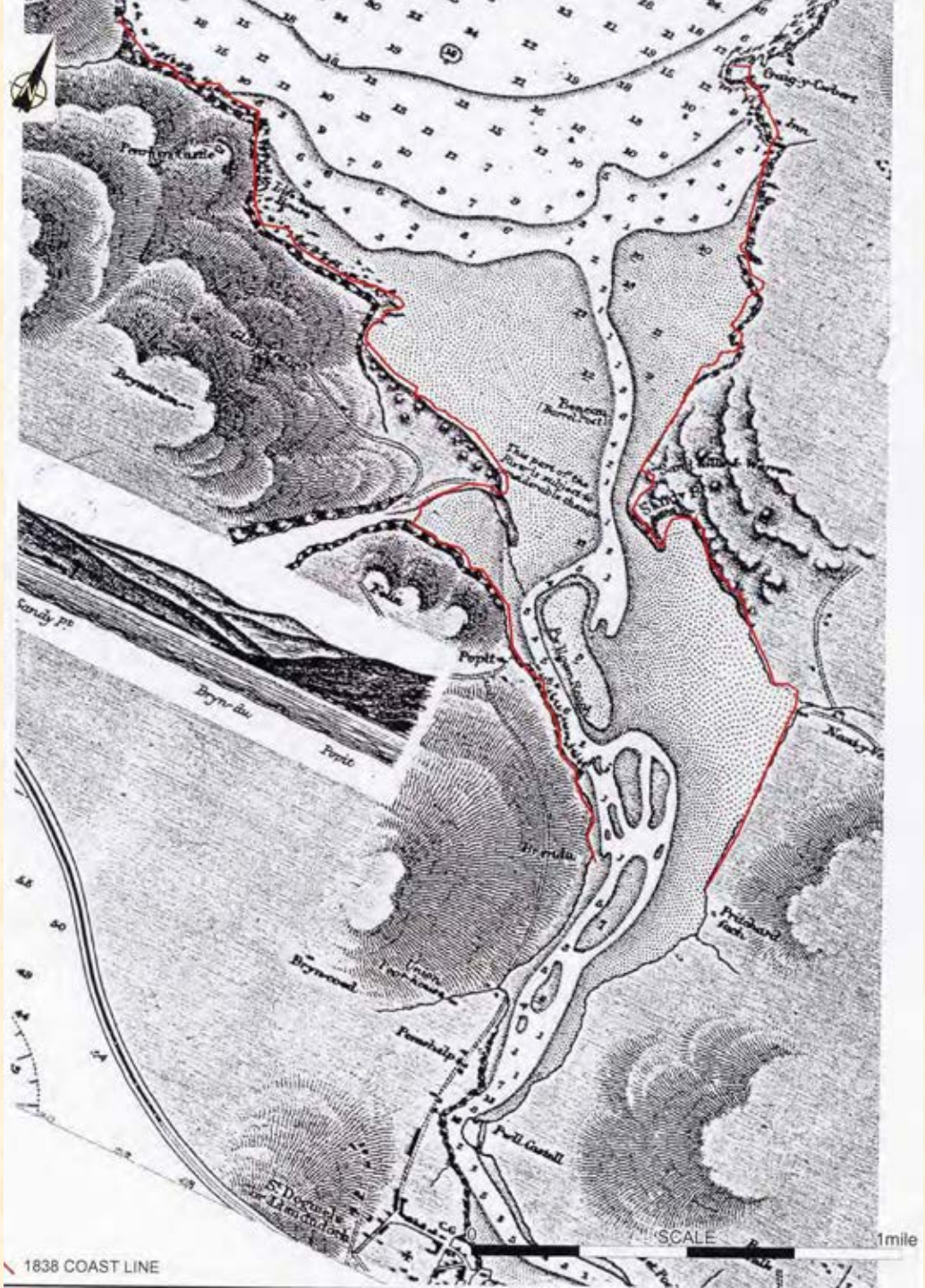
SCALE
1mile
1838 COAST LINE

NOTE: COMPARISON OF 1938 SURVEYED COASTLINE AND 1946 AERIAL PHOTOGRAPH COASTLINE IS DIFFICULT

1938 COAST LINE

0 SCALE 0.5miles


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1969 COAST LINE
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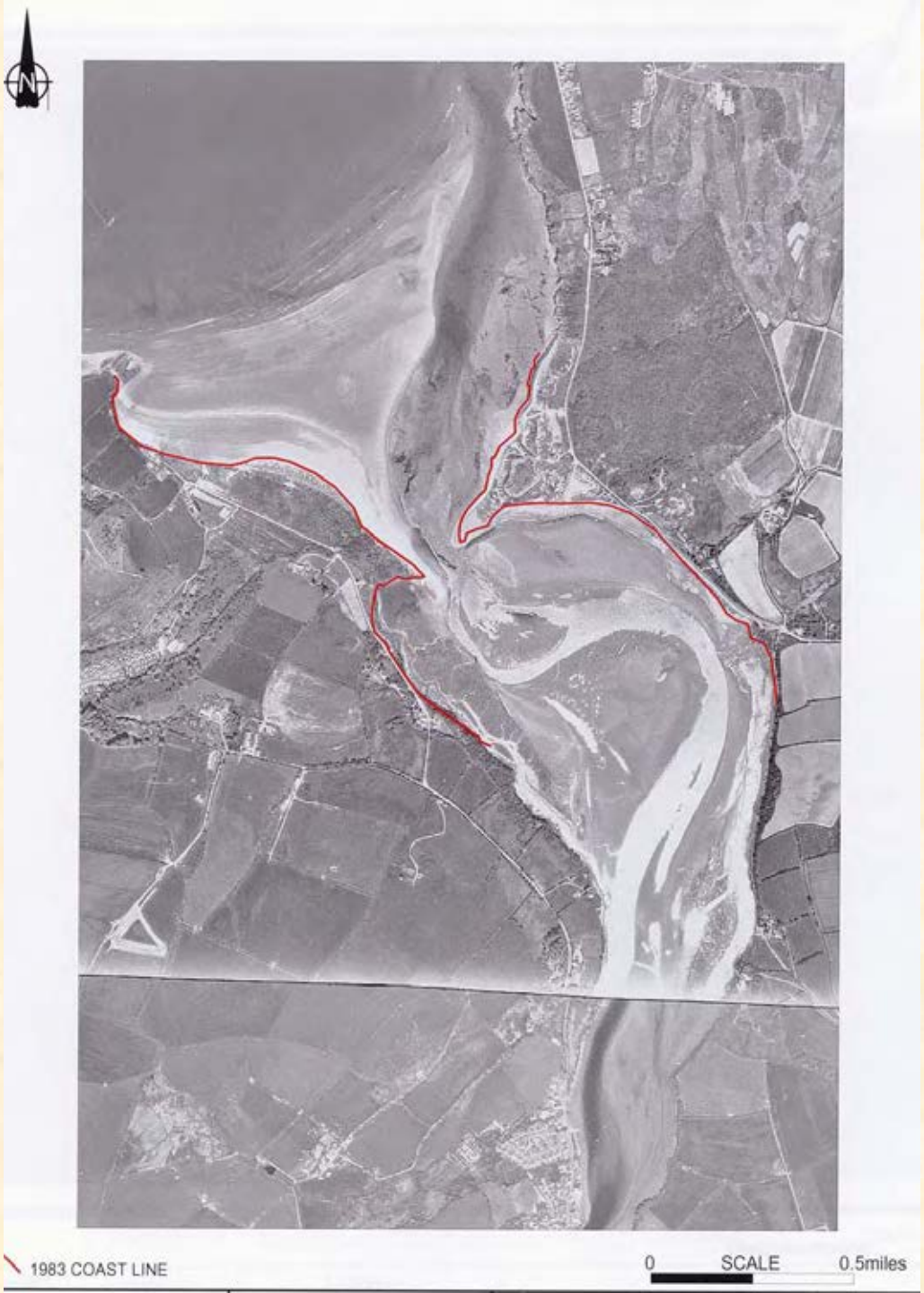
SCALE
0.5miles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1983 COAST LINE
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0.5miles


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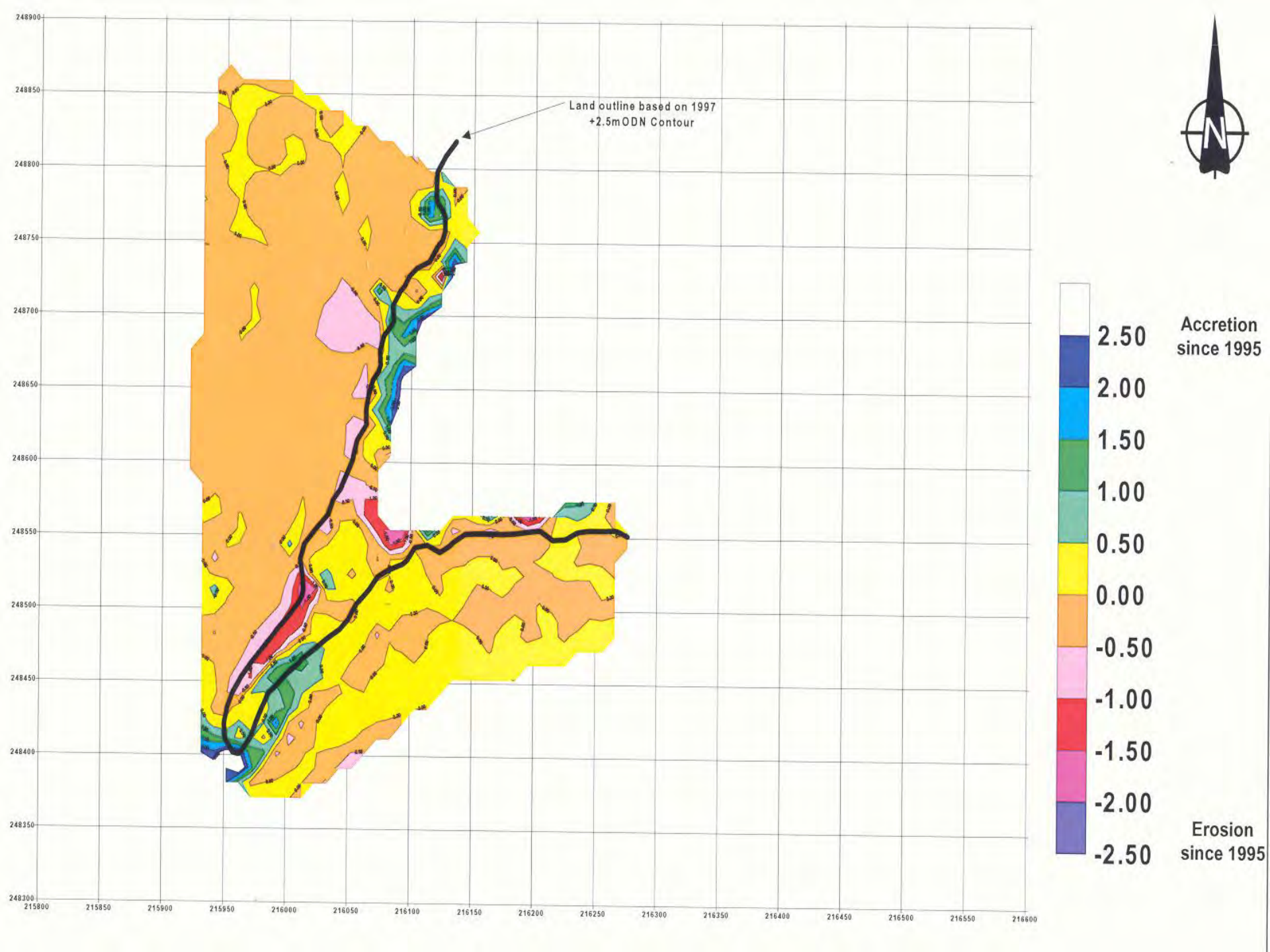
SCALE
0.5miles


Land outline based on 1997
+2.5mODN Contour
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-2.00
-2.50
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Erosion since 1995
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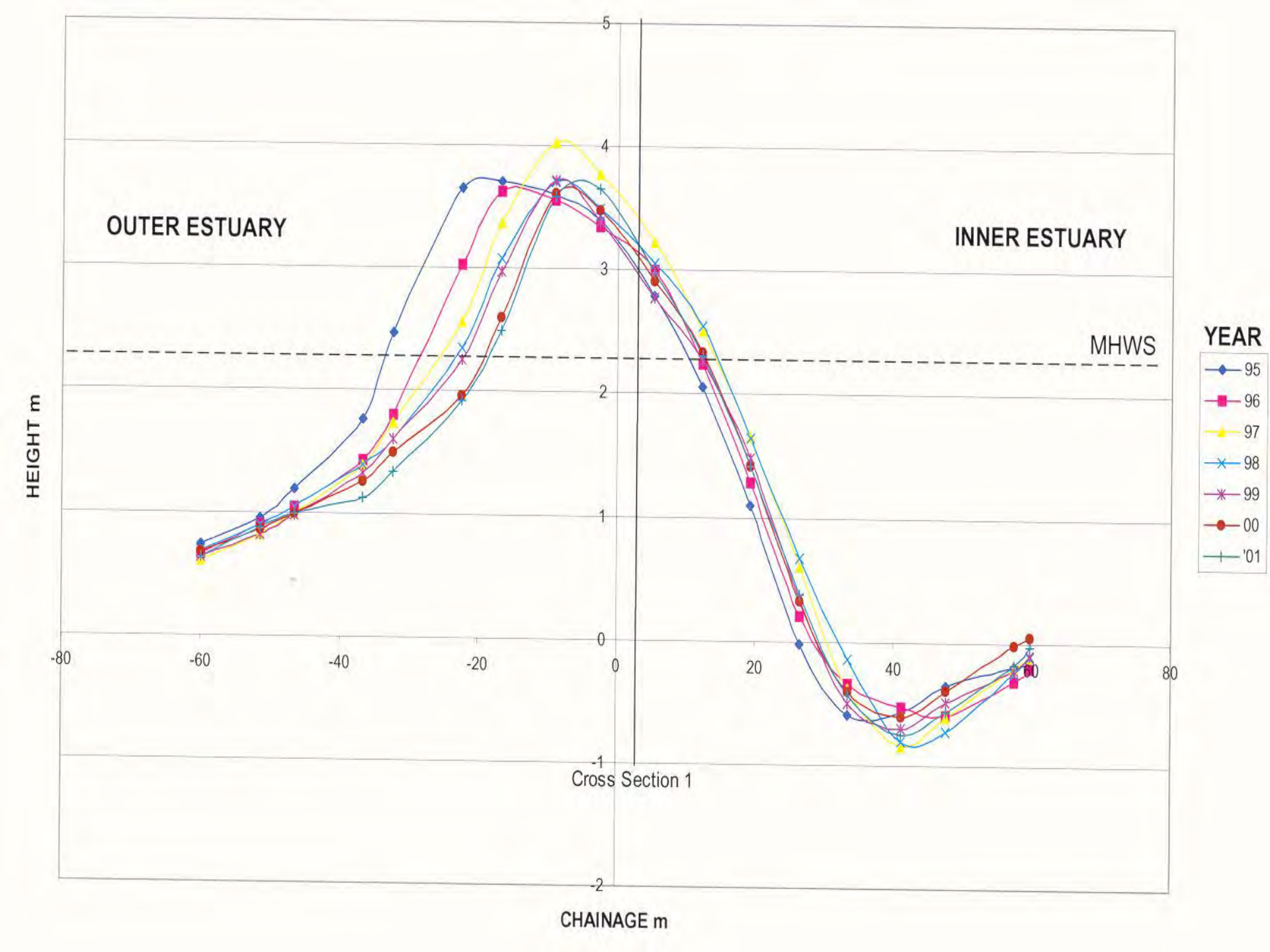
OUTER ESTUARY
INNER ESTUARY
MHWS
HEIGHT m
CHAINAGE m
Cross Section 1
YEAR
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96
97
98
99
00
'01
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-1
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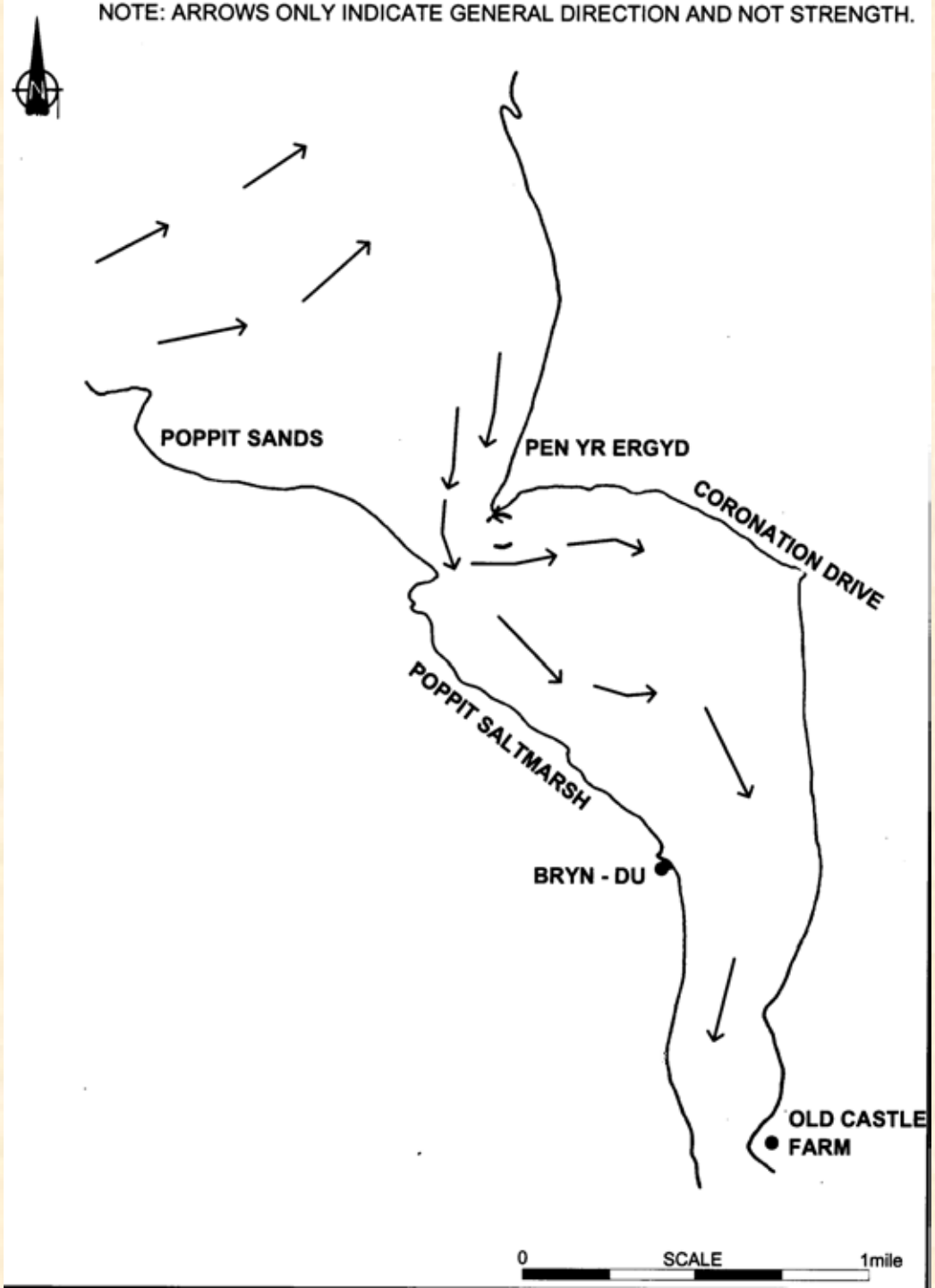
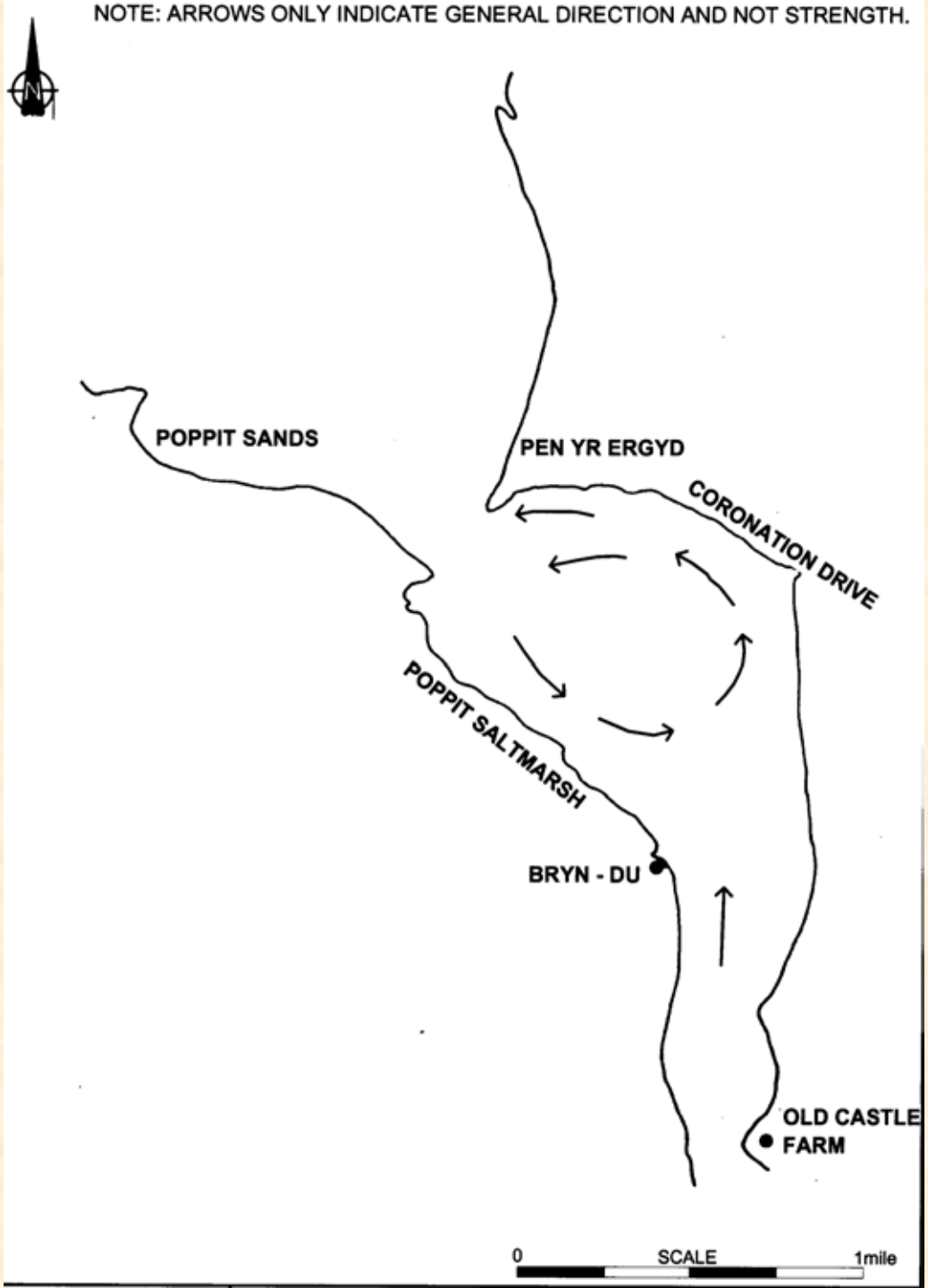
60
80

NOTE: ARROWS ONLY INDICATE GENERAL DIRECTION AND NOT STRENGTH.




NOTE: ARROWS ONLY INDICATE GENERAL DIRECTION AND NOT STRENGTH.
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POPPIT SANDS
PEN YR ERGYD
CORONATION DRIVE
POPPIT SALTMARSH
BRYN - DU
OLD CASTLE FARM
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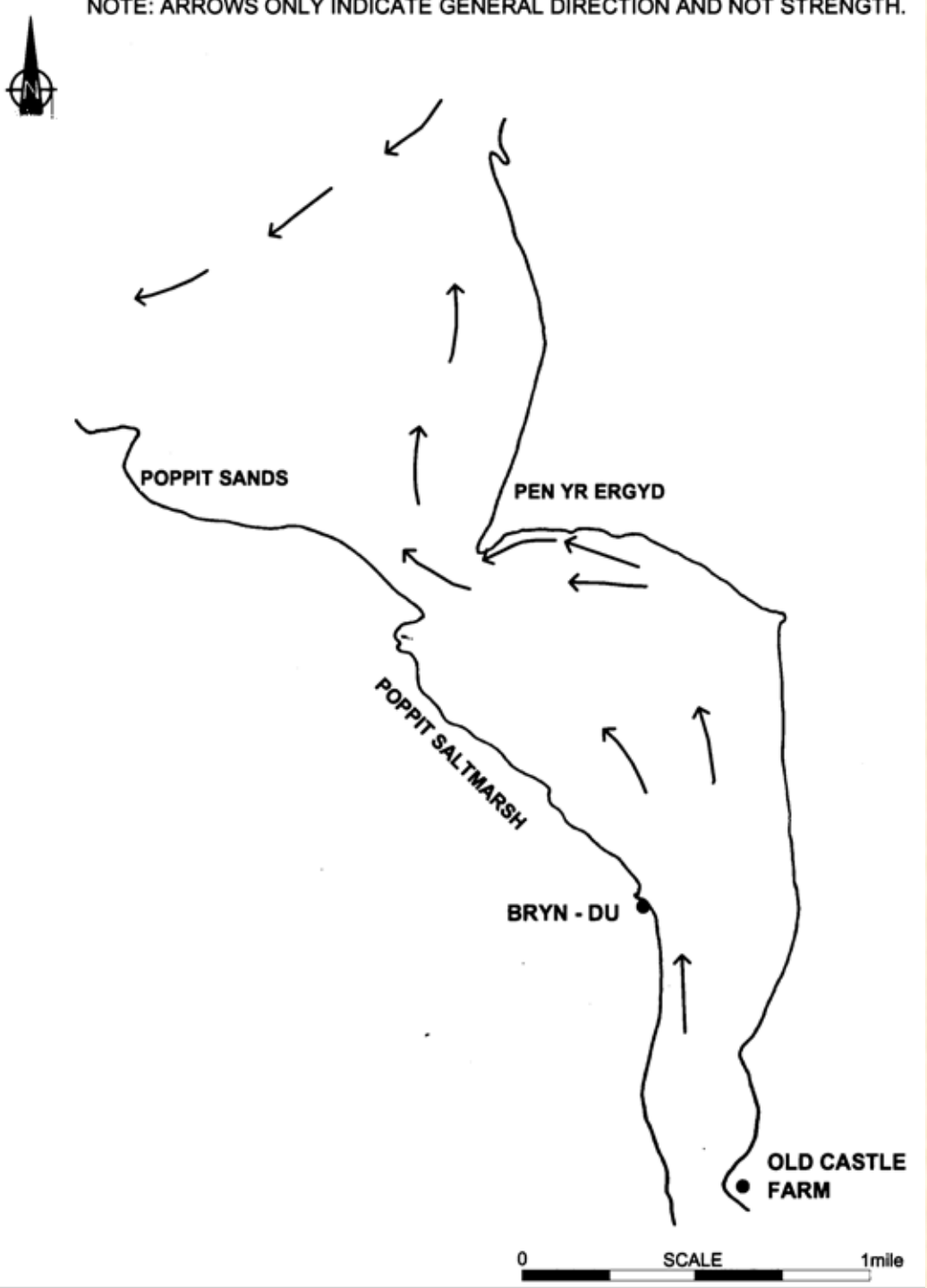
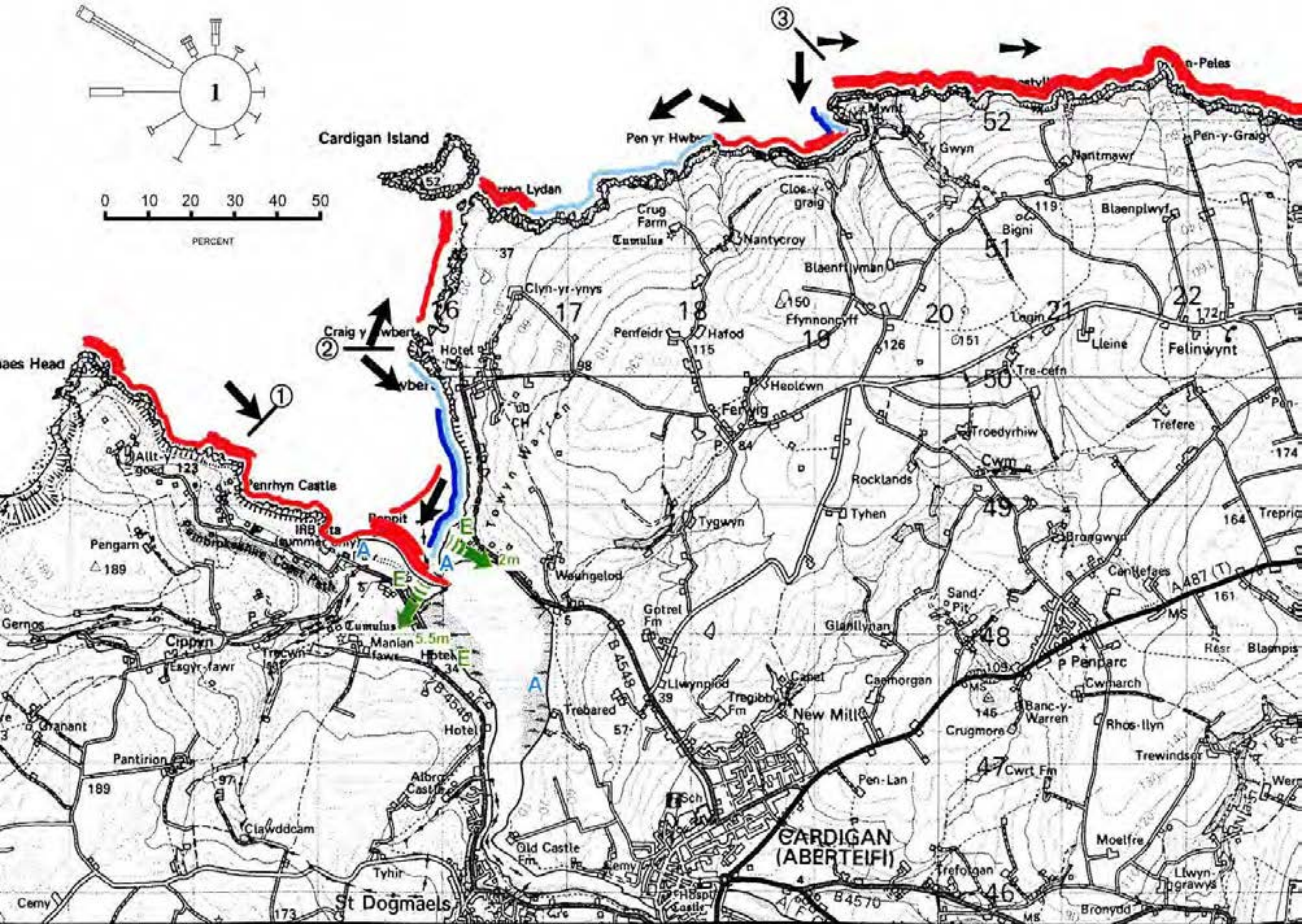
SCALE
1mile

NOTE: ARROWS ONLY INDICATE GENERAL DIRECTION AND NOT STRENGTH.





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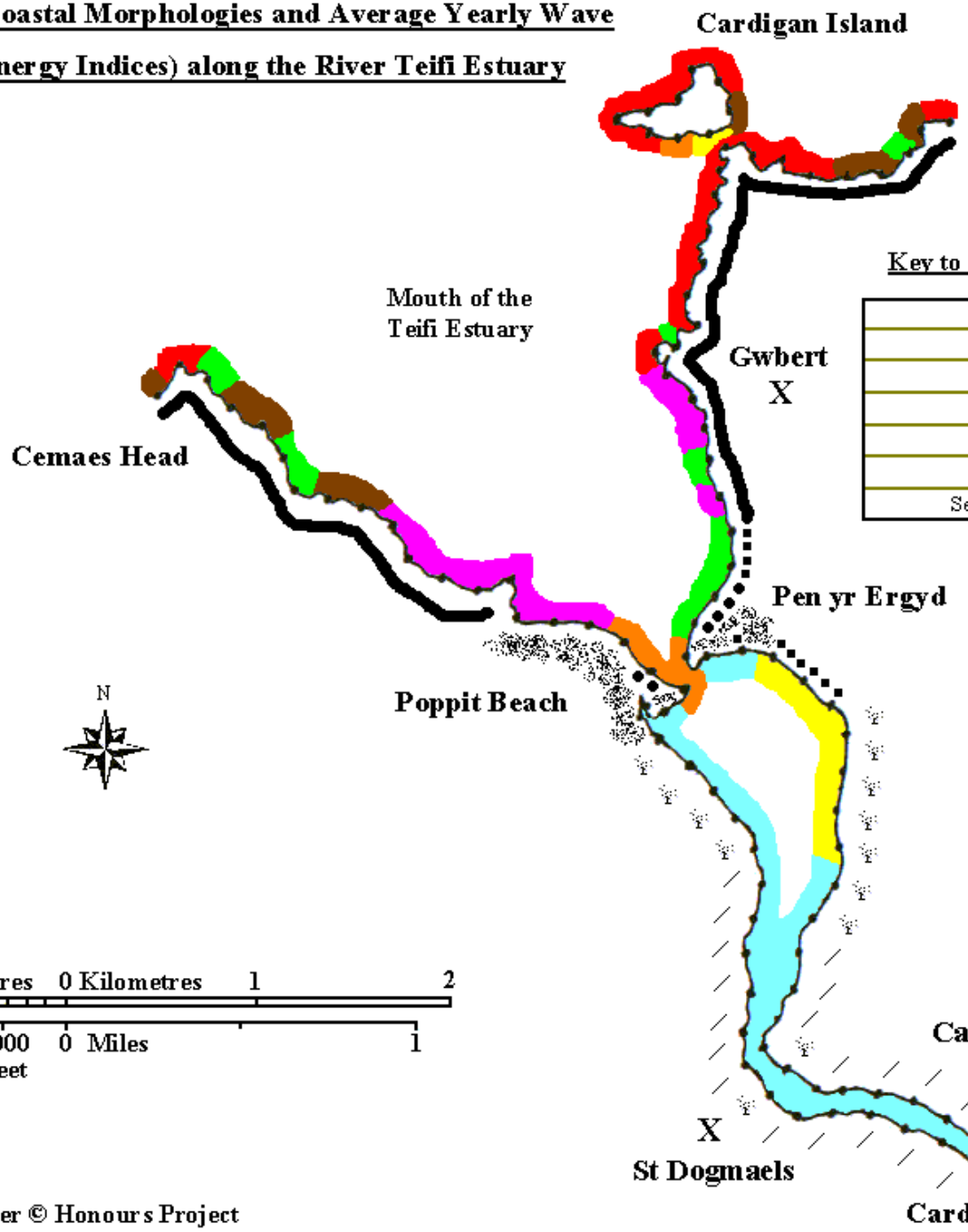
PERCENT
Cardigan Island
Pen yr Hwba
Mwnt
Ty Gwyn
Nantmawr
Pen-y-Graig
Crug Farm
Tumulus
Nantycroy
Blaenffynnon
Clos-y-graig
Bigni
Blaenpiwyf
Glyn-yr-ynys
Penfeidr
Hafod
Ffynnoncyff
Llain
Lleine
Felinwynt
Craig y Gwbert
Hotel
Tre-cefn
Heolcwn
Ferwig
Troedyrhiw
Trefere
Cwm
Rocklands
Tyhen
Tygwyn
Brongwyn
Allt-y-goed
Penrhyn Castle
Poppit
Pengarn
Pembrokeshire Coast Path
Towyn Warren
Weungelod
Gotrel Fm
Glanllynan
Sand Pit
Penparc
Cwmarch
Gernos
Cippyn
Esgyr-fawr
Tumulus
Manian fawr
Hotel
Llwynpiod
Capel
Tregibby Fm
New Mill
Caemorgan
Banc-y-Warren
Crugmore
Rhos-llyn
Trewindsor
Granant
Trebared
Pantirion
Albro Castle
Cwrt Fm
Pen-Lan
Clawddcam
Old Castle Fm
CARDIGAN (ABERTEIFI)
Moelfre
Tyhir
St Dogmaels
Trefolgan
Llwyn-grawys
Bronydd
Cemy
A 487 (T)
B 4548
B 4546
B 4570
Resr
Blaenpis
Treprior
5.5m
2m

Distribution of Coastal Morphologies and Average Yearly Wave Energy (Wave Energy Indices) along the River Teifi Estuary



Key to Coastal Morphologies & Wave Energy

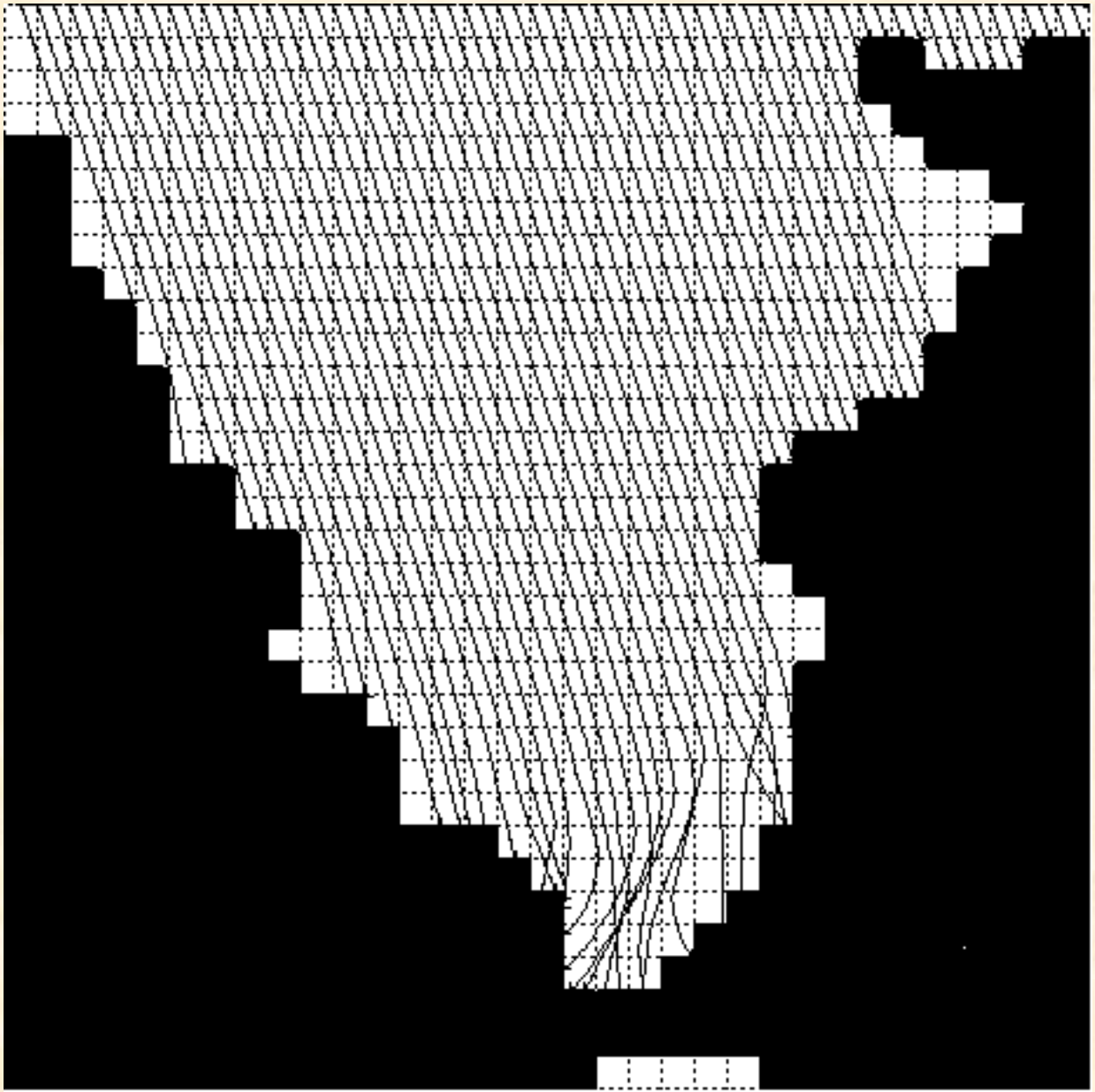
Coastal Morphology	Unit Code
Rocky Cliffs	
Bed Rock	
Beaches / Sand Dunes	
Wall	
Saltmarsh	
Sea Defences / Revetments	

Scale Number	Average Yearly Wave Energy (1970-1988)	Code
1	< 500	
2	500 – 999	
3	1,000 – 4,999	
4	5,000 – 9,999	
5	10,000 – 14,999	
6	15,000 – 19,999	
7	> 20,000	

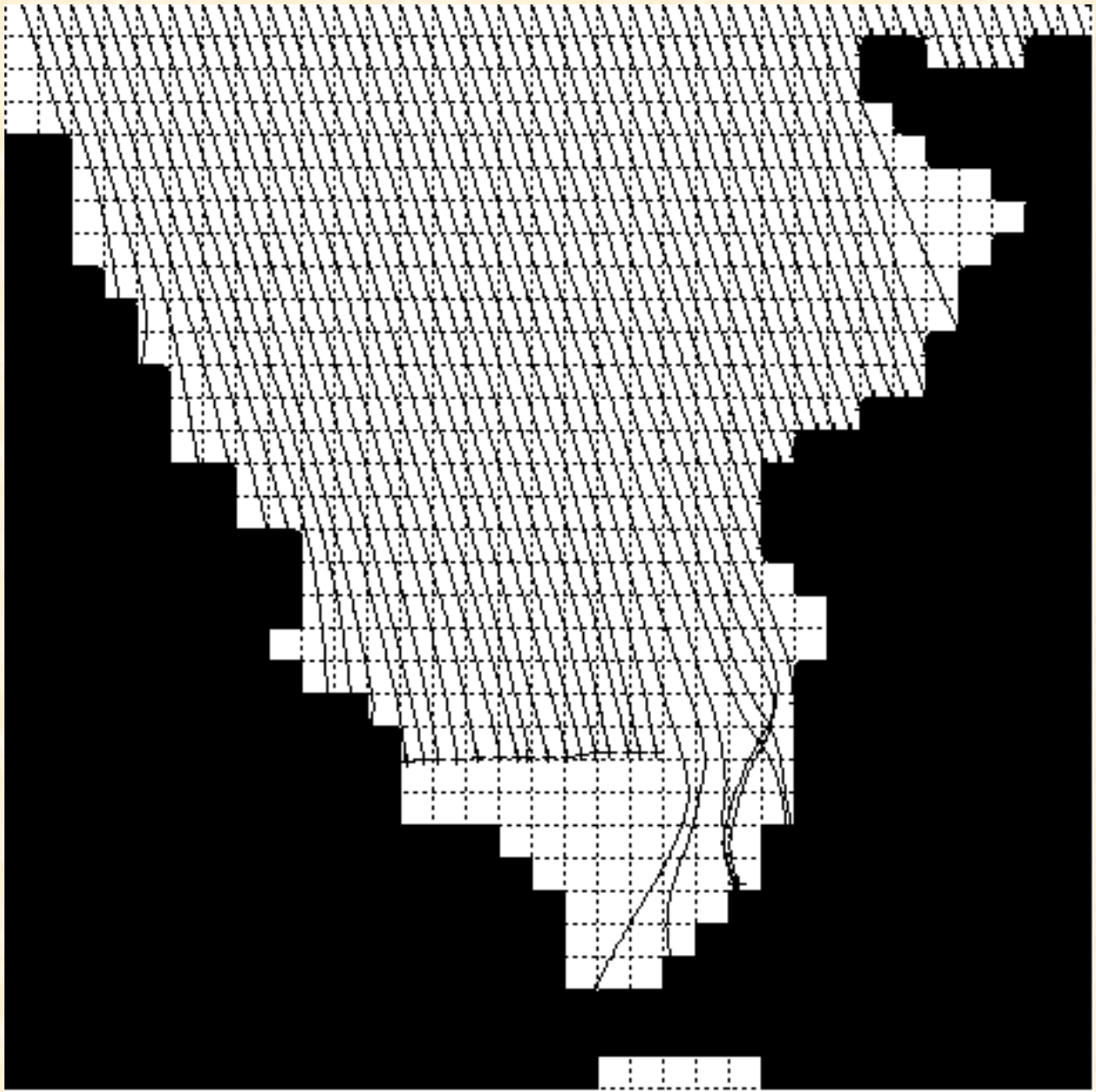
1000 Metres 0 Kilometres 1 2

3000 1000 0 Miles 1
Feet

Extreme tide level (10 yrs - 5.9 m) - Waves from NW (1 m)



Extreme tide level (10 yrs - 5.9 m) - Waves from NW (2 m)




COAST PROTECTION
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0
SCALE
0.5miles


BREACH
SCALE
0
0.5miles

Thank you !

Any questions ?

In case of any queries,
please contact me at
605182@swansea.ac.uk