



GCSE
3110U10-1

TUESDAY, 13 MAY 2025 — MORNING

GEOGRAPHY
UNIT 1: CHANGING PHYSICAL AND
HUMAN LANDSCAPES

**1 hour 30 minutes plus your additional
time allowance**

Surname

First name(s)

Centre Number

Candidate Number

0

ADDITIONAL MATERIALS

In addition to this paper you may use a calculator and a ruler if required.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces on the previous page.

Answer BOTH questions in Section A.

Answer ONE question from Section B.

Write your answers in the spaces provided in this booklet.

Additional space is provided for some questions within the booklet (if required).

(Turn over)

If further space is required for any question, you should use the additional page(s) at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question.

Your ability to communicate and organise your ideas will be assessed in questions that are worth 6 or 8 marks. The accuracy of your writing will be assessed in your answer to question 2(c)(ii).

(Turn over)

SECTION A – CORE THEMES

Answer ALL questions in this section.

THEME 1: LANDSCAPES AND PHYSICAL PROCESSES

1 (a) Study the OS map extract opposite. It shows an area near Caersws, in Mid-Wales. An OS 1:25000 map key is included at the back of this paper.

(i) Give the name of the river shown on the map. [1 mark]

(Turn over)

1 (a)(ii) Identify landform A labelled on the map. Tick (✓) the correct answer from the box below. [1 mark]

	TICK (✓)
Plunge pool	
River cliff	
Slip-off slope	

(iii) Give TWO characteristics of the river shown in this map extract. [2 marks]

Characteristic 1: _____

(Turn over)

Characteristic 2: _____

1 (a)(iv) Suggest how the course of the river in BOX B may change in the future. Use map evidence.

[3 marks]

(Turn over)

1 (a)(v) Explain why river processes cause landforms to change more dramatically during storm conditions. [4 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

1 (b) Study the data below.

**PEAK FLOW FOR THE RIVER SEVERN
AT BEWDLEY, WORCESTERSHIRE,
2011–2021**

YEAR	PEAK FLOW (m³/sec)
2011	358
2012	266
2013	371
2014	464
2015	261
2016	360
2017	211
2018	257
2019	328
2020	534
2021	526

(Turn over)

1 (b)(i) Calculate the interquartile range for the data. Show your working.

[3 marks]

Answer _____ **m³/sec**

(Turn over)

1 (b)(ii) Why does the interquartile range confirm that the peak river flows in 2020 and 2021 caused problems?

[2 marks]

1 (b)(iii) Describe how TWO hard engineering strategies reduce the risks of river flooding. [4 marks]

Strategy 1: _____

Strategy 2: _____

(Turn over)

1 (b)(iv) Give ONE reason why some people argue that money should not be spent on hard engineering strategies. [2 marks]

(Turn over)

Study the photos opposite. They show two distinctive landscapes in Wales.

1 (c) Compare the factors that make these two landscapes distinctive. [6 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

Additional space for Question 1(c) only:

END OF QUESTION 1

THEME 2: RURAL–URBAN LINKS

2 (a) Study the map opposite.

(i) Use the information in the map to circle the correct answer in the sentences below. [4 marks]

The largest increase in population has taken place in (WEST / NORTH / SOUTH) Wales.

The population of Anglesey has (DECREASED BY BETWEEN 3% AND 6% / DECREASED BY BETWEEN 0% AND 3% / INCREASED BY BETWEEN 0% AND 3%).

The population in Cardiff has increased by (4.2% / 6.5% / 2.2%).

(6 / 4 / 1) region(s) in Wales grew by more than the UK average of 6%.

(Turn over)

2 (a)(ii) This type of map is called a choropleth map.

Give TWO disadvantages of using a choropleth map to represent data.

[2 marks]

Disadvantage 1: _____

Disadvantage 2: _____

(Turn over)

2 (a)(iii) Birth rates remained low in Wales between 2011 and 2021.

Give ONE reason for low birth rates in Wales. [2 marks]

2 (a)(iv) Suggest how the population changes shown on the map may lead to problems for rural communities in north-west Wales.

[4 marks]

(Turn over)

2 (b) Study the photo opposite.

(i) Describe what is meant by a greenfield site. [2 marks]

(Turn over)

2 (b)(ii) Suggest why some people may be against the development of houses on sites such as this. [4 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings visible.

(Turn over)

2 (c)(i) Describe how pull factors have led to the migration of people into a global city you have studied.

[4 marks]

Name of city _____

(Turn over)

2 (c)(ii) Cities well connected with the rest of the world are more likely to become global cities. Explain why.
[6 marks]

The accuracy of your writing will be assessed in your answer to this question. [3 marks]

(Turn over)

[illegible]

(Turn over)

Additional space for Question 2(c)(ii) only:

END OF QUESTION 2

(Turn over)

SECTION B – OPTIONS

**Answer ONE question in this section,
EITHER Question 3 OR Question 4.**

THEME 3: TECTONIC LANDSCAPES AND HAZARDS

**3 (a) Study the map opposite, showing the
location of the volcanic island of
La Palma.**

**(i) Describe the location of the island of
La Palma. Use map evidence only.**

[3 marks]

(Turn over)

3 (a)(ii) The northern half of La Palma consists of a large caldera, the Caldera de Taburiente.

Describe the processes which lead to the formation of a caldera. You may use a diagram if you wish.

[4 marks]

(Turn over)

3 (b) Cumbre Vieja, a volcano in the southern part of La Palma, erupted on 20 September 2021.

Study the photo opposite.

(i) Suggest ONE likely impact of this eruption on people living nearby. Use evidence from the photo. [3 marks]

(Turn over)

3 (b)(ii) Study the GIS image opposite.

Tick (✓) THREE correct statements in the table on the next page to describe the lava flows from the Cumbre Vieja eruption. [3 marks]

(Turn over)

	STATEMENT	CORRECT (✓)
A	The lava flows reached the coast on 20 September.	
B	At its widest, the lava flow was 0.5 kilometres.	
C	The lava flow travelled 2.9 kilometres on the first day of the eruption.	
D	The lava from the eruption generally flowed in a west to east direction.	
E	The lava flowed towards the west coast of the island.	
F	The largest flow of lava took place between 29 September and 15 October.	

(Turn over)

3 (b)(iii) Study the map opposite page 29 and read the information in the fact box below.

Fact Box

- **The eruption of Cumbre Vieja lasted for three months and lava flows destroyed more than 3000 homes and large areas of farmland in La Palma.**
- **It also sent huge quantities of volcanic ash and poisonous sulphur dioxide gas into the atmosphere.**
- **No deaths were caused by the eruption.**
- **The Canary Islands are popular tourist destinations.**

(Turn over)

Suggest how this volcanic eruption may have affected people and the economy across the Canary Islands. Use information from the resources to help your answer.

[5 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

3 (c) The Canary Islands are part of Spain, a High Income Country.

Social and economic factors often interact to make communities in High Income Countries less vulnerable to tectonic hazards than communities in Low Income Countries. Explain why.

[6 marks]

(Turn over)

Additional space for Question 3(c) only:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

END OF QUESTION 3

(Turn over)

If you have answered Question 3 DO NOT answer Question 4

THEME 4: COASTAL HAZARDS AND THEIR MANAGEMENT

4 (a) Study the map opposite.

**(i) Describe the location of Barton-on-Sea.
Use map evidence only. [3 marks]**

(Turn over)

**4 (a)(ii) Describe what a Shoreline
Management Plan is used for.**

[4 marks]

(Turn over)

4 (a)(iii) Study the diagram opposite.

Tick (✓) THREE correct statements below to describe the wave pattern in Christchurch Bay.

[3 marks]

	STATEMENT	CORRECT (✓)
A	60% of waves are higher than 2 m.	
B	Waves from the south-east are larger than waves from the south-west.	
C	Most waves approach Christchurch Bay from the south-west.	
D	The largest waves are more common than the smallest waves.	
E	About 10% of all waves are higher than 1.25 m.	
F	About half of waves from the south-west are smaller than 0.5 m.	

(Turn over)

4 (b)(i) The cliffs in Christchurch Bay are eroding at a rate of one to two metres per year.

Study the photo opposite.

Suggest ONE way in which people are being affected by this erosion.

Use evidence from the photo.

[3 marks]

(Turn over)

4 (b)(ii) Study the map opposite page 42.

Suggest why the Shoreline Management Plan recommends different management strategies along the coast in Christchurch Bay. Use evidence from the resources to support your answer.

[5 marks]

(Turn over)

4 (c) Christchurch Bay is part of the UK coastline. The UK is a High Income Country.

Social and economic factors often interact to make communities in High Income Countries less vulnerable to coastal erosion than communities in Low Income Countries. Explain why.

[6 marks]

(Turn over)

Additional space for Question 4(c) only:

END OF QUESTION 4

END OF PAPER

(Turn over)

Question Number	Additional page, if required. Write the question number(s) in the left-hand margin.

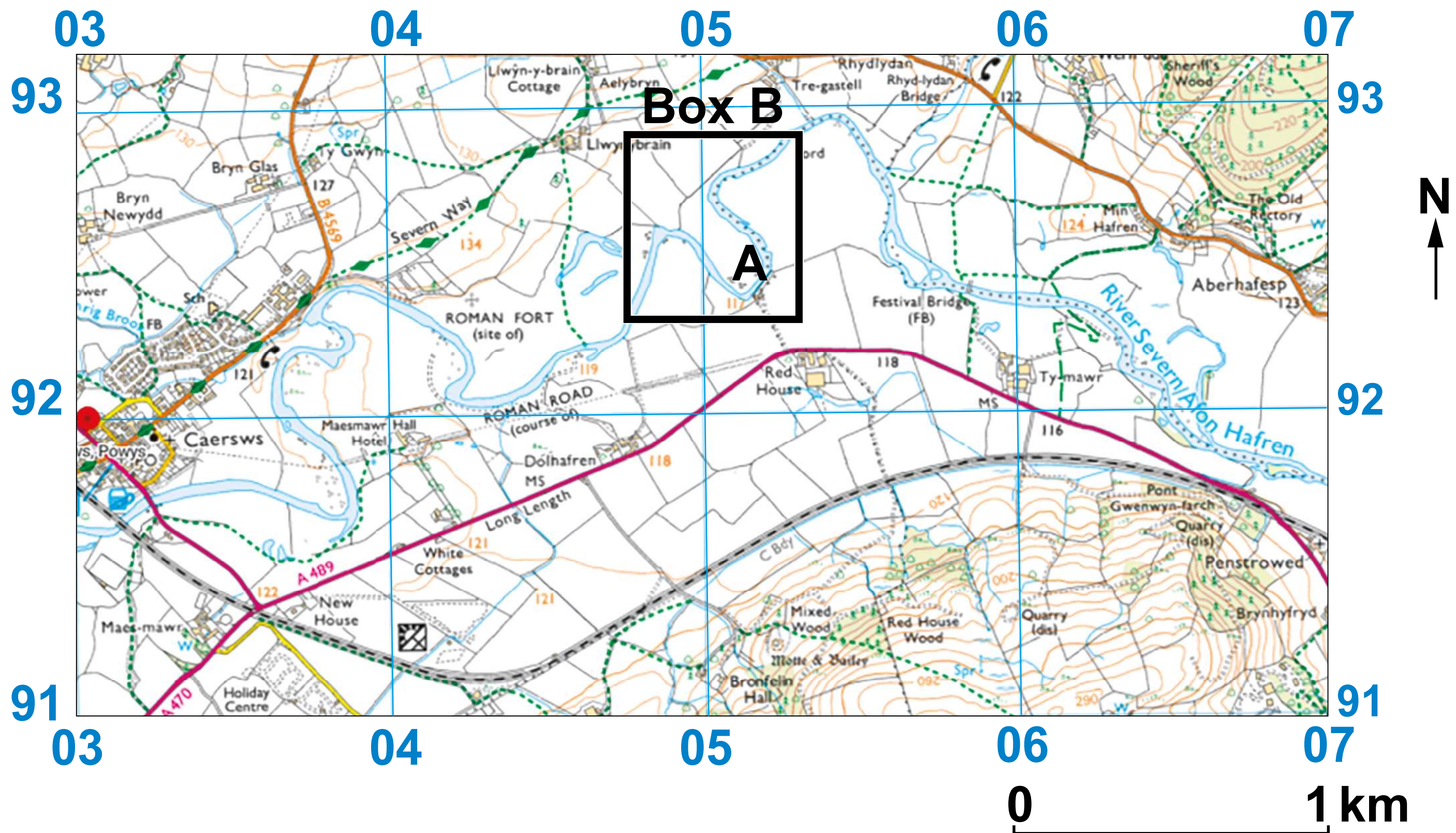
Question Number	Additional page, if required. Write the question number(s) in the left-hand margin.

Question Number	Additional page, if required. Write the question number(s) in the left-hand margin.

[illegible]

For Examiner's use only		
	Maximum Mark	Mark Awarded
Question 1	28	
Question 2	28	
Writing accurately	3	
Question 3	24	
Question 4	24	
Total	83	

either
or



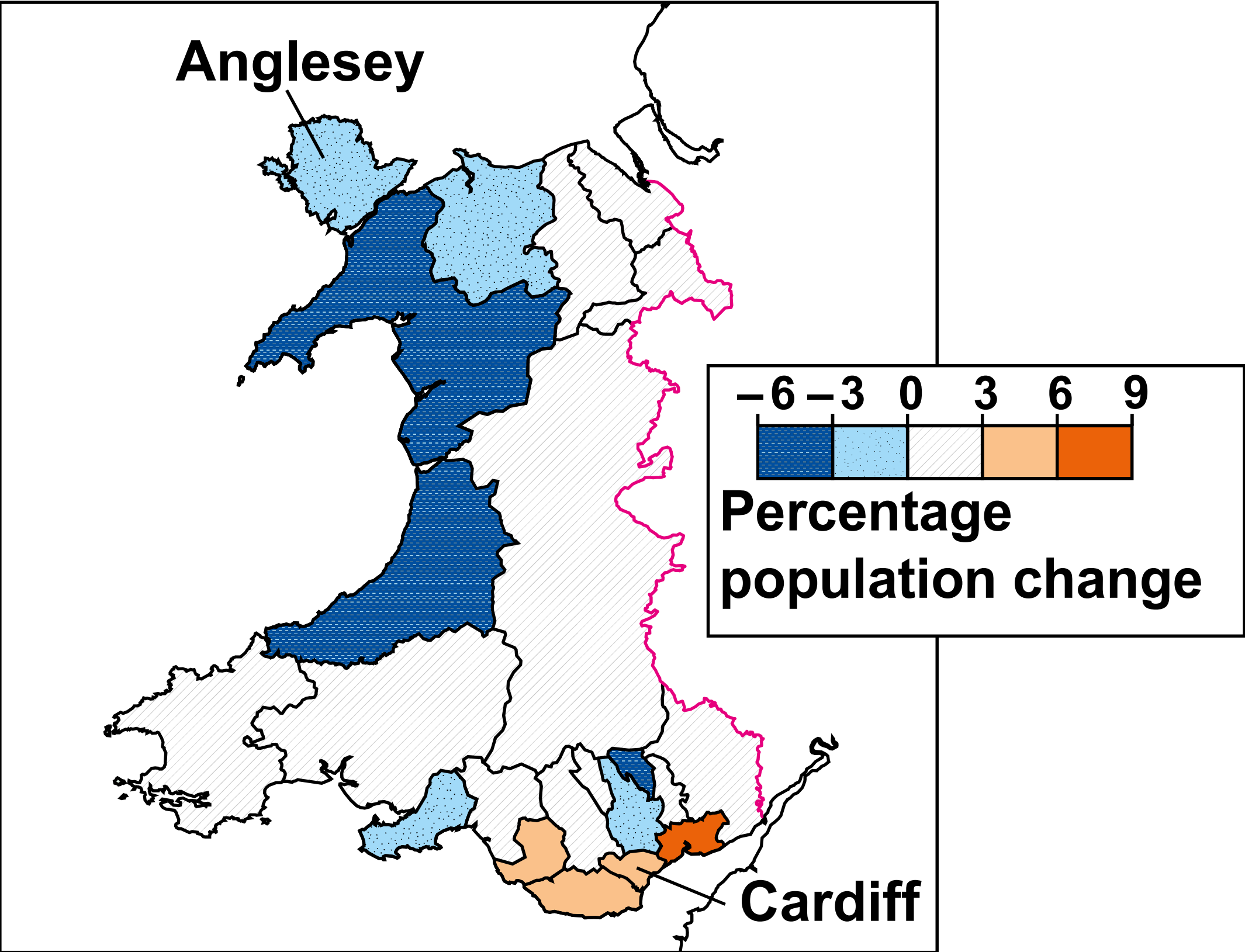
LANDSCAPE A



LANDSCAPE B



PERCENTAGE POPULATION CHANGE IN WELSH LOCAL AUTHORITIES, 2011-2021



HOUSING DEVELOPMENT ON A GREENFIELD SITE NEAR BUXTON IN DERBYSHIRE, ENGLAND.



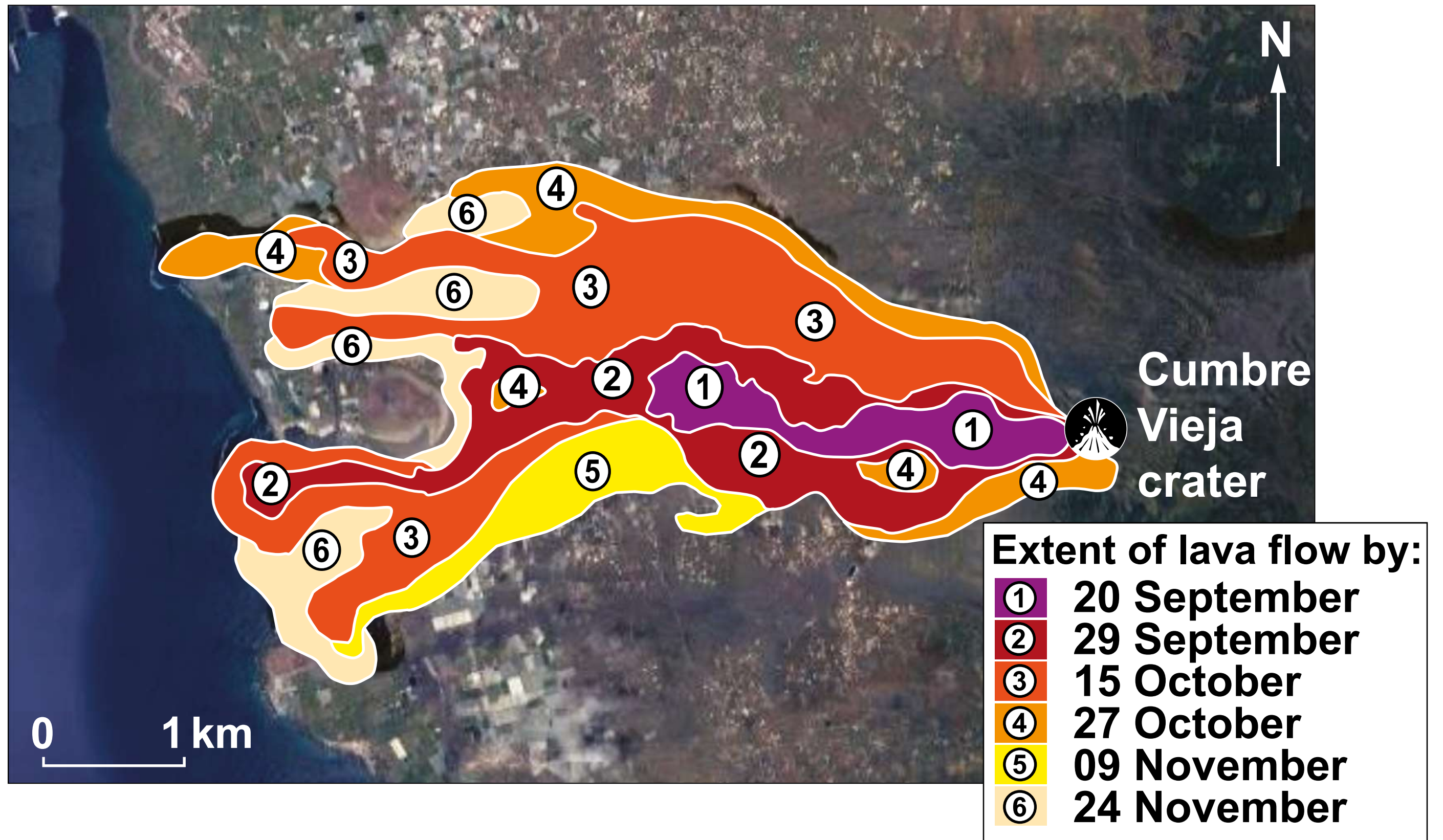
**Housing development
under construction**

LA PALMA, CANARY ISLANDS

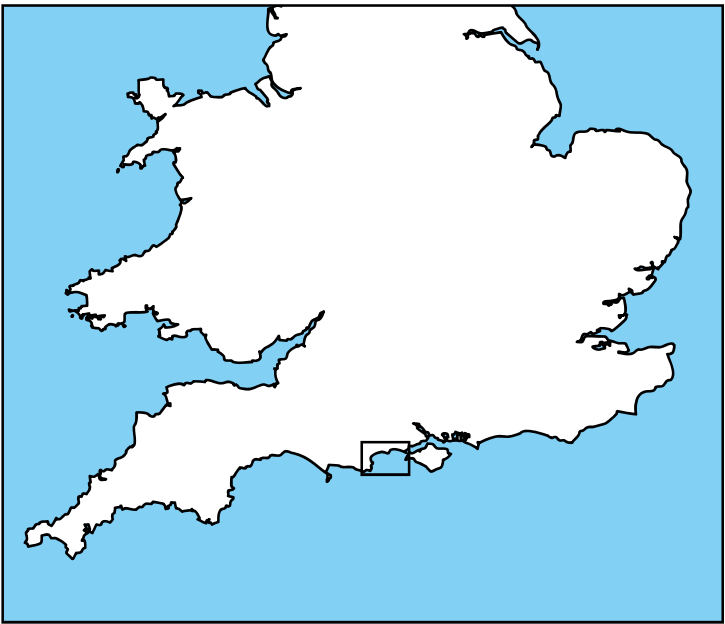
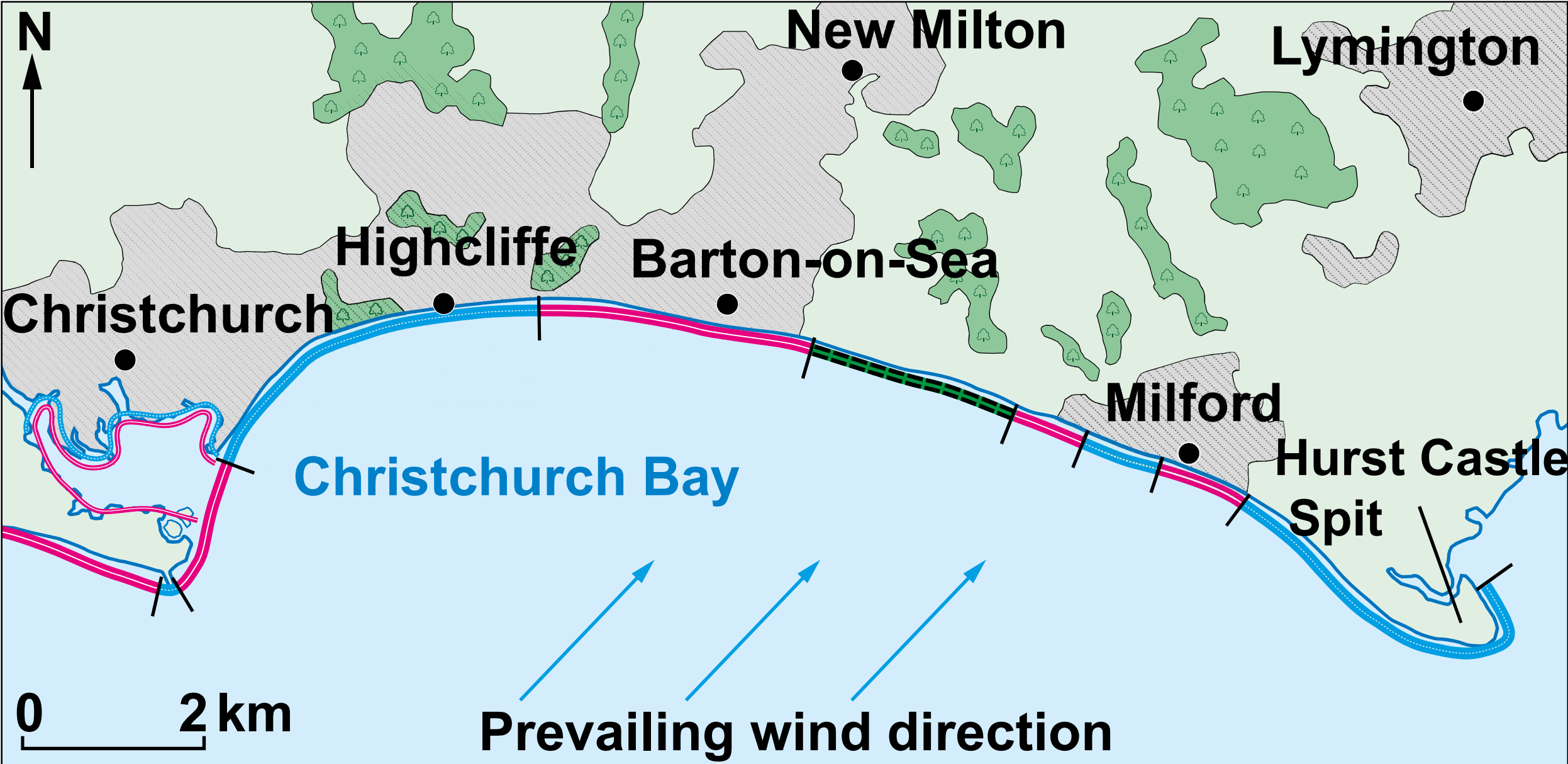




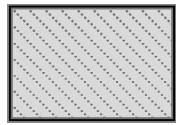
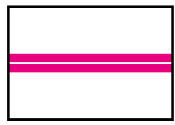
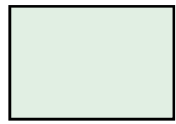
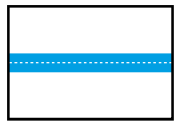
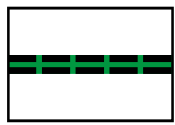
LAVA FLOWS FROM THE CUMBRE VIEJA ERUPTION, SEPTEMBER TO NOVEMBER 2021



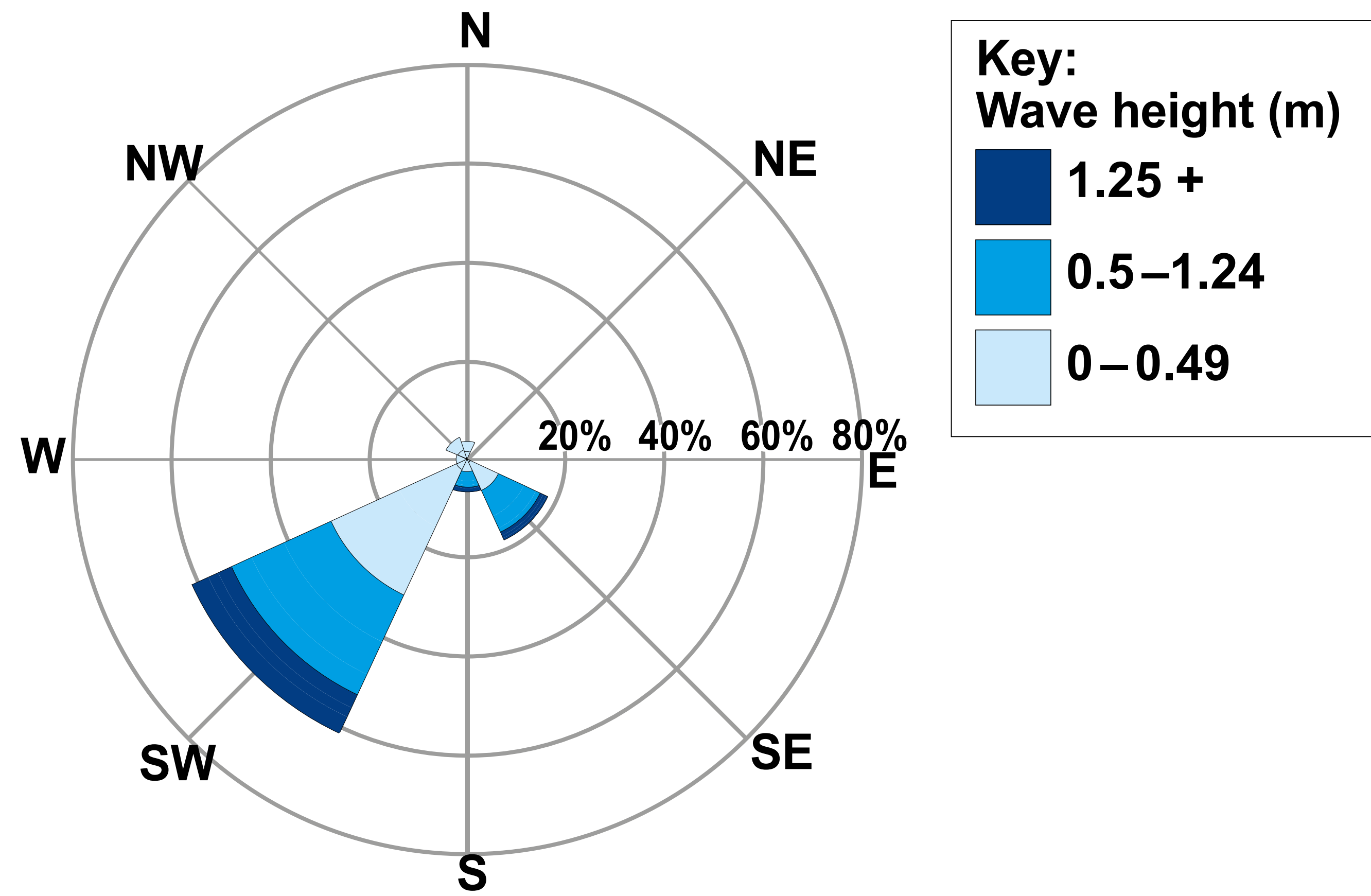
SHORELINE MANAGEMENT PLAN, CHRISTCHURCH BAY, DORSET



Key:

	built-up area		managed retreat
	farmland		hold the line
	woodland		no active intervention

GRAPH OF WAVE HEIGHTS AND DIRECTIONS IN CHRISTCHURCH BAY





Explorer series (1:25 000 scale)
EXPLORER MAP SYMBOLS



ROADS AND PATHS

Not necessarily rights of way

	Motorway		Service area		Junction number		Toll road junction
	Dual carriageway		Service area				
	Main road						
	Secondary road						
	Narrow road with passing places						
	Road under construction						
	Road generally more than 4m wide						
	Road generally less than 4m wide						
	Other road, drive or track, fenced and unfenced						
	Gradient: steeper than 20% (1 in 5); 14% (1 in 7) to 20% (1 in 5)						
	Ferry; Ferry P (passenger only)		London River Services				
	Path						

RAILWAYS

Standard gauge	Single track	Station, open to passengers	Siding	Narrow gauge tramway or light rail system
	Multiple track	London Underground		
	Road over	Level crossing	Cutting	Embankment
	Road under		Tunnel	

PUBLIC RIGHTS OF WAY

Not shown on maps of Scotland

	Footpath		Byway open to all traffic	The representation on this map of any other road, track or path is no evidence of the existence of a right of way.
	Bridleway		Road used as a public path	

OTHER PUBLIC ACCESS

	Other routes with public access (not normally shown in urban areas)	The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available.
	Recreational route (alternative route)	
	National Trail	
	Traffic-free cycle route	
	National cycle network route number – traffic free; on road	
	Permissive footpath	Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn.
	Permissive bridleway	
	Firing and test ranges in the area. Danger! Observe warning notices.	
	Access permitted within managed controls, for example, local byelaws.	

BOUNDARIES

	National		Civil Parish (CP); England or Community (C); Wales
	County; England		National Park boundary
	Unitary Authority (UA), London Borough (LB), Metropolitan District (Met Dist) or District (Scotland & Wales are solely Unitary Authorities)		

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

	Site of antiquity	VILLA	Roman		Visible earthwork
	Site of battle (with date)	Castle	Non-Roman		

HEIGHTS AND NATURAL FEATURES

	Water	The contour interval on Explorer maps are shown at 5m and/or 10m vertical interval, to provide the most detailed heighting available.					
	Mud						
	Sand						
	Shingle						
	Survey height; 52 Ground 284 Air		Contours		Vertical face/cliff		Outcrop
			Scree		Loose rock		Boulders
Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first is the height of the natural ground in the location of the triangulation pillar, and the second (in brackets) to a separate point which is the highest natural summit.							

VEGETATION

Limits of vegetation are defined by positioning of symbols

	Coniferous trees		Scrub
	Non-coniferous trees		Bracken, heath or rough grassland
	Coppice		Marsh, reeds or saltings
	Orchard		

ACCESS LAND (England and Wales)

	Access information point
	Access land
	Access land in wooded area within sand
	Coastal margin

Access land portrayed on this map is intended as a guide to land normally available for access on foot, for example access land created under the Countryside and Rights of Way Act 2000, and land managed by National Trust, Forestry Commission, Woodland Trust and Natural Resources Wales. Some restrictions will apply; some land shown as access land may not have open access rights; always refer to local signage.

The depiction of rights of access does not imply or express any warranty as to its accuracy or completeness. Observe local signs and follow the Countryside Code. Visit: gov.uk/government/publications/the-countryside-code

GENERAL FEATURES

	Gravel pit		Triangulation pillar
	Sand pit		Mast
	Other pit or quarry		Windmill with or without sails
	Landfill site or slag/spoil heap		Wind pump
	Electricity transmission line		Wind turbine
	Solar farm		Building; important building
	Slopes		Glasshouse
	Place of worship		Youth hostel
	Current or former place of worship; with tower		Bunkhouse, camping barn or other hostel
	Current or former place of worship; with spire, minaret or dome		Bus or coach station
			Lighthouse; disused lighthouse
			Beacon

ABBREVIATIONS

See website for full list

BP	Boundary post	Liby	Library	Pol Sta	Police station
BS	Boundary stone	Mkt	Market	Resr	Reservoir
CH	Clubhouse	Meml	Memorial	Sch	School
F Sta	Fire Station	MP; MS	Milepost; Milestone	TH	Town hall
FB	Footbridge	Mon	Monument	NTL	Normal tidal limit
Ind Est	Industrial Estate	PO	Post office	W; Spr	Well; spring

TOURIST AND LEISURE INFORMATION

	Art gallery (notable / important)		Museum
	Boat hire		National Trust
	Boat trips		Nature reserve
	Building of historic interest		Other tourist feature
	Cadw		Parking
	Camp site		Park and ride, all year
	Camping and caravan site		Park and ride, seasonal
	Caravan site		Phone; public, emergency, roadside assistance
	Castle or fort		Picnic site
	Cathedral or Abbey		Preserved railway
	Country park		Public house(s)
	Craft centre		Public toilets
	Cycle hire		Recreation, leisure or sports centre
	Cycle trail		Slipway
	English Heritage		Theme or pleasure park
	Fishing		Viewpoint
	Forestry Commission visitor centre		Visitor centre
	Garden or arboretum		Walks or trails
	Golf course or links		Water activities
	Heritage centre		Water activities (board)
	Historic Scotland		Water activities (paddle)
	Horse riding		Water activities (powered)
	Information centre		Water activities (sailing)
	Information centre, seasonal		Watersports centre (multi-activity)
	Mountain bike trail		World Heritage site / area