



GCSE
C111U10-1



MONDAY, 22 MAY 2023 - AFTERNOON

GEOGRAPHY A – Component 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 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 in Section B.

Write your answers in the spaces provided in this booklet. Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use

(Turn over)

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 or part-question.

Your ability to spell, punctuate and use grammar and specialist terms accurately will be assessed in your answer to Question 2(c)(ii).

(Turn over)

SECTION A: CORE THEMES

Answer ALL questions in this section.

CORE THEME 1: LANDSCAPES AND PHYSICAL PROCESSES

- 1 (a) Landforms are shaped by various processes.
Study DIAGRAM 1.1 opposite.
Longshore drift is a process of transportation**

(Turn over)

1 (a) (i) Which of the following terms is another process of transportation?

Underline the correct answer.

[1 mark]

saltation

abrasion

weathering

(ii) Describe how longshore drift transports sediment along a beach.

[3 marks]

(Turn over)

1 (a) (iii) Give ONE reason why spits are formed by longshore drift.

[2 marks]

(Turn over)

1 (b) Study OS MAP 1.2 opposite. It shows part of the course of the River Severn in Shropshire.

(i) Give the four figure grid reference for the Power Station in the square outlined in black. [1 mark]

(ii) Describe the relief (shape of the land) shown on OS MAP 1.2. [4 marks]

(Turn over)

(Turn over)

- 1 (b) (iii) The scale of the map has a ratio of 1:50 000. The distance between Leighton and Buildwas is 12 cm on the map.
Calculate the distance in kilometres.
Show your working in the box below. [2 marks]

Answer: _____km

1 (c) Study OS MAP 1.2 and PHOTOGRAPH 1.3 opposite. They show meanders on the River Severn.

(i) The photograph was taken near the village of Leighton in grid square 6105. In which general direction was the photograph taken?

Tick (✓) the correct box below.

[1 mark]

DIRECTION	TICK (✓)
West	
North-west	
East	

(Turn over)

1 (c) (ii) Explain why slip-off slopes form on meanders. [4 marks]

(Turn over)

1 (d) (i) Describe TWO effects of river flooding in a location in the UK which you have studied.

[4 marks]

UK location studied:

Effect 1:

(Turn over)

Effect 2: _____

(Turn over)

- 1 (d) (ii) Give TWO reasons why some people think that soft engineering strategies should be used to reduce the risk of river flooding. [4 marks]**

Reason 1: _____

continued on the following page

(Turn over)

Reason 2: _____

Tewkesbury is one town which has suffered many floods in the past. Study RESOURCE BOX 1.4 opposite and opposite the following page.

(Turn over)

1 (d) (iii) ‘Physical factors are more important than human factors in causing flooding in Tewkesbury.’

How far do you agree with this statement?

You should refer to evidence in RESOURCE BOX 1.4. [8 marks]

(Turn over)

[illegible]

(Turn over)

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(Turn over)

**Additional space for Question 1(d) (iii)
only:**

(Turn over)

END OF QUESTION 1

(Turn over)

CORE THEME 2: RURAL-URBAN LINKS

**2 (a) Study TABLE 2.1 opposite.
It shows the predicted percentage
population growth of 10 of the
largest global cities between
2011–2025.**

**2 (a) (i) Name the global city which is
predicted to have a growth rate
eight times that of Tokyo.**

[1 mark]

(Turn over)

- (ii) The population of Tokyo in 2011 was 39 million. Calculate the predicted population of Tokyo in 2025.

Show your working in the box below. [2 marks]

Answer: _____million

2 (a) (iii) Give TWO reasons why people migrate from one country to another country. [4 marks]

Reason 1: _____

Reason 2: _____

(Turn over)

2 (a) (iv) Describe how a global city you have studied is connected to the rest of the world through tourism and/or trade.

[4 marks]

Name of global city _____

(Turn over)

2 (b) Study MAP 2.2 opposite.

(i) Use the map to tick (✓) THREE correct statements in the table on the following page. [3 marks]

(Turn over)

	STATEMENTS ABOUT AREAS MOST POPULAR FOR SECOND HOME OWNERSHIP	TICK (✓)
1	All areas have a coastline.	
2	There are two areas in south-east England.	
3	These areas cover about 40% of England and Wales.	
4	The distribution of these areas is clustered.	
5	There are two areas in south-west England.	
6	The distribution of these areas is scattered.	

(Turn over)

Study GRAPH 2.3 opposite.

2 (b) (ii) Describe the trend in average prices of detached properties in Cornwall. [2 marks]

(Turn over)

2 (b) (iii) Second home ownership is one cause of deprivation in some rural communities.

Define the term deprivation.

[2 marks]

(Turn over)

2 (b) (iv) Explain why some rural areas face poverty and deprivation.

[6 marks]

(Turn over)

(Turn over)

(Turn over)

**Additional space for Question 2(b) (iv)
only:**

(Turn over)

2 (c) Study DIAGRAM 2.4 opposite.

A sustainable community is one which is designed to have minimum negative impact on the environment.

(Turn over)

2 (c) (i) Name TWO ways to reduce negative impacts on the environment to create sustainable communities.

[2 marks]

Way 1: _____

Way 2: _____

(Turn over)

Study the information in RESOURCE BOX 2.5 opposite

2 (c) (ii) Have strategies to improve the quality of UK town centre/high street environments been successful?

Use evidence from RESOURCE BOX 2.5 and your own knowledge. [8 marks]

Your ability to spell, punctuate and use grammar and specialist terminology accurately will be assessed in your answer to this question. [4 marks]

(Turn over)

(Turn over)

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

END OF QUESTION 2

(Turn over)

SECTION B: OPTIONS

**Answer ONE question in this section.
Choose EITHER Question 3 (Theme 3)
OR Question 4 (Theme 4).**

THEME 3: TECTONIC LANDSCAPES AND HAZARDS

3 (a) Define the term caldera. [2 marks]

(Turn over)

- 3 (b) Explain why human factors increased vulnerability in ONE earthquake event you have studied. [4 marks]**

Earthquake event studied:

(Turn over)

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(Turn over)

- 3 (c) Study MAP 3.1 opposite. It shows the location of the 2021 earthquake in Alaska, USA.**

3 (c) (i) Describe the location of the earthquake within Alaska.

[2 marks]

(Turn over)

**Study the information in
RESOURCE BOX 3.2 opposite.**

**3 (c) (ii) Do you agree that all tectonic
zones should be protected from
the risks associated with high
magnitude earthquakes?
Justify your reasons.**

[8 marks]

(Turn over)

[illegible]

(Turn over)

[illegible]

(Turn over)

**Additional space for Question 3 (c) (ii)
only:**

(Turn over)

END OF QUESTION 3

(Turn over)

THEME 4: COASTAL HAZARDS AND THEIR MANAGEMENT

If you have answered Question 3, DO NOT answer Question 4.

4 (a) Define the term Shoreline Management Plan. [2 marks]

(Turn over)

- 4 (b) Explain why there are different opinions about managed retreat in ONE low lying coastline you have studied. [4 marks]**

Low lying coastline studied:

(Turn over)

(Turn over)

4 (c) Study MAP 4.1 opposite. It shows the location of the village of Shishmaref in Alaska, USA.

4 (c) (i) Describe the location of Shishmaref within Alaska.

[2 marks]

(Turn over)

Study the information in RESOURCE BOX 4.2 opposite.

- 4 (c) (ii) Do you agree that all vulnerable coastal communities should be protected from coastal flooding and erosion in the face of rising sea levels?
Justify your reasons. [8 marks]**

(Turn over)

(Turn over)

(Turn over)

Additional space for Question 4 (c)(ii) only:

(Turn over)

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.

(Turn over)

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(Turn over)

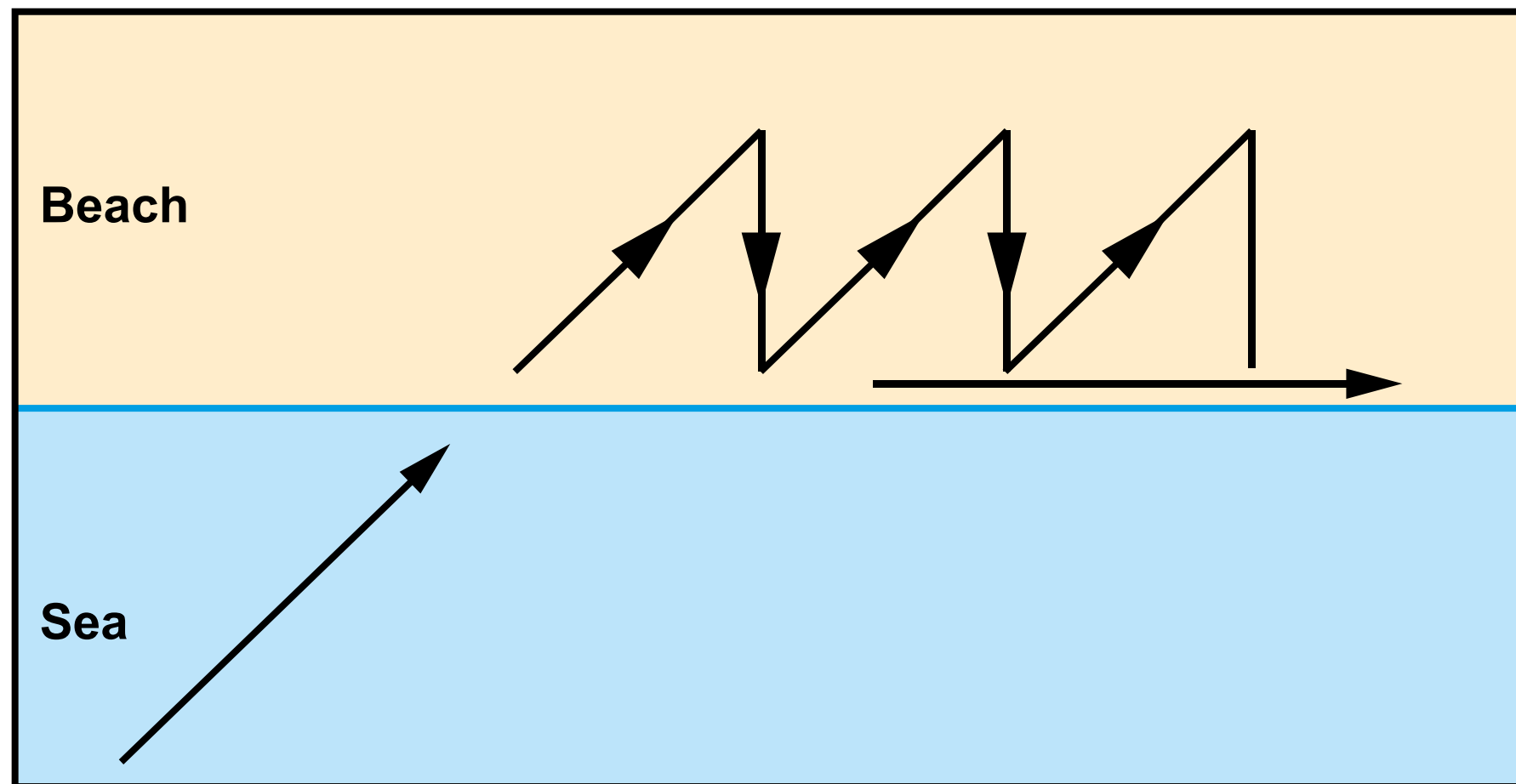
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(Turn over)

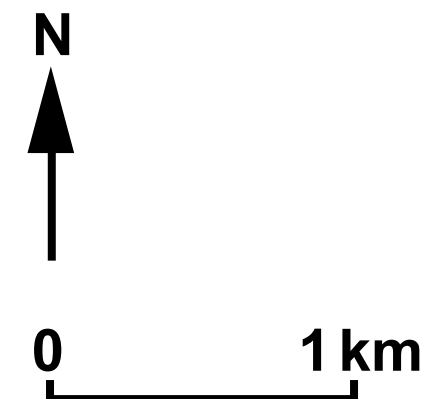
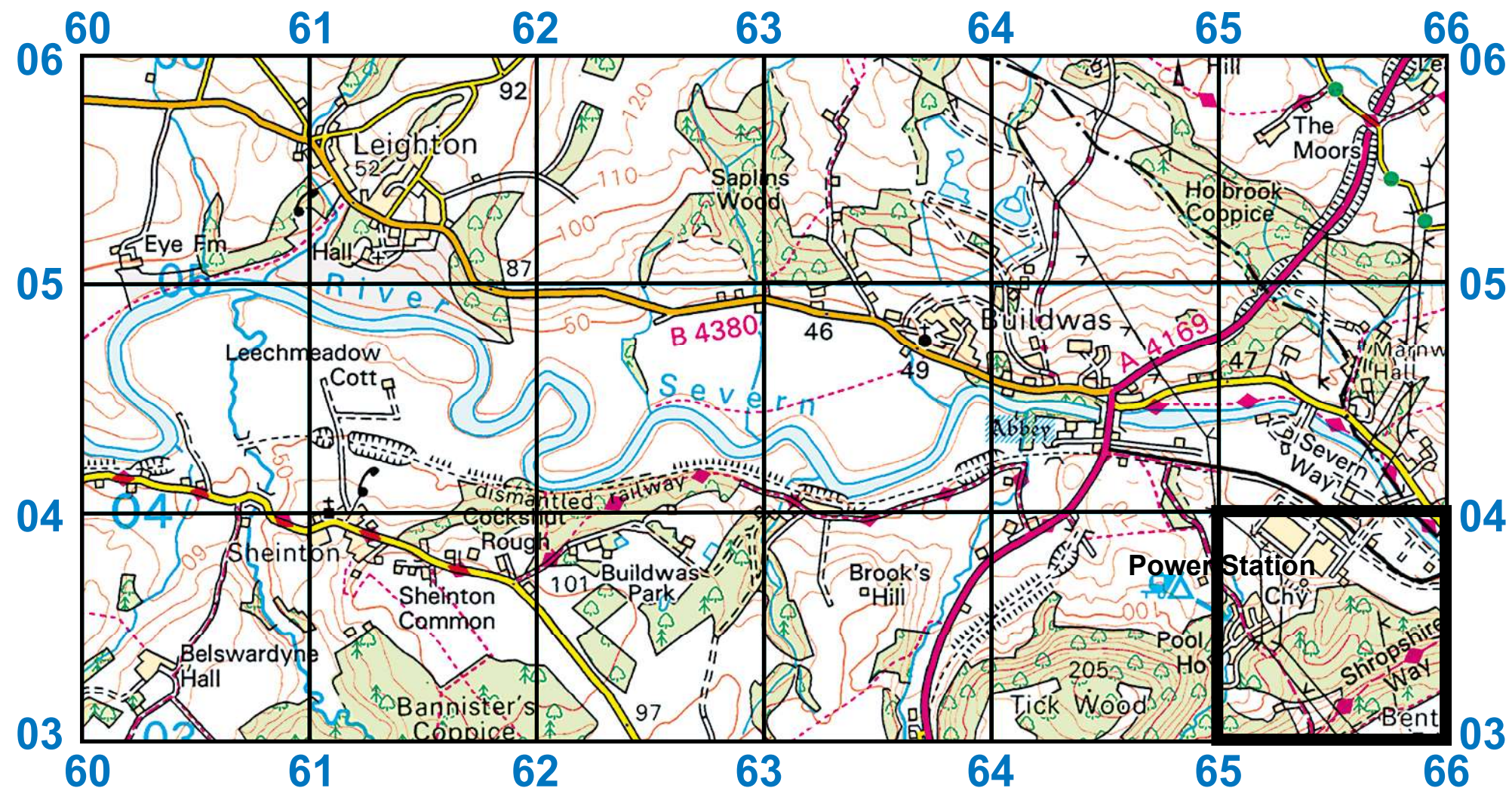
Question number	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	34	
2	34	
SPaG	4	
either 3	16	
or 4	16	
Total	88	

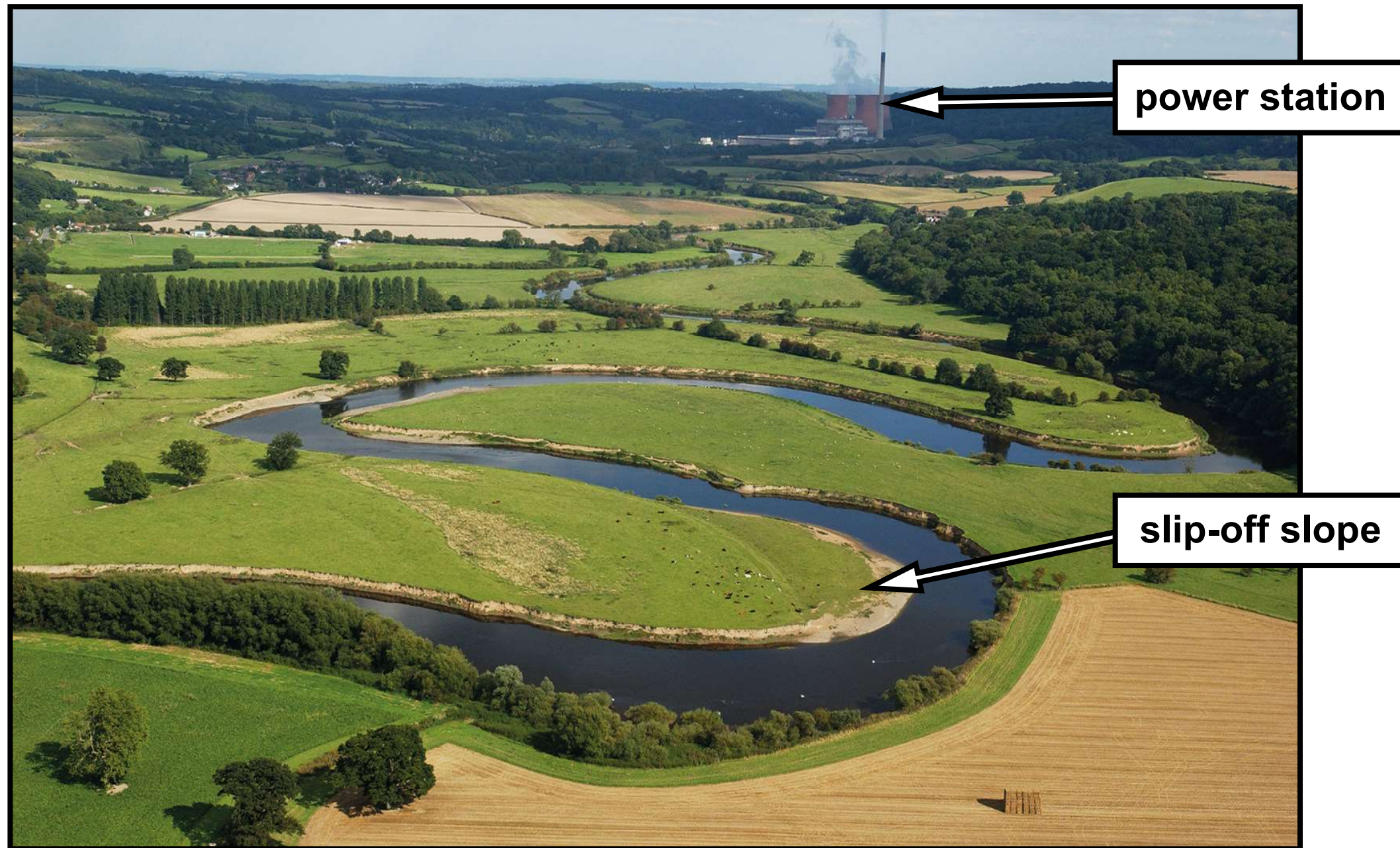
DIAGRAM 1.1 - LONGSHORE DRIFT



OS MAP 1.2 - PART OF THE RIVER SEVERN



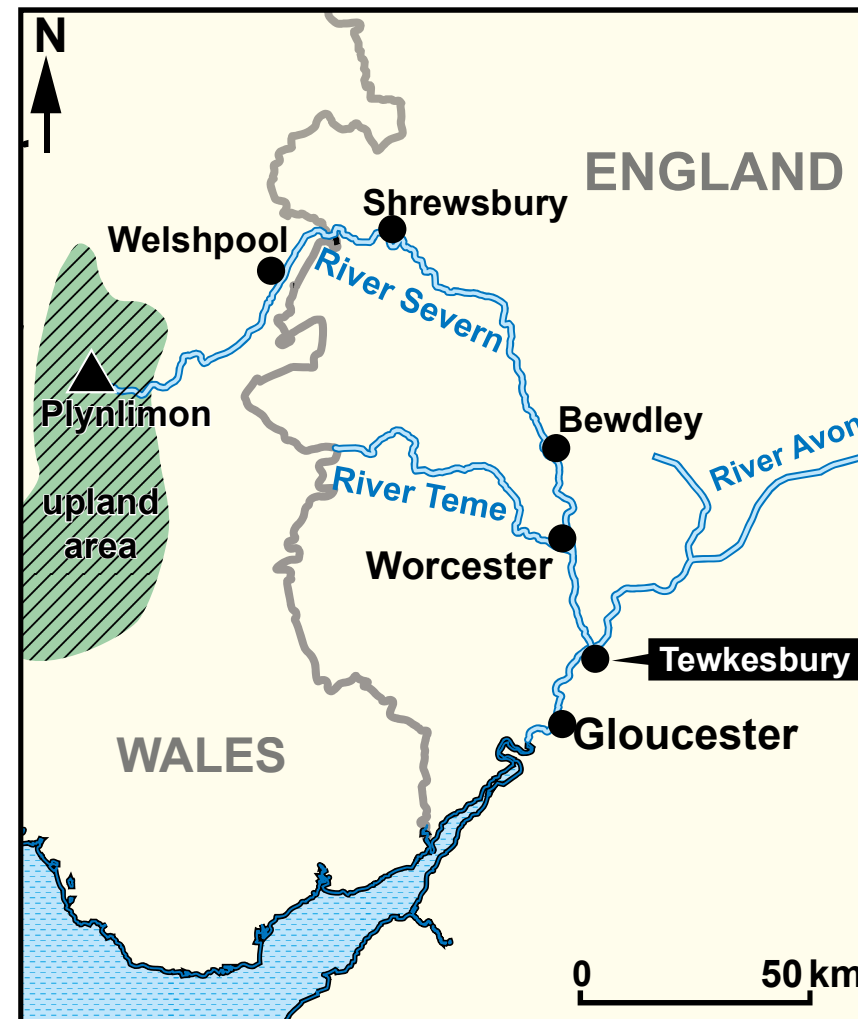
PHOTOGRAPH 1.3 - MEANDERS ON THE RIVER SEVERN



RESOURCE BOX 1.4

THE COURSE OF THE RIVER SEVERN

The source of the River Severn is an Plynlimon (height 752 m) in Wales



- Tewkesbury was badly affected by floods in 2007.

THE RIVER SEVERN ROSE TO DANGEROUS LEVELS IN 2012



- 34 new flood defences were built by 2008, providing protection to 30 000 homes.
- The River Severn rose to dangerous levels again in 2012 and 2014 but only isolated villages downstream from Tewkesbury suffered any damage.
- The flood plain at the nature reserve near the town centre provides natural flood protection.

A VIEW OF THE MAIN ROAD INTO TEWKESBURY AND FLOODED STREETS BEYOND (2019)

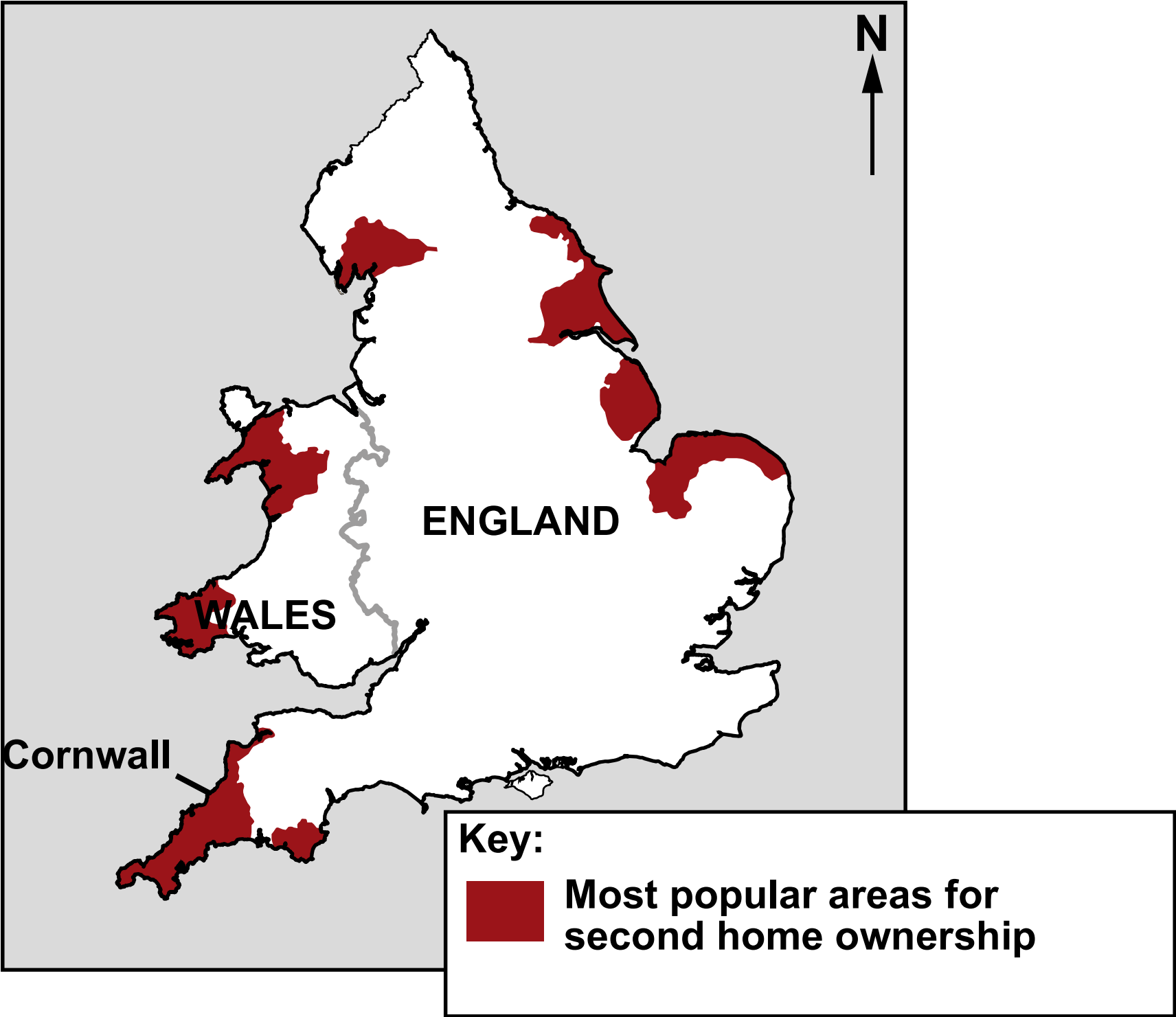


- Much of the town centre was under water yet again in 2019 after both the rivers Avon and Severn burst their banks.

**TABLE 2.1 – PREDICTED PERCENTAGE
POPULATION GROWTH, 2011–2025**

GLOBAL CITY	PREDICTED PERCENTAGE POPULATION GROWTH
Beijing	+44%
Dhaka	+53%
Kolkata	+36%
Los Angeles	+23%
Manila	+33%
New York	+20%
Rio de Janeiro	+17%
Sao Paulo	+15%
Shanghai	+40%
Tokyo	+5%

MAP 2.2 - THE MOST POPULAR AREAS IN ENGLAND AND WALES FOR SECOND HOME OWNERSHIP



GRAPH 2.3 - AVERAGE PRICES OF DETACHED PROPERTIES IN CORNWALL FROM SEPTEMBER 2019 TO SEPTEMBER 2020

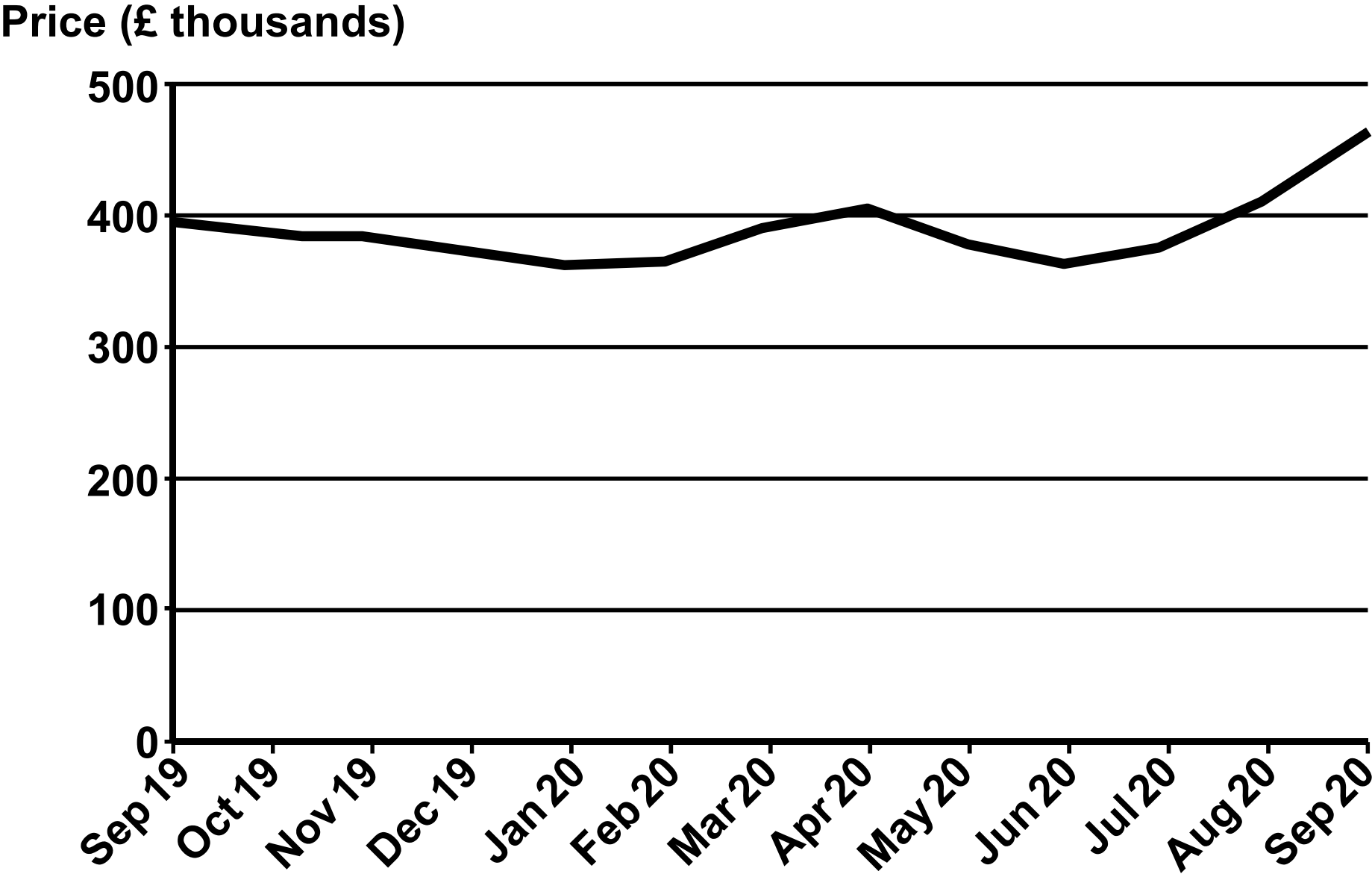


DIAGRAM 2.4 - EGAN'S WHEEL



RESOURCE BOX 2.5 - SHOPPING IN LANCASTER

Lancaster has suffered from competition from internet shopping and out of town shopping

HIGH STREET SHOP CLOSURE, 2019



A variety of strategies have been used to improve the quality of the environment, to win back customers.

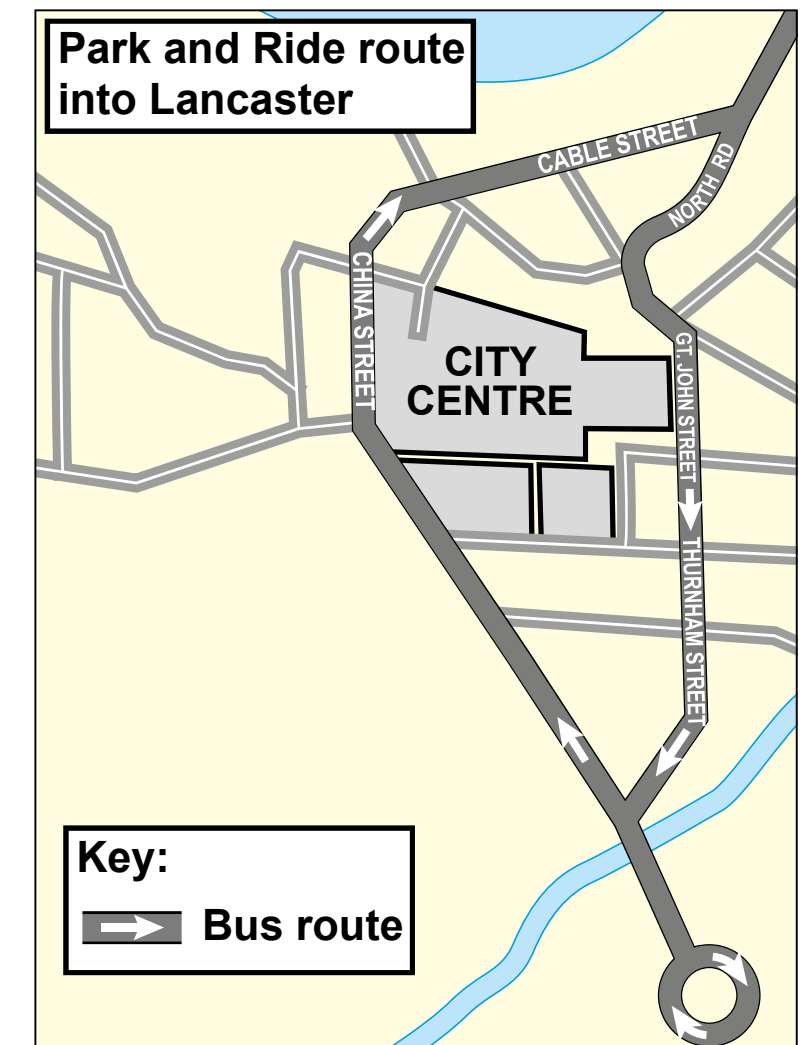
Two strategies are shown.

IMPROVEMENTS IN THE TOWN CENTRE

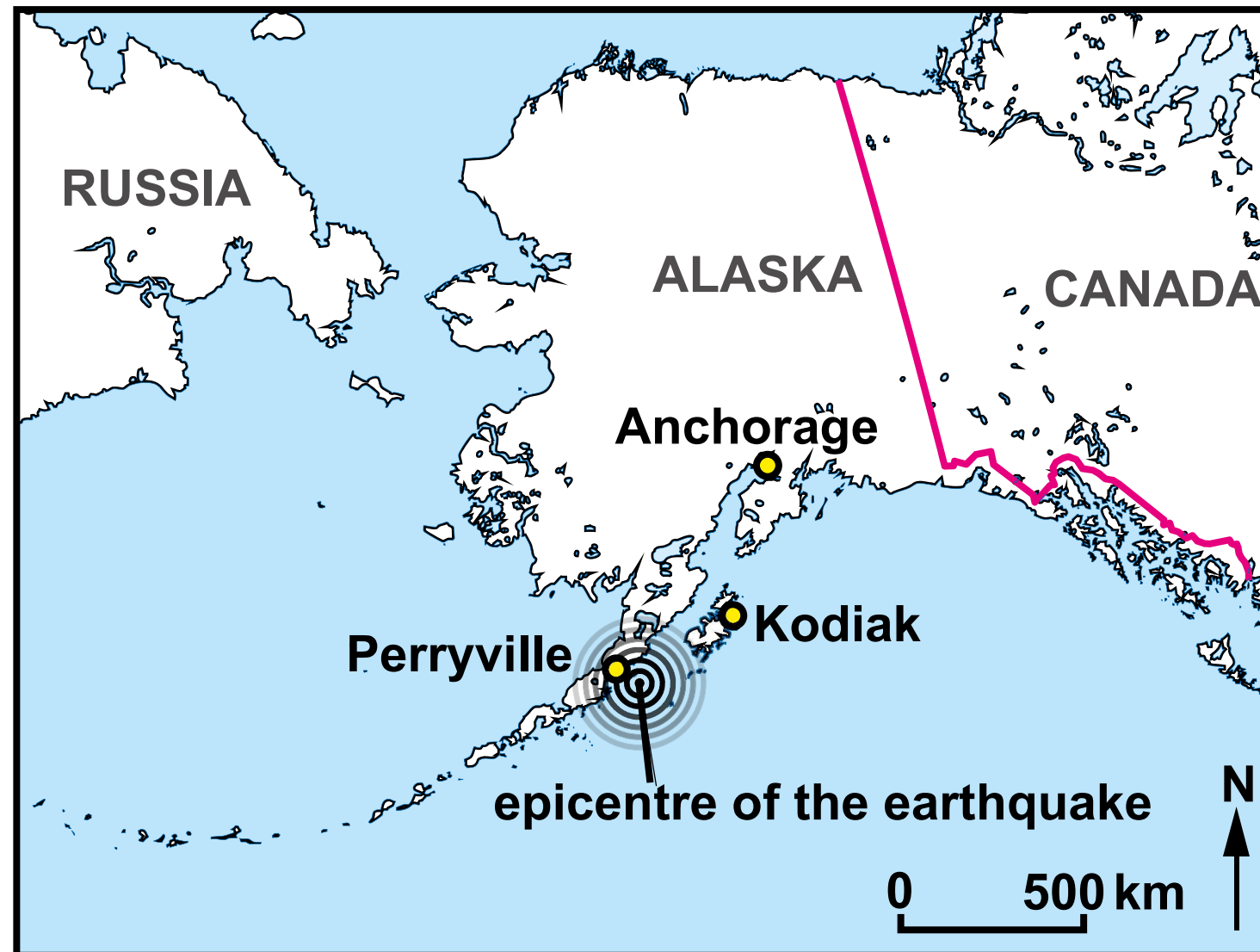


CHANGES TO TRANSPORT

Park and Ride: motorists can park their cars on the outskirts of the city and take a bus into the centre.



MAP 3.1 - ALASKA EARTHQUAKE, 2021



RESOURCE BOX 3.2 - INFORMATION ABOUT EARTHQUAKES IN ALASKA, USA

Alaska has more earthquakes than any other part of the USA.

Alaska has:

- **one 'great' earthquake (magnitude 8 or above) every 13 years**
- **320 earthquakes magnitude 4 to 5 per year.**

In 1964 Alaska had the second largest earthquake ever recorded with a magnitude of 9.2.

THE 1964 EARTHQUAKE SHOWING TSUNAMI DAMAGE ALONG THE WATERFRONT AT KODIAK



- **In July 2021, the earthquake (magnitude 8.2) occurred offshore.**
- **It was the strongest earthquake globally since 2018.**
- **No casualties or serious damage were reported.**
- **A tsunami warning was issued but later cancelled.**

A ROAD SIGN IN ALASKA



- **Since 1964 the population of Alaska has more than doubled.**
- **Many new buildings are now designed to withstand intense shaking; some older buildings have been reinforced.**
- **Development has been discouraged in some very hazardous areas.**

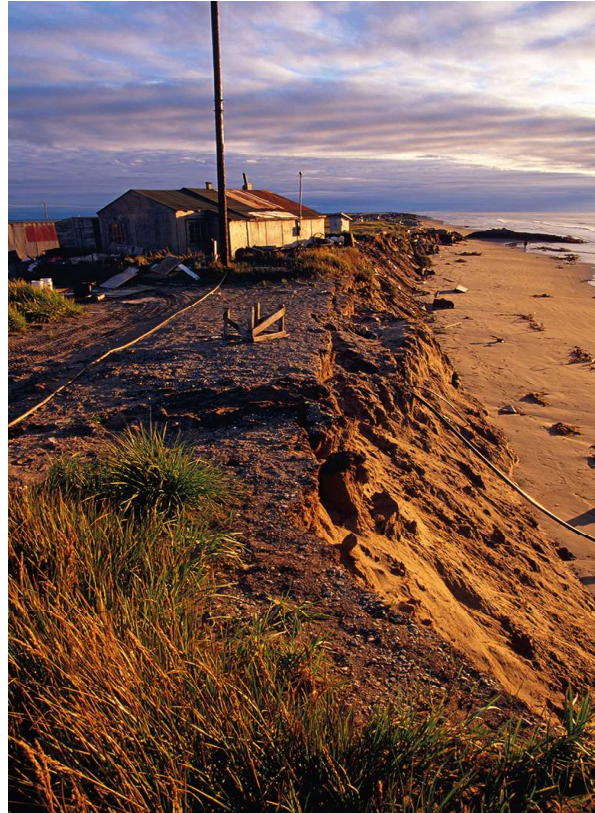
MAP 4.1 - SHISHMAREF, ALASKA



RESOURCE BOX 4.2 - INFORMATION ABOUT SHISHMAREF, ALASKA, USA

The village of Shishmaref is home to about 600 people

THE RETREATING COAST OF SHISHMAREF



- Rising temperatures have resulted in less sea ice.
- This allows higher storm surges to reach the shore.
- The coastline is vulnerable to erosion.
- In recent years the coast has been retreating at an average rate of 3.3 m per year.

SEA DEFENCES WASHED INTO THE SEA NEAR THE VILLAGE OF SHISHMAREF



- Coastal management strategies have been funded by both the local and national governments.
- In 2007 \$6.5 million was spent on additional sea wall construction in an attempt to hold back the sea.
- Another option would be to abandon the village of Shishmaref and move elsewhere.