



GCE A Level

A110U10-1

WEDNESDAY, 22 MAY 2019 – AFTERNOON

GEOGRAPHY – A level component 1

Changing Landscapes and Changing Places

1 hour 45 minutes plus your additional time allowance

ADDITIONAL MATERIALS

In addition to this examination paper, you will need one WJEC pink 16-page answer booklet and a calculator.

INSTRUCTIONS TO CANDIDATES

Answer in Section A, EITHER questions 1, 2 and EITHER 3 OR 4 (Coastal Landscapes) OR questions 5, 6 and EITHER 7 OR 8 (Glaciated Landscapes).

Answer questions 9, 10 and, EITHER 11 OR 12 in Section B (Changing Places).

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

Write your answers in the separate answer booklet provided.

Write your name, centre number and candidate number in the spaces at the top of the answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part-question; you are advised to divide your time accordingly.

THIS PAPER REQUIRES THAT YOU MAKE AS FULL USE AS POSSIBLE OF APPROPRIATE EXAMPLES AND REFERENCE TO DATA TO SUPPORT YOUR ANSWERS. SKETCH MAPS AND DIAGRAMS SHOULD BE INCLUDED WHERE RELEVANT.

SECTION A: CHANGING LANDSCAPES

Answer EITHER questions 1 AND 2 and EITHER 3 OR 4 OR questions 5 AND 6 and EITHER 7 OR 8 from your chosen landscape.

Make the fullest possible use of examples in support of your answers.

COASTAL LANDSCAPES

Answer questions 1 AND 2 and EITHER 3 OR 4 if this is your chosen landscape.

1 (a)(i)

Compare the characteristics of the coastal landscapes shown in FIGURE 1 opposite. [5]

(ii) Suggest how lithological factors have influenced the development of the cliffs shown in FIGURE 1. [6]

(b) Describe TWO distinctive features of a geo. [2]

2 (a)(i)

Use Figure 2 opposite to analyse changes in wave height for the three mangrove forests. [5]

(ii) Suggest ONE way in which the changes in wave height in Mangrove Forest A could impact on coastal erosion. [2]

(b) Explain the formation of EITHER coral reefs OR mangrove coastlines. [6]

EITHER

3 Assess the relative importance of longshore drift in the formation of ONE OR MORE landforms of coastal deposition. [15]

OR

4 Examine the importance of different time scales in the formation of ONE OR MORE coastal landforms. [15]

GLACIATED LANDSCAPES

Answer questions 5 AND 6 and EITHER 7 OR 8 if this is your chosen landscape.

5 (a)(i)

Compare the characteristics of the TWO glacial landscapes shown in FIGURE 3 opposite. [5]

(ii) Suggest TWO ways in which the landscapes shown in FIGURE 3 could influence human activity. [6]

(b) Describe TWO distinctive features of a cold-based glacier. [2]

6 (a)(i)

Use FIGURE 4 opposite to analyse changes in the cumulative mass balance of the three glaciers.

[5]

(ii) Suggest ONE reason for the overall change in the Gulkana Glacier. [2]

(b) Explain the formation of ONE fluvioglacial landform. [6]

EITHER

7 Assess the relative importance of different erosional processes in the formation of ONE OR MORE landforms of glacial erosion. [15]

OR

8 Examine the importance of frost weathering and mass movement in the development of ONE OR MORE periglacial landforms. [15]

SECTION B: CHANGING PLACES

Answer questions 9 AND 10 and EITHER 11 or 12.

Make the fullest possible use of examples in support of your answers.

- 9 (a) Contrast ways in which the Durham Coalfield is represented by FIGURE 5 opposite and FIGURE 6 opposite page 8.**
- [5]**

- 9 (b) Outline how external agencies can help regenerate deindustrialised places such as the Durham Coalfield. [8]**

- 10 (a) Spearman's Rank was used to test the correlation between population density and internet download speed in Northern Ireland, the results of which are shown in FIGURE 7 opposite and FIGURE 8 opposite page 10.**
- (i) Calculate the values for A, B and C in FIGURE 7.**

WRITE THE VALUES FOR A, B AND C IN YOUR ANSWER BOOKLET. [3]

10 (a)(ii)

Use FIGURE 8 opposite to state the statistical significance of the correlation. [2]

(b) Suggest why the demand for fast internet speed varies between rural communities. [8]

EITHER

11 Assess the severity of threats to retailing in central urban places. [15]

OR

12 Examine the role of changing flows of money and investment in shaping the characteristics of one or more places. [15]

END OF PAPER

FIGURE 1: Coastal cliffs, Pas de Calais, France

FIGURE 1a: Chalk cliffs



FIGURE 1b: Cliffs of clay and sand



Source: www.sussex.ac.uk

FIGURE 2: Changes in the height of a wave as it travels inland through three mangrove forests

Percentage of original
wave height

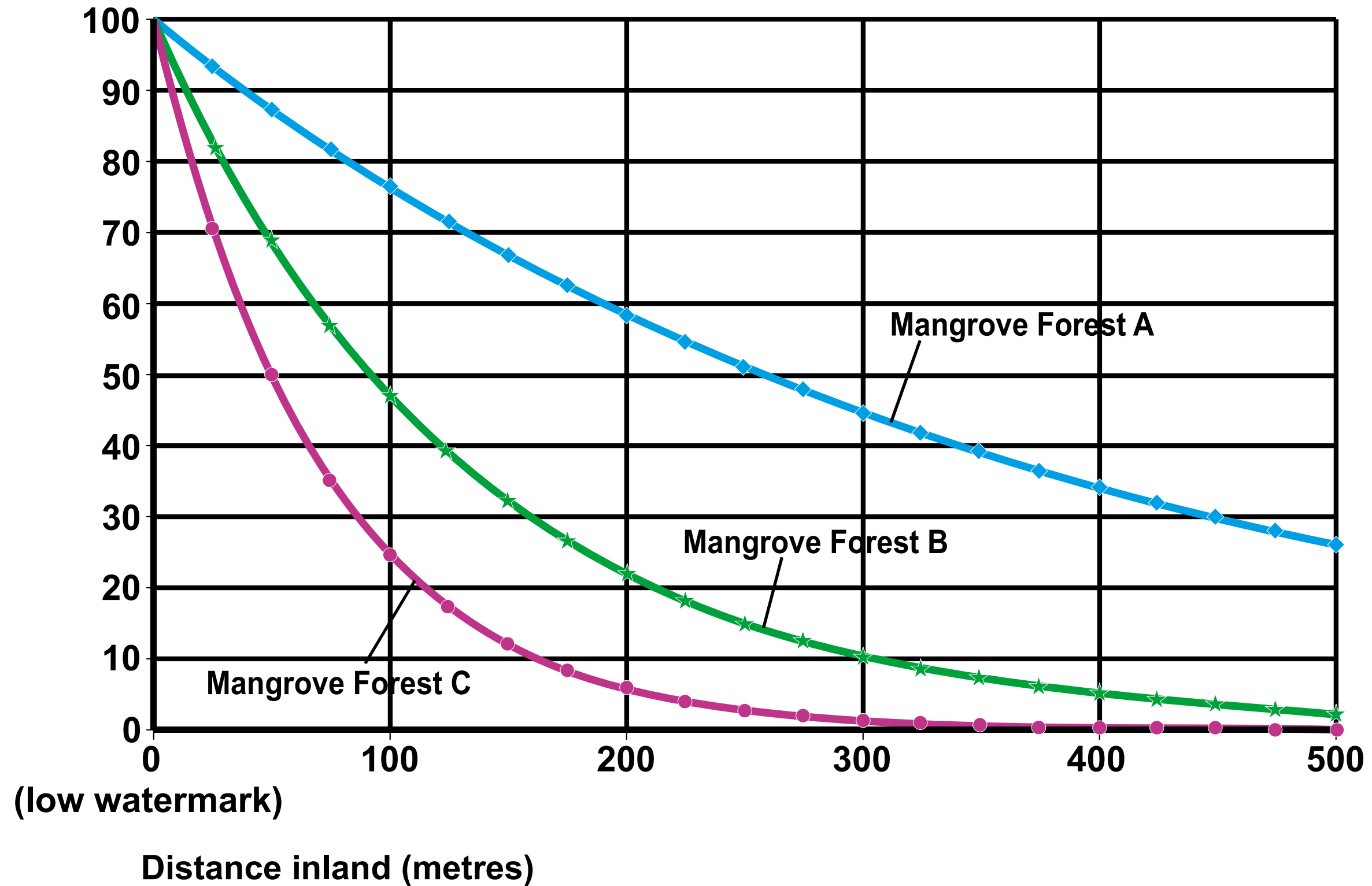


FIGURE 3: Glacial landscapes, Scottish Highlands

FIGURE 3a: Glacial landscape, Creag Meagaidh



FIGURE 3b: Glacial landscape, Strath Fillan



Source: geoscenic.bgs.ac.uk

FIGURE 4: Cumulative mass balance of three glaciers in the USA, 1958-2014

**Cumulative mass balance
(metres of water equivalent)**

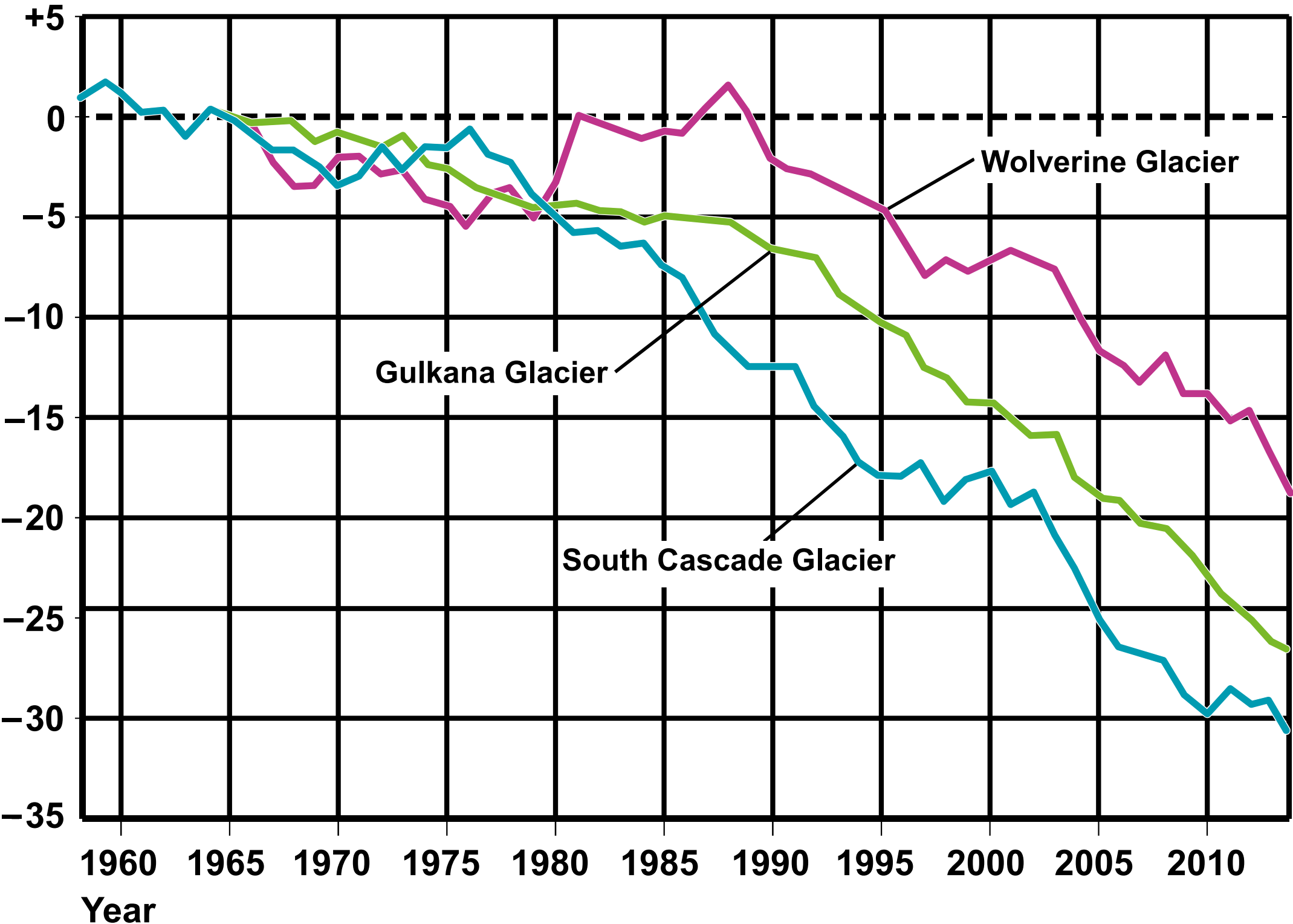


Figure 5: Advertisement for a regeneration project on the Durham Coalfield, a former coal mining area in North East England



The advertisement is set against a blue background. At the top left, there are two circular inset images: one showing the exterior of a building under construction with scaffolding, and the other showing an interior office space with desks and computers. To the right of these is the Seaham Harbour Marina logo, which consists of a stylized blue sailboat above the text 'Seaham Harbour Marina'. Below the logo, the text 'Unit to Let' is written in large, light blue letters. Underneath this, there are several lines of text in white boxes, providing details about the marina and the unit for sale. At the bottom right, there is a rectangular image of the building under construction, showing its full profile with scaffolding.

Seaham Harbour Marina

Unit to Let

The North East's newest marina offers excellent opportunities to businesses new or established.

Seaham Harbour, the gateway to County Durham's award winning heritage coast, opens out to incorporate a two storey business/retail outlet centre, 96 berth marina, slipway, heritage centre and new Activity Centre.

The marina is currently able to offer a FIRST FLOOR unit to let for OFFICE USE only.



FIGURE 6: Statistical profile of the Durham Coalfield

	Population change 2001-11 (%)	Population in bad or very bad health 2011 (%)	Number of jobs per 100 people of working age 2013	Working age population claiming out-of-work benefits 2013-14 (%)
Durham Coalfield	−0.1	8.6	48	15.8
UK	7.5	5.6	67	10.9

Source: adapted from shu.ac.uk

FIGURE 7: Population density and internet download speed, Northern Ireland, 2016

District	Population density (per square kilometre)	Population density (rank)	Premises with fast internet download speed (%)	Premises with fast internet download speed (rank)	d	d ²
Belfast	2,563	1	99	1	0	0
Ards and North Down	346	2	93	2.5	−0.5	0.25
Lisburn and Castlereagh	279	3	91	5	−2	4
Antrim and Newtownabbey	246	4	91	5	−1	1
Armagh, Banbridge and Craigavon	157	5	84	7	−2	4
Mid and East Antrim	131	6	93	A	B	C
Derry and Strabane	121	7	91	5	2	4
Newry, Mourne and Down	108	8	76	9	−1	1
Mid-Ulster	79	9	70	10	−1	1
Causeway Coast and Glens	72	10	81	8	2	4
Fermanagh and Omagh	40	11	63	11	0	0
Sum d ²						31.5

FIGURE 8: Calculated r_s value and critical values for Spearman’s Rank Correlation Coefficient

Calculated r_s value = 0.86			
Significance (confidence) level			
NUMBER OF PAIRS (N)	95% (0.05)	99% (0.01)	99.9% (0.001)
11	0.62	0.76	0.87