

B O A R D O F S T U D I E S
NEW SOUTH WALES

2003

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Geography

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black or blue pen
- Board-approved calculators may be used
- A Stimulus Booklet is provided with this paper
- Write your Centre Number and Student Number at the top of pages 9, 13, 15, 17 and 19

Total marks – 100

Section I Pages 2–6

15 marks

- Attempt Questions 1–15
- Allow about 25 minutes for this section

Section II Pages 9–19

25 marks

- Attempt Questions 16–20
- Allow about 45 minutes for this section

Section III Page 21

60 marks

- Attempt Questions 21–23
- Allow about 1 hour and 50 minutes for this section

Section I

15 marks

Attempt Questions 1–15

Allow about 25 minutes for this section

Refer to the Stimulus Booklet

Use the multiple-choice answer sheet.

Select the alternative A, B, C or D that best answers the question. Fill in the response oval completely.

Sample: $2 + 4 =$ (A) 2 (B) 6 (C) 8 (D) 9
A B C D

If you think you have made a mistake, put a cross through the incorrect answer and fill in the new answer.

A B C D

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word *correct* and drawing an arrow as follows.

A B C D
correct ↖

Refer to Source A to answer Questions 1 and 2.

- 1** What was the value of Australian wool exported to China in 2000–2001?
 - (A) \$A 750 million
 - (B) \$A 870 million
 - (C) \$A 1360 million
 - (D) \$A 2250 million

- 2** To which countries did Australia export more wool by value in 2000–2001 than in 1995–1996?
 - (A) Japan and China
 - (B) Italy and China
 - (C) Taiwan and Italy
 - (D) Italy and Republic of Korea

Refer to Source B to answer Questions 3 and 4.

- 3** Which concepts are illustrated by Photos 1 and 3 respectively?
 - (A) Culture of place and urban decay
 - (B) Culture of place and urban renewal
 - (C) Urban renewal and spatial exclusion
 - (D) Urban decay and spatial exclusion

- 4** Which photo has the smallest scale?
 - (A) Photo 1
 - (B) Photo 2
 - (C) Photo 3
 - (D) Photo 4

Refer to Sources B and C to answer Question 5.

5 In which Area Reference would Photo 2 most likely have been taken?

- (A) AR 2944
- (B) AR 2945
- (C) AR 3041
- (D) AR 3541

Refer to Source C to answer Questions 6–8.

6 What is the bearing of the caravan site GR 349419 from the Fish Pond GR 310442?

- (A) 110°
- (B) 120°
- (C) 290°
- (D) 300°

7 What is the ratio of the area of the Fish Pond centred on GR 310442 to the area of Eccup Reservoir centred on GR 300416?

- (A) 1 : 2
- (B) 1 : 7
- (C) 1 : 12
- (D) 1 : 17

8 How long would it take for a boat to travel along the River Wharfe from GR 280461 to GR 335465 at a speed of 14 km per hour?

- (A) 30 minutes
- (B) 60 minutes
- (C) 90 minutes
- (D) 120 minutes

Refer to Source D to answer Questions 9 and 10.

- 9** What is the percentage change in crime in Halton (M9) from 2000 to 2001?
- (A) 33% decrease
 - (B) 16.5% decrease
 - (C) 16.5% increase
 - (D) 33% increase
- 10** Which statement is correct for both Richmond Hill (L 9) and Cookridge (I 6) from 2000 to 2001?
- (A) The actual percentage of crime increased.
 - (B) The public perception of crime remained the same.
 - (C) The public perception of crime did not match the actual percentage change in crime.
 - (D) The public perception of crime has increased but the actual percentage of crime has not increased.

Refer to Source E to answer Questions 11 and 12.

- 11** What was the absolute decrease in the number of vehicle crimes between 1998/1999 and 2000/2001?
- (A) 1000
 - (B) 2000
 - (C) 4000
 - (D) 7000
- 12** What is the percentage change in the number of robberies from 1998/1999 to 2000/2001?
- (A) 0%
 - (B) 50%
 - (C) 75%
 - (D) 100%

- 13** Which statement best defines the *resilience* of an ecosystem?
- (A) The ability of an ecosystem to meet the needs of future generations.
 - (B) An ecosystem in a state of equilibrium which can be easily disturbed.
 - (C) An ecosystem that has a variety of living organisms operating in equilibrium.
 - (D) The ability of an ecosystem to return to a state of equilibrium after a disturbance.

Refer to the Relief Map in Source F to answer Questions 14 and 15.

- 14** What is the direction of flow of the main river in AR 4566?
- (A) South
 - (B) South-east
 - (C) South-west
 - (D) North-east
- 15** What is the average gradient from the Point Lookout trig station to GR 460660?
- (A) 1 : 4
 - (B) 1 : 6
 - (C) 1 : 9
 - (D) 1 : 14

BLANK PAGE

BLANK PAGE

Geography

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Centre Number

Section II

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|

Student Number

25 marks

Attempt Questions 16–20

Allow about 45 minutes for this section

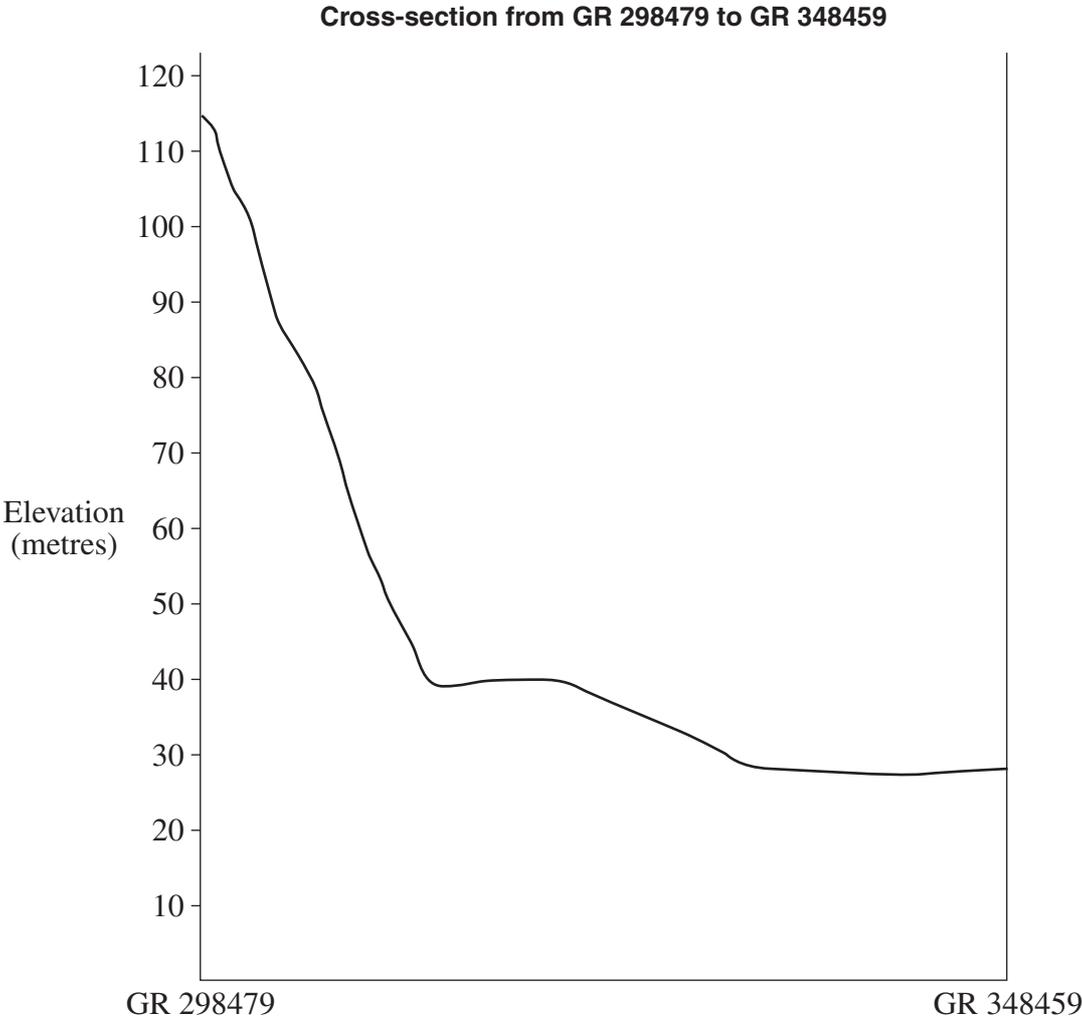
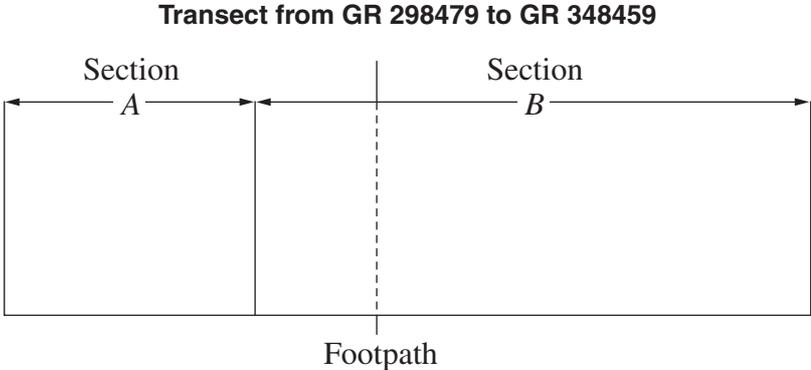
Use the Stimulus Booklet and your knowledge of geography to answer Questions 16–20 in the spaces provided.

Question 16 (5 marks)

Please turn over

Question 16 (5 marks)

Refer to Source C.



Question 16 continues on page 11

Question 16 (continued)

- (a) Calculate the vertical exaggeration of the cross-section shown. **1**

.....
.....

- (b) State the purpose of the vertical exaggeration of a cross-section. **1**

.....
.....

- (c) Suggest ONE reason why there are no footpaths evident in Section A of the transect. **1**

.....
.....

- (d) On the transect, in each of Section A and Section B, mark in and label one transport feature other than a footpath. **2**

End of Question 16

BLANK PAGE

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Centre Number

Section II (continued)

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Student Number

Question 17 (5 marks)

Marks

- (a) Identify and describe ONE external linkage of an economic enterprise that you have studied operating at a local scale. 3

.....

.....

.....

.....

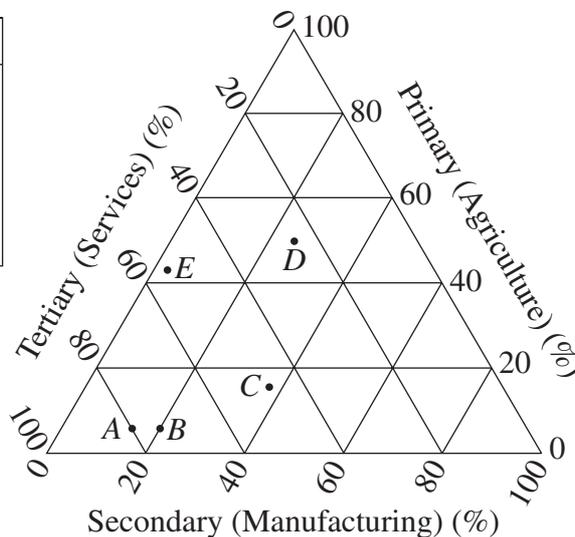
.....

.....

- (b) Study the ternary graph below. 2

Structure of the workforce of selected countries (2002)

| Key | |
|-----|-----------|
| A | USA |
| B | UK |
| C | Mauritius |
| D | China |
| E | Namibia |



Compare the workforce structures of Mauritius and Namibia in the primary and tertiary sectors.

.....

.....

.....

.....

BLANK PAGE

Geography

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Centre Number

Section II (continued)

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|

Student Number

Marks

Question 18 (8 marks)

Refer to Source F and Source G.

- (a) State the relationship between relief and average annual temperature. **1**

.....

.....

- (b) A ridge runs from GR 443660 to GR 446660. Identify a type of vegetation immediately north and immediately south of this ridge. **2**

North

South

- (c) Suggest ONE reason for the difference in vegetation types on either side of the ridge identified in part (b). **1**

.....

.....

Refer to Sources F, G and H.

- (d) Explain TWO geographic factors that contribute to the distribution of the Antarctic Beech ecosystem. **4**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

BLANK PAGE

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Centre Number

Section II (continued)

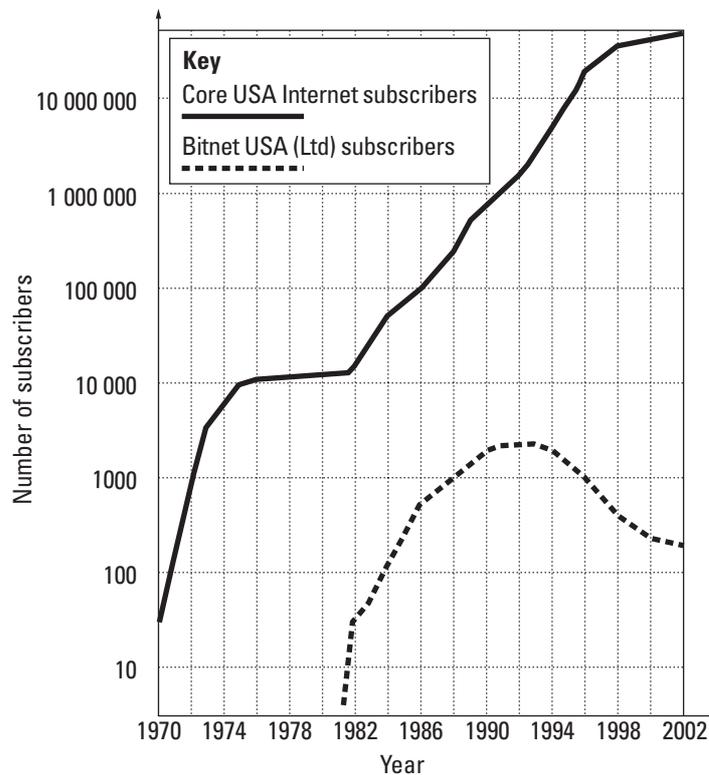
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Student Number

Marks

Question 19 (3 marks)

Internet subscription (1970–2002)



- (a) Identify the four-year period that experienced the greatest rate of change in Core USA Internet subscribers. 1

.....

- (b) Compare the trends shown in Core USA Internet subscribers and Bitnet USA (Ltd) subscribers between 1982 and 2002. 2

.....

BLANK PAGE

Geography

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Centre Number

Section II (continued)

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|

Student Number

Marks

Question 20 (4 marks)

Refer to Source C.

Choose ONE vocation, requiring geographical understanding, that is applicable to a workplace likely to be found in the south-west quadrant of the map. Describe TWO DIFFERENT methods that could be employed in the collection of primary geographical data in such a workplace.

4

| |
|-----------------|
| Vocation: |
|-----------------|

.....

.....

.....

.....

.....

.....

.....

.....

.....

BLANK PAGE

Geography

Section III

60 marks

Attempt Questions 21–23

Allow about 1 hour and 50 minutes for this section

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

In your answers you will be assessed on how well you:

- present a sustained, logical and well-structured answer to the question
 - communicate geographical information, ideas and issues
 - refer to appropriate case studies, illustrative examples and the Stimulus Booklet where appropriate
-

Question 21 (20 marks)

Justify the importance of ecosystem management and protection.

Question 22 (20 marks)

Describe the challenges of living in mega cities and evaluate the responses to these challenges.

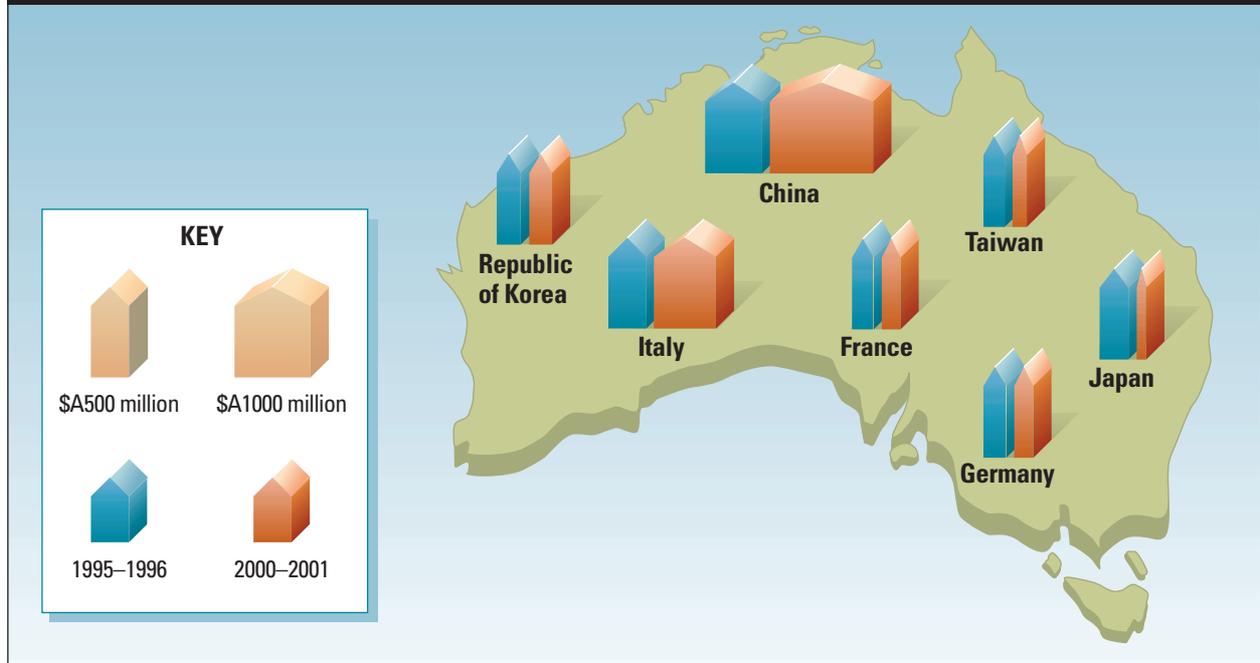
Question 23 (20 marks)

Examine the nature, spatial patterns and future directions of ONE economic activity in a global context.

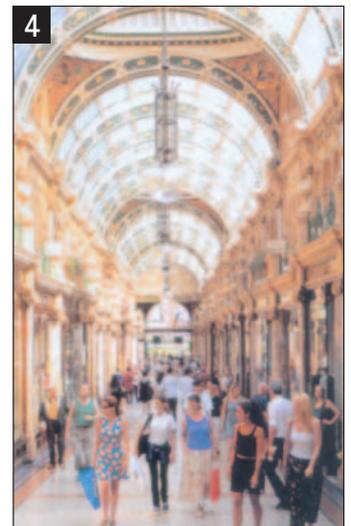
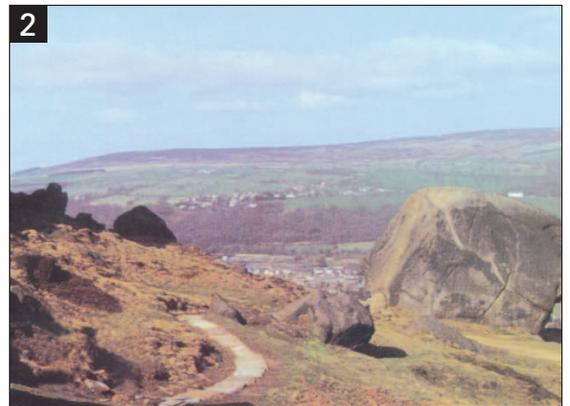
End of paper

BLANK PAGE

Source A – The Value of Australia’s Wool Exports by Country of Destination



Source B – Images of Leeds and its Surroundings



Source C – Topographic Map and Key



KEY for Source C

Scale: 1:50 000

ROADS AND PATHS

- Dual carriageway
- Main Road
- Bridge
- Road generally more than 4m wide
- Road generally less than 4m wide
- Narrow road with passing places
- Main road under construction

BOUNDARIES

Administrative boundaries as at July 1997

- County, Unitary Authority, Metropolitan District or London Borough

RAILWAYS

- Track multiple or single
- Tunnel
- Station
- Embankment
- Cutting

HEIGHTS

- Contours are at 10 metres vertical interval
- Heights are to the nearest metre above mean sea level

LAND FEATURES

- Ruin
- Buildings
- Public building (selected)
- Quarry
- Spoil heap, refuse tip or dump
- Non-coniferous wood
- Mixed wood
- Park or ornamental ground
- Place of worship
 - with tower
 - with spire, minaret or dome
 - without such additions

PUBLIC RIGHT OF WAY

- Footpath
- Bridleway

OTHER PUBLIC ACCESS

- National Trail, Long Distance Route, selected Recreational Paths

ABBREVIATIONS

- CH Clubhouse
- MS Milestone
- TH Town Hall
- P Post Office
- MP Milepost
- PH Public house

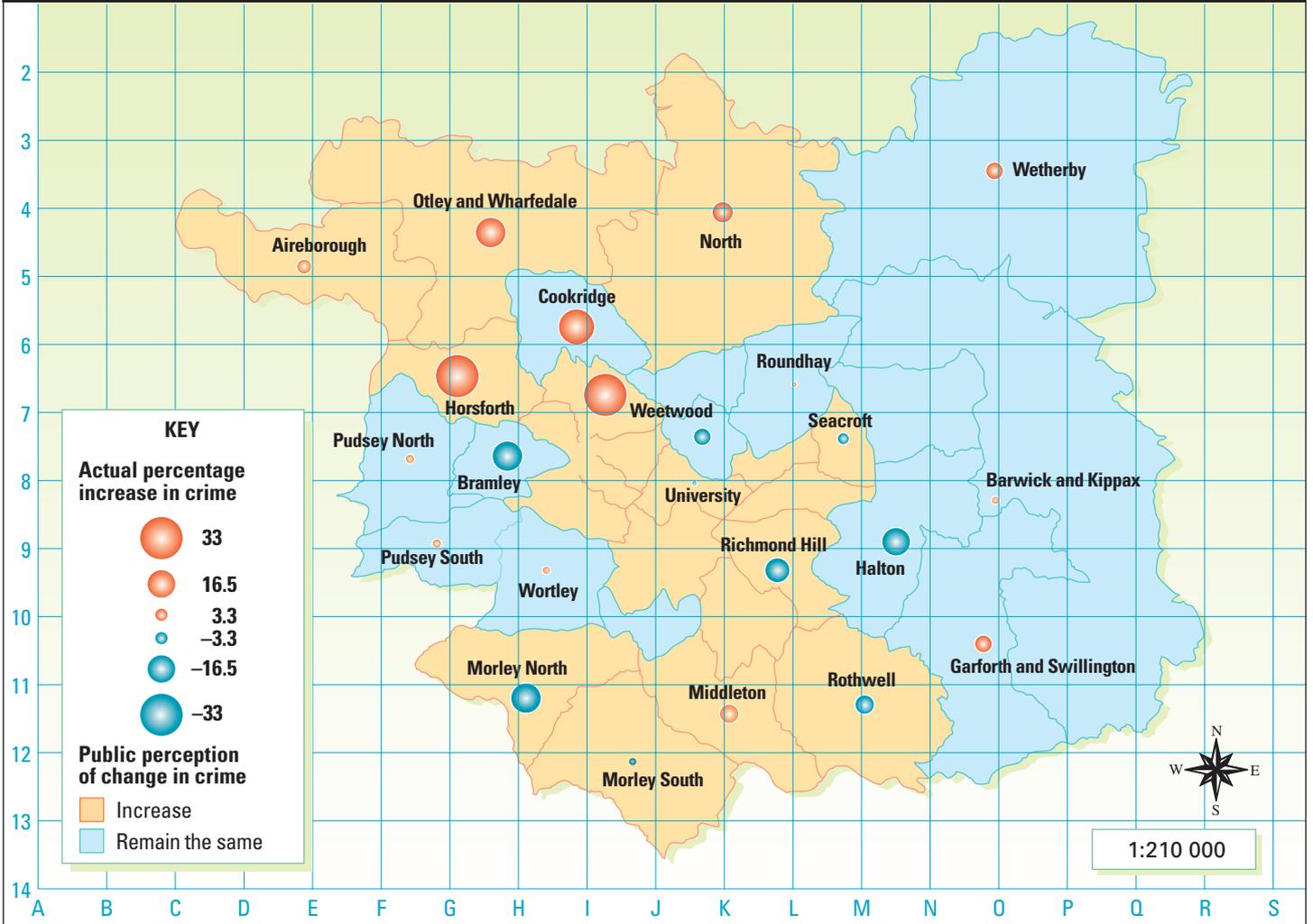
TOURIST INFORMATION

- Parking
- Selected places of tourist interest
- Telephone
- Golf course
- Camp site
- Caravan site
- Selected cycle route/trail

WATER FEATURES

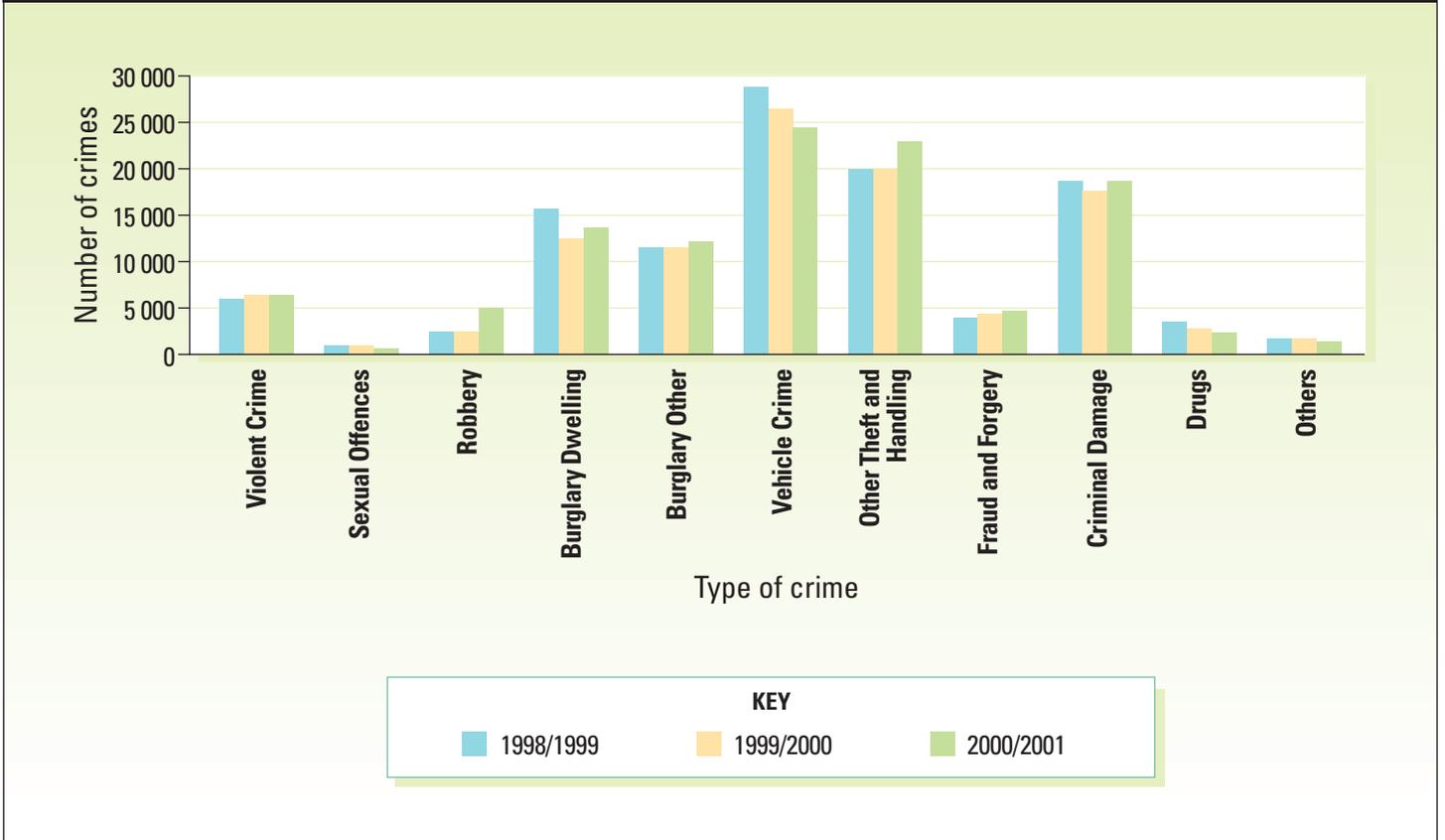
- Lake

Source D – Percentage Change in Crime and Public Perception of Change in Crime in Suburbs of Leeds 2000–2001

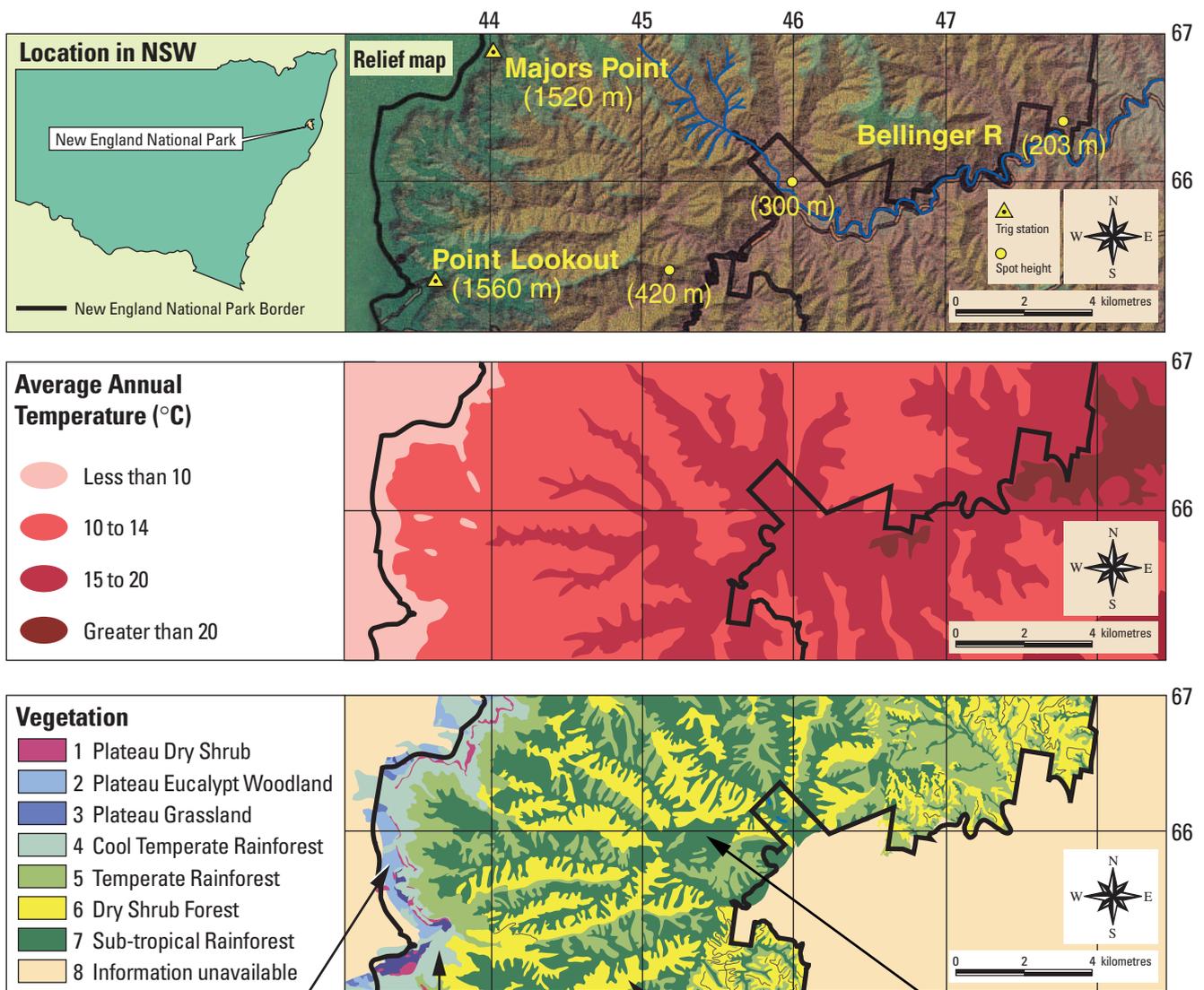


<http://www.leeds.gov.uk/downloads/2002912-61520022.pdf>

Source E – Level of Crime in Leeds 1998–2001



Source F – A New England National Park Geographic Information System (GIS)



Source G – Vegetation Types



Source H – Fact file

New England National Park is located between 30° 22' S and 30° 44' S and has unique biophysical features. Within its area it has the geographic boundaries of both tropical and cool temperate rainforest species. It also has one of the steepest gradients along the east coast of Australia. Cool Temperate Rainforest (4) occurs in sheltered valleys of the escarpment. Antarctic Beech is the dominant species in (4) and today it is more commonly found in Tasmania. It is very sensitive to bushfires. Thus contemporary management practices, such as fire hazard reduction, have resulted in it now invading the Eucalypt Woodland (2).