

**2015 HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Geography

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black 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, 11, 13 and 15

Total marks – 100

Section I Pages 2–6

20 marks

- Attempt Questions 1–20
- Allow about 35 minutes for this section

Section II Pages 9–15

40 marks

- Attempt Questions 21–24
- Allow about 1 hour and 10 minutes for this section

Section III Page 17

40 marks

- Attempt TWO questions from Questions 25–27
- Allow about 1 hour and 15 minutes for this section

Section I

20 marks

Attempt Questions 1–20

Allow about 35 minutes for this section

Refer to the Stimulus Booklet

Use the multiple-choice answer sheet for Questions 1–20.

- 1** Which of the following terms is used to describe where things are and why they are there?
- (A) Spatial dimension
 - (B) Ecological pattern
 - (C) Environmental impact
 - (D) Sustainable development

Refer to Source A on page 1 of the Stimulus Booklet to answer Questions 2–4.

- 2** What is the barometric pressure at the location labelled **Z**?
- (A) Greater than 992 hPa and less than 996 hPa
 - (B) Greater than 996 hPa and less than 1000 hPa
 - (C) Greater than 1000 hPa and less than 1004 hPa
 - (D) Greater than 1004 hPa and less than 1008 hPa
- 3** How much rain has fallen in the location labelled **Z** over the six-hour period illustrated?
- (A) Between 1 mm and 2 mm
 - (B) Between 2 mm and 5 mm
 - (C) Between 5 mm and 10 mm
 - (D) Between 10 mm and 20 mm
- 4** What feature of the synoptic chart indicates that it was generated in summer?
- (A) Low rainfall over central Australia
 - (B) Lack of cold fronts over northern Australia
 - (C) Tropical cyclone over north-western Australia
 - (D) Low pressure cell over north-eastern Australia

Refer to Source *B* on page 1 of the Stimulus Booklet to answer Questions 5–6.

- 5 In which occupation was the smallest proportion of people employed in the Western Australian town in 2011?
- (A) Labourers
 - (B) Professionals
 - (C) Machinery workers
 - (D) Technicians and trades
- 6 What was the approximate number of professionals in the Western Australian town in 2011?
- (A) 1350
 - (B) 1550
 - (C) 2450
 - (D) 2750

Refer to Source *C* on page 1 of the Stimulus Booklet to answer Question 7.

- 7 What is the approximate percentage change in the total population of Western Australia between 2006 and the projection for 2021?
- (A) 7%
 - (B) 15%
 - (C) 24%
 - (D) 81%

Refer to Source *D* on pages 2–3 of the Stimulus Booklet to answer Questions 8–14.

- 8 What is the approximate latitude and longitude of the James Low Bridge at GR 955614?

	<i>latitude</i>	<i>longitude</i>
(A)	152°57'N	26°34'W
(B)	26°34'N	152°57'W
(C)	152°57'S	26°34'E
(D)	26°34'S	152°57'E

- 9** What is the grid reference of the spot elevation at Mount Ninderry in the north-east quadrant of the map?
- (A) 993631
 - (B) 993629
 - (C) 007631
 - (D) 007629
- 10** Which of the following is the most evident economic activity in AR 9657?
- (A) Mining
 - (B) Grazing
 - (C) Agriculture
 - (D) Manufacturing
- 11** What is the bearing of Mount Combe (AR 9459) from Fair Hill (AR 9764)?
- (A) 29°
 - (B) 151°
 - (C) 209°
 - (D) 231°
- 12** What is the general direction of flow of the South Maroochy River in AR 9361?
- (A) North east
 - (B) North west
 - (C) South east
 - (D) South west
- 13** Approximately how long will it take to walk from the sub station (AR 9456) to the ruins (AR 9060) along Image Flat Road and Kiamba Road at a speed of 5 km/h?
- (A) 1 hour 5 minutes
 - (B) 1 hour 25 minutes
 - (C) 1 hour 45 minutes
 - (D) 2 hours 5 minutes

- 14** What is the approximate area of Poona Dam (AR 9058)?
- (A) 0.2 km^2
 - (B) 0.4 km^2
 - (C) 0.6 km^2
 - (D) 0.8 km^2
- 15** Which of the following sources from the Stimulus Booklet has the largest scale?
- (A) *H*
 - (B) *F*
 - (C) *D*
 - (D) *A*

Refer to Source *D* and Source *E* on pages 2–3 of the Stimulus Booklet to answer Questions 16–17.

- 16** Which of the following structures is labelled **X** in Source *E*?
- (A) Wappa Dam (GR 921611)
 - (B) Poona Dam (GR 911584)
 - (C) James Low Bridge (GR 955614)
 - (D) Water treatment works (GR 923579)
- 17** In which direction was the camera pointing when the photograph was taken?
- (A) North
 - (B) East
 - (C) South
 - (D) West

18 An agricultural industry has started using chemicals to manage a pest infestation.

Which of the following is a possible outcome due to sociocultural influences?

- (A) Changes in profit for farmers due to higher yields
- (B) Food chain disruption due to the use of chemicals
- (C) Introduction of an export quota for products treated with chemicals
- (D) Decreased sales of products due to a preference for organic products

Refer to Source *G* and Source *H* on page 4 of the Stimulus Booklet to answer Question 19.

19 At approximately what time of day was the photo taken in San Francisco?

- (A) 8 am
- (B) 12 pm
- (C) 3 pm
- (D) 7 pm

20 A geographer is visiting a regional centre to investigate the impact of counterurbanisation.

Which of the following techniques would be most useful in gathering primary data for this investigation?

- (A) Survey local residents about recent home renovations
- (B) Annotate photographs of the commercial district of the regional centre
- (C) Interview local shopkeepers about sales performance in the last two years
- (D) Collect clippings from local newspapers about improved community infrastructure

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Centre Number

Section II

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Student Number

40 marks

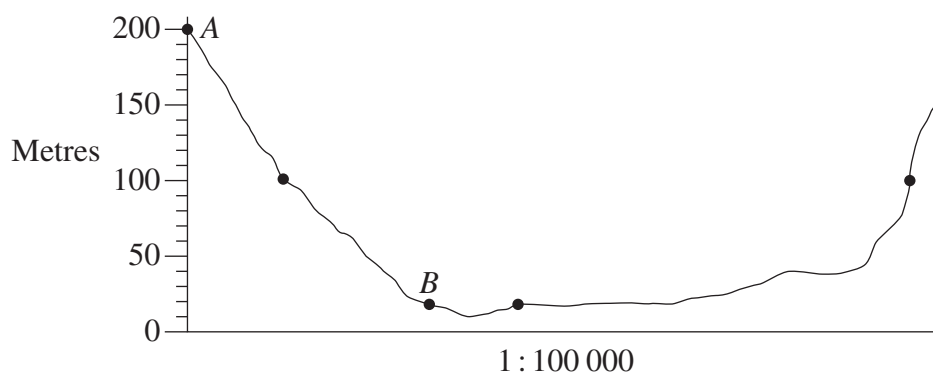
Attempt Questions 21–24

Allow about 1 hour and 10 minutes for this section

Use the Stimulus Booklet and your knowledge of geography to answer Questions 21–24 in the spaces provided. These spaces provide guidance for the expected length of response.

Question 21 (7 marks)

Use this cross-section to answer parts (a)–(b).



- (a) Calculate the average gradient between points A and B on the cross-section. Show all working. 2

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- (b) Calculate the vertical exaggeration of this cross-section. Show all working. 2

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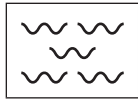
Question 21 continues on page 10

Question 21 (continued)

Refer to Source *F* on page 3 of the Stimulus Booklet to answer part (c).

- (c) Use the landforms along the 45 Northing to complete the key, then construct a transect between Eastings 11 and 21 using this key. **3**

Key:



Ocean

Landform
transect

End of Question 21

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Centre Number

Section II (continued)

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Student Number

Question 22 (12 marks)

Answer this question with reference to an economic activity and enterprise that you have studied.

Economic activity:

Economic enterprise:

- (a) Outline the impact of ONE linkage associated with the economic enterprise. 2

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- (b) Describe TWO ecological dimensions associated with the economic enterprise. 4

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Question 22 continues on page 12

Question 22 (continued)

- (c) Explain how TWO global changes in the economic activity affect the future direction of the economic enterprise.

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End of Question 22

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Centre Number

Section II (continued)

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Student Number

Question 23 (11 marks)

Answer all parts of the question with reference to a large city in the developed world.

Large city:

- (a) Describe the spatial patterns of advantage and disadvantage in this large city. **3**

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Question 23 continues on page 14

Question 23 (continued)

- (b) Contrast TWO urban dynamics of change operating in this large city. **4**

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- (c) Explain how an urban dynamic has affected the culture of place of this large city. **4**

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End of Question 23

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Centre Number

Section II (continued)

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Student Number

Question 24 (10 marks)

- (a) Explain how biophysical factors influence where an ecosystem at risk is located. 4

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- (b) How has ONE ecosystem at risk responded to natural stress? 6

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Geography

Section III

40 marks

Attempt TWO questions from Questions 25–27

Allow about 1 hour and 15 minutes for this section

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

Your answers will be assessed on how well you:

- demonstrate geographical knowledge and understanding relevant to the question
 - communicate ideas and information using geographical terms and concepts appropriately
 - refer to case studies, illustrative examples and the Stimulus Booklet where appropriate
 - present a sustained, logical and cohesive response
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Question 25 (20 marks)

Contrast the nature and character of mega cities in the developing world with world cities.

Question 26 (20 marks)

Discuss how management strategies could be used to address human impacts that are placing TWO ecosystems at risk.

Question 27 (20 marks)

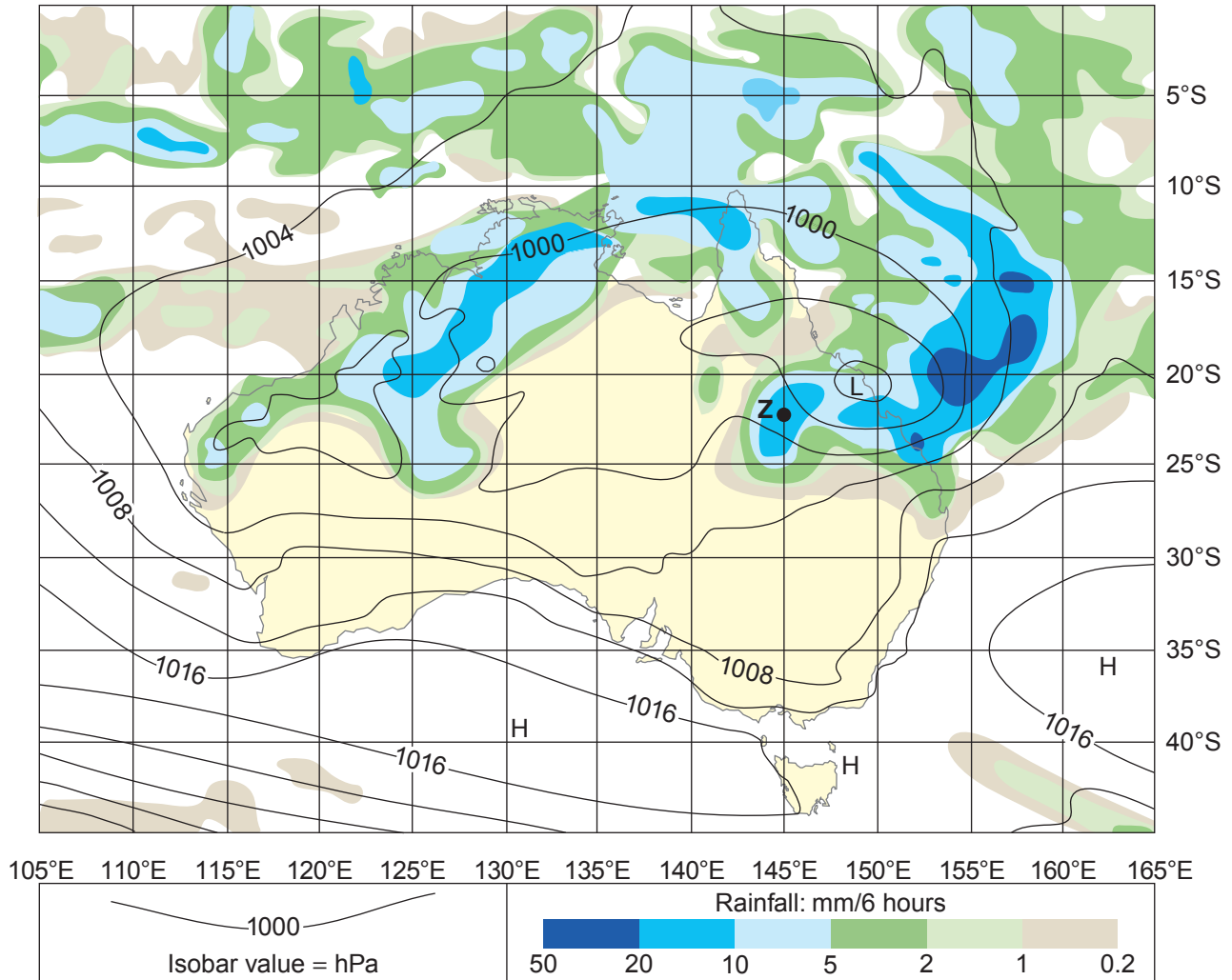
Analyse the environmental and social impacts of ONE economic activity.

End of paper

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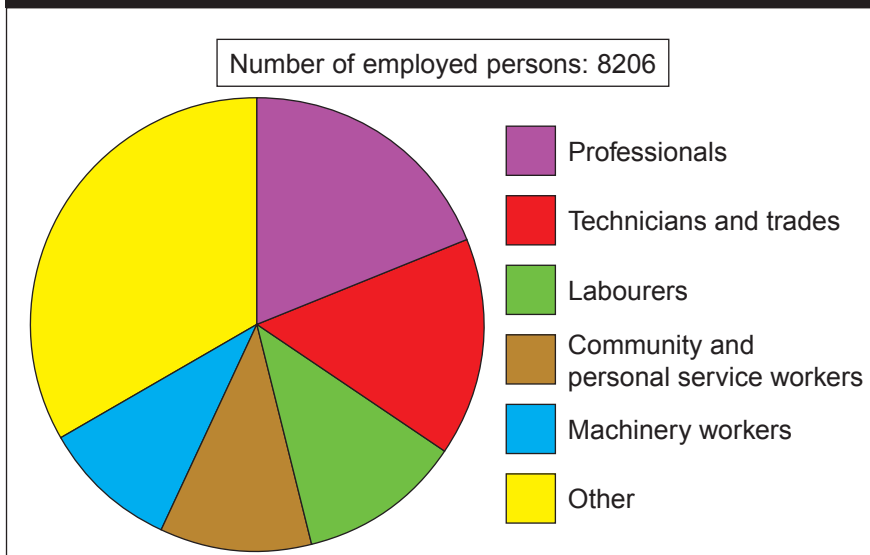
Geography Stimulus Booklet

Source A – Synoptic chart – Australia



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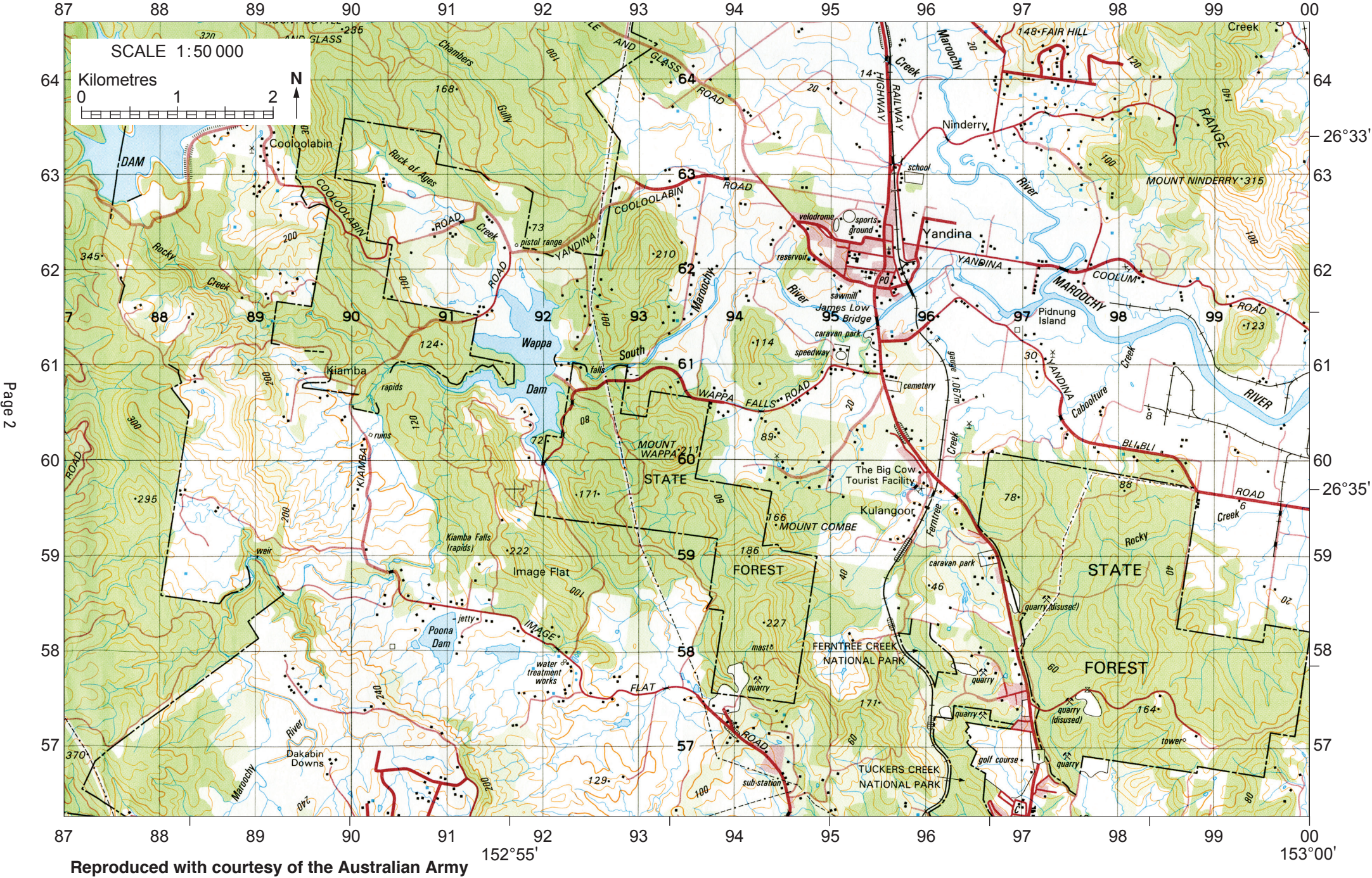
Source B – Occupations of employed persons in a Western Australian town in 2011



Source C – Total population for Western Australia

Year	Population
2006	2 048 500
2011	2 210 400
2016 (projected)	2 376 400
2021 (projected)	2 534 600

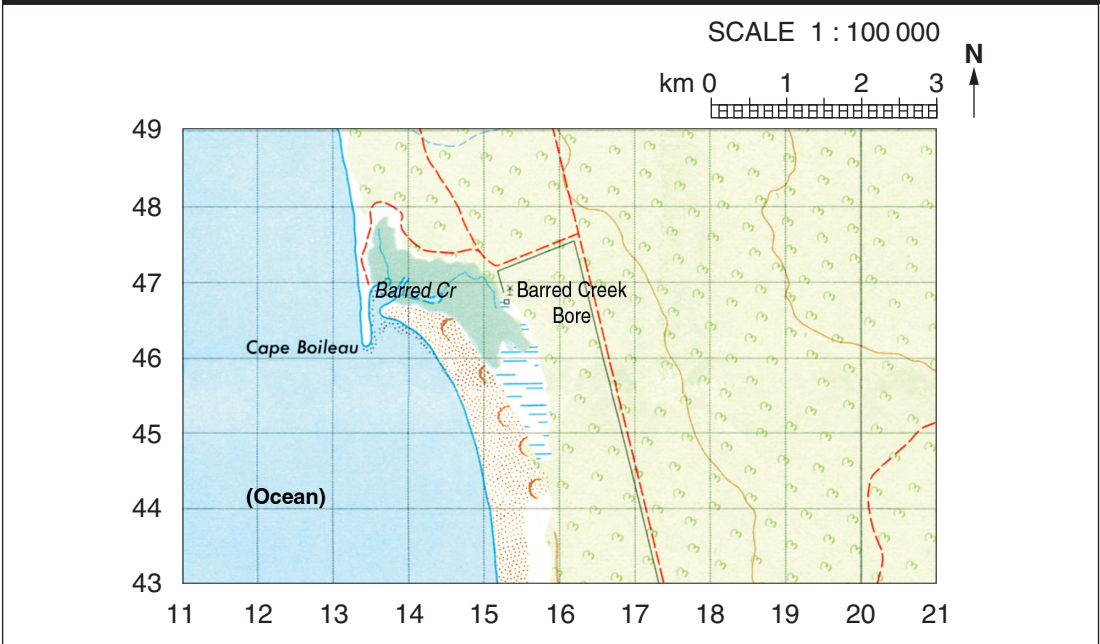
Source D – Yandina area (Queensland) topographic map



Source E – Photograph taken in Yandina area



Source F – Cape Boileau (Western Australia) landform map



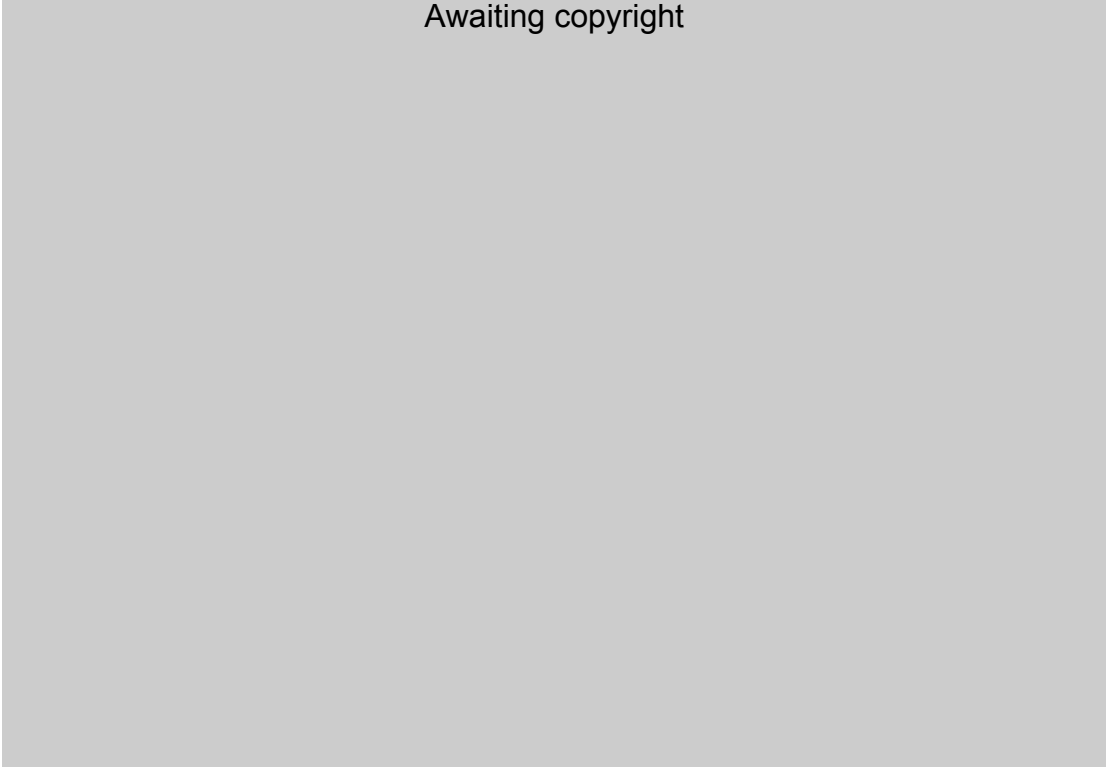
Reproduced with courtesy of the Australian Army

Legend for Sources D and F

Built up area	
Sealed road two or more lanes; National route marker	
Sealed road one lane; Cutting; Embankment	
Unsealed road two or more lanes; Culvert; Causeway	
Unsealed road one lane; Approximate position (AP)	
Vehicle track; Road bridge; Gate; Stock grid	
Mine; Building; Ruin; Yard	
Windmill; Communication tower	
Fence; Horizontal control point; Spot elevation	
Contour with value and cliff; Depression contours	
Sand dunes; Sand ridges	
Vegetation; Dense, medium, scattered	
Scrub; Dense, medium, scattered	
Land subject to inundation; Ricefield	
Perennial lake; Watercourse	
Intermittent lake; Watercourse	
Creek; Falls; Spring	
Tank or small dam; Waterhole	
Dam wall	

Source D Contour interval = 20 m
 Source F Contour interval = 20 m

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