

Study Guide for the Australian Collaboration Fact and Issue Sheet

RURAL WATER

FOR REVIEW

1. Give two reasons why Australia's water resources were exploited as part of a policy of nation building.
2. What is the main challenge in the management of Australia's water resources today?
3. Why is increased stress being placed on Australian water resources?
4. State the percentage of surface water and groundwater resource management units that are considered over sustainable extraction limits or over developed.
5. What are the major uses of water in Australia?
6. Why did the Council of Australian Governments (COAG) agree to the National Water Initiative?
7. What does the National Water Initiative aim to deal with?
8. As a part of the Initiative, what 5 things are governments doing?
9. Describe the importance of the Murray Darling Basin.
10. A "cap" was introduced by the Murray Darling Basin Ministerial Council. What is this and why was it introduced?

FOR DISCUSSION

11. Discuss why Australia's fresh water is considered a scarce resource.
12. It has been suggested that many gigalitres of groundwater can "sustainably extracted" each year.
 - a.) What does this term mean?
 - b.) The sustainable extraction level of groundwater is very low when compared to Australia's total groundwater supplies. Explain why this may be.
 - c.) What might be the consequences be if the sustainable extraction level of groundwater is exceeded?
13. Debate the following: 'Australia needs more dams.'
14. Use Table 1 to complete the following:
 - a.) Create a pie diagram to show the relative amount of Australia's mean annual water used by each state and territory.
 - b.) Select the state or territory that YOU live in and calculate irrigation, urban/industrial and rural water use as a percentage of your state's total water use. Suggest reasons for the figures.
15. Use Table 2 and the text to describe and account for the deterioration of the water resource in the Murray Darling Basin.
16. In 1992, the Murray Darling **Basin** Water Agreement was signed and this replaced the River Murray **Waters** Agreement.
 - a.) What do you understand a drainage basin to be?

- b.) Do you think that this change in the terminology indicates any change in perception of the water resource?
- c.) Explain how the concept of a basin is important in managing the water resources found within it.
- d.) Why do you think that the management arrangements for the Basin keep changing?

FOR RESEARCH

17. Investigate the use of water for ONE of irrigation, urban/industry or rural in your state or territory. Where is the water used and for what purpose? Are there any problems that arise from the use of water in that way? What can be done to address this?

18. Create a map of the Murray Darling Basin. Identify the following features:

- a.) Major Rivers – Murray, Darling, Murrumbidgee, Lachlan.
- b.) State borders and major towns
- c.) Great Artesian Basin.
- d.) The six ecologically significant assets where recovered water will be allocated.

19. Select 2 of these ecologically significant sites and for each one do the following:

- a.) Explain their significance.
- b.) Describe the environmental issue faced at the site.
- c.) Explain how recovered water can improve the site.

20. Imagine that you have the power to alter ONE thing about the use and management of the fresh water resource in the Murray Darling Basin or in an alternative major catchment in your state or territory. Outline what change you would make and justify your change.