## World of Water Quest: Recycled water exploration

Name: \_\_\_\_\_

⇒ Start at: <u>World of Water</u>

⇒ Step 1: Click on **Topics - Water cycle**, then go to the **Urban water cycle** and find **Recycled water.** Watch the video and read the information to answer the following questions.

- 1. What percentage of sewage is water? \_\_\_\_\_
- 2. Where does sewage come from? \_\_\_\_\_
- 3. What is recycled water?
- 4. Why can sewage be treated to produce recycled water ?
- 5. What are the three types of recycled water produced?
- 6. List all the places where recycled water is currently used?
- 7. What are the environmental benefits of using recycled water?
- 8. Suggest reasons why it is easier to access recycled water the closer you are to a treatment plant.



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⇒ Step 2: Recycled water annual volumes

Recycled water produced for 2023-24			
Location	Use	Item	Volume (ML)
Western Treatment	Onsite use	Agricultural Supply (On-site MPH use)	17,072
Plant		Non - Agricultural Supply	87
		Sub-Total	17,159
	Supply to Southern	Werribee Irrigation District	2,140
	Rural Water	Werribee Tourist Precinct	58
		Sub-Total	2,198
	Supply to City West	Werribee Employment Precinct	0
	Water	MacKillop College	18
		Water tankers / standpipes	0
		WWDS (non-residential)	0
		WWDS (residential/commissioning)	640
		Sub-Total	658
	Western Treatment Plant Total		20,015
Eastern Treatment Plant	Onsite use	Onsite recycling	9,170
	Supply to Water Infrastructure Group	Eastern Irrigation Scheme	5,843
	Supply to South East Water	South Eastern Outfall	1,621
	Eastern Treatment Plant Total		16,634
Total recycled			36,649

Source: <u>Annual Report | Melbourne Water</u>

Using the data in the table, answer these questions

- 9. What percentage of recycled water is
  - a. Produced at the Western Treatment Plant? \_\_\_\_\_
  - b. Produced at the Eastern Treatment Plant?
  - c. Used for agriculture in total at both sites?
  - d. Used for residential?

10. What conclusions can you make about the use of recycled water?

⇒ Step 3: Extension

Go to Map - Water360

11. Where in Australia is purified recycled water used for drinking?

12. Which cities are exploring purified recycled water for drinking?

13.List the cities already using purified recycled water for drinking.