

ENVIRONMENTAL SCIENCE 20: WATER

CASE STUDY: SOUTH SASKATCHEWAN WATERSHED STEWARDSHIP

OUTCOMES

- ES20-HP1: Investigate technologies and processes used for mitigating and managing resource use, waste generation and pollution associated with a growing human population.
- ES20-AS1: Analyze the function and condition of freshwater aquatic systems such as rivers, streams, lakes, wetlands and watersheds.
- ES20-AS2: Assess the importance of maintaining healthy water for humans and the environment.

BACKGROUND KNOWLEDGE

- Research the $I=P \times A \times T$ equation, as well as critiques of this formula.
- Review basic river terminology from Canadian Geographic.

ACTIVITY: RIVER LANDING SPRAY PARK

1. Visit the spray park at River Landing and complete the S. Sask. River Watershed sheet. If you have time, explore the riverbank and look for points where water is being drawn out of the river, or where water is entering the river.

2. Generate questions for further inquiry: As population increases, what is the impact on our water resources? What role does Meewasin play in protecting waterways as our population increases? How do other urban centers protect the water? Do other urban centers have organizations like Meewasin



MATERIALS

- Clipboards (or something hard to write on)
- Writing utensils
- S. Sask River Watershed sheet (see next page)

EXTENSIONS

1. **ES20-AS1:** Analyze the function and condition of freshwater aquatic systems such as rivers, streams, lakes, wetlands and watersheds. How are First Nations in Saskatchewan uniquely impacted by water quality issues? Research examples of water protectors in our province and across Canada.
2. **ES20-AS2:** Assess the importance of maintaining healthy water for humans and the environment. Engage in an act of love for the water; riverbank clean-up, water conservation at school, water walk (in consultation with an Elder).

ESSENTIAL QUESTIONS

1. Where is our river coming from? Where is it going to?
2. What are the impacts of human populations on a watershed?
3. What role does Meewasin play in the health of aquatic ecosystems?

HOME CONNECTION

- Conserve water at home by using these resources from the Saskatchewan Environmental Society: Home water audit and advice for water conservation.

DID YOU KNOW?

Founded in 1993 by Meewasin, Partners FOR the Saskatchewan River Basin (PFSRB) promotes stewardship and sustainability of the Saskatchewan River Basin, an international watershed stretching over the three Prairie Provinces and a portion of Montana.

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SOUTH SASKATCHEWAN RIVER WATERSHED

- 1. Sketch the path of the South Saskatchewan River in the space above.
- 2. Label all the urban centers and significant features found along the way.
- 3. List the three main tributaries to the South Saskatchewan River.

- a. _____
- b. _____
- c. _____

- 4. Where is the mouth of the Saskatchewan River?

- a. _____

- 5. Based on the path of the river, list some possible sources of pollution. Can you think of technologies or practices that can mitigate that pollution?

Pollution Source	Mitigating Technologies/Practices

- 6. Considering the ideas you brainstormed about, generate a hypothesis about the health of Lake Winnipeg (use the back of the sheet if you need more space)