

Victorian Indigenous Engineering Winter School

Workshop: Caring for Country

Date: 28/09/21

Time: 11:30am – 12:30pm

Background:

Indigenous perspectives on environmental management incorporate philosophies and practices that help maintain the health of the community, alongside the health of the environment. This reciprocal relationship is often referred to as Caring for Country. Indigenous perspectives on environmental management also focus heavily on sustainability, with the end goal being to sustain ecosystems, knowledge, and above all, the planet for future generations. Aboriginal and Torres Strait Islander culture incorporates many aspects of sustainability. To achieve water sustainability, a holistic and multidisciplinary approach must be taken to ensure our water usage in the present doesn't affect our water needs in the future.

During this workshop you will test the quality of a water sample to determine how safe it for humans/animals to drink. Then, as a group we will discuss how the quality of water affects different stakeholders and propose strategies that incorporate an Indigenous perspective on environmental management, which aims to improve the quality of our waterways.

Materials:

You will receive in the box of materials:

- 500mL container (to collect your sample)
- Water Quality Test Kit
- 500mL Measuring jug
- X 3 Plastic cups
- Permanent Marker

To prepare for the workshop:

BEFORE the workshop, you need to collect a 500ml sample of water. The water sample can be collected from your local waterway, school drinking taps, or the kitchen sink. It is completely up to you!

- Collect a 500mL sample of water
- Label the plastic cups from 1-3 with a permanent marker
- Open the water testing kit and find the three tests you will need for the workshop. Label the tests from 1-3.
 - 1. 3-Way (pH, Total Alkalinity, & Total Hardness)
 - 2. Water Metals Check
 - 3. Nitrate & Nitrite Test

Observation: (What does your sample look like? /colour/anything moving in it?)

Methods:

The steps for each test are outlined below.

You will need to take a 'fresh' sample from your 500mL collection container for each test. Use the measuring jug to measure the amount of water required for each test and pour into a plastic cup. You will perform three separate tests, using a new plastic cup for each test.



Test 1:

Test 2:



Test 3:



Results:

Sample:					
Parameter	рН	Total Alkalinity	Total Hardness	Water Metals Check	Nitrate/Nitrite
Measurement					

Is the water safe to drink?

*After you complete the experiment, head back to the main room for discussion.