CARING FOR THE ENVIRONMENT WITH DATA AND ANALYTICS

BARWON OF A KIND

AGENDA

- THE TEAM
- THE OPPORTUNITY
- THE SOLUTION
- HOW IT WORKS
- WHERE TO NEXT – THE ASK

Loch Sharkey
Graduate Engineer (& Genius!)

Brigid Creasey
Catchments & Waterways Team Leader

Murray Davidson
Senior Systems & Quality Engineer
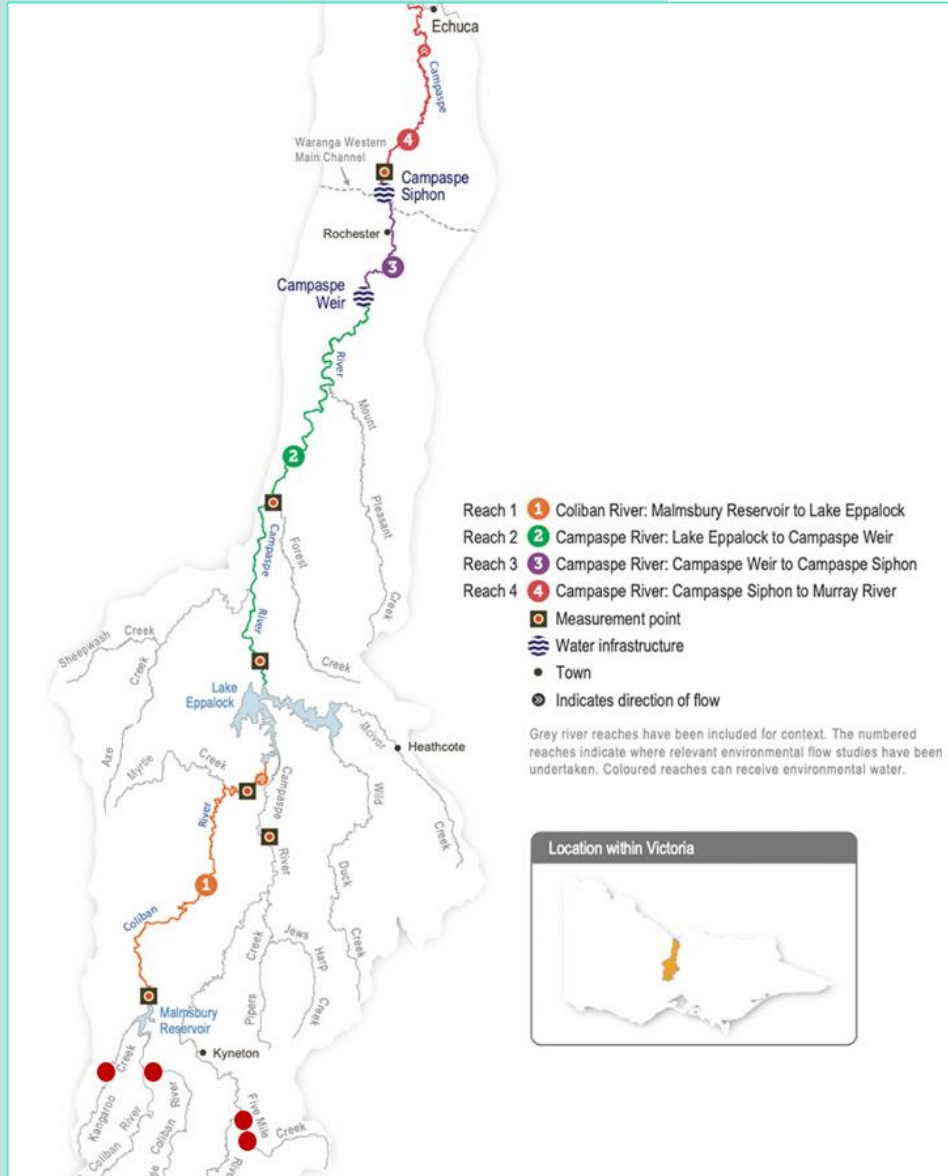
Jenny Perks
Design & Improvement Lead

THE TEAM

James Fenton
Drinking Water Quality Team Leader

Tom Murphy
Water Resource Monitoring Team Leader

OUR STAKEHOLDER GROUP

- CATCHMENT AND WATER QUALITY TEAMS

- CATCHMENT MANAGEMENT AUTHORITIES

THE OPPORTUNITY

To deploy eco detection sensors within drinking water catchments and combine multiple datasets into a central user-friendly dashboard to:

- Highlight opportunities for early intervention
- Enable better risk management practices
- Deliver improved response time to fluctuations in water quality and events
- Increase informed decision-making ability
- Save time for staff manipulating data
- Improve catchment water quality sampling
- Track improvements in water quality and link them to investments in catchment health
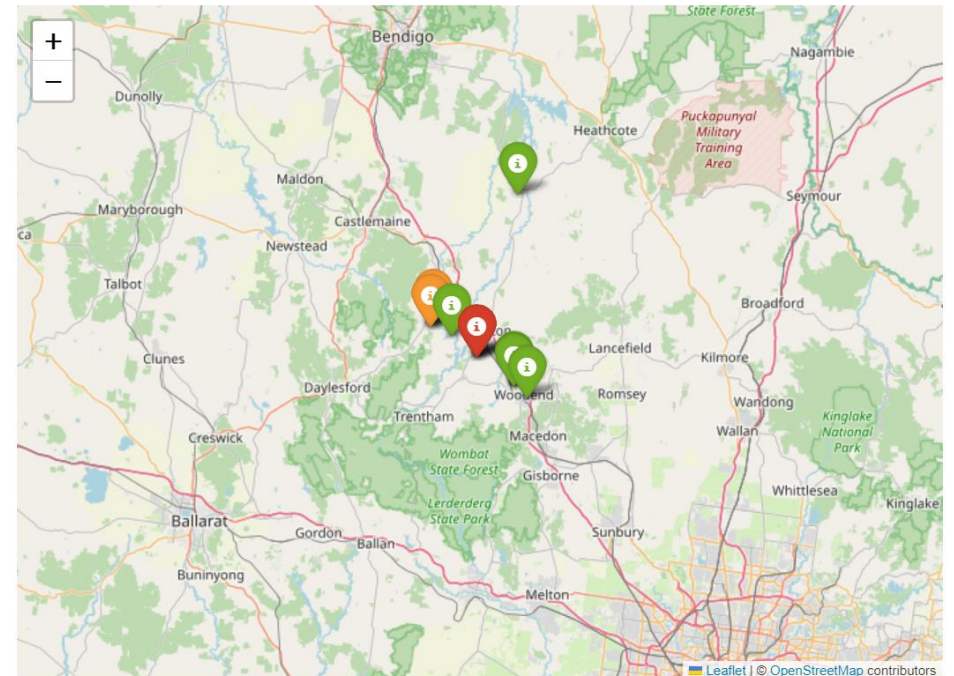
DASHBOARD DESIGN LOGIC

o Stakeholder group are data savvy

o Needs to be quick and easy to use

o Customisable by geographical area and date range

o Easy to import data from multiple sources

o Capability to generate reports and extract data

o Ability to send triggers and alerts

o Geographical overview

o Ability to compare and correlate different data sets

H₂Overview DASHBOARD

The dashboard is a **Python-based** application using **Plotly** for data visualization, hosted on **Streamlit** Cloud, with interactive map and alarm features powered by Folium.

[H2Overview Dashboard (lsharkey.tech)](lsharkey.tech)
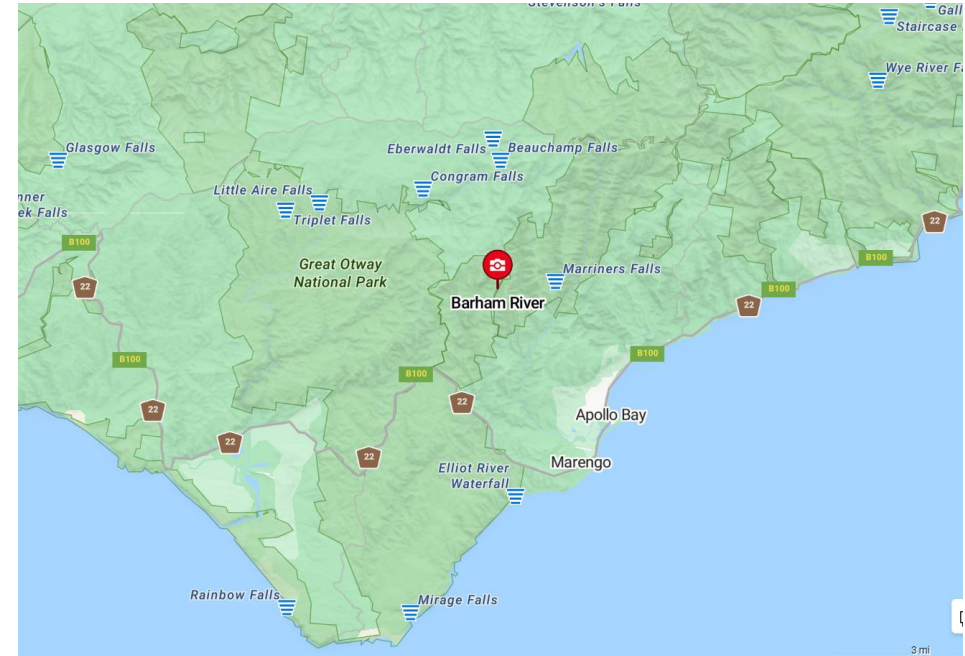
- o DATA COLLECTION MAP
- o WATER QUALITY COMPARISON
- o RAINFALL & STREAMFLOW
- o ALERTS
- o AI ASSISTANT
- o INTERACTIVE DATA VISUALISATION

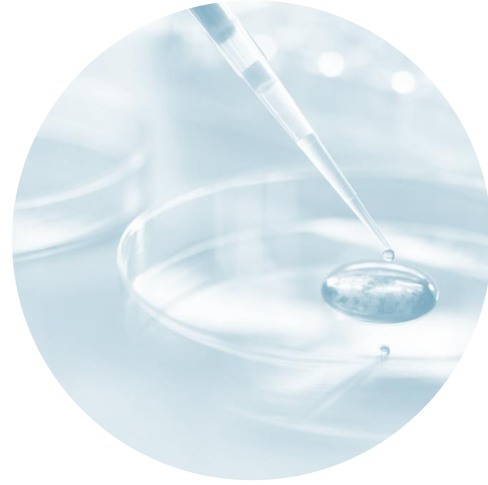*Check it out yourself!*

MAKING THIS HAPPEN – OUR ASK…

- Support to build out the dashboard $20k
  - Stakeholder engagement
  - Requirement identification
  - Developer time to build

- Support for four EcoDetection sensor deployment trial in our highest risk catchment Barham River Apollo Bay to support a catchment-based improvement project

THANK YOU

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