

Flows for the Future

Marne Saunders Water Forum
February 2022



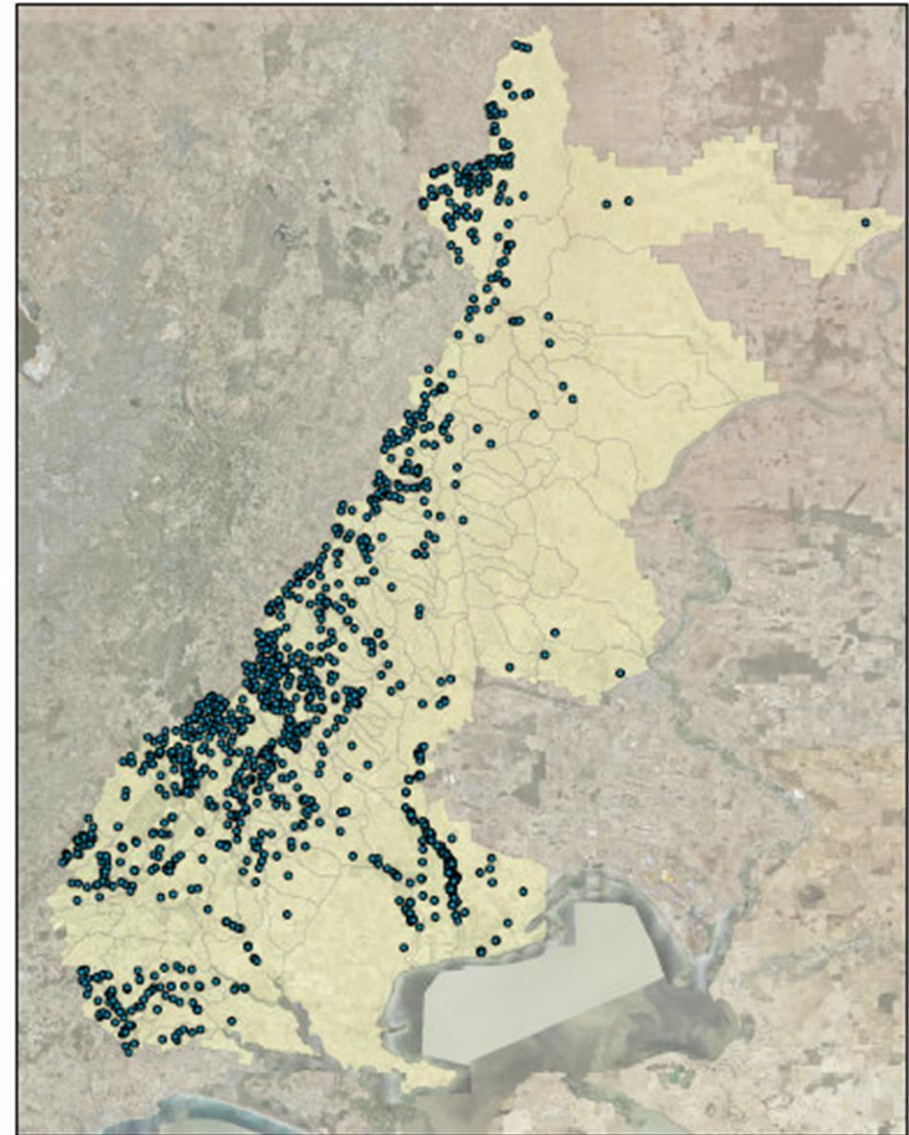
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Introduction

- There are 8000 dams intercepting natural flows throughout the EMLR.
- This change to flow patterns is a major driver of declining catchment health.
- The Flows for the Future program seeks to re-establish natural water flow patterns in streams affected by water capture in the EMLR.
- Delivery of the program ensures there is an environmentally sustainable level of take in accordance with the Murray-Darling Basin Plan.



Legend

- Priority Sites
- Eastern_Mount_Lofty_Ranges

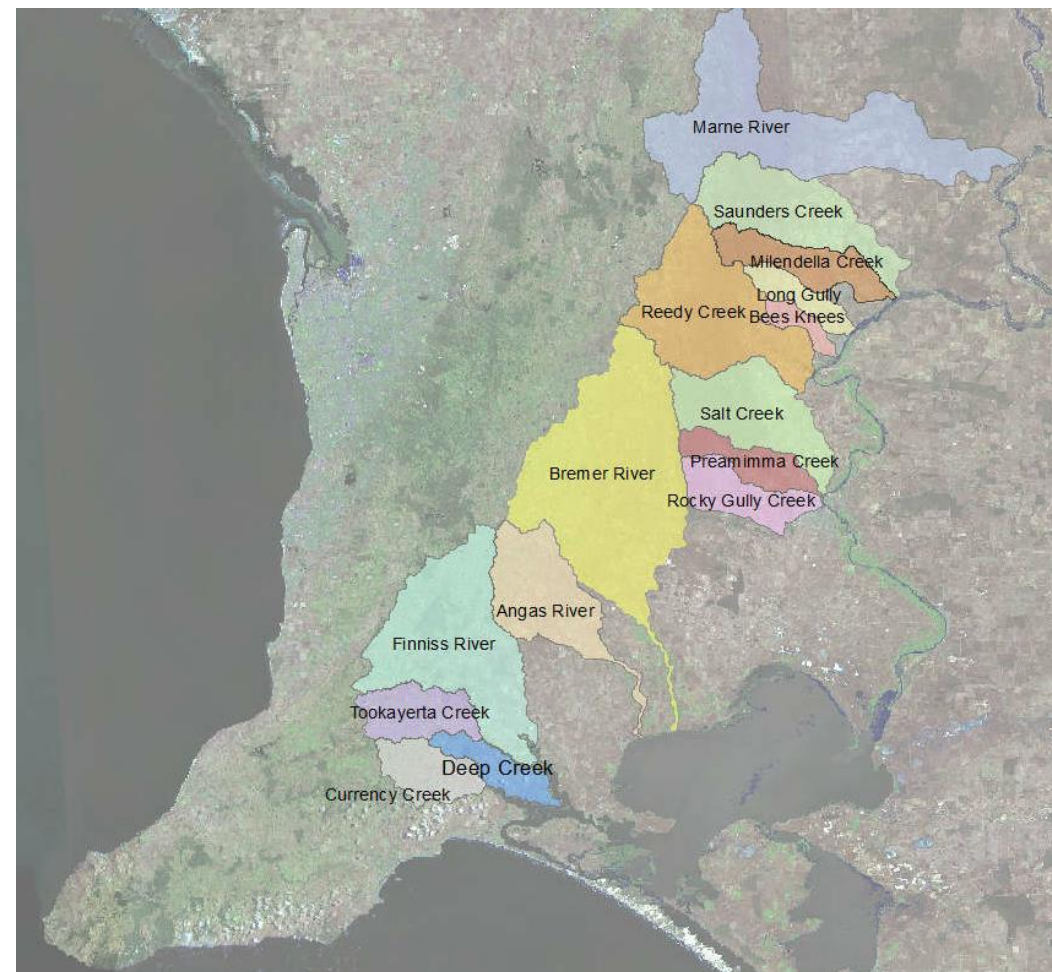


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Program delivery area

- Catchments within the Eastern Mount Lofty Ranges are funded by the Flows for the Future Program.
- For continuity the program is delivered at a catchment level, such as the Marne Saunders Catchment.



What is this program about?

The program delivers key policy defined in the Marne Saunders Water Allocation Plan, acting to;

- effectively **manage water resource** in the Marne Saunders catchment
- seek a **balanced position**
- consider the **needs of existing and future users**
- **support current water allocations**
- maintain and where possible rehabilitate **water-dependent ecosystems** by providing their water needs.
- deliver on SA's Basin Plan and Water Resource Plan commitments.

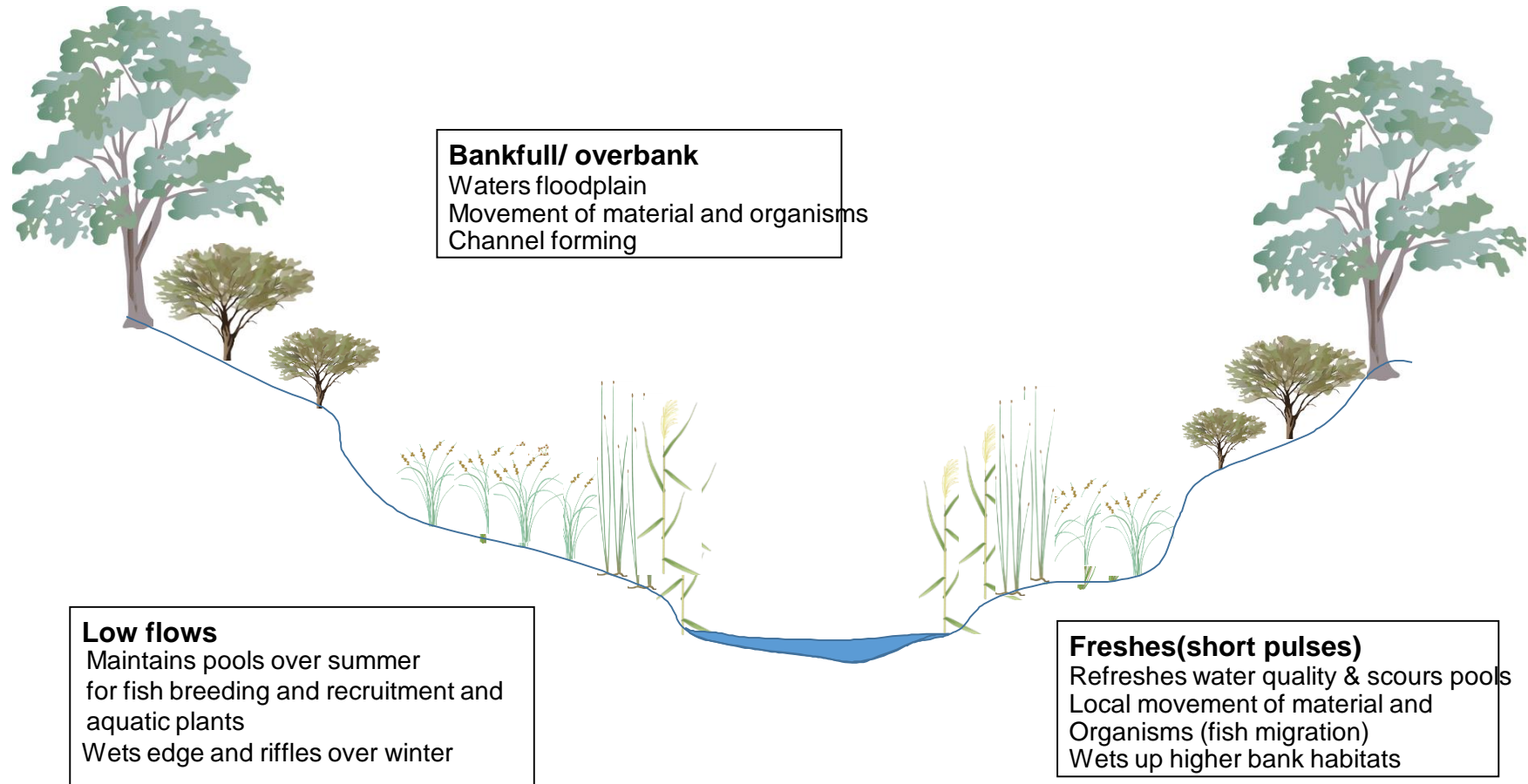


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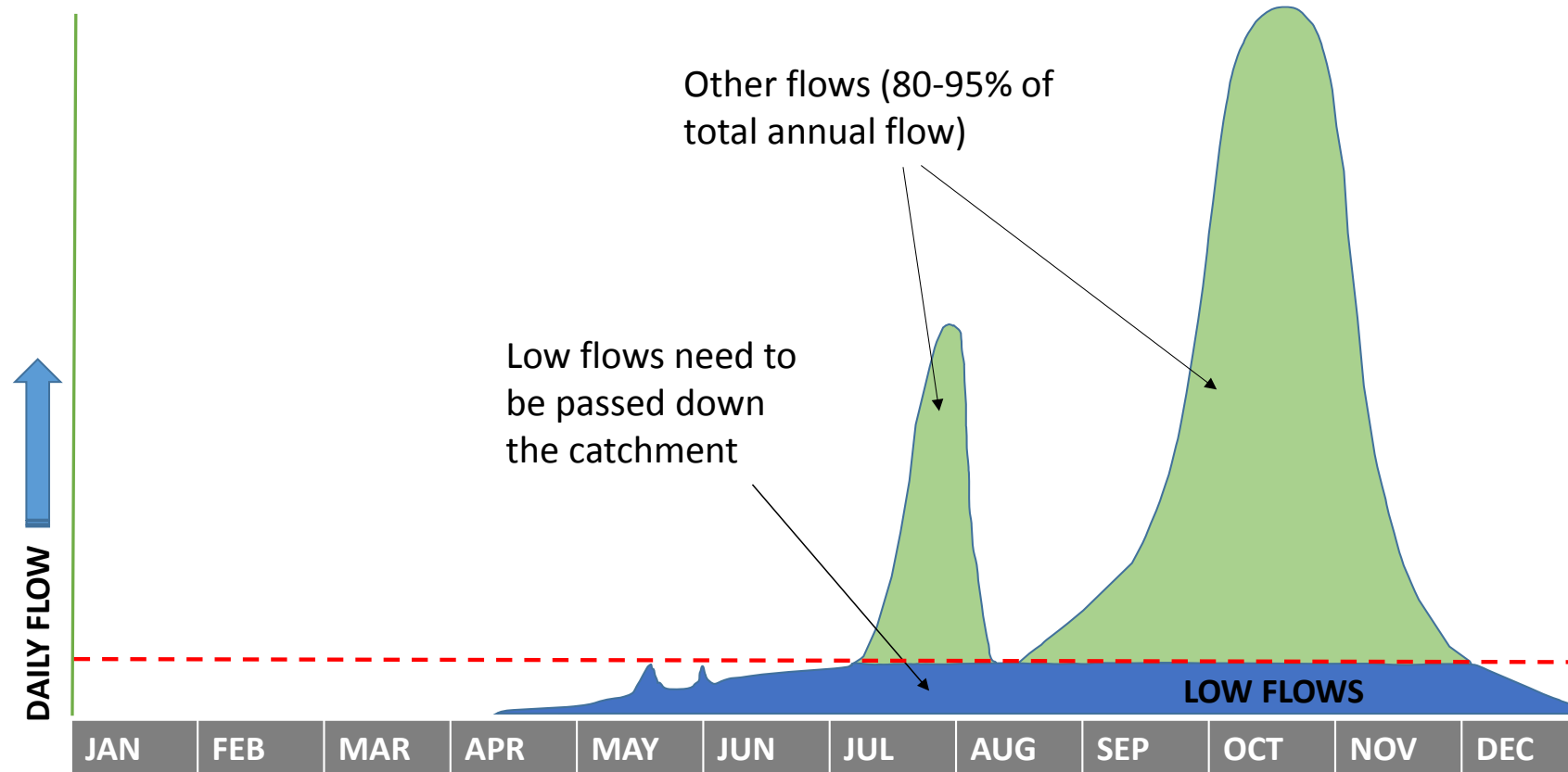


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What are Low Flows ?

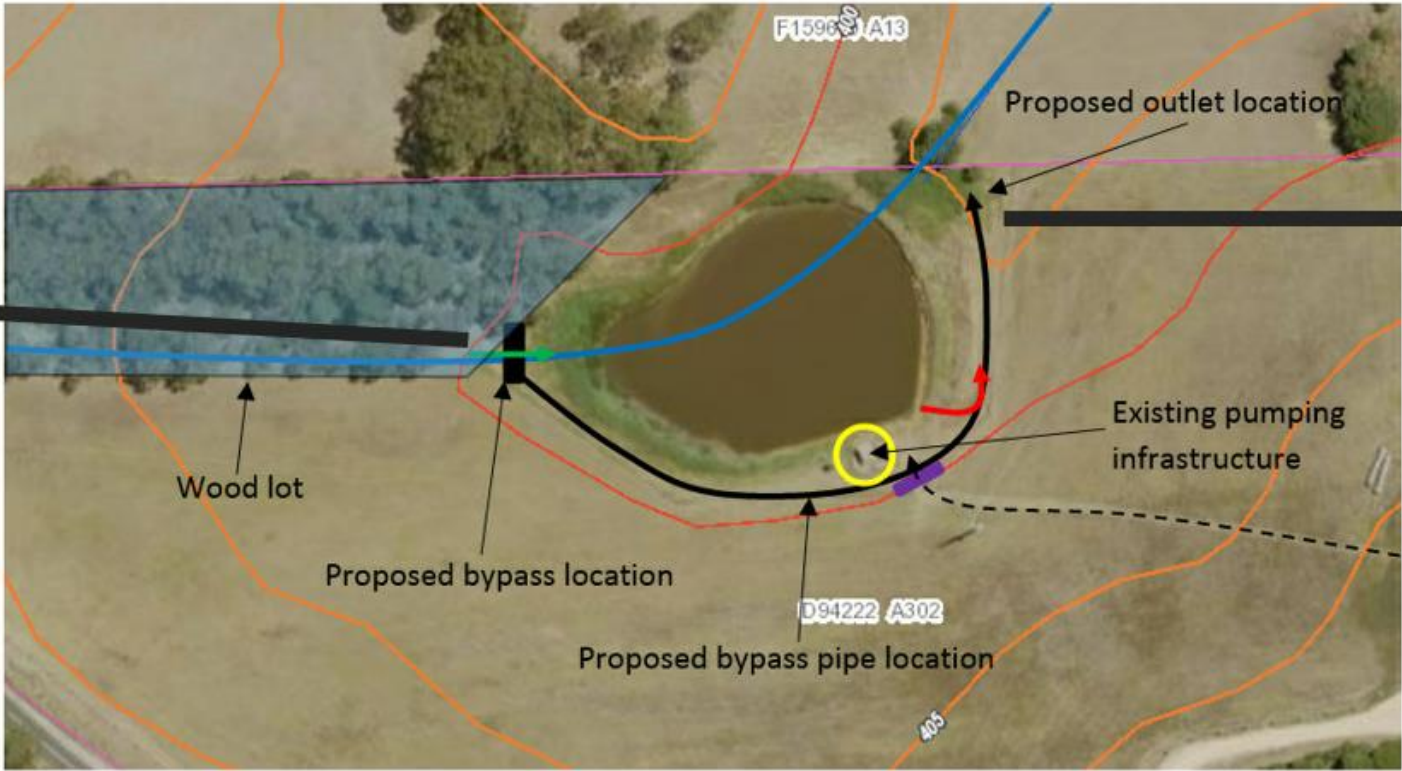


What are Low Flows?



GENERALISED STREAM FLOW – MT LOFTY RANGES

What is a Low Flow Device?



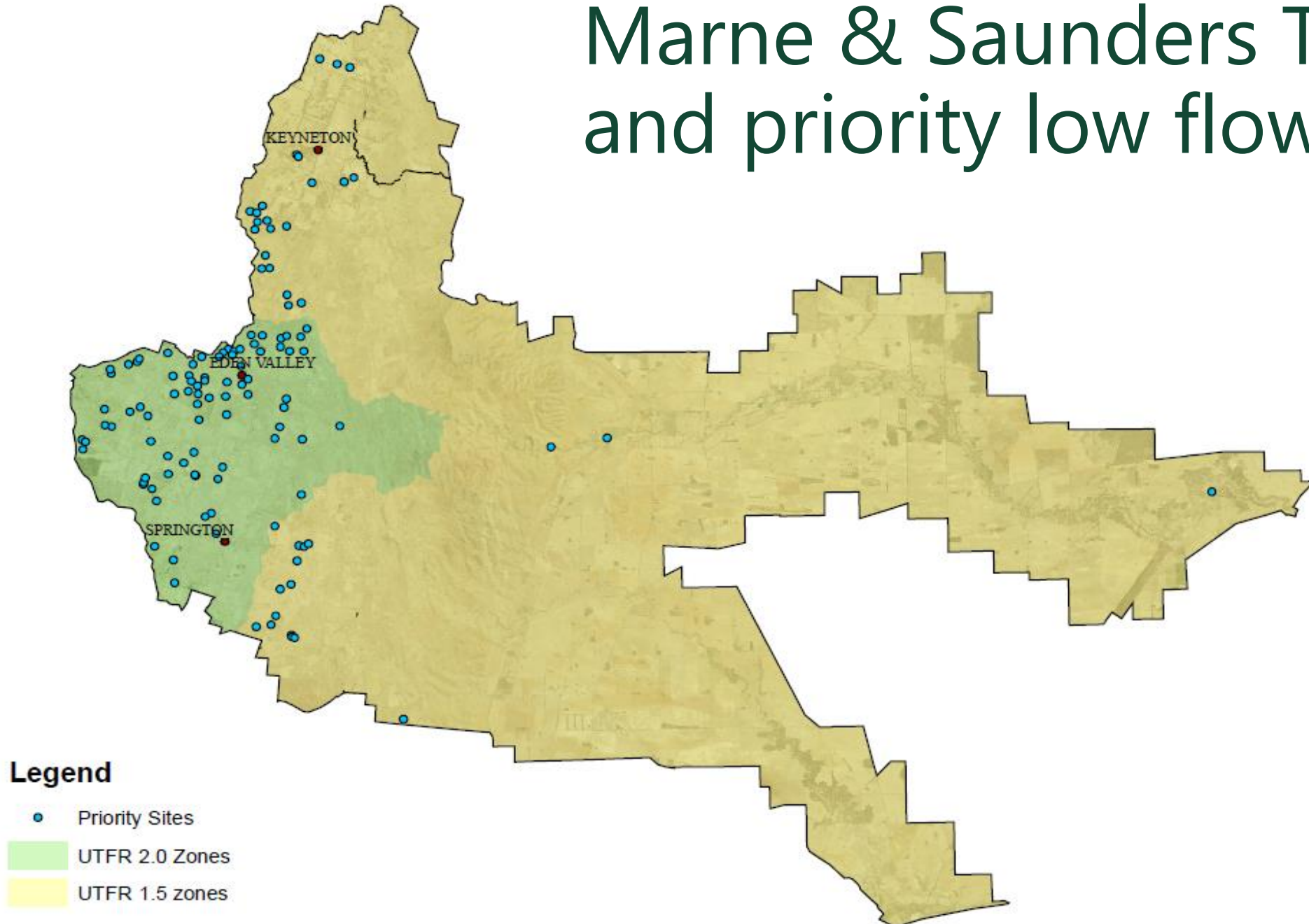
| Legend | |
|-------------------------------------------------------------------------------------|-------------------|
|  | Access Gate |
|  | Water Course |
|  | Inlet |
|  | Spillway |
|  | Access Track |
|  | Property Boundary |

How is the flow rate (TFR) determined?

- The Threshold Flow Rate (TFR) is based on the minimum environmental flow required to sustain flora and fauna.
- A Threshold Flow Rate is the rate at or below which water is to be left (not captured or extracted) and allowed to carry on into the downstream watercourse.
- The rate varies per site relative to the size of the catchment and the characteristics of the surface water management zone. Factors such as evaporation and surface run off vary between zones.
- The WAP specifies TFR's calculations. The aim is to balance current allocations and usage with sustaining long term resource use and environmental health.



Marne & Saunders TFR zones and priority low flow sites



Program Participation in the Marne & Saunders

- There are 117 priority sites in the Marne Saunders.
- To date, our team have spoken with landholders at 113 of these sites to discuss voluntary participation in the program.
- Currently, there are 79 sites (including watercourse diversions) are contributing low flows.
- The target for the Program is to return 169 ML to the catchment. Current delivery has returned 112 ML.



Outcomes for the Marne & Saunders

- The main benefits of passing low flows will be achieved locally.
- Improvements to those environments with the passing of low flows will include:
 - hydration of soils which will, in turn,
 - support struggling remnant vegetation, leading to
 - improved habitat for a greater diversity and abundance of macroinvertebrates, native fish, and other aquatic and riparian vertebrate species.



Demonstrating success and adapting to change

- verify our understanding with site-scale and catchment-scale data;
- demonstrate that low flow devices are working; and
- show that the passing of flows is altering local flow regimes and,
- in turn, increasing the resilience of ecosystems.



Listening to the community



Thankyou



Questions



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