



WaterSmart Dams

Making dams work again

In collaboration with four grower groups across 10 properties, we are exploring the most effective ways to ensure your dam has enough water during the dry years.

Sub-surface water - a problem and a resource?

At three project demonstrations, we're investigating the quantity and salinity of water from different subsurface drains to determine their potential for replenishing farm water reserves. Do these drains only work in wet years when the soil is waterlogged, or will they run water to boost runoff into farm dams during dry years too?

Plastic Lined Catchments - a smart investment?

Putting plastic liners on roaded catchments will increase the water that runs into your dam. Is it a good idea to repurpose old CBH tarps for this, or use new ones? How long will they last, and is this a smart investment? Our project is answering these questions.

Roaded Catchment reviving an old-fashioned idea with a modern twist.

In Western Australia, roaded catchments are a common and crucial part of farming. They help more water flow into dams. Making sure they are designed and sized to match your dam as well as regularly maintained is vital to meet your farm's water needs. How much difference does maintaining the catchments and changing properties make? We are showcasing this on two properties alongside modernising a tool to help you and your contractor size your roaded catchment and dam to meet your needs.

Water loss from Dams

Evaporation - Floating Dam Covers

At two properties the logistics and effectiveness of floating dam cover are being explored. Monitoring evaporation means we can measure their effectiveness.

Evaporation - Trees

At one property, we are investigating the role of trees in lowering evaporation. Trees reduce wind across the surface of the dam and this can significantly reduce evaporation, and by much more than the trees use directly. Can this create a win-win with more water and the additional ecosystem services that trees provide such as carbon and shelter?

Leaking dams

Leaking dams – Does it cost less to prevent water loss from the bottom of the dam than from evaporation at the surface? In the latter part of this project, we will investigate this and the effectiveness of commercially available products in stopping leakage.





Water Quality

While the project's main objective is ensuring sufficient Dam water supply, water quality emerged as a vital concern for growers when surveyed. To address this, Merredin & Districts Farm Improvement Group (MADFIG) and UWA are currently engaged in a pilot study involving water sampling from different sources within their district to understand the implications for spray effectiveness.

Fitzgerald Biosphere Group are also exploring cost-effective filtration systems to treat muddy water.

Desalination

Our sister project, WaterSmart Farms run by the Department of Primary Industries and Regional Development is exploring on-farm desalination. Can salty or brackish underground water be used on farms? What is the upfront cost and what happens to the by-product?

This is a snapshot of what we are doing. If you'd like to stay in the loop or are experimenting with innovative ways to secure a reliable water source on your land, we're excited to hear from you please sign up here.

[Sign up to the project follower list](#)



[WaterSmart Evaluation Tool \(WET\)](#)



This project is supported by



This project is jointly funded through the Australian Government's Future Drought Fund (FDF) and the Western Australian state government's Agriculture Climate Resilience Fund.