# Information sheet

# **Managing dryland salinity in south-west Western Australia**


Image 1: Managing dryland salinity in south-west Western Australia

As stated on the Department of Primary Industry and Regional Development (DPIRD) website, managing dryland salinity provides many benefits, including increased productivity, reduced land degradation and protection of the landscape.

**Managing salinity – options**

1. No active management
* Natural vegetation regeneration to protect ground from wind and water erosion
* Suitable for small areas
* Little or no cost involved
* Slow process
* Erosion risk is high
* Salt build up and spread is likely
1. Use engineering options
* Dependent on the option and site
* Solutions work for many years
* Can capture water sources
* Requires extensive site assessment and detailed technical planning
* Expensive to implement, remove or change
* Discharge may cause problems

Engineering solutions can be used for surface water management or subsurface water management.

|  |  |
| --- | --- |
| Surface water management  | Subsurface water management  |
| Grade banksBroad based banks Farm damsRoaded catchmentsGrassed waterwaysShallow reef basinsEvaporation basins  | Open deep drainsLeveed deep drainsPumping ground waterDesalination of ground waterSiphoning groundwaterRelief wells or boresEvaporation basins |

1. Plant based options
* Does not have effluent discharge
* Can have commercial products
* Can change land use easily
* Requires good management
* Need to monitor salinity levels and impact on vegetation

Plant based options are used to adapt systems, prevent or contain salinity.

|  |  |  |
| --- | --- | --- |
| Adaptation  | Prevention  | Containment  |
| * Saltland pastures
* Salt tolerant shrubs and trees
 | * Deep rooted nonsaline perennial pastures
* Salt tolerant shrubs and trees
 | * Deep rooted nonsaline perennial pastures
* Salt tolerant shrubs and trees
 |

 
 Image 2: Saltland pastures in Western Australia

1. Innovative options
* Inland saline aquaculture
* Harvesting salt and minerals
* Energy production
* Desalination

Detailed information regarding these solutions can be found at: [Managing dryland salinity in south-west Western Australia](https://agric.wa.gov.au/n/1808)

## Acknowledgement

#### **References**

Department of Primary Industries and Regional Development (11 May 2021) ‘Managing dryland salinity in south-west Western Australia’ available at <<https://www.agric.wa.gov.au/soil-salinity/managing-dryland-salinity-south-west-western-australia>> accessed on 10 August 2021

Images

Image 1 Department of Primary Industries and Regional Development (11 May 2021) ‘Managing dryland salinity in south-west Western Australia’ available at <<https://www.agric.wa.gov.au/soil-salinity/managing-dryland-salinity-south-west-western-australia>> accessed on 10 August 2021

Image 2 Department of Primary Industries and Regional Development (17 May 2021) ‘Saltland Pastures in Western Australia’ available at <<https://www.agric.wa.gov.au/soil-salinity/saltland-pastures-western-australia>> accessed on 10 August 2021