



Department of  
**Agriculture and Food**



# Changing land use on unproductive soils in the North Eastern Wheatbelt



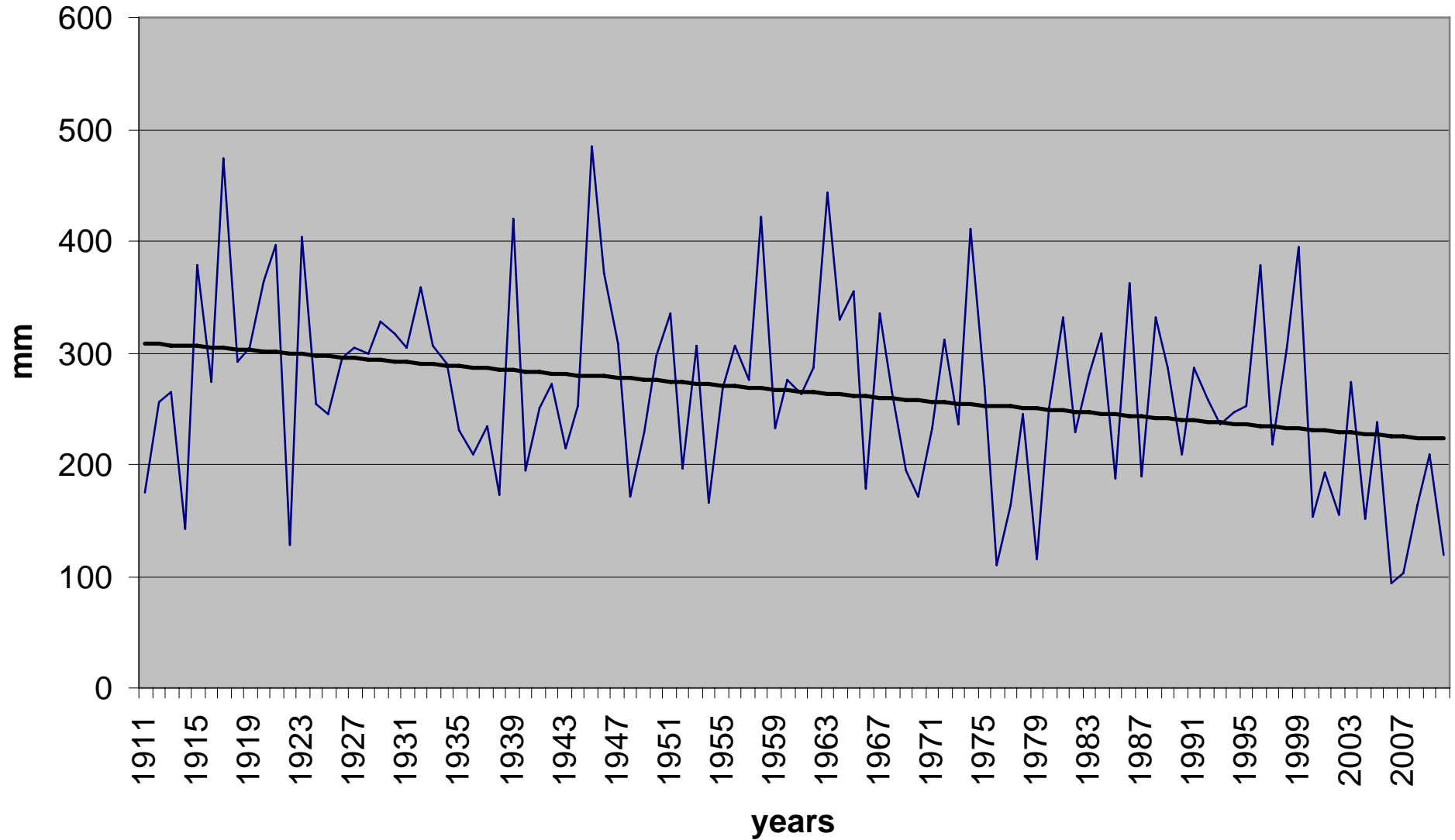
- After the 2006 & 2007 droughts
- DAFWA worked with farming community
- A strategy that deals with issues farmers face in the event of consecutive dry years
- One of 6 projects
- Similar process to occur in the Central Ag region this year



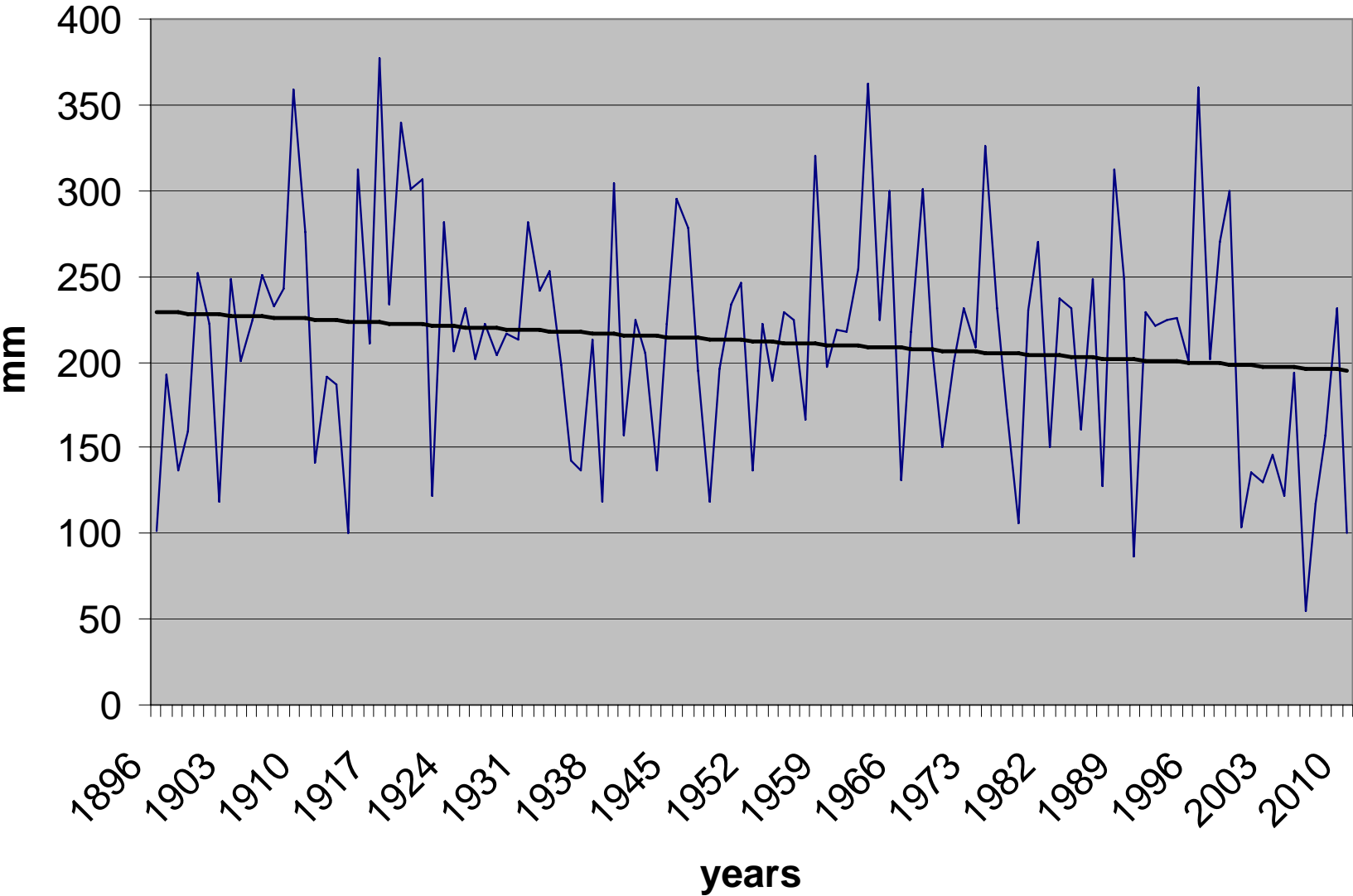


- With declining rainfall, soils that have limitations such as shallow depth, low pH and low water holding capacity have become unprofitable to crop
- Explore land use options for these soils
- Make the farming system more efficient and resilient to seasonal variability

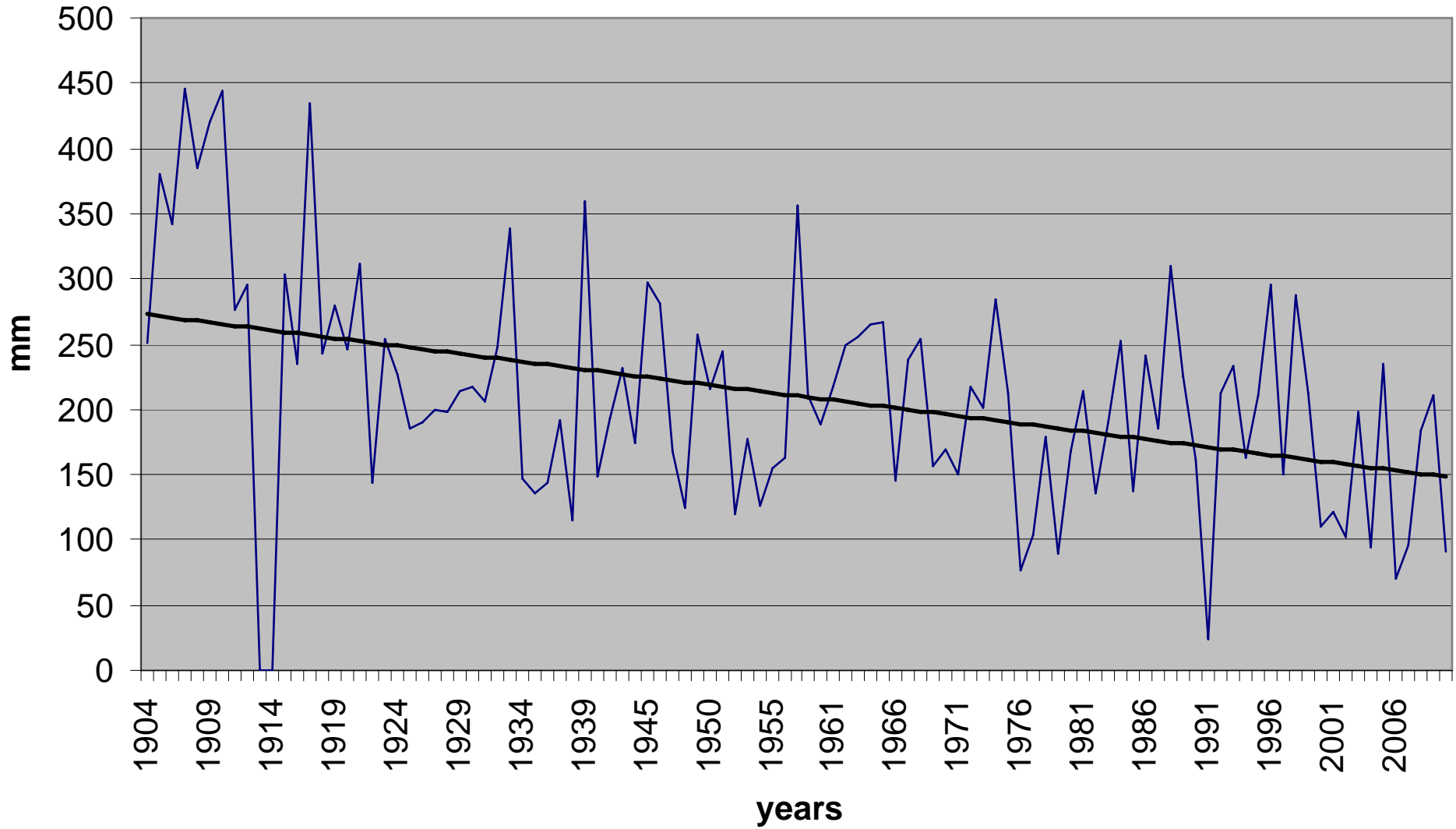
# Ogilvie May-Aug rainfall



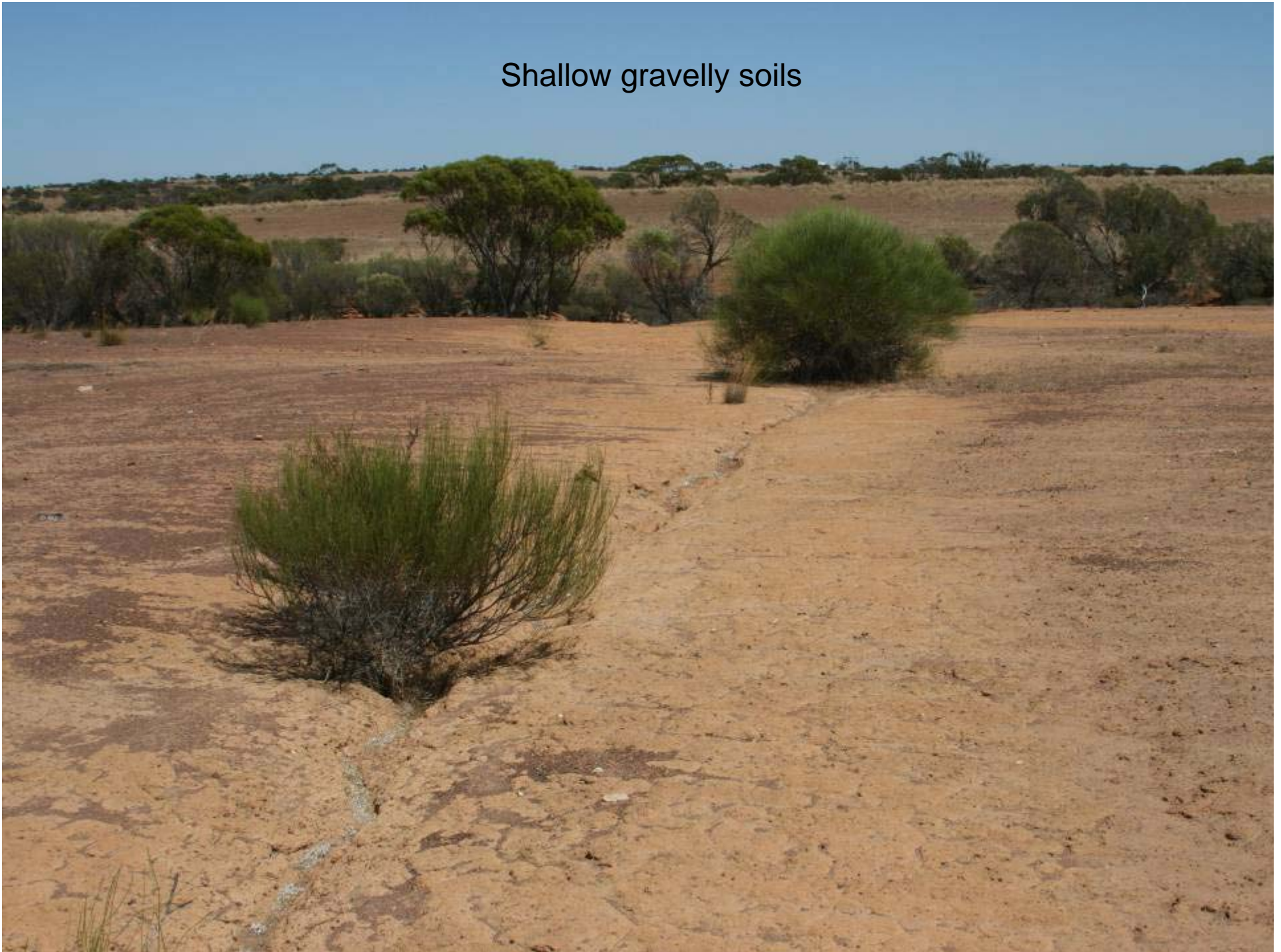
# Mullewa May-Aug rainfall



# Bowgada May -Aug rainfall



Shallow gravelly soils



## Stony soils



Pale deep sands



## Saline soils



Wodgil sands





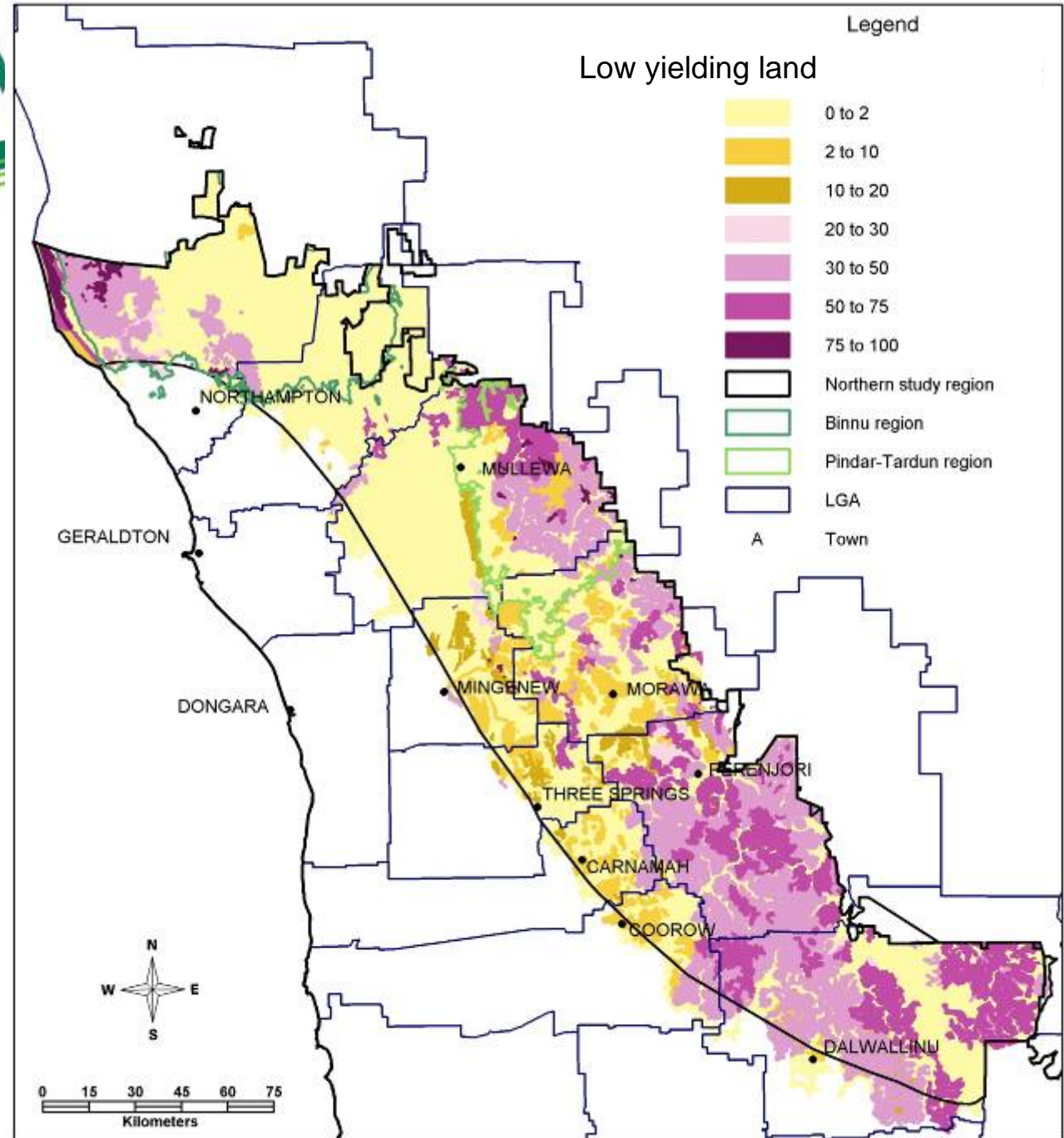
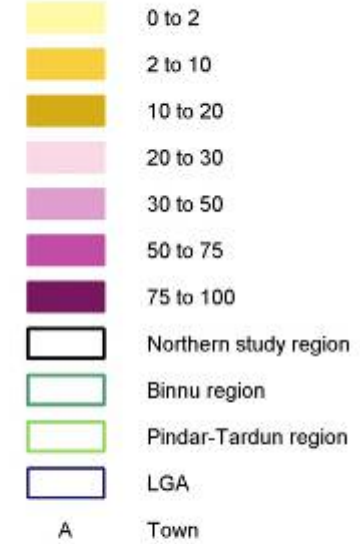
## DAFWA Map unit database results

Soil type	% of NEAR area
Shallow gravels	3
Pale deep sands	2
Saline soils	2
Acid yellow sandy earths	2
Stony soils	2
<b>Totals</b>	<b>11%</b>



### Low yielding land

Legend





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**WANTED**



Information regarding the whereabouts and uses of  
unproductive soils in the North Eastern Agricultural Region.

**near**  
north eastern agricultural region

## Survey of grower groups

- Contracted the Grower Groups in the NEAR to survey their members
- Paid for their service
- Over 70 responses which account for over 10% of farms



## Survey findings so far

- 8% of soils on farms are consistently unproductive
- 70% of farmers had tried cropping these soils but only 20% had found it profitable.
- 75% of farmers would be willing to permanently revegetate these soils.
- Subsidised revegetation, fencing incentives & payments for carbon credits were identified as the most important assistance for permanent revegetation



Emerging opportunities for carbon sequestration may offer a more appropriate land use.  
But what are the best species for shallow, unproductive soils?

Shallow Red Loam Woongoondy 12yr



Oil mallees are not the silver bullet  
for poor soils

Sandy Loam/Gravel Pindar 10 yr



Acidic sand/gravel Tardun 20 yr





Case studies include



Lebeckia John Howieson (Murdoch University)





The project will provide Government and industry with

- an analysis of the current status of unproductive soils
- policy recommendations on future management options
- research and development required for emerging opportunities

**near**  
north eastern agricultural region