



BIGG Water Planning Workshop

“Accessing water from the Barossa New Water Project - - estimated costs and returns for graziers”

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PIRSA

Acknowledge Vic Patrick and Jane Evans who have provided input



13th April 2022



Government of South Australia
Department of Primary Industries
and Regions

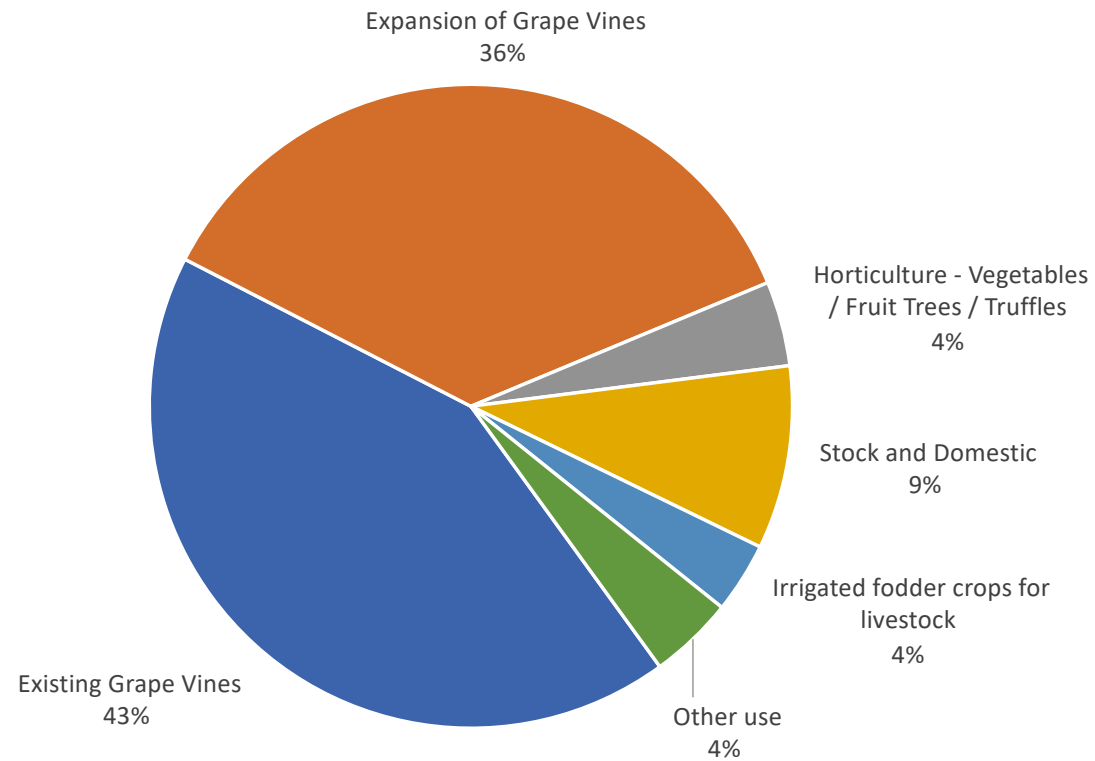
Reasons for Investing?

- Increase production on farm (under utilised areas)
- Improved quality of water
- Back up supply in dry years
- Improve farm re- sell value with water asset

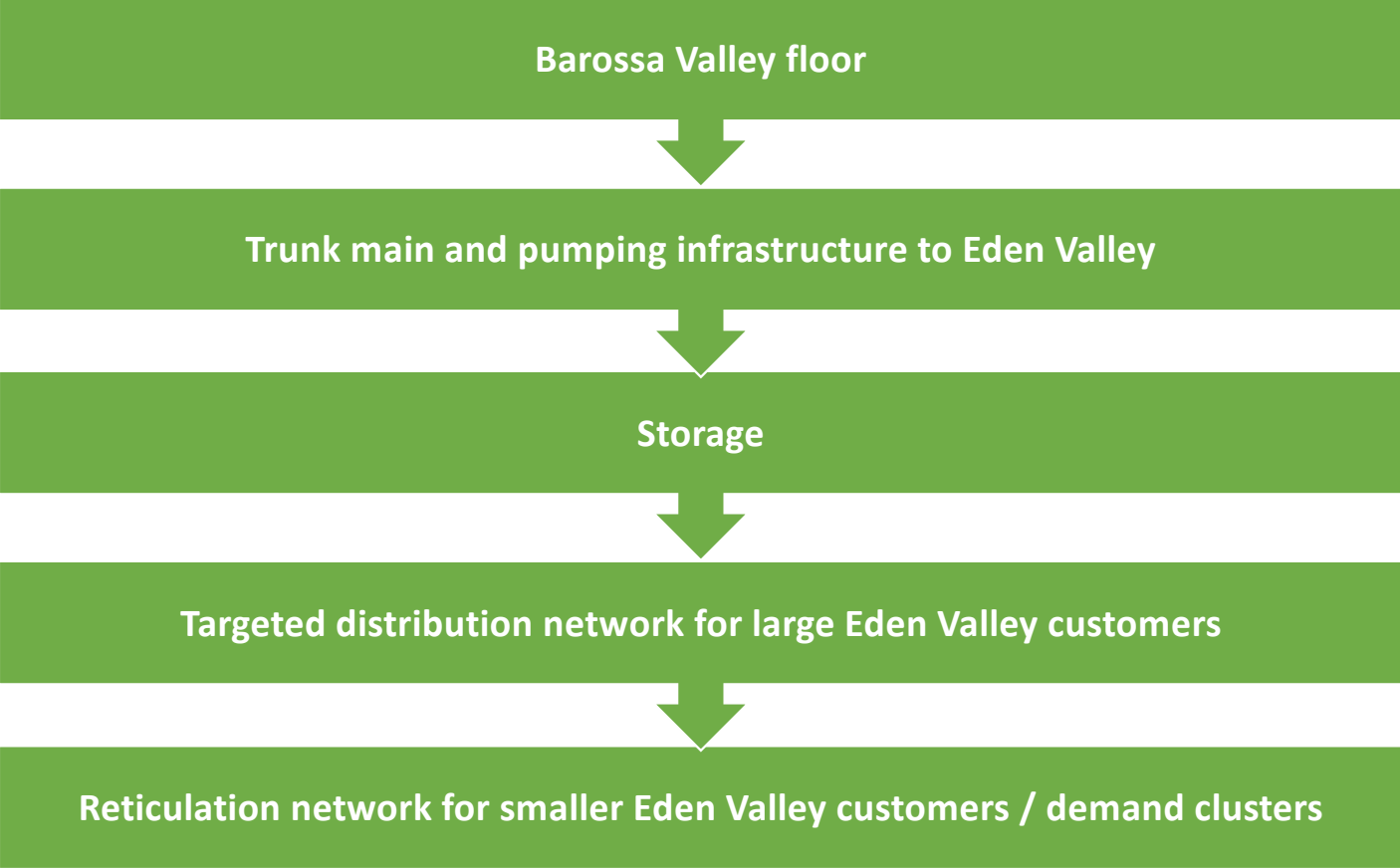
Sources of water:

- Barossa New Water Project
- Comparison with Plastic catchment and mains

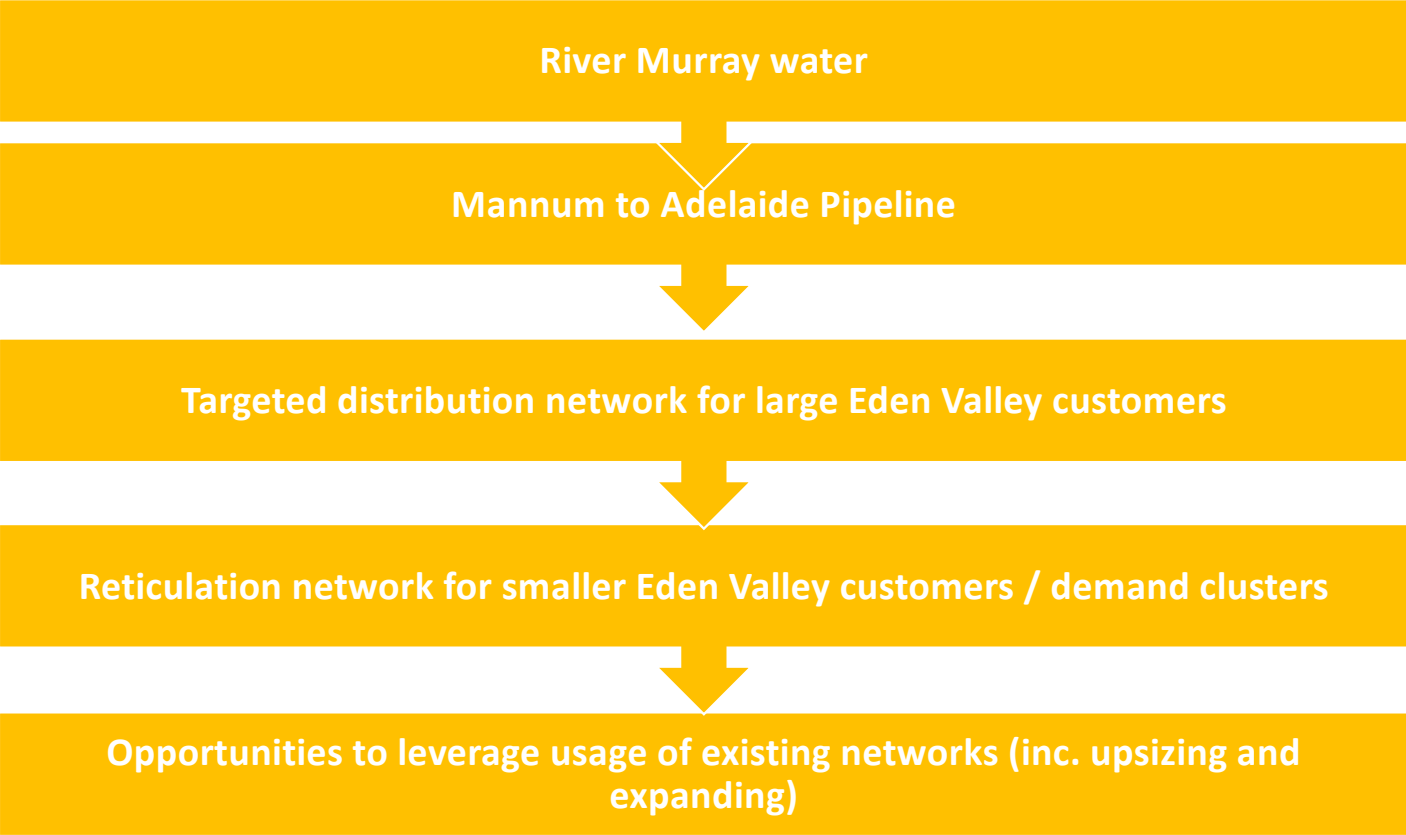
Eden Valley Number of Enterprises / Water Uses



BNW Design – Eden Valley



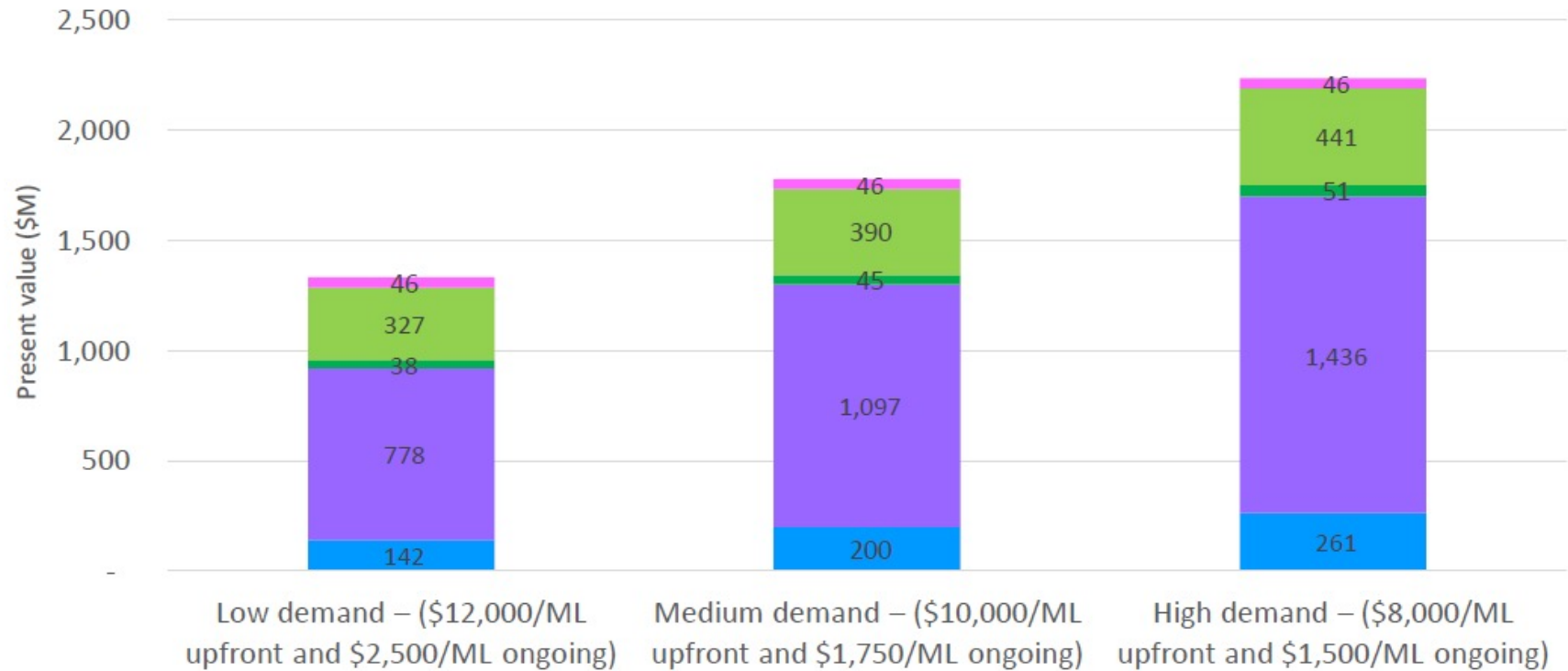
River Murray Design – Eden Valley



Features of 150-day scheme design

- Customers can access water most of the year (except during shutdown)
- The scheme will operate 355 days per year (10 days shutdown for maintenance)
- But allows customers to take the total volume of their allocation in 150 days = higher flow rates if needed
- 150 ML allocation = 1 ML/day delivery capacity
- Pumping is 24 hours per day

Wine premium accounts for majority of project benefits



- Increased Tourism Value (\$M NPV)
- Eden Valley - Wine Premium (\$M NPV)
- Eden Valley - Grapes and other enterprises (\$M NPV)
- Barossa Valley - Wine Premium (\$M NPV)
- Barossa Valley - Grapes and other enterprises (\$M NPV)



Assumed Costs

Round 2 water purchase price is **\$10,000/ML** for Barossa Valley and Eden Valley customers, regardless of option.

- Paid over 9 years
- Annual operating costs 100% recovered through annual charges
- **Round 2 to be based on two annual charges for Eden Valley:**
 - Option 1: \$1,800/ML pa (climate independent)
 - Option 2: \$1,600/ML pa (dependent on climate/MAPL price/capital price for water)

Comparison of costs

Basic Comparison of costing options			
Assumptions - around 1000 DSE @			
Requirement 2.5ML/yr/DSE- some docs are less than this		Assume around 550mm rainfall (90% runoff)	
	EV BN water scheme	Plastic Sheeted Catchment	Mains @ \$3-04/kl
		assume 5000m2	
Up front cost	25,000	36,000	
Annual discounted over 9 years	3000	4300	
Annual cost	4000		7,600
Maintenance annually		1000	
Total Annual	7000	5300	7600
Cost over first 9 years	63000	47700	68400
10-18 years	4,000	1,000	7600
Other costs	storage tank and pipes etc	fencing, assume existing dam	may not have enough supply or ability to get
	cost of pipeline if not at properties	note did not have evap loss in this- could add 30%??	price likely to increase?
	Barossa new water assumptions	Catchment assumptions/ case studies	
	Mid cost options \$10k per ML, annual cost \$1600/ML	Cost - Buttons for 1200m2 including earthworks, liner and fencing was \$11,800 (existing dam)	
		Coorong 15,400 m2 cost \$128,800 including dam cost to be built and lined	
		Hanneman 4000m2 including dam, liner, cover and tanks and pipes cost, total cost \$102,000, plastic catchment only around \$30,000	

Legal hurdles

- BNW- Bolivar
 - EPA approval for use
 - storage requirements (dams lined?) –extra cost
 - Livestock act- faecal water/livestock use
- River Murray Eden Valley
 - imported water restrictions? Lined dams
- Plastic catchments
 - issues under Barossa water plan- licencing / nrm impact

Other Issues

- Unclear cost of BNW if allocation not required

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Barossa New Water Project

