

Irrigation Essentials in brief

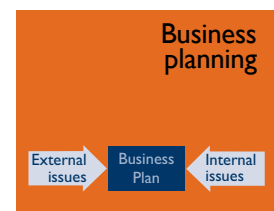
Key themes and principles

The following key themes and principles for sustainable irrigation are discussed in detail in *Irrigation Essentials Updated*, available at www.npsi.gov.au

Business planning

External influences – Understand how 'big picture' irrigation and marketing issues affect your business.

Business fundamentals – Be on top of the internal factors affecting the future of your business.

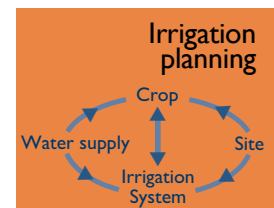


Irrigation planning

Site suitability – Understand your site; its suitability for irrigation and the availability of water.

Production system & crop selection – Select crops that suit your situation.

Irrigation & drainage system – Design an irrigation system to fit the site and crops.

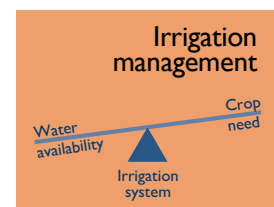


Irrigation management

Water budget – Prepare a water budget; to be confident of achieving your irrigation goal.

Irrigation scheduling – Develop rules for scheduling irrigations; guidelines for deciding when, and how much, to irrigate.

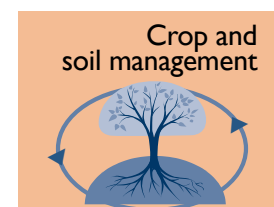
Irrigation strategies – Use special irrigation strategies for special effects.



Crop & soil management

Plant performance – Understand and manage your crop's water and nutrient needs.

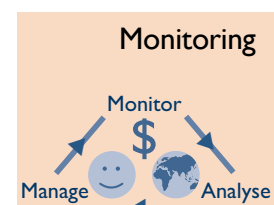
Soil condition – Improve your soil to provide optimal growing conditions.



Monitoring

Monitoring and evaluation – Monitor and respond to critical performance indicators.

Continuous improvement – Periodically review business performance and irrigation management.



Essentials checklist

Soundly performing irrigation operations are well balanced in how they tackle the range of 'Irrigation Essentials'. Irrigators can use the following check-list to assess their performance.

- Score the relevance of each issue to the property as High (3), Medium (2), or Low (1).
- Provide a self-assessment rating of High (3), Medium (2), or Low (1) for each issue. How well is the issue currently managed?
- Review the ratings:
 - Are there sound ratings across the themes or are there uneven scores overall?
 - Are there any low ratings for topics that are highly relevant – if so, they are priorities for action.

Key Themes	Key Principles	Issues	Relevance	Rating
Business Planning	External influences	Water reform		
		Food and water demand		
	Business fundamentals	Finance and operations		
		Personnel		
Irrigation Planning	Site suitability	Site characteristics		
		Water characteristics		
	Production systems and crop selection	Water availability		
		Agronomy		
		Production objective		
	Irrigation and drainage systems	System options		
Design				
	Drainage			
Irrigation Management	Water budget	Budget		
	Irrigation scheduling	When and how much		
		Soil water monitoring		
		Advanced irrigation		
		Precision irrigation		
	Irrigation strategies	Deficit irrigation		
Drought survival for perennials				
Crop and Soil Management	Plant performance	Plant growth		
		Nutrition		
	Soil condition	Infiltration		
		Organic matter		
		Salinity		
Monitoring	Monitoring and evaluation	Monitoring		
		Better decisions		
	Continuous improvement	Essentials checklist		

More information: www.npsi.gov.au/projects/3295