

# Investing in irrigation

Investment in irrigation has transformed Tasmanian agriculture over the last few decades by bringing increased opportunity and strengthening the financial resilience of businesses. Irrigation infrastructure requires significant capital investment and care should be taken to ensure you are investing in a well thought out system.

There are currently two access points to irrigation water within the State: Department of Natural Resource and Environment Tasmania (NRE) and Tasmanian Irrigation (TI). NRE Tasmania are responsible for the management and regulation of Tasmania's freshwater resources. Tasmanian Irrigation develops and manages new irrigation schemes. There are some small irrigation schemes that are self-managed by local water entities.

The benefit of investing in water through NRE has traditionally been a low upfront cost for the water allocation, combined with significantly varying costs for on farm storage. All NRE allocations typically, have a lower reliability than water offered by TI through their schemes. TI build reliability into their schemes by ensuring the storage volumes buffer seasonal catchment yield variations. Many of the water catchments within the state are now fully allocated, limiting further water and irrigation development. Access to irrigation water through TI schemes has provided high reliability water into catchments where development has stalled typically due to the fully allocated alternative water resources.

This fact sheet should be used to assist in decision making in support of investing in irrigation.

## Setting up an irrigation system

When considering water development, the cost, reliability and storage requirements should be considered. Storage is required for development of water resources from new NRE allocations as the water allocation period will be May to November. For water purchased from TI schemes, on farm storage is normally required to buffer scheme delivery to meet crop demands and agricultural practices relating to crop production including downtime for spraying and maintenance of irrigation equipment.

When considering dam locations, it is important to understand the benefits or efficiencies that can be gained from considering alternative locations. While efficiencies such as catchment yield, construction storage ratio and elevation relative to the irrigated area and water supply should be the focus, so should the actual practicality of approval and lifetime cost of the asset. A dam site that offers low construction cost is irrelevant if it cannot be approved including issues related to threatened fauna.

Investing in irrigation should be reviewed from a long-term perspective. For example, when deciding on pipe size, the lowest price is not always best. Providing additional capacity may future proof the irrigation design and save money in the long run. It is important to consider all potential irrigation sites that can be further explored through Farm Water Access Plan (Farm WAP) to ensure you are aware of any potential impacts to natural values and the environment.



**Australian Government**  
**Department of Agriculture,  
Fisheries and Forestry**



**Future  
Drought  
Fund**



# Investing in irrigation

## Financial considerations

Gross margins are an effective way to consider and compare enterprise changes from proposed irrigation development. Gross margins are used to demonstrate the financial return from an enterprise option after all costs associated with the production, commonly referred to as variable costs, are excluded. Gross margins do not consider overhead costs including interest, land rates and general administration. Given that irrigation developments can have large overhead costs, it is important to consider these in a whole farm analysis.

Tools available through NRE that will assist in a financial analysis include:

- Irrigation investment analysis: used to review net benefit from irrigation investment over a finance term.
- Designing a successful business: used to understand potential net profit position after changed enterprises and investment.

Generally, production risk will decrease with access to reliable water that should be factored into potential production outcomes. Again, this is another reason a whole of business approach should be used to assess the return to the business. In addition to this, and particularly with respect to using irrigation for livestock enterprises, the marginal cost of feed can be high however the impact of carrying animals through the summer period with access to reliable water can result in significant improvements in profit at a whole of business level.

It is important to understand the cashflow requirements during the development stage that may impact the peak debt requirements for the business.

Financing irrigation investments may look at a short payment period of five years for equipment and 15 years for capital works, however it is important to review the return on investment and the useful life of each asset. Investment in water and irrigation infrastructure has traditionally seen above average asset growth, driven by productivity potential and the scarce nature of water.

## Management considerations

Irrigation often intensifies an operation, creating a higher demand on management. Some important questions to consider when looking at investing in irrigation include:

- What might the business look like in the short term and long term?
- What are the potential impacts of a changing climate to rainfall for my area?
- Are the current labour levels sufficient for the changed operation?
- Are there skill or knowledge gaps within staff, including management?
- If I do not invest in water now, will I be able to invest again in the future?
- What value does irrigation water add to my property, both now and in the future?

## Who can help

[Tasmanian Irrigation](#) owns, operate, designs and develops irrigation schemes to deliver high security irrigation water to Tasmanian landowners and should be consulted on all irrigation proposals. Seeking independent advice can assist in assessing all potential considerations for irrigation. Some suggested advisors may include agronomists, consultants or accountants.

## Funding Disclosure

This fact sheet was prepared by Pinion Advisory as part of a suite of tools funded by the Australian Government's Future Drought Fund and the Tasmanian Government.



**Australian Government**  
**Department of Agriculture,  
Fisheries and Forestry**



**Future  
Drought  
Fund**

