

## Rookwood Weir Water Sales

### Landholder opportunities overview

Rockhampton prides itself on being the beef capital of Australia. Cattle grazing is the predominant use of land within the Rookwood Weir Assessment Area. While horticulture and broadacre crop production in the Fitzroy region has increased in recent years, cattle grazing still accounts for approximately 74 per cent of land use and over 70 per cent of the total value of agriculture production. Graziers in the region have good access to cattle processing facilities and established export supply chains.







While there are small areas of land within the Rookwood Weir Assessment Area currently used for crop production, the use of the land for more intensive activities has been constrained due to the lack of a reliable water supply. Rookwood Weir alleviates this constraint by providing a supplemented supply of irrigation water with sufficient reliability to underpin the investment required to transition to higher value land uses, in particular perennial horticulture production.

Rookwood Weir provides existing landholders with the opportunity to significantly increase the net return derived from their land by transitioning to intensive irrigated crop production.

A range of crops have been identified as suitable for production within the Rookwood Weir Assessment Area. The almost 10,000 hectares of land identified as highly productive (i.e. Class 1 and Class 2 agricultural land) for macadamia and citrus production represents a significant potential opportunity to producers in the region.

#### Land has been identified as suitable for



**Macadamias**



**Citrus  
(mandarins)**



**Table  
Grapes**



**Pecans**



**Lychees**



**Soybeans**



**Peanuts**

The net return derived from agriculture production varies due to a range of factors specific to individual locations and enterprises (e.g. capital investment, crop maturity and yields, irrigation rates, production practices, farm-gate prices). Indicative net margin modelling for macadamia and citrus (mandarin) demonstrates the potential benefit to landholders from intensifying land use, underpinned by supplemented water allocations from Rookwood Weir.



While macadamia and mandarin production require significant capital investments as crops take several years to reach maturity, the net annual return to growers from the production of these crops is estimated to potentially be:<sup>1</sup>

- for macadamias, a range of \$2,400 to \$4,600 per hectare (there are also a range of potential outcomes in terms of total orchard development costs and future crop prices)
- for mandarins, applying conservative crop price assumptions, annual returns of around \$5,000 per hectare (price premiums available to growers in export markets in recent years correspond with a net annual return of more than double this estimate).<sup>2</sup>

In comparison, net annual returns from cattle grazing in the Fitzroy region typically range from \$60 to \$150 per hectare.

In addition to macadamia and mandarin crops, a range of other crops that may be suitable land within the Rookwood Weir Assessment Area have been identified. These include perennial horticulture crops such as pecans, lychees and mangoes, and broadacre crops such as soybeans and peanuts.



<sup>1</sup>The net margin modelling includes an allowance for the up-front cost of purchasing water allocations from the Rookwood Weir. The cost of these allocations has been based on the market price of permanent water allocations in the Nogoa Mackenzie Water Supply Scheme (WSS) in 2018/19 – \$1,328 per megalitre (ML). Net return estimates represent the total net return per hectare in Present Value terms over the life of the orchard. A real discount rate of five per cent was applied in calculating Present Values.

<sup>2</sup>It is important to note that the net return derived from the production of any crop within the Rookwood Weir Assessment Area will be determined by the specific characteristics of each site. Factors such as the soil profile, topography, and climatic differences can result in significantly different irrigation requirements and crop yields.

Case studies of the Nogoa Mackenzie WSS in Central Queensland and Bundaberg WSS in the Burnett highlight where growers have used reliable supplemented water allocations to underpin the intensification of their agricultural enterprises, and in doing so, improved their net returns.

#### **Case study: Nogoa Mackenzie WSS**

The Nogoa Mackenzie WSS, based around Fairbairn Dam near Emerald, located 270 km west of Rockhampton. Initially established to supply water for broadacre crop production to support the region's beef cattle industry, the scheme has become one of the largest cotton producing areas in Queensland. In recent years, growers have looked to further intensify their land use by transitioning from lower value broadacre crop production (e.g. sorghum, maize and wheat) to perennial horticulture production, namely citrus and table grapes. This has led to the development of a sophisticated export logistics chain in the region that provides growers with strong returns on their irrigation water use. Growers are also currently investigating additional means of improving profitability, including planting other perennial horticulture crops such as lemons and limes and innovating with new varieties to target specific export markets.

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#### **Case study: Bundaberg WSS**

Sugarcane has been the dominant irrigated crop produced in the Bundaberg WSS for several decades. However, the recent decline in the profitability of sugarcane production due to low world sugar prices, has led growers to seek alternative uses for their irrigation water. As a result, several growers have transitioned to perennial horticulture crops, namely avocados and mandarins. A recent study estimated that approximately 400 hectares per annum transitions from sugarcane to avocados and macadamias in the scheme.

**The Rookwood Weir Water Sales process is a unique opportunity for interested parties to participate in the economic development of the Lower Fitzroy region and Sunwater looks forward to engaging with you in this process.**

## For more information about this opportunity:

🖱 [www.sunwater.com.au](http://www.sunwater.com.au) > Dams and infrastructure > Projects > Rookwood Weir Project

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