

Greater South East Irrigation Scheme



Greater South East Irrigation Scheme Overview

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The \$301 million Greater South East Irrigation Scheme will increase reliability of irrigation water supply to one of the driest areas in the State.

It will integrate the existing South East Stages One, Two and Three schemes, and support significant agricultural growth by servicing existing and additional demand.

The scheme design has the capacity to deliver 37,200 megalitres of high-reliability irrigation water to the area around Gretna, Jordan River Valley, Brighton, Cambridge, Richmond, Tea Tree, Colebrook, Campania, Orielton, Sorell and Forcett in Tasmania's south east.

Who is Tasmanian Irrigation?

Tasmanian Irrigation Pty Ltd is a recognised economic enabler that owns, operates, designs and develops irrigation schemes to deliver high-surety irrigation water to Tasmanian landowners.

A State-owned Company, Tasmanian Irrigation is renowned for its proven ability to reliably and cost-effectively deliver irrigation water, as well as complex infrastructure projects, to enable farmers to expand, diversify, intensify and value add their agricultural businesses.

Since Tasmanian Irrigation was established in 2011, the Company has taken over management of a range of inherited assets, including dams, irrigation schemes and river works, constructed 16 new irrigation projects and advanced planning on Tranche Three priority projects — Northern Midlands, Sassafras Wesley Vale Augmentation, Tamar and the Greater South East Irrigation Scheme.

These projects will more than double Tasmanian Irrigation's current water delivery capacity of 138,500 megalitres, increase the State's agricultural output by more than \$1 billion, create an additional 3,500 jobs and underpin a further \$450 million of on-farm investment.

All schemes developed and operated by Tasmanian Irrigation are economically viable, environmentally sustainable, have strong community endorsement, are designed to last at least 100 years and deliver water at an average reliability of more than 95 per cent per annum.



Project Overview

Tasmanian Irrigation currently owns and manages three irrigation schemes in the south east of the State:

- South East Stage One (completed in 1986 to supply 2,650 megalitres of water each year along the Coal River Valley to Colebrook, Campania and Richmond);
- South East Stage Two (completed in 1992 to supply 1,980 megalitres of water each year to the Richmond, Dulcote and Cambridge areas); and
- South East Stage Three (completed in 2015 to deliver up to 3,000 megalitres to the area around Tea Tree, Campania, Orielson, Pawleena, Penna, Sorell and Forcett).

A reliance on treated water from TasWater for South East Stages Two and Three has been a long-held concern for landowners due to the rising cost of the water, competing pressures for supply and uncertainty of supply during drinking water restrictions. There is also a high level of demand for additional water from existing irrigators and for new water from surrounding landowners.

Tasmanian Irrigation has worked closely and cooperatively with irrigator communities to determine the best possible long-term solution to secure an alternate, reliable and fit-for-purpose water source, as well as amalgamate all three existing schemes and standardise entitlement contracts.

This has led to the Greater South East Irrigation Scheme being developed as one of the Tranche Three priority projects.

The initial expectation was for demand of 11,230 megalitres. Expressions of Interest were launched in February 2020 and concluded with 27,000 megalitres of interest registered. The scheme raised \$28.5 million during the first round of water sales and was redesigned for an 18,600-megalitre summer and winter scheme.

The key features of the Greater South East Irrigation Scheme design are:

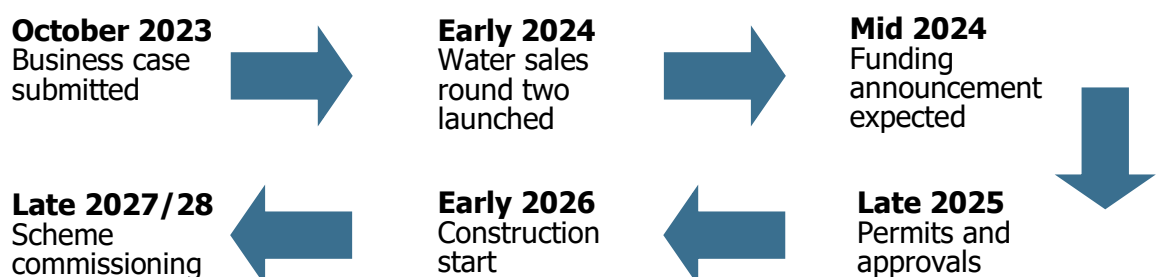
- Water to be sourced from Lake Meadowbank via two pump stations;
- A rising mainline to be constructed over the Pelham Tier to an elevated tank and a long falling mainline to Tea Tree, connecting the existing Stages Two and Three, as well as servicing new demand;
- Extension of the south east pipework into the Coal River Valley to the foothills of Craigbourne Dam to service new demand in the area; and
- Construction and / or augmentation of existing pipelines to service the Jordan River Valley, Brighton, Tea Tree, Richmond, Campania, Orielson, Sorell and Forcett areas.

Business Case Design Snapshot

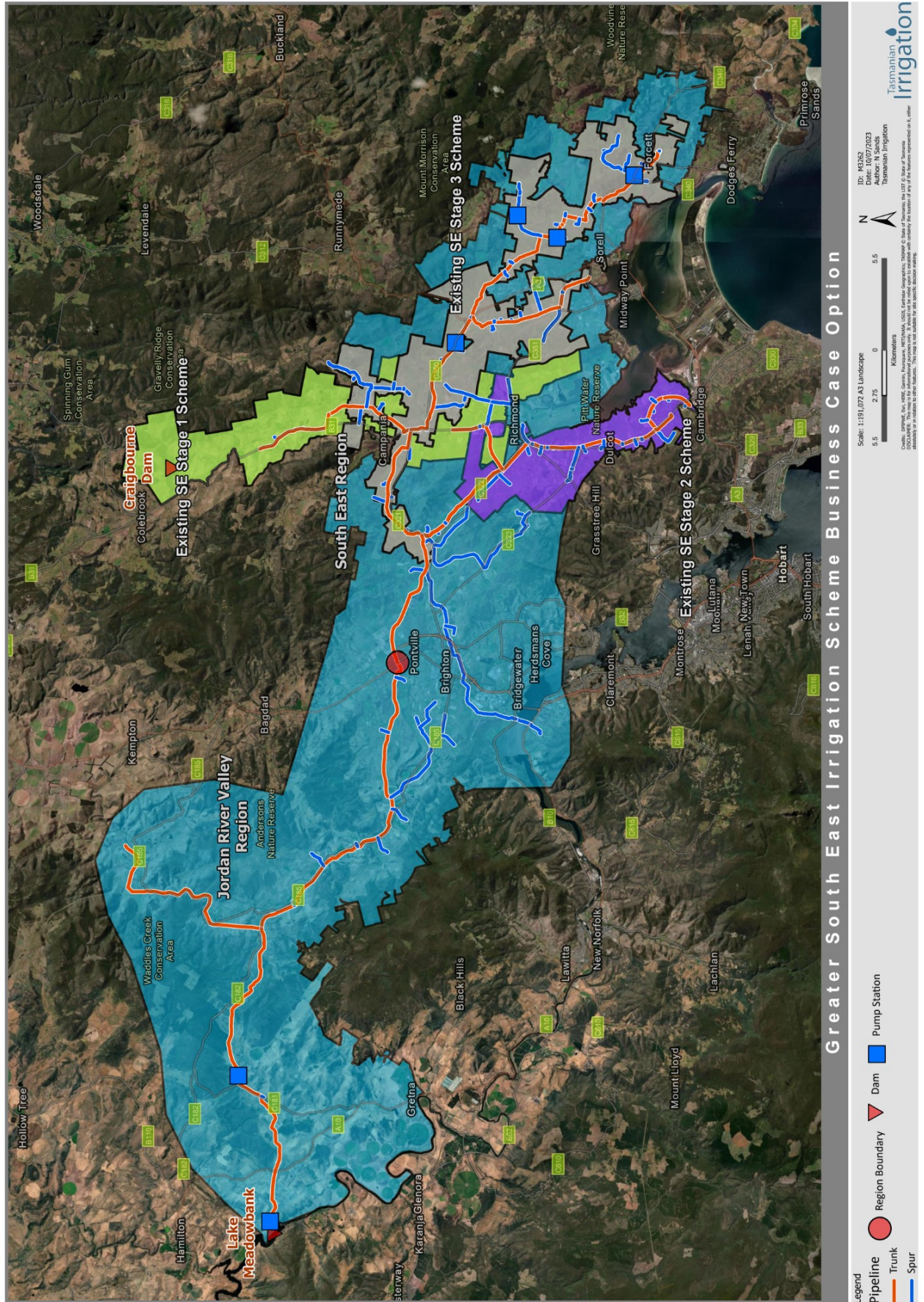
Cost	\$301 million
Potentially irrigable area	47,688 hectares
Extent of area	The irrigation area encompasses Gretna*, Jordan River Valley, Brighton, Cambridge, Richmond, Tea Tree, Colebrook, Campania, Sorell, Forcett and Pawleena
Climate	One of Tasmania’s driest regions with unreliable rainfall, particularly throughout the summer months
Project capacity (ML)	18,600 ML in summer and 18,600 ML in winter (up to 37,200 ML annually)
Spare capacity in the design	5,000 ML of spare summer capacity — 1,500 ML in the Jordan River Valley and 3,500 ML in the south east
Water Source	Lake Meadowbank
Water Reliability	Greater than 95 per cent
Major Infrastructure	Two pump stations and 160km of pipeline
Nature of Development	Construction via public / private partnership
SE summer water entitlement price	\$3,500 / ML
SE winter water entitlement price	\$1,850 / ML
Jordan River Valley summer water entitlement price	\$2,500 / ML
Jordan River Valley winter water entitlement price	\$1,750 / ML

**Given the low demand expressed in the Gretna region during water sales, no further water is proposed to be offered to Gretna at this stage*

Forecast Timeline



Greater South East Irrigation Scheme



Prefeasibility Investigation Results

Water source

The project is located within the Derwent hydro-electric district with Lake Echo and Lake King William being the two largest storages (approximately one million megalitres combined capacity).

The project is designed to draw water from Lake Meadowbank, a Hydro Tasmania owned and operated on-river dam above the final power station in the Derwent hydro power scheme. The annual volume for irrigation at full capacity is less than 1.3 per cent of the average total annual water discharged from Meadowbank Power Station, estimated at 2.8 million megalitres per annum.

Hydro Tasmania will continue to meet existing commitments downstream of Lake Meadowbank, including environmental flow and consumptive use commitments. Further hydrology studies are planned as the project progresses through the design phase.

Environmental assessments

Desktop environmental assessments were completed as part of the business case development to assess the potential impacts of the scheme.

One critically endangered ecological community, Lowland Native Grasslands of Tasmania, is known to exist within the proposed irrigation district.

Three threatened marsupial species are also likely to occur: the endangered Tasmanian devil (*Sarcophilus harrisi*), the vulnerable spotted-tailed quoll (*Dasyurus maculatus maculatus*) and the vulnerable eastern barred bandicoot (*Perameles gunnii*).

Suitable habitat for the endangered swift parrot (*Lathamus discolor*) and the vulnerable masked owl (*Tyto novaehollandiae castanops*) exists in the area.

There are *Eucalyptus globulus* (Tasmanian blue gum) and *E. ovata* (black gum) trees present as single trees and small remnant patches across the irrigation district, which are potential foraging habitat for the swift parrot.

There are also large white gums occurring at several locations along the pipeline routes, which are potential current or future nesting habitat for the masked owl.

The project is progressing in-field environmental assessments across the proposed pipeline corridor to ensure the selected alignment has the least impact overall.

Cultural heritage assessment

A desktop assessment advised that there are a number of Aboriginal and historic heritage sites along or within proximity to the proposed alignment. Detailed heritage assessments will include on-ground assessment of the proposed corridor by heritage officers and archaeologists.

Economic Benefits

The Greater South East Irrigation Scheme will be an important driver of sustainable economic growth in Tasmania's south east region.

The project has been designed to service land around Gretna, the Jordan River Valley, Brighton, Cambridge, Richmond, Tea Tree, Colebrook, Campania, Sorell, Forcett, and Pawleena, delivering benefits to these localities and their respective Local Government Areas.

The GSEIS has the potential to therefore deliver an important positive stimulus to the regional economy with agribusiness firms, contractors and local businesses benefiting from the increased spend in the regional economy.

Overall, the estimated quantitative economic impacts under the base case include:

- An increase in direct farm jobs of up to 312 FTEs;
- Indirect employment of up to a further 156 FTEs;
- Total employment of up to 468 FTEs; and
- An increase in total salaries and wages (direct and indirect) of up to \$32.76 million per annum following full utilisation of the 37,200 ML provided by the scheme.

The GSEIS would also provide significant construction benefits to the State's economy, not only from the construction period, but also from the on-farm investment undertaken by the local farmers estimated at approximately \$120 million, increasing to \$183.60 million with the cost of water entitlements.

During scheme construction, the project would involve up to 225 additional direct FTEs over the estimated 48-month approvals and construction period, providing an important stimulus to the regional economy.

Based on experience from other similar schemes constructed by Tasmanian Irrigation, most of the additional employment would be sourced regionally.

For more information about the Greater South East Irrigation Scheme, please contact:

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