

Tasmanian Irrigation

Northern Midlands Irrigation Scheme

Scheme Summary and Operating Cost Breakdown

Tasmanian Irrigation is the proud designer, builder, owner and operator of 16 irrigation schemes around Tasmania, and is currently developing a further 10 irrigation projects.

Tasmanian Irrigation prides itself on working collaboratively with farmers to best understand their needs and wants to ensure each irrigation scheme is designed to last 100 years, built to satisfy demand in each region and deliver water at an average annual reliability of greater than 95 per cent.

Below is a summary of the proposed Northern Midlands Irrigation Scheme particulars and initial purchase costs along with an estimation of the 2020/21 operating costs based on all water entitlements for the 13,000ML scheme being fully sold.

Scheme Information

- Total Volume = 13,000ML
- Season Length = 180days
- Total Scheme Flow Rate = 86.7ML/day (150 day delivery)
- Summer delivery only
 - Potential for opportunistic (general availability) Winter water depending on Poatina Power Station operation by Hydro

Water Entitlement Purchase Information

- Initial Purchase Price: \$1440/ML
 - 2% due upon application - By Feb 2021
 - 8% due when public funding is secured - Target Q1 2022
 - 90% due upon scheme commissioning - Target Q1 2024
- Min 5mH₂O of pressure guaranteed at outlet
- Minimum Purchase Volume = 20ML (80mm Property Outlet)
- Flow rate for Purchased Volume

| Purchased Volume (ML) | 20 | 50 | 100 | 150 | 200 | 250 | 500 | 750 | 1000 | 1500 |
|-----------------------|-----|-----|-----|------|------|------|------|------|------|-------|
| Flowrate (ML/day) | 0.1 | 0.3 | 0.7 | 1.0 | 1.3 | 1.7 | 3.3 | 5.0 | 6.7 | 10.0 |
| Flowrate (l/s) | 1.5 | 3.9 | 7.7 | 11.6 | 15.4 | 19.3 | 38.6 | 57.9 | 77.2 | 115.7 |

Fixed Operating Costs

Fixed costs are charged annually and are based on the amount of water entitlements purchased. There are two components, the Fixed Charge and the Asset Renewal Levy. Fixed 2020/21 scheme charges are outlined in Table One.

| Table One: Item | Charge per ML |
|--|---------------|
| Employee Costs, Professional Services, MV expenses, and other direct costs | \$17 |
| Maintenance – Pump stations, Tanks, PRV's, Property Outlets and Fittings | \$6 |
| Fixed Telemetry – SCADA and connection cost | \$0.50 |
| Fixed Power – three pump stations | \$0.50 |
| Environmental Monitoring, Vermin & Weed Control | \$2 |
| TI Administration Overhead | \$9 |
| Total Fixed Charge | \$35 |



Asset Renewal Levey (ARL)

The ARL is charged annually and is based on the amount of water entitlements purchased. Funds are deposited into a Northern Midlands Irrigation Scheme account and are only available for the renewal of the scheme's infrastructure to enable the scheme to operate for at least 100 years. A breakdown of the 2020/21 Asset Renewal Levy is shown in Table Two.

| Table Two: Asset | Asset Lifespan (in years) | Charge per ML |
|--|---------------------------|---------------|
| Balance Tanks – steel tanks (50 yrs), internal bladder (25 yrs), pipework (40 yrs) & SCADA (20 yrs) | 20 to 50 | \$2 |
| Pump Stations – buildings and civils (40 yrs), pipework (40 yrs), pumps (20 yrs), switch rooms (30 yrs), SCADA (20 yrs) and VSD's (15 yrs) | 15 to 40 | \$12 |
| Pipelines (>100 yrs), Valves and Fittings (20yrs) | 15 to >100 | \$7 |
| Property Outlets and fittings (25 yrs), meters (15 yrs), telemetry (10 yrs) and fibre optics (50 yrs), | 15 to 55 | \$8 |
| Total ARL | | \$29 |

Variable Operating Costs

Variable costs are charged annually and are charged on actual water usage. If an irrigator does not use any water in a season, they will not be charged the variable cost. Variable costs cover the cost of electricity and the cost of water from Hydro Tasmania. Table Three outlines the 2020/21 scheme variable costs.

| Table Three: Supply Area | Hydro/ML | Total Pump Capacity (kW) | Pumping Costs/ML | Variable Cost/ML** |
|--|----------------|--------------------------|------------------|--------------------|
| Northern Midlands 1&2 and Powranna | \$23.65 | 824 | \$24 | ~\$48 |
| Northern Midlands 3 & 4, Valleyfield, ISIS and Valleyfield A | \$23.65 | 1,260 | \$49 | ~\$72 |
| Campbell Town | \$23.65 | 1,346 | \$71 | ~\$94 |
| Average Cost | \$23.65 | | \$47.84 | ~\$72 |

** Variable Operating costs are shown in 2020/21 dollars and include the Hydro Tasmania charge.

For a **100 per cent** sold scheme, the total operating cost for:

| Supply Area | Fixed Operating | ARL | Variable Operating | Total Annual Charge/ML |
|--|-----------------|-------|--------------------|------------------------|
| Northern Midlands 1&2 and Powranna | \$35 | \$ 29 | \$ 48 | \$112 |
| Northern Midlands 3 & 4, Valleyfield, ISIS and Valleyfield A | \$35 | \$ 29 | \$ 72 | \$136 |
| Campbell Town | \$35 | \$ 29 | \$ 94 | \$158 |

* Based on all entitlements being sold. If water sales only achieves the minimum threshold of 75% or 9,750 ML the fixed cost and ARL component of \$64/ML is estimated to be \$85/ML.

For further information about the Northern Midlands Irrigation Scheme and / or its operating costs, please contact:

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