

Optimisation Assessment Report – Executive Summary

# Lockyer Valley and Somerset Water Security Scheme (LVSWSS)

**OCTOBER 2026**

LOCKYER VALLEY + SOMERSET WATER COLLABORATIVE

Lockyer Valley REGIONAL COUNCIL

Somerset REGIONAL COUNCIL

Australian Government | BUILDING AUSTRALIA

Queensland Government

SEQCityDeal

Council of Mayors
South East Queensland

The LVSWSS forms part of the Water Initiatives in the Lockyer Valley commitment being delivered under the South-East Queensland (SEQ) City Deal. The (SEQ) City Deal is a partnership by the Australian Government, Queensland Government and Council of Mayors for South-East Queensland.

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# Overview

The Lockyer Valley and Somerset (LVS) regions are nationally recognised as vital agricultural areas, distinguished by their highly productive farmland and the critical role they play in ensuring Australia's sovereign food security. The region supports intensive horticultural production, supplying a substantial portion of Queensland's fresh vegetables and serves as a critical counter seasonal growing region during winter and spring for the nation.

The LVS is widely known as the "salad & vegetable bowl of SEQ" and functions as a "horticultural powerhouse". The region contributes an irreplaceable and up to 30% of Queensland's and 5% of the nation's overall fresh produce. Strategic investment in water security would unlock the region's agricultural potential, deliver strong economic returns, open up employment opportunities, strengthen supply chain resilience and bolster Australia's long-term food security.

**Figure ES1: Key points about the Lockyer Valley and Somerset Agriculture**



**"SALAD & VEGETABLE BOWL" OF SOUTH EAST QUEENSLAND**

The Lockyer Valley and Somerset are widely recognised as the "salad and vegetable bowl" of South East Queensland and a nationally significant horticultural region.

- **Produces up to 30% of Queensland's vegetables and approximately 5% of Australia's fresh produce**
- **Supplies the majority of SEQ production for key crops including:**

Lettuce **58%**

Onion **55%**

Cabbage **80%**

Leafy Salad Vegetables **80%**

Broccoli **77%**

Cauliflower **80%**

- **Generates approximately $1.4 billion in agricultural production annually**
- **Contributes over $620 million to Queensland's Gross State Product**
- **Supports 1,817 direct jobs**
- **More than 7,500 hectares under cultivation, requiring over 32,000 ML of water each year**

Despite this importance, the substantial value generated by its horticulture sector is restricted by the lack of access to a reliable and affordable irrigation water supply.

The Optimisation Assessment Report (OAR) and its forward steps seek to substantially increase water security to the region by the construction and operation of the Lockyer Valley and Somerset Water Security Scheme (LVSWSS).

# What will this Scheme do?

The Lockyer Valley and Somerset Water Security Scheme (LVSWSS) has been developed to address an increasing and long-term regional water reliability constraint by increasing access to a more reliable and resilient supplementary water supply for irrigated agriculture and other high value uses across the region.

***At the same time South East Queensland's population continues to increase. By 2032 more than 4.5 million people or an extra 500,000 persons will call the region home. By 2036 the SEQ population will increase to 5 million creating ongoing challenges for sovereign food security.***

In recognition of the above, the LVSWSS will provide water availability for irrigation and other high value uses across the Lockyer Valley and Somerset regions. The primary focus of the OAR is to support existing farming enterprises through development of a scheme in which a broad cross-section of existing irrigators can participate, while also providing the opportunity for future production growth. This is intended to enable the economic, regional and food security benefits of a more secure and reliable water supply to build from the region's established agricultural base.

The Lockyer Valley and Somerset farming region is designated Strategic Cropping Land under Queensland legislation to preserve its agriculture values. This designation is also reflected in the Lockyer Valley Regional Council's and Somerset Regional Council planning schemes where the horticulture and other food enterprises are located. This designation combined with the councils' own planning requirements provides protection against the loss of prime farming land to residential or other development.

**THE LVSWSS WILL:**

- Deliver the largest and most reliable, recycled water irrigation scheme in Australia of its kind
- Significantly increase Queensland's and the nation's food security sovereignty
- Use a significantly underutilised urban water asset for the economic benefit of Queensland
- Address critical shortfall in water for irrigation for Queensland's most critical horticultural region driven by increased demand flowing from population growth and the increasing likelihood and severity of climate variability
- Position Lockyer Valley and Somerset as a replacement for key interstate growing regions in New South Wales and Victoria being increasingly eroded by development resulting in loss of farming land
- Deliver $346 million in increased fresh food production annually and an uplift in Queensland's Gross State Product of $239 million
- Provide 781 long lasting jobs addressing regional social disadvantage
- Cascade economic prosperity across regional communities as a result of agricultural supply chain opportunities
- Make a major contribution to the long-term health of Moreton Bay and the region's waterways in partnership with the Council of Mayors of South East Queensland.

# Purpose of this Report

## Optimisation Assessment Report 'OAR'

The purpose of this report is to demonstrate completion of an Options Assessment, that is aligned with Stage 2: Options Analysis of the Queensland Business Case Development Framework, to systematically evaluate and further refine shortlisted potential water supply solutions in order to select a value-optimised Preferred Option that best resolves the region's long-term agricultural water deficit before advancing to a Detailed Business Case.



# Service Need

## There is a structural imbalance between agricultural water supply and demand in the Lockyer Valley and Somerset region.

Existing water sources, including groundwater, supplemented surface water and on farm storage systems are fully allocated and becoming increasingly unreliable due to climate variability, while demand for fresh produce is projected to increase significantly by 2050. This is expected to result in a material shortfall in water availability (estimated at 20,407 ML each year by 2050), constraining agricultural production, regional economic growth and broader food supply outcomes, including food supply resilience and price stability. Production over recent years has plateaued largely due to the uncertainty around water supply.

Without the scheme, the region is unlikely to see any meaningful increase in agricultural output undermining future food security for Queensland and the nation as the population increases. With increased supply and improved water reliability, the LVSWSS will support the further activation of high-quality agricultural land for economic benefit for the entire State.

### DROUGHT

The likelihood of drought impacting the region over this period will only exacerbate the service need.



***Historical data demonstrates significant year-to-year variability in rainfall, while climate projections indicate increasing temperatures and a substantial increase in maximum consecutive dry days from 34 days to 76 days. These conditions are expected to place increasing pressure on existing water resources and agricultural production systems.***

The Millennium Drought serves as a sobering example of the significant impact that droughts have had on Lockyer Valley and Somerset agricultural production. Data from the Millennium Drought highlighted a decrease in production of approximately $200 million annually or more than a 40% reduction.

It is estimated that a drought of similar severity could result in production losses of up to $700 million per year and over 900 jobs impacted over the duration of the drought. There has been no significant additional water security infrastructure delivered to the region since the Millennium Drought.

### STRATEGIC CONSIDERATIONS

The project is directly consistent with a wide range of Queensland and Australian Government strategies that prioritise water security, drought resilience, and food system resilience. Key aligned policies include the Queensland Government's Primary Industries Prosper 2050 Strategy, the recent Strategic Plan released by the Queensland Food Farmer's Commissioner, and the Australian Government's National Food Security Strategy discussion paper. The project has welcomed its inclusion in the five-year plan for South East Queensland under Prosper 2050.

Further to these, the LVSWSS is viewed as a critical enabler for the Queensland Government's goal to boost primary industry output to $30 billion by 2030 and beyond. It provides the reliable water necessary to increase high-value horticulture in a region that has high growth potential compared to other more constrained areas. The proposed water source for the LVSWSS is the highest quality recycled water from the significantly underutilised Western Corridor Recycled Water Scheme (WCRWS).

By using the scheme to increase irrigation water supply to the Lockyer Valley and Somerset region it will also open up the opportunity for the future broader use of the WCRWS for industry. This includes high-water use sectors like data centres, that otherwise would rely on drinking water, effectively creating a new "virtual'' dam in SEQ, for industrial and irrigation use when it is not required to supplement drinking water in extreme drought. It is important to note that in the 17 years since the WCRWS was constructed it has never been required to supplement drinking water.

The LVSWSS has developed a working partnership with the Council of Mayors South East Queensland (COMSEQ) targeted at the realising of synergy and benefits between the scheme and the Resilient Rivers program initiatives.

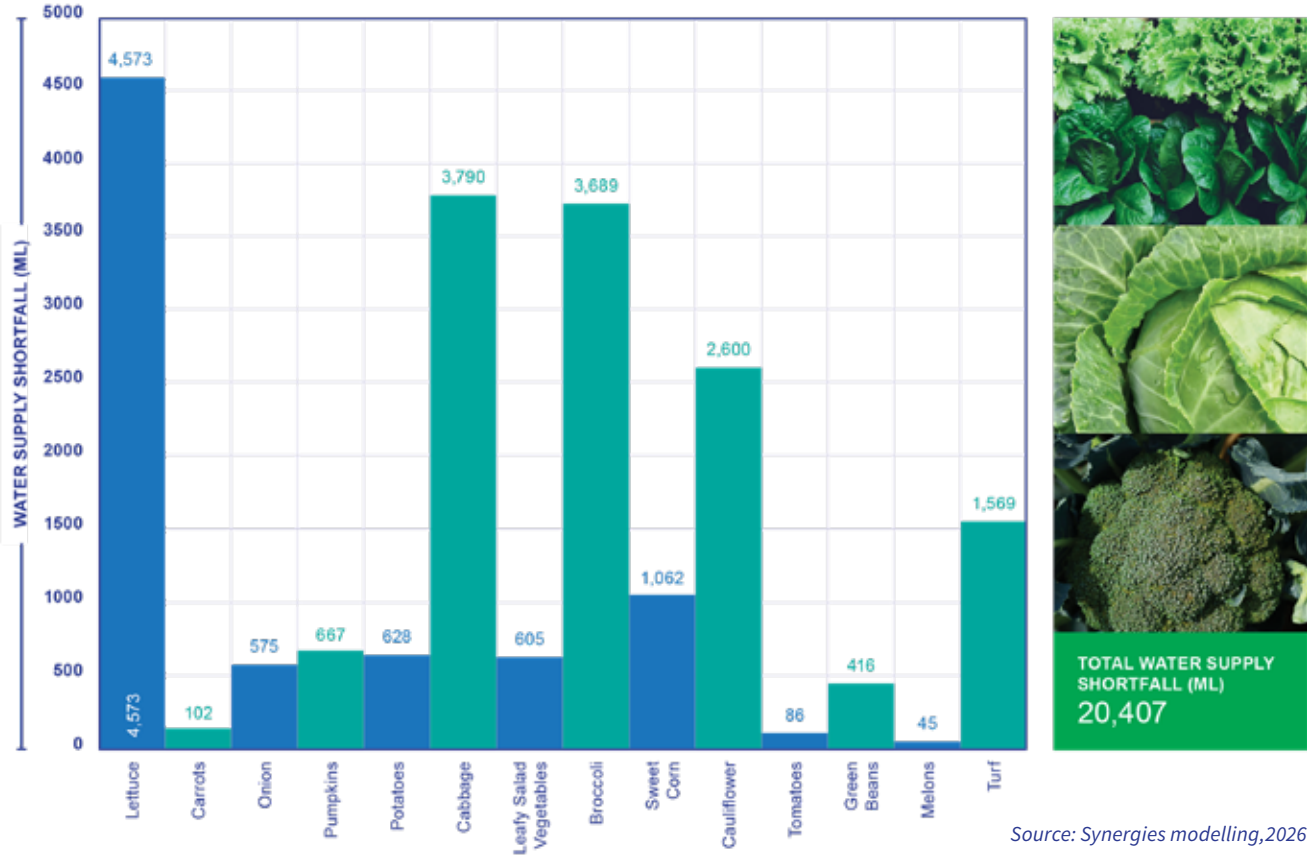
## DEMAND ASSESSMENT

A detailed water supply assessment conducted a start of the OAR indicates that based on the projected demand and with no material change in water supplies available for agricultural use in the region, a major supply-demand gap is projected by 2050. Without intervention, the region faces an unmet demand gap of approximately 20,407 ML per year by 2050.

In addition to constraining growers in the LVS region, this imbalance will result in constraints on the supply of fresh produce to east coast markets, resulting in higher retail prices and supply shortages, in particular during the winter and spring months when the Lockyer Valley is the main growing region for several crops across Eastern Australia.

For some crops – in particular cabbage, leafy salad vegetables, sweet corn, cauliflower, and green beans – the modelled shortfall in 2050 is significant relative to current production of the crop in the Lockyer Valley and Somerset region.

**Figure ES2: Water imbalance and shortfall for the Lockyer Valley and Somerset**




*Source: Synergies modelling,2026*

***In summary, the LVSWSS aims to improve resilience to drought and safeguard the region against the negative impacts of climate variability and water supply shortfall identified above.***

The 2026 customer engagement and demand assessment has provided strong evidence of customer demand for the shortlisted scheme option. As at mid-August 2026, signed Conditional Agreements represent more than 17,000 ML per annum from more than 120 growers and other users, equivalent to approximately 80% of the 22,000 ML per annum. This level of commitment, evidenced by $1.3 million in committed customer deposits, demonstrates substantial customer support and willingness to invest in the proposed scheme.

The customers will contribute a total of $10 million in capital funding (subject to securing of State and Commonwealth capital funding) a significant point of difference to most other irrigation projects, both historic and current. This investment is on top of a mid-range estimate of $65.2 million in grower funding for on-farm infrastructure, including new water storages, to ensure best and most efficient use of the new water supply. The project expects the scheme to be fully subscribed prior to the commencement of construction, noting that design will allow for future augmentation and additional capacity.

## CONSISTENT WITH OLYMPIC GAMES VISION AND TIMING

The OAR has been developed to support the project objective of a final capital decision no later than the end of 2027 to allow construction to be completed by first half of 2031. This timing is important as it would allow a full growing season ahead of the 2032 Olympic Games. The Lockyer Valley and Somerset region will be a major contributor to feeding the Games. The LVSWSS would support an 'Olympic ready' Queensland. The project would allow a significant increase in food grown for the Games beyond existing contract arrangements and effectively kick start a substantial increase in annual production to almost $1.8 billion, or almost a 25 per cent increase on today's fresh produce output. Of key importance is that any delays in approval and support will defer the commencement of the LVSWSS and its associated benefits.

## PUTTING VITAL FOOD ON TABLES – AROUND THE NATION

An increase in water availability and reliability will deliver substantial economic, social and environmental benefits to SEQ, Queensland and Australia. Importantly it is not just that the Lockyer Valley and Somerset grow 30 per cent of Queensland's and 5 per cent of the Nation's fresh produce, the food it grows are the staples including cauliflower, beans, cabbages, broccoli and carrots. A more consistent production outcome driven by high water reliability will also help drive food price stability and affordability.

## ENVIRONMENTAL BENEFITS

In addition to the increased food security delivered, the project is also pursuing a major environmental initiative in partnership with COMSEQ. The LVSWSS has the potential to develop a large-scale Sediment Reduction Program that would redesign the agriculture landscape of the region, keep topsoil on farming land, reduce drinking water treatment costs for Seqwater, dredging costs for the Port of Brisbane, and make a major contribution to the future health of Moreton Bay. The Sediment Reduction Program would be a significant contributor to the COMSEQ's Resilient Rivers Initiative to improve catchment and waterway health across the region.



## STRONG COMMUNITY AND STAKEHOLDER SUPPORT

The project has established a strong "social licence' to operate and has received significant support from key peak industry groups and sector experts. The LVSWSS has been driven by the Lockyer Valley and Somerset Water Collaborative, a broad community collective including both local governments led by the Mayors, grower representatives and industry. The project has established a Stakeholder Advisory Group (SAG) involving key peak industry groups and recognised sector experts. This has included the Council of Mayors of South East Queensland, the Queensland Farmers' Federation, Queensland Fruit and Vegetable Growers, Turf Queensland, Greenlife Industry Queensland, Regional Development Australia Ipswich and West Moreton and the Institute for Agriculture, Climate and the Environment (IACE) at University of Southern Queensland.

In addition, the project formed a Senior Leadership Group including the Chief Executives of both councils, Urban Utilities (water retailer) and Seqwater (owner and operator of the WCRWS). Together with the SAG, both groups have been an important point of reference in development of the project. The project has also advanced discussions with both the University of Queensland (Gatton campus) and University of Southern Queensland (IACE) about the research, training and capacity building opportunities that will exist should the project proceed.

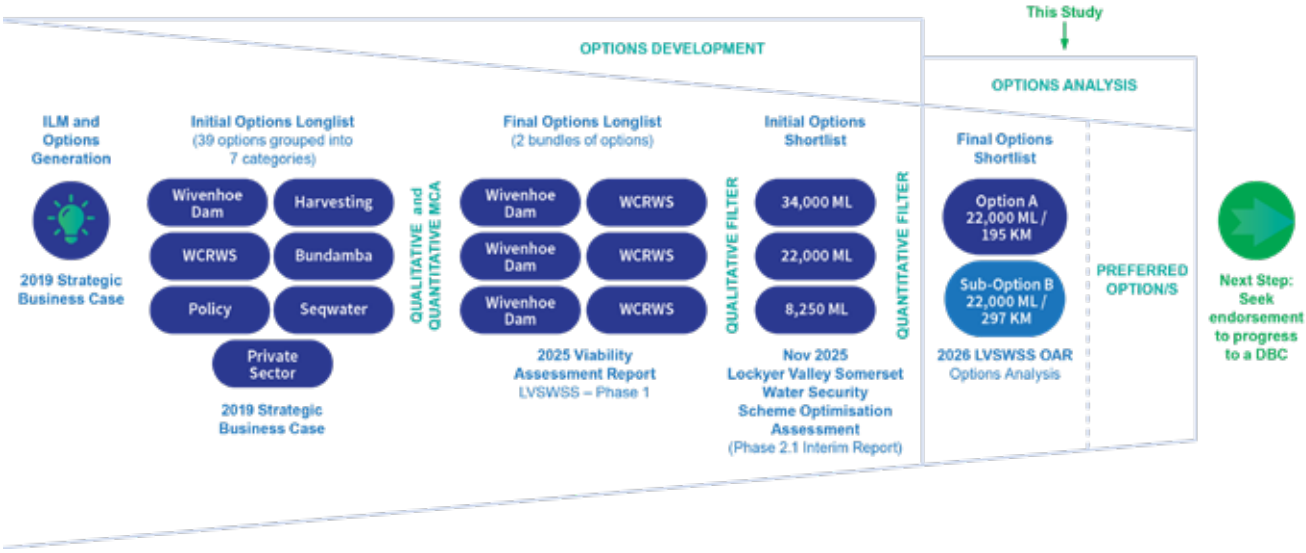


# Options

## OPTIONS ASSESSMENT PROCESS

This Options Assessment incorporates the outcomes of extensive successive phases, scheme iterations, studies and reports undertaken on a large range of options over the past decade to increase agricultural water supply security for the Lockyer Valley and Somerset. These reports and the project development's strong history, made possible by various grants and funding schemes, have been fundamental is shaping the project to date. The OAR (this report) has been funded by the SEQ City Deals initiative. The figure below provides a high-level summary of those precedent studies and the option filtering process that informed this report.

**Figure ES3: High-level summary of precedent studies and option filtering process**




This Options Analysis conducts a quantitative assessment on a 22,000ML per annum option (per recommendation from the November 2025 report) and a qualitative assessment on a second sub-option which was developed after understanding current demand from actual water sales which also considers 22,000ML per annum, but over a larger area.

## OPTIONS ASSESSED

### Option A (22,000 ML per annum delivered through a 195km pipeline)

Option A responds to the identified service need which is the lack of a reliable and sustainable water supply to support existing and future agricultural production within the Lockyer Valley and Somerset regions. This option proposes to supply recycled water from the Western Corridor Recycled Water Scheme (WCRWS) to participating customers through a new regional transmission and distribution network, with an adopted scheme capacity of approximately 22,000 ML per annum delivered through a 195km pipeline.

Option A includes the infrastructure required to convey, store and distribute water from the WCRWS to defined customer connection points, including transmission and distribution pipelines, pump stations, balancing and service storage, energy infrastructure, control systems and associated supporting infrastructure. Metering and connection infrastructure at the customer connection points also form part of Option A.

A Concept stage design and quantitative analysis has been completed on Option A. The parameters of Option A are outlined below.

**Table ES1: The parameters of Option A**

| Parameter | OAR Preferred Option Technical Summary |
|---|---|
| Annual supply volume | Approximately 22,000 ML per annum |
| Scheme reliability | Minimum approximately 90% |
| Customer water availability | 24 hours per day, 365 days per year, except during planned maintenance and unplanned outages |
| Bulk water source | Western Corridor Recycled Water Scheme |
| WCRWS interface | Western Pipeline near Coominya, subject to confirmation with Seqwater |
| WCRWS supply basis | Approximately 22,000 ML per annum supplied over 330 days per year, representing approximately 90% source supply availability, with a maximum supply rate of approximately 66.7 ML per day and an average supply rate of approximately 60 ML per day |
| Peak delivery capacity | Approximately 81.5 ML per day, based on customers taking their annual allocation over 270 days |
| Pumping regime | Customer demand assessed over 270 days per year, with pump stations sized to meet maximum daily supply within approximately 23 hours |
| Total pipeline length | Approximately 195 km |
| Main transmission pipeline length | Approximately 59 km |
| Main transmission pipeline diameter range | Approximately 500 mm to 1000 mm |
| Distribution network length | Approximately 136 km |
| Distribution network diameter range | Approximately 90 mm to 500 mm |
| Initial Balancing Storage (IBS) | Approximately 3.4 GL turkey nest storage |
| Service storage | Nine balance tank sites |
| Pump stations | 10 |
| Energy supply | Grid connections supported by onsite solar generation and battery energy storage |
| Civil asset design life | Approximately 50 to 80 years, depending on asset class |

**Option A (22,000ML per annum delivered through a 195km pipeline) is intended to:**

Receive recycled water from the WCRWS under agreed bulk supply and operating arrangements.

Provide water availability to customers 24 hours per day, 365 days per year, except during planned maintenance and unplanned outages.

Convey water to the Lockyer Valley and Somerset service areas through a pressurised transmission and distribution system.

Balance WCRWS supply against variable customer demand through the Initial Balancing Storage (IBS) and distributed balance storage.

Provide scheduled, metered and managed delivery to defined customer connection points.

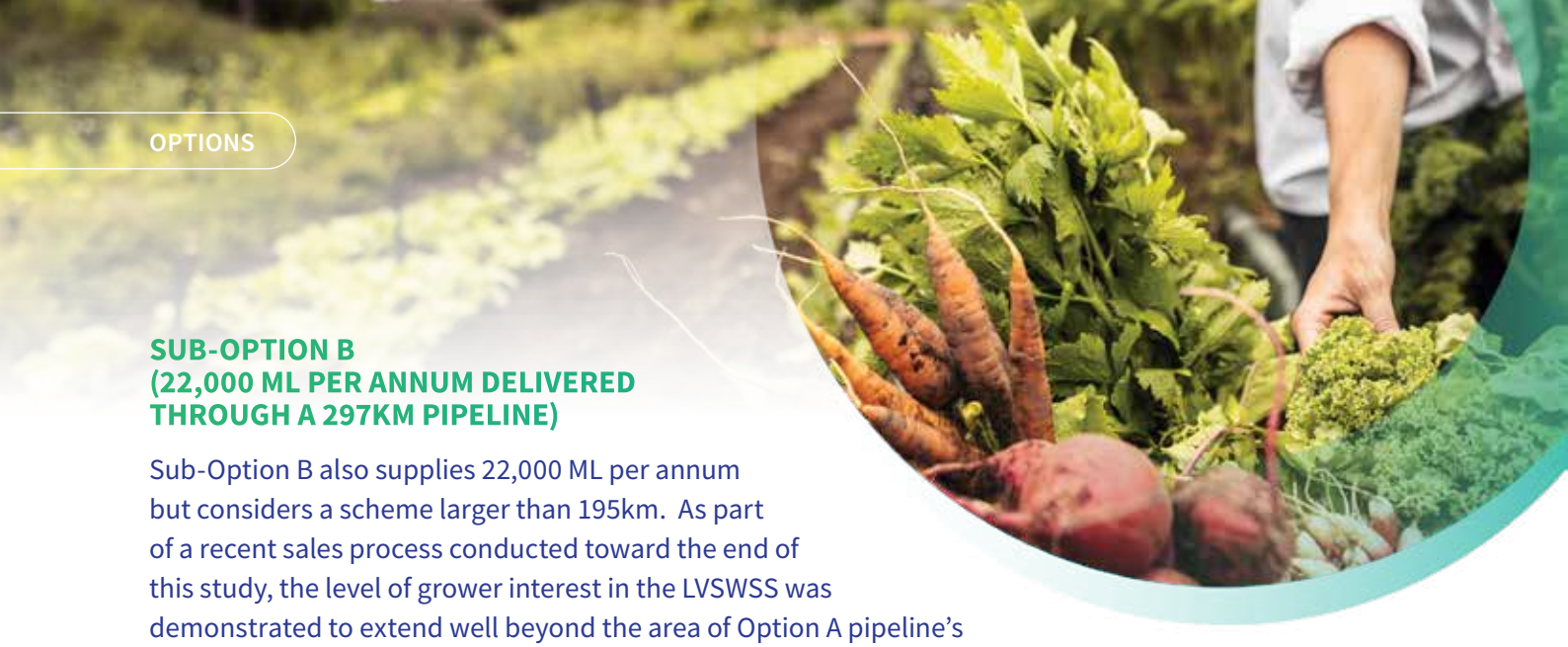
Monitor water movement, storage, pressure, flow and customer deliveries through centralised control and SCADA systems.

Support optimisation of operating energy costs through coordinated use of grid electricity, solar generation and battery storage.

Provide operational flexibility and resilience during planned and unplanned equipment outages.

Maintain flexibility for future network expansion, where practicable, while excluding the cost and physical scope of expansion beyond the assessed 22,000 ML per annum scheme capacity.



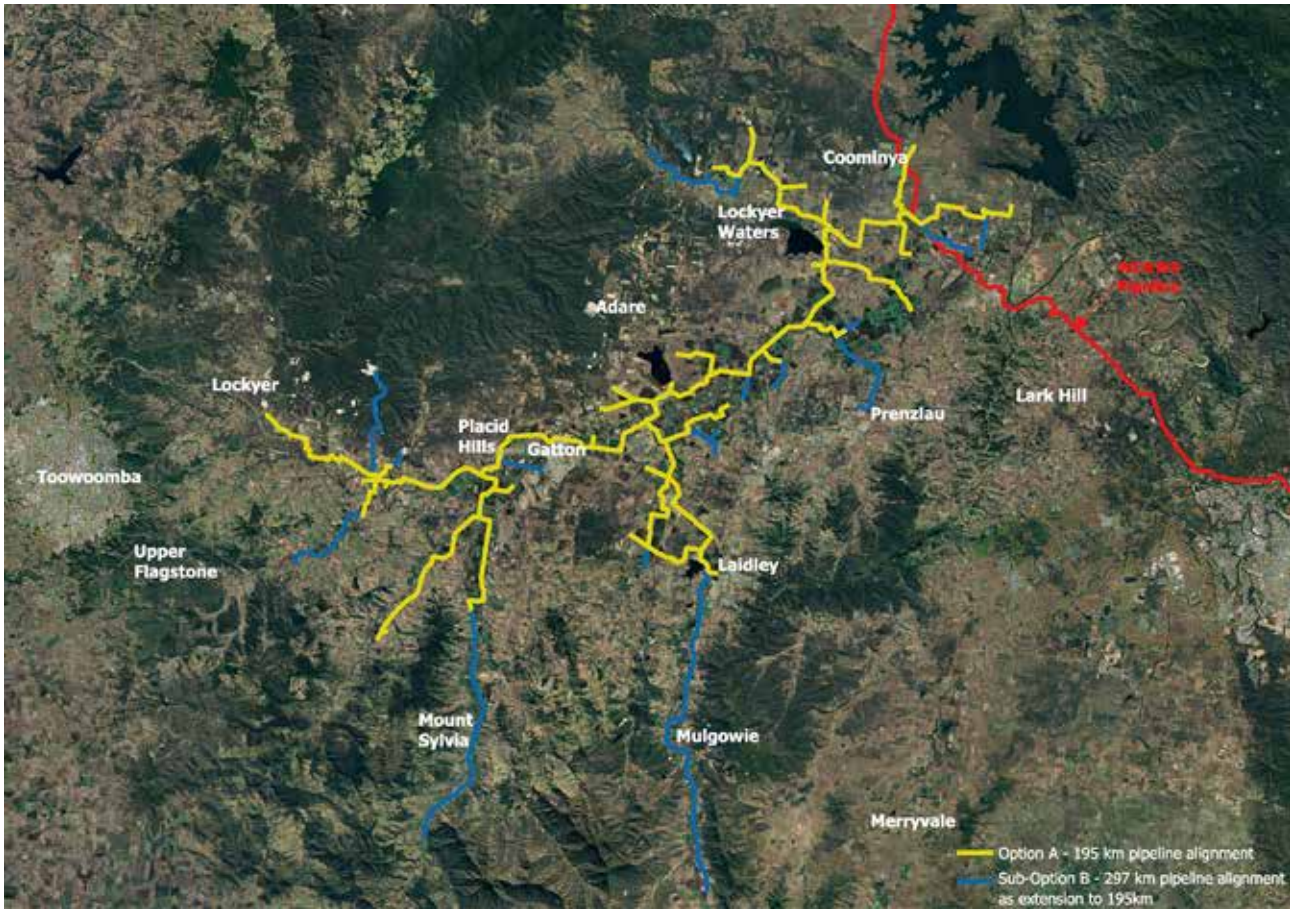


## SUB-OPTION B (22,000 ML PER ANNUM DELIVERED THROUGH A 297KM PIPELINE)

Sub-Option B also supplies 22,000 ML per annum but considers a scheme larger than 195km. As part of a recent sales process conducted toward the end of this study, the level of grower interest in the LVSWSS was demonstrated to extend well beyond the area of Option A pipeline's alignment. The project engineer has estimated that the necessary length of pipeline to capture this level of interest is 297 km.

Accordingly, Sub-Option B (22,000 ML per annum delivered through a 297km pipeline) has also been considered. Due to the late inclusion of Sub-Option B, only qualitative and high level quantitative consideration has been completed to date.

**Figure ES4: Option A (195 km) and Sub-Option B (297km) Indicative Schemes**



## SUPPLY, COST AND OPERATING APPROACH

The proposed capacity of the LVSWSS of 22,000 ML per annum is equivalent to approximately one third of the capacity of the WCRWS and would increase the volume of water available for irrigation, industrial and other high value uses across the Lockyer Valley and Somerset by approximately 50%. Water that is supplied by recycling wastewater is water saved from dams - and available to the general drinking system

One of the three Advanced Water Treatment Plants that make up the WCRWS, Luggage Point, is already three-quarters recommissioned and operating. Luggage Point can currently produce almost 17,000ML a year. A fully operational Luggage Point could supply up to 23,000ML annually. The cost of remobilising the last quarter capacity of the plant would be far less than recommissioning either the Gibson Island or Bundamba plant.

In summary, the WCRWS already has the capacity to supply most of the water requested by the LVSWSS today to maximise the benefits of an investment urban water users have already made in remobilising Luggage Point.

**The project has developed the below key supply, cost and operating assumptions:**

- The WCRWS is highly underutilised water infrastructure
- Access to high-quality recycled water from the WCRWS approx. 330 day/year
- Seqwater being able to supply the Lockyer Valley and Somerset Water Security Scheme (LVSWSS) directly
- Any legislative or policy changes required to allow the project to proceed
- New scheme reservoir to allow adequate storage to manage seasonal patterns of water use and expected volumes during wet and dry periods. (Note further work on operating rules to be undertaken as part of the next stage of the project)
- Lowest cost marginal farm gate price with LVSWSS customers
- Farmgate price does not include WCRWS remobilisation costs
- The Queensland Government is open to considering a Community Service Obligation to bridge between cost of PRW production and grower capacity to pay
- Urban water users not disadvantaged in price or supply
- The project has not accounted for any impact on urban water security
- LVSWSS customers to have the same supply conditions as urban industrial users in drought
- No consideration on impact on SEQ urban water security outcomes in the central scenario for benefit assessment (Note OAR recommendation for independent modelling to assess impact on urban water security)
- Any remobilisation costs of the WCRWS to be recovered in urban bulk water charges as asset remains part of the SEQ Drought Response Plan
- Apart from the above, no consideration of project impact on Seqwater revenue, asset value, or bulk water pricing (OAR assumes this assessment will be undertaken independent of the project)
- A future operating model of a Locally Managed Entity (LME) and option to expand the LME to include existing regional irrigation schemes.

# Cost

Project costs are broken into capital requirements and ongoing annual funding required to cover a price difference between the cost to produce recycled water and the capacity of customers to pay.

### COST: OPTION A (22,000ML PER ANNUM DELIVERED THROUGH 195KM PIPELINE)

The OAR base capital funding case for Option A (22,000ML delivered through 195km) is $739.1 million ($'2027 Nominal). The OAR notes that the Interim advice from the project to the Queensland Government in November 2025 (Phase 2.1 Interim Report) indicated an initial capital funding assessment of $650 million. The updated capital assessment reflects studies undertaken to finalise the OAR which have delivered a higher class of estimate.

In the next phase of project development (Detailed Business Case), the capital cost will be further refined as pipeline design, importantly incorporating the water sales to date, and the approval pathways are locked in. The OAR notes the timing of the water sale process from May-August 2026 did not allow for the outcome to be incorporated into the Preferred Option pipeline design.

Option A (22,000ML delivered through 195km) is based on the pipeline route from the Viability Assessment Report and the last of the grower Expression of Interest processes conducted in 2024 prior to this year's water sales process. The operational costs are calculated over a 30-year lifecycle, assuming the system operates 330 days per year in a 24/7 mode, to allow for planned shutdowns and maintenance, and are estimated at $191.14 million. Water is available from the scheme 365 days per year. In addition to these variable costs the Part B water price (Bulk water price) is $1,029.19 per ML representing an annual cost of $22,642,172 ($'2027 Nominal). The total variable cost for recycled water (Part B plus scheme operational and distribution costs) is $1,318.80 per ML representing an annual cost of $29,013,600 ($'2027 Nominal).



*Source: Somerset Regional Council*

**Table ES2: Summary of LVSWSS Capital and Operational Expenditure Estimates – Option A ($ nominal)**

| Item | Full LVSWSS | |
|---|---|---|
| | P50 | P90 |
| **CAPEX** | | |
| Construction Value | $484,301,706 | $484,301,706 |
| Owner's Cost | $84,098,991 | $84,098,991 |
| Basis of Estimate (CV + OWN) | $568,400,698 | $568,400,698 |
| Risk & Contingency Allowance | $103,913,977 | $138,675,733 |
| **TOTAL PROJECT COST (July 2026)** | **$672,314,675** | **$707,076,431** |
| Escalation – up to July 2027 | $30,455,855 | $32,030,562 |
| **ANTICIPATED COST (escalated to July 2027, excl. GST) - CAPEX** | **$702,770,529** | **$739,106,993** |
| **OPEX** | | |
| Direct Cost | $103,257,730 | |
| Operator and Consultants Fee | $9,084,656 | |
| External Fees (Power & Water) | $42,257,361 | |
| Subtotal Direct Cost + Fees | $154,599,747 | |
| Risk & Contingency | $28,260,834 | |
| Subtotal incl. Risk | $182,860,581 | |
| Escalation – up to July 2027 | $8,283,584 | |
| **ANTICIPATED COST (escalated to July 2027, excl. GST) - OPEX** | **$191,144,165** | |
| Part B water price (water purchase price variable) | $679,265,152 | |

*Source: ECS and QEAS, 2026.*





## COST: SUB-OPTION B (22,000ML PER ANNUM DELIVERED THROUGH A 297KM PIPELINE)

Using the Class 3 AACE cost estimate for Option A as a base (22,000 ML per annum delivered through a 195 km pipeline), an indicative, high level cost estimate of $1.1B ($'2027 Nominal) has been derived for Sub-Option B as outlined below:

**Table ES3: Indicative, high level cost estimate for Sub-Option B ($ nominal)**

| **CAPEX** | |
|---|---|
| Construction Value | $737,628,752 |
| **Owner's Cost** | **$84,098,991** |
| Basis of Estimate (CV + OWN) | $821,727,743 |
| Risk & Contingency Allowance | $211,213,809 |
| **TOTAL PROJECT COST (July 2026)** | **$1,032,941,552** |
| Escalation – up to July 2027 | $46,792,251.83 |
| **ANTICIPATED COST (escalated to July 2027, excl. GST) - CAPEX** | **$1,079,733,804** |

*Source: ECS and QEAS, 2026*



*Source: Lockyer Valley Regional Council*

# Risk, Approvals and Delivery Readiness

The project has undertaken a comprehensive and facilitated Risk Assessment as part of the study inputs for the OAR (this report) and has not identified any technical fatal flaws.

The highest remaining risks are strategic, commercial, institutional and are typical of a project at concept design stage. These risks will be further assessed and updated, with all mitigation presented at completion of the next phase (Q3/Q4 2027) in the Detailed Business Case.

**Table ES4: Delivery Readiness Activities**

| Critical Dependency | Required action prior to FID |
|---|---|
| WCRWS access and bulk water supply | Agree source water availability to Scheme, operating triggers, service levels, pricing, risk allocation, and long-term contract with Seqwater supported by government policy settings. |
| Funding and affordability | Confirm capital funding responsibilities, customer contributions, and a durable CSO mechanism including;<br>• long term supply contract<br>• the establishment of water entitlements<br>• same supply conditions as industrial customers in drought |
| Approvals and environmental matters | Advance the preferred coordinated approvals pathway inclusive of an initial Works Regulation Order, complete field investigations, define offsets, and confirm State and Commonwealth requirements. |
| Land and cultural heritage | Confirm the final corridor and project-related footprint (construction, and operations), implement landholder engagement and tenure acquisition strategies, progress Cultural Heritage Management and native title processes. |
| Governance and operating entity | Establish fit-for-purpose delivery governance and customer-owned Local Management Entity, with clear transition arrangements into operations (via SPV delivery model). |

The preferred approvals approach is a coordinated project pathway integrating State and Commonwealth environmental assessment, planning designation, and land acquisition mechanisms. Environmental and social impacts are expected to be predominantly construction-related, and manageable through detailed design, engagement processes, and construction management. As the project progresses, detailed investigations will assess ecological, groundwater, flooding, cultural heritage, noise and air quality impacts, and offset requirements.

# Delivery Model

The OAR recommends a Local Management Arrangements (LMA) model involving the establishment of a Locally Managed Entity (LME) responsible for the operation, maintenance, and financial management of the irrigation distribution scheme.

Decision-making is handled locally, ensuring that water delivery and maintenance schedules are better aligned with specific crop cycles and local farming systems. As irrigators bear the financial outcomes, LMEs have a direct focus on value for money. Boards include local irrigator directors, ensuring high levels of trust and transparency in how funds are allocated. Irrigation schemes in Emerald, Eton, St George, and Theodore— that have transitioned from Sunwater management between 2018 and 2020 demonstrate that local management is highly successful. While prices were increasing by 4.9% to 6.8% annually under state management, LMEs have successfully stabilised or declined water prices in real terms. These LMEs achieved significant savings by reducing administrative overheads, which previously accounted for approximately 43% of the cost base. There have been no scheme failures or requirements for government intervention since the transitions.

The preferred governance approach is a customer-owned entity established as a company limited by guarantee and overseen by a board elected by irrigator-customers via an initial Special Purpose Vehicle (SPV, with government control) transitioning to the LME.

**The proposed LME would enter into the following primary agreements:**

| | |
|---|---|
| 1 Bulk Water Supply Contract | A formal arrangement with Seqwater setting the terms and price for bulk water supply. |
| 2 Customer Contracts | Individual contracts with each irrigator defining their specific share of bulk water and the delivery capacity of the network. |

***The proposed model is consistent with Local Management Arrangement approaches adopted across a number of Queensland irrigation schemes.***



# Economic Impact

## There is a strong relationship between water availability and agricultural production within the region.

The project will significantly increase water reliability for growers in the LVS region. This will protect and support the expansion of agricultural production, in particular seasonal horticulture, generating economic benefits through increased farm-gate value and an improved supply of key vegetable crops, including during counter-seasonal windows.

Facilitating the growth of the horticulture sector in SEQ will also have flow-on benefits to the LVS regional economy, supply chain and community. It is consistent with Queensland Government policy targeting growth in agricultural production.

The key benefit of the LVSWSS is its ability to supplement the existing water sources and support higher-value and more diverse agricultural production systems. Reliable and climate resilient water supply will enable irrigators to plan and invest with greater certainty supporting more intensive agricultural activities, including plant nurseries, turf farms, meat production, quarrying and education and research activities.

Significant industry opportunities continue to emerge in the region, including specialist food processing, food packaging, transport, and storage and new agritourism developments.

**The LVS is strategically located with access to major markets and transport infrastructure, with easy access to:**



Two hours of transport (produce delivery) time to most of **SEQ**, which has a population of 3.5 million (< 160 km)



One hour to **Rocklea fruit and vegetable markets** (83 km)



**Wellcamp Airport** (53 km) and **Brisbane airport** (104 km)



**The Port of Brisbane** is located 120 km away



Overnight delivery to the **Sydney basin**

The LVSWSS seeks to both support existing and boost agricultural production within the Lockyer Valley and Somerset region which currently generates approximately $1.4 billion annually and contributes approximately $621.8 million to Gross Regional Product ($'2027 Nominal).

Improved water reliability within the region is expected to elevate the important position of the Lockyer Valley and Somerset within the broader national horticultural supply chains, supporting seasonal production continuity and supply resilience during climate and market disruptions affecting other growing regions.

The LVSWSS is projected to function as enabling economic infrastructure supporting long-term regional productivity and investment building on and protecting an already important economic contribution.

## PRODUCTION & CONTRIBUTION

An annual increase in LVS agricultural production value of **$345.6 million** (a 25% increase on existing production).

Annual contribution of **$239 million** Gross State Product.



## EMPLOYMENT

Secures **4,598 permanent jobs** including full time and seasonal workers and **781 new jobs**.

## ECONOMIC IMPACT MODELLING FOR OPTION A (22,000 ML PER ANNUM DELIVERED THROUGH 195KM PIPELINE) ANTICIPATES:

**Table ES5: Results of economic impact modelling - ($ nominal)**

| Metric | Current Agriculture | Newly Impacted Project Impacts | | |
|---|---|---|---|---|
| | | DIRECT | INDIRECT | TOTAL |
| **Lockyer Valley and Somerset Region** | | | | |
| Gross output ($ million) | $1,403.86 | $345.57 | $43.54 | $389.11 |
| Gross Regional Product ($ million) | $621.75 | $165.13 | $16.39 | $181.52 |
| Labour income ($ million) | $112.32 | $28.34 | $4.99 | $33.33 |
| Employment (FTE) | 1,817 | 450 | 69 | 519 |
| **Queensland** | | | | |
| Gross output ($ million) | $14,598.36 | $345.57 | $126.35 | $471.92 |
| Gross Regional Product ($ million) | $7,487.21 | $189.07 | $49.95 | $239.02 |
| Labour income ($ million) | $1,408.20 | $33.51 | $21.56 | $55.07 |
| Employment (FTE) | 22,111 | 549 | 233 | 781 |

*Source: Synergies modelling, 2026*

The project is forecast to increase LVS agricultural production by $345.57 million each year that in turn creates $239.02 million ($'2027 Nominal) in increased net economic activity and 781 jobs. Most importantly, this increase in agricultural production is designed to meet increased population growth in SEQ; provide a replacement to the erosion of Greater Sydney agricultural basin as a result of residential encroachment; and capitalise on emerging export opportunities. In doing so, the project is not anticipated to displace any existing agricultural production in Queensland.



Export markets in particular present a high-value opportunity for Lockyer Valley and Somerset growers transitioning into higher valued commodities. Water security from the LVSWSS provides the much needed and essential catalyst, enabling growers to secure lucrative long-term international contracts, invest in year-round protected cropping, and drive long-term regional economic resilience.

The project is also expected to support a transition toward higher value agricultural production systems, including increased value-add processing and protected farm production, which will contribute further increased permanent employment opportunities across the region.

## NET BENEFIT ASSESSMENT

Option A (22,000 ML per annum delivered through a 195km pipeline) returns a Benefit Cost Ratio (BCR) of 0.59, with a Net Present Value (NPV) of ($357.03 million) at a 7% real social discount rate over 30 years.

Increased seasonal horticulture production accounts for approximately 62% of total quantified benefits, contributing $314.25 million in Present Value terms. This is driven by the region's strategic importance as a counter-seasonal growing area for high-value crops like lettuce, broccoli, carrots etc. Total economic benefits exceed $510.7m million (PV terms).

Total economic costs are valued at $867.8 million (PV terms), comprising $563.2 in capital costs and $304.6 million for ongoing operating, maintenance, and lifecycle costs for the recycled water infrastructure and distribution network.

In relation to the BCR of 0.59, it is important to consider the results of the cost-benefit analysis in context, firstly in terms of the BCR result relative to other non-urban bulk water projects and secondly in terms of the limitation of cost-benefit analysis as it is applied in the non-urban bulk water sector as they typically involve:

- Significant upfront capital investment
- Long asset lives
- Benefits realised over extended periods
- Broader economic, environmental and social outcomes that are not always fully captured through conventional cost-benefit analysis methodologies.

**Table ES6: Results of cost-benefit analysis for Option A (22,000 ML per annum delivered through a 195km pipeline) (NPV $-million)**

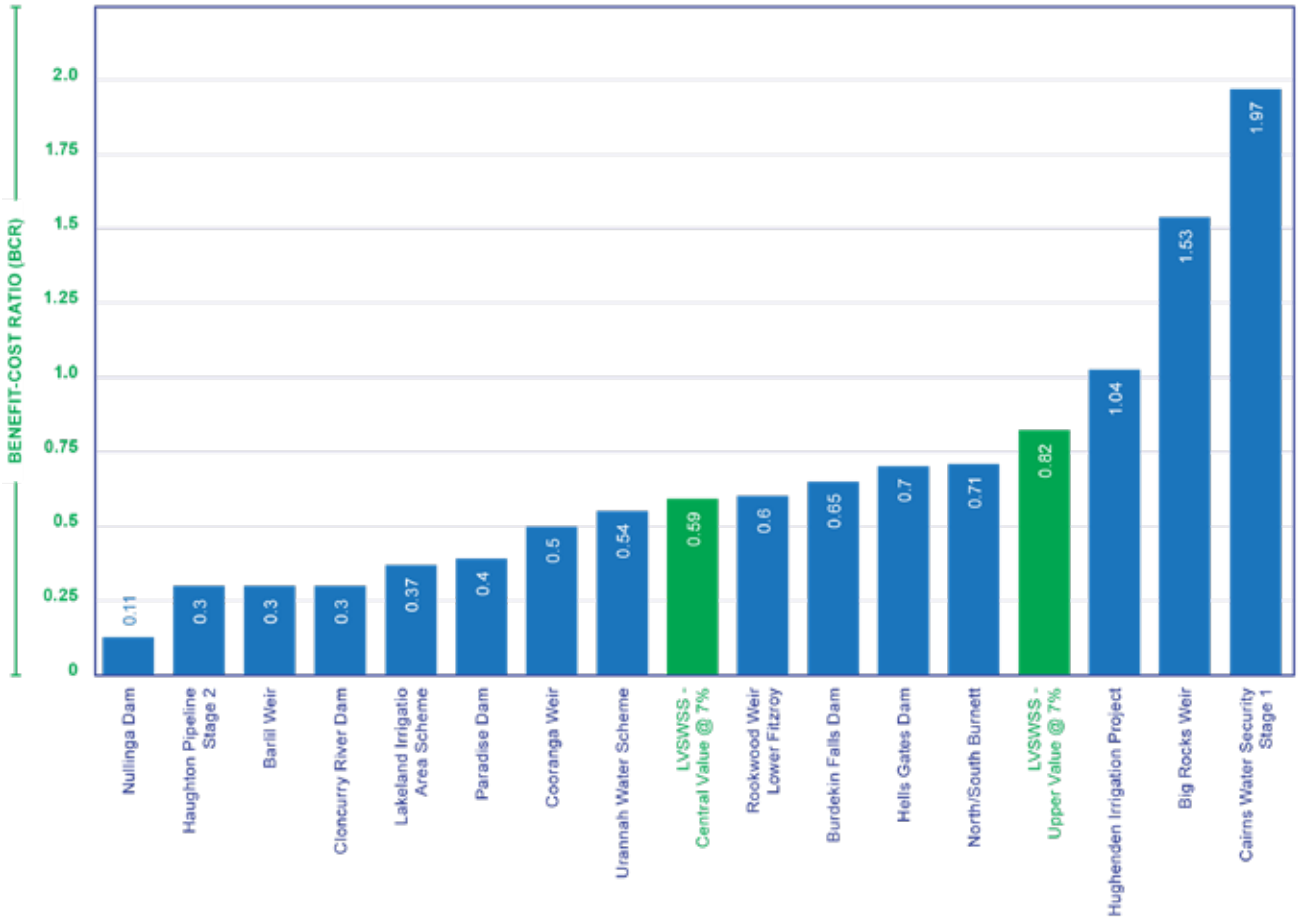
| Impact | Real social discount rate | | |
|---|---|---|---|
| | 5% | 7% | 10% |
| **Economic Benefits** | | | |
| Increased seasonal horticulture production | $622.22m | $314.25m | $179.89m |
| Increased intensive animal production | $173.02m | $94.44m | $59.17m |
| Other irrigation water uses | $167.45m | $86.98m | $51.53m |
| Increased broadacre crop production | $8.97m | $4.90m | $3.07m |
| Value of industrial production | $18.64m | $10.17m | $6.37m |
| **Total economic benefits** | **$990.30m** | **$510.74m** | **$300.03m** |
| **Queensland** | | | |
| Capital costs | $633.77m | $563.16m | $502.17m |
| Operating and maintenance costs | $561.95m | $304.61m | $189.65m |
| **Total economic costs** | **$1,195.72m** | **$867.77m** | **$691.82m** |
| Net Present Value | ($205.42m) | ($357.03m) | ($391.80m) |
| Benefit Cost Ratio | 0.83 | 0.59 | 0.43 |

*Source: Synergies modelling, 2026*

An LVSWSS built today secures water for future generations. Water infrastructure lasts 50 to 80 years. At a 7% discount rate, any economic benefits (e.g., increased agricultural production or drought resilience) generated beyond year 20 are discounted so heavily that they mathematically round down to near zero. A lower discount rate at 4% better values these long-term economic, societal and environmental benefits and indicates the project's true long-term value than the 7% base case obscures. The 4% discount rate delivers a BCR of 0.83. Certain scenarios (higher crop prices and increased irrigator uptake to 25,000 ML) deliver an increased BCR of 1.06 at a 4% discount rate.



**Figure ES5: Comparison of Queensland Major Water Infrastructure BCRs @ 7% Discount Rate (Real)**




The Benefit-Cost Ratio (BCR) for the LVSWSS places it in the mid-to-upper tier when compared to other major Queensland water infrastructure proposals evaluated at a 7% discount rate. At a Central case BCR of 0.59, LVSWSS outperforms numerous regional water proposals—including the Nullinga Dam (0.11), Stage 2 Haughton Pipeline (0.30), Paradise Dam (0.40), and Urannah Water Scheme (0.54)—while performing comparably to Rookwood Weir / Lower Fitzroy (0.60) and Burdekin Falls Dam (0.65). Furthermore, under the LVSWSS Upper Value scenario @ 7% (0.82), its economic return exceeds projects such as Hells Gates Dam (0.70) and North/South Burnett (0.71), placing it closer to high-performing infrastructure schemes.

A key observation when considering which projects have gone ahead is that Queensland has demonstrably built major water infrastructure with BCRs below 1.0. Rookwood (~0.6) and Haughton Stage 2 (0.30) are particularly strong evidence of this. Rookwood commenced construction in 2021 and Haughton Stage 2 commenced construction in 2023.



The most recent bulk water project developed in a regional setting is the Rookwood Weir project (Lower Fitzroy River Infrastructure Project). Construction of Rookwood Weir, which is primarily for agricultural supply in addition to supplementing industrial and urban users, was completed in 2023 at a cost of $568.9 million. The DBC for the project was completed in 2017 and returned a BCR of 0.6 at a real social discount rate of 7 percent. The Queensland Government has also recently committed funding for the construction of the Barlil and Cooranga Weir projects in the Wide Bay-Burnett region. This is after the projects were assessed by the Bundaberg and Burnett Regional Water Assessment and returning BCRs of 0.3 and 0.5 (real social discount rates of 7 percent) respectively.

This suggests that for LVSWSS, the most useful analysis isn't simply the BCR at 0.59. Rather food security, sovereign capability, increased economic activity and jobs have been arguably more important influencers on actual decisions to proceed.

For example, the Paradise Dam Improvement Project (BCR 0.4) has so far had $352.5 million funding allocated to it by Queensland Government. There has been significant horticulture growth since Paradise Dam was built including:

- Bundaberg now accounts for more than half of Australia's macadamia production. This scale of industry did not exist prior to the dam's construction and is widely attributed to the water reliability the dam was meant to deliver.
- Government statements emphasise Bundaberg's national importance as a horticulture hub, noting that a rebuilt Paradise Dam will support local food production. This framing reflects substantial agricultural growth over the past two decades.
- The Bundaberg region now features large-scale macadamia, avocado, citrus, and sugar cane production, described as "sprawling" and visually dominant across the landscape. This diversified horticulture footprint is far larger than what existed before the dam.
- Even during periods of uncertainty about the dam's structural integrity, irrigators have still received high water allocations (90–100%) in recent years. This indicates that the sector has remained productive and resilient.

Most of these desirable characteristics (and additional ones also exist for the LVSWSS. Across forward estimates, Paradise Dam Improvement Project has $1.2 billion committed to it from both the Queensland and Australian Governments reflecting its importance to the Bundaberg region. This level of funding demonstrates the importance of supporting critical food growing regions through water infrastructure and in turn provides a strong rationale for also funding the LVSWSS.

# Financing and Affordability

To realise these substantial economic, social and environmental benefits identified through the OAR, funding contributions will be required from irrigators, the Queensland Government and the Commonwealth Government.

Like most agricultural water projects, the LVSWSS is not commercially viable without government support due to high capital costs and its unsuitability of standard private sector funding. Attempting to recover the full capital costs entirely from customer tariffs would push water prices impossibly beyond the growers' ability to pay, resulting in a collapse in demand.

Option A (22,000 ML per annum delivered through a 195km pipeline) estimate requires capital investment of $739.1 million. In return the scheme will deliver an annual $346 million in increased production and lift Queensland's Gross State Product by $239 million year on year.

The next stage of the project (BCDF Stage 3: Detailed Business Case) will determine the final Reference Project, capital funding and the approval approach required. Despite the significant benefits outlined above, it is clear that the scheme will require funding from both the Queensland and Australian governments to proceed under a preferred operational model of a Local Managed Entity (LME). Attempting to recover the full capital costs entirely from customer tariffs would push water prices impossibly beyond the growers' ability to pay, resulting in a collapse in demand.

As part of this OAR, Lockyer Valley and Somerset growers were assessed on their capacity to pay for water. Analysis indicates the maximum economic benefit is derived from a 22,000ML scheme. A farmgate price of $537.90 per ML will deliver water sales of 22,000 ML and maximise the numbers of growers to participate . This farmgate price represents the project equilibrium price point and technical 'sweet spot'. It has been established as the necessary price point in order to be able to sell 22,000 ML of recycled water but also the extent of irrigator capacity to pay, balanced against the inherent value that they place on the availability of a reliable supply of water for agricultural production.

Importantly the farm gate price proposed is for the first year of operation (proposed to commence mid 2031). This has been validated by the water sales process undertaken in Q2 2026. Combined with a $1,500 per ML capital contribution (fixed amount) will deliver water sales from the LVSWSS of 22,000 ML each year and in turn realise the identified economic benefits to Queensland.

To enable this affordable farm-gate tariff referenced above, the proposed co-investment model assumes governments will fund 98.6% ($729.1 million rounded) of the total capital cost, split equally between the Queensland and Australian Governments.
Irrigators will contribute $10 million subject to commitment of capital.



There is also a major gap between the incremental cost to supply the water and the growers' contribution ($537.90/ML FY31). To bridge this, an $18.3 million annual Community Service Obligation (CSO) from the Queensland Government is proposed to pass through to Seqwater, allowing the customer-owned local distribution entity to remain financially self-sustaining on its own commercial revenues.

The grower's contribution ($537.90 ML, fixed amount for purpose of FY31 pricing as qualified above) will be used to fully fund the operation of the new scheme and partially fund the bulk water cost from Seqwater. Accordingly, the entire CSO will be allocated to covering the gap between grower contribution and cost to supply recycled water from Seqwater. No CSO will be allocated to the cost of operating or maintaining the new irrigation infrastructure.

CSOs are a recognised mechanism under the National Water Initiative (NWI) Pricing Principles for supporting non-commercially viable water services that deliver broader economic, environmental, or social benefits. Analysis indicates there are currently six separate CSOs for water infrastructure in Queensland totalling $89.2 million each year with an average annual cost of $14.9 million.

Compared to existing Queensland water CSOs—which primarily focus on broad price relief or subsidising legacy cost-recovery gaps—the LVSWSS CSO ($18.3m) is explicitly tied to large-scale economic activation. Existing state water subsidies include:

- Consumer relief CSOs like the South East Queensland Pensioner Water Subsidy Scheme ($19.3 million supporting over 161,000 households) and the Rural Irrigation Water Price Discount ($12.3 million across 4,000 to 5,500 irrigation businesses);
- Operational subsidy CSOs such as Sunwater's Rural Irrigation Water Price Subsidy ($10.7 million supporting ~4,500 irrigators) and the Cloncurry Pipeline Water Supply Subsidy ($1,111 per ML).

In contrast, at $831/ML, the proposed LVSWSS CSO directly underpins a major macroeconomic benefit, generating $239 million in increased economic activity and supporting 781 jobs across Queensland.



*Source: Lockyer Valley Regional Council*

**Table ES7: Comparison of Queensland Government Water Infrastructure CSOs – Payments, Subsidies and Discounts**

| # of customers/ irrigators | Size of scheme in ML or other metric | CSO total Qld Budget 2025-26 | CSO per ML or customer | Output or Benefits [eg: in $ or some other terms] |
|---|---|---|---|---|
| **Scheme: South East Queensland Pensioner Water Subsidy Scheme** | | | | |
| 161,000+ households | Est 25,440 ML | $19.3 million | Up to $120 per property p.a. | Reduces the impact of water prices on eligible pensioners. |
| **Scheme: Rural Irrigation Water Price Discount** | | | | |
| 4,000–5,500 eligible irrigation businesses | Est 600,000 ML | $12.3 million | Estimated at between $2,236 to $3,075 per eligible irrigation business | Supports irrigation affordability |
| Scheme: Sunwater Rural Irrigation Water Price Subsidy | | | | |
| ~4,500 Irrigators in eligible schemes | CSO does not subsidise a fixed volume of water and instead compensates Sunwater where government-set irrigation prices are below the level required to recover the relevant operating, maintenance and refurbishment costs. | $10.7 million | ~2,378 per irrigator per year | Supports affordable irrigation while enabling gradual transition towards cost recovery |
| **Scheme: Cloncurry Pipeline Water Supply Subsidy** | | | | |
| Approx 1,060 households and 334 businesses | ~6,300 ML/year | $7.2 million | $1,111/ML | Maintains water security and supports industrial and regional development |
| Scheme: Seqwater Rural Irrigation Water Price Subsidy | | | | |
| ~1,200 Irrigators in eligible schemes | Estimated at between 25,000 and 45,00 ML per year | $1.0 million | $833 per irrigator | Supports irrigation affordability and gradual transition towards cost recovery |
| **Scheme: Sunwater Water Supply Contracts** | | | | |
| 4,372 registered irrigation accounts/ businesses operating across 22 bulk water supply schemes and 5 distribution systems | Estimated each year to range between 600,000 ML and 1,000,000 ML | $38.7 million | $8,855 per irrigator | Maintains agreed water supply arrangements where commercial cost recovery is not achieved |
| **Scheme: LVSWSS – proposed CSO** | | | | |
| 120 Irrigators / PRW users | 22,000 ML p.a. | $18.3m p.a. indicative | $831/ML | $239 million in increased economic activity and 781 jobs |

*Source: QEAS, 2026*

It is noted that future potential revenue from new industrial customers, such as water-intensive data centres, could be used to reduce the government's CSO requirements over time for this project. As an indication, medium scenario, uptake by and prices for industrial customers will potentially provide a revenue stream of $11.7 million each year.

# Findings

## The project aligns directly with key Queensland and Australian Government policy objectives relating to agricultural productivity, regional economic development, water security and food system resilience.

This includes alignment with the Queensland Government's Prosper 2050 Strategy and broader national objectives relating to agricultural exports and food security.

The OAR identifies the need for a Queensland Government contribution through a CSO arrangement in recognition of the broader economic, environmental and social benefits expected to be delivered by the project including:

- Increased **agricultural production** and **economic activity**



- Regional **employment growth**



- Support for **regional industries** and supply chains



- Improved **drought resilience**



- **Environmental benefits** related to mitigation measures leading resulting in reduced sediment runoff reducing water treatment plant maintenance and dredging requirements



Based on current modelling, the indicative CSO of $18.3 million per annum is associated with an estimated increase in Queensland Gross State Product (GSP) of $239 million. This represents approximately a $13 Return on Investment in additional Queensland economic activity for every $1 of Queensland Government CSO contribution.





## SUMMARY OF ASSESSMENT

The table below presents a summary of findings regarding Option A (22,000 ML per annum delivered hrough a 195km pipeline). It also provides a high level assessment of Option B (297 km pipeline).

**Table ES8: Option A**
**(22,000 ML per annum delivered through a 195km pipeline)**

| Environmental | Economic | Financial | Social |
|---|---|---|---|
| **1 – Impact Description** | | | |
| • Construct of 195km of new and predominantly buried pipeline, 10 pump stations, 9 balance storages, and a 3.4 GL Initial Balancing Storage to deliver up to 22,000 ML/yr of RW.<br>• Clearing-related footprints.<br>• Clears rural land across a maximum disturbance footprint of 760 ha. | • Serving as critical enabling economic infrastructure to bring operational certainty to agribusiness, prompting growers to invest and transition to high-value, counter-seasonal vegetable production and stimulating regional supply chains. | • The high capital intensity and grower capacity-to-pay gap makes the asset commercially unviable, shifting focus to public-private funding models. | • Assesses changes relative to the baseline during planning, construction, and operation, focusing on securing regional irrigation, agricultural livelihoods, and climate resilience while managing localised, temporary construction impacts. |
| **2 – Summary of Key Impacts** | | | |
| • Potentially clearing native vegetation with potential Significant Impacts to Commonwealth MNES and State MSES (offsets required).<br>• Slashes operational emissions by 88.9% via integrated solar/batteries.<br>• Intersects floodplains and State Heritage places. | • Delivers water security to increase farm-gate production by $345.57M at full take-up.<br>• Supports 519 regional and 781 state FTE jobs.<br>• Drives environmental upgrades (reduces sediment) and improves SEQ water grid security. | • Requires 98.6% capital funding ($729.1M) from Government.<br>• $65.2M in private on-farm investment.<br>• Needs an ongoing $18.3M/yr State CSO to bridge the variable supply cost deficit. | • Overall major positive social outcome.<br>• Landholders face temporary corridor impacts but secure drought resilience.<br>• Attracts and retains working-age residents.<br>• Catalyses civil and permanent food-supply/ logistics jobs. |

| Environmental | Economic | Financial | Social |
|---|---|---|---|
| **3 – Qualitative Impacts** | | | |
| • Disturbance: 760 ha across 1,271 parcels (777 ha tenure). 154 watercourse, 138 road, 4 rail crossings.<br>• GHG: 45,477 t $CO_2$-e construction (28,655 t without solar/BESS). Abates 8,000–13,000 t $CO_2$-e/yr operationally (1,336 t $CO_2$-e/yr actual). 85,545 t lifecycle. Avoids 1,400 t/yr freight transport per 10k tonnes.<br>• Energy: 15MW solar PV & 24.3MWh battery generating 22GWh/yr. | PV Central Case (7% real rate)<br>• Total Benefits: $510.74M<br>• (Seasonal Hort: $314.25M (61%); Animal production: $94.44M; Turf/ Avocado: $86.98M; Industry: $10.17M; Broadacre: $4.90M).<br>• Total Costs: $867.77M<br>(CAPEX P50: $563.16M; OPEX/Lifecycle: $304.61M). | • CAPEX P90 (July 2027): $739.1M<br>• OPEX (30-yr): $191.14M<br>• ($289.61/ML local) [21].<br>• Tariff: variable cost is $1,318.80/ML vs farm-gate tariff $537.90/ML ($760.70/ML deficit). | Baseline (2025):<br>• 46,058 Lockyer; 26,936 Somerset (projected up to 63.8k and 39.2k by 2046).<br>• Disadvantage: 71% of population in SEIFA Quintiles 1 & 2 [28].<br>• Jobs: 28.3% (4,694) Lockyer; 16.0% (1,350) Somerset in Agriculture [28].<br>• Output: Lockyer Agriculture output is 19.8% ($359.4M). |
| **4 – Qualitative Short-term Impacts** | | | |
| On-farm productivity disruptions from pipeline laydown; short-term creek erosion and dust runoff risks from reactive soils; geotechnical delays in high-hazard flood zones; transient residential noise. | Establishes immediate producer confidence to “plan, plant with confidence, and invest”; stimulates plots substituting from rainfed to high-value irrigated lines; carries high 4-year construction/ramp-up capital burdens. | Intensive capital allocation during 4-year construction; tests regional liquidity with grower capital requirements ($1,500/ML, avg $210,000/farm); $23M cash buffer protects against early bulk billing crunches. | Direct amenity/access disturbances for pipeline landholders; housing and rental pressure from non-local workers; localised workforce demands; short-term traffic delays; immediate retail/hospitality spending flow-on. |
| **5 – Qualitative Medium-term Impacts** | | | |
| Sequential pipeline corridor rehabilitation to restore farmland; Fire Ant Zone 1 biosecurity protocols for soil movement; landscape screening of pump stations; ongoing soil monitoring for salt/sodium. | Multi-year agricultural demand ramp-up to 22,000 ML; supply-chain business ripples; water market efficiency as rights shift to counter-seasonal crops; Post-Year 4 landholder landscape/ riparian works. | Multi-year demand take-up ramp-up risk; highly stable and predictable operational expenses ($4M–$6M/yr outside overhauls); stable localised tariffs; growers execute on-farm private pipe/pump outlays. | Sequential pipeline reinstatement returns cropped land; local contractors benefit from training/apprenticeships; private connections built; building trust in recycled water via transparent quality reporting. |

| Environmental | Economic | Financial | Social |
|---|---|---|---|
| **6 – Qualitative Long-term Impacts** | | | |
| Enhances climate resilience with rainfall-independent supply; avoids carbon-clearing elsewhere by intensifying food on cropped plots; active catchment revegetation; long-term Year 25 solar overhaul liability. | Regional structural diversification; social normalisation of purified recycled water ("ladder of exposure"); permanently defers urban bulk water augmentations; Brisbane River/Moreton Bay restoration. | High solar OPEX peaks in Year 25 ($19.56M total, including $9.67M battery/solar overhaul); commercial unfeasibility for private finance; permanent dependency on State capital and annual $18.3M CSO. | Enhances climate/ drought resilience; locks in multi-generational capital investment/ succession planning; stabilises regional demographics; ensures national food security; cements multi-agency partnerships. |
| **7 – Result/Impact/Value** | | | |
| Environmental Siting Risks: Declaration as "Coordinated Project" recommended; State/Federal offsets from ecological surveys; ILUA/ Easements across 1,271 parcels; UQ Gatton Heritage and Referable Dam approvals. | Central Case (7% Discount Rate)<br>• NPV: negative $357.0M<br>• BCR: 0.59<br>4% Discount Rate<br>• NPV: negative $205.4M<br>• BCR: 0.83 | • FNPV: Highly negative across all commercial scenarios.<br>• FIRR: Negative<br>• Strategic Value: Public grants effectively purchase high external socio-economic benefits (GRP, jobs, catchment, urban water). | Social Risks & License: Negotiated landholder compensation; negotiated CHMPs and ILUAs; managed non-local worker housing strains; robust PRW water testing and complaints handling. |

## FINDINGS REGARDING SUB-OPTION B (22,000 ML PER ANNUM DELIVERED THROUGH A 297KM PIPELINE)

Quantitative Cost analysis was not completed on Sub-Option B due to its late inclusion into this study. Using the Class 3 AACE cost estimate for Option A as a base (22,000 ML per annum delivered through a 195 km pipeline), an indicative, high level cost estimate of $1.1B has been derived for Sub-Option B.

Given the similarities to Option A, the following qualitative observations have been made:

**Table ES9: Option B (22,000 ML per annum delivered through a 297km pipeline)**

| | |
|---|---|
| **Environmental** | Sub-Option B (297 km Scheme) extends the distribution alignment by 102 km, increasing the physical footprint of ground disturbance, native vegetation clearing, and watercourse/ road crossings relative to Option A. Operational environmental impacts remain minimal, and temporary construction-phase risks are fully mitigable through standard Construction Environmental Management Plans (CEMPs), progressive trench reinstatement, and statutory environmental offsets. |

| | |
|---|---|
| **Economic** | Sub-Option B (297 km Scheme) increases capital outlays to an indicative $1.08 billion (P90), raising total present value economic costs and placing downward pressure on the Central Case BCR below 0.59. Maintaining the 0.59 BCR benchmark requires securing higher-value agricultural output/volumetric sales or establishing higher grower capital co-contributions along the extended alignment. |
| **Financial** | Sub-Option B (297 km Scheme) elevates total P90 capital expenditure to $1.08 billion (+46.1% over Option A) and increases ongoing direct network maintenance, widening the operational deficit against the $537.90/ML customer tariff. Consequently, the required public capital grant increases to ~$1.05 billion and the annual State CSO subsidy rises above the baseline $18.3 million. |
| **Social** | Sub-Option B (297 km Scheme) heightens temporary construction disturbances—including localised traffic delays, property access restrictions, and Aboriginal cultural heritage intersection risks—across additional land parcels. Conversely, it yields superior long-term social equity and regional drought resilience by expanding secure water access to 121 primary producers across the LVS regions. |

***The initial steps of the next phase of work (producing a Detailed Business Case) will confirm the scheme extent of Option A against updated demand, compare Sub-Option B to Option A. This will identify a Preferred Option that will become the Reference Project for the remainder of that DBC, forming the capital funding basis.***

## IN SUMMARY

The LVSWSS represents a strategic, nation-building infrastructure project that transforms waste into wealth, converting SEQ's underutilised recycled water assets into a climate-resilient economic engine. While the project requires substantial upfront public capital and ongoing CSO support, this targeted investment is heavily justified by precedent and the significant economic, environmental, and social dividends it unlocks. By drought-proofing Australia's premier counter-seasonal growing region, the scheme secures the nation's fresh food supply, stimulates economic activity, creates long-term employment delivering regional prosperity. The OAR demonstrates Queensland Government's ongoing support for the project will deliver a $13 return for every $1 invested.




Ultimately, the LVSWSS establishes a sustainable blueprint for water management, creating an intergenerational economic, social and environmental legacy for South East Queensland and will make a major contribution to national sovereign food security.

# Next Steps

Building and construction costs have increased significantly in recent years due to ongoing supply and demand pressures within the construction industry. Delays to the project may expose the final Reference Project to additional construction escalation associated with major infrastructure demand leading into the 2032 Brisbane Olympics build.

The full capital funding approval timing and its criticality considers the Detailed Business Case lodgement in Q3/Q4 2027.

**DELAYING PROGRESSION OF THE PROJECT RISKS THE FOLLOWING:**

- loss of delivery momentum
- increased uncertainty relating to demand, cost and approvals pathways.
- delay or cancellation to private sector investment decisions
- reduced ability to coordinate infrastructure delivery with regional agricultural development.

The next stage of the project represents a targeted 12-18 month Detailed Business Case program, funded through the $5 million committed by the Queensland Government and designed to strengthen delivery confidence prior to Final Investment Decision.

**THE PROGRAM FOCUSES ON:**

- completing demand validation and confirming customer commitments
- confirming the reference scheme configuration established in the OAR (based on final demand)
- reducing construction and geotechnical risks through targeted investigations
- confirming approvals and land pathways
- improving capital cost certainty and delivery schedule confidence

This work does not change the strong investment case established in this OAR but further strengthens delivery confidence prior to Final Investment Decision.

**Acknowledging the abundance of history, opportunity, community support and exceedance of a standard BCDF Stage 2: Options Analysis demonstrated in this report, the project welcomes future funding consideration at the soonest ability.**

**Requests and recommendations contained within this report represent the LVSWSS project position.**

**We look forward to working with respective stakeholders to achieve the project capital funding objective.**

# Recommendations

**THE OPTIMISATION ASSESSMENT REPORT MAKES THE FOLLOWING RECOMMENDATIONS:**

- Commence work on Detailed Business Case including key studies
- Funding considerations to commence
- Queensland Government consideration of legislative and other policy changes required to allow the project to proceed
- Establish a locally managed irrigation entity to support grower water sales
- Commence supply/approval pathway negotiations with Queensland and Australian Government.



Recommendation 1

## COMMENCE WORK ON THE DETAILED BUSINESS CASE INCLUDING KEY STUDIES

**In alignment with a BCDF Stage 2: Options Analysis Gateway review, formally approve the progression and completion of a BCDF Stage 3: Detailed Business Case that will include following key items of scope:**

- Confirm the Service Need (Demand) is still consistent with this Options Assessment
- Confirm the scheme extent of Option A against updated customer demand, compare Sub-Option B (22,000 ML per annum delivered through a 297km pipeline) to Option A to determine a Preferred Option
- Complete detailed analysis on the Preferred Option including, but not limited to:
- Finalise pipeline route and complete detailed investigations, design and engineering activities
- Progress Environmental and Cultural Heritage assessment/approvals
- Complete all other analysis to align with the Detailed Business Case Guide (3.1)
- Progress an Environmental initiative partnership with Council of Mayors Southeast Queensland

Recommendation 2

## FUNDING CONSIDERATIONS TO COMMENCE FOR THE PREFERRED OPTION BY THE QUEENSLAND AND AUSTRALIAN GOVERNMENTS

**Funding for project construction will be formally sought from the Queensland and Australian Governments through the Detailed Business Case. Funding will be requested on the allocation assumption basis of:**

- The Commonwealth Government contribute funding toward project construction (49.3% of $739.1m on OAR costing basis).
- The Queensland Government contribute funding toward project construction (49.3% of $739.1m on OAR costing basis).
- The Queensland Government provide an ongoing CSO contribution to support annual operational costs ($18.3 m on OAR costing basis)
- Grower contribution to capital ($10 m on OAR costing basis)
- LME to assume ongoing operational expenses with support of the CSO for bulk water.

Recommendation 3

## QUEENSLAND GOVERNMENT CONSIDERATION OF LEGISLATIVE AND OTHER POLICY CHANGES REQUIRED TO ALLOW THE PROJECT TO PROCEED

**There are a number of legislative and policy changes that the project has identified that will need to be considered to allow the project to proceed, these include:**

- Authority for Seqwater to negotiate a bulk water supply contract and supply PRW directly to the scheme
- Regulation under the Water Supply (Safety and Reliability) Act 2008 declaring the LME a bulk water customer of Seqwater for the recycled water supplied to the Scheme, to underpin the contractual framework
- Establishment of appropriate guidelines for the use of purified recycled water (to avoid requirement for irrigators to comply with the more burdensome requirements applicable to A+ recycled water)
- Confirmation of the legal form (Ministerial direction under the Water Act, deed of agreement, or other) and budget appropriation supporting the CSO payment to Seqwater for the life of the Scheme
- Revision of the SEQ Drought Response Plan under the SEQ Water Security Plan to allow scheme customers to be treated the same as urban industrial customers in drought
- Independent modelling of the project's impact on SEQ urban water security

Recommendation 4

## ESTABLISH A LOCALLY MANAGED IRRIGATION ENTITY TO SUPPORT GROWER WATER SALES AND READINESS FOR CONSTRUCTION

**It is recommended that a locally managed irrigation entity be established to negotiate with State Government on the supply arrangements, supported by appropriate Queensland Government policy and governance arrangements. These arrangements would include:**

- Delivery regime and supply conditions, which provide binding legal certainty and acknowledge the role of the WCRWS in urban water supply security in South-East Queensland
- Operational arrangements and supply triggers
- Contractual conditions associated with the supply of water to the locally managed entity
- On the securing of capital funding, the LME will commence binding agreements with scheme customers and associated deposit payments

Recommendation 5

## COMMENCE SUPPLY / APPROVAL PATHWAY NEGOTIATIONS WITH QUEENSLAND AND AUSTRALIAN GOVERNMENT

**It is recommended the below key activities be undertaken:**

- Binding water sales commitments
- Appropriate water and governance arrangements being established with the State Government and relevant agencies and departments
- Progression of required approvals, permits and authorisations



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Queensland Government

SEQCityDeal

Council of Mayors
South East Queensland

The LVSWSS forms part of the Water Initiatives in the Lockyer Valley commitment being delivered under the South-East Queensland (SEQ) City Deal. The (SEQ) City Deal is a partnership by the Australian Government, Queensland Government and Council of Mayors for South-East Queensland.

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