



An Australian Government Initiative



# Lakeland Irrigation Area Scheme

## Community Update September 2022

### Overview

The Lakeland Irrigation Area Scheme would provide a reliable supply of water to unlock the rich basalt soils of the area for high value agriculture. There is a unique opportunity to capture a proportion of high-water flows in the upper Palmer River to substantially expand the existing commercially established agricultural industry and generate employment and prosperity throughout the region.

SMEC has been engaged by Regional Development Australia – Tropical North to investigate the viability of building a dam approximately 23 km south west of Lakeland. The Business Case seeks to provide a scientific and evidence-based assessment around the possible engineering, environmental, financial, social and cultural impacts and opportunities associated with the water supply scheme.

### Major Scheme Components

#### Water source

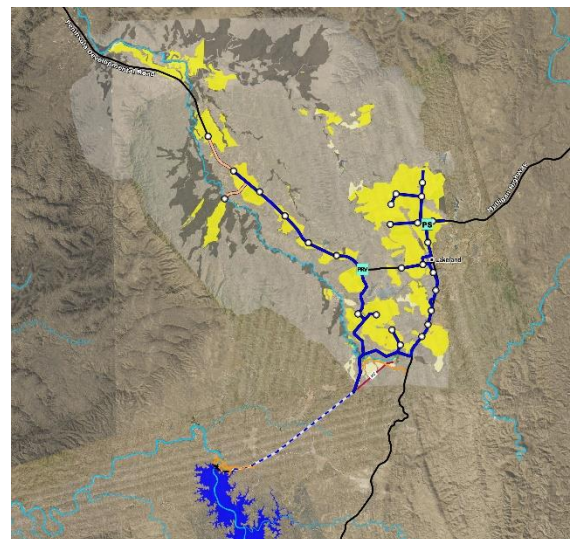
Dam on the Palmer River

#### Transfer system

Tunnel to move water from the Palmer River Dam to Lakeland Downs

#### Distribution system

Piped network supplying water under pressure to farm gates in Lakeland Downs.



### Project Milestones



## Preliminary Scheme Statistics

- Support increase in irrigated land around Lakeland from 1,650 Ha to ~ 9,000 Ha on full take-up of available water.
- Dam construction type – The proposed main dam will be Roller Compacted Concrete (RCC) Dam with a central overflow section (Spillway) within the river channel and foundation grouting to reduce leakage beneath the dam. Two smaller RCC saddle dams are also proposed.
- Properties directly affected by dam reservoir: Bonny Glen, Maitland Downs and properties in Byerstown.
- 12 km water transfer tunnel and over 65 km of buried distribution supply pipelines to farms, operated under pressure almost entirely from Palmer River Dam with no or minimal pumping.

## Main Dam

<b>750 m</b>	<b>150 m</b>	<b>RL 410 m</b>
Crest length	Spillway width	Crest level
<b>50 m</b>		
Height		

## Saddle Dams

<b>2</b>	<b>~435 m and 145 m</b>	<b>18.5 m and 8.5 m</b>
No. of dams	Crest length	Heights

<b>2,414 Ha</b>	<b>889 km<sup>2</sup></b>	<b>205,000 ML</b>
Inundation area	Catchment area	Reservoir capacity

## Major Business Case Components

- Investigations – Surveys and field work to obtain important topographical, geological and hydrological data, and assess long term water availability.
- Cultural heritage and ecological assessments – Cultural monitoring for geological investigations and dry and wet season surveys for flora, fauna and habitat to identify potential impacts and further studies.
- Agronomics and grower consultation – Review of soil and crop data from DNRM land suitability assessment and discussions with growers to understand cropping and water use practices.
- Community engagement – Ongoing conversation with the community to share updates, build support and identify potential concerns to be addressed as the project evolves.
- Infrastructure planning and design – Consideration of various infrastructure configurations and capacities to obtain a consensus on the preferred scheme for reference design.
- Cost estimation and economic analysis – Assessment of construction quantities, timelines, and costs along with job creation and outputs to assess potential local and regional economic and social benefits.
- Consultation and commitments – Consultation with agencies regarding key regulatory requirements and with irrigators for uptake commitments if scheme proceeds.
- Reporting – Presentation of the business case in accordance with QLD and federal frameworks to capture the benefits and risks of the scheme proceeding or not proceeding.

## Next Steps



We value your thoughts and ideas regarding the Lakeland Irrigation Area Scheme Project. Please register your interest in the Project via the contact details below.

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