Regional Development Australia
FAR NORTH QUEENSLAND AND TORRES STRAIT INC

SMEC
Member of the Surbana Jurong Group

# Lakeland Irrigation Scheme

Building Sustainable Agriculture

## Benefits of the Scheme

**1,200+** Construction JOBS with capital costs of $455M

**STAGED** to optimise funding options

Harnessing **HIGH FLOW AUSTRALIAN RIVER RESOURCES** to build **LONG TERM PROSPERITY**

Enabling **8,000ha** up to **15,000ha** Irrigated Agriculture

Hydropower **NET GENERATOR** of power to **OFFSET ENERGY CONSUMPTION**

**WATER STORAGE** providing sustainable **LONG TERM WATER SECURITY** for the Lakeland District

## Sustainable Growth for Northern Queensland

**Cropping Scenarios Demonstrate:**

**NPV** $387 Million
**BCR** 1.57
**IRR** 11.3% at 7% discounted rate

| CONSTRUCTION | AGRICULTURAL PRECINCT |
|---|---|
| contributes substantial economic activity for FNQ | Once operational, the area is expected to deliver horticultural and broad acre cropping |
| **DELIVERING GROWTH & ECONOMY** | |
| $560 Million in total output<br>$226 Million contribution to GRP | $410 Million in total output<br>$234 Million contribution to GRP |
| **DELIVERING NQ JOBS** | |
| $121 Million in household income<br>1,210 FTE jobs | $70 Million in household income<br>1,144 FTE jobs |

**SMEC** have demonstrated engineering capability and environmental impact management on **AUSTRALIA'S LARGEST HYDRO-ELECTRIC PROJECT SNOWY HYDRO**

# Lakeland Irrigation Scheme

The Lakeland Feasibility Study was delivered collaboratively by Cape York Sustainable Futures (CYSF), Regional Development Australia (RDA) and SMEC in 2018. It delivered findings in favour of the irrigation scheme which would include the proposed Palmer River Dam, irrigation systems, transportation and power generation. The feasibility study has addressed these opportunities as well as providing preliminary investigation of the impact to environmental and cultural heritage concerns unique to the area.

Findings from the Lakeland Feasibility Study support the development of a business case in favour of the Irrigation Scheme which would include 195 GL storage dam within the Palmer River.

## Recommendation

The completed Lakeland Feasibility Study, which was delivered under the NWIDF, shows this project can be a viable irrigation scheme with significant supporting infrastructure benefits and major economic stimulation for Far North Australia.

RDA and SMEC have partnered to recommend the development of a Business Case supporting the Australian Government advance to the next phase of investigation works with the aim of completion before 2021; thus stimulating potential public-private partnerships and investment interest for dam and irrigation scheme development.

## Benefits to the Region

- Access to an affordable and reliable water supply capable of supporting a majority of soils suitable to horticulture and broadacre cropping in the Lakeland region
- Increased volume of water available for agriculture
- Agricultural land area expansion as reliable source of water is brought to land suitable for irrigated agriculture
- Ability to grow higher value and more diverse range of crops in suitable areas
- Improved confidence of irrigators to invest in long term business operations
- Improved water delivery infrastructure in the Lakeland area
- Benefits to regional business activity, employment and prosperity through increased agricultural activity

## Economic Development

Government policy calls for a 100% increase in irrigated agriculture across the North. This project represents 5%-10% of that growth in a scalable development that harnesses rich soils. This water storage provides for long term water security for Lakeland growers. As a comparison the scheme will supply about a third of the water yield that Tinaroo Dam supplies which has been a major anchoring water source for Far North Queensland since 1958.

## Agribusiness

Staged development of infrastructure to support 8,000ha up to 15,000ha of irrigated horticulture, including fruit, vegetables, grains and broad-scale agriculture of both perennial and annual crops.

## Infrastructure

Construction of dam and distribution pipework.

## Economy

Economic development opportunities in food processing in Far North Queensland.

Export opportunities of fresh and processed foods through the Port of Cairns and Cairns Airport to south-east Asia and southern Australian cities.

## Sustainability

Provision of self-sustaining hydro powered pumping system.

## Lakeland Business Case

RDA and SMEC agree that the business case will deliver detailed site investigations, development of design concepts and confirmation of economic modelling carried through from the Feasibility Report.

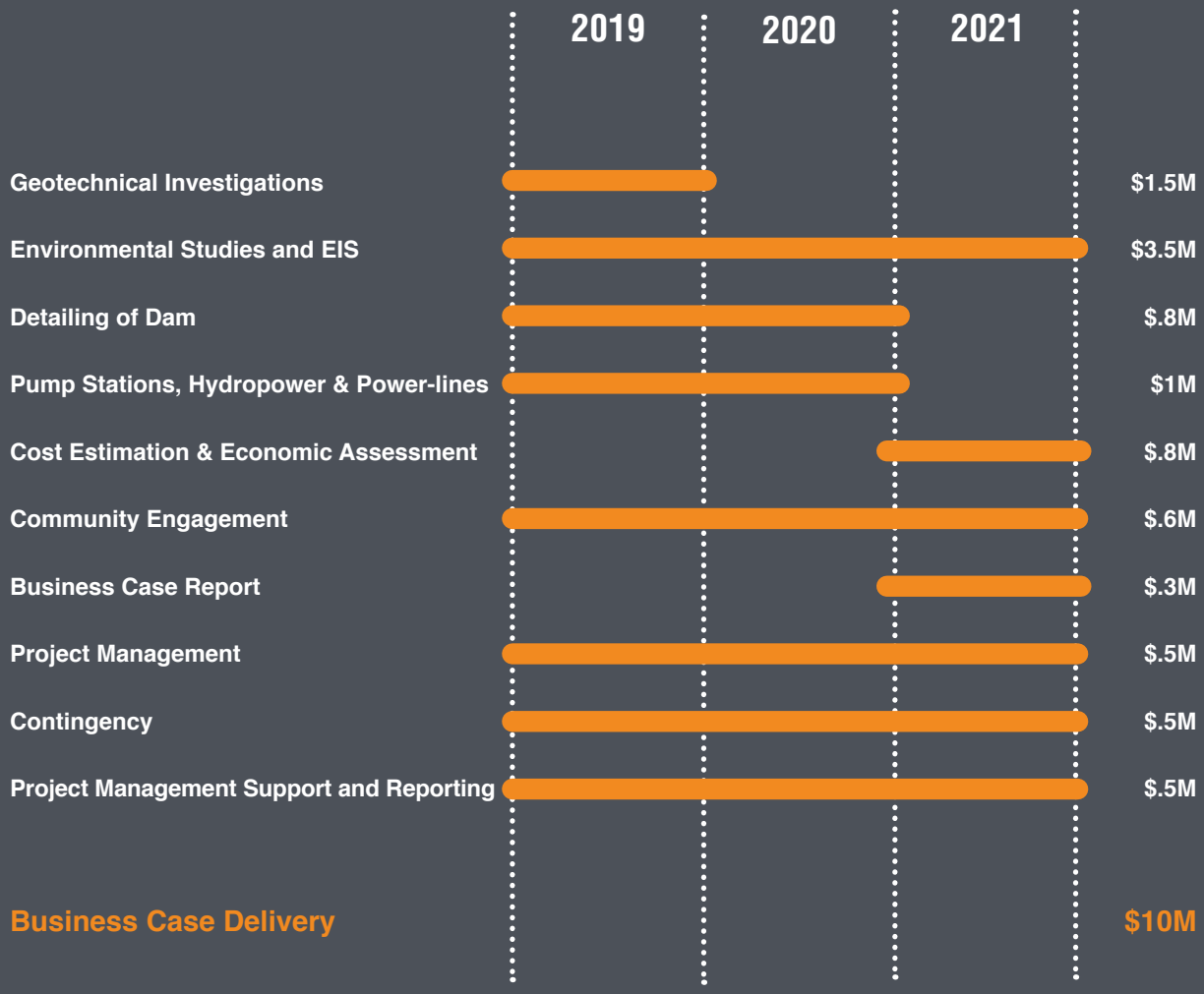
The aim of the business case is to de-risk the Project technically, environmentally and from a cultural heritage perspective through the delivery of the following investigations.

The proposed scope of works will be delivered by RDA, operating in close collaboration with SMEC to deliver the Business Case as follows:

- Dam Geotech Investigations
- Four-part Environmental Impact Statement (EIS)
- Cultural Heritage inspection and consultation
- Detailing of Dams & Weirs
- Distribution of Infrastructure
- Pumped Hydro Concept & Options Assessment
- Pumped Hydro Preferred Option Investigation
- Cost Estimation
- Economic Assessment
- Community Engagement
- Business Case Development
- Project Leadership & Development of Consortium

# Lakeland Irrigation Scheme

The Lakeland Irrigation Scheme Business Case could be delivered by 2021 allowing for dam construction as early as 2023. The project is scalable so that costs can be managed over the project to optimise funding resources.

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