

UNLOCK THE NORTH

TOWNSVILLE NORTH QUEENSLAND

2022 Project Priorities & Policy Updates













FOREWORD

Townsville, the largest city in North Queensland encompasses five major regional centres: Townsville, Charters Towers, Burdekin, Palm Island and Hinchinbrook. The region contributes over \$33 billion annually to the Queensland economy and is home to nearly 240,000 people. The region has one of the most diverse economic bases in Australia and enjoys a stunning natural environment that provides tourism growth opportunities and an attractive lifestyle for its residents.

Over the past two years, the unprecedented COVID-19 pandemic has impacted economies across the globe exponentially. Whilst Townsville North Queensland's local economy has not been immune to the impacts of COVID-19, the region has endured the effects with many sectors recording strong growth and a positive outlook. However, the disparity between those booming and those battling creates two differing economies for our region.

The diversity and strategic location of Townsville means North Queensland is well placed for long-term economic recovery and future growth. The region boasts strengths in agriculture in the Burdekin and Hinchinbrook, high-value mining and mineral hubs for renewable energy to the west from Charters Towers and beyond, and the largest breeding ground for cattle in the country. Additionally, Townsville, as the largest city in Northern Australia is home to the nation's largest Defence base, the epicentre of world-class research and science, and we are already servicing 80% of Northern Australia's population with general cargo through our port.

Townsville Enterprise sees it as our role to tell the story of the linkages across North Queensland's assets and what the opportunities can be for our region, our state, and our nation when these strengths are leveraged. With targeted support we have the capacity to deliver the jobs, sovereignty, and economic prosperity critical to our nation's recovery and future resilience.

Enabling private investment is what will allow the North to continue to play a leading role in the nation's economic development. With our competitive advantages in green energy, critical minerals, and the Pacific development opportunities, our region is destined for growth.

The region plays a critical role in energy generation. Projects such as CopperString 2.0 are leading the charge in reducing the costs of energy for industry and businesses in North Queensland. Previously this has been a direct impediment to growing private investment into our region. Demand for critical minerals such as copper and zinc will double by 2050 and lowering the cost of energy will see some of the \$720 billion in untapped minerals in the North West Minerals province realised.

Additionally, the production of hydrogen is a critical component to our energy mix. New hydrogen developments at the Sun Metals Zinc Refinery and potential Hells Gates Pumped Storage can contribute to securing reliable and affordable power in North Queensland and create new opportunities for export industries.

For Townsville North Queensland to reach its full economic and social potential there are critical challenges that must be addressed. This includes enabling water and power projects in our region, reducing red tape, resolving business insurance, addressing the skills shortage, and developing the infrastructure to service our growing population.

We acknowledge and thank the Federal Government for standing up across the health and economic crisis of COVID-19 and providing businesses and households invaluable support to aid their recovery. As we look ahead to the 2022 Federal Budget and Election, we are making a strong case for targeted investment and policy support to ensure the North can continue to play a leading role in driving the nation's recovery and future resilience.

The Unlock the North concept has been developed to recognise opportunity through adversity and promotion of the important role the North Queensland region can play in not just the economic recovery of Queensland but also as a leading activist for the economic recovery for Australia.





CR LYN MCLAUGHLIN Burdekin Shire Council



CR FRANK BEVERIDGE Charters Towers Regional Council



CR RAMON JAYO Hinchinbrook Shire Council



CR MISLAM SAM Palm Island Aboriginal Shire Council

ADVOCACY HIGHLIGHTS



TOWNSVILLE NORTH QUEENSLAND THE GATEWAY TO NORTHERN AUSTRALIA

AFFORDABLE WATER & AGRICULTURE

- Long-term water security
 New water infrastructure
- > Expansion of agricultural land
 - Recycling of water for new industries
 - > High-value cropping> Smart technology

DEFENCE

 Largest defence base
 Singapore military training initiative
 Pacific step up
 Development of defence

industries in the north

AFFORDABLE GREEN POWER & INDUSTRY

> New critical mineral processing
 > Mining growth
 > Common user infrastructure
 > Hydrogen capability
 > Decarbonisation of NQ industries
 > Eco industrial corridors
 > Port expansion

INNOVATION & SKILLS

 Youngest city in Australia
 Skilled workforce
 Leading health, research and education facilities to foster collaboration and new industries

DESTINATION MARKETING

- Great Barrier Reef Marine Park Authority
 Australian Institute of Marine Science
 Museum of Underwater Art
- > Eco-tourism
- > Major events
- > International flights
- > Indigenous tourism



50%

OF NORTHERN AUSTRALIA'S WORKFORCE IS IN NORTH QUEENSLAND

80%

OF GENERAL CARGO FOR NORTHERN AUSTRALIA THROUGH PORT OF TOWNSVILLE



ANNUAL ECONOMIC OUTPUT OF

2022 PROJECT PRIORITIES & POLICIES UPDATES

Transforming our region

INVESTMENT NEEDS





NORTHERN AUSTRALIA ZONE OF SIGNIFICANCE 10

Northern Australia Growth	11
Mount Isa to Townsville Supply Chain	12

DEFENCE	13
NQ SPARK Soldier Simulation	14
Joint Amphibious Force Capability	15
Black Hawk Deeper Maintenance	15





AFFORDABLE GREEN ENERGY & INDUSTRY 16

Hells Gates Pumped Storage Hydro Scheme	17
CopperString 2.0	18
NQH2 Hydrogen Consortium	20
Lansdown Eco-Industrial Precinct	21
Charters Towers Industrial Land	22
Ayr Industrial Land	22

AFFORDABLE WATER & AGRICULTURE

Hells Gates Dam	24
Stone River Weir	25
RegenAqua – Water Treatment Project	26

23





TOWNSVILLE CITY DEAL 28

INNOVATION, SKILLS & BUSINESS ENABLERS

Northern Australia Critical	
Minerals and Metals Institute	31
Business Enablers	32

30





HEALTH, KNOWLEDGE & RESEARCH

ropiQ & a New Economy for Townsville	. 35
NQ ICT Centre of Excellence	. 36
ingapore to Darwin Submarine Cable Connection	. 37

34

DESTINATION DEVELOPMENT 38

North Australia Concert Hall & Arts Precinct	39
Northern Australia Centre for Excellence for Women's Sport	4(
Connectivity Boardwalks	41
North Queensland Trail Development	42
Dungeness Marine Access Upgrade	43
Palm Island Retail & Commercial Precinct	43





NORTHERN AUSTRALIA ZONE OF SIGNIFICANCE





NORTHERN AUSTRALIA GROWTH

The Australian Government has committed \$9.3 million to the development of regional Master Plans to accelerate Regions of Growth and to grow the Northern Australian economy. Master Plans will anchor resources and investment from across all levels of government to maximise the long-term public benefit of regional planning and development.

The Master Plans will set out a 20-year+ blueprint for the economic development of a region, supported by five-year action plans and regular progress reports. The Townsville to Mount Isa Economic Zone is one of the first three Master Plans which will be developed by December 2022.

WHAT WE NEED

- > Affordable power
- > Long-term water security through new infrastructure
- Medium and long-term Workforce Forecast and implementation strategy
- Enabling infrastructure: roads and ports; supply chain logistics; digital connectivity; housing; education and training; and Indigenous enterprise





MOUNT ISA TO TOWNSVILLE SUPPLY CHAIN

GROWTH OPPORTUNITY

The Mount Isa to Townsville Rail Line is a critical piece of freight infrastructure supporting mining, agricultural and manufacturing industries in North and North West Queensland, and servicing the freight needs of communities across the region.

Townsville North Queensland services the North West Minerals Province (NWMP) as well as the broader Mount Isa to Townsville Economic Development Zone (MITEZ). The NWMP is one of the world's richest mineral producing areas containing copper, lead and zinc, as well as major silver and phosphate deposits and strong rare earth potential.

Product from the NWMP is railed and trucked to the Port of Townsville for export to global markets. Railing of product on the Mount Isa to Townsville Rail Line has decreased in recent years with increased trucking of product. A lack of reinvestment in the rail line has resulted in inefficiencies of rail line speed and other restrictions: lack of passing loops, and lack of multiuser terminals for loading and unloading of product has led to a modal shift of product to road transport. This modal shift places greater pressure and cost onto the road network and has resulted in inefficiencies in the logistical supply chain. There is a real need to develop a competitive supply chain for agriculture and mining products from Mount Isa to Townsville Port.

This is vitally important, as reducing the cost and capacity issues of the supply chain will assist to unlock the potential of the Mount Isa to Townsville corridor development.

In addition to this, direct access into the Port from the Mount Isa and North Coast lines will significantly improve efficiencies.

WHAT WE NEED

- > TEARC EIS Approvals and Corridor Acquisition.
- > Review and update business case.
- Allocate \$391 million (\$195.5 million from both State and Federal) over the next four years to complete delivery of the TEARC.
- Allocate \$100 million for the Port of Townsville perimeter rock wall.

THE SOLUTION:

- > TEARC: Building the Townsville Eastern Access Rail Corridor (TEARC) will significantly improve port access through provision of a multi-modal road and rail corridor, providing direct access to Townsville Port from the Mount Isa and North Coast lines and the State road network. It will reduce bottlenecks, facilitate the use of 1,400 metre-long trains and improve the urban amenity of Townsville.
- Subsidy: A commitment to reviewing the current subsidy for the below rail component is necessary to ensure that it is achieving the objective that it is set out to do, which is to reduce input costs and encourage more tonnes on the line. Feedback from users indicates that a competitive and efficient supply chain is an important consideration in future expansion projects.
- Investment: A commitment to reinvest in rail and road infrastructure from Mount Isa to Townsville over the next five years, starting with the fast-tracking of the Queensland Rail re-sleepering program. In addition to this, any increases in North West Minerals Province government royalty income (using 2019-2020 financial year as a base) should be reinvested into infrastructure in this corridor. This will create a partnership between industry and government with aligned growth objectives.
- Plan: A 10-year updated Master Plan should be published for the Mount Isa to Townsville Rail Line detailing the planned investments to meet forecast demand. The key indicators should be monitored to ensure the supply chain is resilient, competitive and efficient in supporting growth in mining and agriculture sectors in North and North West Queensland.
- Port: The Port of Townsville is Northern Australia's largest port and gateway to Asia and the world for the region's growing economy and vast minerals industry. The approved Port Expansion Project (PEP) will provide six new berths in the outer harbour. The first stage channel widening is currently underway, creating the first 60 hectares of land. Investment for constructing the full PEP rockwall perimeter will secure the overall expansion footprint, enabling the Port to facilitate new trade projects in Northern Australia.



2,484 INDIRECT IOBS



DEFENCE

2022 PROJECT PRIORITIES & POLICIES UPDATES





NQ SPARK SOLDIER SIMULATION

GROWTH OPPORTUNITY

Townsville is at the forefront of a large scale simulationenabled military training and the development of cutting-edge technology. The region has been recognised in successive studies, including the regional Defence and Queensland State Government Health and Knowledge strategies, as ideally positioned to leverage local and world-class expertise to deliver investment and highly skilled jobs supporting simulation, human performance research and technology development.

The North Queensland Simulation Park (NQ SPARK) aims to deliver on the sovereign industrial capability priorities identified by the 2018 Defence Industrial Capability Plan. It will also consolidate and maximise the confluence of regional defence, science, health, and knowledge expertise in Townsville to construct an Advanced Environmental Simulation Facility as the foundation infrastructure for a technology oriented collaborative precinct.

The facility will have flexible, multipurpose applications not only as an advanced training facility, but also an experimentation centre for research, development and human performance studies. A high performance computing capability will provide high capacity modelling, simulation and gaming systems for cost effective networked technology development, test and evaluation purposes.

A unique opportunity presents to develop a collaboration hub housing a cluster of defence, industry, health, research, and education on a shared geographic location. The NQ SPARK will be positioned on a common boundary between Lavarack Barracks, the Townsville University Hospital and James Cook University and close by two world-class, instrumented, military training areas (Townsville and Greenvale) a location unrivalled in Australia.

The NQ SPARK business case has determined the project is viable and, during construction of the precinct over the life of the project, is expected to generate \$121.37 million in Gross Domestic Product and 834 FTE jobs, including 262 directly with a \$77.9 million GRP benefit and support 555 FTE jobs during the operating phase.

The project is seeking Federal Government funding of \$32 million for the simulation facility and supporting infrastructure. Commercial tenancy agreements will fund the industry precinct.

		CONSTRUCTION	2029-2030	2044-2045
	OUTPUT	\$225M Incl \$170M locally	\$105M Incl \$89M locally	\$204M Incl \$171M locally
•	GRP	\$121M Incl \$78M locally	\$58M Incl \$49M locally	\$112M Incl \$95M locally
\$	WAGES & SALARIES	\$75M Incl \$49M locally	\$37M Incl \$32M locally	\$71M Incl \$61M locally
*	EMPLOYMENT	834 FTE Incl 555 FTE locally	379 FTE Incl 330 FTE locally	739 FTE Incl 645 FTE locally

WHAT WE NEED

\$32 million for the simulation facility and supporting infrastructure. Commercial tenancy agreements will fund the industry precinct. 834 CONSTRUCTION JOBS PERMANENT ONGOING JOBS J/2 INDIRECT JOBS



JOINT AMPHIBIOUS FORCE CAPABILITY

GROWTH OPPORTUNITY

The 2020 Defence Strategy Update and Force Structure plan, describes Defence intention to invest in critical enabling infrastructure such as ports, wharves, fuel and explosive ordnance facilities and development. The plan also includes a requirement to support Army watercraft in Northern Australia.

Strategically located on Australia's north east coast, Townsville is ideally suited as an amphibious mounting base for operations into the Pacific region. With close proximity to the majority of the ADF's specialist amphibious, land and aviation force elements, the Port of Townsville offers easy access and shorter transits to major joint exercise and possible operating areas to the north and east of Australia.

The Port has commenced an upgrade program that includes deeper and wider approach entrance channels, extra berths, and significant land reclamation. A master plan is under development to guide the direction and future expansion of the Port for the next 30 years. Recent meetings with Defence recognised this upgrade and planning activity presents a window of opportunity for consultation and cooperation to ensure possible efficiencies. Operational requirements are carefully considered in the Port development long term planning process.

If Defence is considering increasing capacity at Townsville beyond the current limited availability, including a facility to support Army watercraft, a time sensitive window exists to consider future threats and opportunities linked to planned port expansions. Defence and the Port agreed to meet regularly to identify any operational restrictions or possible efficiencies for defence infrastructure that will be far more expensive to implement once the current upgrade is completed.

Fully supporting this consultation process will maximise the mutual benefit opportunities for Defence and Townsville North Queensland to support the amphibious capability.

24,269 CONSTRUCTION

750 PERMANENT ONGOING JOBS 58,245 INDIRECT JOBS

BLACK HAWK DEEPER MAINTENANCE

The majority of the new Black Hawk helicopter fleet will be based at the 5th Aviation Regiment in Townsville. Co-locating the deeper maintenance facility within the RAAF Base Townsville Airport precinct, will realise considerable savings in cost and time to deliver an operational capability. Hangars built specifically for a previous deep maintenance contract are immediately available with Black Hawk specific overhead cranes, support infrastructure and safety systems installed.

A local facility will eliminate wasted flying hours repositioning the aircraft for servicing. A considerable local community exists of experienced former Black Hawk aircraft technicians who welcome the opportunity to return to working on modern aircraft as part of a civilian contract workforce. Technicians transitioning from full time service to industry will provide a trained and ready Army Reserve workforce in location to support operational deployments as currently occurs with the CH47 Chinook deeper maintenance workforce.





AFFORDABLE GREEN ENERGY & INDUSTRY



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HELLS GATES PUMPED STORAGE HYDRO SCHEME

GROWTH OPPORTUNITY

The proposed Hells Gates Pumped Storage business case will be built upon the Hells Gates Pumped Storage Project Feasibility Report. This proposed business case establishes and assesses the need, benefits and affordability of the Hells Gates Pumped Storage scheme to enable governments and private equity partners to make informed investment decisions regarding the project. The business case will identify the construction timeline and jobs together with the economic benefit analysis for the North Queensland region.

The proposed business case will rely on the current Cultural Heritage Management Agreements and the Environmental Impact Statement, formed through the delivery of Hells Gates Dam business case.

The proposed Hells Gates Pumped Storage Project is adjacent to the Upper Burdekin River and will have a capacity of 808MW. It will be located in Northern Queensland, within the Charters Towers Local Government Area (LGA), approximately 120km north of Charters Towers.

STATUS:

In January 2021, as part of the Hells Gates Dam business case the Hells Gates Pumped Storage Project feasibility report was delivered to the Queensland and Federal Government. This is a Pumped Hydro Storage system that can generate up to 808MW that is intended to integrate into the National Electricity Grid to secure reliable power for North Queensland. Contributing to the energy transition from coal to renewables by helping to stabilise the grid (super battery) and support significant additional solar/wind in the North. It has the potential to create job opportunities in construction and operation and further skills training in construction and management, which will create an economic benefit to the North Queensland region with a positive impact on employment and new industries that are attracted by reliable green power. The feasibility report indicates the project has a strong financial base to produce cost effective, high-demand green power with strong returns on investment that is expected to attract strong interest from the private sector.

BENEFITS:

The feasibility report identifies the following benefits that can be explored further in a business case:

- > 808MW of power;
- > Utilising hydropower energy;
- > Closed loop system with minimal water usage;
- > Potential standalone project;
- > Reducing greenhouse gases;
- Strong private investment opportunities;
- > 70–80% local spending on construction jobs and materials;
- > Skilled operational jobs and transferable skills;
- > Six-year construction period;
- Reliable, renewable, cost-effective power, with a long design life, for North Queensland; and,
- > Potential to deliver reductions in power costs.

WHAT WE NEED

- Commonwealth Government to approve and appoint Townsville Enterprise Limited to deliver the Hells Gates Pumped Storage business case.
- Support for project is integral to achieving State and National renewable energy targets.
- \$11 million for business case funding to bring a step closer to "Shovel Ready".

FTE 800+ CONSTRUCTION IOBS FTE 30+^{*} PERMANENT ONGOING JOBS

* Job numbers stated above are subject to further economic modelling as part of the preparation of the final business case.



COPPERSTRING 2.0

The 1000km CopperString 2.0 transmission network extending from Woodstock, south of Townsville out to Mount Isa and the North West Minerals Province (NWMP), will be the largest geographic extension of the National Electricity Market (NEM) ever undertaken. CopperString's estimated \$1.8 billion construction program will generate 800 direct construction jobs.

Extension of the NEM via CopperString is a significant economic reform for Northern Australia; positioning the region for growth and job creation over coming decades, directly benefiting critical minerals production, renewable energy development and green hydrogen production.

CopperString's backbone common use infrastructure will enliven one of Australia's most strategically important regions rich in critical minerals, rare earth elements, some of the nation's highest-quality renewable energy resources, nationally significant water and agricultural resources and strategic activities including defence assets. The NWMP contains approximately \$740 billion of known minerals resources with some of the world's largest deposits of critical minerals, including zinc, copper, gold, lead, cobalt, vanadium and phosphate. Demand for minerals to be mined, refined and exported from North Queensland is strong and driven by the electrification of global economies and advanced technologies including electric vehicles, smart devices and batteries. One of the biggest challenges facing the global decarbonisation effort is the secure and efficient supply of critical minerals making increased production and exports a significant opportunity for Townsville and an important contribution to the world.

Unfortunately, the entire region across North and North West Queensland (west of Townsville) is isolated from the national transmission grid. The NWMP is being held back by some of the highest electricity prices in the world and lack of access to a competitive market. CopperString's connection to the NEM will increase our competitiveness with other minerals rich regions in China and Africa.

WHAT WE NEED

- \$1.2 billion in long term debt from the NAIF. Copper String 2.0 is a transformational project for northern Queensland. It will drive down power prices across the region, unlock \$740 billion in potential mineral resource projects, provide a mechanism to feed high volumes of renewable power into the NEM, and facilitate billions of dollars of investment into Townsville's emerging green hydrogen industry.
- CopperString is also seeking the Queensland Government's regulatory and environmental approval of the transmission network to deliver the largest geographic extension of the NEM and achieve the benefits described above.

800 CONSTRUCTION IOBS

50-100 PERMANENT ONGOING JOBS





GROWTH OPPORTUNITY

Extension of the NEM across Northern Queensland to the NWMP via CopperString is based on ACIL Allen's report forecast to achieve for the period out to 2050:

\$80.5B INCREASE

IN TOTAL IN AUSTRALIA'S REAL INCOME OR \$24.1 BILLION FOR NPV (7% REAL DISCOUNT RATE) OUT TO 2050

\$132.6B CUMULATIVE INCREASE IN MINING REVENUE

49.8% REDUCTION IN EMISSIONS FROM MINERALS MINING AND PRODUCTION IN THE NWMP

3,560 FTE JOBS

ON AVERAGE PER ANNUM SUSTAINED PRIMARILY THROUGH INCREASED MINERALS PRODUCTION

40% AVERAGE REDUCTION

IN DELIVERED ELECTRICITY COSTS FOR INDUSTRIAL CUSTOMERS IN THE NWMP, DOWN FROM AMONGST THE WORLD'S HIGHEST ELECTRICITY COSTS CURRENTLY IMPOSED ON CUSTOMERS IN THE REGION.

66

CopperString is one of the most important enabling projects for our region's long-term growth. The impacts from lower energy prices on our community will lead to enormous opportunities in the resource sector and help to grow the Australian economy.

> TIM AKROYD, MMG, DUGALD RIVER GENERAL MANAGER



Our support for CopperString is an investment in the future of Queensland that will bring power prices down, create 750 direct construction jobs and unlock the significant economic potential of the North West Minerals Province.

> THE HON SCOTT MORRISON MP, PRIME MINISTER OF AUSTRALIA





Like the railway lines that connected Mount Isa to the port in Townsville a century ago, my government's support for the 1100 kilometre CopperString powerline will open up the 'New Mount Isa'.

> THE HON ANNASTACIA PALASZCZUK MP, PREMIER OF QUEENSLAND



NQH₂ HYDROGEN CONSORTIUM

GROWTH TOPPORTUNITY

Hydrogen is one part of Townsville's diversified future and, for the first time, the region is not only looking at supplying its own energy but provide clean energy to the world. South Korea and Japan are the two identified hydrogen export markets for Australia. With Ark Energy, a subsidiary of Korea Zinc and Origin Energy's partnership with Kawasaki Heavy Industries, Townsville is already in the box seat to secure this global opportunity.

BACKGROUND:

The Townsville Enterprise led North Queensland Hydrogen Consortium (NQH2) was welcomed into H2TCA, the Federal Government's National Energy Resources Australia (NERA) network of hydrogen clusters on 3 December 2021, establishing Townsville as a declared Hydrogen Cluster.

The North Queensland Hydrogen Consortium and its foundation partners recently submitted Federal Government grant applications under the "Activating a Regional Hydrogen Industry – Clean Hydrogen Industrial Hubs" scheme, to secure the future of the regional hydrogen economy.

Foundation partners, led and supported by Townsville Enterprise, collaboratively selected projects that require immediate funding in a bid to secure common user infrastructure, design expansions of existing export capability, and feasibly define recycled water options for green hydrogen production.

WHAT WE NEED

- Through infrastructure investment Townsville can deliver on the Federal Government's priority of developing hydrogen industry across the nation.
- To activate the hydrogen industry in the region we are seeking identification of Hub requirements, Hub feasibility and design for common user export infrastructure (\$1 million), and funding for identified common user infrastructure requirements (\$70 million).
- > Announcement of successful grant submissions under the Hydrogen Hub grants program.

Under the Federal grant, applications include:

- Activating a Regional Hydrogen Industry: Hub Development and Design Grants
 - North Queensland Hydrogen Consortium submission, delivered by Townsville Enterprise – North Queensland Hydrogen Industry Master Plan
 - Ark Energy submission Designed to feed into the Master Plan to create an end-to-end supply chain, from electricity, and hydrogen production to exporting and shipping
- Activating a Regional Hydrogen Industry: Hub Implementation Round 1 Grants
 - North Queensland Hydrogen Consortium submission in partnership with Townsville City Council – NQH2 Sustainable Water Common User Infrastructure Delivery

STATUS:

Current projects in the region such as CopperString 2.0, Hells Gates Dam Pumped Hydro, Kidston Pumped Storage, Ark Energy's hydrogen production facility and new hydrogen powered trucks, and Edify Energy's Majors Creek Solar Power project will ensure that North Queensland has the foundations for the acceleration of the hydrogen industry for domestic and global demand.

The larger proponents of the Consortium such as Ark Energy (subsidiary of Korea Zinc) and Origin Energy (in partnership with Japanese Kawasaki Industries) have already secured major offtake agreements within the Korean and Japanese Market – something that sets the Townsville proposal apart from others.

BENEFITS:

An emerging renewable hydrogen industry in North Queensland offers exceptional opportunities for a collaborative hydrogen industry ecosystem to generate more jobs, advanced manufacturing and could be a catalyst for the growth of small business capability and skills in the renewables sector and other flow on industries.

SOURCE ECONOMIC IMPACT FROM CONSTRUCTION PLUS ONGOING INDUSTRY GRP 150 CONSTRUCTION JOBS FOR \$70M INFRASTRUCTURE SPEND I

SUPPLY CHAIN JOBS CREATED FOR \$70M INFRASTRUCTURE SPEND



LANSDOWN ECO-INDUSTRIAL PRECINCT

RENEWABLE INDUSTRY AND JOB GROWTH OPPORTUNITY

Located 40kms from Townsville off the Flinders Highway, the Lansdown Eco-Industrial Precinct is on track to be Northern Australia's first environmentally sustainable, advanced manufacturing, processing and technology precinct powered by locally generated renewable energy.

The Precinct is located adjacent to the Great Northern Railway (connecting Port of Townsville to Mount Isa), with direct access to the Port of Townsville. Along the eastern boundary of the Precinct is the North Queensland Gas Pipeline providing a key input for renewable hydrogen expansion, which will be supported by raw water supply from the Haughton Pipeline.

In a globally competitive market, the delivery of common user enabling infrastructure will ensure industry is attracted to Australia. This provides major economic benefits for North Queensland and growth for the region's domestic and international profile. Economic Impact Analysis shows the region will receive significant job creation and demand for skilled workers in advanced manufacturing and renewable energy, with this rapidly increasing as the remaining land is developed. The construction of access roads, rail and water infrastructure is a crucial component for establishing the Precinct as an environmentally sustainable, advanced manufacturing, processing and technology estate. Seven companies, Queensland Pacific Metals (QPM), Edify Energy, Imperium3, RTE Energy Pty Ltd, Origin Energy Future Fuels Pty Ltd, Solquartz Pty Ltd, and North Queensland Gas Pipeline have been committed or conditionally committed to land at the Precinct and their projects continue to advance.

QPM are developing the Townsville Energy Chemicals Hub (TECH) which has been declared a prescribed project by the Queensland Coordinator-General, supporting the necessary approvals for the project. In September 2021 Townsville City Council approved the development application for Edify Energy's 1GW green hydrogen production plant as well as behind-the-meter solar photovoltaic and battery storage facility at the Precinct.

The Lansdown Eco-Industrial Precinct is leading the way for future industry in Australia and directly supports the Federal Government initiative to achieve net zero emissions by 2050.

Within the project's \$50 million budget, \$28 million has been secured through a combination of Federal, State and Council sources. Townsville City Council is thereby seeking a final \$22 million to ensure project completion and secure billions in industrial investment

WHAT WE NEED

\$22 million for the construction of essential enabling infrastructure including access roads, rail, and water infrastructure. This commitment will give certainty to investors looking to develop projects on this site and ensure activation of the Precinct.

5,122 6, CONSTRUCTION PER JOBS ONG

6,015 PERMANENT ONGOING JOBS

9.120

INDIRECT

IOBS



CHARTERS TOWERS INDUSTRIAL LAND

BACKGROUND:

In recent times the Charters Towers region has seen a dramatic increase in economic investment and employment opportunities.

To ensure the future of economic investment and growth in the Charters Towers region, Council has purchased three parcels of land totaling 777ha on Stockroute Road, located approximately 14km North East of the Charters Towers CBD. Known as the "777 block", the land borders the banks of the Burdekin River. These specific parcels of land were chosen for their close proximity to Charters Towers CBD, access to electricity and their environmental features that make them versatile and attractive for a variety of industrial uses.

A comprehensive Master Planning Report has been undertaken and identified that in order to allow further development of the 777 Block, the existing Titley Road/Flinders Highway Intersection is required to be upgraded to a Channelised Right Turn (CHR) with an Auxiliary Left Turn Treatment (AUL) into Titley Road, with associated road lighting and a two-way sealed road carriageway. These upgrades are estimated to cost \$14 million.

WHAT WE NEED

The Federal Government provide funding of \$14 million to upgrade the intersection and road leading to the 777 Block to enable triple road train access.

AYR INDUSTRIAL LAND

GROWTH OPPORTUNITY

The Burdekin Shire Council proposes to develop additional land for industrial purposes in Ayr as the existing industrial estate is now close to capacity. Land owned by Council and previously identified for future expansion of the estate is partly affected by a State Government 'wetland' overlay that impacts its future development. The Council has therefore recently purchased additional vacant land adjoining the existing industrial estate, undertaken detailed engineering designs and obtained relevant planning approvals to enable the land to be reconfigured into a number of industrial lots. The provision of suitably located and serviced industrial land in Ayr will help meet business and industry needs. The requested funding will act as a catalyst to develop further stages of the industrial estate as the land sales from stage one will enable infrastructure provision in future stages, thereby multiplying the initial investment and job creation opportunities.

STATUS:

The project is shovel ready but requires funding support to construct the necessary infrastructure to develop the land for industrial purposes, allowing for business growth and development in the Shire. The project is identified as essential economic infrastructure in the recently adopted Outlook 2025: Burdekin Economic Development Strategy 2020-25.

WHAT WE NEED

Burdekin Shire Council is prepared to meet 50% of the estimated \$6.5 million total project cost, with a government funding request of \$3.25 million. 17 3 57 CONSTRUCTION PERMANENT JOBS ONGOING JOBS



AFFORDABLE WATER & AGRICULTURE





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HELLS GATES DAM

This study is supported by funding from the Australian Government National Water Infrastructure Development Fund, an initiative of the Northern Australia and Agricultural Competitiveness White Papers.

GROWTH OPPORTUNITY

North Queensland currently only has water security infrastructure for two years, while South East Queensland and other parts of the country can rely on water security for 10 years. North Queensland receives monsoonal rain once a year and needs to build water infrastructure that can capture these large rainfalls to secure them for the next 10 months of the year.

The proposed Hells Gates Dam (HGD) is located approximately 120km north-west of Charters Towers and 160km north-west of Townsville, capable of storing 2,100GL of water and open 60,000ha of agricultural land.

The purpose of Hells Gates Dam is to provide reliable and secure long-term water supply for irrigation, high-value agricultural production for the Charters Towers and Townsville region, with significant agricultural export potential.

The project comprises of a dam, three smaller weirs and the Big Rocks Weir further downstream.

STATUS:

In 2019, the Australian Government committed \$24 million to the business case for the Big Rocks Weir and Hells Gates Dam Irrigation Scheme. In August 2020, the Big Rocks Weir business case was delivered to the Queensland and Federal Governments.

Governments have been successful in securing \$60 million to begin the construction of Big Rocks Weir near Charters Towers to commence in 2021/2022 – Charters Towers Regional Council being the proponent for the project moving forward.

The Hells Gates Dam business case is being prepared by Townsville Enterprise, working with the North Queensland Water Infrastructure Authority and is administered by the Queensland Government Department of Regional Development, Manufacturing and Water, with the final business case due for completion in April 2022.

WHAT WE NEED

- Support for water allocation for project pathway to construction.
- \$280 million from the National Water Infrastructure Fund to progress to shovel-ready status and unlock private investment (EIS, Cultural Heritage, Geotech, Detailed Design etc.).

The Hells Gate Dam Scheme is a potentially nation-building undertaking, involving over \$5 billion in enabling infrastructure and over \$1 billion of on-farm investment during construction. The 2018 feasibility study also suggested the Hells Gates Dam project could result in the creation of more than FTE 5,500 longterm regional jobs and deliver up to \$800 million of GRP annually into the North Queensland economy.

BENEFITS:

The feasibility report identifies the following benefits that the business case is in the process of confirming:

- Support substantial economic activity for North Queensland with the potential for significant employment in construction, agricultural, supporting industries and regional communities;
- Indigenous jobs and new business opportunities;
- Potentially one of Queensland's largest irrigation schemes, with the largest dam and pressurised irrigation network;
- > Whole new 60,000ha agricultural footprint. The Hells Gates irrigation area would cover almost a quarter of the ACT;
- Highly prized water security for new agricultural investment to the region on a significant scale and flood mitigation benefits;
- High-value sustainable cropping, supported by highly productive soil, with significant export potential;
- Interconnectedness with other projects: "Whole of Burdekin" water infrastructure, the Australian Singapore Military Training Centre, Port of Townsville and Townsville Airport upgrades to cater for agricultural exports and freight, and major transport initiatives;
- Project is deemed economically desirable with the benefits outweighing the costs;
- Provide long-term water security and reliability for the Townsville, Charters Towers and surrounding regions;
- Major infrastructure will be developed for the scheme, including enhanced and improved access to roads and energy;
- > Harnessing highest flow of Australian river resources to build long-term prosperity; and,
- > Staged to optimise funding option.

FTE 10,800+* CONSTRUCTION JOBS FTE 5,500+ PERMANENT ONGOING JOBS

* Job numbers stated above are subject to further economic modelling as part of the preparation of the final business case.

STONE RIVER WEIR

GROWTH AND DIVERSIFICATION OPPORTUNITY

With increased interest in irrigated agriculture in the Hinchinbrook catchment area, and a resulting finite availability of water resources in the Herbert area, the Hinchinbrook Shire Council are pursuing development of water storage systems along the Stone River to offer agricultural enhancement opportunities.

Considering the local geology of the Stone River system, smaller instream weirs are considered the most achievable solution to providing significant diversification opportunities. The economy of Hinchinbrook is significantly reliant on the sugar cane industry. The current situation is potentially unsustainable in the long term and the local Council are looking to diversify the economy through attraction of alternate, but complimentary, industry.

The ability to grow complimentary crops in rotation not only provides improved yield of cane through better soil health (achieved through alternate crops to breakdown soil monoculture), but also increased cash flow by providing an alternate source of income for growers and a general betterment of the economic prosperity of the Hinchinbrook district.

STATUS:

To forecast non-rotational cropping opportunities in preparation for the water storage opportunities, Hinchinbrook Shire Council have engaged the North Queensland Agricultural Market and Supply Chain to explore emerging markets, supply chain gap analysis and sector capacity in North Queensland agriculture industry. The results of the research will assist in guiding future industry development and investment decisions adopting a 'demand-led' approach to provide stakeholders with the intelligence and insight required to guide long-term planning.

A major inhibitor to progressing an agricultural diversification model is the limited irrigation capacity and water security to support additional complimentary cropping options. The additional requirement for water storage would be to supplement the pre-existing rain-fed system, which currently does not support the key agricultural yield period from August to November.

A series of weirs at pertinent locations would establish ponding along the Stone River to support irrigation (outside of the wet season, predominantly between August-November) without affecting environmental flows.

BENEFITS

- Generate an additional \$20 million in agricultural value to the region;
- Protect agricultural contributions to the regional economy during irregular or low-rainfall seasons;
- Facilitate improved soil health via crop-rotation with higher value, more water-reliant crops;
- > Long-life asset with minimal maintenance requirement; and,
- One-off investment providing long-term sustained benefit to the region.

WHAT WE NEED

Funding support from National Water Infrastructure Fund to investigate and develop feasibility study and business case for the proposed Stone River Weir project.

REGENAQUA – WATER TREATMENT PROJECT

GROWTH OPPORTUNITY

The RegenAqua projects meets the objectives of the Reef 2050 Plan. It is a transformational technology that will drive sustainable growth of agriculture and aquaculture industries in North Queensland, while reducing existing levels of nitrogen and phosphorous being discharged into rivers and Great Barrier Reef waters from aquaculture and municipal wastewater treatment facilities.

RegenAqua is homegrown, world-leading technology pioneered by James Cook University (JCU) in partnership with Pacific Biotechnologies Pty Limited (PacBio), an innovative 100% Australian-owned company.

RegenAqua uses sunlight to convert these nutrients into macroalgae (seaweed), which is then processed into a biostimulant to replace conventional fertilisers. The benefits are cleaner water, further aquaculture expansion and growth in sustainable agriculture.

The system was developed as a solution to reduce nutrient discharge on PacBio's aquaculture assets, however, highly successful trials at Cleveland Bay and more recently at the Burdekin Wastewater Treatment Plants (WWTP) have proven the technology as an effective, low cost, scalable solution for Councils.

> This is a Burdekin project, demonstrating that world-first innovation doesn't just happen in the capital cities – it happens wherever there is an issue that needs to be addressed and a group of people who are passionate about solving that issue. We are now ready to host the first full-scale demonstration and welcome support from the Federal Government for what is sure to revolutionise treatment of wastewater not only in the Burdekin, but across Australia and around the world.

> > - CR LYN MCLAUGHLIN, MAYOR BURDEKIN SHIRE COUNCIL

BACKGROUND:

The basic principle of RegenAqua is that native green algae use sunlight to absorb phosphorus and nitrogen (nutrient pollutants) from the waste water stream prior to discharge into the environment. Green algae is then harvested and converted into a biostimulant (PlantJuice) that enables the return of these elements back into the agricultural biosphere in a safe, low energy and value-adding form (like auxins, gibberellins etc.) rather than as damaging dissolved inorganic nitrogen (DIN).

These natural hormones enable plant growth and enrich soils reducing the dependency on traditional nitrogen, phosphorus, and potassium (NPK) fertiliser systems, widely considered a source of DIN and pollution across the Great Barrier Reef catchment areas.

STATUS:

Successful trials have been conducted at Townsville's Cleveland Bay sewerage treatment plant (STP), with published results showing a total nitrogen reduction of 36% to 2mg/L, a total phosphorus reduction of 65% to 0.3mg/L, and a highly successful small-scale pilot is already successfully operating in the Burdekin Shire.

The small-scale Macro-Algal Bioremediation Facility at the Ayr/ Brandon Waste Water Treatment Plant has been operating for eight months and in that time, has demonstrated the potential to significantly reduce harmful nutrients, including other elements like aluminium and heavy metals, in the treated effluent.

The RegenAqua system was approved by GBRMPA for aquaculture in 2017 and was recently endorsed in September 2021 by the former Chief Scientist of Australia, Professor Ian Chubb.

BENEFITS:

This project supports jobs and economic development in North Queensland and demonstrates a practical solution to protecting one of the world's greatest natural assets – the Great Barrier Reef. Once proven in commercial scale, this Australian technology can not only help to protect our Great Barrier Reef, but could be exported to other nations in need of support of their ecosystems and reefs.

> 200 CONSTRUCTION JOBS

370 PERMANENT ONGOING JOBS

66





WHAT WE NEED

We are proposing a three-staged approach to the development of this opportunity. First establishing a facility in the Burdekin, then expanding to North Queensland Local Government Areas (LGAs), and then across the remaining 17 Queensland LGAs in the reef catchment area.

- Stage 1: Burdekin Project = \$8.3 million The construction of a 4.5 hectare bioremediation facility at the Ayr/ Brandon WWTP will enable a full scale facility to be constructed. This facility would then be duplicated at other WWTP sites throughout Queensland that are discharging to the Great Barrier Reef. The technology has significantly lower capital and operating cost than other current conventional tertiary treatment upgrade options designed to remove nitrogen and phosphorus.
- Stage 2: Regional Deployment
 = \$24 million
 Establish facilities across the Local

Establish facilities across the Local Government Areas of Townsville, Hinchinbrook Shire, and the Charters Towers Region. Stage 3: Remaining 17 Queensland Reef Catchment LGAs = \$100 million The data from the first four LGAs will enable the remaining 17 Queensland LGAs in the Great Barrier Reef catchment zone to adopt this solution and significantly reduce nutrient discharge.



TOWNSVILLE CITY DEAL





TOWNSVILLE CITY DEAL

The Townsville City Deal is a 15-year commitment between the Government of the Commonwealth of Australia (the Commonwealth) the Government of the State of Queensland (the Queensland Government) and the Townsville City Council to a collective program of planning, reform and investment for Townsville. The commitments made under the City Deal are consistent with the Memorandum of Understanding between the Commonwealth and the State of Queensland to establish and implement City Deals, which was agreed on 10 November 2016.

The Townsville City Deal will help grow the economy of Townsville by supporting the city to be, by 2030:

- > The economic gateway to Asia and Northern Australia.
- > A prosperous and lifestyle-rich city for its community and visitors.
- A global leader in tropical and marine research and innovation.

SUPPORT UNDER CITY DEAL

\$124 million in Commonwealth funding remains to be reallocated under the Townsville City Deal, with deal partners in discussions on priorities for this funding.



\$12 million for enabling infrastructure to support the Lansdown Eco-Industrial Precinct – Northern Australia's first environmentally sustainable, advanced manufacturing, processing and technology estate powered by locally generated renewable energy. This is in addition to a **\$12 million commitment from the Queensland Government** and **\$4 million from the Townsville City Council.**

\$2 million for a feasibility study into the supply of re-use water for the growing green hydrogen industry in Townsville.

\$100 million will be committed to the Concert Hall, subject to the outcomes of the **\$2 million business case** being satisfactory to all parties.

\$67 million to establish the Tropical Aquaculture Accelerator, ensuring Northern Australia and Queensland continue to harness our leadership advantage in aquaculture, at a time when global demand is about to soar.

\$31.2 million to deliver an advanced recycled water treatment plant to produce green hydrogen (connected to \$2 million for feasibility into re-use water for growing green H2 industry).

\$40 million toward the redevelopment of Reef HQ, transforming it into Australian's national centre of excellence for coral reef education.

\$15 million contribution toward expansion of Royal Flying Doctor Service facilities in Townsville.



INNOVATION, SKILLS & BUSINESS ENABLERS





NORTHERN AUSTRALIA CRITICAL MINERALS AND METALS INSTITUTE

GROWTH OPPORTUNITY

James Cook University is proposing the establishment of a Northern Australian Critical Minerals and Metals Institute in Townsville. Using existing facilities, the centre will be an industryled, JCU housed Teaching and Research Centre in support of the Northern Australian critical minerals and metals activities. It would directly support the exploration, mining, production, and delivery of key base inputs into technology, advanced manufacturing and clean energy. Importantly, the proposal answers the demands of the region for a skilled workforce in critical minerals mining and advance manufacturing.

Through investment in human capital, research and development, and cutting-edge technology, the Northern Australian Critical Minerals Institute will support the growth of the resources sector in Northern Australia by:

- Meeting the industry identified skill gaps through a multipronged approach to immediate and long-term workforce development to support the northern Australian critical minerals sector, including in the disciplines of geology, engineering, minerals processing, economics and business;
- Building world-leading research and teaching capacity to support new and innovative approaches to the exploration, extraction, production and processing of critical minerals relevant to Northern Australia;
- > Undertaking targeted research on key growth areas, including hydrogen economy (processing, storage, logistics, optimisation), critical metals and resources (rare earths, helium), minerals processing, and geotech and mining engineering;
- Spurring innovation in the critical minerals sector through improved research and development capacity; and,
- Support resource security, investment attraction and research into mineral economics and policy centering Australia's New Economy Minerals sector through developing geoscience information on critical minerals across northern Australia.

BACKGROUND:

James Cook University has a strong regional presence and network of facilities across Northern Australia, that would support the operation of the Northern Australian Critical Minerals Institute (including remote locations such as JCU in Mount Isa and Cloncurry as well as industry facilities).

JCU has a strong history of collaborating with key stakeholders engaged in critical minerals and metals across Northern

Australia, including undertaking the geological surveys for the Northern Territory and Queensland. In recognition of JCU's expertise in this space, JCU also undertakes the geological survey for New South Wales. This geological survey data is of significant importance to industry and key stakeholders, and supports the development of new and existing sites.

STATUS:

Australia's mining workforce has almost tripled over the last 15 years, creating critical skill shortages that will only increase in the context of rapidly changing opportunities across exploration, mining, processing and support for critical minerals, metals, and rare earths. These challenges are even more acute across Northern Australia, as is acknowledged through the Northern Australia agenda and through consultations with key industry players (including Glencore, South 32, MMG, Anglo, Sun Metals, IPL, Ravenswood Gold, QPM, Rio Tinto). The Northern Australia Critical Minerals and Metals Institute will build on JCU's existing short course and full degree programs to provide a sharply focused, industry lead and informed program of activity, to ensure a full complement of training and professional development offerings to meet the needs of the current and future workforce of the region.

Furthermore, investment in a Northern Australia Critical Minerals and Metals Institute will provide key sovereign capability to address the current national and international over reliance on key suppliers (including Russia and China), which presents significant risk to Australia's national and economic security.

WHAT WE NEED

Investment of \$5 million over three years to support the establishment of a Northern Australia Centre of Critical Minerals and Metals. This will comprise:

- \$3 million in the first year to support establishment costs, including staffing, procurement of specialised equipment for the exploration and analysis of minerals and other activities. This will include the procurement of cuttingedge high resolution isotope ratio mass spectrometry equipment to support industry-led research and exploration activity, capacity currently unavailable in Northern Australia.
- \$1 million per annum over years two and three to support operations as the Centre moves to an industry-led, government supported model.



BUSINESS ENABLERS

To optimise growth opportunities across Northern Australia, key business enablers should be reviewed, and solutions fast-tracked to ensure commercial enterprise across all industry sectors can fully realise the potential of the region. As a zone of national significance, critical challenges must be addressed - including reducing red tape, resolving business insurance and public liability and addressing the skills shortage.

INSURANCE

REINSURANCE POOL

We are contributing \$20 billion to the national GDP and without access to affordable insurance in all aspects of life is unacceptable and will hold back the entire prosperity of our country.

We have reached the point of 'Market Failure' leaving significant sectors of the economy, residents and small businesses exposed to no sufficient and/or affordable insurance in Northern Australia. Access to insurance is imperative for Townsville and North Queensland to reach its full economic potential and essential to building resilient communities.

The \$10 billion reinsurance pool was a significant announcement with the potential to be a real solution to a decade-long problem of rising and unaffordable insurance.

However, it should not be defined for the purposes of eligibility – the scheme should cover all located within the areas designated for eligibility to the reinsurance pool. If the scheme is limited in its beneficiaries, it changes very little for our region that has kept the national economy out of recession.

PUBLIC LIABILITY INSURANCE

The cost of insurance is forcing many tourism and hospitality businesses to self-insure. In addition to the ever-increasing cost of property insurance, tourism operators are finding that public liability renewal notices have seen significant premium increases or in some cases cover was outright refused. We have already seen tourism businesses in North Queensland, particularly in the adventure sector, close their doors because they are unable to obtain or afford public liability insurance.

Townsville Enterprise recommends:

- > A review into the 'no win, no fee' litigation arrangements;
- > Introduction to capped public liability payouts;
- Government intervention and review of both State and Federal legislation could review tort law and associated liability payments in case of fault or breach of duty of care; and,
- Government funded, insurance industry-supported educational program with the tourism industry to support increased risk mitigation measures within businesses.

OUR SUBMISSION TO THE

AND FAMILY ENTERPRISE

OMBUDSMAN

AUSTRALIAN SMALL BUSINESS



BANKING SUPPORT

Critical minerals and agriculture are an important part of our local, state, and national economy and the security of current exports and future growth will turbocharge jobs, business and confidence for us all.

There is a significant risk to the nation's regional communities when major financial institutions apply bias to appease capital city clients. Financial institutions have no right to dictate what critically important regions, like North Queensland, export. If there is global demand, then there is no reason why these institutions should not offer finance – this will create a dangerous precedent for our nation if this is allowed to occur. Whilst an eye must certainly be kept on future technologies, support must continue towards existing industries. Additionally, not only are those working within the thermal coal industry discriminated against when seeking finance, but now so too are regional communities. Banks are not only closing their shopfronts in rural towns but are also applying unrealistic requirements on those seeking financial support. In Cloncurry for example, banks are mandating a 40% deposit for any lending across the region. This is putting a significant handbrake on growth in these areas and adding pressure on retaining what little population is there.



OUR SUBMISSION INTO THE PRUDENTIAL REGULATION OF INVESTMENT IN AUSTRALIA'S EXPORT INDUSTRIES.



GOVERNMENT INCENTIVES FOR REGIONAL INVESTMENT ATTRACTION AND SKILLED WORKFORCE RELOCATION

From our strengths in agriculture in the Burdekin and Hinchinbrook, one of the richest minerals provinces to the west from Charters Towers and beyond, the largest defence base in the nation right here in Townsville, our world-class Port, leading health, education and marine science research centres, the Great Barrier Reef to our east, the list goes on. It is key to not view these natural and built assets in isolation, but instead as a collective to tell the story of their linkages and what the opportunities can be for our region, our state, and our nation when these strengths are leveraged.

For that we need all levels of government to be working together to de-risk investment and accelerate the economic development of Northern Australia. To achieve our common objectives, it is also essential that all levels of government will collaborate with the private sector – to make it easy to invest into our region.

Townsville North Queensland has aligned its regional priorities to its natural and established strengths which are:

- > Critical minerals
- > Agriculture
- > Defence
- > Hydrogen

Government incentives could include:

- > Tax incentives
- > Zone rebates
- > Migration incentives
- > Affordable power



HEALTH, KNOWLEDGE & RESEARCH





TROPIQ & A NEW ECONOMY FOR TOWNSVILLE

GROWTH OPPORTUNITY

TropiQ is a tropical intelligence and health precinct development in North Australia's largest city – Townsville. The precinct is home to two of Townsville's biggest powerhouses, James Cook University (JCU) and Townsville University Hospital (TUH) and a range of other health, education, research and innovation enterprises such as CSIRO, Tec-NQ, Australian Institute for Tropical Health and Medicine and ARC Centre of Excellence for Coral Reef Studies.

The co-location of these sizable institutions sees a significant advantage for Townsville in leveraging their cumulative offerings to attract new talent, new innovations and a new knowledge-based economy to Townsville. The \$5.9 billion TropiQ development is a key deliverable of the Townsville City Deal under the Health and Knowledge Strategy and is also recognised as an important economic driver within the North Queensland Regional Plan.

The institutions in the precinct already contribute heavily to the North Queensland economy with a combined \$3.5 billion in economic output and support nearly 16,000 jobs in Townsville. TropiQ will attract additional investment in world-leading innovation, research and entrepreneurship.

By 2035, the precinct will generate an additional \$1 billion in economic output for Townsville and support an additional 5,500 FTE jobs – half of these in the TropiQ precinct and the other half throughout the city. Construction activity in the precinct is expected to generate \$7.8 billion of activity for the local economy, paying \$1.8 billion in wages for more than 23,000 FTE jobs between 2020 and 2035.

STATUS:

The anchor institutions have private infrastructure but the same is not suitable for third party proponents. This infrastructure is beyond the financial or technical capacity of the anchor institutions and as such government support is required.

Stages of TropiQ development already underway and planned:

>	JCU Student Accommodation		\$54M (underway)
>	JCU Technology Innovation Com	nplex	\$94M (underway)
>	TUH Rehabilitation and Day Surgery Facility		\$500M (BC underway)
>	TUH Multi-Level Carpark		\$50M
>	TUH Capital Works Program 202	21-2024	\$87M (underway)
>	NQ SPARK	\$3	2M (investment ready)
>	JCU Aquaculture Accelerator	\$6	9M (investment ready)
>	Tropical Brain & Mind Institute	\$21.8N	/ (BC funding needed)

Additional investor interest includes:

- > Private Hospital
- > Medi-Hotel
- > Technology Park
- > Data Centre
- > Advanced robotics and manufacturing
- > Bionics
- > Defence Prime Contractors
- > Proton therapy and other advanced cancer treatments
- > Marine Technology Park

WHAT WE NEED

- A preliminary assessment anticipates a requirement of \$10 million for an investigation/planning phase to develop a TropiQ Precinct Infrastructure Plan.
- Government commitment to an active partnership and investment into a phased enabling infrastructure program to unlock developable land within the precinct.



23,000 CONSTRUCTION JOBS 5,500 PERMANENT ONGOING JOBS \$7.8B MADE DURING CONSTRUCTION

35



NQ ICT CENTRE OF EXCELLENCE

GROWTH OPPORTUNITY

The NQ ICT Centre of Excellence (COE) will grow the ICT workforce in North Queensland through partnerships between government and private providers to establish and expand the skills required to build a sustainable ICT workforce in the North Queensland region.

Replicating partnerships similar to other locations (e.g. the Digital Transformation Centre in Adelaide), the NQ ICT Centre of Excellence will build a critical mass of "like" resources in the region. This in turn will then attract other projects to the North Queensland region and will create a highly skilled and sustainable workforce in the region.

Examples of the types of projects that would be supported by the NQ ICT COE include:

- Virtual contact centres deliver a scalable cloud-based solution that allows decentralisation/"work from anywhere" for critical call centres. Removes reliance on centralised call centres and affords flexible working and ability to move workloads across QLD regions;
- Digital Government enhance QLD Government's ability to digitally transform by modernising legacy workflows, business rules, services and products to the future of Government responsiveness;
- Acute / Mental illness centre centre for research, coordination and management of Queenslanders with acute / mental illnesses. Includes trialling personal health monitoring devices/telehealth services and remote management (e.g. diabetes);

- Social impact IT support centre helps the community develop and run programs that benefit individuals and society. Initial areas of focus include neurodiversity, veterans, disability, Indigenous people and climate change;
- Cyber Security Centre security awareness, vulnerability assessment, detection and management of critical infrastructure supporting Smart City, energy, water, agriculture, environment and defence initiatives. The program will enable veterans exiting the forces to attain the appropriate industry security certification and skills to meet high demand for defence cleared ICT workforce;
- > Application modernisation can partner with JCU and TAFE to create a pipeline of Application Modernisation experts leveraging both University and private ICT providers capability; and
- Infrastructure managed services managed services, cloud migration and outsourced ICT services across Local and State Government. Implementing effective automation can reduce typical costs by 20-30% and doing this onshore addresses Government risk.

The NQ ICT Centre of Excellence will work closely alongside local University and TAFE partners to develop the long-term skills required to deliver ICT projects within the region and help work towards being a global leader in tropical health and knowledge.

*ICT (Information and Communication Technologies)

WHAT WE NEED

NQ ICT Centre of Excellence – \$40 million over five years (2020/21 – \$8 million). **30** CONSTRUCTION JOBS 900 PERMANENT ONGOING JOBS





SINGAPORE TO DARWIN SUBMARINE CABLE CONNECTION

GROWTH OPPORTUNITY

Townsville is the largest city in Northern Australia and home to successful tech start-ups such as SafetyCulture, JESI, FlyFreely and LiXiA. Today, Townsville has a developing ecosystem in Defence Technologies, AgTech, Advanced Manufacturing, Environmental (Reef to Rainforest) Monitoring, Smart City and Health Technologies.

Development of a new defence simulation precinct SPARK, tropical Intelligence and health precinct TropiQ, Townsville's connection with Singapore through Australia-Singapore Military Training Initiative, has a huge potential to accelerate the momentum. As all traditional industries in the region are going through digital transformation to remain globally competitive and emerging industries such as Hydrogen, new economy minerals and batteries are showing interest in Townsville, there is once in a generation opportunity to create a digital hub complementing in Townsville.

Vocus is building a submarine cable connection between the Northern Territory and Southeast Asia. The new 1,000km cable will link the Australia Singapore Cable (ASC) to the North West Cable System (NWCS) in Port Hedland, Western Australia, thereby providing the final piece of the Darwin-Jakarta-Singapore Cable (DJSC). The DJSC will interconnect with the 4,600km ASC between Perth and Singapore and the 2,100km NWCS between Port Hedland and Darwin, with the completed system expected to be online by mid-2023.

In order to ensure a vibrant digital ecosystem for the capital of Northern Australia, Townsville's digital infrastructure is vital to ensure crucial interconnection to major Australian cities and connectivity to Singapore through undersea cables. There is an opportunity to leverage the new Australia Singapore Cable (ASC) to connect Townsville to Darwin via Mt Isa. The proposed CopperString construction timeframe could be an enabler for this project.

Through the investment of \$100 million to connect the cable from Townsville to Darwin, it can become a lighthouse project, that will not only unlock the potential of Townsville as a tech hub but will also put Townsville on the national and global tech map and help attract high profile tech companies to Townsville in this post-COVID world.





DESTINATION DEVELOPMENT





NORTH AUSTRALIA CONCERT HALL & ARTS PRECINCT

GROWTH OPPORTUNITY

The North Australia Concert Hall and Arts Precinct (NACHAP) is a key commitment under the Townsville City Deal. Several studies have been undertaken demonstrating the clear and immediate need for a modern performing and visual arts precinct that services North Queensland.

The current arts and culture facilities in the Townsville region are outdated and do not contain the necessary technical equipment required by professional artists and performers. The lack of suitable venues and two year forward bookings on existing venues has been identified as a significant contributing factor to restricting the growth of Townsville's arts and culture offer and as such the region experiences an active loss of tourism and economic returns.

Townsville is overlooked by major national and international performances due to the lack of facilities. At present, the cultural and arts offering for the region is well below the facilities of other equivalent regional cities. This creates a cultural vacuum and favours those who can afford to travel to access broader cultural and arts experiences in capital cities, widening the socio-economic divide.

While Townsville is the home to the North Australian Festival of Arts and Australian Festival of Chamber Music, the shortage of suitable facilities in the region creates limitations to grow events and increase tourism in the region.

The construction of NACHAP will support growth of the region's Indigenous artists, enabling a rich offering of performing and visual arts that include the opportunity to embrace the region's rich Indigenous history. NACHAP will also derive significant socio-economic benefits through increased economic activity, increased resident participation, improved social connectivity, recreation, volunteering opportunities, and growing local community groups and events.

Successful delivery of this project will strengthen Townsville as an attractive destination and events capital of Northern Australia. The attraction of world-class events and festivals will deliver significant economic uplift to local businesses and the hospitality and tourism sectors, whilst promoting the region and creating long-term jobs.



WHAT WE NEED

- Rapid delivery of the detailed business case for the Concert Hall, supported through the Townsville City Deal \$2 million commitment, with a further \$98 million committed subject to the outcomes of the business case.
- > A further \$220 million to deliver the broader Arts Precinct, in addition to the Concert Hall.

934 55 CONSTRUCTION PERMANENT JOBS ONGOING JOBS

2,242 INDIRECT

IOBS



NORTHERN AUSTRALIA CENTRE FOR EXCELLENCE FOR WOMEN'S SPORT

GROWTH OPPORTUNITY

Stakeholder interest in new facilities for women's sport of equal status and quality to those for men has risen in Townsville on the back of the opening of the Cowboys Community and High-Performance Centre, and the recent Brisbane 2032 Olympics announcement. Currently there is no facility in Northern Australia that focuses on women's high performance in sport to support athletes, coaches and referees to aspire to national leagues and international competitions.

Following the 2032 Olympics announcement, there is an equity case to be made for the benefits of this major event to be spread wider than South-East Queensland, and the timing is perfect for the development of new high-performance facilities for women in Townsville and Northern Australia. Townsville is the largest city in Northern Australia, encompassing the largest population catchment in an 8-hour drive radius – taking in approximately 1 million people, and is also home to two universities with extensive research and teaching capabilities. Townsville also has excellent direct connectivity by air to Brisbane, Sydney, Melbourne and Adelaide and Northern Australia cities and towns like Darwin (with connections to WA), Cairns, Mount Isa, Mackay and Rockhampton.

The Townsville Fire (WNBL), as Northern Australia's only professional female sports team, with the support of Townsville City Council, Townsville Enterprise and Basketball Australia, wishes to explore the best option for new facilities that would include recovery and high-performance training for basketball and other women's sport, along with court facilities for game day and training and appropriate seating of up to 4-5,000. These facilities could either be standalone or part of a Townsville entertainment and events precinct.

BENEFITS

To inform the feasibility study and provide further rationale for the development of a Northern Australia Centre for Excellence for Women's Sport:

- Alignment with Australian and Queensland Government goals to:
 - > Close the gap on Indigenous health outcomes;
 - > Develop Northern Australia;
 - > Create new employment pathways; and,
 - > Enhance inclusivity and cohesion in communities.
- The Confederation of Australian Sport has reported that the sports industry generates an estimated \$83 billion in combined economic, health and educational benefits each year (representing 3% of the nation's GDP) with a return over 17:1 on Government investment.
- Townsville Fire is very well connected to local stakeholders across all levels of government, media, business and not-forprofit community and is recognised as the leader in women's sport in the region, and the proposed Northern Australia Centre of Excellence For Women's Sport would further enhance these outcomes and benefits in Northern Australia.

WHAT WE NEED

\$2 million to undertake a feasibility study on the best viable options for constructing and operating a Northern Australia Centre of Excellence for Women's Sport in Townsville. The facility will include recovery and high-performance training for basketball and other women's sport, along with court facilities for game day and training and appropriate seating of up to 4-5,000. These facilities could either be standalone or part of a Townsville entertainment and events precinct. A Steering Committee would be formed to engage the most appropriate consultants to undertake the work and to ensure sound processes, engagement and consultation.



CONNECTIVITY BOARDWALKS

GROWTH OPPORTUNITY

Townsville has been a city in economic transition, suffering like many regional areas from the decline of the CBD. Significant investment has been made to energise the city through new entertainment offerings and building refurbishment.

The new Queensland Country Bank Stadium and the first stages of a series of boardwalks along Ross Creek have injected a newfound love of the city by residents and visitors.

Continuation of the boardwalks along Ross Creek will support integration of key entertainment and tourism offerings providing a significantly improved experience over the city's fragmented hospitality and accomodation precincts. Continued investment in the public realm will catalyse private investment and stimulate the resurgence of the city heart.

The boardwalks are proposed to extend throughout the Waterfront Priority Development Area connecting food, beverage and entertainment offerings that connect the Queensland Country Bank Stadium through to the Sealink Ferry Terminal. Traders have indicated that boardwalks would enable them to expand their businesses and remodel buildings that haven't utilised the creek frontage. This in turn will also attract future city traders to take up vacancies within the CBD. The boardwalks will support growth in the night time economy of the city and provide a safe active transport route. The next stage of the boardwalk is proposed to extend from Reef HQ Aquarium along Flinders Creek East, and incorporate a pedestrian bridge connecting Flinders Street East to the Palmer Street Dining District. This beautified public realm will provide the opportunity for twilight riverside markets, as well as the utilisation of the space for recreational activities and events along the waterfront promenade. The project will provide new opportunities for surrounding existing and future hospitality and accommodation traders, generating significant economic and social benefits for Townsville's city centre.



WHAT WE NEED

\$20 million over 4 years for the staged construction of boardwalks along Ross Creek to connect key entertainment, tourism, hospitality and accommodation precincts. Future stages are anticipated to include a pedestrian bridge to link the east end of Flinders Street to Plume Street and further extension of boardwalks along Tomlins Street through to Central Park.

684289CONSTRUCTIONPERMANENTINDIRECTJOBSONGOING JOBSJOBS

NORTH QUEENSLAND TRAIL DEVELOPMENT

GROWTH OPPORTUNITY

Townsville Enterprise recently commissioned 'Destination Think' to undertake a Tourism Sentiment Index (TSI) report for the Townsville North Queensland region. The TSI study analysed over 15 million online conversations about the region from across the globe to understand the quality of the visitor experience as well as what elements of the destination are the biggest attractors for tourism.

The YE 2019 report demonstrated that when compared to similar sized destinations across the globe, Townsville leads in experiences centred around fishing, wildlife and hiking. As a region, there is significant opportunity to leverage our destination's natural strengths and further build the experience offering through multi-purpose trail development and commercialisation.

Hiking and mountain biking is a key growth segment within the tourism industry. Iconic trails from across Australia and New Zealand such as the Overland Track, Great Ocean Walk and Milford Sound Track, attract thousands of high-value visitors annually, injecting millions in economic value and placing regional destinations on the map for tourists from across the globe.

The abundance of natural attractions in the region presents a great opportunity for North Queensland to enhance its profile as a unique adventure tourism destination, and have trails included as part of Australia's National walking and mountain bike trail guide.

IDENTIFIED TRAIL OPPORTUNITIES:

- Paluma to Wallaman Falls Multi-Day Trail: A proposed 125km, 7 day/6-night mixed use trail to be established in the Townsville North Queensland region. This trail offers world-class scenery and landscapes and provides visitors the opportunity of a spiritual and cultural immersive experience travelling in the footsteps of our First Nations people;
- Magnetic Island Trails: Development of trails in line with Magnetic Island Trails Vision and redevelopment of Magnetic Island foreshores (have received \$500,000 to walking trail development in June 2020); and
- Palm Island Trails: Multi-purpose trail development on Palm Island to complement new tourism offerings and introduce a new events and tourism industry to the community.

STATUS:

- Paluma to Wallaman Falls Trail: business case underway which will inform capital works funding requirements;
- Magnetic Island Trails: Partial funding acquired, however more funding required to deliver the Vision Plan; and
- **Palm Island Trails:** Requires feasibility and business case.

WHAT WE NEED

- Commit funding to capital works of Paluma to Wallaman Falls Trail pending outcome of the business case (proposed April-May 2022).
- \$5.4 million towards the urgent upgrades of trails on Magnetic Island (noting \$500,000 has been received).
- > Funding commitment to feasibility study and business case of Palm Island Trails.

\$24.2 MILLION ECONOMIC ACTIVITY ANNUALLY*

*Based only on Paluma to Wallaman Falls Trail medium utilisation

65 CONSTRUCTION JOBS O

115 PERMANENT ONGOING JOBS



Combined jobs from Paluma to Wallaman and Magnetic Island Trails

DUNGENESS MARINE ACCESS UPGRADE

GROWTH OPPORTUNITY

The region's closest access point to the Great Barrier Reef is the Dungeness Enterprise Channel located in Lucinda, North Queensland. From Dungeness, it is a short 20-minute boat transfer to Hinchinbrook Island or a 90-minute transfer to outer Great Barrier Reef (approximately 30 minutes less than Townsville) with the area sitting at nearly 34% for fishing participation of any region of the State. Currently, Dungeness' access is dependent on tides and the limited infrastructure poses significant limitations and safety concerns.

Hinchinbrook Shire Council's Dungeness Marine Access Upgrade project involves the dredging of the channel and the construction of a rock-armoured retaining wall. Secondly, the project involves the redevelopment of the Dungeness Boat Ramp carpark and recreation area which is currently underway.

STATUS:

Council is proposing to undertake capital and maintenance dredging in the Dungeness Enterprise Channel located in Lucinda, North Queensland. Council intends to improve access to the Dungeness Enterprise Channel by increasing the main channel depth to allow vessels to safely navigate to and from the boat ramp and marina area during low tides.

In addition, Council proposes to construct a rock armoured retaining wall at the channel entrance, adjacent to the main channel, and to utilise the dredged spoil to replenish the adjacent beach foreshore to protect the remaining spit from further erosion. This aspect is not shovel-ready as Council continues to pursue environmental permits to allow work to progress.

The second aspect is the upgrade of the existing carpark and recreation area. This aspect of the project is currently underway. The redevelopment will reduce current vehicle congestion and cater for an increasing demand on boating facilities and future growth in the area. Adequate and safe facilities for recreational boat users is essential to ensure continued tourism opportunities and economic growth within the Shire.

WHAT WE NEED

\$5 million funding to conduct the required capital works, dredging, rock wall and beach replenishment. **80** DIRECT FULL TIME JOBS **100** INDIRECT FULL TIME JOBS

PALM ISLAND RETAIL & COMMERCIAL PRECINCT

GROWTH OPPORTUNITY

The project involves construction of Stages 2 and 3 of a Retail and Commercial Precinct on the underutilised waterfront land on Palm Island. The precinct will provide a vibrant mix of retail and specialty shops and is designed to bring mainland shopping and service opportunities to the Island, increase employment and community capacity and pride, and stem the leakage of vital expenditure from the island. It will provide a safe and inviting environment to support Palm Island Aboriginal Shire Council's Tourism and Events Strategy.

WHAT WE NEED

\$30 million to support construction of Stages 2 and 3 of a Retail and Commercial Precinct on Palm Island.



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