



Australian Government

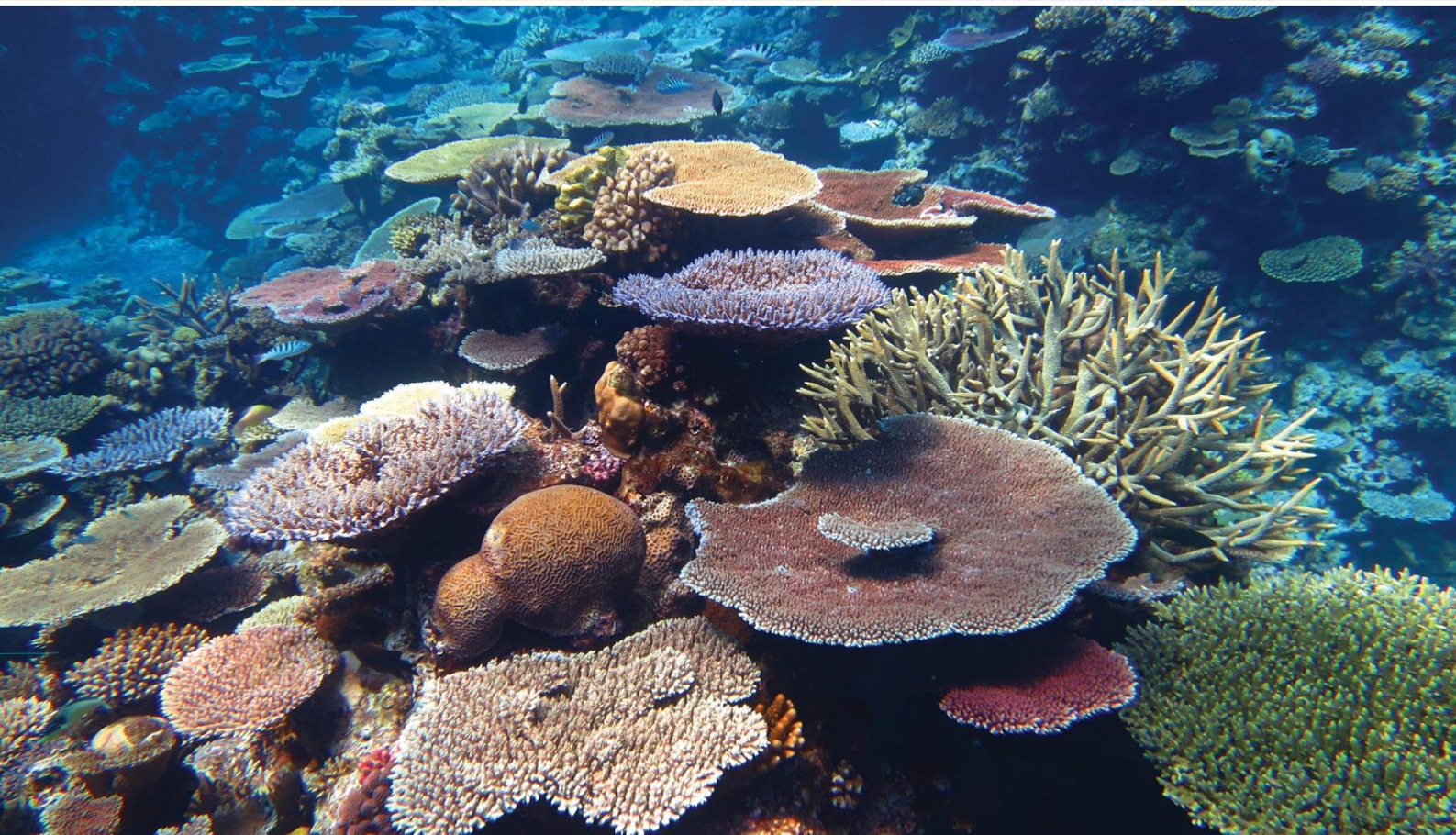


AUSTRALIAN INSTITUTE  
OF MARINE SCIENCE

SEASIM MECHANICAL TECHNICIAN

NATIONAL SEA SIMULATOR TEAM

CANDIDATE INFORMATION PACK



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AIMS was awarded Athena Swan Bronze status in 2020 by the Science in Australia Gender Equity (SAGE) program. This award recognises AIMS' commitment to improving gender equity, diversity and inclusion in STEMM disciplines.

*The Australian Institute of Marine Science acknowledges the Traditional Owners of the land and sea on which we work. We recognise the unique relationships and enduring cultural and spiritual connection that Aboriginal and Torres Strait Islander people have to land and sea, and pay our respects to Elders past, present and future.*

*Photographic credit: Shaun Hahn, Joe Gioffre, Christian Miller, Steve Clarke, Christian Miller, Chris Brunner, Nick Thake, David Deeley*

# ABOUT AIMS

The Australian Institute of Marine Science is a corporate Commonwealth entity established under the [Australian Institute of Marine Science Act 1972](#) (AIMS Act). As Australia's tropical marine research agency, it is [our mission](#) to provide the research and knowledge of Australia's tropical marine estate required to support growth in its sustainable use, effective environmental management and protection of its unique ecosystems.

To accomplish [our mission](#), AIMS delivers independent science to help realise three key long-term impacts for the nation:

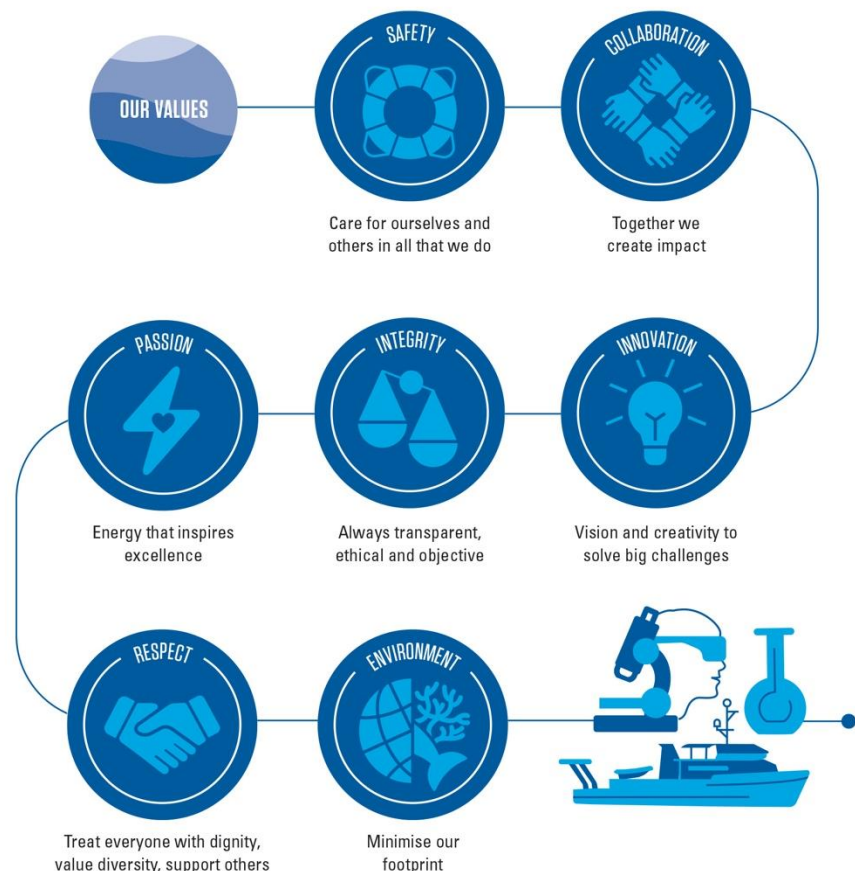
- Improve the health and resilience of marine and coastal ecosystems across northern Australia.
- Create economic, social and environmental net benefits for marine industries and coastal communities.
- Protect coral reefs and other tropical marine environments from the effects of climate change.

Our research is focused on the priorities of our stakeholders, including Commonwealth, state and territory governments, industry and Traditional Owners. Our research continues to:

- Underpin Australia's environmental management of the Great Barrier Reef (GBR) to ensure that this World Heritage Area remains healthy and resilient.
- Support the sustainable development of coastal industries and ports across northern Australia.
- Provide the environmental baselines and condition and risk assessments required for current and future resource and industrial developments in Northern Australia.

At AIMS, [the way we work](#) guides our team members' on their collective journey towards the successful delivery our [AIMS Strategy 2025](#) targets.

## THE WAY WE WORK



# ABOUT OUR NATIONAL SEA SIMULATOR

The National Sea Simulator is situated at AIMS' Cape Ferguson facility near Townsville, Queensland.

The National Sea Simulator, also known as the SeaSim, is the world's most advanced experimental research aquarium facility for tropical marine organisms in which scientists can conduct cutting-edge research not previously possible in Australia or internationally. SeaSim provides ultra-fine control over many environmental variables including light, temperature, acidity/pCO<sub>2</sub>, salinity, sedimentation and contaminants, including the ability to replicate seasonal, monthly and diurnal cycles.

Using SeaSim, Australian and international scientists can research the impact of complex environmental changes with large, long-term, experiments in which they can manipulate key environmental factors. SeaSim has facilities for the long-term holding and propagation of corals as model organisms for research. This allows multi-generational studies, which are critical in understanding how marine organisms acclimatise and adapt to a changing environment.

Designed to encourage scientific collaboration, the facility is helping Australia realise the potential benefits of a rapidly emerging blue economy.

In recognition of its importance to marine research the Australian Government is funding the expansion of the [National Sea Simulator](#) at the Australian Institute of Marine Science as part of the [2020 Research Infrastructure Investment Plan](#). The timing of the funding, \$36.3 million over the next three years, will bring forward vital research including projects for the collaborative [Reef Restoration and Adaptation Program](#).

*[“The National Sea Simulator, also known as SeaSim, is the world's most advanced research aquarium facility. This investment supports its expansion and operation as a merit-based National Facility, maintaining Australia's global expertise in coral reef research and enabling AIMS to continue to provide unique, irreplaceable and world-leading science.”](#)*

Find out more about [the world's most advanced research aquarium facility](#) and [Take a virtual tour](#).



# ABOUT OUR SEASIM MECHANICAL TECHNICIAN POSITION

## About this Opportunity

You will be joining the Engineering and Field Operations team, with your key focus on providing high level engineering support to the operations of the National Facility. Working closely with both the SeaSim and Engineering teams, you will support the design, detail, manufacture and implementation of mechanical engineering solutions and apply your water plant operation knowledge to assist with the operation and maintenance of seawater pumping, processing and life support systems.

Utilising CAD and computer software to design and draft engineering drawings and to create machine programs for manufacturing of components, you will also use a range of mechanical instruments and equipment to manufacture scientific equipment (ferrous, non-ferrous and plastic materials).

## About you

Trade qualified as a Mechanical Fitter/Machinist or equivalent, you will have proven experience in the general operation and maintenance of water treatment plant and equipment and the use of process control systems. You will be experienced in machining and fabricating a range of products of an engineering nature, specifically using ferrous, non-ferrous and plastic materials. Confident using Autodesk Inventor Suite, you will also have good communication skills to support working across various teams and have a high level of problem solving abilities.

Experience working in an aquaculture or aquarium environment, operating and maintaining life support systems and welding capability (GMAW, GTAW and MMAW) would be highly desirable.

NB: Non-Australian Citizens must hold an appropriate Visa with working entitlements that allows paid employment with AIMS for the term of the appointment, depending on the [Department of Home Affairs](#) current policies.

If, after reviewing the position description (refer pages 8 - 10), you believe that your qualifications, experience and professional capabilities will enable you to successfully deliver the position responsibilities, we would be very interested in hearing from you.

**Apply now** and join a world leading organisation with attractive working conditions which are detailed in our [Enterprise Agreement](#). The successful candidate for this exciting opportunity will be rewarded with:

- AIMS AOF Level 3 to 4 salary (\$68,759 to \$99,790 per annum) plus 15.4% superannuation
- Free Onsite Gym and Optional Fitness passport
- 9-day fortnight
- Flexible Work Arrangements considered (including tele-working where possible)
- Generous leave provisions
- Full-time, 3-year Fixed Term opportunity
- Located in Townsville (Qld). Commuter car arrangements to site

# HOW TO APPLY

Your application submission for our SeaSim Mechanical Technician opportunity should include the following documentation:

- Current Resume (including the contact details detail of two current referees);
- A one-page document identifying your suitability and experience relevant to the role, with consideration of the position selection criteria (refer to page 7)

**NB:** Our preference is that you include a list of your qualifications, publications, certificates and/or licences in your resume. Do not attach these documents to your application as these will not be provided to the selection panel.

**Shortlisted applicants** may be asked to complete a Personal Outlook Analysis Questionnaire using the Birkman Method.

**How to Apply:** Please submit your application via our [website](http://aims.gov.au) (aims.gov.au).

Further information on the application process and tips for addressing Selection Criteria is available in our [Recruitment Application Guide](#).

**Closing Date:** WEDNESDAY, 6 JULY 2022 (midnight, AEST).

**Recruitment Contact:** Position enquiries can be directed to Gary Brinkman at [g.brinkman@aims.gov.au](mailto:g.brinkman@aims.gov.au)

**NB:** Applicant survey: All applicants will be invited to complete a voluntary survey after the vacancy closing date. Your responses to this survey do not form part of your application for this position. Further information about the purpose of this survey will be provided to you in the invitation.



# KEY SELECTION CRITERIA

## Essential

- Relevant trade qualification: Mechanical Fitter / Machinist or equivalent.
- Demonstrated experience in Autodesk Inventor Suite
- Demonstrated experience in the general operation and maintenance of water treatment plant and equipment.
- Demonstrated experience in, or a working knowledge of, the operation of a water treatment plant through the use of process control systems.
- Documented experience in machining and fabricating a range of products of an engineering nature utilising ferrous, non-ferrous and plastic materials.
- Proven ability to work independently with a high level of problem-solving skills.
- Sound communication skills and the ability to work successfully in a team environment.

## Desirable

- Previous experience working in an aquaculture or aquarium environment and operating and maintaining life support systems.
- Welding capability utilising GMAW, GTAW and MMAW
- Recreational Ship Masters Licence, Radio Operators Licence (VHF)
- First Aid certificate
- Forklift licence



# POSITION DESCRIPTION: SEASIM MECHANICAL TECHNICIAN

<b>Team Membership:</b>	National Sea Simulator (5501)
<b>Program:</b>	Operations and Infrastructure
<b>Primary Location:</b>	Townsville Qld
<b>Direct Supervisor:</b>	Engineering Coordinator (21466)
<b>Position Classification:</b>	AIMS AOF 3 to 4 <i>(depending on relevant trade qualification and post-trade knowledge, skills and experience)</i>
<b>Functional Area:</b>	Technical Services
<b>Position Summary:</b>	<p>The role is embedded in the Engineering and Field Operations Team, specifically to provide higher level engineering support to the operations of the National Facility.</p> <p>The Mechanical Technician role will work across the Engineering and SeaSim Teams to provide Engineering support to SeaSim Operations by</p> <ol style="list-style-type: none"> <li>1. Design, detail, manufacture, and implement mechanical engineering solutions to enable the adaptation and application of current and new technologies for scientific and technological research in laboratory and field environments.</li> <li>2. Apply Water Plant Operation knowledge to assist with the operation and maintenance of the seawater pumping, processing and life support systems and other facilities in the National Sea Simulator Precinct.</li> </ol>
<b>Position Responsibilities:</b>	<p>Actively participate in the development and manufacture original equipment solutions to support research in the National Facility in compliance with all safety and government standards.</p> <p>Use CAD software to design, detail and draft engineering drawings for the production of equipment.</p> <p>Use Computer software to create machine programs for the manufacture of components.</p> <p>Participate in the manufacture of scientific equipment using a range of mechanical instruments and equipment on ferrous, non-ferrous and plastic materials to required standards within set timelines.</p> <p>Provide additional resource to the support the daily operational requirements of the SeaSim seawater pumping, processing and life support systems, including ultrafiltration and reverse osmosis plants.</p> <p>Under the instruction of the Water Plant Operator assist with maintenance and asset management of life support systems in the AIMS Seawater Precinct.</p> <p>Assist in the reporting and documenting of maintenance tasks undertaken.</p> <p>Report periodic maintenance using AIMS' computerised asset management system.</p> <p>Become proficient in the use of SCADA following on-the-job training.</p> <p>Follow and optimise routine maintenance plans. Source spare parts and maintain adequate stock levels.</p>
<b>Key Responsibilities and Performance Standards</b>	
<b>Science Outputs:</b>	In Conjunction with the Mechanical Engineer, ensure equipment designed and manufacture complies with relevant Australian Standards and Statutory requirements
<b>Occupational Health &amp; Safety:</b>	Through operation, maintenance and asset management, ensure that the seawater pumping and processing plant reliably supplies ultra-filtered and salinity controlled seawater to the AIMS Seawater Precinct.



## POSITION DESCRIPTION - CONTINUED

	Ensure that thermal control systems for treating seawater in the Sea Simulator life support system are reliable and are maintained in good working order.														
<b>Intellectual Assets:</b>	Ensure trade and aquarium industry quality standard of equipment and plumbing work in all new fit outs or modifications to existing systems.														
<b>Delegations:</b>	Use defined protocols for running a Reverse Osmosis Plant and Salinity Correction system. Assist in the maintenance and management of assets for the AIMS Seawater Precinct.														
<b>Teamwork/supervisory:</b>	<p>Comply with AIMS' workplace safety policies and procedures to ensure a safe workplace.</p> <p>In line with AIMS' <u>Health and Safety Policy</u> policies and procedures, participate in Manual Task (Functional) Assessments and Fit for Work medical assessments as required.</p> <p>Minimum functional requirements:</p> <table border="1"> <tr> <td>Maximum lift expected (5kg, 10kg, 25 kg)</td> <td>25 kg</td> </tr> <tr> <td>% role walking</td> <td>45 %</td> </tr> <tr> <td>% role sitting</td> <td>10 %</td> </tr> <tr> <td>% role standing</td> <td>45 %</td> </tr> <tr> <td>% role diving</td> <td>0 %</td> </tr> <tr> <td>Off-shore, remote location diving for extended periods of time.</td> <td>No</td> </tr> <tr> <td>Required to work in confined spaces</td> <td>No</td> </tr> </table> <p>It is a requirement of this role that you are and remain fully vaccinated against COVID-19. Please note the sighting of proof of vaccination will be required as a pre commencement requirement.</p> <p>Report immediately any work-related accident, injury or near accident to your direct supervisor.</p> <p>Identify workplace hazards and take corrective action with your supervisor's guidance.</p> <p>Ensure visitors and staff for which you are responsible have completed the necessary OH&amp;S inductions.</p>	Maximum lift expected (5kg, 10kg, 25 kg)	25 kg	% role walking	45 %	% role sitting	10 %	% role standing	45 %	% role diving	0 %	Off-shore, remote location diving for extended periods of time.	No	Required to work in confined spaces	No
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Required to work in confined spaces	No														
<b>External Customer, Partner, Collaborator and Stakeholder Requirements:</b>	Ensure compliance with AIMS' Intellectual Property <u>policies procedures</u> and guidelines to ensure AIMS' intellectual assets are appropriately protected and managed.														
<b>Internal Organisational relationships:</b>	In line with <u>Financial and Contract Delegation Policy</u> , which includes authorisation levels for Financial, Enterprise Agreement (supervisory), HS&E and General Administrative activities.														
<b>Financial responsibilities and accountabilities:</b>	<p>Direct Reports: Nil</p> <p>Ability and willingness to participate in work roster system that includes non-standard hours, weekend and public holiday work and on-call when required.</p> <p>To work as a member of a multi-disciplinary team that values diversity while ensuring the achievement of AIMS' goals and objectives.</p>														
<b>Innovation, problem solving and continuous improvement responsibilities:</b>	Reports to: Engineering Coordinator, Senior Water Plant Operator, SeaSim Operations Manager														
<b>Planning responsibilities:</b>	<p>Manage AIMS funds in a responsible manner and within delegation.</p> <p>Comply with AIMS' <u>Fraud Prevention Plan</u> ensuring the standards of conduct and ethical behaviour required of an AIMS staff member are upheld and that suspected fraudulent activity is prevented and/or reported..</p>														

## POSITION DESCRIPTION - CONTINUED

<b>Communication responsibilities:</b>	Assist in the improvement of daily operations, systems and processes associated with the AIMS Seawater Precinct.
<b>Skills and Knowledge</b>	
<b>Essential Skills and Knowledge:</b>	<p>Competent in Autodesk Inventor Suite</p> <p>Demonstrated experience in the maintenance and operation of water treatment plant assets.</p> <p>Demonstrated experience in, or a working knowledge of, the operation of a water treatment plant through the use of process control systems.</p> <p>Demonstrated ability to work in a team environment.</p> <p>Proven ability to work independently with a high level of problem solving skills.</p> <p>Sound communication skills with the ability to interact with other team members.</p> <p>Knowledge of, and the ability to, undertake the site management and supervision of subcontracts</p>
<b>Qualifications and Experience</b>	
<b>Essential Qualifications and Experience:</b>	<p>Trade Qualifications as a Fitter/Machinist or relevant discipline with certification and demonstrated experience</p> <p>Demonstrated NC programming experience coupled with NC lathe and NC Mill proficiency.</p> <p>Demonstrated CAD drafting and design experience</p> <p>Qualifications and /or demonstrated Water Plant operator/ maintainer experience</p> <p>Previous experience in the general maintenance of plant and equipment.</p> <p>Current QLD C Class Open Drivers Licence (or equivalent) or the willingness to obtain.</p>
<b>Desirable Qualifications and Experience:</b>	<p>Demonstrated ability to interpret P&amp;ID's.</p> <p>Experience with industrial scale controls systems (e.g., SCADA, PLCs).</p> <p>First Aid Certificate.</p> <p>Forklift licence.</p>
<b>Technology and Equipment</b>	
<b>Technology &amp; Equipment Used:</b>	<p>Networked personal computer and general office equipment.</p> <p>Hand and power tools</p> <p>NC Machines</p> <p>Standard Conventional Machine shop equipment</p> <p>Plastic forming, gluing and moulding equipment</p> <p>AutoDesk Inventor Suite of Products</p> <p>Hypermill design / machine program</p> <p>Microsoft Office suite of Applications</p>
<b>Special Requirements</b>	
<b>Other Special Requirements</b>	<p>Strong commitment to and sound knowledge of principles and practices of Occupational Health and Safety and Workplace Diversity and Inclusion</p> <p>Non-Australian Citizens must hold an appropriate Visa with working entitlements that allows paid employment with AIMS for the term of the appointment, depending on the relevant <u>Department of Home Affairs</u> policies.</p>

# About the Location

## Townsville (QLD) Facility

AIMS headquarters is south of Townsville, Queensland at Cape Ferguson. We are about 50 km from Townsville's CBD, is an international landmark in tropical marine science and home to the [National Sea Simulator \(SeaSim\)](#). We are adjacent to the centre of the Great Barrier Reef and surrounded by a 207-hectare national park and marine reserve. The area is free from development, is biosecure and has access to clean seawater and a protected harbour.

## **Finding us** ([link to our Website page](#)):

Head south from Townsville on the Bruce Highway (A1). Approximately 37 km from the city centre, turn left at the signposted turn-off to AIMS, onto Cape Cleveland Rd. Follow this road for a further 16 km until you arrive at the Institute.

Please note there is **no public transport** to the Institute however employee commuter car arrangements are detailed in our [Enterprise Agreement](#) (Part I – Commuting Arrangements – Cape Ferguson).

## **Townsville Traditional Owner Groups** ([link to Townsville City Council Website](#))

Our Traditional owners and custodians, the Bindal and Wulgurukaba People are the first people to have lived in the Townsville region.

### **The Bindal People**

The Bindal people call the country “Thul Garrie Waja”. An important symbol for the Bindal people is the shooting star. They believe that wherever the star fell, or the direction the star fell meant there was either danger coming or someone from that direction was in need of help or in danger.

### **The Wulgurukaba People**

The Wulgurukaba people call their country “Gurrumbilbarra”. Wulgurukaba means “canoe people”. An important symbol of the Wulgurukaba people is the carpet snake. Wulgurukabas creation story tells the story of the creation snake that comes down from the Herbert River, went out to sea, creating the Hichinbrook Channel, and down to Palm and Magnetic Islands. His body broke up, leaving parts along the coast. The tail of the snake is at Halifax Bay, his body is at Palm Island, while his head rests at Arcadia, Magnetic Island.

## **Living in Townsville**

Townsville is a vibrant and rapidly growing city in North Queensland. Surrounded by the Great Barrier Reef, numerous coastal islands, the Wet Tropics rainforest and the outback, and less than two hours by plane from Brisbane, the region experiences a warm tropical climate with more than 300 days of sunshine each year.

A diverse economic base with strengths in government administration, health, defence, education, marine science, natural resource management, manufacturing and mining, ports and shipping and agriculture supports a current population of over 190,000 people.

Boasting a relaxed lifestyle, residents of Townsville enjoy access to world class educational, medical, sporting and recreational facilities. Townsville attracts high quality national and international festivals, cultural and sporting events.

For further information visit [www.townsville.qld.gov.au](http://www.townsville.qld.gov.au).

