

# PAPUA NEW GUINEA

BOIGU Is.

DAUAN Is.

SAIBAI Is.

UGAR Is.

ERUB Is.

IAMA Is.

MASIG Is.

MABUIAG Is.

MER Is.

BADU Is.

MOA Is.

PORUMA Is.

ST. PAULS

WARRABER Is.

KUBIN

HAMMOND Is.

THURSDAY Is.

HORN Is.

PRINCE OF WALES Is.

SEISIA

BAMAGA

CAPE YORK



## THE MAJOR INFRASTRUCTURE PROGRAM

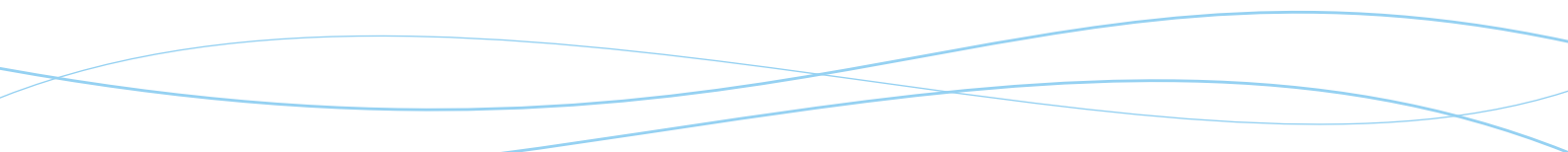


Australian Government



Queensland Government

Department of Local Government, Planning,  
Sport and Recreation



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# INTRODUCTION

The Australian and the Queensland Government jointly fund infrastructure projects in the Torres Strait region.

Under the banner of the Major Infrastructure Program (MIP) these projects are transforming lives by significantly improving the infrastructure standards in the Torres Strait's 15 outer Island communities, as well as the Northern Peninsula Area (NPA) communities of Bamaga and Seisia.

The Program, managed by the Torres Strait Regional Authority (TSRA), was set up in 1998 to identify and implement capital works to address the highest priority environmental health infrastructure needs within the Torres Strait and NPA.

Initially, the extent of environmental health infrastructure that was identified was far greater than a short-term program could address. Studies revealed that the planned works would cost approximately \$250M.

To deliver measurable benefits to disadvantaged Torres Strait communities, a coordinated and long-term approach was adopted that prioritised and scheduled projects over a 10 year projected lifespan, separated into three stages of infrastructure development. During this period the Australian and Queensland Governments have jointly contributed \$90M.

Remarkably, MIP is estimated to have employed and skilled an indigenous local workforce in 70% of outer island communities through the Community Development Employment Project (CDEP). Training opportunities and a strategic approach to long-term needs have advanced communities' capacity to maintain and develop additional infrastructure, as well as contribute to economic opportunities for councils and individuals.

Inspiring government cooperation from all tiers, MIP has successfully integrated government initiatives in its projects.

Two such initiatives include the Transport Infrastructure Development Scheme (TIDS), funded through the Queensland Department of Main Roads (DMR) and the Heavy Equipment Management and Training Program (HEMTP), jointly funded by the TSRA, DMR and the Department of Local Government, Planning, Sport & Recreation (DLGPS&R), which has produced training opportunities for local people whilst meeting MIP's requirements for a skilled labour force.

This joined up government approach to MIP has dramatically improved infrastructure standards, however there is still a long way to go before the standard of living in the Torres Strait is at a level that is comparable to that enjoyed by the majority of Australians on the mainland.

Fortunately, MIP is addressing strategic areas of need and significant improvements are being made.

MIP is an exceptional achievement considering the impact of these projects on people's lives, the way they are being conducted by pooling resources and its bearing on the wider economy. It represents a substantial investment by governments and both Stage One and Stage Two have undergone an external review, as requested by the Queensland Government. Both reviews reflected a positive and successful approach to infrastructure development in the region with exceptional delivery of project outcomes. A review of Stage Three has commenced to precede its completion in June 2007.

While a tremendous amount will have been achieved at completion of stage three, signifying the fulfilment of the initial ten year plan, a continued program to deliver environmental health benefits to all remote Torres Strait communities is paramount to compliment and complete the enormous effort and success of the preceding three stages. Maintaining the strategic and operational momentum of the program, which has delivered real and measurable improvements to environmental health, is a shared responsibility of governments and a long-term commitment.

Future infrastructure projects such as Warraber Sewerage; construction of sewerage and a water lagoon cover at Mabuig Island; Replacement of Assets; and Regional Waste Management; will be the focus of the proposed

program to commence after Stage Three. These further improvements will take long-term planning and investment but most importantly, will significantly contribute to the environmental health of Torres Strait Islander and Aboriginal people living in the region.

The pace of infrastructure development and the impact on lives has been a positive and accountable outcome for all stakeholders. A dynamic and cooperative approach from all levels of government is demonstrating a strong commitment to equality by tackling disadvantage and making real improvements to the lives of those people most in need. A combined \$250M investment by governments is needed to plan the next stage of infrastructure development.

It is this commitment to continuing life changing improvements that is as important as ever.

The Torres Strait Regional Authority wishes to thank the Australian and Queensland Governments for their support and emphasise that their future contribution to the Major Infrastructure Program will continue to close the gap in standards between Torres Strait communities and the rest of Australia.

There's much more to be done and the Torres Strait Regional Authority calls on all stakeholders to share its vision for improving the lives of Torres Strait people.

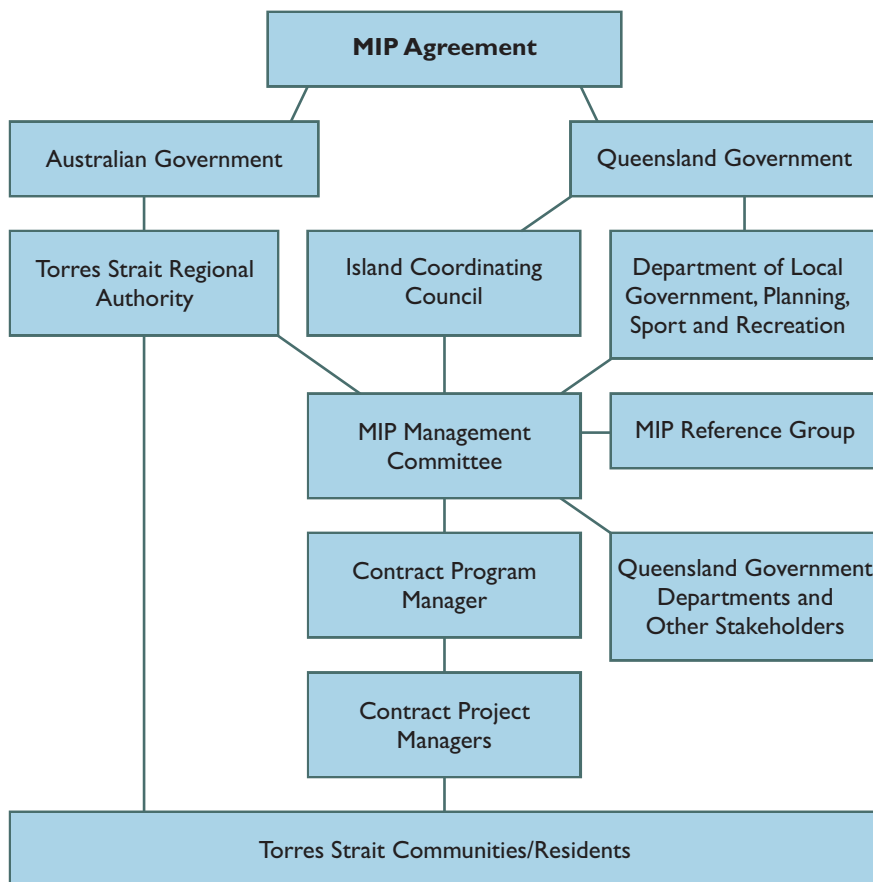


Mr John Toshie Kris  
Chairperson  
Torres Strait Regional Authority

## THE TORRES STRAIT



# THE MIP MANAGEMENT STRUCTURE



The Major Infrastructure Program (MIP) has engaged a Program Manager to work closely with the MIP Management Committee to identify and prioritise candidate projects and plan the program.

Projects are confirmed by the MIP Management Committee, the TSRA and the Queensland Government in accordance with objective selection criteria and prioritised on the basis of greatest need.

Confirmed projects are tendered to an appropriately qualified and experienced firm through a procurement process.

The Project Manager liaises with a technical management team, which includes the Island Coordinating Council Infrastructure Support Unit (ICCISU) and regulatory and service delivery agencies.

In providing definition and focus to projects, the ICCISU is engaged to ensure operational objectives are met.

As the Native Title Representative Body in the Torres Strait, the TSRA's Native Title Office also assists the project managers to ensure that there is proper consultation with Native Title Holders before any new works are started. This consultation guarantees that all works impacting on the land are undertaken with the consent of the traditional land owners and take into account traditional owner requirements.

Project Managers are responsible for all aspects of project delivery including:

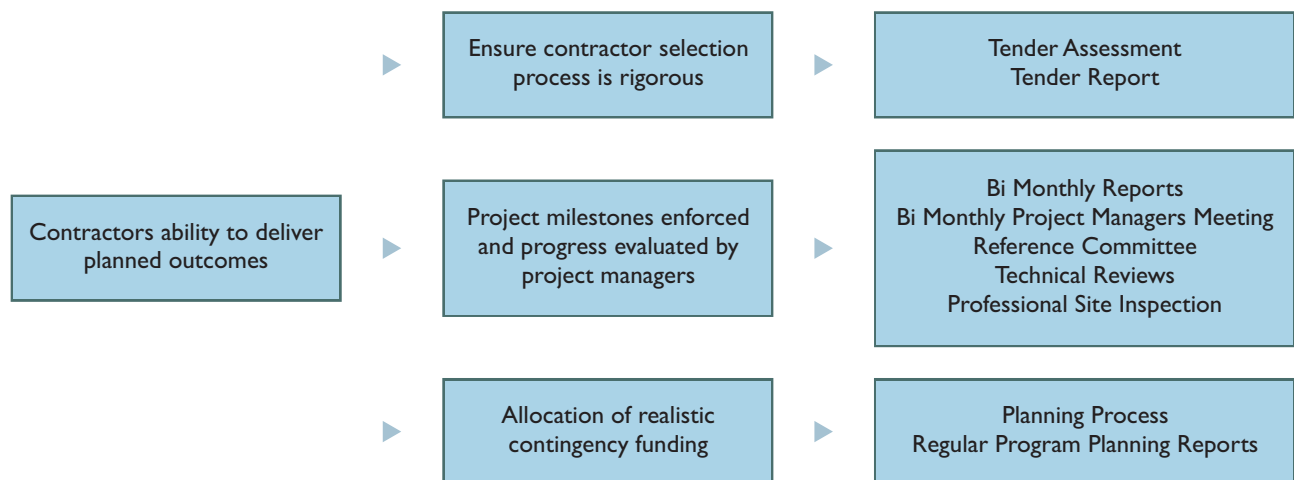
- Community Consultation
- Native Title
- Engineering, Survey, Environment
- Construction
- Budget

Risk management planning is yet another important component considered by Project Managers throughout planning and delivery stages and is critical to maintaining a project's budget when costs are compounded by logistics and access to resources in isolated communities.

It is the responsibility of each Project Manager to prepare a risk management plan at the beginning of the project and measure and monitor the risk throughout its delivery.

An assessment of a contractor's ability to deliver planned outcomes is part of the process and mechanisms to reduce this risk comprise of technical reviews, planning, monitoring and evaluation of the project's progress.

## Risk Management Planning



MIP also encourages a cooperative and collaborative approach to infrastructure development between multiple agencies to overcome the additional challenges that work within remote areas often confronts.

The following Government agencies are contributing in partnership to MIP's on-going success:

- Department of Local Government, Planning, Sport & Recreation (DLGPS&R)
- Island Co-ordinating Council
- Department of Housing
- Department of Main Roads
- Queensland Health
- Department of Natural Resources and Mines
- Environmental Protection Agency
- Australian Quarantine and Inspection Service

Effective management at a program level is assisted through committed cooperation between the funding agencies, the TSRA and the DLGPS&R. A Program Management Committee meets bi-monthly to ensure that MIP objectives are met in accordance with the requirements of the funding agreement between the two agencies.

A large number of North Queensland companies have also been employed to undertake significant works on projects as part of the Program.

Financial management of the Program is through a Trust Fund administered by the TSRA. The Program Manager approves all payments certified by project managers. Final payment is authorised by the accountant for the Trust Account.

# HEALTH

For many years island communities of the Torres Strait lived with inadequate infrastructure and as a result their health and overall well-being were adversely affected.

The 1993 Torres Strait Health Strategy indicated that health problems were being exacerbated by poor quality and quantity of water, sewerage and waste disposal systems.

It was in 1997 that the majority of Torres Strait people had no sewerage, flushing toilets or a good supply of quality water all fundamental to a healthy community.

Since then, the Major Infrastructure Program has delivered significant improvements to environmental health infrastructure, which is having a resounding affect on reducing health risks for Torres Strait people.

Key projects include:

- Regional Planning (Land, Waste and Mapping)
- Construction of 7 Sewerage Reticulation Projects (Badu, Boigu, Erub, Mer, Saibai, lama and Seisia)
- Construction of Major Drainage Projects (Badu, Boigu and Saibai) and Subdivisions (Badu, lama, Kubin, Hammond, Mer and Bamaga)
- Construction of I I Water Supply Projects (Badu, Erub, Kubin, lama, Mabuiag, Poruma, Saibai, St Pauls, Warraber, Mer and Masig)
- Removal of Pan Toilets in all Communities
- Disposal of Bulk Solid Waste and Upgrade of Landfills
- Upgrade of Roads (Erub, Hammond, Dauan and Bamaga)



A mobile desalination unit on standby for emergency water production

## Lifestyle enhanced by improved water treatment and supply

The Queensland Department of Local Government, Planning, Sport and Recreation states that water is one of the most basic necessities of life. In the past, water quality throughout Torres Strait communities has not been a high enough standard. However, with recent upgrades in reservoirs and water treatment plants the region's water quality has drastically improved.

Through programs, such as the Major Infrastructure Program, Governments at all levels and the people of the Torres Strait have been able to work together to achieve significant water infrastructure improvements.

Water supply is also an important issue for the



The mobile desalination unit transforms salt water to clean drinking water

Torres Strait. Rainfall in the Torres Strait is very sporadic and extended dry seasons are common. It is not unusual for smaller Islands in the Torres Strait to go months on end without a local supply of water.

This is where innovation comes to the fore. Innovative projects, such as the Torres Strait mobile desalination plant, are playing an important role in supplementing local water supplies.

The mobile desalination plant, jointly funded by the Department of Local Government, Planning, Sport and Recreation and the Australian Government, provides a portable water supply for any of the Torres Strait's islands.

The Department is committed to supporting the Major Infrastructure Program and providing continued funding for innovative projects through the Department's Environmental Health Infrastructure Program.



Courtesy George Serras NMA

Water lagoon at Poruma Island

### **Badu Roads and Water Mains Project**

This project began in 2005 and is due to be completed in 2006, with works underway to seal three kilometres of the island's roads, installing storm water drainage and upgrading the existing water main.

Badu Island Council Chairperson Mr Jack Ahmat, said MIP is directly contributing to improved environmental health conditions in his community.

“Improved stormwater drainage will ensure water drains safely and quickly away from houses, reducing the risk of water-borne diseases which can arise in the wet season when large pools of still water can't escape,” he said.

“The larger water main will ensure a steady and constant water pressure to community households and the sealed road will be the first of its kind in my community, ensuring access in all weather conditions and improving traffic safety.

“It is individual MIP projects such as these that are resulting in improved health and safety for my community,” Mr Ahmat said.



Badu Island Council  
Chairperson Mr Jack Ahmat

# ENVIRONMENT

Before the introduction of the Major Infrastructure Program (MIP), home toilet facilities, reticulated sewerage and capital works were considered exorbitantly expensive and although desperately desired, could not be undertaken by most Torres Strait councils.

MIP has delivered these basic services to communities with careful consideration to their unique island environments, overcoming the impact of pan toilets and poor water supply.

Intrinsic to MIP's core objectives of improving environmental health, projects undertaken have strictly adhered to environmental legislation requirements.

Sewerage projects are an example, which require extensive studies to ensure that treated effluent discharges have minimal impact on marine ecosystems and human health.

Prior to the installation of reticulated sewerage systems, necessary environmental clearances and licences are obtained from the Environmental Protection Agency and the Queensland Department of Primary Industries who require extensive environmental studies detailing the impact of the treatment plant sites and offshore outfall locations.

New sewerage systems ensure that wastewater is not only treated to a high standard but also discharged in an environmentally sustainable way.

Flora and fauna studies have also been undertaken where necessary, to ensure that works do not adversely impact on island habitats.

Environmental Management Plans have been developed for construction activities and Site Based Management Plans have been produced for management of infrastructure where environmentally relevant activities are undertaken (i.e. sewerage treatment facilities).

In 2002, MIP began addressing the environmental and environmental health issues related to waste management through the commissioning of a Regional Solid Waste Management Strategy. A significant outcome of this strategy was the Bulk Waste and Tip Upgrade Project where car bodies and whitegoods were disposed of and each rubbish tip was assessed, which has led to the upgrade and fencing of a number of landfills throughout the Torres Strait.



# COMMUNITY CAPACITY BUILDING

An important outcome of MIP has been the development of human resources and advancement of communities' capacities to undertake future works with limited outsourcing.

MIP is successfully transferring a skills base to communities which is empowering local Island Councils to independently maintain and enhance their future infrastructure. Similarly, MIP is broadening employment and training opportunities, and management capabilities.

The community, through their involvement in consultation processes, is developing a greater confidence to contribute to design solutions and have an input into construction quality.

A core strategy to building community capacity has been to encourage Councils to tender on works, which has resulted in local employment and training.

The Island Coordinating Council's Infrastructure Support Unit (ICCISU) assists Councils to manage their infrastructure. The strong partnership between MIP and ICCISU ensures that the operational aspects of projects are appropriate to the region.

MIP has also worked in partnership with other capacity building initiatives including the Heavy Equipment Management and Training Program (HEMTP).

HEMTP trains local employees in the use of earthmoving plant machinery and has been used extensively in major infrastructure projects.

## Key Projects Included:

- Iama Subdivision
- Hammond Island Subdivision and Roadworks
- Saibai Drainage and Earthworks
- Mer Roads and Water Supply
- Dauan Roads and Water Reticulation
- Mabuiag Drainage
- Kubin Subdivision
- Erub Roads



## Badu Roads Project

The Badu Roads Project is an example of the partnership between the Queensland Department of Main Roads and Badu Island Council. This project has provided training for community members, enabling them to undertake the construction of roads.

## Mer Subdivision Project

The Mer Subdivision is the result of working with the Mer Island Council and building on existing community capacity. The Mer Island Council was the main contractor for the project which delivered roads, drainage, water reticulation, rising main and reservoir to the subdivision.

## MIP projects delivering positive outcomes

The progress and development of essential infrastructure is enhancing the health and wellbeing of communities in the remote islands of the Torres Strait.

The Major Infrastructure Program has stimulated community capacity building by harnessing economic growth opportunities which have been identified by Councils as a result of various infrastructure projects.

TSRA Chairperson Mr Toshie Kris, said a good example of this was the works completed as part of the Regional Tip Upgrade, and the Boigu Flood Mitigation Project where local people were employed and played a significant role in their completion.

“The Regional Tip Upgrade which is currently underway, is a great illustration of an external contractor engaging people from the community of each island where works are to be done,” he said.

“Ten communities will at the end of the project, benefit from their upgraded infrastructure and at least 3 people from each community will have experience and the 'know-how' to construct and manage this form of project.

“The Boigu Flood Mitigation Project demonstrates a confidence and ability by our local workforces to deliver capital works, which once were only contracted to mainland organisations.

“This \$700,000 project was contracted to Boigu Island Council to undertake and its completion is testament to their hard work, new skills and increased capacity to implement and manage works' projects.

“Through the Major Infrastructure Program we are seeing Torres Strait Islanders enjoying improved living standards and obtaining the necessary skills to maintain them, however we still have a long way to go until all our infrastructure are at a comparable standard to mainland Australia,” Mr Kris said.



TSRA Chairperson  
Mr Toshie Kris

## Boigu Flood Mitigation Works

Flood mitigation works on Boigu Island have been undertaken by their Council, illustrating the confidence MIP has created in the local workforce.

Boigu Island Council Chairperson and TSRA Portfolio Member for Native Title Mr Donald Banu, said Council had proven its capacity to manage and undertake important infrastructure works and their successful bid to manage Boigu's construction of drainage works was empowering for both his Council and community.

“Eighteen community members have been given fulltime employment for the duration of this project and to a small island like ours that is a significant boost to our economy.

“They are receiving valuable accredited training and self-development, and at the end of the project will have an improved capacity to maintain and conduct future works on Boigu and on other islands in the region.

“MIP's far reaching benefits are having a substantial impact on our community's well-being, providing essential infrastructure to improve health outcomes while promoting capacity building and employment it's a win for everyone,” Mr Banu said.



Boigu Island Council  
Chairperson Mr Donald Banu



# ECONOMIC DEVELOPMENT

The Major Infrastructure Program is an extensive capital works program, providing development opportunities for local Councils as well as contributing to regional economic growth.

The Program has increased contracting prospects for Councils and individuals, effectively boosting employment and training opportunities and creating a substantial increase in local economies.

Local businesses have also been a major beneficiary of MIP and in some instances have directly contributed to projects through the manufacture and supply of materials.

The Boigu Flood Mitigation and Badu Sewerage & Subdivision Projects are examples where local Councils were contracted to undertake work and local businesses, such as the Badu Quarry and Concrete Batching Plant were engaged to provide the essential materials.

While increasing employment and training opportunities and generating business for local Councils in the Torres Strait, MIP is also producing substantial income for regional businesses.

MIP projects, materials and equipment are purchased from regional based companies, with the Major Infrastructure Program expenditure over nine years being approximately \$90M - making a significant contribution to the Torres Strait and Far North Queensland's economy.

## Improved Infrastructure Provides Business Opportunities

New and enhanced infrastructure resulting in guaranteed water supplies, septic systems, bitumen roads and upgraded drainage, present compelling advantages for economic development in the Torres Strait.

Communities have been able to consider new business ventures such as visitor accommodation facilities which promote economic development by delivering positive employment and financial outcomes for these isolated islands.

The Torres Strait Regional Authority, through its Community Economic Initiative Scheme, has supported a number of Council-managed accommodation enterprises. Some of these include:

- Poruma Island Resort
- Masig Lowatta Lodge
- Seisia Holiday Park
- Bamaga Resort
- Warraber Motel
- Boigu Guesthouse



Courtesy George Serras NMA

Masig Island

Chairperson for Yorke Island Council and TSRA Portfolio Member for Small Business and Economic Development Mr Donald Mosby, said it was almost a decade ago when MIP began that basic services like sewerage and a reliable supply of drinking water had their first impact on remote island communities, becoming a catalyst for economic development.

“The Major Infrastructure Program has not only improved our people’s quality of life, but it has given us economic opportunities that were not available to us previously,” he said.

“Without sewage and water, we would not have been able to establish accommodation facilities which are growing throughout the region and cater for business people, Torres Strait families and tourists in their travels.

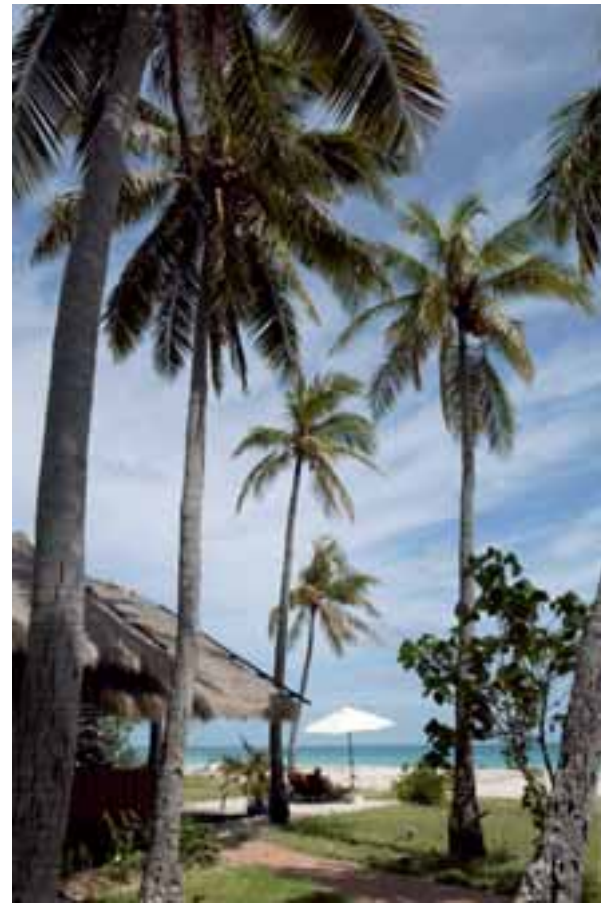
“These businesses are providing training and employment to our communities and another revenue stream for Councils.

“Socially, they have enabled families and friends from across the region to reunite for cultural gatherings and celebrations, while creating an opportunity to tap into a seasonal tourism market.

“These enterprises have raised the standard of accommodation in the region, as well as addressed the need for quality accommodation.

“It’s important to our economy that local business are viable and by establishing and improving infrastructure in our communities, it has directly and indirectly had an enormous impact on our business successes today.

“Infrastructure development is the key to building a regional economy that can provide sustainable employment and social opportunities for the Torres Strait,” Mr Mosby said.



Courtesy George Serras NMA

MIP has increased business opportunities in the Torres Strait - above is Poruma Resort



TSRA Portfolio Member for Small Business and Economic Development and Yorke Island Council Chairperson Mr Donald Mosby

# PLANNING AND SUSTAINABLE MANAGEMENT

The Major Infrastructure Program (MIP) is committed to the sustainable management of its infrastructure assets through strategic forward planning.

MIP has successfully embraced Island Councils' visions in its approach to and prioritisation of capital works that complement communities' long term needs.

With MIP encouraging communities to think laterally about their future infrastructure to meet program objectives, Councils are experiencing the benefits that proactive planning brings.

In terms of the Native Title Act, environmental legislation also comes into play. Each MIP project is undertaken with extensive community consultation and formal native title agreements are developed.

To effectively coordinate and plan major infrastructure projects within its initial 10 year timeframe, MIP has adopted planning strategies that guide the selection and prioritisation of capital works and ensure the sustainable management of MIP infrastructure.

To improve project definition and delivery, strategies for land use planning, infrastructure and waste management have been prepared with mapping and planning tools produced. These tools underpin the selection of projects carried out in MIP.

Key Projects Included:

- Mapping Project, including a Digital 'as constructed' Database
- Land Expansion Strategy
- Waste Management Strategy
- 7 Small Subdivision Projects (Badu, Bamaga, Boigu, Hammond, Iama, Kubin and Saibai)

## The Mapping Project

MIP is laying the foundations for strong, sustainable and culturally appropriate regional development in the Torres Strait. By progressively mapping all infrastructure since MIP commenced in 1998, field officers and surveyors now have vital records of all above and below ground work that will help in determining their future infrastructure choices and assist in identifying their best locations.



The project has effectively superimposed digital information over topographical maps to build a comprehensive picture of the community.

### **Planning for Torres Strait's Future Growth**

Planning for future growth of Torres Strait Island communities involves a coordinated and holistic approach to ensure an outcome that improves quality of life, the environment and economic opportunities.

Access to adequate and reliable housing and infrastructure is a significant determinant of health.

The Department of Local Government, Planning, Sport and Recreation is committed to improving environmental health needs in Aboriginal and Torres Strait Islander communities.

Providing specific funding assistance for environmental health infrastructure, the MIP is a joint Australian-State Government program providing \$100 million over 10 years.

A key component of the MIP is the collaborative approach from all levels of Government and Torres Strait communities to work in partnership to put the program together. Through MIP, the positive results achieved from this collaboration can be seen.

MIP demonstrates the benefits of collaboration across governments to maximise environmental health outcomes, such as clean water and sufficient sewerage services, through better policy coordination, planning and management.

The Program is about providing infrastructure that affects the everyday lives of small communities, and involves the operation, maintenance and renewal of:

- Water Supply
- Sewerage
- Waste Water
- Drainage and Waste Management Systems
- Essential Power
- Transport Systems, Site Servicing and Subdivisions

By improving environment health, the health status of Torres Strait's Indigenous people is increasing, and community exposure to unacceptable health risks from serious diseases reduced.

It's this combined government funding and project support that is enabling long-term planning to have the greatest positive impact on Torres Strait communities.



## Bamaga Subdivisions

Bamaga community in the Northern Peninsula Area is undergoing a transformation with substantial work underway to subdivide 15 fully serviced lots.

Bamaga Council Chairperson and TSRA Portfolio Member for Education, Training, Employment and Art, Mr Jesse Sagaukaz, said MIP was securing a better future by contributing to improved living standards in the region through strategic planning.

“MIP has taken into consideration the rising population of our communities. Here in Bamaga, works are underway to establish roads, drainage, water and sewer mains, manholes, telephone lines, and electricity in two new housing subdivisions established by MIP.

“Overcrowding in homes and the shortage of accommodation in the region is of a great concern to our communities and MIP is contributing to addressing these issues,” Mr Sagaukaz said.



Bamaga Council  
Chairperson Mr Jesse Sagaukaz

# SUMMARY OF MIP ACHIEVEMENTS AS AT JUNE 2006

Community	MIP Round	Infrastructure	Status
Seisia	MIP 1	Upgrade septic systems in the community and provide improved facilities within the local campground.	Complete
	MIP 2	Construction and installation of pump stations and internal reticulation in Seisia town area.	Complete
	MIP 2	Construct rising main from Seisia to Bamaga Treatment Plant.	Underway
Hammond	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Subdivision and services extension to cater for housing growth. Extension of water main from subdivision to Council Depot. Installed SCADA to Well 3. (SCADA is 'Supervisory Computer Access Data Acquisition' and allows a computer in an operation room to view and control the switches that turn on and off the pump). Upgrade of Esplanade drainage.	Complete
	MIP 1	Provision of a reticulated sewerage system, including a package treatment plant and ocean outfall, and provision of facilities at all houses.	Complete
Boigu	MIP 2	Flood mitigation and drainage works.	Complete
Saibai	MIP 1	Provision of a reticulated sewerage system, including a package treatment plant and ocean outfall, and provision of necessary facilities at all houses.	Complete
	MIP 1	Upgrade of the reticulated water system including enlarging the lagoon and installation of lagoon liner and cover. Includes connecting pipework to the existing main and level monitoring and control equipment at the lagoon and reservoir sites.	Complete
	MIP 2	Replaced elevated water tank with larger on ground water storage tank and variable speed drive pump station. Drainage works and upgrade of access track to water treatment plant.	Complete
Dauan	MIP 1	Minor upgrade of water reticulation works and drainage works.	Complete
	MIP 2	Road and drainage works and removal of sludge.	Complete
	MIP 3	Well 4 Dauan remediation of water source gallery. <i>(component of Regional Mobile Desalination Project)</i>	Complete
Poruma	MIP 1	Extension of water reticulation system and provision of water bores for use with the mobile desalination plant. Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Constructed and installed variable speed drive pump station to improve water pressure.	Complete
Warraber	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Constructed and installed variable speed drive pump station to improve water pressure.	Complete

<b>Iama</b>	MIP 3	Sewerage Scheme.	Planning Phase
	MIP 1	Provision of a reticulated sewerage system, including a package treatment plant and ocean outfall, and provision of necessary facilities at all houses.	Complete
	MIP 1	Reticulated water supply, the provision of a new reservoir (2 ML concrete tank) and two new bores for use with the desalination plant. Includes the upgrade of the desalination plant to 180kl/day.	Complete
	MIP 2	Subdivision and services extension to cater for housing growth. Seawater intake pipeline to augment raw water supply to desalination plant.	Complete
<b>Masig</b>	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets or ablutions where required.	Complete
	MIP 1	Water Reticulation Improvements.	Complete
	MIP 3	Sewerage and sea water bores.	Planning Phase
<b>Kubin</b>	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Subdivision and services extension to cater for housing growth.	Complete
	MIP 2	Construction of floating cover to eliminate evaporation from water lagoon.	Complete
	MIP 3	Sewerage scheme.	Design Phase
<b>St Pauls</b>	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required. Extension of water reticulation system (works by council).	Complete
	MIP 2	Construction of floating cover to eliminate evaporation from water lagoon.	Complete
	MIP 3	Sewerage Scheme.	Design Phase
	MIP 3	Roads and Drainage Master Plan by Department of Main Roads.	Planning Phase
<b>Badu</b>	MIP 1	Water - provision of 3 new wells (and access road), associated pipelines, a new water treatment plant, and new reservoir (1.8 ML concrete tank).	Complete
	MIP 1	Drainage - stage 1 of surface drainage works, designed to dispose of ponding water in low lying areas.	Complete
	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Reticulated Sewerage Scheme and lagoon treatment and provision of necessary facilities at all houses.	Complete
	MIP 2	House subdivision servicing.	Complete
<b>Mabuiag</b>	MIP 3	Upgrade of water main and contribution to upgrade of internal roads.	Underway
	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets where required.	Complete
	MIP 2	Concrete reservoir construction.	Complete

<b>Erub</b>	MIP 3	Sewerage and lagoon cover.	Planning Phase
	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new toilets or ablutions where required.	Complete
	MIP 1	Upgrade of water treatment plant.	Complete
	MIP 2	Provision of a reticulated sewerage system, including a package treatment plant and ocean outfall, access road and provision of necessary facilities at all houses.	Complete
<b>Ugar</b>	MIP 1	Conversion of all pan toilets to septic systems, including the provision of new w/c's where required.	Complete
	MIP 3	Roads upgrade.	Planning Phase
<b>Mer</b>	MIP 1	Provision of a reticulated sewerage system, including a package treatment plant and ocean outfall and provision of necessary facilities at all houses.	Complete
	MIP 1	Upgrade works to water reticulation system.	Complete
	MIP 2	Provision of services to subdivision including drainage, power and water.	Underway
	MIP 2	Reticulated Sewerage Scheme and lagoon treatment.	Design Phase
<b>Horn Bamaga</b>	MIP 2	House Subdivision -15 serviced lots.	Complete
	MIP 3	House Subdivision Stage 2.	Planning Phase
	MIP 1	Emergency plumbing and electrical repairs to houses to improve critical environmental health conditions.	Complete
<b>Regional</b>	MIP 1	Regional SCADA system to monitor operation of water and sewerage systems was implemented enabling ISU to provide ongoing support to each Island.	Complete
Emergency House Repairs	MIP 1	Regional SCADA system to monitor operation of water and sewerage systems was implemented enabling ISU to provide ongoing support to each Island.	Complete
SCADA Implementation	MIP 2	A regional waste management strategy based on transport of wastes to regional landfills.	Complete
Regional Waste Strategy	MIP 2	Need based analysis of the shortfall in available serviced allotments for residential housing within all communities.	Complete
Land Servicing Strategy	MIP 2	Regional mapping to consolidate mapping information to support planning documents.	Complete
Regional Mapping	MIP 2	Update planning documents to identify infrastructure status.	Complete
Planning Updates	MIP 2	Construction of new boat ramp at Rose Hill, Thursday Island.	Complete
Rose Hill Boat Ramp	MIP 2	Disposal of car bodies and white goods. Upgrading and fencing of tips.	Underway
Bulk Waste Removal & Tip Upgrades	MIP 3	Supply and installation of meters on Islands as part of the water demand management strategy.	Underway
Regional Metering	MIP 3	Construction of mobile Desalination Unit for use throughout Torres Strait on an as-need basis for emergency portable water supply. Construction of desal hard stands on three islands.	Underway
Mobile Desalination Unit			

Essential major infrastructure projects planned for the next stage of MIP will include the completion of sewerage system construction to road works and sub-divisional development on both outer island communities and the Northern Peninsula Area.

Regional strategic work will involve building on the Regional Planning Updates and Land Strategy efforts as well continuing to implement the important Waste Management Strategy.

The continuation of MIP will build on the enormous effort and success of the preceding three stages.

