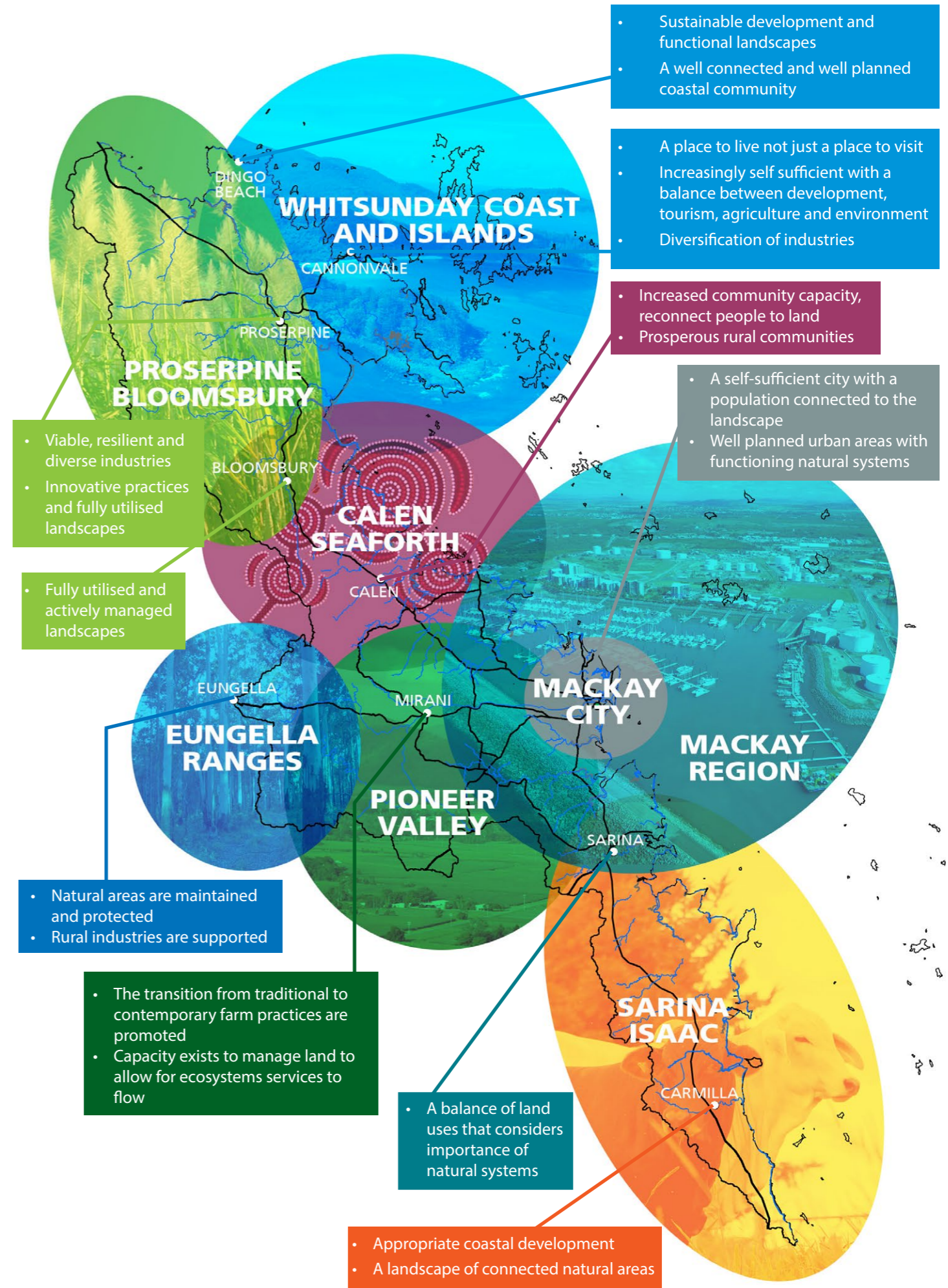
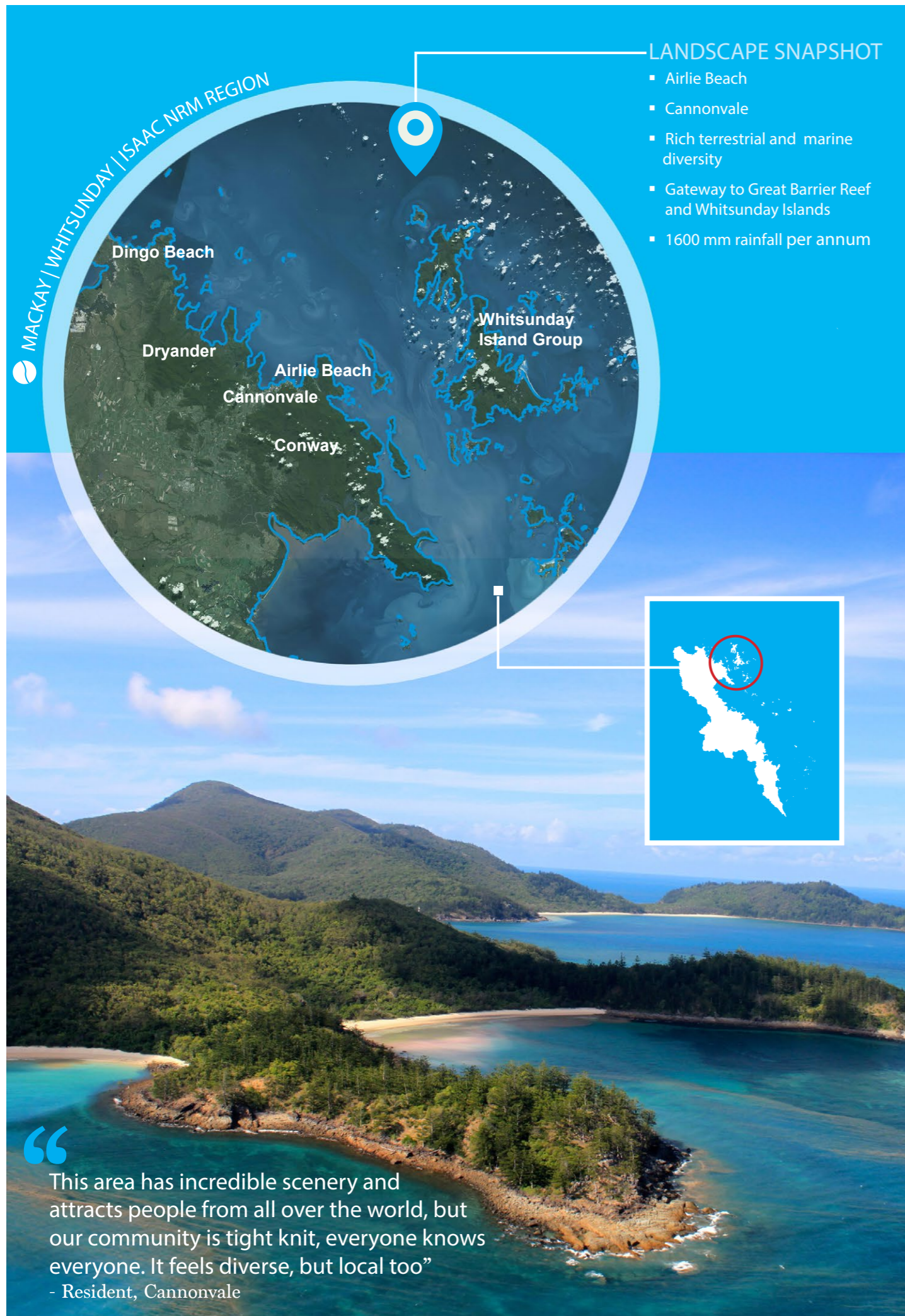


Landscapes

Landscapes and key visions.





LANDSCAPE SNAPSHOT

- Airlie Beach
- Cannonvale
- Rich terrestrial and marine diversity
- Gateway to Great Barrier Reef and Whitsunday Islands
- 1600 mm rainfall per annum

MACKAY | WHITSUNDAY | ISAAC NRM REGION

Whitsunday Coast & Islands.

A place to live and not just a place to visit, where the community is building towards self sufficiency and has achieved a balance between development, tourism, agriculture and the environment.

General Description

The Whitsunday Coast and Islands is an internationally renowned tourist destination symbolic of Australia's spectacular tropical East Coast scenery, seafaring and beach culture, and year round sunshine. Such a great number of visitors combined with a host of tourism activities make this area a highly transitory, active, culturally diverse and regionally distinct as a local landscape.

Location

The Whitsunday Coast and Islands local landscape is situated on the North East part of the region and extends from the coastline just south of Gloucester Island, to Midge Point along the Southern Whitsunday coast. The area encompasses the Whitsunday islands as far south as the Repulse Group and overlaps with the Proserpine landscape inland to the West.

Community

With a permanent population of 3,550 in 2011, Airlie Beach acts as a gateway to the Whitsunday Islands and parts of the Great Barrier Reef, with nearby Abel Point and Shute Harbour marinas providing regular ferry services to the islands. Cannonvale with a population of 4,990 people is the major business and commercial hub for the area with a higher density residential development. Smaller communities include Shute Harbour, Mandalay, Jubilee Pocket, Dingo Beach, Hideaway Bay, Strathdickie and Conway.

Hamilton Island is the most developed island, with significant tourism accommodation and facilities and permanent residential development.

The coastline and islands form part of Ngaro sea-country, whose people have a rich cultural history and connection to this area, evidenced by numerous cultural sites and stories.

Natural Environment

This area forms part of the region's 2,000 kilometres of coastline and islands, containing almost 25% of all the continental islands that occur along the Queensland coast.

The landscape is dominated by two coastal ranges; Conway and Dryander, whose rainforest clad massifs comprise several flat top ridges formed on gently inclining late-stage rhyolite lavas. It also includes isolated sandy beaches interspersed by small rocky headlands and mangrove lined estuaries, and extensive rocky and shingle foreshores of the Conway

Peninsula through to Hideaway Bay and Dingo Beach.

The area has some of the largest tidal ranges that occur along the Queensland coast ranging from approximately +/- 4m in the north to +/- 6m in the south.

The coastal hills remain relatively undeveloped and are shrouded in dense rainforest, vine thicket and eucalypt forest, contributing markedly to the scenic amenity of the area.

The GBR is the most extensive coral reef system in the world and has some of the richest biological diversity on the planet. There exist within the GBR lagoon internationally significant marine fauna groups including the Indo-Pacific humpback dolphin and recently discovered Australian snub-fin dolphin, while the Whitsunday islands provide important calving area for humpback whales.

Few large mammals naturally occur on islands, although some introduced populations exist (e.g. brushtail possums on Hayman, goats on Whitsunday, and grey kangaroos on Brampton) with the exception of the endangered Proserpine rock wallaby on Gloucester Island and possibly unadorned rock wallabies on Whitsunday Island.

There are only three plant species known to be endemic to Queensland's islands, two of which are found within the region. An endemic leaf tailed gecko and freshwater crayfish occur on Whitsunday Island.

Towards the coast, dugong protection areas exist to the west of Gloucester Island and in the south in the Conway area.

Inland, the summit of Mt Dryander is covered by 486 ha of endemic rainforest ecosystem. Dryander and Conway Ranges support a suite of endemic species including leaf-tail geckos, and plants such as Mt Blackwood Holly (See Hinterland Plains and Ranges).

Land Use and Enterprises

This landscape is made up of majority high ecological value areas that are managed for nature conservation including Dryander and Conway National Parks and Conway State Forest, in addition to areas of Marine National Park and Marine Habitat Protection Areas.

Urban development occurs around most populations centres with the exception of Airlie Beach where the topography, scenic amenity and environmental values restricts extensive urban spread.

“This area has incredible scenery and attracts people from all over the world, but our community is tight knit, everyone knows everyone. It feels diverse, but local too”
- Resident, Cannonvale

Of the National Park islands, five (South Molle, Long, Hook, Lindeman and Brampton Islands) have been partly developed as tourism resorts on land leased from the National Park. However, most of these are not currently operating largely because of market downturns. A further three resorts are on privately owned islands Hayman, Hamilton and West Molle, also known as Daydream, and resort infrastructure is currently being developed on Dent Island.

Inland and towards Proserpine agricultural land emerges, the majority of which is irrigated cropping (cane) and grazing.

1.92 million visitor days are recorded on the Great Barrier Reef each year with 800,000 and 120,000 of those visiting the Townsville/Whitsunday and Mackay/Capricorn areas respectively during 2011/2012. In 2010, commercial fishing reaped \$139 million in 2006/2007 and recreational use (including recreational fishing,) \$153 million. Across this region, tourism industries are responsible for employing at least 30,000 people directly.

It is approximated that the value of the tourism industry regionally is \$577 million, with recreational boating and fishing in Whitsunday alone comprising more than 20% of

the vessels registered for the whole GBR.

Although difficult to quantify, the ecological value of this local landscape is also significant with key habitats and ecosystems services providing essential non-monetary wealth that in turn supports regional industries.

Climate

There are significantly different rainfall patterns across the MWI region with Airlie Beach existing in the 1600 mm per annum high rainfall belt.

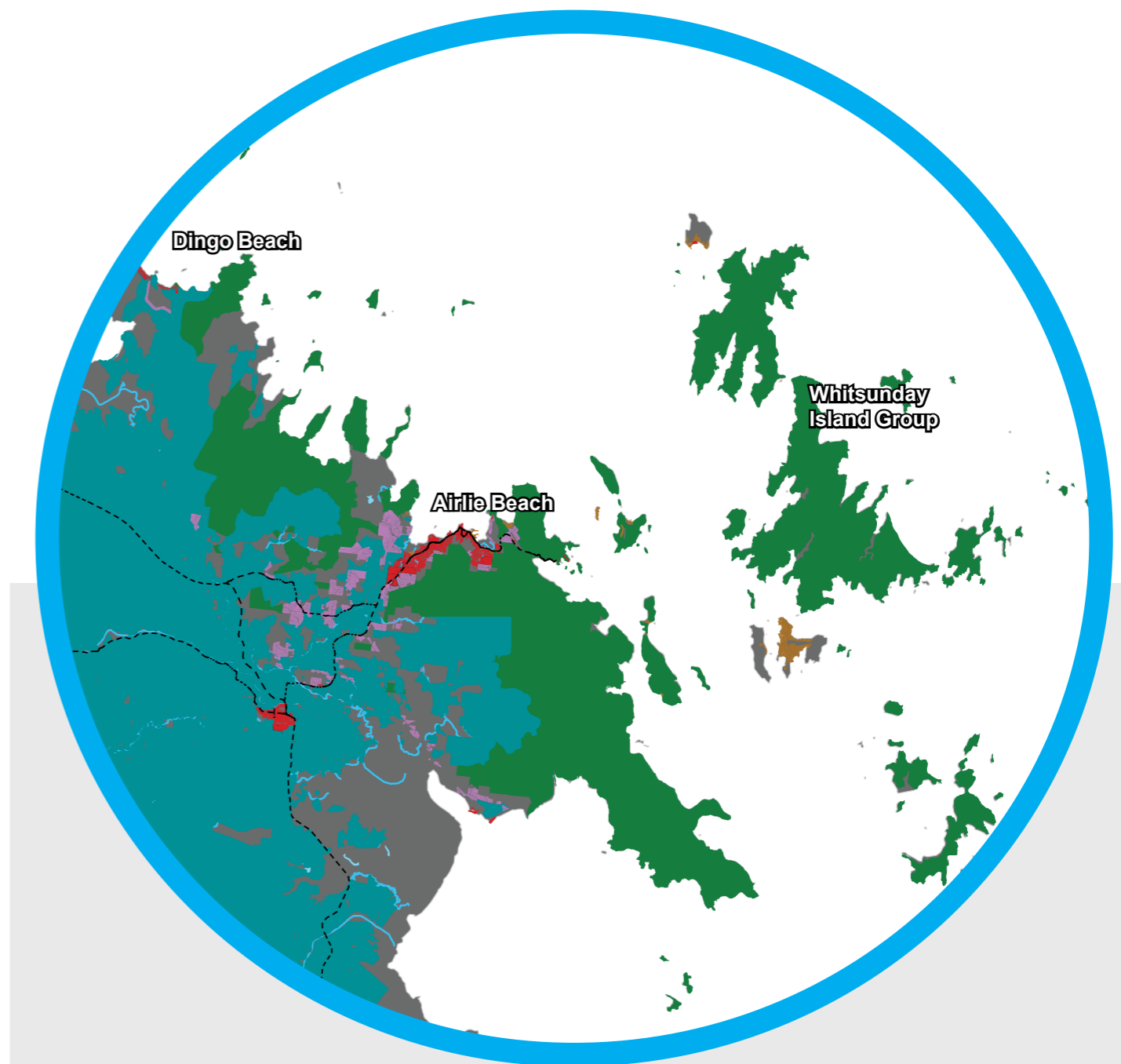
Airlie Beach, Cannonvale and the area around Goorganga Plains are located in an area deemed high hazard for storm tide and sea level rise risk.

Whitsunday and Hook Island along with Hideaway Bay and parts of Dingo Beach feature areas of very high to high risk for bushfire.

Comprising majority coastal residential areas, this area is vulnerable to tropical cyclone activity which has the potential to damage the area significantly in both short term (infrastructure, habitat) and long term (tourism decline due to coral death) timeframes.

Whitsunday Coasts and Islands

High Competition Between Landuses.



“You can’t destroy the environment, the very thing that people come from all over the world to see.”
- Tourist, Dingo Beach

Key Issues

Sustainable planning and development

We need to maintain a balance between environmental and social values in urban and peri-urban development, to improve the health of our natural ecosystems and ensure land is managed within our capabilities. We will achieve this by engaging stakeholders to ensure the balance is maintained.

A place to live not just a place to visit – a self sufficient area with a diversity of industries

We would like Whitsunday Coast and Islands to be a place for locals, as well as our visitors, by ensuring we are resilient to international and domestic market fluxes. We would like our existing development areas to be renovated, as opposed to building anew, and there should be a lesser dependence on external input. We will achieve this by engaging local stakeholder groups to advocate for self sufficiency, for example in growing and retaining fresh produce in our region for our region’s consumption.

Connectivity to natural areas

We need to provide habitat connectivity, in particular between the key marine-terrestrial coastal interface and in areas of riparian vegetation. Such connectivity should also be considered in development proposals and in adapting to future climatic variability.

Support and celebrate our diverse community

While locally supporting people to understand and value the cultures influencing our area (agricultural, international, Aboriginal, Torres Strait and South Sea Islander), we need to capitalise on the high numbers of visitors to educate people about the areas values and what makes the area special ‘beyond the Reef’. The Aboriginal Traditional Owners of the Whitsunday Coast and Islands sea-country feel disconnected with Country and we need to work on re-establishing this connection by providing opportunities to take part in NRM and other activities.

Proserpine & Bloomsbury.

A place where viable, resilient and diverse industries exist, driven by innovative practice and actively managed landscapes.



LANDSCAPE SNAPSHOT

- Proserpine next civic hub north of Mackay
- Goorganga Plain wetlands complex
- Sugar cane and beef cattle production
- Transition between cane/grazing and horticulture of Bowen region
- Humid subtropical climate, 1600 mm rainfall belt per annum

General Description

The productive plains of the Proserpine and Bloomsbury area are characterised by seasonal stands of cane and the familiar passing of cane trains during harvest. Elsewhere rural homesteads nestle by open plains of grazing country in the valleys of the dramatic Clarke-Connors Range which bounds the regions westerly limit.

Location

The Proserpine Bloomsbury landscape extends from the northerly most part of the catchment, to the westerly most part, encompassing a portion of the Clarke Connors Range. It tracks south along the Bruce Highway as far as Bloomsbury, and east to Strathdickie, overlapping with Whitsunday Coast and Islands area.

Community

Although the population of 3,390 people is similar to that of Cannonvale, Proserpine serves as rural civic hub with local level retail and commercial services more aligned with the areas agricultural focus. A main feature of this locality is the Proserpine Mill, which supports the surrounding sugar industry.

This area also encompasses Bloomsbury, a highway town south of Proserpine on the Bruce Highway, and the Whitsunday Coast Airport. Although no other major centres exist, rural residential areas feature such as Lethebrook, Kelsey Creek and Crystal Brook.

The Gia identify as Traditional Owners of this country.

Natural Environment

Between the coastal zone and Clarke Connors Range lie extensive plains of alluvial flats, intruded in parts by coastal hills and ranges and the Gregory and Proserpine Rivers.

The Goorganga Plain wetlands complex extends south from Proserpine and consists of approximately 16,850 hectares of seasonal wetlands, recognised in the Directory of important wetlands in Australia. It is particularly significant because it consists of a diverse range of wetland ecosystems graduating from marine to freshwater environments.

Goorganga has important ecological functions including floodwater detention, nutrient assimilation and sediment trapping. It provides habitats for rare and endangered plant

and animal species, as well as valuable nursery habitats for many fish species. It also hosts migratory bird species and large numbers of resident waterbirds.

Although the hinterland plains, coastal hills and ranges are largely an agricultural landscape, the areas still support biodiversity. For example, remnant hillside and riparian vegetation provides habitat, in particular nesting hollows, for owls and other species that play roles in regulating agricultural pests such as cane rats.

The areas wetlands are dynamic ecosystems with significant bird, reptile, amphibian and insect species, for example Peter Faust Dam which supports an estimated 1500 nesting pairs of pied cormorants, 200 pairs of black swans and more than 400 pairs of Australian pelicans.

Land Use and Enterprises

Proserpine is the key commercial service and administration center for the Whitsunday region. The land around Proserpine comprises some of the best agricultural land in the region, with cane production centered on the land around the Proserpine Mill. Radiating further from the cane area is extensive grazing land which makes up the dominant regional land use, and areas of National Park and State Forest. Some horticulture and aquaculture operations also occur in the area.

The value of agriculture production in MWI council regions was \$891 million in 2010-2011 which represents nearly 10% of Queensland's total value. Sugar cane in this area underpins the economic stability of the community and contributes to the identity of the community, with 1.632 million tonnes of cane crushed at the Proserpine Mill in 2013. Likewise, grazing has a significant influence on the economy of the area.

Although the majority of tourist activity occurs in the neighbouring Whitsunday Coast and Islands local landscape, Peter Faust Dam, or Lake Proserpine, attracts tourists and locals alike to enjoy watersports and freshwater fishing, with 20,000 barramundi fingerlings restocked annually.

This area contains key transport infrastructure that supports regional tourism including the railway station in Proserpine, Whitsunday Coast Airport, and the only hospital.

Climate

Proserpine and Bloomsbury have a humid subtropical climate, and in winter temperatures in outlying areas sometimes dip below zero. The highest rainfall in the region occurs to the north east of the town in the Conway National Park (Whitsunday Coast and Islands landscape). The localities of Midge Point, Hideaway Bay, Crystalbrook and Kelsey Creek are usually the driest in the region owing to influences such as distance from the ocean and rain shadows.

The area has been affected by tropical cyclones most significantly Cyclone Ada in January 1970 and Cyclone Ului in March 2010. A cyclone shelter was completed in February 2013 at Proserpine State Primary School.

The Gregory River estuary area to the north and the Goorganga Plains wetlands complex south east of Proserpine are located in areas deemed high hazard for storm tide and sea level rise risk. Goorganga Plains is also subject to severely erosive flooding.

There is an area south of Whitsunday Coast Airport that is identified as being higher potential for erosion.

To the west and along the Clarke Connors Range features areas of very high to high risk for bushfire.

Key Issues

Viable, resilient and diverse industries

We as rural communities want to remain autonomous, keeping adequate local service provision and continuing to live a regional lifestyle. To be resilient, we need to be viable and diverse. Our industries must be varied to support the economy during changing market conditions, but working with stakeholders we need to identify areas which should be retained as important agricultural land, and how to manage this with biodiversity outcomes. Resilience will require planning for farm succession, good governance, attractive investment in the land, and ability to 'go the extra mile' in property management for multiple benefits.

Innovation and sustainable production

We will seek opportunities for our industries and communities to remain viable. This will include investment in innovative practice such as new technologies and best management practice techniques. We need support to fully explore opportunities like environmental markets, generation of by-products, and on farm tourism to supplement our farm income. We will continue to support a culture of innovation and best practice in agriculture by supporting locally based trial sites, education and targeted research.

Fully utilised and actively managed land

We want to see land used to its full potential within sustainable limits. For example, Cathu State Forest could be used more for forestry and less for car and bike rallies. Land should be managed at a landscape scale, in particular for invasive species and fire, so we can as a community share the responsibility of land management across fence lines. Small block holders should be aware of their responsibilities and part they play in whole of landscape management.

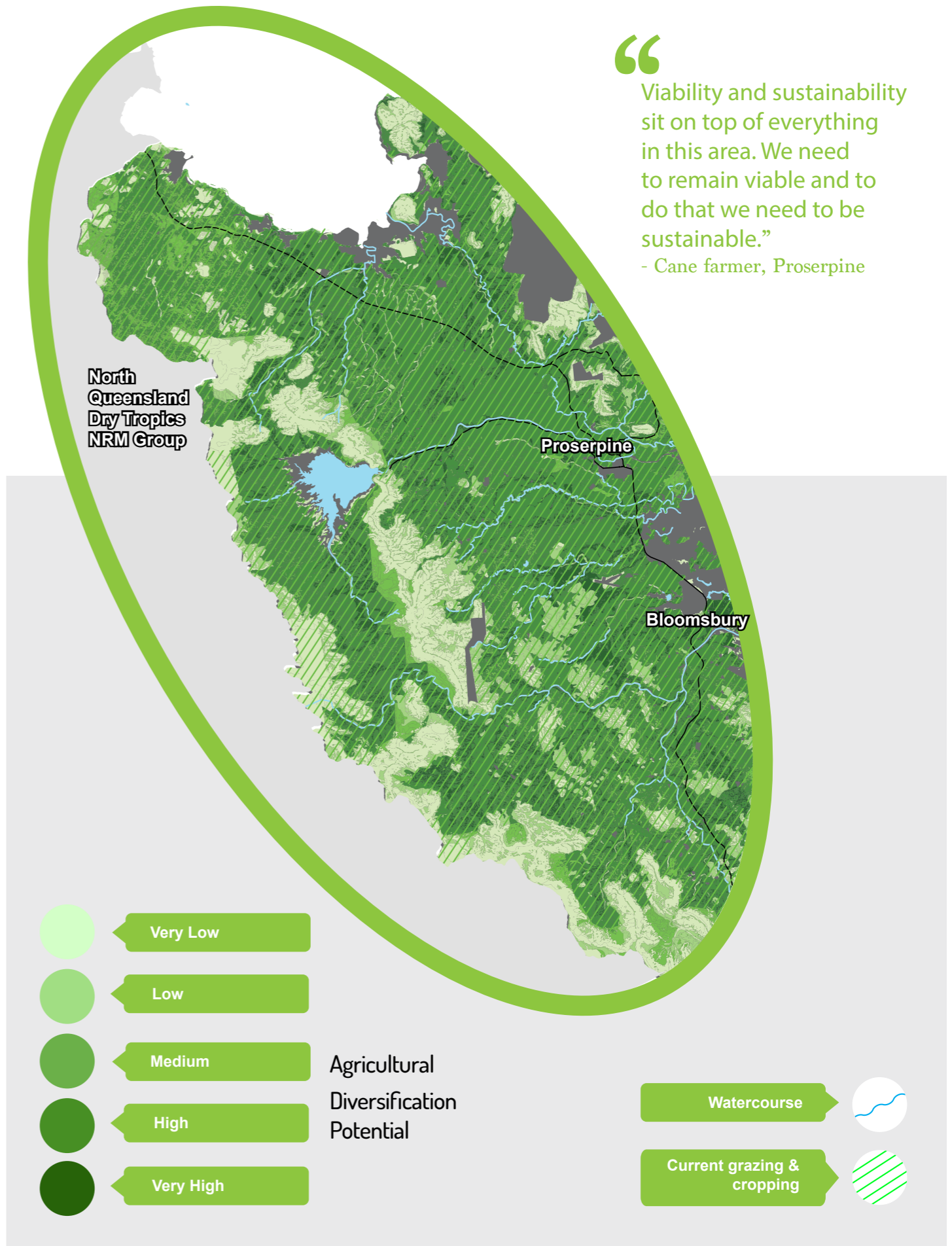
Support the protection of important wetlands

Goorganga Plains Wetland is valuable to our community both environmentally and economically. The wetlands and surrounding areas support beef cattle, sugarcane and forestry as well as nearby residential land use. It also provides ecological functions including floodwater detention, nutrient assimilation and sediment trapping and habitat for rare and endangered species. We need to work with not just landholders, but other beneficiary stakeholders to design and implement programs that ensure appropriate management.

Proserpine & Bloomsbury

Opportunities to Diversify Agricultural Industry.

“Viability and sustainability sit on top of everything in this area. We need to remain viable and to do that we need to be sustainable.”
- Cane farmer, Proserpine



LANDSCAPE SNAPSHOT

- Calen, Seaforth
- Mount Ossa National Park and Mount Martin National Park
- Large dugong protection area along coast
- Sugar cane and cattle
- 1600 mm rainfall belt per annum

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Calen & Seaforth.

A place of prosperous rural communities with people connected to their landscapes and have the capacity to look after it.

General Description

The Calen and Seaforth area is diverse and encompasses a transition between the Clarke Connors Range, a narrow corridor of productive agricultural hinterland and coastal hills, the estuaries of Blackrock and Murray creek giving way to a coastline punctuated by mangroves and beaches, toward the offshore continental islands of the Newry group.

Location

The Calen and Seaforth local landscape is situated in the middle of the Mackay-Whitsunday local landscape, and overlaps with five other local landscapes, the most in the region.

Community

Calen is a small community centered around the Bruce Highway, with a population of 452 in 2011. Calen is equidistant between the commercial hubs of Proserpine and Mackay. Neighbouring Seaforth is a coastal holiday and fishing town with a population of 788. The average age of the Seaforth population is 47, which is 11 years above the Airlie Beach average (also the state average, 36). Other rural living areas in the district include Pindi Pindi, Yalboroo, and Mount Ossa.

Seaforth and the surrounding coastal area are more popular with Mackay residents than the prevailing domestic and international tourists captured in the Whitsunday Coast and Islands landscape.

Midge Point a coastal community south east of Proserpine exists on the overlap between three local landscapes and features some tourist developments that were later converted to residential accommodation.

Several National Park areas exist in this landscape including part of Eungella National Park, Newry Islands National Park and Mount Ossa National Park.

Cape Hillsborough National Park conserves a rugged section of coastline and includes McBride's Point and a melaleuca wetland adjoining Ball Bay.

The MWI coastline and islands are part of Ngaro sea-country.

Yuibera (Yuwi) are Traditional Owners of the inland area extending from the O'Connell River in the north, Cape Palmerston in the south, and to the Clarke and Connors ranges in the west.

Natural Environment

The Calen and Seaforth local landscape is located in the Central Queensland Coast bioregion and comprises a diversity of geology and landforms with National Parks occurring on steep landforms thus limiting physical disturbance and maintaining the integrity of plant communities.

Outside of the National Parks, the landscape has been extensively cleared for agriculture, resulting in a patchy landscape of cane and grazing enterprises with small remnant patches and revegetation areas.

The geology of Cape Hillsborough is unique and differs from everything else along the Mackay coast. The vegetation and associated wildlife is a unique combination found nowhere else in the region.

Mount Ossa National Park and Mount Martin National Park are situated on low granitic mountains that rise from the central Queensland coastal plain. These mountains and low hills form a semi-continuous link between the uplands of the Clarke and Connors ranges, the lowland plains and coastal areas.

Plant species of particular note are the Mount Blackwood holly *Graptophyllum ilicifolium*, a localised shrub restricted to areas such as Mount Blackwood and Mount Dryander.

Rainforests in the area are known to provide habitat for several near threatened and threatened plant species, including *Sarcotoechia heterophylla*, *Solanum sporadotrichum* and palm forest *Trigonostemon inopinatus*.

Mount Ossa National Park vegetation is predominantly notophyll/microphyll vine forest with emergent hoop pine

The eight islands in Newry Islands National Park have geological characteristics that are uncommon for inshore islands. The cliffs on the eastern side of Outer Newry Island are unusual because they occur along a protected coastline and are made of sandstone which is uncommon in the region. Red Cliff and Acacia islands have excellent examples of geological folds and faults. The islands contains several types of vegetation including rainforest, mangroves, acacia and melaleuca woodland. Fauna such as koalas and turtles are present.

There is a large dugong protection area along the Calen-Seaforth coast which corresponds with the prevalence of sea grass.

Land Use and Enterprises

This local landscape is made up of cane production along the Bruce Highway, grazing further afield, nature conservation and an area of wetlands. Cane mills in Farleigh and Proserpine service the area.

The town of Calen hosts a steadily growing population.

Each year, more than 180 000 visitors are attracted to the broad sandy beaches, rugged landscapes and the diversity of plants and animals of the Calen-Seaforth coastal area.

Climate

There are significantly different rainfall patterns across the MWI region with this local landscape existing in the 1600 per annum high rainfall belt.

The salt pans of the Blackrock and Murray Creek estuaries are located in an area deemed high hazard for storm tide and sea level rise risk.

There is little more than a low erosion risk across the lowlands and coastal area however this increases toward the steeper slopes of the Clarke Connors range.

Areas of high risk exist for bushfires along the hinterland plain, which correspond with the patchiness of the landscape.

With a coastal population, this area is vulnerable to tropical cyclone activity which has the potential to damage the area significantly.



“We are far enough from urban areas to avoid big changes, I would hate to see the coast damaged.”

- Landholder, Seaforth

Key Issues

Increased community capacity, reconnect people to land

We feel our community has been fragmented by dividing land into rural blocks which makes good land management difficult. New landholders need to understand their responsibilities and be penalised if they do not achieve a certain standard of, for example, invasive species control. Landholders also need to understand they are part of the wider community and everything is connected. We can achieve this by having more opportunities to get involved in community activities, and more incentive to do so. Education and regulation is key in ensuring our new neighbours are part of whole of landscape land management. We need a more robust solution than traditional engagement activities.

Prosperous rural communities

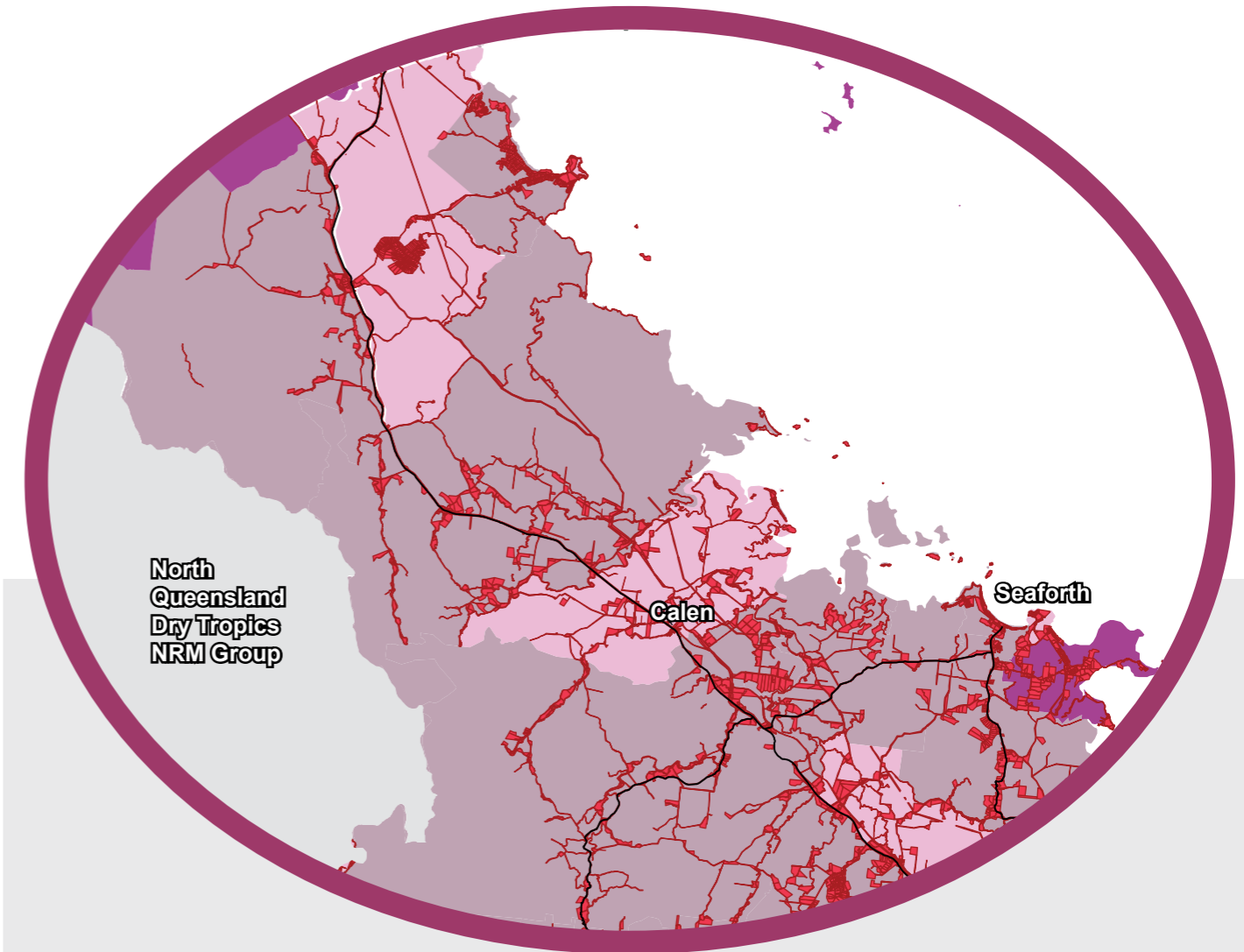
We would like to protect our agricultural land. We want to create a prosperous rural community that is resilient to the ebb and flow of the coal industry. We believe this is possible by seeking opportunities such as the use of by-products from agriculture. The scientific community, industry bodies and governments can help us seek such alternatives to supplement our farm income. Land planning should consider the potential of the land for agricultural production, and review alternative sites for other land uses such as urban development. It may not be cost effective but it may be more appropriate and as a result more accepted, and more sustainable.

Work towards removing barriers to good land management and local decisions

Working with Government, we would like to be empowered to make decisions in the landscape, for the landscape and to be provided with adequate resources to address local needs and priorities. Decision makers and landholders should be more collaborative in planning through a lens of mutual trust and respect, resulting in a better understanding and acceptance of each others decisions.

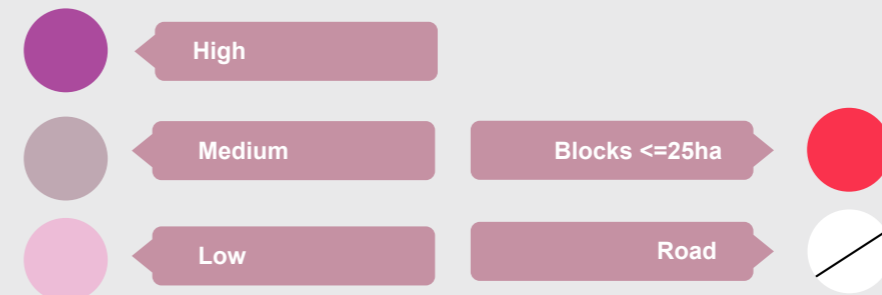
Map 3: Calen & Seaforth

Opportunity to Build Community Capacity.



Community Capacity

Community capacity considers home ownership, median family income, non English speaking, persons over 65 living alone and children 4 or younger.



“There is a general lack of interest in participating toward any community activities. It’s dominated by a willing handful and a disengaged majority.”

- Landholder, Calen



LANDSCAPE SNAPSHOT

- Eungella Township
- Eungella National Park
- One of largest wilderness areas in Queensland
- Overlap between tropical and sub-tropical influences
- High ecological significance including many endemic species

Eungella.

A place where rural industries are supported and natural areas are well maintained and protected.

General Description

Eungella represents a world away from the surrounding regions, which is best expressed in the Aboriginal translation; 'land in the cloud'. Nearly 700 meters above sea level at the head of the prosperous, fertile, Pioneer Valley, the Eungella Range provides the only access point by road to the dense rainforest interior of the Clarke Connors Range.

Location

The Eungella Ranges landscape is the most westerly of the region and encapsulates the majority of Eungella National Park, the most significant portion of the Clarke Connors Range, with the most relevant overlap occurring with the Pioneer Valley local landscape.

Community

Eungella area had a population of 422 people in 2011 with a median age of 43, 6 years above the state average. In the ranges, few communities outside of Eungella Township exist, however there are some farmsteads and outlying properties, and small developments at Broken River to cater for tourists.

The Eungella community is distinct in that it is isolated from the Pioneer Valley by the steep Mackay-Eungella mountain road which acts as the only access point from the wider region, beside the Turrawulla Road which drops to the western side of the ranges. Although Eungella has some amenities, the commercial and administrative center for this locality is Mackay.

The Wiri identify as Traditional Owners of this country.

Natural Environment

The range forms the Clarke Connors subregion of the Central Queensland Coast Bioregion and contains the head waters of three major rivers across the region (Proserpine, O'Connell and Pioneer).

The Clarke Connors range reaches an altitude of 1276m on Mt Dalrymple near Eungella Township. The area is listed on the Register of the National Estate as one of the largest wilderness areas in Queensland with outstanding natural values, being an overlap between tropical and sub-tropical

influences.

As an area that has remained relatively stable during major climatic changes over time, Eungella is centre of endemism supporting 3 species of endemic frog, 1 species of endemic gecko, and 2 skinks, in addition to the Eungella honeyeater. There are another 120 bird species in Eungella which provides a core refugia and movement corridor. Mammal species are also rich and include the yellow bellied glider and a distinct species of swamp rat which may be a new sub-species.

Land Use and Enterprises

The dominant industry of the area is beef cattle grazing. A substantial part of the ranges lie within protected areas or State Forest, making nature conservation one of the other major land uses. Other land uses include the only dairy farming in the region, hobby farming and ecotourism.

Of the 745,000 visitors to the Mackay region in 2003, 54% visited Eungella, which provides a range of accommodation types and tourist experiences, including visiting Broken River; one of the only places in Australia where you can view a platypus in the wild.

Although the majority of tourism activity occurs in the National Park, Eungella Dam is located approximately 27km west of Broken River and is a popular site for camping, fishing and recreational water based activities.

Climate

Average rainfall varies from 1600 mm per annum, to 1200 mm in the south and 1000 mm to the west.

The range will continue to act as a climate change refuge as climate change continues. The most reliable climate change scenarios suggest that both temperature and rainfall change will be similar across the region, however the range is likely to continue to be relatively wetter and cooler than elsewhere. This is important because the area is separated from the Wet Tropics and southeast Queensland rainforests by dry tropical belts which will not offer refuge to central eastern Queensland's high altitude rainforest adapted ecosystems, flora and fauna.

Contributing factors include only minor temperature

increases and changes in rainfall, however species with biophysical or habitat requirements found only in the area that are unable to adapt, may disappear.

Wildfire is a medium to high risk, which may limit the areas capacity to act as a climate change refuge. This area is more vulnerable due to fire sensitive communities such as rainforests, vine thickets and vine forests, as well as its elevated position in the landscape.

In 2010 Cyclone Ului tore through the Eungella community extensively damaging the Eungella Chalet, Eungella Community Hall, Uniting Church, Eungella National Park, surrounding farms and homes. Increased cyclonic activity renders Eungella vulnerable due to its largely exposed location.

Also due to its altitude, nearly all of this area is susceptible to erosion, with the majority considered to represent a high risk of erosion.

“ People can't keep living in their own little economically driven world. Change needs to occur by looking at all angles and perspectives. - Resident, Eungella

Key Issues

Natural areas are maintained and protected

As a centre of endemism, the fourth largest wilderness area in Queensland and the largest contiguous rainforest area in central Queensland, this area is highly valued and should be protected and actively managed to ensure ongoing protection.

We would like to protect the natural areas and have long term planning in place to support this. We need to strongly consider how we utilise the Ranges, and ensure we look beyond economic gains to the long term protection of this incredibly unique environment. We can do this by ensuring planning for the landscape involves lots of perspectives, and the community has a stake in decisions; respecting our local expertise and considering our aspirations. The area is quite pristine and it should be protected from the large scale and short term development that can be seen in the coastal zone.

Rural industries are supported

While we have a valuable natural environment, we also want to see our rural industries supported so that the land which the pioneers farmed can continue to be provide for us. Farms should continue to be beautiful and havens for wildlife with much vegetation left in tact. Without the rural industries we will suffer as a community, so it is important that we include farming as a key part of plans for the region. We also see the value in tourism as a lucrative and relatively low impact activity, and so would support the promotion of future tourism activities in the Ranges.

Strong, resilient community and connection to landscape

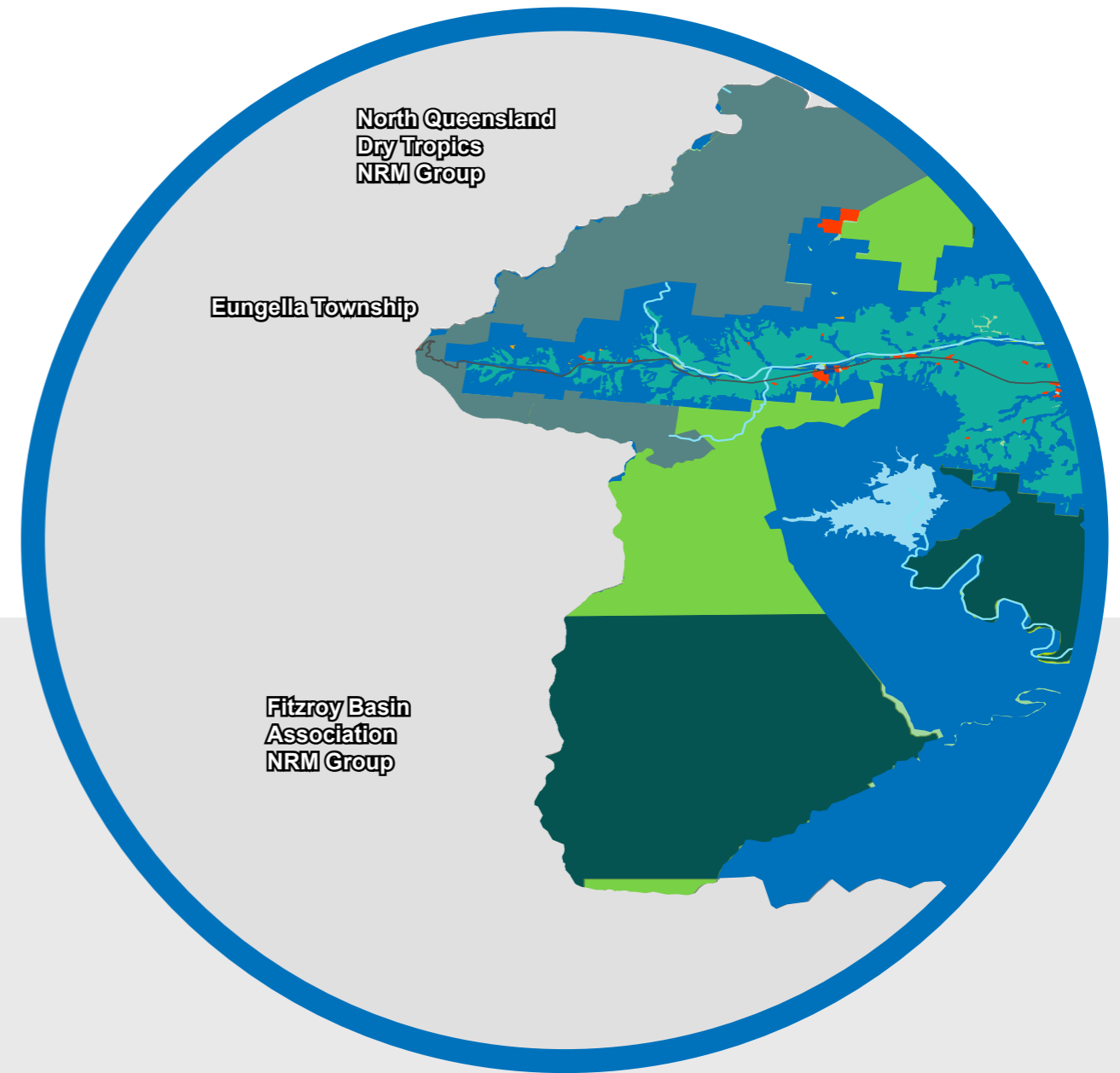
Community spirit is not what it used to be. We think strong communities are those that are united and more connected to their landscapes. In addition to collaborating across industries, educating residents, visitors and the next generation about Eungella and the Ranges will be key to sharing what it is we value, and what we want it to look like in the future. We would like to improve the viability of towns such as Eungella, to maintain community identity while attracting new residents and businesses. We will achieve this by working with local government and other agencies to identify key investment opportunities, and promote the advantages of living in the area.

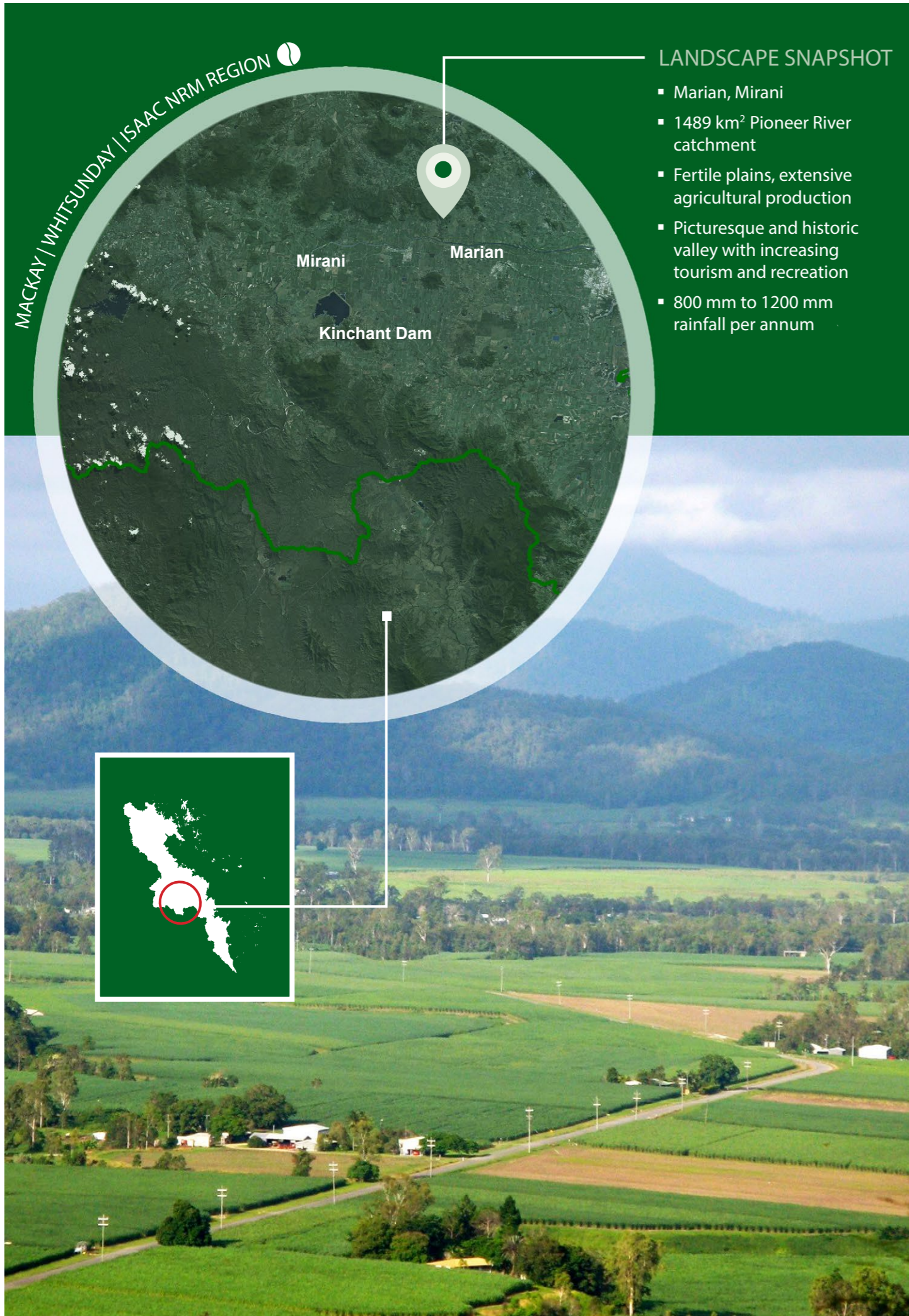
Increase resilience of the area to effects of climate change

We need to support research and development about the short and long term effects of climate variability with a focus on the potential identification of climate refuge areas, and immediate threats such as increased weather events which isolate Eungella and have severely impacted the communities and industries capacity to function in the past.

Eungella

Managing Balance between Productive and Natural Landscapes.





LANDSCAPE SNAPSHOT

- Marian, Mirani
- 1489 km² Pioneer River catchment
- Fertile plains, extensive agricultural production
- Picturesque and historic valley with increasing tourism and recreation
- 800 mm to 1200 mm rainfall per annum

Pioneer Valley.

A place renowned for innovative, contemporary best management farm practices, where land is actively managed and ecosystem services maintained.

General Description

The Pioneer Valley is one of the most fertile and picturesque valleys in Australia. The community within is steeped in pioneering history including one of the oldest sugar mills in Australia in Pleystowe, which only recently closed since its first crush in 1869. The valley provides a dramatic entrance to Eungella National Park, rising high in the Clarke Connors Range to the west.

Location

The Pioneer Valley local landscape encompasses the majority of the central Valley area, overlapping with Eungella to the west and Mackay Region to the east.

Community

Several small towns make up the Pioneer Valley landscape. The most populated is Marian with 3,019 people and neighbouring Mirani, with 1672 (in 2011). Other smaller localities include Pleystowe, Gargett, Pinnacle, Finch Hatton and Netherdale.

The productive plains of the Pioneer Valley have been modified to become one of the most productive sugar cane areas in Australia. The Marian Mill is the largest in the area and has earned 'super mill' status within the Australian sugar industry.

Culturally, the Pioneer Valley comprises small farming towns reminiscent of the pioneering era, each with each its own distinct character.

The Wiri and Yuwi-bara identify as Traditional Owners of this country.

Natural Environment

The Pioneer River is an icon of the region, with a catchment covering 1489 km². Rising in the Pinnacle Ranges, the river flows in a northerly direction into the Pioneer Valley then swings east at Mirani, before flowing into the Pacific Ocean at Mackay.

The longest tributary of the Pioneer River is Cattle Creek with the other major tributary being Blacks Creek. Beginning in the Clarke Range, Cattle Creek rapidly loses altitude until reaching the valley floor. Its main tributaries are Cattle Creek

North and Finch Hatton Creek which drain the highest parts of the catchment.

Although the valley floor is predominantly used for sugar cane production, there are areas of remnant vegetation mainly on slopes that act as key refuge for plant and animal species. Furthermore, the grassy woodlands that characterise the vegetation of the Valley provide key services, most notably in regulating the water cycle and ensuring water is retained in the landscape. Woodlands increase the ability of rainfall to infiltrate the soil, and reduce soil erosion.

As the valley narrows between Pinnacle and Finch Hatton, State Forest occurs on either side where a diversity of fauna and flora occur.

Land Use and Enterprises

With an annual throughput in excess of 2 million tonnes, the Marian Mill supports the area's lucrative cane industry. There are also areas of production forestry and grazing.

Supported by the Teemurra Dam and several weirs, the Pioneer River system provides Mackay and surrounding areas with a reliable supply of water to support the rapidly growing regional population.

As a main thoroughfare to Eungella National Park, Pioneer Valley has numerous local attractions to encourage visitors to remain in the area. These include Finch Hatton Gorge, Mirani Museum, and the pies of Pinnacle Pub, which rank highly among things to experience in the Mackay Region.

“The public has old thoughts about farming, but times have changed.”
- Cane farmer, Mirani

Climate

The mean annual rainfall over the Pioneer catchment is between 800 mm and 1200 mm. Typically, rainfall episodes are short and intense and it is during this period that the Pioneer River is particularly prone to flooding. Flood-producing high rainfalls have are typically associated with tropical cyclones and tropical rain depressions.

Cattle Creek typically records the highest rainfall in the Pioneer catchment. Runoff is rapid, because descent from the ranges is steep, and as a result the risk of severely erosive flooding is high.

Fire risk is generally low in the Valley proper, however becomes of high risk where fuel loads occur such as production forestry areas.

“

Good management of farm land does exist, there are so many examples of it. We just need to keep going with what works.”

- Cane farmer, Marian

Key Issues

Balance of environmental, production and development values

We recognise that the Pioneer Valley has lots of different values, and we would like to have a long term vision that everyone can relate to and help realise. Development has changed our community, as many people who live here are those who commute to Mackay and do not get fully involved. We value our small local businesses, our lifestyle and our heritage. We do not want to continue to be subjected to the same development terms as the city, as our community has a unique dynamic that is lost in planning focussed on developed areas. Our vision is different to Mackay and we would like development to consider more than economic returns. We promote long term viable farming that uses natural resources appropriately. We want to seek opportunities for economic diversification, including the uptake of agricultural by-products and harnessing tourism opportunities.

The transition from traditional to contemporary farm practices is promoted

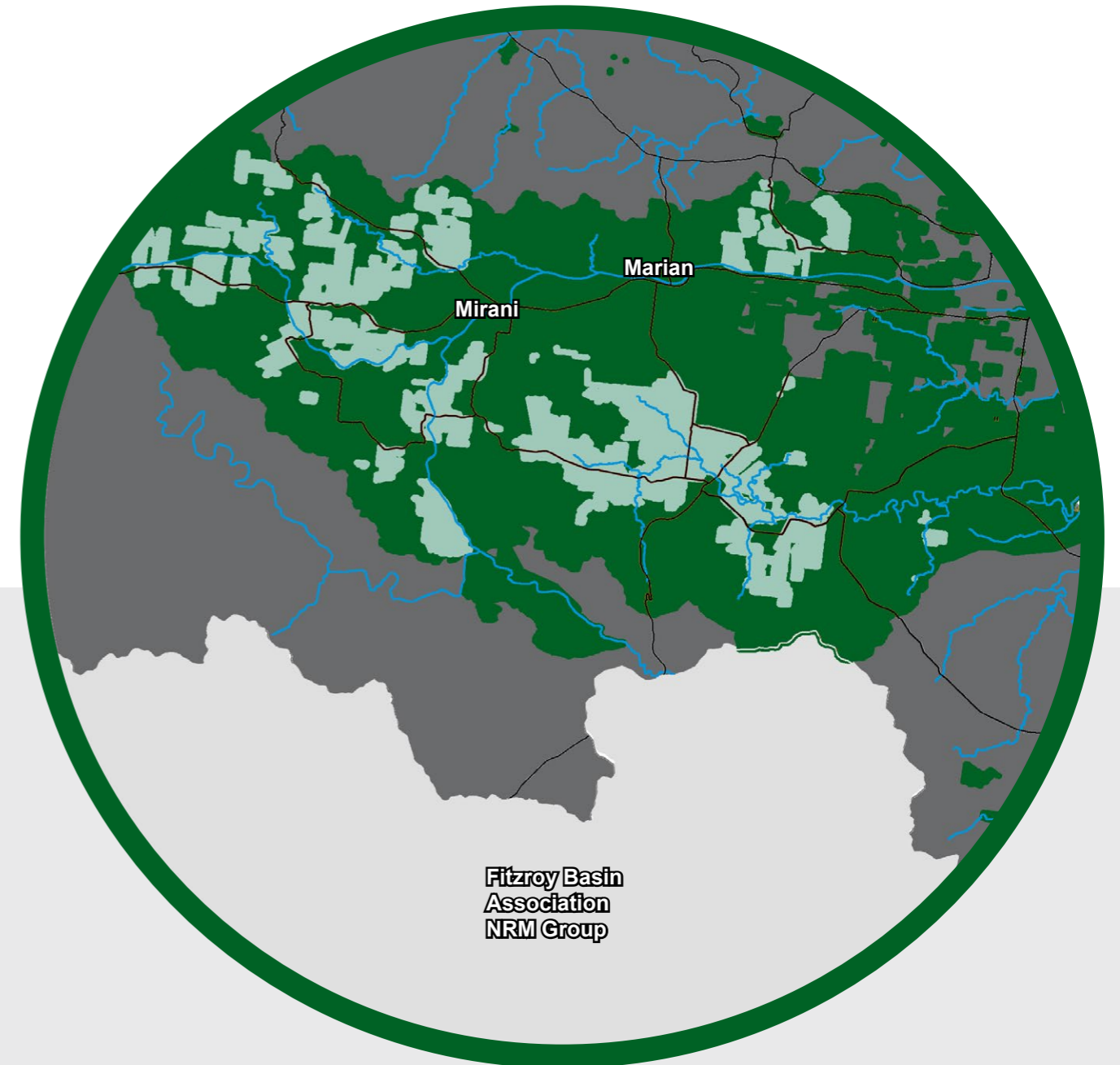
The Pioneer Valley is home to a new generation of farmers who manage the land with new technologies and consider the environment as a key part of production. We need to be more promotional of our capabilities as viable businesses. The mines contribute much more damage to the environment, but can afford promotion and environmental offsets to improve their image. Farmers need to get better at self-promotion. We can achieve this by sharing our successes when they occur and utilising existing networks to promote our practices, including the tourism industry. We need to renew the reputation of farming as an industry, lifestyle and culture so that people understand that innovative management practices have enabled farmers to reduce their impact on water quality and other environmental services. Farmers are not the best self-promoters, so external support is needed to achieve this so we can influence decision making and achieve a balance of land uses that suit the capacity of the land.

Community is capable and connected

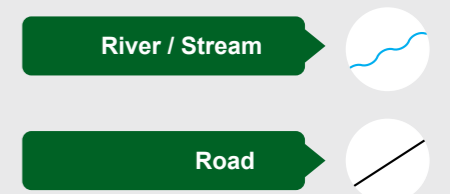
Natural resources are our livelihood and we do care about the health of the environment and the future of our landscape. There is a need to promote natural resource management and empower people to act so we can improve the health of the land that sustains us. We believe an invigorated community spirit would enhance a sense of responsibility for the land. There are few economic incentives for farmers to remain on farms and not use property for superannuation. A strong community should be resilient to short term changes to achieve long term sustainability.

Pioneer Valley

Increasing Innovation in Agricultural Practice.



Adoption of Innovative Agricultural Practice





LANDSCAPE SNAPSHOT

- Mackay city suburbs
- The Pioneer River
- 31 beaches and lesser developed continental islands
- Islands include Brampton, St Bees, Scawfell and Keswick
- One of the largest sugar producing regions in Australia

“ We look at the land like it has to produce something. We should find a way to leave only the necessary sized footprint.”
 - Resident, Walkerston

Mackay Region.

A place that supports a balance of land uses that considers the importance of natural systems.

General Description

The Mackay Region represents a transition between traditional agricultural industries still evolving and progressing from their establishment in the 19th Century, and growing industrial developments as a result of the mining boom. The region acts as a conduit between the Bowen Basin, the Coral Sea, and the international markets beyond. Mackay Region’s character is one of constant change, amid consistent custom; a place where the prosperity of the past, present and future converge.

Location

The Mackay Region landscape extends from the Mackay continental islands off the east coast and west to the Pioneer Valley. It extends north to Seaforth and south to Sarina, with Mackay City positioned as a nucleus within the landscape area.

Community

The Mackay Regional Local Government Area is one of the fastest growing in Queensland, with Mackay City population at June 2012 of 119,081 or 2.6 per cent of the State’s population. Looking to the future, strong growth is forecast, with a projected regional population heading towards 200,000 in coming decades.

The region’s growth is fuelled by strong activity in the resource sector, a resurgence in agribusiness, and growth in construction, logistics and tourism.

Mackay region has numerous population centres, including Kuttabul in the North, Mirani and Marian in the overlap with Pioneer Valley in the West, and the most populated regional town Sarina in the South numbering 5,731 in 2011. Hay Point is another notable community with a population of 1,471.

The Mackay region is famous for its history as one of Australia’s largest cane farming regions however, in recent years, the mining industry has become the mainstay of the local economy. The associated population growth and urban, regional and infrastructure development has created a diverse community, particularly in Mackay city.

The islands off the coast are much less developed than their northerly counterparts in Whitsunday, however several, such as St Bees, Keswick and Brampton have leases with the capacity to sustain permanent populations.

Yuwi-bara identify as Traditional Owners of the inland area of the Mackay Region, while Ngaro identify as Traditional Owners of the sea country and islands.

There are about 25 different nationalities represented in the region, including people from Malta, South Africa, the Netherlands and Germany. The region also boasts the largest Australian South Sea Islander population in Queensland.

Natural Environment

The region comprises 31 beaches, the Pioneer River and National Parks including Cape Hillsborough, Pioneer Peaks, Mount Ossa, Mount Martin, and Reliance Creek.

The areas scenic values are outstanding, with spectacular volcanic features rising out of the coastal plain, large areas of undeveloped bushland, panoramic views, gallery rainforests, streams, undeveloped beaches and mangroves represented. This area, particularly Cape Hillsborough National Park continues to become a popular destination for people seeking nature-based recreation experiences.

Cape Hillsborough National Park conserves a rugged section of coastline including McBride’s Point and a melaleuca wetland adjoining Ball Bay. The geology, vegetation and associated wildlife of Cape Hillsborough is unique and differs from everything else along the Mackay coast.

Mount Ossa and Mount Martin are significant as they represent the natural values of the coastal mountains as elevated, remnant vegetation lying across climatic, geological and other environmental gradients.

The semi-deciduous notophyll/mesophyll vine forest at Reliance Creek National Park is considered endangered as it is estimated that less than 10 per cent of its pre-European extent remains in a natural to semi-natural condition. This habitat is thought to have been common along lowland and riverine areas in the Mackay area, but has been extensively cleared. The rainforest contained in the park provides important seasonal feeding areas for bird life, including the migratory and other fruit-eating birds.

Yuwi-bara cultural sites are known and protected.

The Newry, Cumberland and Brampton Island groups have geological affinities with coastal hills of the Mackay coast. There is a strong environmental gradient between the Northumberland and Percy Islands which corresponds to a

latitudinal change resulting in decreased rainfall in the south, but also an east-west gradient as a result of sea exposure.

Land Use and Enterprises

The Mackay region is the largest sugar producing region in Australia and hosts much of the engineering, manufacturing and mining service industries supporting the wider Mackay, Whitsunday and Isaac economy. It is also the gateway to rich coal deposits in the Bowen and Galilee Basins.

The Mackay Region comprises an area of 7,622 km² and includes significant reaches of the highly productive Pioneer Valley cane country, supported by Racecourse Mill. The region is nicknamed the 'sugar capital of Australia' because its region produces more than a third of Australia's cane sugar.

The Mackay Region is diverse. While cane still dominates the landscape and culture with Mills at Racecourse, Mirani and Sarina, the majority of the region's industrial and manufacturing land also exists here, characterising the landscape in areas.

The Port of Hay Point, 35 km to the south of Mackay, is made up of two bulk coal terminals; Dalrymple Bay Coal Terminal and Hay Point Services Coal Terminal. In 2013/14, over 100 million tonnes of coal was exported through the two terminals making Hay Point one of the largest coal ports in the world.

Although tourism remains focussed in Whitsunday, in Mackay Region this is growing with increased domestic/interstate visitation, with corresponding increases in the population and economic growth of the region. Cape Hillsborough for example has more than 180,000 visitors a year.

Another local attraction, Kinchant Dam, located in the picturesque Pioneer Valley is just 41 kilometres west of Mackay and provides fishing and water sport activities, in addition to holding 62,800 mega litres of irrigation and drinking water for the surrounding area.

Climate

The region's average annual rainfall is 1600 mm, similar to the northern Landscapes.

Monsoonal low pressure systems and tropical cyclones occasionally effect Mackay, and cause very heavy, prolonged periods of rain, with up to 200 mm often being recorded in 24 hours during these systems, increasing the areas susceptibility to flood.

The Pioneer River has a quite well recorded flood history with documented evidence of flooding as far back as 1884. Since that time many devastating floods have occurred, with the highest occurring in February 1958 which peaked at 9.14 metres at Forgan Bridge.

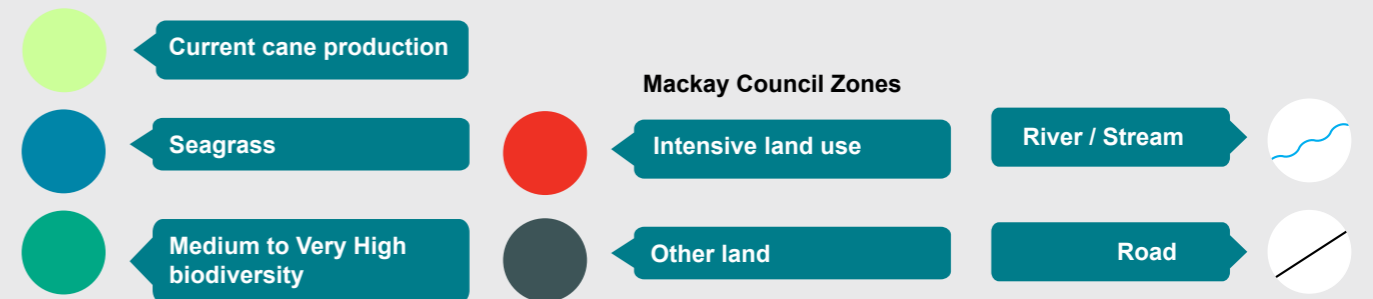
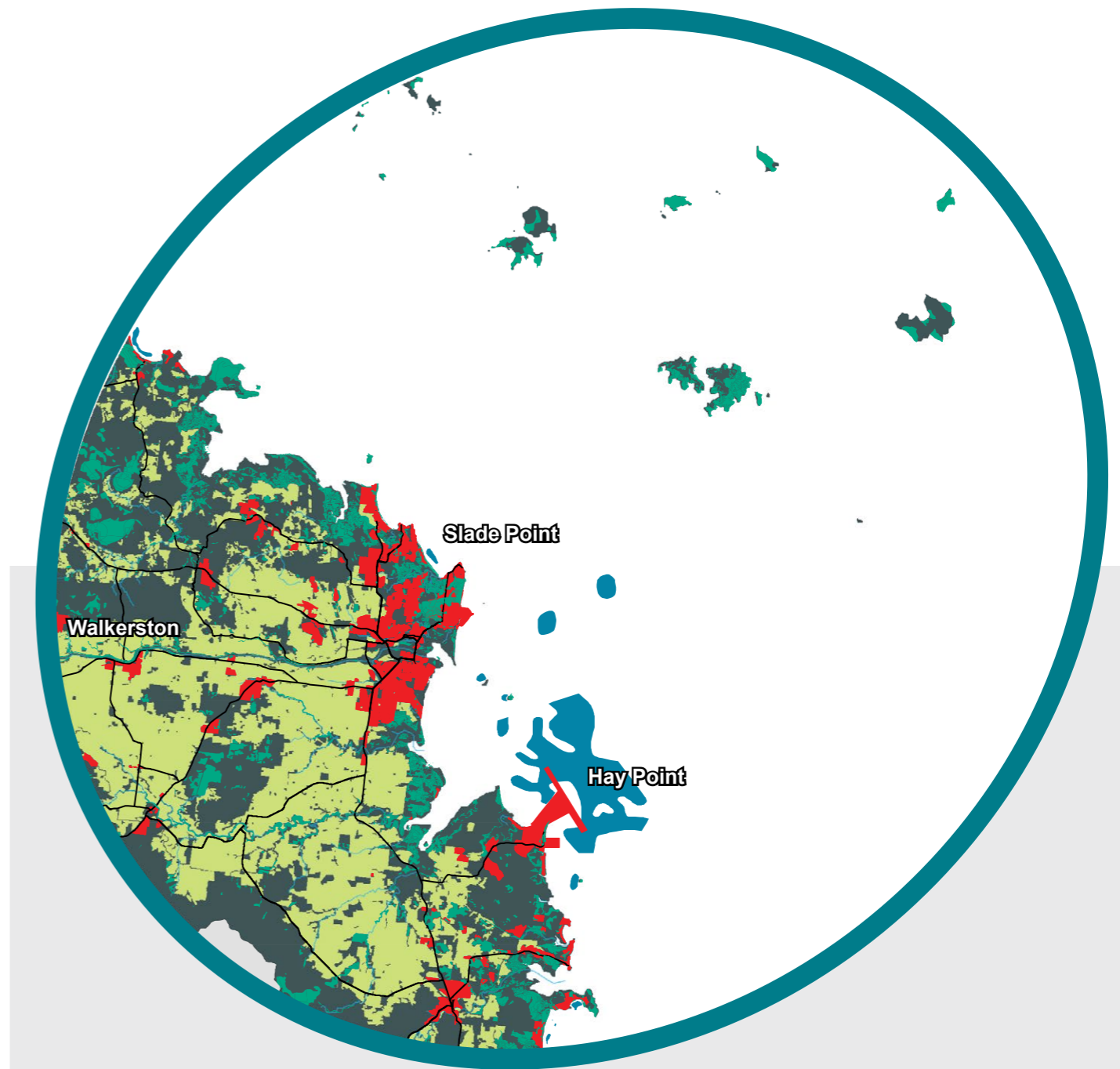
Flooding is the most prevalent issue in the region with high hazard areas existing along the entire coast. These also correspond with sea level rise high risk areas.

The Mackay Region landscape is relatively flat with few and minimal erosion risk areas identified.

Fire in the area is deemed of little risk for the most part, however in areas east and west of the Bruce Highway from The Leap northwards, a higher fire risk is present.

Mackay Region

Managing Intensive Landuse to Minimise Ecological Impact.



Key Issues

A balance of land uses that considers importance of natural systems

We would like to build on and extend the positive good practice that is emerging with regard to improved land management practices. In achieving this, we need to look beyond the paddock and look at whole systems, and understand how this all links together. We can have multiple land uses and maintain environment integrity if we work together at a bigger scale. We do not want to return the land to its condition in 1877, we just don't want to destroy what we need as a community to make a living and have a lifestyle. We want to be viable in the long-term in the face of future challenges, such as population growth and urban sprawl from Mackay. We need to be more strategic in how we manage landscapes and consider all competing land uses and values, in particular our European and Aboriginal heritage values.

Community capacity and stewardship

We would like to explore the options for looking after resources so that decisions are fair and sustainable. For example, having a percentage of land on a property left in tact for our own purposes i.e. ecosystem services, and seek reimbursement for additional areas left untouched which will contribute to the bigger system. This would create a spirit of stewardship and an awareness of and re-connection to the land. We acknowledge the importance of educating rural residential landholders about the bigger system of which they are an integral part. We will achieve improved community capacity by exploring options such as shared activities i.e. community gardens, landscape scale pest management, and promoting best management practice and natural resource management among our community networks.



LANDSCAPE SNAPSHOT

- Capital of the region, provides main urban area and service centre
- 166,811 people live in Mackay
- Export-oriented industries
- 5th most important area in Queensland for shorebirds
- Transitional zone between 1800 mm and 1200 per annum rainfall belts

Mackay City.

A place of well planned urban areas including functioning natural systems and a self sufficient population connected to their landscape

General Description

Mackay City is firmly fixed in a long-term cycle of growth and demand, with expanding employment, investment and development opportunities, a strong economy and attractive lifestyle, contributing to Mackay's position as one of Queensland's most rapidly developing and dynamic cities.

Location

Mackay City encompasses the urban area that sits within the boundary of Mackay Region landscape.

Community

With a population of 116,123 in 2013, Mackay is the only city in the region and is growing steadily by approximately 50 people per week.

Mackay City centers around a small grid system, pivoted on the main thoroughfare of Victoria Street running parallel with Pioneer River. Mackay City reaches beyond the central business district towards the popular Northern Beaches residential areas of Eimeo, Bucasia and Blacks Beach, and to the surrounding areas simply known as 'East', 'South' and 'West' Mackay. The city limits according to the Local Landscape also include Glenella, Paget and Walkerston.

Mackay is widely recognised as the gateway to the Bowen Basin coal mining reserves of Central Queensland. It is the single largest coal reserve in Australia, with 34 operational coal mines extracting more than 100 million tonnes annually. As a result, the Mackay community has a strong 'fly in fly out' and 'drive in drive out' population.

Natural Environment

Mackay urban area is contained to the north, south and west by extensive cane lands, residential areas and wetlands. Mackay beaches and foreshores provide critical buffers between sea and terrestrial environments, with the Mackay region being the 5th most important area in Queensland for shorebirds, and among the 25 most important sites for shorebirds in Australia. This coastline is of international significance for 6 species.

Numerous beaches occur in the Mackay City local landscape including Blacks Beach, Harbour Beach and Town Beach.

Land Use and Enterprises

As of the 2007-08, Mackay contributed \$15.4 billion to the Australian economy, or 7.1% of Queensland's Gross State Product. This is largely on the back of its export-oriented industries of sugar and mining.

All coal produced in the region is exported and the largest export recipients are Korea, Japan and China. Mackay is the location of choice for many mining service companies that supply and consult to the mine operators. This is due to its strategic proximity to the mines, major highways and train lines, and the Hay Point coal terminals. Most of these companies are headquartered in the suburb of Paget, to the city's south.

Mackay produces a sizeable portion of Australia's domestic supplies and exports of sugar cane. Growers are capable (in good seasons) of supplying up to 6.5 million tonnes of cane to the factories for processing. On average, Mackay Sugar produces about 850,000 tonnes of raw sugar and 180,000 tonnes of the by-product molasses annually. Mackay Harbour is also home to one of the largest bulk-sugar loading terminals in the world.

Compared to many of its neighbouring cities and regions in Queensland, Mackay's tourism industry is small and still developing. About 685,000 domestic and international visitors come to the region annually. More telling, however, is that domestic and international visitor night stays have increased to 2.7 million annually, an increase of nearly 1 million since 2000.

Like tourism, the marine industry in Mackay is small but has a lot of potential. Mackay is well situated to become a major service centre for the marine industry, being in close proximity to the Whitsundays, and located halfway between Brisbane and Cairns. Currently the Mackay Marina is the largest base in the district for the maintenance, refit and related services for all marine craft.

Climate

Mackay exists in the transitional zone between the higher 1800 mm per annum rainfall belt of the north and the lower 1200 mm rainfall belt to the south.

“I like the Mackay lifestyle, we are so close to National Parks, islands, the beach... in an hour or two you can be anywhere.”
- Resident, Mackay

The majority of Mackay urban limit exists in an area identified as a high hazard for storm tide and high risk of sea level rise, in particular north through the Bassett Basin along Slade Point Road and in the eastern part of the city centre. The central business district is classified as medium risk for storm tide and is also a sea level rise risk area.

Due to the intensive land use of the area, no wildfire risk

“
is present. The natural environment should be woven throughout the urban landscape, not so separated, no interconnected concrete jungles where you need to drive elsewhere to see nature.”
- Resident, Mackay

Key Issues

A self sufficient city with a population connected to the local landscape

We want to look beyond dated models of urban development and become a truly enterprising, innovative and sustainable city. We want to harvest a reputation as a self sufficient city by decreasing emissions, supporting innovative energy systems and improving programs that help residents understand the link between land use, ecosystems services, the impacts of climate change, and the ways they can help reduce their ecological and carbon footprints. We can achieve this via activities such as community gardens and markets to reduce the distance food has to travel before consumption, a network of bike paths to reduce car use, mechanisms such as 'adopt a beach/bush' that encourage communities to take action and ownership in their local suburbs, and seek opportunities to become involved in renewable energy schemes, such as existing solar power incentives.

Well planned urban areas with functioning natural systems

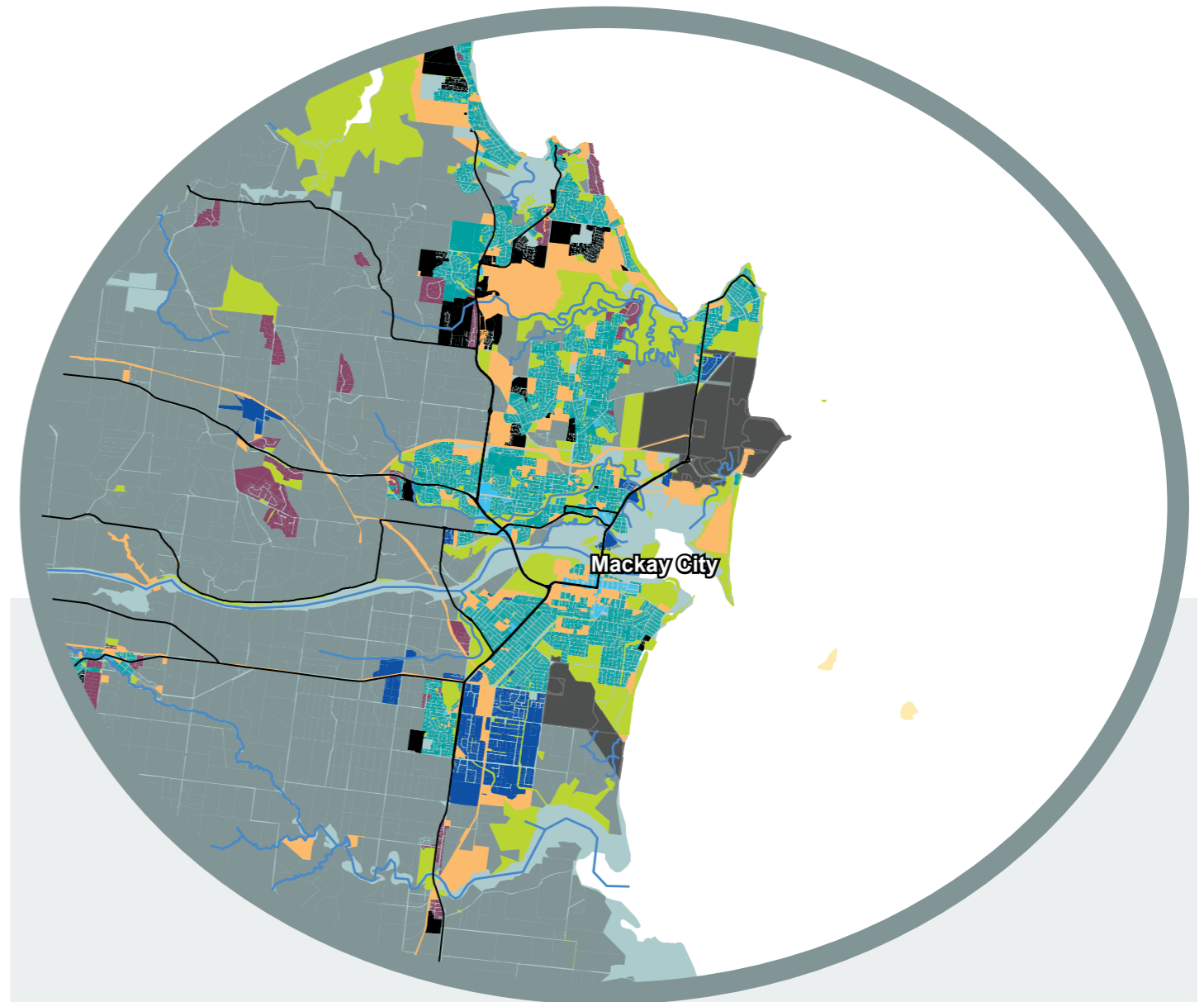
We would like to draw on existing models of urban areas that are developed with the natural environment woven throughout. Our foreshores and beaches are some of our most valued resources, and we would like to see them protected. Development is occurring on areas where we have seen flood historically, so we do not think this is appropriate, nor is development on the foreshore that restricts public access and causes erosion. We would like to be involved in planning and better understand planners decisions. We appreciate that a growing population has to live somewhere, but we think poor decisions at the planning stage are being made that will compromise the long-term vision for our city.

Equip people and landscape to be resilient to climate variability

We need to promote an understanding of weather and climate patterns to improve our capacity to adapt as a community. We will achieve this by educating community members and decision makers about the common sense adaptation options available, and the potential economic, social and environmental cost of not acting.

Mackay City

Opportunities for Urban Green Space Connectivity.



Zone as at 2009





LANDSCAPE SNAPSHOT

- Sarina, Carmila
- Cape Palmerston National Park and distinctive Mount Funnel
- Wetlands of Rocky Dam (Tedlands Wetlands)
- More extensive grazing land
- Falls in 1200 mm per annum rainfall band

Sarina & Isaac.

A place where appropriate coastal development is supported alongside a landscape of connected natural areas.

General Description

The Sarina and Isaac landscape is environmentally, climatically, and culturally distinct. Receiving less rainfall and with fewer population centers, the area is characterised by open grazing country as you move south along the Bruce Highway from the Sarina cane lands.

Location

The Sarina and Isaac landscape encompasses all of the Isaac region as it sits within the Mackay, Whitsunday and Isaac catchment boundary, with Sarina representing its northerly most point and Clairview the most southerly locality.

Community

With 398 people living in Carmila and surrounds at 2011, this local landscape has a low population and is serviced by both Mackay to the north and Moranbah to the west. There is an agricultural focus with sugar cane dominant in the north around the Sarina milling area, giving way to grazing further south.

Other localities include Koumala, Ilbilbie and Clairview.

The area exists in an overlap of approximate Traditional Owner boundaries, with Koinjmal to the south, Yuwi-bara in the north, and Wiri and Barada inland to the west.

Natural Environment

Although the majority land use is cane and grazing, land west of the highway contains extensive native vegetation. National Parks include West Hill and Northumberland Islands, and Cape Palmerston on the coast. Cape Palmerston National Park is home to the distinctive Mount Funnel which rises 344 m above the Isaac landscape.

Cape Palmerston National Park features sandy dunes, unspoilt beaches and rocky headlands, and protects a range of plant communities and threatened animals including the threatened false water-mouse and beach stone-curlew. Areas of seagrass important for marine wildlife such as turtle and dugong, exist off the coast.

Rocky Dam near Koumala is a wetland comprising 216.4 km² of fish habitat area that are protected from commercial development while allowing sustainable fishing to continue.

Land Use and Enterprises

This landscape comprises mostly grazing land, with cane around Sarina, and forestry to the south west. Localised industrial areas exist around Sarina.

Climate

Average annual rainfall is less than that of the greater region with Clairview receiving 1200 mm per annum.

The fire risk in the region is high, as a result of higher fuel loads and drier weather. This risk increases west of the Bruce Highway.

The wetlands of Rocky Dam represent a high risk storm tide area with much of the wider landscape identified as medium hazard for storm tide.

Regionally, the area is characterised by a higher risk of erosion along the west of the Bruce Highway and in the highlands that extend east toward Cape Palmerston National Park.



Our block is wonderful, so many trees and so much wildlife has returned since we bought it and started fixing it up. It's like an oasis, there are more birds than you can imagine.

- Small block holder, Carmila

Key Issues

Appropriate coastal use

As a community, we identify as being connected to the Isaac coastline and we feel it is not valued by visitors and decision makers in the same way. We would like to see development concentrated in already developed areas around Mackay. We are not just a thoroughfare of the Bruce Highway, we have an identity that we want to protect and the environment is central to this. We need to work with council to express our views, and help them understand that the people that live here should not be disadvantaged by those who come and go and do not necessarily look after their land. We can achieve this by incorporating natural resource management at an early stage in education. The current generation may not want to learn about the environment, but we can encourage the next generation to do so.

A landscape of connected natural areas

We would like the Isaac landscape to be connected so that all land parcels of all sizes contribute to natural resource management and there is no fragmentation. Landholders should uphold a high standard of management practice. We need to invest in projects that provide habitat connectivity, in particular at the marine-terrestrial coastal interface and in areas of riparian vegetation. Such connectivity should also be considered in development proposals.

Water resources

We would like secure and reliable water provision. Our area receives lower rainfall than Mackay and Whitsunday, and we rely on the environment for water resources. We support the development of a dam to achieve this, the construction of which will also bring positive leisure and tourism opportunities similar to Mackay, Eungella and Proserpine.

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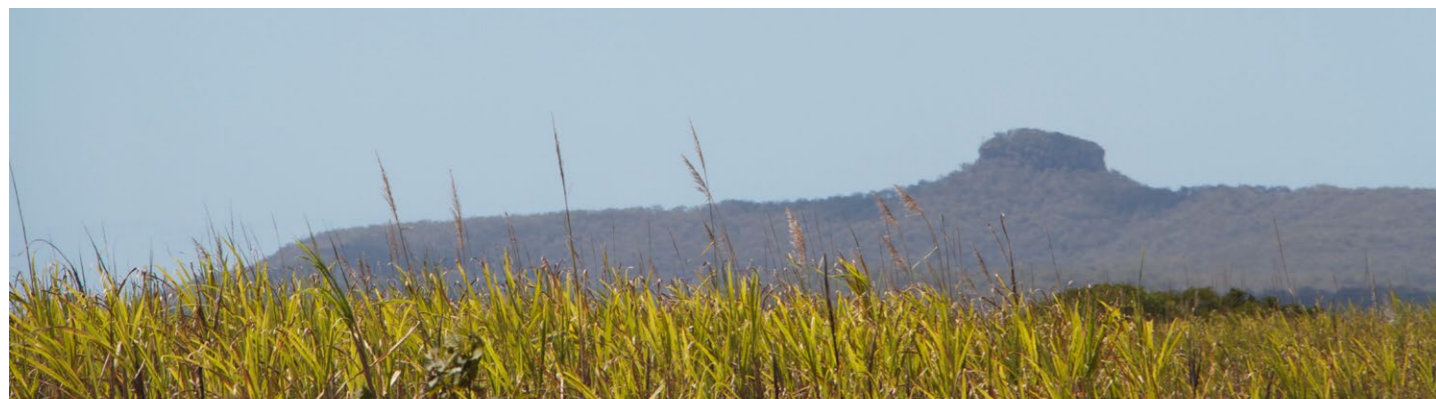
You can only educate people who want to learn. You need to incorporate natural resource management at an early age, have it in the school curriculum and get young people involved.”

- Landholder, Carmila

“

Part-time farmers on small, even sometimes quite big blocks, can be a problem. You’ve got miners and mill workers trying to be farmers.”

- Resident, Sarina



Sarina & Isaac

Connected Natural Areas

