			Progress 2017 – 2019															
			Community Groups					Federal and State Government			Local Government			Emergency Services	Agriculture	Industry		
Strategy	Action	Lead Stakeholder	Reef Catchments	Landcare	Whitsunday Local Marine Advisory Committee (WLMAC) and Mackay Whitsunday Regional Committee (MWRC)	EcoBarge	Mackay Conservation Group (Mackay Regional Recreational Fishers Association, Mackay Conservation Group, Eco Environment) which are part of the Mackay Regional Recreational Fishers Association community groups	Department of Agriculture and Fisheries, Department of Natural Resources, Mines and Energy, Department of Education, Education Qld	Great Barrier Reef Marine Park Authority	Regional Development Australia	Whitsunday Regional Council (WRC), Mackay Regional Council (MRC), Isaac Regional Council (IRC)	Fire brigades	CQUniv, Canegrowers, Mackay Sugar, Sugar industry production services, NQIS	North QLD Bulk Ports (NQBP)	Tourism Whitsunday
S1 Collaboration																		
S1 A1	• Formalise and delivery of a regular (at least annual) Whitsunday Coastal Forum to bring together to assist local government, industry and other stakeholders to implement required strategies to achieve sustainable outcomes for the coastal zone and ensure good science is delivered to support decision making (including, but not limited to, climate adaptation, cultural heritage, and recreational fishing). Consider specific initiatives (e.g. biodiversity) for collaboration and implementation. Ideas for the forum could be discussed to ensure on ground actions for adaptation are prioritised and delivered. Ensure there is a program to measure achievement of actions (need to be put into place	Reef Catchments	Reef Catchments organised the first annual Climate Forum in Airlie Beach in 2017 to bring together local and regional stakeholders to discuss climate adaptation. Reef Catchments organised the second Climate Forum in Airlie Beach in 2018 to bring together local and regional stakeholders to discuss climate adaptation. Reef Catchments organised the third annual Climate Forum in Airlie Beach in 2019 to bring together local and regional stakeholders to discuss climate adaptation. Reef Catchments organised a workshop for grantees, Queensland Climate Change Centre of Excellence, Reef Catchments and Terrain NRM to discuss lessons learnt from the Climate Forum. Reef Catchments organised a workshop for members from a wide range of Whitsunday Coastal Forum stakeholder groups to discuss lessons learnt and ideas for improvement for future forums. Reef Catchments organised a workshop for grantees, Queensland Climate Change Centre of Excellence, Reef Catchments and Terrain NRM to discuss lessons learnt from the Climate Forum.		WLMAC meets five times a year to discuss issues impacting the Whitsunday region of the Great Barrier Reef World Heritage Area across the Great Barrier Reef Marine Park Authority (GBRMPA) on those levels. WLMAC has Terms of Reference (Advisory Committee). WLMAC members include members from a wide range of Whitsunday Coastal Forum stakeholder groups. Finish monthly to discuss matters related to the Whitsunday region. GBR Climate Change Vulnerability Assessment recent bleaching events. WLMAC members use the information to be spread through the community		Mackay Conservation Group (Mackay Regional Recreational Fishers Association, Mackay Conservation Group, Eco Environment) which are part of the Mackay Regional Recreational Fishers Association community groups		GBRMPA ran a Climate Forum in conjunction with the Queensland Government in GHG Pollution Reduction Plan. Discussion with the community about Climate Change and how to minimise the effect of climate change.	Preparation of Growing Greater Whitsunday Agribusiness Strategy. Stakeholder engagement report were the three councils, RDA, Department of Agriculture and Fisheries, DSD, Department of Natural Resources, Mines and Energy, Terrain NRM, Reef Catchments, Reef Catchments and Sugar Industry Partnership for Innovation. Identified 5 key agricultural industry sectors and 18 opportunities for collaboration between industries and enablers. Climate change vulnerability were identified as two key enablers and it was seen as critical to engage key planning personnel (council and state) at early stages with key industry groups to ensure climate change impacts are considered in land use planning decisions. Recommendations of leading edge sustainable management in the region through adoption of innovative precision agriculture practices and technology. Exploration of long-term opportunities for biofuels and bioenergy production. Promotion of benefits of energy audits to raise awareness of the benefits of energy efficiency measures. Advocacy for renewable energy development in strategic areas where use of marginal agricultural land would not compete with food production and food security. Development of a portfolio of sustainable management practices in the region to support "Invest Greater Whitsunday Agribusiness" proposals to be completed in stage 3.						
S1 A2	• Develop a central database of scientific work being undertaken in the region. Ensure consistency in the information e.g. vegetation mapping	Local Government, Reef Catchments	Pioneer Catchment Landcare provides past Whitsunday Coastal Forum stakeholder website makes available regional plans and strategies. Reef Catchments hosted a current climate science. Reef Catchments Community Portal. Outdoor tab to be updated with new climate information	Many WLMAC members have been part of the Landcare program with reef data collected locally	All data obtained from EcoBarge Marine Debris Project is now web based data which is uploaded to the Australian Marine Debris Database. Ecobarge will source turtle strandings data it provided to the Australian Marine Debris database on site beep on mobile phone app of data collected.						MRC Sustainability Strategy Action Plan Target 26 states: Develop a Biodiversity & Waterways Blueprint for our region and ensure this is considered in new planning scheme development. 2D Update vegetation mapping to 1:25,000 scale for the Mackay region. 2E3 Develop a biodiversity and waterways blueprint for the Mackay Regional Council area. 1 Name vegetation extent 2 Priority regional ecosystems 3 Wetlands and waterways 4 Connection status 5 Threatened species habitat 6 Waterways and wetland network 7 Current and potential carbon offset areas			NQBP's Sustainability Review was designed as a progress report for the Sustainability Plan 2014+ and therefore stakeholders are NQBP's climate change and sustainability partners. NQBP's review provides detailed environmental monitoring data and information on NQBP's performance. Data from the Port's environmental report and up to date monitoring data is available on the NQBP website	
S1 A3	• Put in place measures to address knowledge gaps that are limiting response to climate change. Ideas could be prioritised and discussed at the forum.	Reef Catchments							GBRMPA leads Future Leaders Eco Challenge, teaching younger generations about marine issues. They also lead the GRMC Climate Change Group. Knowledge gaps related to climate change and information into the public.							Knowledge gaps in climate change mitigation and response were identified in the Sustainability Plan. Reef Catchments organised a workshop for members of the Whitsunday Coastal Forum to discuss climate change and how it impacts on the Whitsunday region. The Sustainability Review. NQBP also working on climate change mitigation measures, to information adaptation and resilience priorities.	Tourism Whitsundays works with Queensland Government, Reef Catchments, Great Barrier Reef Marine Park Authority, GBRMPA, and other members involving the natural environment, with the aim of facilitating the getting of information to tourism operators with the Whitsundays. Tourism Whitsundays also working with industry regarding the heat stress on the Great Barrier Reef and reef protection markers.
S1 A4	• Update the action plan regularly	Reef Catchments	Reef Catchments facilitation of the annual or bi-annual Climate Forum and subsequent releases of deliverables is a key action that Reef Catchments undertakes to address knowledge gaps within the region. Reef Catchments hosts events for all local agriculture industries to discuss the Climate Forum and address knowledge gaps in their management practices. Reef Catchments, through the Coasts and Communities program, hosted a workshop for Local Government representatives to communicate gaps and discuss priorities for the next round of Climate Change Adaptation Grants Program. Many of these priorities were included in the 2017-2021 Coastal Communities Grants sponsored by Reef Catchments, facilitated spread of information, especially through the Coastal Forum, Reef Catchments Facebook page and Reef Catchments Community Portal. Reef Catchments Extension information can utilised to spread project information and new science, as well as Reef Catchments' social media platforms.	Some Landcare Catchment Management Authority groups, stakeholders and landholders to discuss Climate Change issues and develop projects. Complete Landcare Quarterly newsletter with local and regional Climate Change information, and project updates.													Tourism Whitsundays works with Queensland Government, Reef Catchments, Great Barrier Reef Marine Park Authority, GBRMPA, and other members involving the natural environment, with the aim of facilitating the getting of information to tourism operators with the Whitsundays. Tourism Whitsundays also working with industry regarding the heat stress on the Great Barrier Reef and reef protection markers.
Future Actions?																		
S1 Strategic Planning																		
S1 A1								State Planning Policy (State Planning Policy) has been updated, which includes mapping of Matters of State Environmental Significance (MSES) and significantly strengthened the State Planning Policy. State Planning Policy now acknowledges sea level rise and storm tide inundation risk planning.			The MRC and WRC Planning Schemes have been strengthened in accordance with State Planning Policy. Mackay Regional Council has been part of the Queensland Government leading practice coastal adaptations, flood and storm tide inundation planning, Queensland Coastal and Inland Flood Hazard Adaptation Strategy. SLT Mackay Council's Flood and Stormwater Management Strategy. IPC starting to develop coastal plans (eg. Carmila) and their Planning Scheme is in review currently						
S1 A2	• Consider protect and extend options for coastal ecosystems and their associated communities in participatory community consultation process. Consider the ecological, social, cultural and economic uses of the coastal areas in the region. Consider the impacts of climate change and increased coastal development on coastal ecosystems resulted in marine environmental services (e.g. fish stocks, carbon storage (high in mangroves), coastal protection, water quality, and the amenity of turtle nesting beaches etc). Determine a way to protect and enhance the ecological health of ecosystems such as mangroves. Review compensation measures and ensure there is no net habitat development in high-tidal greenfield areas.	Reef Catchments, Local and State Government	Reef Catchments writes Local Coastal Plans for the Mackay Regional Council area. Reef Catchments provides support to maintain environmental services provided by coastal ecosystems. Reef Catchments provides support to ensure future sea level rise under different climate scenarios. This information is used by Reef Catchments to consider protect and extend options for local communities.			New legislation under Planning Act 2016 and Sustainable Planning Act 2009 (Queensland Government) which authorises State Government to declare a particular class of coastal area and provide a framework to recover from disturbances.	Published "Reef Blueprint – Reef Catchments Strategy" which outlines State Government's vision for the future capacity of corals and coral reefs to adapt and recover from disturbances.						Port Mission Planning undertaken on 30 year time horizon.	
S1 A3	• Incorporate future predicted extreme events into local planning schemes (current and future), including the sea level rise and storm tide. Determine planning – Coastal Plans. S-DSS and model to use in region (e.g. SCHALE)	Local and State Government			TM WLMAC works with Whitsunday Council and the Whitsunday Port of Management (WPOM). The Port of Mackay is a member of the Whitsunday region.	Incorporation of predictions of sea level rise and storm surge events into State Planning Policy (State Planning Policy Schemes (MRC and WRC) are in review).	Department of Agriculture and Fisheries, Department of Natural Resources, Mines and Energy, Department of Agriculture and Fisheries, Department of Agriculture and Fisheries, Department of Education, Education Qld						MRC New Planning Scheme and Coastal and Inland Flood Hazard Adaptation Study.				
S1 A4	• Develop land use plans (ecosystem services mapping) to identify areas of high ecological value and areas of future climate projections. Work with landholders and industry to develop land use plans that will reduce land based run off including where necessary retirement of land which is frequently inundated	Reef Catchments, Industry	Pioneer Catchment Landcare developed GECO framework in 2016 for Whitsunday Coastal Forum area, allowing quantitative assessment of land management to forecast impacts of land management, can be done for grazing, sugarcane and horticulture).								MRC are currently funding two local care farmers to improve land management.					
S1 A5	• Provide adaptation information for existing buildings to enable options to be considered	Local and State Government																
S1 A6	• Avoid, mitigate or offset impacts on ecosystems (including wetlands, SEQ, Ramsar, Great Barrier Reef) to restore resilience and ecosystem health. Ensure that the impacts of climate change and increased regional wide adaptation is well planned to protect or enhance ecosystem health and resilience. Ensure that through beaches are protected and allowed to retreat (without rock walls etc.) to ensure turtle nesting is not significantly impacted	Local and State Government, Reef Catchments	Many of Reef Catchments' on-ground works are for environmental protection (eg. revegetation, improving land condition, improving water quality, protecting wetlands). While not directly offsetting any specific impact, it is contributing to ecosystem health. Reef Catchments have pledged to offset their use of paper by planting the equivalent number of trees each year.	Landcare groups work with landholders and local council to build resilience in the landscape (e.g. Bushcare rehabilitation, vegetation corridors														
S1 A7	• Consider implications of seawater intrusion on infrastructure (overseas rates are assessed and also required works. Assess how long water treatment plants will be viable (Mackay Regional Council has conducted such work but never started publicly as they felt it was too controversial). Consider Climate Change Communicate new methods (Dominique Reduction Scheme, Carbon Dividends and Farming opportunities	Local Government					Department of Science, Information Technology and Innovation, Department of Cleaner Horizon in the Pioneer Valley, Department of Natural Resources, Mines and Energy, Department of seawater intrusion through the Pioneer Valley Water Board				MRC have new asset working group and strategic risk register. Consider saltwater intrusion and other natural hazards.					
S1 A8	• Investigate feasible/sustainable options for water storage and supply. Ensure that the current and existing dams to ensure they are capable of withstanding increased intensity of rainfall events and storm tides. Ensure that the dams are able to reduce downstream flooding risk. Increase capacity of dams to ensure water supply for the region and secure water affecting the Reef. Ensure ecologically sustainable water supply for the region	Local and State Government									MRC have developed my VOS website to make water saving information more accessible to community. WRC have also developed a water conservation strategy and water restrictions. Future water requirements. The regional water security strategy follows this.					
S1 A9	• Improve efficiencies in status requirements freshwater (e.g. Change of crop types, Industrial Hemp, Aquaculture, Sustainable Agriculture and storage facilities (Undeployment and use of irrigation), urban water saving programs)	Industry associations, Local Government and State Government									MRC have developed my VOS website to make water saving information more accessible to community. WRC have also developed a water conservation strategy and water restrictions. Future water requirements. The regional water security strategy follows this.					
Future actions?																		
S1 Economic Stability																		
S1 A1	• Plan regional diversification of industries and secure future local food production	Industry associations	Reef Catchments is involved in increasing the productivity of agricultural land in our region. Reef Catchments Sustainable Sugar Industry Partnership for Innovation. Increase diversity and value add to growers. Reef Catchments Sustainable Sugar Industry Partnership for Innovation. Increase associated events, including meeting attendance and hosting. Reef Catchments Wide Tiles to support local food production initiatives.								MRC has an Economic Development Strategy 2016-2020 which has an active focus on industry diversification and value adding to local agricultural and other industries which will support the diversification of our industry base.		CQUNIV supports regional diversification by providing research and development for local production.				
S1 A2	• Investigate Government support for transition to sustainable industries. Investigate funding/ incentives start-up capital for alternative industries	State and Local Governments, Regional Economic Development, Industry Associations									Many actions within the MRC Sustainability Strategy are related to increasing the efficiency/sustainability of Council operations. Council will become an industry leader		CQUNIV investigate opportunities to enable transition to transition/ maintain sustainable farming practices.				
S1 A3	• Facilitate local markets for local products	Industry associations	Reef Catchments is involved in promoting local produce and promoting local markets through the facilitation of the Whitsunday Coastal Forum Network Sub-Area and Farm to Plate Sub-area.	Some Landcare Catchment Management Authority is planning a bus tour in 2018 to promote Landcare and reef local food markets & products.							MRC provides financial support to the Greater Whitsunday Food Bowl Group and hosted weekly Farmers Markets in the Mackay City Centre.						
S1 A4																		
S1 A5	• Consider new green industries including native timber tree production, renewable energy production (bio-energy, solar, wind, tidal), carbon offset and farming programs. Monitor air pollution to identify local opportunities for carbon offsets and carbon farming	Regional Economic Development Corporations, Local Government and Industry																
S1 A6	• Research and development (e.g. new crops, stock breeds and communities) to identify new industry opportunities, additional products (e.g. from sugar industry) and ways to add value to existing products and utilise less fresh water (Develop demonstration sites and trials for (new) best practices	Reef Catchments, Industry	Reef Catchments has seen new funding for 2018-19 from the National Landcare Program 2, to upskill farmers to adapt to climate change and improve water quality. Reef Catchments is a member of the Sugar Industry Partnership for Innovation. Reef Catchments, as part of the Healthy Rivers to Reef Partnership, facilitated a workshop for Reef Partnership. Reef Catchments, as part of the Healthy Rivers to Reef Partnership, facilitated a workshop for Reef Partnership. Reef Catchments and Sugar Industry Partnership for Innovation. Reef Catchments is involved in increasing the productivity of agricultural land in our region. Reef Catchments Sustainable Sugar Industry Partnership for Innovation. Increase diversity and value add to growers. Reef Catchments Sustainable Sugar Industry Partnership for Innovation. Increase associated events, including meeting attendance and hosting. Reef Catchments Wide Tiles to support local food production initiatives.								MRC's Facilitating Development in the Mackay Region policy provides incentives to attract new development to the Mackay Region. Economic Development acts as the "one stop shop" for business and industry development enquiries such as those listed for green industries. Council's Economic Development Strategy 2016-2020. MRC is undertaking an internal and external Waste Strategy		CQUNIV develop demonstrations for new best practice, including farmers, and encourage adoption				
S1 A7	• Develop clear understanding of changes in water quality, quantity, storage and have implications for industry	Reef Catchments, Industry	Reef Catchments monitors water quality as part of State-wide projects, as well as local water treatment project. Reef Catchments is involved in increasing the productivity of agricultural land in our region. Reef Catchments Sustainable Sugar Industry Partnership for Innovation. Reef Catchments is a member of the Sugar Industry Partnership for Innovation. Reef Catchments is involved in monitoring projects. The report and develops industry plan for Whitsunday Coastal Forum Network Sub-Area and regions, developing understanding in precision agriculture practices, the efficiency of the application of water and fertilisers, etc.	Some Landcare Catchment Management Authority groups are involved in the ambient water quality monitoring program, undertaking water quality testing to build an evolving database.	The WLMAC works with tourism to develop and or promote environmental tourism that will be sustainable into the future.	EcoBarge works with local tourism operators to ensure that they are using best practice and conduct clean ups if need be. EcoBarge provides opportunity to connect tourists with local people and how to identify a sick reef and what protocolsare to follow.	Mackay Reconstructed Farmers Alliance (MRFA) Voluntary Group of farmers who meet every quarter (future action: Reef Catchments to provide facilitation and environment facilitation).									
S1 A8	• Avoid tourism, killing and other industries to prepare for the changes to their industry and become more innovative (i.e. improve sugar mill boiler efficiency; Improve water quality to ensure that the reef is considered and sustrf more marketable products; Ag Tourism; Tourism Industry; Tourism Industry; Communicate new methods (Dominique Reduction Scheme, Carbon Dividends) and farming opportunities	Reef Catchments, Industry		WLMAC advise GBRMPA on managing fishing, especially recreational fishing.														
S1 A9	• Tourism sites on the coasts and reef will need to prepare for likely bleaching and shifting of species. Consider impacts on tourism industry and develop sites with innovative measures to be investigated	Tourism groups and Regional Development Boards							WATER VICOF to assist with fishing tourism. This will have implications for fish stocks and environment healthy.									
S1 A10	• Collect baseline fish stock data. Investigate potential changes in breeding cycles of fish and other commercially fished marine life to ensure conservation measures are in place to protect breeding stocks of species. Consider species that may move into the area and suitable legislation to provide early licenses or stock levies to those species	GBRMPA	Reef Catchments has supported the Mackay Recreational Fishers Alliance (MRFA) to undertake surveys of the recreational fishers to determine fish flow. Core to monitor populations of key fish species.						MRFA undertake annual data study on NFD to determine the effectiveness of removal of commercial fishers. MRFA with other partners have been involved in the Cape Hinchinbrook Fish Trial. Reef Catchments and the MRFA are working with the Mackay Regional Council to publish the document.	In accordance with findings from the Green Paper on Fisheries Management, Department of Agriculture and Fisheries (Queensland) is preparing a Fisheries Strategy.	Mackay LNGC provided funding to expand the Mackay Fishing Strategy. LNGC project funds	MRC recently adopted the Mackay Region Recreational Fishing Strategy. Action Area 1 relates to Ecology and Environmental Management. Council will continue to work with stakeholders to deliver actions where possible.				Under the Sustainability Plan 2014+ action to support ecosystem services and research. NQBP is investigating the feasibility of carbon farming. While the offsetting mechanism is not currently a viable option it is appropriate for NQBP's needs. NQBP are monitoring the space closely for any developments that make all seriously more feasible for NQBP.	
S1 A11	• Review of nutrient management guidelines and legislation with respect to nitrogen-based fertilisers and other chemicals to ensure best practice (such as one) in areas where overtrigged soils (Consider impacts of fertilisers on product the greenhouse gas minus costs)	Industry and State Government	Reef Catchments, through Reef Trust IV funding, conducts extensive monitoring to ensure best practice in Reef Management practice guidelines, as well as providing training for extension officers.	Landcare groups provide a communication link to landholders and promote Landcare programs and activities to landholders and the community	WLMAC work with Council to improve stormwater management and monitoring. Council has applied for funding and implement projects that will improve riparian areas.										CQUNIV seeks and tests nutrient management practices, including nitrogen and other synthetic fertilisers, to reduce nutrient losses			
S1 A12	• Improved participation in carbon markets. Consider carbon farming, carbon credits, carbon offsets, carbon sequestration and potentially equine economic opportunities. Work with established groups (e.g. Carbon Farmers of Australia) and provide support with related international voluntary carbon markets	State Government and Reef Catchments	Terry Mcsweer funded by Reef Catchments to attend Sul Dyrjaanum and discuss how to participate in carbon markets specifically for grazing properties.												CQUNIV holds focus on herbicides and pesticides to mitigating emissions in the region			
S1 A13	• Prepare for changed and potentially increased impacts of pests and weeds (including Cane Toad) and diseases in the region. Provide ongoing support to the Mackay Regional Pest Management Group to monitor and keep abreast of new pests and diseases. Ensure that Council's pest management plan is up to date and current (which is currently being reviewed). Consider pest surveillance and biosecurity high value for Mackay of National Environmental Significance	Local Government, GPWS, Mackay Regional Pest Management Group and Local Landcare	Reef Catchments prioritise weed management through prioritising weed treatment works based on the most hugely transformative weed species. Reef Catchments provides support to ensure community education being current related to Tilapia, to increase awareness about exotic aquatic species.	Landcare groups are a communication link to landholders and promote Landcare programs and activities to landholders and the community	Mackay Regional Pest Management Group meets every quarter (future action: Reef Catchments to provide facilitation and environment facilitation). Reef Catchments is involved with Tilapia and Rapidly Base pioneer to look at control/eradication methods.						MRC has developed a Biosecurity Plan. MRC is a member of the Mackay Regional Pest Management Group		CQUNIV seeks members to participate in pest and weed control practices				
S1 A14	N/A																	
S1 A15	• Monitor groundwater. Plan and manage extraction from groundwater. Limit extraction as required as groundwater is a finite resource. Ensure that extraction licences are required to prevent use of groundwater. Ensure that there is a process in place to assess enough freshwater for the region (desalination etc)	State Government			WLMAC encourages local some governments to harvest use of fresh water.		Department of Natural Resources, Mines and Energy, Department of Agriculture and Fisheries,