



# MRWWMG Operational Plan

1 March 2013 –  
30 June 2014

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## Table of Contents:

<i>Operational Plan Executive Summary:</i>	<u>3</u>
<i>Development of Operational Plan:</i>	<u>3</u>
<i>Business Plan Components</i>	<u>3</u>
<b>Key Activities and Projects</b>	<u>4</u>
<b>funding sources</b>	<u>10</u>
<b>Partnerships</b>	<u>11</u>
<i>Review Process</i>	<u>11</u>
<i>Appendices</i>	<u>12</u>
<b>Appendix 1 Summary of workshop outputs</b>	<u>12</u>
<b>Appendix 2 Outputs against Goals and Targets</b>	<u>18</u>

## Mitchell River Watershed Operational Plan 2013-2014

This operational plan was derived from the Strategic and Business Plans developed by Linda Soteriou on behalf of the Mitchell River Watershed Management Group (MRWMG) with funding through a Community Action Grant from the Australian Government's Caring for our Country initiative.



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## OPERATIONAL PLAN - EXECUTIVE SUMMARY:

The Mitchell River Watershed Management Group Inc (MRWMG) has been delivering projects in the Mitchell Watershed for over 22 years since 1990. They have achieved a range of very substantial outcomes, and further details of these can be found on the Mitchell River website [www.mitchell-river.com.au](http://www.mitchell-river.com.au). A catchment management plan for the watershed was developed in 2000 to provide direction to their efforts. The review of the original plan has recently been completed after further rounds of consultation carried out with a range of stakeholders, resulting in the Mitchell River Watershed Strategic Plan 2013-2016. Additional detailed consultation more clearly defined stakeholder expectations, and allowed the creation of a Business Plan documenting the priorities for investment and advocacy in the watershed as put forward by the stakeholders in the catchment. This Operational Plan takes the tasks identified in the Business Plan and stakeholder workshops, prioritises them, identifies project partners and sets measurable outcomes and a schedule for their completion. However, the available funding and the priorities of the funding agencies will determine which tasks can actually be delivered. The Operational Plan will be reviewed regularly, and be supported by a Financial Plan that will identify the funding requirements to deliver the tasks in the business plan and possible sources.

## DEVELOPMENT OF OPERATIONAL PLAN

MRWMG has recently updated the goals, tasks and actions identified in the original Mitchell River Watershed Plan created in 2000. The first part of this process was a 2 day workshop held in Mareeba in March 2012 to review the Vision Statement and Goals of the plan, and to develop some major tasks to achieve the revised goals. This process was used to develop the Mitchell River Watershed Strategic Plan 2013-2016

The second component of the review process involved 11 workshops on the following themes:

- Biodiversity
- Weeds and Feral Animals
- Fire Management
- Agriculture
- Aboriginal Cultural Heritage
- Water Quality
- Mining
- Grazing and Land Degradation – 3 workshops on Wetherby, Bellevue and Kimba Stations
- Another Grazing and Land Degradation workshop at Highbury has been postponed to 2013, however a phone survey was carried out with station owners to determine their priorities

These workshops further developed the major identified tasks from the Strategic Plan into a set of actions and projects, and a summary of the workshop outputs can be found in Appendix 1. The Business Plan outlines the recommended actions and projects for the next three years, documents potential sources of funding and identifies key partnerships that need to be developed and maintained.

There were some requests that were not easy to translate into actions and projects. These include the overarching need to involve Traditional Owners in all aspects of managing the watershed, and to translate that where possible into employment on country. There was also a need to ensure the continued involvement of all types of stakeholders in the catchment and to ensure that the MRWMG executive committee structure is representative.

The actions and projects documented below have been mapped back against the goals and tasks in the Mitchell River Watershed Strategic Plan in Appendix 2. There are several key tasks in the Strategic Plan which have no recommended actions and projects. Although they are all important, priority has been given to the recommendations from stakeholders through the workshops. However, MRWMG should review the Business Plan at each meeting, and may choose to add additional activities to the Business Plan.

## BUSINESS PLAN COMPONENTS

The first part of the Business Plan lists the recommended actions and projects from the workshops listed under the following headings:

- Awareness and communication
- Research
- Implementation
- Collaboration
- Monitoring and Evaluation

Expected outputs are listed for each project, as well as potential sources of funding. The second component of the Business Plan talks in more detail about potential sources of funding, and provides the basis for the Financial Plan. The last component discusses essential partnerships which must be strengthened and maintained by the MRWMG to enable ongoing funding and in-kind support.

## KEY ACTIVITIES AND PROJECTS

<b>Awareness and Communication</b>	
<p><b>1. Communication Plan</b></p> <p><u>Outputs:</u></p> <ul style="list-style-type: none"> <li>• A comprehensive, updated Website with links to other sites eg NGRMG, CYNRM, and allows stakeholders to report information</li> <li>• A quarterly newsletter posted/emailed (personal choice)</li> <li>• 4 media releases</li> <li>• Green nomad program developed and implemented</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
<ul style="list-style-type: none"> <li>• Send out quarterly newsletter, and expand database to have as many catchment stakeholders as possible, with tags to indicate their particular area of interest for personalised mailouts, and update regularly. Add surveys on issues to assist with prioritisation and provide additional information.</li> <li>▪ Expand and update the website and facilitate two-way communication, with reporting of issues and information and mechanisms to request information.</li> <li>• Raise awareness of these priority issues:               <ul style="list-style-type: none"> <li>○ Hymenachne, Kusters Curse, Bellyache Bush and Tilapia</li> <li>○ Identification and reporting of weeds</li> <li>○ Collaboration in feral animal control</li> <li>○ Reinforce the 3 key messages for fire management: In control, insurance policy against wildfire damage and better productivity</li> <li>○ Importance of functional landscapes and biodiversity</li> <li>○ Promote good case studies in all areas</li> <li>○ Importance of subregional fire planning and NAFI site funding</li> <li>○ Riparian fencing, using Bellevue/Nychum as an example</li> <li>○ NGRMG land mapping programs for agriculture</li> <li>○ Mining- abandoned mine mapping, graziers rights</li> <li>○ Role of Traditional Owners in Caring for Country</li> <li>○ WQ monitoring program and results</li> </ul> </li> </ul>	CYNRM and NGRMG baseline funding
<p><b>2. Advocacy</b> (in partnership with Terrain NRM, NGRMG and CYNRM)</p> <p><u>Outputs:</u></p> <ul style="list-style-type: none"> <li>• Agreement to continue NAFI through Government funding</li> <li>• 2 good news stories about rural work in state wide media per year</li> <li>• NQ included in Bushfire CRC training</li> <li>• Privacy provision for biodiversity surveys agreed to by Govt</li> <li>• Govt aware of communication issues for people living in the Mitchell Watershed</li> <li>• Agreement on and installation of agreed additional radio transmitters</li> <li>• Agreement on and purchase of additional fire fighting equipment</li> </ul>	

<ul style="list-style-type: none"> <li>• Govt aware of and committed to appropriate change to clearing legislation</li> <li>• Waiting times for small miners to gain approval for rehabilitation significantly reduced</li> <li>• Cook, Tablelands and Carpentaria Shires agree to coordinate baiting programs</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
<ul style="list-style-type: none"> <li>• Advocate for NAFI site funding to continue. Send an initial letter to Minister from supportive stakeholders, gain support from landowners and managers, and liaise with policy adviser.</li> <li>• Advocate for NQ to be part of Bushfire CRC training</li> <li>• Advocate for a privacy provision for biodiversity surveys to encourage landholders to participate</li> <li>• Advocate for better infrastructure for communication (eg internet)</li> <li>• Advocate for more radio transmitters where required for communication during fires</li> <li>• Advocate for additional fire fighting equipment where needed</li> <li>• Advocate for changes to the ban on tree clearing where appropriate to assist agricultural growers increase productivity</li> <li>• Advocate for DEHP to licence additional people to assist with appraisal of mining rehabilitation to reduce waiting times for approval</li> <li>• Advocate for alignment of effort in dog baiting across Local Govt boundaries</li> </ul>	CYNRM and NGRMG baseline funding
<h3>3. Information Development</h3> <p><u>Outputs</u></p> <ul style="list-style-type: none"> <li>• Fire Kit developed and available on request</li> <li>• Weed booklet developed and available on request</li> <li>• Savannah Burning updated and available on request</li> <li>• Fuel Fire Hazard developed for Qld</li> <li>• Updated weed booklet produced for Mitchell River Watershed</li> <li>• Database for regional weeds and pests in place, issues mapped</li> <li>• Consistent WQ methodology in place across monitoring programs</li> <li>• WQ data for TRC accessed and shared, issues documented and acted on</li> <li>• Information pack on grazing rights in relation to mining distributed</li> <li>• Sharemap piloted and suitable mapping program in place across eight stations</li> <li>• Grazing EMS manual developed and distributed</li> <li>• Suitable status for Devils Claw, Coffee Senna and Asbestos Grass established</li> <li>• Information on best methods to deal with trespass on grazing properties developed and distributed</li> <li>• Website further developed if need by growers established</li> <li>• Database for abandoned mines in Mitchell Watershed updated for 6 properties</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop fire kit to give out to land managers using existing information from CYSF and Fire Science	NGRMG and CYNRM baseline funding
Update and reprint Savannah Burning (work with CYSF, FireScience)	?
Develop Fuel Fire Hazard for Qld (as per Victorian model. Work with Regional Groups and Govt)	NGRMG and CYNRM baseline funding
Develop an agreed updated set of Tilapia identification information, which is user friendly, an iPhone app for pest fish identification and a Flash Drive/CD/DVD of information	?
Develop Justin Perry work on fire climate model, to be updated daily for property scale	?
Update weed booklet for Mitchell River	Grant submitted Gambling Fund
Facilitate (with Regional Groups and LG) establishment of database for weeds and ferals similar to RAD database	?

Facilitate consistent WQ methodology across all stakeholders involved in monitoring, State, LG, research institutions, miners	NGRMG and CYNRM baseline funding
Document with TRC what WQ monitoring is done, how often, any issues and access to data	NGRMG and CYNRM baseline funding
Develop information pack for landholders on their rights regarding new and existing mining leases, compensation rights, rights to negotiate, bore holes, new core sampling regulations, backfilling of costeans	NGRMG and CYNRM baseline funding
Pilot the use of Sharemap with the five stations from the Bellevue workshop, and investigate suitable mapping program for Kimba properties	?
Develop an EMS manual for graziers using the one developed by Wrotham Park as a model	NGRMG and CYNRM baseline funding
Investigate the seriousness of the issues with Coffee Senna (Kimba), Devils Claw (Bellevue) and Asbestos Grass (Wrotham Park) and assess with Biosecurity Qld whether the status should be elevated	NGRMG and CYNRM baseline funding
Develop and disseminate information to graziers on best way to manage trespass from fossickers, pig hunters	NGRMG and CYNRM baseline funding
Survey growers to see whether they would use an information website like the one developed by Rob Watkins (Mt Uncle), and if so whether training should be provided	NGRMG and CYNRM baseline funding
Use PDA and software from Abandoned Mines Unit to survey (use Aboriginal contractors or land managers) and provide information to the database on location, condition and associated issues on abandoned mines in the Mitchell	?
<p><b>4. Workshops/events/training</b></p> <p><u>Outputs</u></p> <ul style="list-style-type: none"> <li>• 4 workshops held on grazing properties annually ,with 1 educational biodiversity survey</li> <li>• 1 webinar workshop held per year</li> <li>• 2 workshops for Tilapia ID held</li> <li>• Tilapia Busters entered in Wheelbarrow race</li> <li>• 2 training opportunities per year for Aboriginal people provided</li> <li>• Workshop on regional fire plan held for Bellevue graziers</li> <li>• Workshop on regional carbon project held for Bellevue graziers</li> <li>• 2 annual workshops held with CYNRM, NGRMG to align effort</li> <li>• 2 annual meetings on water quality and fire management</li> <li>• 2 meetings held with Mareeba growers to discuss issues</li> <li>• 2 agricultural field days held, topics decided by Mareeba growers</li> <li>• Workshop held with MRTCAG members to develop projects</li> <li>• 2 training opportunities for Aboriginal people organised</li> <li>• Representation on NAMAC and PAF meetings</li> <li>• Agricultural forum to allow landowners to provide input into Govt policy to increase agricultural productivity</li> <li>• Grazing land management plans completed and updated</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
<ul style="list-style-type: none"> <li>• Hold annual workshops on four stations, inviting neighbours Nov-May. Change station each year within same area and ask for priorities from landowners. Use for collective action, and surveys with landholders on biodiversity and weeds to show functional landscape. <ul style="list-style-type: none"> <li>➤ Topics for 4 rivers area: dung beetles, changes to land lease and tenure, local gully erosion, diversification of farm income</li> <li>➤ Topics for Bellevue area: coordinated fire and wild dog management, regional carbon farming project</li> <li>➤ Topics for Kimba area: coordinated weed and fire control, riparian fencing and erosion, diversification of farm income through commercial sub-leases, new and old mining leases-graziers rights, carbon farming</li> </ul> </li> </ul>	NGRMG and CYNRM baseline funding

<ul style="list-style-type: none"> <li>➤ Topics for Highbury area; gully erosion, fire management, coordination dog-baiting, weed identification and control</li> <li>• Trial additional webinar workshops on specific topics</li> <li>• Hold 2 workshops around catchment for community on tilapia ID, entry in Wheelbarrow Race to raise interest</li> <li>• Attend annual workshop with NGRMG and CYNRM to align effort</li> <li>• Hold annual fire, water quality workshop to review actions</li> <li>• Attend Mareeba District Fruit and Vegetables Association meeting twice annually to discuss issues</li> <li>• Facilitate 2 field days on topics decided by Mareeba Growers</li> <li>• Hold workshop to obtain feedback from MRTCAG members for input to the Business Plan</li> <li>• Investigate options to assist Aboriginal people to be trained and employed to work on country to assist with biodiversity surveys, fire management, weeds and ferals</li> <li>• Ensure representation on NAMAC and PAF meetings</li> <li>• Hold forum to allow grazier input to Govt on policies to increase agricultural production</li> <li>• Provide assistance to finalise grazing land management plans where required</li> </ul>	
<b>Research</b>	
<b>5. Research Linkages</b>	
<u>Outputs</u> <ul style="list-style-type: none"> <li>▪ Strong linkages established for biodiversity and weed and feral animal research</li> <li>▪ Strong linkages established for agricultural productivity research</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop mechanisms to link research through Universities, Govt and the Northern Australia Research hub with on-ground stakeholders to ensure it is used and that research for biodiversity protection and weed and feral animal control is useful and used in implementation	NGRMG and CYNRM baseline funding
Set up formal process with growers and researchers in Govt and universities to guide agricultural research to ensure the direction is guided by growers and that research results are practical and transferred to on-ground users	NGRMG and CYNRM baseline funding
<b>6. Research projects</b>	
<u>Outputs</u> <ul style="list-style-type: none"> <li>▪ Effectiveness of alternative to 1080 baiting assessed</li> <li>▪ Effectiveness of new chemical for Navua Sedge assessed</li> <li>▪ 3 trials on gully erosion implemented and assessed</li> <li>▪ Top 5 species for protection in Mitchell Watershed selected</li> <li>▪ Research on land types for fire management completed and methodology documented</li> <li>▪ Gap analysis complete on threats to fisheries and knowledge gaps filled</li> <li>▪ Survey on mercury in the Palmer completed and actions documented</li> <li>▪ Survey on drinking water quality completed and any required actions documented.</li> <li>▪ Potential for smaller gravel pits investigated and actions documented</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Trial alternative to 1080 baiting in Four Rivers Area	?
Trial effectiveness of new chemical for Navua Sedge in Four Rivers Area	?
Develop trials on gully erosion – Wetherby, Kimba, Highbury	?
Use cost/benefit analysis and RAD database to prioritise top 5 species for biodiversity protection with NGRMG	NGRMG and CYNRM baseline funding
Research and develop 10-20 land types associated with different fire regimes for areas of Mitchell, with information on best practice for each	?
Carry out a gap analysis by collating current data on threats to fisheries to identify current state of knowledge and identify missing data (Fish kills, species abundance and distribution);	?

Survey miners in the Palmer River for presence of mercury in the catchment	Q2 Funding 2012
Determine extent of problem of contamination of drinking water by carrying out survey of those who rely on river or groundwater for drinking. Do in conjunction with Qld Health, TRC, NGRMG	NGRMG and CYNRM baseline funding
Investigate the potential for more smaller gravel pits for road repair in the Kimba area to reduce cartage costs	
<b>Implementation</b>	
<b>7. Weeds</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Gamba Grass spread and extent reduced across the catchment and coordinated program in place in horticultural areas</li> <li>Bottom Control line in place for Bellyache Bush and extent in catchment reduced</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop coordinated program for Giant Rats Tail Grass in horticultural areas and assist TRC Gamba Grass control in horticultural areas and across the catchment	?
Develop bottom control line for Bellyache Bush, and assist with Bellyache Bush Control with funding and resources	Everyones Environment Grants application submitted
<b>8. Feral Animals</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Pig numbers reduced through coordinated pig control program in focus areas</li> <li>Wild dog numbers reduced through coordinated dog baiting program</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop and implement coordinated pig control program, focussing on four rivers and Kimba areas, and horticultural areas. Link to potential carbon credits	Biodiversity fund application submitted
Develop and implement coordinated wild dog baiting program in Bellevue and Highbury areas with subsidised costs in partnership with TRC and other LG's. Investigate options of community advisory committee to TRC	Biodiversity fund application submitted
<b>9. Fire</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Mentor program for fire management in place</li> <li>Sub-regional fire plan for Bellevue area developed and implemented</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop and implement a mentor program to assist land managers with creation, implementation and updating of fire plans for three years. Target new owners and those with no current management. Use other land managers, CYSF, Friendly Fire, Firescape Science and Rural Fire Brigade	?
Assist the development and implementation of a sub-regional fire plan for the Bellevue area	NGRMG baseline funding
<b>10. Grazing and Land Degradation</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Sister school program developed for focus areas in the watershed</li> <li>Prioritisation for riparian fencing complete, and fencing projects with watering points implemented</li> <li>Aboriginal people employed on country to assist with projects</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop connections between Cairns schools and rural schools and school of the air participants, focussing on Bellevue, Kimba and Wetherby areas. Consider involvement of Agforce	NGRMG and CYNRM baseline funding

Prioritise and fund riparian fencing, with funding for additional water points, using feedback from successful projects. Provide advice on fence alignment to reduce erosion and channelling of runoff.	?
Employ trained teams of Aboriginal people to assist graziers and work on country to help with above projects	C4OC working on Country funding
<b>11. Nature Conservation</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Plans for top 5 species for protection in the Mitchell developed and implemented</li> <li>Mentor program for biodiversity in place for landowners</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop and implement plan for 5 prioritised species for protection	?
Develop mentor program for landowners who would like information on their biodiversity using experts, Regional Groups and other landowners	NGRMG and CYNRM baseline funding
<b>12. Mining</b>	
<ul style="list-style-type: none"> <li>Uniform regulatory controls established</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Develop uniform regulatory controls for extractive industries	?
<b>Monitoring and Evaluation</b>	
<b>13. General Monitoring</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>Monitoring locations established, monitoring regime established and implemented</li> <li>Community network in place, database increasing</li> <li>Monitoring of riparian health program designed and implemented</li> <li>Monitoring of satellite imagery for gully erosion, riparian condition and sediment dispersal at the mouth of the Mitchell in place</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Choose 6 locations across catchment for permanent biodiversity monitoring sites (middle of large properties)	NGRMG and CYNRM baseline funding
Build a community network to report any unusual events such as changes in species, abundance, fish condition, catchment condition and new aquatic weeds Investigate options for citizen science, university students and Aboriginal students to assist with expanding data collection.	NGRMG and CYNRM baseline funding
Monitor riparian vegetation loss, impact feral animals and cows, aquatic weeds and feral fish 2-3 times a year in dry season across the catchment	?
Use satellite imagery to monitor gully erosion, loss of riparian vegetation and sediment dispersal at the mouth of the Mitchell River	?
<b>14. Water Quality Monitoring</b>	
<u>Outputs</u>	
<ul style="list-style-type: none"> <li>pH and sediment sampling across catchment in place 2-3 times a year and data documented</li> <li>6 additional loggers in place for Cattle Creek and monitored regularly</li> <li>Pilot nutrient and pesticide program in place for irrigation area</li> </ul>	
<b>Activity/Projects</b>	<b>Potential funding</b>
Determine impact of acid mine drainage across the catchment by investigating pH around the catchment (esp Walsh River) 2-3 times over dry season. Take sediment samples?	?
Monitor salinity in the Cattle Creek catchment: Deploy current 2 loggers that NGRMG have at Cattle Creek and obtain 6 more.	?
Monitor nutrients and pesticides in the irrigation area. Ideal program 3 years \$600,000. Small pilot could be designed for \$20,000. NQ Dry Tropics have done work which could be used. Sampling should be June-Nov, depends on grower timing.	?
Investigate assistance from WQ monitoring group in DMNR to help with WQ monitoring in Mitchell	DMNR

## FUNDING SOURCES

This Business Plan outlines a range of activities and projects which stakeholders have requested for implementation. If MRWMG prepares an operational plan, there may be additional requirements for funding identified (additional staff or office requirements for example). Some of the activities do not require much funding, and it may be appropriate that the committee members of the MRWMG take on portfolios to implement some of these, particularly the advocacy activities.

However, many of the activities and projects will require substantial funding. There a range of funding sources to implement the Business Plan. These include the following:

### REGIONAL NRM GROUPS

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Northern Gulf Resource Management Group (NGRMG) and Cape York Natural Resource Management (CYNRM) areas both cover the watershed. The whole of the watershed is in NGRMG, and the top third is also in CYNRM (the joint management area or JMA). The goals and targets of the Regional Groups align very closely with those of Mitchell River, and the three groups already work together. A separate funding proposal has been written for NGRMG and CYNRM asking for \$185,000 from NGRMG and \$75,000 from CYNRM. The actions and projects to be implemented with that funding are listed under key activities and projects in the relevant section above. When the Caring for our Country new business plan is available, outputs and outcomes will need to be developed for the proposal.

In addition, some of the actions and projects may be better delivered by Regional Groups, particularly the advocacy activities. There are current MOUs with CYSF, Terrain (Wet Tropics) and NGRMG and one will be developed with CYNRM in 2013. These MOU's provide mechanisms for working together for shared outcomes.

### FEDERAL GOVERNMENT

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The main program for funding through the Federal Government is the Caring for our Country Program. MRWMG currently has an application for funding in for a substantial Biodiversity Grant, and used a Community Action Grant to deliver the 11 workshops that developed the content of this Business Plan. There are also opportunities under Working on Country and Carbon Farming grants. There are a range of other Federal Government departments which provide grants, and these can be accessed at [www.australia.gov.au](http://www.australia.gov.au) or on the Grantslink website.

### STATE GOVERNMENT

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Everyone's Environment Grants is a new grant program established by the Queensland Government. MRWMG currently has a substantial grant request in to fund an expanded Bellyache Bush control program. There are other grant programs which will be available through the State Government, and these need to be identified ([www.smartservice.qld.gov.au](http://www.smartservice.qld.gov.au)). In addition, the State Government departments are often able to provide invaluable assistance in delivering on many of the activities and projects. For example, the Abandoned Mines Unit in DMNR may lend equipment to MRWMG to map and document issues at abandoned mine sites, and may also assist with water quality monitoring to quantify WQ impacts associated with old mines.

Other examples include the assistance from DEHP through the Back on Track program for biodiversity; weeds and feral animals though Biosecurity Qld; WQ monitoring data assistance through DSITIA; help with workshops through the beef team at DAFF and opportunities for input to the new code of practice for small miners through DEHP. MRWMG needs to establish and maintain key relationships within the State Government and State government agencies with responsibilities for dealing with issues in the catchment.

State utilities usually have a grants program, and sometimes offer in-kind assistance as well (Sunwater has sponsored the Tilapia Busters bus hire). Details can be found on their websites. State Ministers and policy advisors and Local Members should also be kept well informed of the Business Plan, as they can advocate for funding and policy changes.

### COMMUNITY GAMBLING BENEFIT FUND

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It is often difficult to find funding which will allow purchase of capital equipment, and the Gambling Fund provides that service. MRWWMG has a history of successful grants from that source, including a 4WD crewcab ute and the new office computer system. MRWWMG currently has a grant application lodged to pay for an update and reprint of the weeds booklet for the Mitchell River catchment.

## OTHER GRANTS

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There are a wide range of other grants available both in Australia and internationally. There are many online lists of these organisations, and several subscription sites which will give access to an updated list of potential funders. MRWWMG needs to develop its own database of these grant programs, with a description of the themes and types of funding they provide to match against projects for funding.

## TRUST FUND

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There is an opportunity to grow the Public Trust Fund of the organisation, using the new Strategic Plan, the Business Plan and the prospectus. A descriptive list of projects remaining to be funded needs to be developed to present to potential sponsors in combination with the prospectus. A strategy to approach potential sponsors needs to be developed as part of the Financial Plan.

## PARTNERSHIPS

Partnerships are absolutely essential for the implementation of the Strategic Plan, as the MRWWMG cannot do this by itself. Many of the essential partnerships have already been mentioned: Regional Groups, Federal and State Government and members of parliament. There are some other key partnerships to move forward, and these include:

- Mitchell River Traditional Custodians Advisory Group
- Mareeba District Fruit and Vegetable Growers Association
- Research Institutions (JCU, CDU, Griffith, Qld Uni, CSIRO etc)
- Cape York Sustainable Futures
- Tourism Organisations
- NQMA
- Sunfish
- Commercial Fisheries

As well as these groups, MRWWMG needs to develop the partnership with graziers, and if this is supported by landowners, the idea of sub-regional partnerships between graziers. The idea of annual workshops like the Bellevue and Kimba workshops appears to have worked well and been of benefit to all concerned. There is potential to continue this approach and increase the numbers attending.

## REVIEW PROCESS

Essentially this Business Plan is a plan of action to guide the MRWWMG committee. It should become the main focus of every meeting of the committee, with progress reports to indicate achievements. The committee can review, update and change the plan whenever it feels it is necessary. For example, new issues may emerge, which should be included in the plan, or new funding opportunities may mean that new activities or projects from the Strategic Plan can be included. Updates on the progress of the plan can also be issued to stakeholders through the newsletter.

By 2016, a review of the Strategic Plan and Business Plan should be undertaken with a consultation phase, and new plans created.

## APPENDICES

The following appendices provide additional information. Appendix 1 is a summary of the 10 workshops and one phone survey that was undertaken to develop the Business plan. Appendix 2 aligns the proposed activities and projects in the Business plan back to the goals and tasks in the Strategic Plan

### APPENDIX 1 SUMMARY OF WORKSHOP OUTPUTS

#### ***Weeds and Feral Animals Workshop 15th October 2012***

The weeds and feral animals workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 15<sup>th</sup> October at the Mitchell Room, Government offices, Peters St Mareeba. 19 people attended the workshop.

Several key actions came out of the morning, and I have summarised these below.

- Develop a broad communication plan to reach land managers, visitors both recreational and tourist, Local Government staff, utility staff, landowners and managers and relevant taskforces. Use email, letterdrops and workshops to distribute information.
- Ensure that information flows BOTH ways and make it easy to report new sightings with stamped addressed envelopes. Communicate clear pathway and contact for reporting information
- Ensure links with NAMAC and PAF, and provide information on what Mitchell River is doing.
- Develop an updated weed deck for Mitchell River
- Develop a database like the RAD database for weeds and ferals, with a monitoring program (AQIS, TRC, graziers)
- Priorities for raising community awareness are Bellyache Bush, Gamba Grass, Hymenachne and Tilapia
- Priorities for on-ground action are Bellyache Bush, Gamba Grass, pig and wild dog control, set targets for action in conjunction with others
- Develop a mechanism to link research with on-ground practitioners for information and choice of research programs

#### ***Biodiversity Workshop 15th October 2012***

The biodiversity workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 15<sup>th</sup> October at the Mitchell Room, Government offices, Peters St Mareeba. 15 people attended the workshop, including Sally Egan from the Back on Track program with DEHP.

Several key actions came out of the afternoon, and I have summarised these below

- Design appropriate communication about biodiversity for landholders and managers, Local Government, utilities, Traditional Owners and other stakeholders
- Establish an email database for biodiversity for the Northern Gulf to include interested TO's, miners, growers, Conservation groups, landholders, scientists with a quarterly email on new information and actions.
- Promote MRWVG and NGRMG as a central repository of information and able to provide linkages to other sources of information and assistance
- Investigate doing educational surveys with landholder participation, which demonstrate what different bits of the landscape are used for in terms of biodiversity, promote functional landscapes
- Investigate options for survey data to be collected with a privacy provision which guarantees that the data will only be released in a generalised form, to encourage more landholders to allow survey work.
- Do cost-benefit analysis to select priority species with NGRMG when Carly has completed the Hugh Possingham course. Also ask the community to verify the priority, and then develop actions for protection and recovery of those species.
- Choose 6 locations across catchment for permanent monitoring sites. These should be indicative of different regions of the catchment and located in the middle of large stations.

- Investigate options to extend the Land and Sea Ranger program to allow people to work on grazing properties to do survey work, weed and feral animal control.
- Develop a mentor program with experts and property owners with interest and knowledge of biodiversity to assist other property owners.
- Encourage a citizen science program where appropriate to expand data collections

### ***Fire Workshop 18th October 2012***

The fire workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 18<sup>th</sup> October at the Firescape Office in Atherton. 10 people attended the workshop and recommended the following actions:

- Develop a communication plan to provide information on fire management to landowners and managers in the catchment. Target new owners and those who currently practice little or no management for fire. Send three key messages about being proactive in fire management: You are in control, it provides an insurance policy against disastrous burns, acquire pasture better over time. Raise interest and present more information at workshops, and tie to biodiversity and productivity
- Develop a mentor program to develop fire plans, assist land managers with the first three years of fire and to update the plan after that.
- Develop a fire information kit for the Mitchell using the two kits from Firescape Science and Cape York Sustainable Futures.
- Reprint and update Savannah Burning.
- Divide the Mitchell Catchment into 10-20 land types and define the fire characteristics for each. Use to assist landowners to understand the different ways to use fire.
- Investigate further developing the Justin Perry work on fire and climate model, so that it can be updated daily and used at property scale
- Investigate training for Aboriginal Land and Sea Rangers and CDEP participants to work on country with fire management, employed by graziers
- Investigate the Fire Mitigation Strategy template for tailoring for Mitchell River
- Send letter from workshop participants to Minister, advocating for continued funding for the NAFI site. Also encourage land managers to voice their support. Aaron Crosbie (CYSF) to draft letter
- Advocate for NQ to be a part of the Bushfire CRC training
- Develop a Qld version of fuel hazard information

### ***Wetherby Station Workshop 22nd October 2012***

The Wetherby Station workshop assisted with development of an action plan for the Mitchell River Watershed Management Group and was held on the 22<sup>nd</sup> October at Wetherby Station. 29 people attended the workshop.

Several key actions came out of the session on Mitchell River in the afternoon, and I have summarised these below.

- Develop a quarterly newsletter with relevant information which can be sent by email, post or both according to land managers wishes. Investigate interest in holding an annual workshop at the end of the year in the four rivers area to present issues of mutual interest for discussion and action planning.
- Investigate options to hold webinar workshops
- Lobby for better infrastructure for communication.
- Bridge city-country gap through development of a sister schools program,
- Work with the Regional Groups to develop broad media stories about good things that are happening in rural areas and the good work being done by land managers to counter media on rural “disasters”, mulesing of sheep, mistreatment of stock in the live export trade, etc.
- In future workshops present on the use of dung beetles, use case studies that people can see on-ground, presentation on changes to land use and tenure and how land managers can diversify their income.

- Set up research trials for the alternative to 1080, the new chemical for Nabua Sedge and gully erosion in the four rivers area
- Develop a coordinated program and find resources for dog and pig control
- Resource fencing of riparian corridors
- Resource additional watering points on properties

### **Water Quality Workshop 30th October 2012**

The water quality workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 30<sup>th</sup> October at the Cape York Sustainable Futures office in Manunda. 6 people attended the workshop. Several key actions came out of the morning, and I have summarised these below. There was some discussion about trying to get consistency in monitoring methods across those engaged in monitoring. Andrew Moss (DEHP) suggested the DERM sampling manual as a starting point.

- Monitoring: Brynn, Trevor, Kristjan, possible John Russell? JCU students? Damien can help with guidance on sites. may be able to help with monitoring, John Russell, students,
- Additional Information: Damien has many reports copies sent to NGRMG), Andrew will check on relevant DERM data, Abandoned mines section has info (Daniel Gillinder, Greg Nelson-White), TRC have results from their monitoring, NQ Dry Tropics have case studies, Tom Ryan (author of Upper Mitchell is happy to talk about the work they did and comment on any new frameworks), Kowanyama may have data, Sunwater would have info on their sampling regimes, however this may be obtained from DERM, TRaCK (Andrew Brooks) would also have information. Andrew Moss can supply the DERM sampling manual.

The following water quality issues were identified and prioritised, and potential actions were identified:

WQ Issue	Action?	Priority	Potential Actions
Gully erosion and loss riparian vegetation	yes	4	Use satellite imagery to monitor change (link with Shelberg and Brooks)
Presence mercury in Palmer River	yes	low	Investigate presence of mercury in the palmer through survey of miners in the area. Discuss at mining workshop 7/12/12
Acid drainage from mining	yes	5	Investigate pH around the catchment (esp Walsh River) 2-3 times over dry season. Take sediment samples?
New mines	no	low	participate early in process of setting the TOR
Salinity	yes	1	Obtain DERM data. Deploy current 2 loggers that NGRMG have at Cattle Creek and obtain 6 more. Damien will assist with locations.
Nutrients and pesticides	yes	3	Ideal program 3 years \$600,000. Small pilot could be designed for \$20,000. NQ Dry Tropics have done work which could be used. Sampling should be June-Nov, depends on grower timing. Project requires further workshopping
Copper in irrigation channels	yes	low	Discuss issue with Sunwater, who are aware of the issue.
Unsewered towns	no	low	Impact small, however E coli etc may be of concern
Point source- Mareeba sewerage treatment, landfill, industrial area etc	no	low	Discuss with TRC, find out what is monitored, how often and whether any issues
Contamination of drinking water	yes	6	Carry out survey of those who rely on river or groundwater for drinking (1000?). Do in conjunction with Qld Health and TRC
Impact Aquatic weeds, fish, pigs, cows	yes	2	Case studies done by NQ dry tropics on aquatic weeds, Damien has study on pigs in Lakeland. Catchment wide survey can be used as indicator of aquatic health, can involve rangers, community, schools etc. use to help prioritise riparian fencing assistance
Saline intrusion	no	low	Ask Kowanyama if there is any evidence of an issue
Marine environment	no	low	Check satellite imagery for evidence of patterns in sediment dispersal.

### ***Bellevue Station Workshop 19<sup>th</sup>/ 20<sup>th</sup> November 2012***

The Bellevue Station workshop assisted graziers with key issues they are facing, and helped with the development of an action plan for the Mitchell River Watershed Management Group. It was held on the 19<sup>th</sup> and 20<sup>th</sup> November at Bellevue Station. 18 people attended the workshop including presenters. Presentations were given on fire management by Leasia Felderhof from Firescape Science and Mick Blackman of Friendly Fire. Sid Clayton talked about the mechanisms through Tablelands Regional Council for wild dog control, and Brett Carlsson from Agforce reinforced the need to coordinate timing across properties. Darryl Killen presented on opportunities for carbon farming and the benefits of developing larger projects across several properties. Bernie English from DAFF talked about the benefits of phosphorus supplements and tied that to appropriate timing and length of supplements. He also talked briefly about breeder management. Several key actions came out of the session on how Mitchell River could be of assistance in the afternoon, and these are summarised below.

- Provide funding for additional watering points, particularly where river frontage is fenced off
- Develop a coordinated plan for the 5 stations (and others?) for dog baiting
- Provide additional funding to help with wild dog (and pig) baiting programs eg funds for the plane and the meat. This could come through extra assistance from Local Government
- Investigate options for setting up an advisory committee to TRC on pigs and dogs
- Investigate options for the EMS manual that Tanya Warriner (Wrotham Park) has produced to be used by other station owners
- Find increased assistance for fire fighting eg equipment and personnel (through Local Brigade)
- Provide legal assistance for land managers when approached by people re mining leases. Should be a checklist on the rights of landowners and things to do to present the best case in court
- Investigate the possibility of using Sharemap (GIS) with the 5 stations to assist with planning and communication for fire planning, fencing and baiting
- Hold a workshop for the 5 stations to prepare a regional fire plan, and invite other properties such as Crystal Brook, Torwood and Bolwarra
- After the fire workshop, hold another planning day for carbon farming potential with Daryl Killin.
- Investigate the impact of Asbestos Grass (*Cenchrus (syn. Pennisetum) basedowi* (also known as Bastard Grass, and which is now being surveyed in the Southern Gulf region), and Devils Claw (*Martyniaceae*, which is declared in WA and NT) and if necessary take additional control actions
- Look at an option to bring a school group up (coordinated with the distance education program) to work with the children at Bellevue and do some biodiversity monitoring
- Publicise the work Bellevue and Nychum are doing to fence off the Mitchell River riparian zone

### ***Kimba Station Workshop 26<sup>th</sup>/27<sup>th</sup> November 2012***

This workshop was held on the 26<sup>th</sup> and 27<sup>th</sup> October at Kimba Station. 17 people attended the workshop. Rebecca Clear from State Land Administration talked about changes to land tenure in the area, Shane Forester from CYWAFAP talked about weed and feral animal plans, Peter Thompson from CYSF spoke on subregional fire plans and Joe Rolfe spoke on the grazing land management program. Michael Ross (Olkola TO) also came to talk about the intentions of the Olkola PBC that was soon to take over management of several neighbouring properties.

Several key actions came out of the workshop over the two days, and these are summarised below;

- Develop quarterly newsletter to be sent by email/post. Hold annual workshop in the same area (on different property) to present and discuss issues of mutual interest.
- Develop sister schools program with Cairns (could be pursued by Agforce as a larger scale project but needs to start somewhere)
- Hold workshop on any changes to land tenure
- Hold workshop on how land managers can diversify income with tourism (possibility of commercial subleases for tourist camping facilities/toilets) including international eco-tourist volunteers.
- Develop trials on cost effective gully erosion management
- Develop coordinated program for pig control (lesser extent dogs)

- Provide information on operating and new mining leases: compensation agreements, rights to negotiate, bore holes left after core sampling, preservation of aquifers, new core sampling regulations under Water Act, backfilling of exploration costeans (Alice River)
- Hold forum or use other mechanisms to ensure graziers have more input into new government policy to achieve increased food production
- Investigate smaller local gravel pits for easier station road maintenance and reduced haulage
- Provide advice on fencing alignments, whoa-boys, drain construction and controlling run-off.
- Provide off-stream watering points for cattle when fencing riparian zones, and ensure cattle familiar with new watering points before closing fencing area
- Provide assistance with grazing land management plans to finalise and ensure consistent standard
- Provide more UHF radio transmitters to allow better communication during fire fighting.
- Provide assistance with fire coordination on subregional level through CYSF, with all landholders involved and National Parks. Alice-Palmer Rural Fire Brigade is local coordinating body for fire fighting.
- They would like more information on the EMS manual developed at Wrotham Park
- Assist with providing new mapping program (Google Earth based), current ARCmaps not working. (Sharemap?) Assist with existing data retrieval.
- Need assistance with interpreting results of monitoring and measuring and how they can inform decision making
- Provide additional assistance with carbon farming after Federal Roadshow in March 3013
- Investigate extent and threat of Mossman River Grass (*Cenchrus basedowi*) and Coffee Senna (*Senna Occidentalis*)
- Assist graziers with information on control of access by fossickers/ pighunters

#### ***Indigenous Cultural Heritage Workshop 27th November 2012***

The Indigenous Cultural Heritage workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 27<sup>th</sup> November at the Mareeba RSL. The workshop was held in conjunction with a NAILSMA workshop on the Water Resources Plan for the Mitchell River. 9 people attended the workshop.

Several key actions came out of the afternoon, and I have summarised these below:

- The NAILSMA workshop developed a final submission on the Water Resources Plan to Government. It was decided that MRTCAG would take ownership of the submission and follow up the outputs, and that the MRWMG would support them to do so. This will involve implementing Indigenous Water Allocations, water quality monitoring and development of catchment plans
- Provide support to MRTCAG to employ Aboriginal people on country to carry out a range of activities including weed and feral animal control and fire management.
- Apply for funding in 2013 to carry out detailed comprehensive community consultation with the Aboriginal communities of the Mitchell River to further develop a range of projects..

#### ***Agriculture Workshop 3rd December 2012***

The agriculture workshop was initially scheduled for the 4<sup>th</sup> October, however an event for growers held 2 days before the event meant that attendance was low and the event was cancelled. Instead, a workshop session was held with the Mareeba District Fruit and Vegetable Growers Association to develop an action plan for the Mitchell River Watershed Management Group on the 3rd December at the Mareeba Leagues Club. 14 people attended the workshop.

Several key actions came out of the evening, and I have summarised these below.

- Assist the Mareeba growers to have a greater voice with State Government, research institutions and grower organisations in regards to what research is done and how it is applied.
- Investigate whether growers would use an informative website (like Rob Watkin's site for growers), and if so canvas what they want on it and train in its use.
- Coordinate pig and to a lesser extent wild dog control programs

- Promote and provide greater access to NGRMG mapping programs
- Encourage the Mareeba Growers Association to develop a set of topics for field days they would like delivered.
- Assist new growers to develop land and water plans (eg. proposed expansion of sugarcane)
- Assist coordinated program for control of Rats tail Grass and Gamba Grass
- Advocate for changes to the tree clearing legislation which allows for no tree felling. Farm profitability could be improved in some farms with strategic clearing and replanting elsewhere.
- Encourage the Mareeba Growers association to pass on issues they would like assistance with to MRWWMG
- 

#### ***Mining Workshop 7th December 2012***

The mining workshop to develop an action plan for the Mitchell River Watershed Management Group was held on the 7<sup>th</sup> December at the Mareeba Leagues Club. 12 people attended the workshop. Oskar Kadletz from DNRM spoke on the Abandoned Mine Program, and Dean Sharpe from DEHP talked about the coming review of the code of practice for small miners.

Several key actions came out of the afternoon, and these are summarised below.

- Work with the Abandoned Mines unit to use a PDA and software program to collect information on abandoned mine sites throughout the catchment which can be uploaded directly to the government database, and further inform the program. Equipment can be borrowed, or MRWWMG can purchase their own. Interested graziers can be part of the program, and equipment can be used to collect other information such as weed and feral animal spread and biodiversity monitoring. Aboriginal people can be a part of this program.
- Abandoned mines unit to contact water quality monitoring group to assist with monitoring mine impact in the catchment
- Dean Sharpe to attend next NQMA meeting 11<sup>th</sup> February to gather feedback for the revised code of practice for small miners, especially in rehabilitation standards
- Investigate options to licence consultants to assess mine rehabilitation for miners, as waiting times are often long

#### ***Highbury Station Phone Survey - December 2012***

The Highbury Station Workshop to develop an action plan for the Mitchell River Watershed Management Group was meant to be held on the 13<sup>th</sup> and 14<sup>th</sup> December at Highbury Station. Unfortunately the workshop has been postponed to May 2013, as most graziers were too busy to attend. A phone survey of the key grazing properties was carried out to ensure that their needs were documented and suitable projects identified early. The stations contacted included Highbury, Dunbar, Wrotham Park, Strathleven, Mt Mulgrave and King Junction. The results are summarised below.

- Highbury would like a coordinated dog control program, however need assistance to coordinate this across three Local Governments, mainly Cook Shire and Tablelands Regional Council, but also including Carpentaria.
- Highbury would also like to know how to report new weed sightings and get a response, as they have left messages with Biosecurity Qld and had no reply.
- Dunbar Station would like to see more representation on the MRWWMG committee to get a better perspective on issues.
- Mt Mulgrave would like a chance to showcase some successful work they have done on gully erosion at a field day

## APPENDIX 2 OUTPUTS AGAINST GOALS AND TARGETS

<b>Mining Rehabilitation</b>	
<b>Goal</b> Environmental harm from past, present and future mine sites is minimised by implementing best management practice and technologies and ensuring effective, progressive and closure rehabilitation	
<b>Awareness and Communication</b> Design and implement a communication plan for miners, NRM bodies, landowners, Traditional Owners and Local Government to inform and share knowledge about potential downstream impacts from mining and new amelioration techniques  Design suitable training and extension materials where appropriate to support the communications plan	<b>Business Plan – Proposed Actions</b> Communications Plan  Nil
<b>Research</b> Identify and quantify the hazards (both environmental and to public safety) for the estimated 3000 old mining sites and prioritise for rehabilitation, including danger to groundwater.  Investigate and research new technologies for mine rehabilitation and develop trial sites	Use of PDA to provide data on abandoned mines before prioritising  X3 can be trialled when ready for field testing
<b>Implementation</b> Work with Government Agencies to design strategies that ensure environmental planning is in place for duration of a mines life, and better management of closure process.  Create a taskforce for rehabilitation of old mine sites, and develop rehabilitation plans (an Abandoned Mine Site Management Strategy) for identified sites based on site data, best practice and cost  Develop a plan for TO's to work with mines to develop rehabilitation plans  Develop uniform regulatory controls for extractive industries	Nil  Nil Needs data first  TO's may help with PDA data gathering  Nil
<b>Resourcing</b> Develop a funding program to implement prioritised plans by advocating for Govt support and investigating other options such as sponsorship, direct use of bonds, tax reductions, carbon credits and market based instruments	Nil, although may be Govt support for PDA monitoring and some WQ monitoring. Needs data first
<b>Collaboration</b> Develop a partnership plan with mining companies, Traditional Owners, landholders, community and Federal, State and Local Government to develop information for a database and to assist with implementation	PDA monitoring may provide initial partnership MRWMG, NGRMG CYNRM, landowners, TO's. Needs data first
<b>Monitoring and Evaluation</b> Develop monitoring and evaluation program	WQ monitoring program DNRM may provide assistance, needs data first
<b>Tourism and Recreation</b>	
<b>Goal</b> A sustainable tourism and recreational industry which maintains the natural integrity of the catchment.	
<b>Awareness and Communication</b> Develop a green tourism program which promotes understanding of the catchment and encourages involvement in NRM and which utilises grey nomad online sites and other mechanisms to engage with tourists	<b>Business Plan – Proposed Actions</b> Nil

<p><b>Research</b> Research the current and projected tourist numbers and likely locations, and liability for land managers</p> <p>Research the extent of State Crown reserves and the potential for infrastructure for tourists to be located at these sites to reduce landholder liability</p>	<p><b>Business Plan – Proposed Actions</b> Covered to some extent in workshops on diversification of income and information for graziers on trespass. Needs extra research</p> <p>Nil</p>
<p><b>Implementation</b> Agree on the scale and locations for tourism desired for the catchment through consultation with landowners, Traditional Owners, DEEDI, tourism operators, Regional Councils</p> <p>Develop a tourism plan for identified locations which looks at information and signage, liability, infrastructure requirements, costs and maintenance, ease of implementation (paperwork) and which utilises the green tourist plan</p> <p>Develop case studies eg Kowanyama to inform best practice</p>	<p>Nil</p> <p>Nil</p> <p>Nil</p>
<p><b>Resourcing</b> Develop a resourcing plan</p>	<p>Nil</p>
<p><b>Collaboration</b> Facilitate working group to include key stakeholders such as Govt, tourism operators, Traditional Owners, landowners, Regional Councils to oversee project</p>	<p>Nil</p>
<p><b>Monitoring and Evaluation</b> Develop monitoring and evaluation framework to assess actions effectiveness</p>	<p>Nil</p>

<b>Grazing</b>	
<p><b>Goal</b> A sustainable, productive grazing industry which uses best management practice and integrates environmental, economic and cultural values</p>	
<p><b>Awareness and Communication</b> Develop and implement the most effective ways for information transfer to graziers through consultation with landowners and managers, NRM Groups and DAFF</p>	<p><b>Business Plan – Proposed Actions</b> Communications Plan</p>
<p><b>Research</b> Work with research institutions and NRM Groups to suggest areas for innovative research such as:</p> <ul style="list-style-type: none"> <li>▪ Effect of clearing some areas for hay production to reduce erosion</li> <li>▪ Management of land through National Parks vs graziers</li> <li>▪ Opportunities for carbon sequestration</li> <li>▪ Soil mapping classification and suitability for grazing</li> </ul> <p>Ensure link between research findings and land managers</p>	<p><b>Business Plan – Proposed Actions</b> Research suggested on carbon farming, fire management land types, gully erosion, more small gravel pits in business plan</p>
<p><b>Implementation</b> Assess uptake and effectiveness of current programs such as Savannah Plan (Local Consensus Data Group, Futureprofit) which support Property Planning and best practice grazing land management and include:</p> <ul style="list-style-type: none"> <li>▪ Stocking rates, pasture management, paddock rotation</li> <li>▪ Fodder crops, nutrient management</li> <li>▪ Diversification eg cattle breed, tourism</li> <li>▪ Fencing, watering points and water management</li> <li>▪ Fire management and weed and feral animal control</li> </ul>	<p><b>Business Plan – Proposed Actions</b> 4 Annual workshops on grazing properties will include these if requested</p>

<p>and develop and implement recommendations to assist graziers achieve best practice and profitability</p> <p>Assess cultural values as part of property planning and facilitate management of sites</p> <p>Develop a plan to assist graziers with onsite extension services and hosting of field days</p> <p>Develop and implement ways to keep local expertise on the land through providing young people with education and accreditation</p>	<p>Nil</p> <p>4 annual workshops on grazing properties, mentor program for biodiversity and fire</p> <p>Nil</p>
<p><b>Resourcing</b></p> <p>Investigate incentives for graziers who practice good stewardship in terms of lease extension (Delbassie Agreement) ongoing grants or return from carbon sequestration.</p> <p>Assess accreditation programs for graziers implementing best practice which could provide premium price for beef (indicators of sustainability)</p>	<p>Grants sought in business plan for riparian fencing, weed and feral animal control, fire management, carbon farming. Award program proposed</p> <p>EMS manual</p>
<p><b>Collaboration</b></p> <p>Develop networking opportunities for graziers, and use local skilled, accredited people to assist others (peer to peer)</p> <p>Develop a mentoring program with well financed high achievers helping smaller landowners with less resources</p> <p>Ensure strong partnerships and alignment with NRM Groups, DAFF</p>	<p>4 annual workshops, mentor program</p> <p>Mentor program</p> <p>Proposal to Regional Groups for funding, include Beef Team in workshops</p>
<p><b>Monitoring and Evaluation</b></p> <p>Develop monitoring and evaluation program to assess effectiveness of measures</p>	<p>Community monitoring, fixed biodiversity monitoring locations, satellite</p>

<b>Fire Management</b>	
<p><b>Goal</b></p> <p>A fire management system that is consistent with the other goals for the Mitchell River Watershed, with collaboration across all land managers and owners to incorporate best practice fire planning and monitoring</p>	
<p><b>Awareness and Communication</b></p> <p>Design communication and education plan (include promotion of NAFI) for land managers and visitors about the role of fire in the landscape and the need to use it with care and with a clear purpose</p>	<p><b>Business Plan – Proposed Actions</b></p> <p>Communications Plan</p>
<p><b>Research</b></p> <p>Research interaction of fire management with carbon sequestration and possible resourcing of fire plans</p> <p>Research or document role of fires lit by visitors to the watershed to determine scale of issue</p> <p>Research potential benefits of legislation and penalties in fire management</p>	<p><b>Business Plan – Proposed Actions</b></p> <p>Bellevue/Wrotham Park cluster - carbon project with Select Carbon</p> <p>Advocacy for NAFI funding</p> <p>Nil</p>
<p><b>Implementation</b></p> <p>Reach agreement on who should document best management practice for fire and document for 5 bioregions of Mitchell River Watershed.</p>	<p><b>Business Plan – Proposed Actions</b></p>

<p>Develop fire management plans ensuring appropriate scaling across watershed, sub-catchments and property scale in partnership with stakeholders, ensuring that all impacts are considered (pasture, biodiversity, land degradation, weeds) and that the plans have a clear purpose for all burns. Incorporate Traditional and other local knowledge into plans and allow for review period for plans which looks at changes in weather patterns.</p> <p>Implement plans with a coordinated approach which includes all stakeholders in an advisory group, including pre season fire meetings</p>	<p>Annual fire workshop, development of land fire types information</p> <p>Sub regional plan to be developed for Bellevue area, mentor program for fire, employment of TO's in program. Continued support for CYSF in Kimba area to assist landowners</p> <p>See above</p>
<p><b>Resourcing</b> Develop a resourcing plan to ensure sufficient funding is available for fire equipment and support, and for the Rural Fire Service</p>	<p><b>Business Plan – Proposed Actions</b> Funding for more fire equipment and radio transmitters</p>
<p><b>Collaboration</b> Develop an approach to fire planning which is driven by the local community, using local and traditional knowledge and expert advice, and involves all stakeholders</p>	<p><b>Business Plan – Proposed Actions</b> 4 annual grazing workshops, Bellevue sub regional fire plan, Kimba fire plans with CYSF</p>
<p><b>Monitoring and Evaluation</b> Advocate for additional funding for NAFI to monitor results of fire planning.</p>	<p><b>Business Plan – Proposed Actions</b> Advocate for NAFI funding</p>

<b>Nature Conservation</b>	
<p><b>Goal</b> Ecological diversity is managed, maintained and conserved by recognising people as part of biodiversity and enabling support to land managers to implement best practice management</p>	
<p><b>Awareness and Communication</b> Develop a communication plan which defines key stakeholders and provides a thorough education and understanding of the biological and ecological diversity of the catchment and highlights the links between productivity, sustainability and ecological diversity.</p>	<p><b>Business Plan – Proposed Actions</b> Communications Plan</p>
<p><b>Research</b> Collate current sources of information on biodiversity in the catchment from Government, research institutions, NGO's, TO's, NRM Groups and local community and identify gaps in knowledge</p> <p>Do an accurate assessment of the biodiversity of the catchment through mapping, surveys, data collection and monitoring based on the identified gaps</p> <p>Identify the key threats to biodiversity</p>	<p><b>Business Plan – Proposed Actions</b> Initial workshop to review RAD database and prioritise top 5 species for action. Needs follow up survey with stakeholders</p> <p>Community monitoring, fixed locations and catchment wide riparian surveys. Privacy clause in biodiversity monitoring</p> <p>RAD database supplemented by surveys and monitoring data</p>
<p><b>Implementation</b> Use Traditional knowledge in biodiversity management, and provide for them to access country for cultural and management reasons where indigenous traditional landholding groups no longer hold tenure or have some form of ILUA or other access agreement. Provide support for Indigenous Groups to manage biodiversity, recognising their diversity in organisational capacity and land tenure</p>	<p><b>Business Plan – Proposed Actions</b> Employ TO's on country to assist program</p> <p>Mentor program</p>

Employ extension officers to assist landholders with managing their biodiversity, and investigate the use of mentors	Nil
Ensure property plans and grazing land management includes biodiversity management	Top 5 species to be selected for the catchment
Develop a prioritised plan to manage biodiversity in the catchment, and integrate with property plans and grazing land management (Identify and protect critical dry season wildlife refuges and corridors)	
<b>Resourcing</b> Develop mechanisms to fund field work, management and maintenance of biodiversity as prioritised in the biodiversity plan. Consider a range of incentives for stewardship modelled on the Reef Rescue package	Not funded, but in business plan Award program
<b>Collaboration</b> Develop partnerships between all major stakeholders (Federal and State government, Regional Councils, Utilities, NRM Groups, Traditional Owners, miners, graziers, community) to pool resources, align effort and get on-ground involvement according to the biodiversity plan.	Initial workshop, email database
<b>Monitoring and Evaluation</b> Identify monitoring requirements to gauge success of implementation of the biodiversity plan, and conduct and maintain a dynamic coordinated, assessment of biodiversity in the catchment, using community monitoring where possible.	6 fixed locations, community science, privacy provisions, catchment wide riparian surveys

<b>Fisheries Management</b>	
<b>Goal</b> Healthy fisheries maintained through educated management decisions	
<b>Awareness and Communication</b> Develop information for community on how to collect material after fish kills to help determine the cause	<b>Business Plan – Proposed Actions</b> Communications Plan
<b>Research</b> Clearly identify any threats to recreational and commercial fisheries including aquatic pest species (eg Tilapia, azolla), and include social research with fishermen, marine habitat and debris	<b>Business Plan – Proposed Actions</b> Gap analysis on threats
Establish roles and responsibilities for investigating fish deaths	Done, publicise on web site
<b>Implementation</b> Develop a plan to address prioritised, identified threats	<b>Business Plan – Proposed Actions</b> Need prioritization first, in absence Tilapia identified
Develop and use successful case studies (eg Kowanyama management of the delta, Tom Ryan’s work on sea fish) as models for actions	Nil
Investigate support for Indigenous enterprises based on recreational fishing for tourists	Nil
<b>Resourcing</b> Investigate resourcing from a consortium which includes State Govt Sunfish, Sun Water, research institutions and the commercial fisheries	<b>Business Plan – Proposed Actions</b> Sunwater contributed to Tilapia wheelbarrow race, Kowanyama to workshop
<b>Collaboration</b> Establish partnerships across a range of stakeholders (Traditional Owners, Federal and State Government, recreational and commercial fisheries, research institutions and community) to ensure adequate resourcing and alignment of effort.	<b>Business Plan – Proposed Actions</b> Fisheries workshop, email database, communications plan
<b>Monitoring and Evaluation</b>	<b>Business Plan – Proposed Actions</b>

Establish base line data with appropriate ongoing monitoring, and investigate reinstating status of catch numbers	Nil
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<b>Weeds and Feral Animals</b>	
<b>Goal</b> Weed and feral animal infestations are significantly decreased through identifying, prioritising and managing weed and animal pests using best practice control methods	
<b>Awareness and Communication</b> Develop an education strategy with key stakeholders to provide information to all stakeholders in the catchment and visitors on weed identification, spread and control methods, including identification of emerging weed problems  Develop education and awareness program of the social, cultural and environmental impact of feral animals, including the risk of transmitting disease	<b>Business Plan – Proposed Actions</b> Communications Plan, but need mechanisms to contact visitors  Communications Plan
<b>Research</b> Check weed mapping and feral animal data at Regional Council level, and help fill any gaps or need for ground truthing  Evaluate current data on feral animal and weed impact and control methods through Local Government and others, and assist to fill any knowledge gaps	<b>Business Plan – Proposed Actions</b> Sharemap, coordinated dog and pig control, coordinated program for Belly Ache Bush, Rats Tail and Hymenachne. Investigate coffee Senna, Devils Claw and Asbestos Grass  Nil
<b>Implementation</b> Partner with key stakeholders to use data to prioritise target feral animal species (and where necessary some native species) and develop individual innovative long term management plans with realistic targets for control  Ensure cost effective early intervention on emerging threats (eg Tilapia)  Work with Regional Councils, State Agencies and landholders to get agreement on top 5 weeds and develop management plans that provide integrated outputs at a Watershed, Local Government and property scale  Use property planning to implement agreed weed management plans in an integrated cooperative approach using a range of appropriate methods (including fire)  Evaluate the current wash down facilities across the catchment for cost effectiveness and scale, and develop strategies to improve if required.  Evaluate feasibility of other options to reduce weed spread, including pig control, fencing for cattle and penalties for weed spread	<b>Business Plan – Proposed Actions</b> Coordinated dog and pig control, Rats Tail, Gamba and Bellyache Bush  Investigate Devils Claw, Asbestos Grass, Coffee Senna, publicise Tilapia threat  Weeds prioritized at workshop, now needs action plans  4 annual grazing workshops  Nil  Riparian fencing, pig control program
<b>Resourcing</b> Develop attainable costed actions from management plans for weeds and feral animals and develop a resourcing plan for long term funding  Ensure contingency funding is available for new weed and pest animal infestations to allow prompt action and reduce long term costs	<b>Business Plan – Proposed Actions</b> Nil  Nil

Develop funding mechanisms and lobby as a united voice for long term funding programs to allow effective implementation of actions	Nil
Investigate new and innovative ways of resourcing control programs using bounties and other stakeholders such as Australian Shooters Association	Nil
<b><u>Collaboration</u></b> Ensure collaboration between key stakeholders such as Local Government, State Agencies and landowners	<b><u>Business Plan – Proposed Actions</u></b> 4 annual grazing workshops, email database and communications plan
Establish mechanisms for cooperative management of weeds that ensures all key stakeholders are working together to align effort (eg Ergon Energy, Telstra etc)	Some progress through workshops, needs broader approach
Create taskforce to deal with new and emerging weeds	Nil
<b><u>Monitoring and Evaluation</u></b> Develop a voluntary weed reporting and surveying network to report on effectiveness of actions and new weed outbreaks to an agreed website	<b><u>Business Plan – Proposed Actions</u></b> Communications plan
Evaluate effectiveness of implementation and review priorities annually	Sharemap, grazing workshops

<b>Land Degradation</b>	
<b><u>Goal</u></b> Land degradation is reduced through good landuse planning, use of best management practice and rehabilitation of degraded areas	
<b><u>Awareness and Communication</u></b> Develop a communication program to provide information to land managers on best practice for overgrazing, prospecting, fire management and road construction to reduce land degradation	<b><u>Business Plan – Proposed Actions</u></b> Communications Plan
Provide opportunities for field days and workshops to look at trial sites	4 annual grazing workshops
Provide publicly accessible information on soil types and their suitability for particular management practices	Nil
<b><u>Research</u></b> Research erosion by looking at sediment to determine causes	<b><u>Business Plan – Proposed Actions</u></b> 4 annual grazing workshops
Trial a variety of methods of erosion control to determine effectiveness, including ways to slow water down and findings from TRaCK research	Trial 3 sites for erosion control
Identify problem soils and their extent in the catchment	Nil
<b><u>Implementation</u></b> Use property plans to implement best practice for overgrazing, fires, riparian management and road construction to reduce land degradation, informed by land suitability, problem soils and research findings	<b><u>Business Plan – Proposed Actions</u></b> 4 annual grazing workshops, EMS manual
Partner with Local Government to implement better stabilisation of roadworks	Nil
<b><u>Resourcing</u></b> Develop a funding strategy to assist landowners with land degradation reduction, and research possible incentives program	<b><u>Business Plan – Proposed Actions</u></b> Some grant applications submitted, more needed, award program
<b><u>Collaboration</u></b> Develop partnerships with Local Government, landowners, State Agencies and research organisations to implement good grazing practice	<b><u>Business Plan – Proposed Actions</u></b> 4 annual grazing workshops, email database, communications plan
<b><u>Monitoring and Evaluation</u></b>	<b><u>Business Plan – Proposed Actions</u></b>

Develop a monitoring and evaluation program for the progress and identify technologies in other organisations which could be used	Grazing workshops, sharemap, satellite mapping, community monitoring, catchment wide riparian survey
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<b>Cultural Heritage</b>	
<b>Goal</b> Cultural Heritage is preserved and protected, including history, artefacts, stories and sites	
<b>Awareness and Communication</b> Develop a plan to promote and improve awareness of the history and heritage values in the Mitchell River watershed	<b>Business Plan – Proposed Actions</b> Nil – further consultation needed
<b>Research</b> Identify and map all significant cultural sites both past and present	<b>Business Plan – Proposed Actions</b> Nil – further consultation needed
<b>Implementation</b> Plan how identified sites can be protected and maintained at a property scale, and develop collaborative agreements between relevant parties (including land and sea managers) about their use.  Record and preserve oral and written histories of heritage, both indigenous and non-indigenous	<b>Business Plan – Proposed Actions</b> Nil – further consultation needed  Nil – further consultation needed
<b>Resourcing</b> Once sites are identified and planning complete, advocate for funding for implementation of protection of heritage sites	<b>Business Plan – Proposed Actions</b> Nil – further consultation needed
<b>Collaboration</b> Establish representative groups with all key stakeholders and plan and implement appropriate heritage protection	<b>Business Plan – Proposed Actions</b> MRTCAG MOU in place
<b>Monitoring and Evaluation</b> Develop a monitoring and evaluation framework to assess effectiveness	<b>Business Plan – Proposed Actions</b> Nil – further consultation needed

<b>Water Quality and Quantity</b>	
<b>Goal</b> To restore and maintain the quality and quantity of surface and groundwater to a standard acceptable to ecological and human health as well as for sustainable industry	
<b>Awareness and Communication</b> Increase community understanding of soil types and impacts on water quality and quantity, groundwater systems, and natural /human impacts on water quality  Provide easy access to water quality and quantity data  Document and disseminate local and Traditional knowledge of catchment hydrology	<b>Business Plan – Proposed Actions</b> Communications Plan, workshops  Communications Plan  Nil
<b>Research</b> Research any gaps in catchment hydrology, including how the catchment hydrology has been influenced by existing land uses.  Research environmental water needs for ecosystem health, and needs for industry, agriculture and human use  Research a range of options for water efficiency options, including onstream vs offstream storage.  Define what acceptable water quality parameters mean	<b>Business Plan – Proposed Actions</b> Nil  Some work through NAILSMA workshop- support MRTCAG to implement WRP for Mitchell-Aboriginal Water Allocation  Nil  Nil
<b>Implementation</b>	<b>Business Plan – Proposed Actions</b>

Support the actions for best practice for agriculture, mining and land degradation to protect water quality	Database on abandoned mines, trials on gully erosion, riparian fencing, coordinated weed control
Develop a reporting and response mechanism for community who identify water quality issues	Communications plan
Develop a plan for water management in the watershed and promote implementation of identified water efficiency measures, including recharge bores	Nil
Work with Sunwater and intensive horticulture growers to look at impacts of growers having to use full water allocation	Nil
<b>Resourcing</b> Work with industry to maximise returns to enable investment in best practice (eg overland flow dams), and provide subsidies as an incentive to increase uptake.	<b>Business Plan – Proposed Actions</b> Nil
Advocate with other partners for a local Water Quality laboratory	Nil
<b>Collaboration</b> Assist networking amongst groups to share water quality and quantity knowledge, and to use the knowledge to make informed comment about industry type and location on the river system	<b>Business Plan – Proposed Actions</b> 4 annual workshops, WQ annual workshop, communications plan
<b>Monitoring and Evaluation</b> Develop a comprehensive water quality monitoring program to identify sources of contamination and natural/human impacts	<b>Business Plan – Proposed Actions</b> Salinity monitoring, pH and sediment monitoring, catchment wide riparian health

<b>Intensive Agriculture</b>	
<b>Goal</b> A diverse, adaptive, sustainable and economically viable agricultural industry which uses best practice to minimise environmental harm	
<b>Awareness and Communication</b> Work with industry groups to encourage cross industry communications on best practice and potential future impacts on climate and costs, and investigate information transfer via a web site  Assist growers with property management by employing extension officers for site visits	<b>Business Plan – Proposed Actions</b> Communications plan, agriculture website, Mareeba Growers meetings, NGRMG  Support NGRMG
<b>Research</b> Research feasible options for water recycling for growers  Research impacts on food security if local industries close  Compile agricultural land suitability information for the Mitchell River Catchment	<b>Business Plan – Proposed Actions</b> Nil  Nil  Support NGRMG
<b>Implementation</b> Work with industry to provide appropriate training in best practice (including erosion control, contour farming, riparian management and water recycling) , new research and technologies and their onground implementation (investigate reef rescue scheme extension)  Create demonstration sites for best practice and conduct field days  Facilitate initiatives to assist with conflict in mixed land tenure	<b>Business Plan – Proposed Actions</b> Facilitate 2 field days suggested by the Mareeba Growers Association with NGRMG  See above  Nil

Provide options to assist succession planning and training	Nil
Assist the development of property management planning within the agricultural sector which includes land capability mapping	Support NGRMG
<b><u>Resourcing</u></b> Work with industry to maximise returns to enable investment in best practice (eg overland flow dams), and provide subsidies as an incentive to increase uptake.	<b><u>Business Plan – Proposed Actions</u></b> Assist with coordinated pig and weed control, advocate changes to tree clearing ban
<b><u>Collaboration</u></b> Work with industry to assist with building of grower networks for information and support  Investigate how best to establish or support a working partnership between growers, industry, management agencies and research organisations	<b><u>Business Plan – Proposed Actions</u></b> Nil  Provide linkage between growers and researchers
<b><u>Monitoring and Evaluation</u></b> Design monitoring and evaluation program to assess effectiveness of actions	<b><u>Business Plan – Proposed Actions</u></b> Salinity and nutrient/pesticide monitoring