



## QMDC: Sub-Catchment Planning



### Sub-catchment planning

Sub-catchment planning is a local community process allowing landholders to address land, water, vegetation, and other natural resource management (NRM) issues, as well as cultural issues, at a landscape scale.

- Working at a landscape (sub-catchment) scale allows coordination of community effort to resolve issues – many natural resource issues cannot be dealt with by only working on an individual property in isolation.
- Achieving effective and long lasting solutions to NRM issues is the aim of the planning and implementation process, and it provides a sound resource base for productive and healthy properties.
- A key step in this process is the development of a group sub-catchment plan through group and family discussion, workshops and field activities, sharing of good science and best practices, and practical sub-catchment and property level planning and design.

***Landcare farming makes good business sense. It helps keep the country in good condition and ensures production for years to come.***

### History of sub-catchment planning in the Queensland Murray-Darling Basin

The Queensland Murray-Darling Committee (QMDC) has supported sub-catchment planning for more than 10 years as it has a demonstrated impact on the adoption and implementation of improved natural resource management and production practices. State and Federal Government programmes have supported QMDC to accelerate the implementation of sub-catchment group plans.

Support through QMDC has included:

- contributions towards the employment of local Landcare group coordinators who assist landholder groups in the development, resourcing and implementation of their Plans
- the provision of planning, mapping, technical and other specialist support for the development and implementation of the Plans
- initiation and coordination of partnerships with State Government departments, industry organisations, research bodies and private companies to deliver political support, up-to-date science and technology
- significant investment of funds for landholders, local government, and other land managers to implement priority on-ground works which deliver more productive and sustainable farms and sub-catchments.



## Developing a sub-catchment plan

Local Landcare coordinators provide facilitation and coordination support for groups developing sub-catchment plans.

The Landcare group's committee decides which groups their coordinator is able to support depending on workload and the group's commitment (in negotiation with the sub-catchment group and relevant QMDC staff).

Current information on natural resource condition, impact and risks is gathered and assessed and sub-catchment goals and aims are identified.

Developing a sub-catchment plan requires a significant time commitment from the sub-catchment group members. They will need to:

- attend a number of planning meetings
- review the issues and priorities for their own property in relation to the priorities and goals for the whole sub-catchment
- seek new science and knowledge in developing these priorities
- commit time and resources to the writing of the group plan and subsequent property plans so that it can meet the QMDC assessment requirements.

QMDC can provide technical, logistical and administrative assistance to Landcare coordinators and sub-catchment planning groups with their planning process.

## Endorsement of a sub-catchment plan

An Assessment Panel has been established to endorse sub-catchment plans in order to ensure consistency and provide technical assurance.

The Assessment Panel consists of local primary producers, technical officers and other experienced people in the NRM field. Plans will be recommended/endorsed by the panel if they:

- meet the assessment criteria (see Page 7)
- are technically sound and will achieve improved NRM, production and financial outcomes for the group, and
- relate to priorities, targets and actions under the Queensland Murray-Darling Basin's Regional NRM Plan.

Approval/endorsement of a Plan means that:

- the Plan is supported by QMDC
- implementation of the Plan is a programme priority for QMDC
- available resources (including financial incentives and on-ground works assistance through the QMDC Aboriginal Rangers Programme) can be accessed
- additional resources will be sought by QMDC and Landcare staff to assist the group in implementing the Plan.

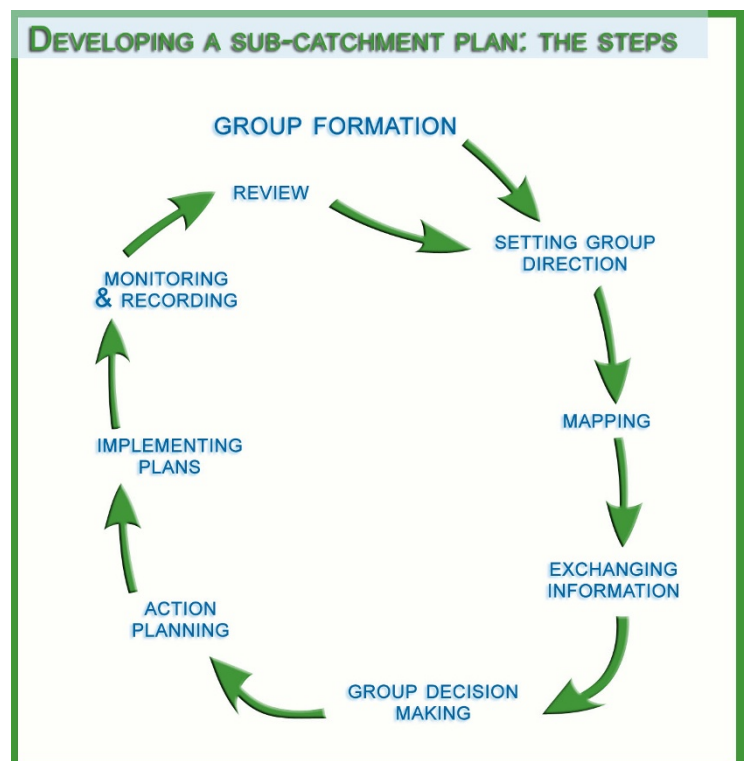
Plans developed without good science and up to date technology across all NRM areas will generally be unable to meet the QMDC approval requirements and will not be supported by QMDC. The sub-catchment plan should consider the following components of natural resources:

1. land and soils
2. water and riparian areas
3. vegetation and biodiversity
4. weed and pest animal management

Technical officers (from QMDC, local government, industry groups and State Government) can assist groups in gaining a broader understanding of ecological and catchment processes and the development of sub-catchment scale priorities for improved natural resource management.

QMDC has developed a range of participatory workshops and field activities across the range of NRM issues that can be covered in sub-catchment planning. These use the extensive practical and scientific knowledge of the sub-catchment group members combined with the specific skills of QMDC and other technical extension staff (e.g. from State Government departments, research and industry organisations and private companies).

Participating in sub-catchment group activities can provide landholders with the evidence to gain recognition of their skills and knowledge through Agriculture, Conservation and Land Management, and Rural Business Management qualifications.



## Implementing an approved sub-catchment plan

Implementing the priorities identified in the Plan at both the property and sub-catchment scale requires continued commitment from the group members.

Some requirements may be:

- private investment at the property level
- coordinated community action across the landscape (e.g. improving water quality or managing weed and pest species)
- adoption of new practices and different technologies
- in some cases, the development of new enterprises and business activities.

An approved sub-catchment plan becomes eligible for a range of resourcing options through QMDC to support its implementation. This can include specialist technical, scientific and planning support, involvement in research and industry projects, access to financial incentives and access to QMDC Aboriginal Rangers teams to assist in the implementation of approved sub-catchment planning projects.

The QMDC's Aboriginal Rangers will work alongside landholders to implement on-ground works by providing labour and other assistance, with the landholder providing the materials. For further details on the QMDC Aboriginal Ranger Programme and the assistance available please contact your local Landcare Group, QMDC or visit [www.qmdc.org.au](http://www.qmdc.org.au) for the fact sheet materials.

## Financial assistance for sub-catchment plans

There are a variety of funding sources for implementing a sub-catchment plan, and once endorsed and approved by QMDC, QMDC will actively assist the Landcare group to access these funds.

In order to receive resources for sub-catchment planning activities through QMDC, individuals must be members of a sub-catchment planning group with an approved/endorsed Plan. **Individuals** are **not** eligible to apply for funds for on-ground works through QMDC for sub-catchment planning purposes.

Groups are encouraged to submit completed sub-catchment plans at any time throughout the year. On approval, QMDC will consider the range of financial and other works incentives to implement the priorities within the Plan.

Government, industry and community programmes provide funds to assist landholders to implement improved NRM practices. A number of these programmes are directed through QMDC. The organisation is committed to allocating available financial resources for approved sub-catchment plans. QMDC and Landcare group members are able to seek additional resources and funds from a range of sources to help implement on-ground works.

When financial incentives are allocated to a Plan, the management of these funds must be accountable, responsible and transparent. Sub-catchment groups should discuss resourcing opportunities for their completed Plan early in the planning stage to ensure that members are fully aware of the requirements.

**Note:** *An approved sub-catchment plan is not a guarantee of financial support. Sufficient funds may not be available in a current programme and funding programmes have their own priorities which may not fit with the priorities of the Sub-catchment Plan.*



## Funding considerations

Once a group's sub-catchment plan is endorsed (including details of on-ground work on individual properties), and funding is available for on-ground works, contracts can then be drawn up between each group landholder and QMDC. Funding for on-ground projects will be subject to both parties signing the contract; it is then legally binding. The contract is linked to the financial and reporting requirements that QMDC has with the funding organisation.

Sub-catchment groups are encouraged to plan long term (for example a three to five year plan). Projects are, however, expected to be completed within the contract term. Additional implementation budgets will be reviewed on an annual basis subject to completion of planned activities. One to five year action plans and budgets will be accepted for consideration subject to demonstration of longer term considerations.

Both the landholder and QMDC must be accountable for the management of any financial support particularly those from Australian taxpayers. Funding organisations can audit QMDC and/or the landholder at any time. Signing the contract also means agreeing to maintaining the funded works (see page 5) and monitoring and reporting on project outcomes.

No works should commence prior to approval of the sub-catchment plan and issuing of individual contracts. QMDC will, however, consider sourcing funds for works undertaken that have been outlined in the approved Plan and have commenced within six months prior to approval/endorsement of the initial Plan by the QMDC Executive. Any other arrangements are subject to negotiation.

## QMDC and landholder contributions to projects

Natural resource management activities should consider environmental, social and production elements. As there will be some proportion of private benefit from NRM activities identified under a sub-catchment plan, those individuals set to benefit will be expected to contribute to the project's funding. If private individuals are going to benefit from a project they will be expected to contribute to the project's funding, at least in proportion to the value of the benefit they expect to gain. This is called in-kind support. The proportion of project funding versus in-kind support is called the contribution ratio.

In-kind support can be cash, materials or other support. For example, volunteer time spent on project activities, use of equipment and machinery belonging to the group and/or members and sponsorship from local industry.

***The level of a group's in-kind support is a reflection of their commitment, so your project may be given a higher priority in the assessment process if you contribute more than the minimum in-kind.***



**Table 1: Maximum funded/in-kind contribution ratios**

Activities	Funding ratios QMDC/Landholder
<b>Reducing soil erosion</b>	
Earthworks.....	50/50
Conversion of conventional planting equipment to zero tillage.....	50/50
Establishment of pastures.....	40/60
Fencing to land type changes (not including external boundaries).....	40/60
<b>Managing riparian condition</b>	
Controlling stock access to watercourses (e.g. fencing).....	70/30
Providing alternative watering points for stock.....	70/30
<b>Managing salinity risk</b>	
Establishment of deep rooted permanent pastures.....	40/60
Establishment of native local species (including grasses and/or trees & shrubs).....	70/30
<b>Managing biodiversity</b>	
Controlling stock access to protect and preserve habitat (e.g. fencing).....	70/30
Planting of local native species for biodiversity conservation or habitat purposes (including grasses and/or trees and shrubs).....	70/30
Controlling feral animals and weeds.....	30/70
<b>Monitoring</b>	
Water quality, species, habitats, or other resources identified as performance indicators in the sub-catchment plan	50/50
<b>Communication</b>	
Field days/media stories/newsletters	90/10
<b>Training</b>	
Workshops/training events	75/25
<b>Other activities</b>	<i>To be negotiated</i>

## Maintenance of funded works

In order to fully realise the long term natural resource benefits of funded works implemented through a sub-catchment plan, it is necessary to ensure the works are maintained for a reasonable length of time. QMDC recognises that in some cases there may be influences beyond landholders' control (e.g. acts of nature), however, all reasonable care should be taken to maintain the works as outlined below.

### Fences

The site should be enclosed with a stock-proof fence and should be managed in accordance with a developed Management Strategy. This should be outlined in the sub-catchment plan and reflected in the contract with QMDC. The fence is to be maintained in a stock-proof condition for a period of ten (10) years.

### Pastures

Pastures successfully established should be managed according to a Management Strategy outlined in the sub-catchment plan for a minimum period of six (6) years. Pastures should also be monitored for groundcover during this period. Grazing should also be managed with the aim to achieve a minimum 40% groundcover.

### Soil conservation structures

Contour diversion banks and waterways will need to be maintained in a serviceable condition for a minimum period of eight (8) years.

### Water infrastructure

*(e.g. troughs, piping, tanks, pumps etc)*

Water infrastructure will need to be maintained in a serviceable condition for a minimum period of five (5) years.

### Equipment

*(e.g. machinery modifications)*

Equipment will need to be maintained in a serviceable condition for a minimum period of five (5) years.

### Weeds

Areas where weeds have been controlled should be managed to prevent re-infestation for a minimum of five (5) years.

### Tree planting

Tree planting activities will be required to have a 70% survival rate for a period of at least three (3) years to ensure tree establishment.

# Guideline for sub-catchment plan budgets

## Suggested limits and rates for funding support through QMDC

### Fencing labour/material expenditure

- \$25/hr is upper limit suggested for labour costs for fence construction.
- Total fencing costs (including labour costs and materials) are not to exceed \$3,000/km unless the fenceline needs to be cleared in which case this upper limit is a total of \$3,500/km. Details of fence type and materials costing still need to be included with project budgets. The percentage of QMDC's contribution will be determined by the type of project (see funding ratios listed on page 5).
- Construction and design of fencing should be in accordance with the Wildlife Friendly Fencing guidelines except in exceptional circumstances. More information on this is available from QMDC and Landcare Coordinators.



### Water supplies

- A cap of \$10,000 for dam water storage applies per property/project, unless otherwise negotiated – this includes turkey nests if approved.
- A cap of \$10,000 for bore upgrades applies per project/property unless otherwise negotiated.
- The above \$10,000 caps should not include fittings, poly-pipe, troughs etc.
- Total funding contribution for pumps is limited to \$5,000/pump, however, QMDC will give preference to the adoption of renewable energy technology and may consider incentives to encourage its uptake.



### Investigate pasture re-establishment

- For scald reclamation funding on an adjusted 30/70 ratio (QMDC/landholder) for cutter-barring/blade ploughing etc will be offered to projects where there is considered to be a **high private benefit**. In areas where there are high natural resource management outcomes (soil conservation/pasture condition etc) the 40/60 ratio will apply. This will be assessed on a case by case basis.

### Ineligible activities

- Activities that have any adverse impact on any matter of national environmental significance (e.g. threatened species or wetlands that are covered by the EPBC Act 2001).
- Projects that propose the establishment of plants that are known, or could become, environmental or agricultural weeds.
- Stick raking will not be eligible for funding under any circumstances.
- Purchase of equipment that is normally the applicant's responsibility, unless you can show significant and long term public benefit in the purchase.
- Maintenance of existing infrastructures (e.g. fences, contour banks, dams, pumps etc).
- Administrative and word processing services.
- Legal costs.
- Day-to day administrative operation costs including costs for incorporation, insurance, accommodation and overheads (these are expenses that are incurred whether or not you do the project).
- Overseas travel.

## REAL LIFE STORIES

### *Hoey family*

When the Hoey family fenced off their creek, it helped to reduce grazing pressure, re-grass the area and reduce soil erosion. Ultimately, it has increased the value of their Inglewood grazing property.

### *Thomas family*

The Thomas family of 'Gwenbrook', north of Roma, are conquering soil erosion with spreaderbanks, gully reshaping and topsoil spreading. The results have been spectacular — gullies have stabilised and groundcover is increasing.

## Assessment criteria for approval of sub-catchment plan as used by the Assessment Panel

DESIRABLE CRITERIA	Very High	High	Medium	Low	Very Low	Score /5
	5	4	3	2	1	
Project objectives and outcomes achieve QMDC NRM Plan targets and priorities	Range of objectives are achievable and fulfil targets of the QMDC NRM Plan	Project can be modified slightly and objectives will fulfil targets of the QMDC NRM Plan	Some aspects of objectives fulfil targets of the QMDC NRM Plan	Objectives are achievable but do not fulfil targets of the QMDC NRM Plan	Objectives are unrealistic and irrelevant to the QMDC NRM Plan	
Proposed budget is value for money (contribution ratio)	Cost effective budget with high proportion contributions	Cost effective budget with good proportion contributions	Budget needs some modification, reasonable proportion contributions	Budget needs modification, inadequate proportion contributions	Budget not cost effective, poor contributions	
Long term on-ground results	Very strong possibility of producing measurable on-ground results	Strong possibility of producing measurable on-ground results	Reasonable possibility of producing measurable on-ground results	Some possibility of producing measurable on-ground results	Project unlikely to produce measurable on-ground results	
Commitment and support from landholders and linkages with other stakeholders (e.g. local government)	Very strong involvement of landholders and other stakeholders in the project	Strong involvement of landholders and other stakeholders in the project	Reasonable involvement of landholders with other stakeholders informed	Few landholders involved and very little consultation with stakeholders	Few landholders involved and no consultation with other stakeholders	
The plan is technically sound and includes individual property plans	Very high degree of technical analysis; well developed individual property plans	Acceptable level of technical analysis; well developed individual property plans	Acceptable level of technical analysis; individual property plans are included	Partial technical analysis; individual property plans are included	No technical analysis; no individual property planning detail	
Monitoring	Well developed monitoring program	Effective monitoring program	Monitoring program has been provided	Monitoring program has been provided, but bare minimum	Ineffective monitoring program	
					<b>Total Score</b>	<b>/30</b>

**Sub-catchment plans must meet any legal and/or planning requirements under Australian, State and local government laws. They also must meet all the criteria in the table below.**

Essential criteria for a sub-catchment plan	Check list
<p><b>1. A sub-catchment plan is documented</b>            A documented plan describing each of the following criteria (2-9) is provided. The plan includes:</p> <ul style="list-style-type: none"> <li>▪ maps of the sub-catchment</li> <li>▪ an overall budget showing landholder names, activity types and contribution rations (a spreadsheet is available from QMDC to assist with the budget).</li> </ul>	
<p><b>2. The sub-catchment area</b>            The area defined by the group is either a true sub-catchment of a river system, or is at an appropriate scale to effectively manage critical natural resource issues.</p>	
<p><b>3. Participation and partnerships</b>            All land managers (including public land managers) in the defined area have been invited and encouraged to participate, with either greater than 50% of the sub-catchment area or land managers having contributed to the sub-catchment plan.</p>	
<p><b>4. Technical considerations</b>            The sub-catchment plan includes actions based on technical considerations of a range of issues and landscape processes in the sub-catchment. Sub-catchment scale goals and aims have been developed for each technical category. If no actions are included on a particular technical category, justification must be provided.</p>	
<p><b>5. Impact and risk assessment</b>            The individual property plans have:</p> <ul style="list-style-type: none"> <li>▪ identified the impacts and risks to natural resource assets associated with current land management practices</li> <li>▪ outlined how the proposed activities aim to minimise the impacts or risks identified</li> <li>▪ outlined how the activities contribute to the sub-catchment goals and aims.</li> </ul>	
<p><b>6. Prioritisation of activities</b>            The activities have been prioritised according to:</p> <ul style="list-style-type: none"> <li>▪ the time-critical nature,</li> <li>▪ the cost/benefit ratio and</li> <li>▪ the strategic location of the project.</li> </ul>	
<p><b>7. Individual property action plans</b>            All land managers participating in sub-catchment funding proposals have developed individual property action plans. Landholders must be prepared to sign a funding agreement. The plans should:</p> <ul style="list-style-type: none"> <li>▪ include an individual property map showing the location of the on-ground works</li> <li>▪ include a budget (based on actual quotes and contractor rates) showing how the costs will be shared</li> <li>▪ indicate proposed activities and areas for on-ground works have been inspected/reviewed by a technically recognised person</li> <li>▪ indicate how individual on-ground works and property plans address sub-catchment proprieties, goals and aims.</li> </ul>	
<p><b>8. Target and monitoring</b>            Sub-catchment and individual property targets are identified and a program described to monitor progress using performance indicators established by the group. The monitoring program describes how the information collected will be managed and shared. Evaluation of the outcomes includes a continuous improvement approach.</p>	
<p><b>9. Communication and education</b>            The plan identifies educational opportunities (accredited and/or non accredited workshops and field days) to assist land managers in achieving improved land management practices. The plan identifies communication activities that the sub-catchment group will undertake to promote and extend outcomes (e.g. field days, case studies, workshops etc) the plan may also provide opportunities for land managers to have their skills recognised with formal qualifications.</p>	

# Requirements for a written sub-catchment plan

The QMDC Assessment Panel and the QMDC Executive are seeking Plans that consider the natural resource management issues facing landholders right across the landscape, not just at a property level.

The Plan should show that landholders have a holistic approach to solving these issues and are treating causes not just the symptoms. The Plan should also be developed in relation to the issues that the Queensland Murray-Darling Basin community outlined in the Regional Natural Resource Management Plan.

The best available information should be sought to assist landholders in sub-catchment planning from officers and organisations, such as QMDC, State Government departments, Local Government, research organisations and industry.

At a minimum, the sub-catchment group members must outline how they have considered the current condition of, the impact of and risk to, and are taking action on:

1. land and soils
2. water and riparian areas
3. vegetation and biodiversity
4. weed and pest animal management.

If actions are not being taken on all of these technical areas, justification must be provided.

## Land use and management

*Identify and assess:*

- soil types or land resource areas and distributions
- land use, productivity and management practices in accordance with land capability and land use limitations
- limitations and risks and threatening processes (e.g. erosion)
- indicators and monitoring.

## Salinity

*Identify and assess:*

- known salinity outbreaks and their characteristics to assess appropriate management options
- soil characteristics to depth (pH, EC, ESP, texture etc) of the broader landscape to assess actions designed to increase water use efficiency across the landscape.

*Undertake salinity assessment considering:*

- landscape position
- vegetation types
- landscape salt stores
- soil properties (permeability, plant available water capacity, depth)
- rainfall
- groundwater characteristics (type of flow system, depth and trends in water table)

- indicators and monitoring, that is, is project dependent, e.g. groundwater, soils, saline area characteristics, indicators of salinity, pastures (grazing land management). Monitoring locations and the frequency of monitoring need to be considered.

## Vegetation and biodiversity

*Identify and assess:*

- condition of vegetative cover in the sub-catchment
- riparian corridor condition and function
- relative level of permanent deep rooted vegetation, including permanent pasture/legume systems
  - integrity and function of systems and targeted ecosystems for protection and rehabilitation — definitions from regional ecosystems and links to or levels of protected areas and areas under Voluntary Conservation Agreements
  - consideration of Biodiversity Planning Assessments for viability and connectivity across the landscape and species habitat
- extent and condition of vegetation with commercial timber present
  - consideration of niche timber species and regrowth
  - trees/vegetation with potential uses, including on-farm
- indicators and monitoring.

## Water quality/river health

*Identify and assess:*

- impact of upstream versus downstream works on river health/water quality outcomes
- riparian condition (e.g. stream bank stability, vegetation condition)
- indicators and monitoring.

## Weeds and pest animals

- identify weed and pest animals
- establish the distribution and source
- consider the potential to spread, e.g. reinfestation from sources higher in the catchment
- assess their impacts and risk to key assets
- identify control options available
- identify methods of monitoring the success of control
- develop a prevention/property hygiene plan to limit the spread of pests onto, off and within the property boundary.



## For further information please contact:

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### Your local Landcare Coordinator

Up to date Landcare Coordinator contacts for QMDC can be found online at [www.qmdc.org.au](http://www.qmdc.org.au)

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