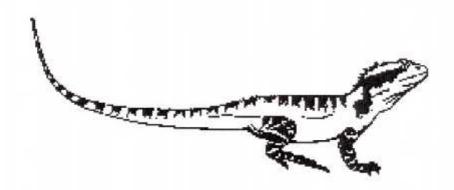
Moggill Creek Catchment Group

A Review and Business Plan for 2005-2008



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1 EXECUTIVE SUMMARY

Finance: Moggill Creek Catchment Group (MCCG) has been operating since 1998. For the first three years the National Heritage Trust (NHT) funded a part time Field Officer. Otherwise MCCG has been operating on membership fees, several special grants and income from volunteer initiatives. Income has risen significantly from 2002-2003 from about \$4,500 a year to now well over \$36,000 due to a number of special grants but also to the increasing number of members and a higher membership fee. At present (September 2004) more than \$56,000 of funding has been applied for the year 2004-2005. MCCG plans to continue seeking additional special grants for specific projects.

Administration: MCCG operates under Articles of Association and is incorporated. The 57.6 km² catchment is divided into 13 sections. A volunteer Section Leader manages the activities within each Section. Seven of these sections include activities on public land, which are supported by Brisbane City Council (BCC) as Habitat Brisbane Council Groups. Several sections that operate Bushcare Groups also include acreage landowners who are supported by MCCG.

Habitat Brisbane does not support private landowners wishing to restore their land. BCC provides limited encouragement or support through 'Land for Wildlife' and Voluntary Conservation Agreements and has legislated for vegetation conservation through Vegetation Protection Orders.

As a result MCCG's main current activities are:

- Supporting restoration work amongst private landowners.
- Promoting MCCG's vision for restoration of the catchment with the local community and other stakeholders.
- Assisting in acquiring and then in managing special grants both for restoration work and for the promotion of community support.
- Providing an incorporated umbrella group to Bushcare Groups to facilitate the acquisition of additional funds above and beyond those budgeted by BCC.

Restoration by private landowners is critical to the restoration of the catchment as a whole. Initially the NHT funded field officer supported landowners in their restoration work. As this funding has ceased, advice and support is currently provided by a small group of experienced volunteers.

MCCG operates and manages a nursery, which provides about 10,000 plants each year to private landowners.

In 2003 MCCG developed a Strategic Plan, which set out its vision and identified five themes:

- Caring for Biodiversity,
- Caring for Land,
- Caring for Water,
- · Understanding and Participation and
- Integrated Planning and Coordinated Management.

Strategies and major activities were defined within the themes. Good progress has been made with a number of key activities, but some have not been started through the lack of volunteers.

MCCG has developed a series of key databases that record membership, MCCG's activities, and records of plant distributions.

Public Relations: MCCG is very active in promoting community awareness of MCCG and local environmental issues. MCCG continues to publish an informative quarterly newsletter distributed to all members and within the local community. A photographic exhibition is held each year together with several displays in local shows and in shopping centres, and talks/lectures at schools and other venues.

Membership has risen from 178 in 1998 to more than 300 in 2003-2004.

Although MCCG is a very active catchment group much more could be achieved with more participating volunteers, both to assist in working bees and particularly to help in matters relating to water and land care.

MCCG plans to improve Section Leader support through the development of support kits, improved training, and improved communication on private landowners' activities.

As part of a University of Queensland research program private landowners' and urban residents' attitudes to restoration will be studied.

Biodiversity: Currently remnant vegetation is mostly restricted to along creeks and waterways and in upland areas. Connectivity is being lost between upland and lowland areas due to residential development and rural land management practices. Riparian corridors are generally narrow and fragmented. Plant species lists for specific areas within the catchment indicate relatively high species diversity.

No accurate estimate of weed infestation or land degradation is available. A list of fauna for the area (but also including Moggill and Pullenvale) was included with a Strategic Plan published by Rural Environment Planning Association in 1974. Notable species include platypus, water rats, red-necked and swamp wallabies, phascogales, feather tailed gliders and amongst the birds, the Powerful Owl.

Since 1998 more than 38,000 native plants have been provided to private landowners. Habitat Brisbane has provided since 1998 28,018 plants for public land restoration and in 2003-2004 6,320 plants were supplied.

MCCG is limited in its activities through lack of volunteers and funding. There is concern amongst active volunteers about the lack of policing and enforcement of existing regulations on weed control and vegetation protection. Vegetation protection Laws are considered inadequate and there is a need to encourage the retention of remnant vegetation through incentives.

MCCG aims to increase the number of private landowners involved in revegetation, with strategic targeting to establish corridors.

Caring for Land: MCCG is currently (September 2004) seeking a volunteer to undertake the role of Theme Coordinator for Land Care. Planned activities include the development of quantitative estimates of urbanisation, which is known to be increasing rapidly and assisting private landowners both in identifying environmentally-friendly designs for new homes and in the management of their land to reduce erosion.

Caring for Water: MCCG currently lacks a Theme Coordinator for this theme. MCCG wishes to seek ways to control any illegal and/or excessive extraction of water from creeks and bore holes. The EPA has ceased water quality monitoring and as a result MCCG is seeking funds to acquire appropriate equipment. MCCG wishes to liaise with local authorities on matters such as septic system performance, a water management plan for Gold Creek and the modification of storm water management to minimise ingress of debris and pollutants into the creeks and to reduce creek bed erosion.

MCCG also plans to seek clarification from council as to the potential impact of any remedial work on Gold Creek Reservoir.

2 INTRODUCTION

In June 1997 Brisbane City Council published the 'Moggill Creek Catchment Management Plan'. Subsequently, a Moggill Creek Catchment Management Plan Supplement was published for the Planning Section, Waterway and Asset Management of Brisbane Council. The reports generated considerable community interest and as a result, at a community meeting in October, it was decided to form MCCG. MCCG was incorporated in December 1987.

In late 2003 it became apparent that MCCG needed to demonstrate to its stakeholders and in particular to funding bodies such as the Natural Heritage Trust and Habitat Brisbane, a program and direction based on a strategic plan. Such a plan was formulated and approved by the MCCG in September 2003 (see Appendix A). As part of the actions arising from the Strategic Plan it was decided that MCCG should produce a rolling three year business plan which would describe the issues that were confronting MCCG and outline future goals. As the current document would be the first such plan it was decided that MCCG would in addition present a review of MCCG's present activities, together with an assessment of the environmental condition of the catchment.

This review and business plan addresses issues related to finance, administration, public relations, land care and water use. In addition, the report describes each Section in terms of biodiversity, water, land and its community. Finally it addresses the concerns and challenges that confront MCCG and presents its plans for the coming years.

The methodology adopted was in part to interview volunteers actively working for MCCG in different parts of the catchment and to record their concerns and also their views on issues related to the MCCG's activities generally.

3 FINANCE

3.1 ANNUAL INCOME AND EXPENDITURE

A summary of the income and expenditure for MCCG from 1997 is presented in Table 1 (this table does not take into account funding for a coordinator over the period 1998–2002. Over this period a joint project between MCCG and Brisbane Forest Park was funded by NHT, and financial and other arrangements were looked after by BFP.)

Year	Incon	ne	Expenditu	re	Variance
1998 -1999	GrantsMembershipMerchandiseMisc.	350.00 670.00 96.30 0.04	Administration	534.94	
	Total	1,116.34	Total	534.94	581.40
1999 -2000	 Grants Membership Merchandise Photo Comp Misc. 	2,300.00 820.00 368.55 1060.00 1.04	Administration Photo comp Section Expenses	1,365.24 1,204.00 928.08	
	Total	4,549.59	Total	3,497.32	1,052.27
2000-2001	 Grants Membership Photo Comp Misc. 	2,300.00 995.00 1164.00 1.73	 Administration Photo comp Section Expenses PR expenses 	1,418.17 1,573.40 1,275.05 360.15	
	Total	4,460.73	Total	4,626.77	-166.04
2001 -2002	Grants Membership Photo Comp Misc.	700 T	Administration Photo comp Section Expenses PR expenses	1,418.17 1,573.40 1275.05 360.15	
	Total	4,460.73		4,626.77	1,682.49
2002 -2003	 Grants Membership Photo Comp Merchandise Donation Misc. 	20,059.4 2,437.50 961.5 1,872.22 3,947.00 191.16	 Administration Photo comp PR expenses Section expenses Mulch Env expenses Merchandise 	4,938.26 1,658.77 5,810.04 781.48 1,207.14 5,069.52 1,386.00	
	Total	29,468.78	Total	20,851.21	8,617.57
2003 -2004	Grants Membership Photo Comp Merchandise Donation Misc.	29,584.00 3,330.00 1716.00 2,269.45 246.30 1,217.93	 Grants Administration Photo comp PR expenses Section expenses PR expenses Merchandise 	25,305.39 1,917,96 1,548.00 3,105.33 577.19 3,105.33 1,799.08	
	Total	38,363.68	Total	34,252.73	4,103.73

TABLE 1: ANNUAL INCOME AND EXPENDITURE

These figures do not include the NHT funding for the field Officer.

From these figures it can be seen that both income and expenditure have risen significantly, mainly through grants but also through the rise in membership fees. The main increase in expenditure, apart from work directly associated with income from grants, has been in public relations.

These income and expenditure figures do not reflect the total sums expended within the catchment but only that which is under direct control of MCCG (for further discussion see Section 3.1). No details are provided of the significant financial

support that is provided by BCC. MCCG would advocate that such data be provided to MCCG and annually presented along with the other sources of finance to allow all stakeholders to be fully aware of the resources provided. This would require input and cooperation from Habitat Brisbane. Also, the value of volunteer activities and plants grown in MCCG's nursery could be recorded. For calendar years 1999-2003, value of plants donated from the nursery (based on \$1.50 each) is as follows:

Year	Value
1999	\$4,602
2000	\$5,860
2001	\$4,732
2002	\$13,904
2003	\$12,723

During 2003-2004 budget forecasting and a procedure for allocating funds was introduced. It is planned to continue such financial control.

3.2 GRANTS FOR SPECIFIC OBJECTIVES

Table 2 presents grants for specific scopes during 1998 - 2004.

Year	Project Title	Project Number	Amount \$	Final report and acquittal sent	Expected completion date if not finished
2003	Restoration of Native Rainforest Vegetation along Upper Moggill Creek	43675 (Envirofund)	7,800	No	31/12/04
2002-2003	Focussed Habitat Restoration between Brisbane and D'Aguilar Range	38446 (Envirofund)	16,154	Yes	03/04
2002-2003	Gambling Community Benefit Fund	?	c. 3,000	Yes	Completed
2002-2003	BCC	NA	19,804	NA	2005
2001-2002	Ranges to River Stage 2	2012427 (NHT)	45,000	Yes	Completed
1998-1999	Ranges to River Stage 1 Year 1	982529 (NHT)	74,000	NA	Completed
1999-2000	Year 2	"	77,000	NA	Completed
2000-2001	Year 3	n.	80,000	YES	Completed
2004-2005	Developing communication strategies to improve participation in catchment management	20020011531 ?	\$10,000	No	2005

TABLE 2: GRANTS FOR SPECIFIC SCOPES

3.2.1 APPLICATION FOR FURTHER GRANTS

Table 3 presents a list of grants applied for 2004 – 2005.

Title	Source	Amount \$	Status
Water monitoring equipment	Gambling Community Benefit Fund		Refused in June but re- submitted for September
Bringing back birds and butterflies to Moggill Creek	Envirofund	23,715	Waiting
Community Conservation – Threatened Species & Quolls Southern D'Aguilar	Threatened Species Network Community Grants (WWF)	15,000	Waiting

Title	Source	Amount \$	Status
Promotion of environmental restoration in Moggill Creek Catchment	BCC Community Grants	4,110	Awarded

TABLE 3: GRANTS APPLIED FOR 2004 -2005

3.3 Issues of Concern

There are many significant restrictions limiting MCCG's acquisition of a much higher level of funding. These include:

- NHT will not support projects that seek funds to remove weeds. There is some basis to conclude that funds may be available for weed control that requires mechanical equipment (e.g. tree felling). Such criteria severely restrict MCCG's objectives as BCC have clearly stated that they lack the resources to undertake such work on a significant scale.
- NHT will not grant funds to allow MCCG to assist private landowners. Since large tracts of land surrounding Moggill Creek and its subsidiaries have been so infested with weeds as to cause severe reductions in biodiversity, this restriction presents a considerable challenge for MCCG.
- 3. All granting bodies restrict their funding to short periods (usually one year) and will not fund full time personnel such as Field Officers. (We should acknowledge, though, the continuing support of Habitat Brisbane in funding Bushcare sites where there is a community commitment). Restoration work usually takes at least five years to reach a stage where maintenance can be reduced to a minimum level. There is an argument that a catchment group will become dependent on such a person and will collapse when funding is with drawn when that person leaves. This may be so in some cases but it did not occur when MCCG's Field Officer left through the cessation of funds. The converse argument is that volunteers will depart through a realisation that their efforts are so inadequate that little is being achieved. Applications are therefore narrowly written which often results in a piecemeal approach to habitat restoration.

3.4 MCCG's FUTURE PLANS FOR ADDITIONAL FUNDING

- To apply for one NHT Envirofund grant every six months. No firm decision has been made as to the nature of the next application, which will be submitted in January 2005. In addition it is hoped to be able to access funding from NRM SEQ but this organisation's plans and level of funding have yet to be decided.
- Submit an application for funds from BCC's Community Grant Scheme for the costs of preparing and publishing a prospectus.
- Seek significant funds from the private sector.
- Review other possible sources of funding. The limitation in this case is the time required both to seek out other funding sources and to prepare and submit applications.
- Seek ways to improve criteria for funding from NHT and other funding bodies to allow activities to extend for longer than one year and to include the removal of weeds.

4 MANAGEMENT AND ADMINISTRATION

4.1 MCCG'S CURRENT MANAGEMENT AND FOCUS

MCCG is an incorporated volunteer organisation and operates under Articles of Association. As a result MCCG is managed through a Management Committee consisting of a Chairman, a Treasurer, a Secretary, a Public Relations representative and committee members. The Management Committee meets every month. It was decided to split up the MCCG into 13 Sections, because of its size and its diversity.

Each Section is lead by a Section Leader who is a volunteer responsible for coordinating and managing restoration activities within one part of the catchment. Section Leaders are also members of the MCCG's Management Committee. Seven of these Sections contain public land currently being improved through Bushcare activities supported by BCC, the support including insurance cover. Section 1 is at the moment not supported by Habitat Brisbane and the Section Leader for Section10 recently resigned and no replacement has been found.

Decisions on the details of restoration programs, their methodology and resources required (plants, mulch, large scale clearing etc) are made directly between BCC's Habitat Brisbane Program and individual Section Leaders. The support that BCC supplies through the Habitat Brisbane Program is significant and without it MCCG would be much less effective with regard to its work on public land. However, the eight Bushcare Groups (two are in one Section) could operate independently from MCCG, although they do derive benefit from MCCG, including opportunities for additional funding support through BCC and NHT.

MCCG's management is made even more diverse through the catchment extending into Brisbane Forest Park and Mount Coot-tha Forest Park. The former is managed by the Environmental Protection Agency and the latter by Brisbane City Council, each of which having a representative on the MCCG Committee. This gives the potential for MCCG to have some influence on the extent and direction of restoration work in these areas.

Brisbane City Council through the Habitat Brisbane Program does not provide support private for landowners restoring their land, other than through 'Land for Wildlife' and Voluntary Conservation Agreements.

As a result MCCG's main current activities are:

- Restoration work amongst private landowners.
- Promoting MCCG's vision for restoration of the catchment with the local community and other stakeholders.
- Assisting in acquiring and then in managing special grants both for restoration work and for the promotion of community support.
- Providing an incorporated umbrella group to Bushcare Groups to facilitate the acquisition of additional funds above and beyond those budgeted by BCC.

From 1998 to about 2001 NHT funded a full- time field officer to work within the Moggill Creek Catchment, for MCCG and BFP. Because of the direct support by Habitat Brisbane to the eight Bushcare Groups within MCCG during 2000 and 2001 the field officer focussed work on assisting private landowners. Now MCCG relies on a very few volunteers to coordinate this work although up to 15 volunteers assist in operating the nursery.

Although no official statement has been received by MCCG it is understood that BCC is planning to fund the appointment of a coordinator

Very approximately the 57.6 km2 of the catchment can be divided into;

Urban areas 8%

Public land
 23% (mainly Brisbane Forest Park and Mt Coot-tha Forest Park)

Private acreage 69%

We estimate that over 80% of the acreage landholdings have a minor to major environmental weed problem. The only exceptions would be properties very recently subdivided from upland eucalypt woodland and (arguably) properties that are mown overall. If the area of Brisbane State Forest and urban areas are removed it is estimated that most of private land and public land are in need of urgent restoration. These approximate figures clearly demonstrate that restoration of private land is critical to the ultimate success in restoring Moggill Creek Catchment.

MCCG's long-term program for restoration of biodiversity on private land is seriously endangered through the fact that it now depends on a very few volunteers. There is a need for professional support to maintain this momentum.

4.2 MCCG's STRATEGIC PLAN

In 2003 MCCG developed a Strategic Plan which is presented in Appendix A. Five Themes were identified, namely:

- Caring for biodiversity
- · Caring for water
- Caring for land
- · Understanding and participation
- Integrated planning and coordinated Management

Strategies and main activities were defined and it was recommended that MCCG should seek volunteers to act as Theme Coordinators. However, two of the coordinator positions, namely those for land and water care, remain unfilled. As a result there are many activities in areas related to water and land management which should be undertaken but which MCCG cannot do because of the lack of a coordinator for the theme.

4.3 MCCG's NURSERY

MCCG has operated a highly successful nursery at the end of Gold Creek Road for many years. Brisbane Forest Park provided the land and facilities. The nursery is managed by Graeme Wilson and operated by many volunteers. Plants are supplied to private landowners within the catchment as well as to the Pullen Pullen Catchment Group, members of which share responsibility for raising plants. Plants are offered free of charge to all private landowners in the two catchments. A database is maintained by MCCG's secretary, who records the number of plants delivered to each recipient and the range of species distributed.

MCCG may be asked to move the nursery, as the dam above the site of the nursery requires maintenance but assurance has been given that any translocation will be handled free of charge to MCCG and in a manner to ensure there is no loss.

In the coming year it is planned to supply 10,000 plants to private landowners within the two catchments.

4.4 ADMINISTRATION

The role of the Secretary expanded significantly in 2003 due to a number of new initiatives. An Access Database was created which:

- Records all MCCG's activities for funding, reporting and publicity purposes.
- Manages membership produces labels, reminder notices, lists of members in various sections, records number of members and address details.

The growing number of members that have installed email has allowed direct and rapid communication. However this advantage has required the preparation and compilation of material, maintaining the Group Email List, and the mail out of material. Monthly reports are sent out via email to all but one Management Committee member.

4.5 FUTURE DIRECTIONS

- Seek funding for the return of professional long-term support to assist volunteers in land and water care.
- Appoint a new secretary for MCCG as the present secretary Kate McVicar is resigning in November.
- 3. Appoint Theme Coordinators for Caring for Land and Caring for Water.
- Develop better ways of making Committee meetings more relevant to Section Leaders.
- 5. Recruit a Section Leader for Section 10.
- Recruit a Section Leader for Section 1 and obtain funding from Habitat Brisbane to fund an additional Bushcare Group.
- Seek opportunities to work with the National Trust of Queensland in restoring the Moon's Lane Reserve (Section 1).

5 PUBLIC RELATIONS ACTIVITIES

5.1 Promotion Of MCCG Since 1998

MCCG membership has increased significantly from 1998 when the group was created.

Year	No. Of Members
1998	178
1999	217
2000	210
2001	170
2002	192
2003	217
2004	330

In addition there have been regular and frequent articles appearing in the local media, and displays at local shopping centres, the Brookfield Show and other public events. MCCG volunteers have also delivered various communications, lessons and lectures to local schools and businesses and the University of Queensland.

The MCCG native plant nursery located in Gold Creek Road has also been a great incentive for the members. An annual photography competition in Kenmore Village Shopping Centre has attracted widespread interest as well as support from local businesses.

5.2 CURRENT PUBLIC ADMINISTRATION AND RESOURCING

Christine Hosking has been appointed to the committee as PR Coordinator.

Christine's present tasks are to maintain community awareness of the MCCG and its activities through articles in local publications, displays, photographic competitions, distribution of promotional material and other events. Through these channels community awareness and therefore memberships will continue to build. A 'Welcome Pack' given to new members, provides useful and interesting locally relevant information.

- · A small but willing team of volunteers helps with the following:
- Newsletter distribution
- · Setting up and dismantling displays
- · Manning displays
- Assembling and distributing Welcome Packs to new members
- Storage of merchandise

Last year MCCG expended over \$6,000 on Public relation activities (excluding the many hours of volunteer time).

5.3 Newsletter and Publications

MCCG publishes a quarterly 8-page Newsletter, which is edited by Graeme Wilson. The main focus of this significant publication is on aspects of local flora and fauna, together with rehabilitation issues particular to the catchment. The Newsletter is sent to all members of MCCG and distributed to some local shops and institutions. The Newsletter costs over \$400 per edition to publish and distribute.

In 2004 MCCG published a booklet listing 120 local butterflies and their food plants (author Dr DPA Sands). The previous year a CD ROM on grass identification was produced by Dr JB Hacker and published by Greening Australia; half the proceeds of CDs marketed through MCCG go to MCCG.

5.4 PHOTOGRAPHIC COMPETITION

A photographic competition, as an awareness and educational tool, has been held each year since MCCG was founded. The competition includes separate sections for children and adults. In 2003 more than 70 photographs were exhibited and prizes, which were matched by sponsorship, totalled over \$1,600.

Several section leaders publicise working bees through distributing flyers.

5.5 MAIN ISSUES

- MCCG operates a very active PR group but in spite of this the knowledge of MCCG's vision, strategies and activities within the community is surprisingly not well known. Maintaining community awareness through ongoing education and promotion is an on going challenge.
- The PR group within MCCG has recently been fortunate in attracting several willing volunteers. Maintaining a team of helpers and recruiting volunteers as and when needed is a constant challenge.

5.6 FUTURE GOALS AND FORECASTS

A program of events for 2004-2005 has been planned and will include:

- Displays at Kenmore Village
- Display/plant and merchandise sale and membership drive at Brookfield Produce Store (March 2005)
- Photographic competition (September 2004)
- Events for:
 - Brookfield Show (May 2005)
 - World Environment Day event with participation of local schools (June 2005)
 - Threatened Species Day (Sept 2004)
 - World Habitat Day (Oct 2004) or,
 - National Weedbuster Week (Oct 2004)
 - o Bus tour (Nov 2004).
 - AGM with invited speaker (Nov 2004).

5.7 GOALS

- To continue to involve the catchment's community in environmental protection through displays, visits to schools and articles in local journals.
- To continue to increase the membership numbers of MCCG by creating more awareness of MCCG and its objectives.
- To ensure all MCCG's stakeholders are fully aware of our activities.
- To seek ways better to understand community attitudes to MCCG.
- To prepare a prospectus (dependent on funding)
- To enhance understanding of and respect for native wildlife through a project looking for local evidence of quolis (dependent on funding)
- To establish an MCCG Eco Centre. This centre would provide the community with a focal point for gaining information about all aspects of the catchment's environment, including:
 - Ecologically sustainable development
 - Biodiversity
 - Weeds
 - Native plants

- Advice to landholders
- Domestic water conservation and quality of the catchment's water
- Native animals
- Pest animals
- Fire

The Eco Centre would be a dynamic resource, frequently changing, stimulating to visitors and offering additional events such as information days for schools, real estate agents/property developers and other stakeholder groups.

The Eco Centre would be open at set times and staffed by either volunteers or paid personnel, or a combination of both. Funding would be required for the establishment of the Centre as well as ongoing promotional/educational work.

6 BIODIVERSITY, LAND AND WATER CARE

This Chapter provides a summary of the condition of biodiversity, land and water in each sub-catchment (Section) of the Moggill Creek Catchment. It also identifies the major issues affecting catchment health and proposes actions to redress negative impacts. The information in this Chapter has been derived from interviews with Section Leaders and a review of existing literature.

6.1 OVERVIEW

Moggill Creek Catchment comprises 57.6 km² of residential and rural areas, parkland and conservation reserves.

The Moggill Creek Catchment Management Plan (BCC, 1997) identifies the underlying geology of the Catchment as comprising clastic sediments (greywackes, siltstones, shales), lavas, pillow lavas and tuffs, together with massive and bedded cherts overlying phyllite and some jasper.

Soils are a mix of lithosols, podzolic soils, red earths, krasnozems and cracking clay soils. Soil erodibility: Surface soil: Subsoil: Underlying rock: (BCC, 1997). Soils on upper slopes are shallow and mostly infertile.

Historically, vegetation within the catchment comprised riparian rainforest along creeks and waterways, eucalypt forest and woodland on drier slopes and ridges, and dry rainforest on moister slopes and in gullies.

Currently remnant vegetation is mostly restricted to along creeks and waterways and in upland areas. Connectivity between upland and lowland areas was initially lost through widespread clearing for agriculture, horticulture and grazing more than 80 years ago and is further adversely affected by residential development and rural land management practices. Riparian corridors are generally narrow and fragmented. Plant species lists for specific areas within the catchment indicate relatively high species diversity. A fauna list published by Rural Environment Planning Association for the Moggill, Pullen Pullen and Pullen Creek Catchments is largely applicable to the Moggill Creek Catchment.

Extent of erosion on slopes since the land was first cleared is difficult to estimate. Little gullying is evident; however, sheet erosion could have been significant, associated with past farming practices (pawpaw and bananas) on steep slopes. Severe scouring of some creeks, associated with rapid run-off from housing and shopping areas, has resulted in down-cutting by as much as 2 m, and in other cases deposition of silt and coarser material is evident in-stream.

Most waterways in the catchment consist of a series of water holes, with varying degrees of permanency. With the exception of the lower reaches of Moggill Creek, flowing water only occurs in the various creeks following heavy rain. Surface and ground water extraction through pumps and bores, appears to be decreasing water availability. Water quality varies within the catchment and there is some concern regarding stormwater management and seepage from septic systems. Platypus however has been recorded from downstream reaches of Moggill Creek as well as McKay Brook. Infestations of the waterweeds Salvinia molesta and Myriophyllum aquaticum are a concern.

Since the formation of the Moggill Creek Catchment Group (MCCG) in 1998, considerable community effort has gone into improving the condition of public and private land within the catchment.

MCCG's Section Leaders provide the focal point for contact within sub-catchment areas and most also manage Habitat Brisbane Groups. There are currently eight Habitat Brisbane Groups within the catchment. Work with private landholders was initiated through successful grant applications to the Natural Heritage Trust, and continues through voluntary support from MCCG Committee members.

6.2 SUMMARY OF SECTION PLANS

individual Section Plans). A referencing system has been applied to actions to enable easy referral to the Section Plan from which they arose. Derivation of action numbers is: first letter of the theme, section number and action number. For example, B8.3 is the third Biodiversity action A summary of actions largely identified by Section Leaders is provided below (the detail and specific intent of each action is provided in for Section 8.

The letter "C" in the year columns indicates when it is hoped to complete the activity.

Theme	Activity	Relevant Actions	2002	2005 2006 2007	2002
Biodiversity	Investigate opportunities to develop a 'Friends of Moon's Land' group, in association with the National Trust, and seek a Greencorps project	81.4			
	Seek commitment from Council regarding policing/enforcement of existing regulations on weed control and vegetation protection	B8,3		U	
	Initiate discussions with Council regarding amendment of Vegetation Protection laws to allow removal of weed species, eg. willows, from within designated areas	B8.4		U	
	Seek reassurance from Council as to long term commitment to Vegetation Protection laws and Habitat Brisbane activities	88.5		U	
	Investigate/encourage adoption of incentive programs by Council for retention of remnants and regrowth	B8.6			υ
	Better define areas of severe weed infestation	All sections	υ		
	On-ground action – public land				
	Better define areas of severe weed infestation	All sections	U		
	Identify/negotiate new sites for revegetation	B1.2, B2.3, B5.3, B9.1, C11.2	U	U	U
	Maintenance of existing plantings	B4.1, B5.2, B6.2, B11.1, B12.2	U	U	U
	Extension of existing plantings – weed control and planting	B1.1, B2.1, B2.2, B3.1, B4.1, B5.2, B6.3, B6.4, B7.2, B10.1, B11.2, B12.2	U	U	U
	Removal of large weed trees from public land	B2.2, B3.3, B4.1, B4.2, B12.3	Ü	Ü	0
	Removal of dense weed infestations on public land	B12.4	O	U	O
	Pest animal control	87.1		O	
	More detailed mapping of major weed species	87.2	Ü	O	U
	On-ground action – private land				

Theme	Activity	Relevant Actions	2005	2006	2007
	Increase the number of private landholders involved in revegetation BY at least 10 each year (in each rural section)	B1.3, B8.1	U	υ	U
	Increase the activity of private landholders in revegetation	B1.3, B8.1	U	υ	U
	Strategic targeting of private landholders to establish corridors	B5.1, B8.2, B12.1		U	
	Identify locations of private landholder revegetation projects, with a view to encouraging neighbours and creating corridors	B5.1		U	
	Targeted program of large weed tree removal from private land	B4.1, B5.4		U	
Land	Modify current stormwater management practices to minimise erosion at identified sites	111.1		U	
	Encourage/assist private landholders with erosion control	L12.1		U	
	Seek funding/support for a bridge across the creek between Brookfield Road and Belford Street where High School students currently cross	C11.3			U
	Obtain and disseminate to Section Leaders environmental guidelines and local contacts from infrastructure providers, developers and Councils	L6.2, L8.1, B8.7		U	
	Notify Council of apparent breaches of guidelines and illegal activities	L6.1, L8.2	U	O	Ü
Water	Modify current stormwater management practices to minimise ingress of debris and pollutants into waterways at identified sites	W11.1	U		
	Investigate permit requirements/legislation relating to water extraction from creeks in the catchment	W2.1		U	
	Obtain water flow data from Council	W2.1		U	
	Liaise with Council regarding integration of water sensitive urban design techniques into existing developments	W3.1		U	
	Encourage a review of septic system performance	W4.1, W6.1		U	
	Seek clarity from Council as to the potential impact of remedial works on Gold Creek Reservoir on the operation of Gold Creek nursery	W8.1	U		
	Instigate development of a water management plan for Gold Creek Reservoir, including release for environmental flows	W9.1	U		
Community	Further empower/support Section Leaders through:				
	Development of a support kit / strategies	C1.2, C6.3	U		
	Appropriate training	C1.3	O		
	Continuing association/coordination with the MCCG central committee	C9.1	0		
	Providing details of private revegetation participants	C12.2	U		

Theme	Activity	Relevant Actions	2005	2005 2006 2007	200
		C12.3	υ		
	Investigate opportunities for incentives for weed control by private landholders	C12.4	U		
	Improve/increase revegetation on private land	C6.2, C8.3		O	
	Undertake landholder attitude survey to direct future activities	C8.4	U		
	Increase Catchment Group membership by at least 10% per year and active participation, through targeted promotion	C2.1, C3.1, C4.2, C5.1, C6.5, C8.1, C12.1	U	Ú	U
	Management/maintenance of walking trails	C7.1		U	O
	Increase awareness of MCCG and catchment issues, eg.	C5.2	U	U	U
	development of a new resident's kit	C6.4, C8.2	U	U	U
	field day	C1.1, C9.2	υ	U	U
	hands-on planting activity as part of Brookfield Show	C4,3	υ	υ	O
	activities with local schools	C6.1, C11.1	υ	υ	O
	permanent interpretive display and walk	C4.1			O
	Improve communication with Council	C8.5	U	U	U
	Investigate options for a Council or other "Authority figure" to maintain a presence in the area and undertake education role with landholders, eg. on environmental weeds	B6.1		υ	

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6.3 Section 1: Pullenvale Road / Moons Lane

Section Leader: Claire Laycock

6.3.1 DESCRIPTION OF SECTION

Biodiversity

Little of the original vegetation (10b/10a/1c) of the area remains in the Section. Some remnants exist at the back of larger properties. A narrow strip of riparian vegetation (12/1a) occurs along the creek. Rafting Ground Park exhibits remnants of the rainforest species that used to line the creek. Near the mouth of Moggill Creek, stands of mangroves (Aegiceras corniculatum) occur.

9 10 12

Platypuses are known to occur in Moggill Creek near Kilkivan Street and Dumbarton Street (last sighting May 2004).

Water

Moggill Creek is tidal to Moggill Road crossing. From Moggill Road upstream to the Section boundary, the creek is a permanent watercourse. Other ephemeral watercourses in the Section feed into Moggill Creek. Two small dams are known to have been constructed on ephemeral watercourses/gullies.

Most of Moggill Creek flows through private properties. Rafting Ground Park provides the only public access to the creek in this Section.

Land

City Plan (Brisbane City Council, 2004) designates most of the Section as a Rural Area. In the southeastern corner of the Section, the University of Queensland's Veterinary Farm comprises a Community Use Area. Rafting Ground Reserve is the only BCC Parkland Area in the Section. Moons Lane Reserve, owned by the National Trust of Queensland, is an area which comprises a hoop pine plantation, monuments, grassland and some naturally regenerating forest. In recent years it has been rather neglected (although included in a MCCG weed control program funded by NHT). The Reserve lies to the north of Moons Lane

Community

Until January 2004 the Section was without a leader and had been so for a number of years. Habitat Brisbane does not support the Section. No working bees have been organised in the Section. Botanist Sandy Pollock does a limited amount of planting and maintenance in Rafting Ground Park.

There are currently 19 Catchment Group members within the Section.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
347		236	302	655	368	1908

In addition, over 2004 3 private landholders within the Section received advice and assistance from MCCG (40 bales of mulch).

The University of Queensland's Veterinary Farm occupies land in the southeastern corner of the Section.

6.3.2 ISSUES AND TRENDS

Biodiversity

The majority of the floodplain has been cleared, with only a narrow strip of riparian vegetation along the creek. Rafting Ground Park exhibits remnants of the rainforest species that used to line the creek and substantial revegetation activities in the Park date from 1992. Glycine is a significant problem in the Park.

Some Lantana and a few vine weeds occur in the Section, however, revegetation of cleared areas rather than weed control appears to be the major issue.

Water

Small dams on feeder watercourse may be affecting water levels. No visible pollution.

Land

A small amount of undercutting is occurring along the creek banks, possibly caused by tidal wash.

In City Plan the Section includes land designated as Low Density Residential and Rural Minimum Lot sizes:

Low Density Residential minimum lot size: 400 m2 (Chapter 3 page 27 S5.2.1)

Rural minimum lot size: 10 ha (Chapter 3 page 21 S3.5.1)

Community

There has been little activity in the Section in recent years (due to the absence of a Section Leader), with the exception of a few private landholders.

The current Section Leader is unsure of her role and lacks confidence in her ability to meet Catchment Group expectations.

6.3.3 Addressing The Issues

The issues listed below are those expressed by the Section Leader. Many are relevant to the whole catchment. The letter "C" in the year columns indicates when it would be seen to be desirable to complete the activity subject to availability of resources. Section 6.2 groups these activities.

Theme	Action #	Details	2005	2006	2007
Biodiversity	B1.1	Enhance Rafting Ground Park through further planting and labelling of existing indigenous species. The Park provides considerable opportunity for community involvement and increased awareness.			
	B1.2	Investigate public land (designated green space) at the corner of Pullenvale and Moggill Roads and nearby on the northern side of Pullenvale Road (designated community use). If rehabilitated, these could be the start of a corridor along Rafting Ground Road that links with private remnants in the northwest.			
	B1.3	Increase the activity of private landholders in revegetation.			
	B1.4	Investigate opportunities to develop a Friends of Moon's Land' group, in association with the National Trust, and seek a Greencorps project			
Water		No action required.			
Land		No action required.	TOTAL ST		

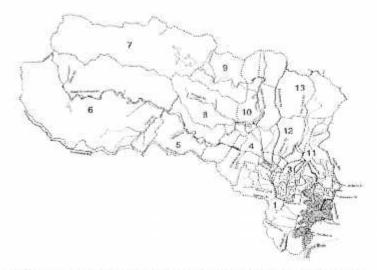
Theme	Action #	Details	2005	2006	2007
		Organise a field day and information display at Rafting Ground Park with Pullen Pullen Catchments Group.			
	C1.2	Develop support kit for Section Leaders, containing information such as role description, list of people within Catchment Group with particular skills (eq. plant identification, revegetation techniques), organisational structure and Catchment Group strategic plan.		Community	C1.1
	C1.3	Provide training and support to Section Leaders to enhance skills in a variety of areas.			

6.4 Section 2: Lower Moggill Creek

Section Leader: Rob Waller

6.4.1 DESCRIPTION OF SECTION

Lower Moggill Section covers the areas of Moggill Creek catchment from the boundaries of the Kenmore State High School to where Moggill Creek empties into the Brisbane River. Apart from a few larger properties on the western bank of the creek the area is mostly covered by suburban housing development. Being the lower section of the



creek, the area tends to be flood prone and as such most of the land along the creek itself has been left as open space. This consists of lawned parklands and reserves whose usage varies from playing fields to recreation areas.

Biodiversity

Remnant vegetation in this Section is restricted to parkland along Moggill Creek. Within this there are a few small pockets of remnant native vegetation; however the bulk of the flora along the creek consists of introduced weed species. There are some fine examples of mature native trees in the area, but very few native seedlings can be found because of the dominance of weeds. Isolated trees are all that remain in the remainder of the Section. Near the mouth of Moggill Creek, stands of mangroves (Aegiceras corniculatum) occur. A narrow strip of riparian vegetation (12/1a) occurs along the creek.

Several permanent waterholes support both native and introduced species of fish, waterfowl (ducks, spoonbills, herons and cormorants), reptiles (Long-necked and Saw-shelled turtles and Water dragons) and aquatic mammals such as platypus and water rats. Platypuses have been seen near Kilkivan Street and Dumbarton Street (last sighting May 2004).

Some plants identified in the Section include:

Acacia maidenii Aphananthe philippinensis Cryptocarya triplinervis Elaeocarpus obovatus Ficus coronata Guioa semiglauca Mallotus philippensis Melaleuca bracteata Neolitsea dealbata Streblus brunonianus

Water

Moggill Creek is tidal to Moggill Road crossing. From Moggill Road upstream to the Section boundary, the creek is a permanent watercourse. Substantial stormwater and road runoff are channelled through a gully parallel to Kilkivan Street and into Moggill Creek.

Moggill Creek is publicly accessible via reserves from Kenmore State High School (KSHS) to opposite Rafting Ground Park.

Land

In general soil quality is very poor as it is made up of clay and other fill which was generated by past land developments and road construction in the area. As home sites were established, the waste soil generated was pushed down along the creek banks and now forms the bulk of the level areas along Moggill Creek. Some riparian soils consist of gravel and sand scoured out of the creek itself by various floods,

resulting in nutritionally poor soil. Underlying soils are a mixture of lithosols, podzolic soils, red earths, krasnozems and cracking clay soils. Soil erodibility: Surface soil: Subsoil: Underlying rock: (BCC, 1997).

City Plan (Brisbane City Council, 2004) designates most of the Section as a Low Density Residential Area, with a small Emerging Community Area yet to be developed. KSHS and Our Lady of the Rosary School are the two Community Use Areas within the Section. A strip of Parkland Area adjoins Moggill Creek from south of KSHS to the Brisbane River.

Community

There are currently (July 2004) 27 Catchment Group members within the Section.

Monthly working bees are regularly attended by the same six people, with activities supported by Habitat Brisbane. New people come and go infrequently. A one-off 500 tree planting day in 2002-2003 attracted 25 people.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
£				45	4	49

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	577	585	780	200	2142

In addition, during 2003 5 private landholders within the Section received advice from MCCG.

KSHS is involved with weed control and revegetation along Moggill Creek and McKay Brook (Section 11). MCCG has provided advice, training and plants to KSHS through a Green Corps project in 2004. Contact has been made with Our Lady of the Rosary through the MCCG Chairman, but not with the Kenmore Pony Club.

6.4.1.1 ISSUES AND TRENDS

Biodiversity

The majority of the floodplain has been cleared, with only a narrow strip of riparian vegetation along the creek. Very few native seedlings can be found due to the dominance of weed species, causing concern that without intervention the native species will be replaced through slow attrition. Away from the creek, mature remnant trees are all that remain.

Major weeds along the creek include Glycine, Madeira vine, Chinese celtis, Castor oil and Guinea grass. The level of infestation varies, with some areas 99% weeds; other areas require constant maintenance. Glycine and Madeira vine are the worst weeds for maintenance, with re-infestation occurring in 5-10% of old sites.

Lantana occurs in the Section but is limited to shaly soil on the east side of the creek below Moggill Road, where it comprises 30% of the vegetation.

Taro is rapidly increasing, extending further up the Creek. Salvinia accumulates in calmer sections of the Creek, often smothering the surface after prolonged low-flow periods, but is usually cleared out by occasional flooding. Infestations of the waterweed Myriophyllum aquaticum also occur.

Water

Water levels appear to be decreasing in the Creek, presumably mostly due to dry conditions; however water extraction by large properties along the western side may also contribute.

Being the lower reach of Moggill Creek, this area tends to accumulate problems from the upper reaches. While water quality appears "fair" and supports a reasonable variety of invertebrates and larger wildlife, there is strong evidence of sewage pollution and salinity readings are measurably high. This is possibly due to a combination of sewage and/or fertiliser contamination of the creek. Sewage pollution of the Creek results from stormwater intrusion into the sewage system during heavy rain and overflow from manholes in the park (Brisbane City Council is aware of this problem). Occasionally some scum is visible on the water surface but the nature of this is unknown.

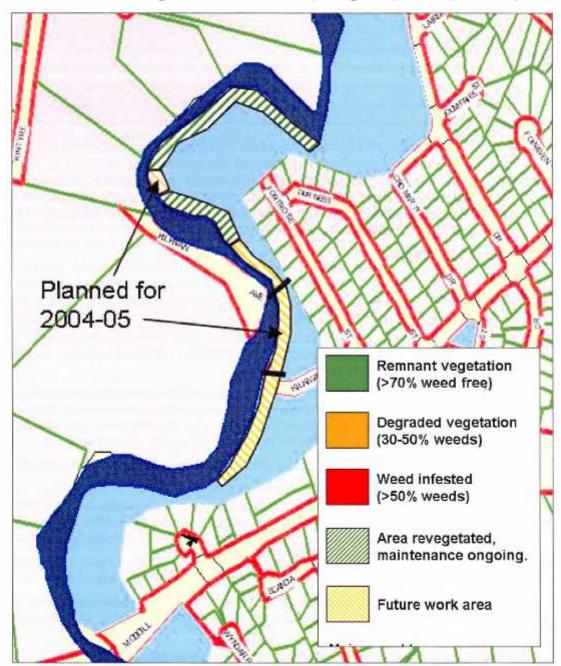
Rubbish in the Creek from the nearby High School is minimal and mainly due to crows and ibis raiding rubbish bins. There is some concern regarding cleaners emptying mop buckets onto paths and the polluted water flowing into the Creek.

Land

No obvious erosion in this Section, however, this may be occurring in the Creek upstream as waterholes seem to be filling up with gravel.

Community

Attendance at working bees has been stable, though low, for the past few years.



6.4.2 ADDRESSING THE ISSUES

The issues listed below are those expressed by the Section Leader. Many are relevant to the whole catchment. The letter "C" in the year columns indicates when it would be seen to be desirable to complete the activity subject to availability of resources. Section 6.2 groups these activities.

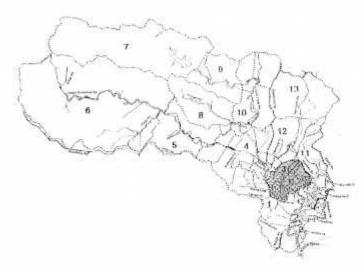
Theme	Action #	Details	2005	2006	2007
Biodiversity	B2.1	Complete weed control and planting in Fortrose Street section of park by end 2004.	С		
	B2.2	Undertake weed control, including removal of large Chinese celtis, and planting in the area south of Kilkivan Street (area in between has very steep creek banks and unsympathetic adjoining landholders).		С	
	B2.3	Investigate wetland treatment for waterway between Kilkivan Street and Moggill Road.		С	
Water	W2.1	Investigate legislation relating to water extraction from Moggill Creek. Council monitoring station in the park at the creek end of Fortrose Street may capture water flow data.	С		
Land		No action required.			
Community	C2.1	Current activity is sufficient for working bees, however, small numbers mean this could be an issue in the future, particularly as work site moves away from attendees' residences. Develop ways of encouraging more volunteers to take part in bush care activity.	C	С	C

6.5 Section 3: Huntington

Section Leader: Malcolm Frost

6.5.1 DESCRIPTION OF SECTION

This Section consists
predominantly of housing
estates surrounding Moggill
Creek (Huntington Estate to the
south, Kenmore Hills to the
north and Kensington Estate to
the east) however some larger
properties occur in the north and
west. Moggill Creek meanders
through parkland in the middle
of housing, from the western
border defined by Rafting
Ground Road to the eastern



border at the Kensington Estate and Brookfield Road.

Biodiversity

Some remnant eucalypt forest, mainly large trees, occurs in the north of the Section. Elsewhere vegetation is cleared apart from a narrow strip along the creek, containing some rainforest and riparian species.

Turtles and fish are frequently sighted in creek and waterholes. Platypus are rumoured to occur in the creek toward southern end of the Section.

Water

Moggill Creek meanders for about 3.25km through this Section with creek banks ranging in width from about 10m to 50m. On the eastern boundary the creek bends sharply south below a steep 30m bank below Brookfield Road and the terrace opposite Cromwell Close drops very steeply 20m to the creek.

Heavy rainfall such as that which occurred in 1996 causes the creek's water level to rise between 5 and 10m but during dry times, such as over 2003-2004, the creek barely flows.

Very little is known about the condition of the Creek in this Section. There is a series of significant water holes, which have not completely dried up during the droughts of the last few years. The most significant, Tuckett's Waterhole, is situated a few hundred metres west of Rafting Ground Road. Tuckett's Water hole, even as little as 15-20 years ago, used to be a favoured swimming hole for children.

Land

There are about 600 households in the area. City Plan (Brisbane City Council, 2004) designates most of the Section as a Low Density Residential Area, however Rural Area occurs across the north of the section and in the west. The land west of Jacaranda Avenue and enclosed south of Brookfield Road is about six kilometres of cleared land made up of properties each of one to several hectares. A strip of Parkland Area buffers Moggill Creek for most of its length through the section. The park, usually about 100-200m from bordering road to creek, represents a river terrace with the creek usually 3-5m below the terrace.

Community

There are currently 35 Catchment Group members within the Section.

Work supported by MCCG and Habitat Brisbane began in 1998 in the gully leading to the creek in Creekside Park close to Willow Bank Road. It has since extended to the west from the crossing nearly to the end of Creekside Park and on the Huntington side from the creek crossing to 100m past Tucketts's Water Hole (see figure).

Restoration involves clearing by hand (small saws, secateurs), controlling weed regrowth through seed banks using Round Up, planting native trees and shrubs, with follow up maintenance using Round Up, whipper snipers and hand weeding for several years. To assist in weed control and to prevent considerable amounts of debris being swept down stream in heavy rain periods weed, rubbish is removed from site by Habitat Brisbane. Trees with diameters less than 200mm are cut down by volunteers. About seven larger trees have been either cut down by Habitat Brisbane staff or by contractors. About 12 large weed trees have been killed by injection. In late 2003 seven Camphor laurels were removed from Creekside Park and the eight remaining on the resident side of Creekside Street were removed in March 2004. Habitat Brisbane funded the slashing of a 50m section of the creek bank in June 2003. MCCG has applied for a NHT grant to assist the restoration of the area.

In addition, an area at the eastern end of Creekside Street extending for about 150m has been cleared in a similar manner. Opposite to this site an experiment was conducted in 2000 when 3-4 large Chinese elms were killed by injection, the area below these was cleared of Chinese elms saplings and other weeds and replanted with natives. Compared to areas which have been cleared more widely the natives were found to grow very slowly.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
		135	112	84	315	646

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	120	1691	1000	2000	4811

In addition, during 2003 3 private landholders within the Section received advice, and assistance from MCCG comprising:

- 6 bales of mulch; and
- 4 litres of herbicide.

6.5.2 ISSUES AND TRENDS

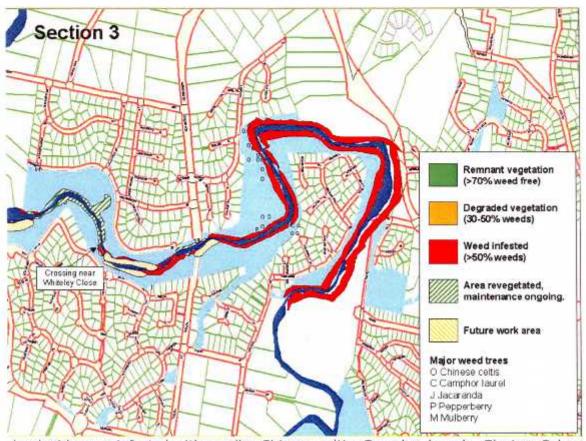
Biodiversity

Majority of the floodplain has been cleared, with only a narrow strip of riparian vegetation along the creek. Consideration should be given to the greater integration of the parks, which now consist of grass areas with a few interspersed trees, with the flora that is being re-introduced along the creeks banks. Although it is desirable to leave some open spaces for recreation (around the play grounds near Rafting Ground Road and Creekside Street and the cricket pitch at Tuckett Park), it would be possible to extend native vegetation from the creek to and along roads bordering the parks (e.g. Creekside Street and Boyd Terrace).

Weed infestation is severe and well established along the creek's banks. In addition, there are over 31 weed trees growing on parkland (that is trees surrounded by grass cut by the park maintenance authorities) and their approximate location is shown in the figure. In Huntington Park there are ten Camphor laurels and Chinese celtis growing on the river terrace opposite Jamieson Place, three Jacaranda trees below Boyd Terrace and a further four Chinese celtis and Camphor laurels at the extreme eastern end of Huntington park. In addition, there is a substantial Mulberry tree located in Creekside Park. In Tuckett Park there are thirteen including eleven Chinese celtis, one Pepperberry and one Mulberry tree.

On the creek banks, which range in width from about 10m to 50m, mature Chinese celtis and Camphor laurels are common in the zone from Rafting Ground road 200m westward but become more increasingly abundant east of the crossing below Whiteley Close. Camphor laurels and Chinese celtis occur frequently along the bank

side by Tuckett Park, which had been cleared several years ago, but these trees occur more frequently on the Huntington side. This south bank side, from Whiteley Close, extending round Kensington Estate to entrance via Kintyre Street has the highest frequency of mature Camphor laurels and Chinese celtis. Apart from these mature trees, which represent a major removal problem for Bushcare volunteers, the



bank sides are infested with smaller Chinese celtis, Camphor laurels, Glycine, Ochna, Madeira vine, privet, Lantana, Caesalpinia decapetala and Castor oil plant to name but a few. In some areas native vegetation is practically non-existent except for a few Forest red gums (Eucalyptus tereticornis) and more frequent River oaks (Casuarina cunninghamiana), which have survived along the creek's banks. At the eastern end of Huntington Park the tree canopy is predominantly that of Chinese celtis and Camphor laurels.

The main restoration work conducted by the working bees is described in the previous section.

Altogether volunteers have planted about 1000 native plants in this area.

Water holes are now infested with weeds including Salvinia and exotic Water lilies and their banks are dominated by Taro and frequently Singapore daisy. MCCG is undertaking no restoration work related to waterweed infestation or water management. Habitat Brisbane has initiated some weed control within Tuckett Water hole and have released some Salvinia weevils in the water hole at the west end of Creekside Street but there is no coordinated approach to its eradication.

Water

Stormwater flow into the Creek is via large open drains, with little filtering of pollutants (rubbish, nutrients, sediments, etc.). Rapid discharge of street water has been exacerbated through the installation of larger street drains in areas such as Creekside Street.

Land

No issues noted.

Community

The objective of the Bushcare group is to restore the creek in Section 3 to near its original state. With the current resources and methodology this objective cannot be achieved in a realistic time. A total of 1.3 km of restored creek bank represents about 20% of the total. At this rate the creek banks within Section 3 will be restored in 30 years. This assumes a restoration rate of 216m per year or 20m linear per working bee (based on 6 years of eleven working bees each year from mid 1998). This year with greater attendance a restoration rate of about 50-60m has been achieved but such a high rate may be partly due to relatively narrow creek banks. However, as more area is cleared maintenance takes a greater proportion of time so that the current restoration rate is likely to be slowed.

The Bushcare group now working in Section 3 operates for about two hours for eleven months of the year and is usually made up of between 10 and 20 adults and a few children. It is heavily supported by BCC (Habitat Brisbane). However, assuming current restoration rates, to succeed in restoring the whole of the creek within Section 3 in 12 years would require two more, equally active and well-supported Bushcare groups. Alternatively, Habitat Brisbane could support the Group by allowing and funding large scale slashing machines to assist clearing. Such devices could in some areas of Section 3 increase clearing rates to 300m per working bee and an average restoration rate of near 100m per working bee. Such improved productivity would result in the Section being restored in nearer 5 years. The disadvantage of such a method would be the loss of some native plants as such equipment discriminates poorly. However, unless some way is found of achieving objectives in a realistically short time frame there is a serious risk of volunteers losing enthusiasm and all the effort over the years being wasted.

Volunteers working at working bees no equipment suitable to remove large mature weed trees. Volunteers within Bushcare groups are not allowed to use mechanical devices to assist in clearing. For small trees and shrubs this merely slows down clearing. But volunteers are not capable of removing mature weed trees. It is estimated that there are at least 80 such trees along the creek banks and their removal by professionals would require MCCG or Habitat Brisbane to fund this Section by approximately an additional \$50,000.

6.5.3 ADDRESSING THE ISSUES

The issues listed below are those expressed by the Section Leader. Many are relevant to the whole catchment. The letter "C" in the year columns indicates when it would be seen to be desirable to complete the activity subject to availability of resources. Section 6.2 groups these activities.

Theme	Action #	Details	2005	2006	2007
Biodiversity	B3.1	Continue restoration of creek banks at a rate of 400m per year working towards Rafting Ground Road and east from the creek crossing near Whitely Road	С	С	С
	B3.2	Plant over 1,000 native plants per year	C	C	C
	B3.3	Obtain funding of \$5,000 each year to remove 15 mature weed trees	С	С	С
Water	W3.1	Liaise with Council regarding integration of water sensitive urban design techniques into existing developments, eg. establishment of swale systems that allow water to drain over and through the parks before reaching the creek	C		
Land		No action required			
Community	C3.1	Improve attendance at working bees by 5 each working bee every year	С	С	С

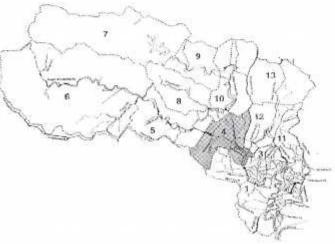
6.6 Section 4: Showgrounds

Section Leader: Peter Nielsen

6.6.1 DESCRIPTION OF SECTION

Biodiversity

Spotted gum forest occurs on the hillsides, particularly on boundary with Boscombe Road. This changes to Forest red gum communities closer to the Creek and riparian rainforest occurs on the Creek banks and immediate proximity.



A variety of native fish still occur in the Creek, eg. gudgeons, mullet, catfish, however little is known of other wildlife.

Water

There are some fairly deep permanent waterholes, but in dry times the creek dries up in between.

Land

City Plan (Brisbane City Council, 2004) designates most of the Section as a Rural Area (with a minimum property size of ten hectares). A band of Environmental Protection Area runs around the southwestern boundary of the Section, also with a minimum property size of 10 ha. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.) Community Use Areas within the Section are the Brookfield Showgrounds, the General Store, the Cemetery and adjoining Council Park, Brookfield State School, Brookfield Produce and a small reserve at the southwestern boundary of the Section. A small Parkland Area at the junction of Moggill Creek and an unnamed tributary is shared between this Section and Section 12.

Community

There are currently 18 Catchment Group members within the Section.

Few working bees have been organised in this Section in the past couple of years. The recent working bee organised by the new Section Leader attracted only one attendee (the previous Section Leader) outside of the Section Leader's family, despite phone contact with almost all Catchment Group members.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
88	490	104	1260	376	381	2699

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	100	500	210	150	960

In addition, during 2003 9 private landholders within the Section received assistance from MCCG, comprising advice and:

- 12 bales of mulch; and
- 2 litres of herbicide.

Brookfield Produce maintains their section of creek front, predominantly for access by horse riders. There is limited involvement by the School in catchment related activities outside of the occasional excursion to the Creek for Waterwatch type activities. A tree lopping business operates in the area.

One farming property remains in the area at its original extent, however this has recently been divided into four portions following the passing away of the family elder.



6.6.2 ISSUES & TRENDS

Biodiversity

Majority of the floodplain has been cleared, with only a narrow strip of riparian vegetation along the creek. The extent and health of other vegetation depends on individual private landholders.

A decline and current loss of small birds, such as wrens and finches, in the local area has been observed. This is presumably due to a combination of habitat loss and fragmentation and increased numbers of predatory birds (eg. butcherbirds, kookaburras, crows), some of which are fed by residents.

Major weeds in the Section are Chinese celtis, Madeira vine and Glycine. Though the level of infestation is moderate overall, Chinese celtis are particularly bad on Council land between the Store and Boscombe Road and along the Creek.

Weed control and revegetation activities are concentrated on Council Land adjoining Moggill Creek upstream from the roundabout. Some older plantings exist on the eastern side of Brookfield Produce, though these are overgrown.

Some Salvinia occurs upstream of the bridge.

Water

Local residents have made comment regarding bores in the area reducing water, though this requires verification.

The close proximity of some houses, and consequent wastewater from septic system, to the Creek is of concern. It is also unknown as to what happens at the Showgrounds during peak times eg. Brookfield Show.

Land

No issues noted.

Community

There is currently a very low level of activity in this Section. It is too early to say as to whether the appointment of a new Section Leader will improve participation, though only one Catchment Group member attended a recent working bee. Others contacted had other priorities.

6.6.3 ADDRESSING THE ISSUES

The issues listed below are those expressed by the Section Leader. Many are relevant to the whole catchment. The letter "C" in the year columns indicates when it would be seen to be desirable to complete the activity subject to availability of resources. Section 6.2 groups these activities.

Theme	Action #	Details	2005	2006	2007
Biodiversity	B4.1	Further develop the Showgrounds roundabout as a shopfront for the Catchment Group, including: Determine the level of support that can be gained from Council. Maintain existing plantings Expand weed control and planting north to boundary with private land. Investigate options and liaise with adjoining and nearby private landholders regarding removal of major weeds (large Chinese celtis, Madeira vine) eg. GreenCorps team. Request Council remove large Chinese celtis from Council land			
	B4.2	Request Council remove large Chinese celtis from Council land between Boscombe Road and the Brookfield Produce			
Water	W4.1	Request information from Council regarding the performance of septic systems in the Section, particularly at the Showgrounds and on properties in close proximity to the Creek			
Land		No action required			
Community	C4.1	Discuss with Council using the easily accessible Creek bank adjacent to the downstream side of the bridge as a site for a pontoon and interpretive display, eg. freshwater fish. This could link via a path under bridge to planting site and provide a safe road crossing			

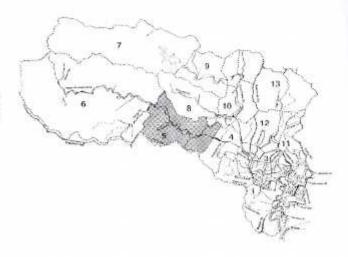
Theme	Action #	Details	2005	2006	2007
	C4.2	Investigate methods for increasing involvement and separately targeting: Youth, eg. Catchment Group members' children. Working residents eg. A strategy for involvement that acknowledges and accepts limited time and demands on time i.e. attendance not expected at every working bee, once a year is fine! Equestrian community, need to find a way to make catchment activities real to them to encourage participation			
	C4.3	Include hands-on planting activity as part of Brookfield Show presence. Negotiate an area in Showgrounds or School that is not too far from main activities			

6.7 Section 5: Haven Road

Section Leader: Don Mumford

6.7.1 DESCRIPTION OF SECTION

Eastern boundary starts at the top of Ballards Hill running west to the Upper Brookfield School, a distance of around 3.6km. The northern boundary is midway between Upper Brookfield Road and Savages Road. The southern boundary mainly follows Haven Road, making the Section approximately 2.5km wide. Upper Brookfield Road runs through the



middle of the Section, with side roads including Haven, Carbine and Kathrina Roads, as well as Smith Lane. Fig Tree Lane runs off Haven Road. A few private unnamed roads occur in the Section.

Biodiversity

Creek vegetation is characterised by a mix of River she oak (Casuarina cunninghamiana), Black bean (Castanospermum australe), Melaleuca spp. and Weeping bottlebrush (Callistemon viminalis). Adjoining vegetation is dominated by Forest red gum (Eucalyptus tereticornis), wattles (Acacia spp.) and Brush box (Lophostemon confertus). Patches of simple notophyll closed forest as well as cleared areas occur along the creek.

On the south side of the creek, some dry rainforest scrub is regenerating on the historically cleared slopes. There is a small portion of intact scrub off Smiths Lane. The ridge along Haven Road is open forest and though trees were removed for timber, still remains relatively undisturbed.

Vegetation along Moggill Creek (as viewed from Upper Brookfield Road) is overgrown with Lantana, Madeira vine and many other weeds. Some landholders have cleared and replanted the creek banks.

Plant species lists exist for Smith's Scrub. Fauna known to occur in the area includes water dragons, moorhens, rails, bandicoots and platypus.

Water

Moggill Creek flows generally west to east through the middle of the Section. An unnamed tributary joins the creek at the junction of Haven and Carbine Roads. There is very little public access to the creek as it mainly runs through private properties.

The 1974 floods removed a lot of sediment build up from the Creek, allowing water to drain from ponded areas. Consequently, this section of Creek dries up nearly every summer, with little water remaining in the rest of the year. Water availability is also likely to be reduced due to the many landholders that pump water from the creek.

The creek bed is generally overgrown with masses of exotic grass, Salvinia and lilies.

Land

City Plan (Brisbane City Council, 2004) designates approximately half of the Section as a Rural Area (predominantly the lower slopes and creek flats) and the remainder as Environmental Protection Area. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.) A Conservation Area occurs at the northern end of Kittani Street. Upper Brookfield State School is the only Community Use Area within the Section.

Before 1900, many trees were harvested from the area by timber getters, prior to clearing for crops such as pawpaw, pineapple and bananas. Some grazing occurred in upland areas, such as Smith's Scrub and along Haven Road ridge. By the mid-1960s most farms had become unprofitable and were subdivided.

Community

Approximately 100 landholders live within the Section, most with 4 ha blocks. Most blocks are regenerating from farmland days. Most landholders have cleared around their houses; the rest of the land is covered in Lantana, Madeira vine, Glycine and most other weeds. Very few blocks are fully cleared and free of weeds.

There are currently 18 Catchment Group members within the Section.

Haven Road Bushcare Group was formed in 2003. Regular working bees on Council land have only been organised in the Section in the last eight months. These are supported by Habitat Brisbane and have taken place at two sites (Upper Brookfield Road and Haven Road). These have regularly attracted 4-5 attendees.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
750	763	537	852	1052	822	4776

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	0	0	0	1000	1000

In addition, during 2003 14 private landholders within the Section received assistance from MCCG, comprising advice and:

- 35 bales of mulch; and
- · 7 litres of herbicide.

There is scope to increase the involvement of Upper Brookfield State School in catchment activities.

6.7.2 ISSUES AND TRENDS

Biodiversity

The area between Haven and Carbine Roads through to Bundaleer Park is identified in the Moggill Creek Catchment Management Plan (BCC, 1997) as of local habitat significance.

Major weeds in the area are Lantana, Madeira vine, Glycine and a number of introduced grass species, such as Green panic. Infestation is worst along the creek.

Some Salvinia occurs in the Creek however this is washed away during flood.

Water

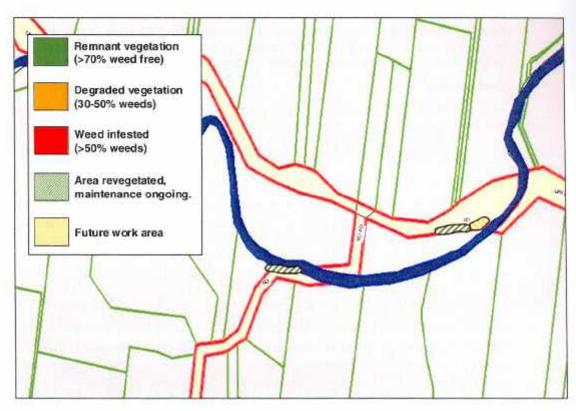
Little is known of whether activities in the Section are affecting water quantity (eg. off-stream dams, pumps and potentially bores) and quality (septic systems), though no major issues are apparent.

Land

Most subdivision likely to occur in the Section has already taken place. Early farming activities, where steep slopes were cleared for cultivation of bananas or pawpaws, would inevitably have lead to topsoil loss during rainfall events.

Community

Current levels of knowledge and attendance at working bees is sufficient. Good exchange of knowledge occurs between attendees.



6.7.3 ADDRESSING THE ISSUES

The issues listed below are those expressed by the Section Leader. Many are relevant to the whole catchment. The letter "C" in the year columns indicates when it would be seen to be desirable to complete the activity subject to availability of resources. Section 6.2 groups these activities.

Theme	Action #	Details	2005	2006	2007
Biodiversity	B5.1	Identify locations of private landholder revegetation projects, with a view to encouraging neighbours and creating corridors	С		
	B5.2	Maintain and expand the two working bee sites. Local proximity to residences appears to be prompting involvement	С		
	B5.3	Liaise with Council regarding future sites (little opportunity except along roadside)		С	
	B5.4	Investigate potential for funding/project to remove large weed trees from private land	С	С	
Water		No action required		4	-
Land		No action required	-	*	-
Community	C5.1	Encourage greater participation	С	С	XC
	C5.2	Raise awareness of Catchment Group		C	C

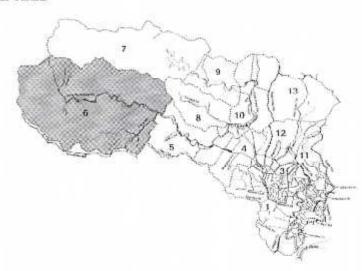
6.8 SECTION 6: UPPER BROOKFIELD

Section Leader: Darryl O'Brien

6.8.1 DESCRIPTION OF SECTION

Biodiversity

High quality forest and woodland occurs, particularly in upland areas. Creek vegetation characterised by a mix of Black bean (Castanospermum australe), Melaleuca spp. and Weeping bottlebrush (Callistemon viminalis). Adjoining vegetation dominated by Forest red gum (Eucalyptus tereticornis), wattles (Acacia spp.) and Brush box



(Lophostemon confertus) but containing rainforest pioneer species (e.g. Celerywood, Polyscias elegans) and remnant dry rainforest. Patches of simple notophyll closed forest, with Syzygium, as well as cleared areas occur along the creek.

Platypuses are reported to occur in the creek near Haven Road crossing.

Water

Moggill Creek in this Section is usually dry from late July to October, depending on rainfall. Historically deep pools are a feature of the Creek in this area, however siltation and water extraction (creek and groundwater) have reduced creek flow. Waterholes trap silt during "normal" years, but scour out following high rainfall events. Underground flows occur through sand and gravel of the creek bed.

A small weir exists near Upper Brookfield State School.

Land

City Plan (Brisbane City Council, 2004) designates most of the Section as an Environmental Protection Area. Rural Areas are scattered on the lower slopes and creek flats. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.) Four Conservation Areas occur in the Section: a large area at the western end; smaller areas along and off the northern side Upper Brookfield Road between Gillies and Galvin Roads; and a small area on the northern side of Upper Brookfield Road, between Galvin Road and Upper Brookfield State School.

Community

The lower slopes were cleared for agriculture, though currently only three farms remain in Section (Alan Weis - Boulder Valley), Barry Moore (upper end) and de Jongs. Recent subdivision of ex-farming land has taken place.

There are currently 47 Catchment Group members within the Section.

Monthly working bees are regularly attended by the same 7-10 people.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
265	718	657	2057	2043	1403	7143

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	0	0	100	870	979

In addition, during 2003 15 private landholders within the Section received assistance from MCCG, comprising advice and:

- · 76 bales of mulch; and
- 26 litres of herbicide.

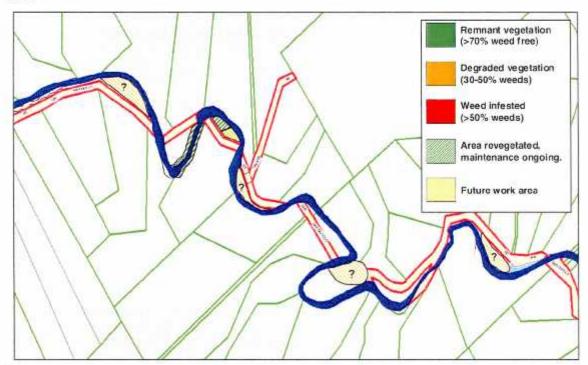
There is potential for Upper Brookfield State School to get involved in Catchment Group or related activities. Subdivision also provides the opportunity to negotiate use of developer contributions.

6.8.2 ISSUES AND TRENDS

Biodiversity

Vegetation is generally heavily weed infested (but variable depending on the landholder), particularly along Moggill Creek where weeds comprise 50% of the vegetation. Major weeds are Elephant grass, Madeira vine, Velcro weed, Glycine, Camphor laurels, Morning glory and an unknown grass species in creek. The weed issue is likely to worsen with landholders planting environmental weeds eg Large baby's tears, Wandering Jew, Purple succulent.

Creek restoration has been focused on the second Creek crossing upstream of Galvin Road. Weed control and planting have taken place from Upper Brookfield Road upstream to the Creek elbow (approximately 60m x 12m). Maintenance continues through hand weeding around plants and occasional brush cutting and application of Round-up Bioactive. On the downstream side a 200m x 6m area between the Creek and Upper Brookfield Road has been cleared of weeds and replanted at the northern end.



Water

All landholders with access pump water from Moggill Creek.

Some of the more open pools along the Creek are "green and slimy", indicating high nutrient levels. There is also potential for sullage from older properties upstream, when septic systems overflow, as their capacity is insufficient for the increased number of residents.

Land

A number of current and historical activities are causing soil erosion and contamination:

- Driveway erosion occurs from some properties, with sediment observed flowing directly into the Creek.
- Trucks carrying soil, building rubbish and green waste are often observed travelling along Upper Brookfield Road with full loads and returning empty.
- Contaminated soil from a decommissioned service station was dumped years ago in the upper parts of the catchment.
- Groups of trail bikers visit the area on the weekends and are also causing erosion and degradation of forested areas, particularly hill slopes.
- Maintenance of infrastructure (eg. Energex) has caused creek bank scarring/damage.
- A large subdivision early in 2003 cleared a large area of hillside on the northern side.

Community

No information.

6.8.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B6.1	Investigate options for a Council or other "Authority figure" to maintain a presence in the area and undertake education role with landholders, eg. on environmental weeds	С		
18	B6.2	Maintain and replant as required the current work area over the next two years	С	С	
	B6.3	Identify and control grass weeds in work area	С	С	С
	B6.4	Future plans to move east along Creek	С	C	Te mil
Water	W6.1	Request information from Council regarding the performance of septic systems in the Section	С		
Land	L6.1	Notify Council of illegal activities	C	С	C
	L6.2	Obtain environmental guidelines and local contacts from infrastructure providers	С		
Community	C6.1	Contact Upper Brookfield State School regarding potential involvement, eg. new Grade 1's plant a tree and watch it grow through their school years	С		
	C6.3	Changing Section Leader every two			
	C6.4	Investigate development of a new residents' kit, distributed by Section Leader on advice from real estate agents	С		
	C6.5	Increase Catchment Group membership and involvement within the Section	С	С	С

6.9 Section 7: Gold Creek Reserve

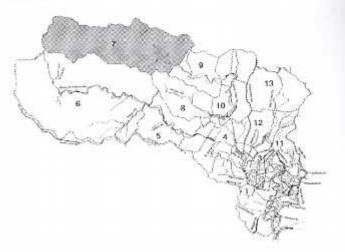
Section Leader: Andrew Dutton (BFP)

6.9.1 DESCRIPTION OF SECTION

All of this Section is contained within Brisbane Forest Park (BFP).

Biodiversity

High quality forest and woodland occurs throughout most of this Section. Vegetation around the Gold Creek Reservoir contains a variety of rainforest species and a species list exists for the area.



Water

Gold Creek arises within Enoggera State Forest above Gold Creek Reservoir. The creek is ephemeral above the Reservoir.

Gold Creek Reservoir was constructed in 1885 for the purpose of water supply, with a pipeline joining the reservoir to Enoggera Reservoir for water treatment. The pipeline has now been decommissioned and water in Gold Creek Reservoir is no longer used to supplement Brisbane's water supply.

Land

This Section is contained within Brisbane Forest Park, which is designated a Conservation Area in City Plan (Brisbane City Council, 2004). BFP allows for conservation and limited recreational use.

Community

Brisbane Forest Park is the only landholder within the Section.

6.9.2 Issues and Trends

Biodiversity

Fire management is a high priority within Brisbane Forest Park, both for the maintenance of ecosystem structures and for the safety of Park neighbours. Recently (mid-2004) a prescribed burn was conducted on the southern side of the Gold Creek reservoir and a wild fire was contained on the northern side. This is the last burn to be conducted in the area in the near future.

Major weeds in the Section are Lantana, Glycine, Coral berry and Mistflower. Lantana is the most extensive, infesting a substantial area. Glycine is bad in patches. A small amount of Asparagus vine occurs in the area. Little is being done on weed control, as the weeds in this Section are a lower priority for control compared with other areas of Brisbane Forest Park.

Feral pigs are a major issue, with numbers increasing in recent years and pigs dispersing lower in the catchment. An eradication program is currently underway.

Water

Water is currently leaking from the Reservoir and remedial works are needed. Some discussion, but no resolution, has also taken place regarding controlled release of water from the Reservoir to maintain environmental flows in Gold Creek.

Land

Pigs and trail bikes are causing soil erosion, waterway pollution and vegetation destruction.

Community

There is potential to negotiate use of volunteer groups (eg. Resource volunteers, Community Jobs Program, GreenCorps) organised and supervised by BFP staff to undertake works in this Section.

6.9.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B7.1	Feral pig control will continue in the area to try and reduce / eradicate the population to minimise habitat disturbance	С		
,	B7.2	Major weeds species to be mapped, managed and monitored until complete eradication is achieved. Priority will be given to the highly invasive species (eg Madeira vine, moth vine, groundsel, privet, etc)	С	С	c
Water		No action planned	alta.		
Land		No action planned			
Community	C7.1	Walking trails will continue to be managed by the Resource Volunteers at BFP. No further infrastructure is planned for the Gold Creek area over the next 1-3 years.	С	С	С

6.10 Section 8: Wonga Creek

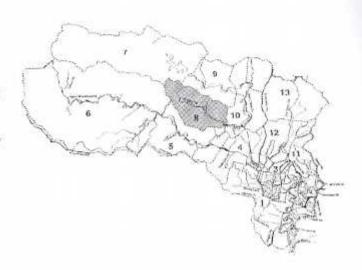
Section Leader: Graeme Wilson

6.10.1 DESCRIPTION OF SECTION

Biodiversity

Southern side of Wonga Creek has better soils with dry rainforest. On the northern side open eucalypt forest grows on the slopes and dry rain forest can be found in the gullies. Riparian rainforest sometimes occurs along the Creek.

No species lists available, though platypus have been sighted in a waterhole.



Water

Wonga Creek is ephemeral with some permanent waterholes.

Some properties have small off-stream dams.

Land

City Plan (Brisbane City Council, 2004) designates most of the Section on the northern side of Savages Road as Environmental Protection Area. This designation may not be correct and should be confirmed. Rural Area designation covers most properties on the southern side of the road, except for a small Conservation Area (the Wilson's property). (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.)

Community

In the early 1900s timber getters started harvesting trees, eventually clearing much of the forest. Following them, until the 1950s, farming was conducted on the volcanic soils found on the lower slopes. Since then progressive land use change has occurred, from farms to rural residential, some with horses, and then further clearing for pasture. Only one farm is left in the area and this not actively farmed. There are approximately 80 properties in the Section, five have Voluntary Conservation Agreements (four at the top of the catchment) and others are with Land for Wildlife.

There are currently 14 Catchment Group members within the Section.

Habitat Brisbane sites are located between Savages Road and the lower end of Wonga Creek and on roadside on Savages Rd.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
270	558	286	427	1127	429	3097

Habitat Brisbane provided the following number of plants (financial year ending).

**********		-	-	-		
1999	2000	2001	2002	2003	2004	Total
nd	nd	0	0	50	0	

In addition, during 2003, 9 private landholders within the Section received assistance from MCCG, comprising advice and:

- 20 bales of mulch; and
- 10 litres of herbicide.

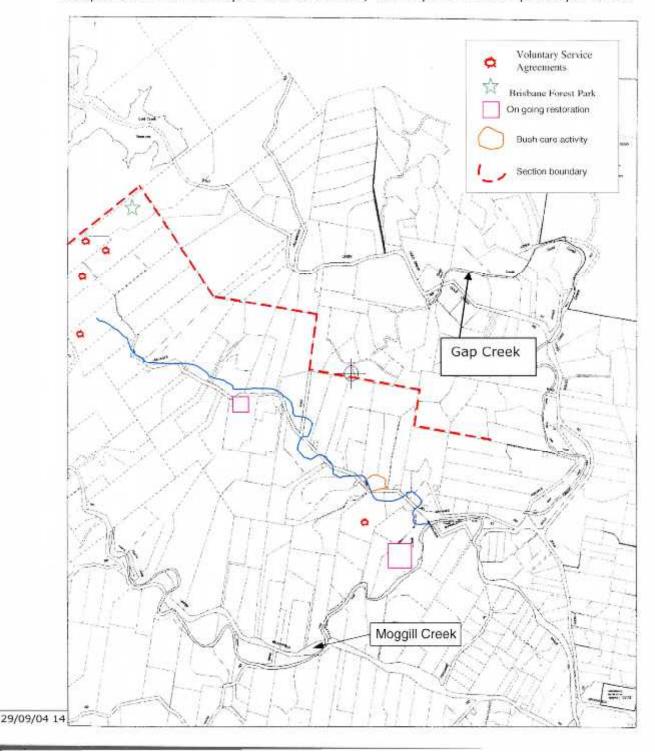
A general impression is that professional people are likely to get involved with catchment activities but business people have little involvement.

6.10.2 ISSUES AND TRENDS

Biodiversity

There has been a dramatic loss of vegetation and connectivity throughout the Section with, clearing for changing land uses: timber getting, to farming, to rural residential. Residents' fears regarding fire and snakes are probably leading to further clearing of denser patches of bush. Corridors are particularly lacking on the south side of the creek. One gully that runs south is now devoid of native vegetation and others that run north to Gold Creek divide are heavily infested with weeds.

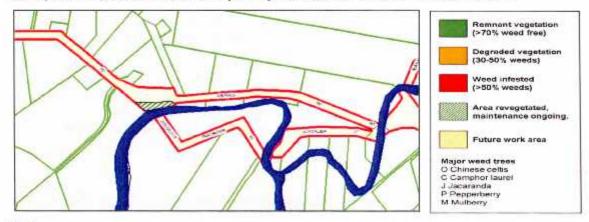
Weeds are the most serious issue for remnant vegetation; at least cleared areas have no weeds! These are escalating in number and extent of species. Major weeds in the Section are Privet, Ochna, Cats claw creeper, Madeira vine, Dutchman's pipe, Asparagus vine, Lantana and Coral berry. Council has been involved with Cats claw creeper control at the top of the catchment, but required follow-up has yet to be



undertaken. Better results have been observed from weed control and natural regeneration than from planting. Other landowners in the area may have adopted other restoration procedures, which are proving successful. Mature trees/ roost sites are invaluable for regeneration of species dispersed by fruit-eating birds.

Small birds and reptiles (goannas, snakes) have noticeably declined in numbers. Removal of the few remaining dead old trees is likely to be affecting hollowdependent species.

Foxes, cane toads and hares are pest species known to occur in the Section.



Water

Water abundance has changed in the last 5-6 years. For example, Moggill Creek in 1950 was running with clear water where children swam in it and it had a gravel bottom. Now it has only a "few, foul holes". Climate change or reduced flow from springs has led to lack of old wet season rain that refuelled springs. Moggill Creek stopped flowing three years ago. Wonga Creek used to have water trickling through but now is dried up to become a series of waterholes.

Mismanaged septic systems are a potential source of pollution.

Land

The creeks are silting up. Potential contributors may be due to:

- Slippage on private land due to clearing.
- · New housing sites have poor sediment control measures.
- Undercutting in Wonga Creek is occurring as the creek realigns to its historic course.
- Removal of trees from banks,
- Greater access by horses and cattle caused by over grazing.
- · Fewer trees on slopes.

Is subdivision still occurring? Council regulations increasing the minimum lot size for subdivision stopped many of these, but the long lead up time prior to implementation of new regulations allowed substantial clearing to take place.

Community

Many new residents are unaware of the role and existence of the Catchment Group. Amongst those people wanting to do the right thing there is a lack of knowledge of the appropriate plant species.

6.10.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B8.1	Major concentration of effort needed to encourage private landholders, who manage the most of land within the catchment	С		
	B8.2	Establish strategic plans with landholders to establish corridors along Wonga Creek and connecting upland and lowland areas		C	
	B8.3	Seek commitment from Council regarding policing/enforcement of existing regulations on weed control and vegetation protection	С		
	B8.4	Initiate discussions with Council regarding amendment of Vegetation Protection laws to allow removal of weed species, eg willows, from within designated areas	С		
	B8.5	Seek reassurance from Council as to long term commitment to Vegetation Protection laws and Habitat Brisbane activities	С		
	B8.6	Investigate/encourage adoption of incentive programs by Council for retention of remnants and regrowth. Some landholders believe that if they keep their land cleared then they are likely to increase future subdivision potential compared with a vegetated block which is covered by Vegetation Protection laws	C		
	B8.7	Obtain environmental guidelines and local contacts from infrastructure providers and Council contractors. At present a disincentive exists for work on public land due to loss of plantings through careless actions of contractors and infrastructure providers (eg. Energex)		C	
Water	W8.1	Seek clarity from Council as to the likely nature of remedial works on Gold Creek Reservoir. If the nursery site is to be used as a storage site for building materials, an alternative nursery location may need to be established	С		
Land	L8.1	Obtain environmental guidelines for developers from Council	С		
	L8.2	Notify Council of apparent breaches of guidelines	Ċ	С	C
Community	C8.1	Develop ways of attracting more Catchment Group members are needed and existing members should be encouraged to become involved in order to support current work on public land and enable further work	С	С	С
	C8.2	Follow-up development of a new resident's kit. To be distributed by Section Leaders and/or real estate agents with a free plant from the Catchment Group	С		
	C8.3	Follow up activity on private land	С	C	C
	C8.4	Seek grant funding for a professionally conducted landholder attitude survey "why live here?"	С		
	C8.5	Liaise with Council to establish central point of contact on all catchment related issues to improve communication	С		

6.11 SECTION 9: UPPER GOLD CREEK

Section Leader: Gordon Grigg

6.11.1 DESCRIPTION OF SECTION

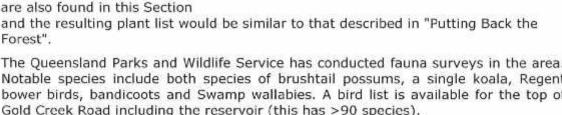
Biodiversity

A variety of rainforest species grow along Gold Creek in this Section. Dry sclerophyll is found on the ridges, whilst on the slopes eucalypt forest has a rainforest/vine forest understorey, particularly on south slopes.

A plant list exists for Gold Creek Reservoir. Many of these species are also found in this Section

Forest".

The Queensland Parks and Wildlife Service has conducted fauna surveys in the area. Notable species include both species of brushtail possums, a single koala, Regent bower birds, bandicoots and Swamp wallabies. A bird list is available for the top of Gold Creek Road including the reservoir (this has >90 species).



Gold Creek traverses this Section as a chain of pools except after rain. Periodically, releases of water from Gold Creek Reservoir provide a flow. The Section's goals include development and implementation of a WMP to maintain a small flow, with the aim of eventually allowing re-colonisation by platypus now restricted to downstream

There are no weirs or dams below the reservoir, but there are bores, including some sunk very recently. During pumping the creek empties rapidly.

Water

City Plan (Brisbane City Council, 2004) designates most of the Section as Environmental Protection Area, with Rural Area designation covering areas close to Gold Creek Road. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.)

Clusters of large lot estates and acreage properties, ranging in size from 2-25 hectares but mostly 5-10 acres, dominate this Section. From Hillbrook Road, the land has been predominantly cleared, except for a narrow, but reasonably intact riparian corridor, and is used for horse grazing. One commercial property (a dairy farm) exists in the Section.

Community

There are currently 17 Catchment Group members within the Section.

About half of the households within the Section have had at least one member at a working bee, but there is a core group of about a dozen regulars. Working bee participants have in common a definite interest in revegetation work, both on public and private land. There is a range of ages and, hence, abilities, and a range of knowledge and involvement.

The map of the Section shows where the Bushcare Group has been active. This comprises roadsides and creek sides, as the road follows the creek, crossing and recrossing it. Maintenance of the sites already worked is a continuing activity, and that is much aided by landholders looking after their own road frontages. We believe that the activity of the group has assisted landholders in techniques and information,

which has been useful for work on their own properties, and may even have stimulated them to do so. So the benefit has spread wider than the narrow strips of public land shown on the map.

Most property owners have a positive interest in revegetation and most are in "Land for Wildlife".

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
256	666	345	1530	690	150	3637

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	1060	764	1060	70	2954

In addition during the last year, 7 private landholders within the Section received assistance from MCCG, comprising advice and:

- 8 bales of mulch; and
- · 2.5 litres of herbicide.

6.11.2 ISSUES AND TRENDS

Biodiversity

Cat's claw creeper is a serious smothering weed, with several large infestations, which act as a continuing seed source. Landholders are working to remove Cat's claw creeper, but it will be a challenge without professional help. Glycine is a rapidly growing problem (arrived within the last 10 years and smothering many trees). Dutchman's pipe (*Aristolochis elegans*) is common. Lantana removal has been a priority for many landholders, but much remains. There are not many areas of Madeira vine, but these are increasing. There are also localised infestations of Easter cassia, Coral berry, Freckle face, Wandering jew, Signal grass, Morning glory and *Caesalpinnia decapetala*. Coral berry seems to have become worse during the last 3-4 years, and has followed the removal of Lantana.

Weed problems seem to be less than in either Upper Brookfield or Savages Road valleys. Management is at least possible, but will need to be continuous and will require more active participants than at present. A 0.5 ha paddock at the top of the road is identified for a joint effort with Habitat Brisbane.

Hares, foxes, wild dogs/dingoes, cats and pigs occur in the Section. Pigs are causing major damage at the moment. We'd rather not have cats and foxes or wild dogs, but particular problems from them are not identified.

The exotic fish Gambusia are presumed to occur in the Creek.

Water

During pumping the creek empties rapidly.

Occasionally there is algal growth in creek, but the creek is essentially unpolluted. E. coli counts were low but not zero, and thought to come from feral pigs.

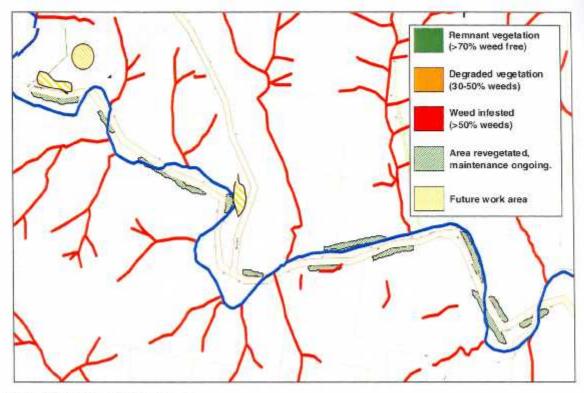
Land

The population in the valley has at least doubled in the last 10 years, but further subdivision opportunities are few under current regulations, with the minimum size having increased to 10 ha.

Community

Numbers at working bees are a bit less than earlier (typically 12 now rather than the previous average of 17), but some of the 'lapsed' members are busy now on their own properties, so that is a good result. Still attracting small number of new people.

Knowledge and skill levels are variable. Most attendees are interested in improving their knowledge, and experienced participants are willing to share.



6.11.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B9.1	The end of the road is still well below par, and at the site marked on the map we are planning a collaborative activity with Habitat Brisbane on BCC land. This paddock is surrounded by either pristine forest or revegetation work, and is a weed-infested area once cleared by Michael Reif with a bulldozer. It needs a lot of work and is beyond our small group alone. Help from Habitat Brisbane has been promised.	С		
	B9.2	One item we could benefit from is a 200- 300 water container (small enough to be put easily on and off a box trailer) that we can use for watering. Habitat Brisbane provides glyphosate, plants and mulch, and we rely on that continuing. We have a reasonable collection of tools provided by BCC.	С		

Theme	Action #	Details	2005	2006	2007
Water	W9.1	We have held community consultation and there is unanimous support for a water management plan to take advantage of the reservoir, which is no longer needed to be held full for water supply, to provide an 'environmental flow' year round in the creek. This is not straightforward, especially as remediation work is planned at the reservoir, meaning that decisions are not likely to be made in the short term. Pollution is not a big problem this high up the creek; homes are mostly well back from the creek and at low density	С		
Land		No action required			
Community	C9.1	Continuing association with the MCCG central committee is important	С	С	С
i.	C9.2	A field day or similar activity to attract more working bee participation, stimulate work on private lands, promote knowledge about weed identification and removal/management techniques	С	С	С

6.12 Section 10: Lower Gold Creek

Section Leader: vacant

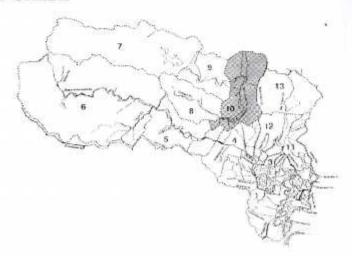
6.12.1 DESCRIPTION OF SECTION

Biodiversity

No description

Water

This Section contains the confluence of Gold, Moggill and Wonga Creeks. The creeks are ephemeral with water collecting in pools.



Land

City Plan (Brisbane City Council,

2004) designates most of the Section as a Rural Area. Environment Protection Area occurs in the north and south east of the Section. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.) A nursing home (Brookfield Retirement Village (Resthaven)) comprises the only Community Use Area.

This is a predominantly rural residential area with many properties used to keep horses. An aquatic plant nursery is located just upstream of the junction of Gold and Moggill Creeks.

Community

There are currently 8 Catchment Group members within the Section.

Recently work has begun on a Habitat Brisbane site on Gold Creek Rd, opposite Brookfield Retirement Village (Resthaven).

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
502	188		26	543	178	1437

Habitat Brisbane provided is included with those given in Section 9.

In 2003, 3 private landholders within the Section received assistance from MCCG, comprising advice and:

- 433 plants
- 11 bales of mulch; and
- · 5 litres of herbicide.

6.12.2 ISSUES AND TRENDS

Biodiversity

A significant creek corridor exists in this Section between Gold and Gap Creeks (BCC, 1997).

Waterholes are infested with Salvinia and other aquatic weeds.

Water

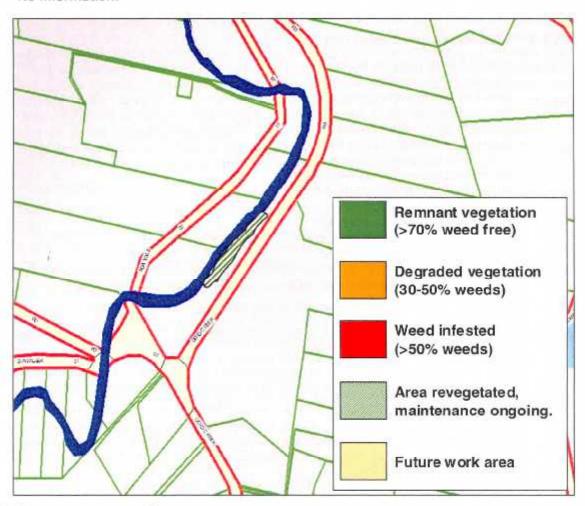
Historically, Brookfield Retirement Village (Resthaven) has had problems with their septic system, however, recent works appear to have addressed this.

Land

No information.

Community

No information.



6.12.3 ADDRESSING THE ISSUES

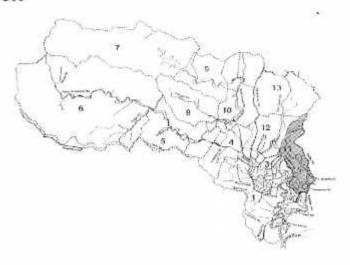
Theme	Action #	Details	2005	2006	2007
Biodiversity	B10.1	Plant and maintain Habitat Brisbane site on Gold Creek Road, opposite Resthaven Brookfield Retirement Village (Resthaven)		С	
Water	W10.1				
Land	L10.1				
Community	C10.1				

6.13 SECTION 11: MCKAY BROOK

Section Leader: Bryan Hacker

6.13.1 DESCRIPTION OF SECTION

McKay Brook rises on Mt Coottha and flows southwards for about four kilometres into Moggill Creek close to the northern extremity of Kenmore State High School. Bielby Road comprises the eastern watershed whereas the western watershed is a north-south ridge running a little to the east of Gap Creek Road. The southern part of the catchment is closely settled while the northern half



mostly comprises acreage home sites on moderately steeply sloping eucalypt woodland on infertile skeletal soils.

There are three Council parklands in this Section:

- A small grassy park/playground close to McKay Brook and just to the northwest of Mirbelia Street.
- An irregularly shaped and generally narrow park running either side of the Creek from the bridge on Mirbelia Street to below Pamela Place.
- A park extending from the Brookfield Road Bridge across McKay Brook to Kenmore State High School (below Mabb Street). This park area includes a small playground adjacent to Brookfield Road. The park varies in width from a few metres at the end of Belford Street to perhaps 70 metres wide in the southern portion.

Biodiversity

The woodlands in the north of the catchment are generally dominated by *Eucalyptus* crebra and *Corymbia citriodora*, with a range of other eucalypt species, and limited patches of rainforest in gullies. In general this woodland is not particularly weedy.

The two main parks each contain forested areas along the creek (adjoined by grassy areas for walking and other recreation). Species found in the northern park (prior to work started by the Mirbelia Street Bushcare Group in 1998) include a number of trees of Casuarina cunninghamiana, Jagera pseudo-rhus, Ficus coronata, Glochidion ferdinandii, Melaleuca bracteate, Callistemon viminalis and Melia azedarach. The southern park also had a number of mature native trees including numerous Lophostemon suaveolens and Aphananthe philippensis, as well as Eucalyptus tereticornis, E. henryi, J. pseudo-rhus and Mallotus philippensis.

Platypuses have been observed in 2003 in McKay Brook near Mirbelia Street.

Water

McKay Brook was re-routed below Hillcrest Place about 1990, resulting in destruction of a native vegetation community. At the Brookfield Road bridge, two approximately 80 centimetre drains bring runoff into the creek, resulting in extremely rapid rises in level and erosion with storm events. Below Belford Street, two sewerage manholes discharge raw sewerage down to the creek during storms. Although this has been reported several times over the last 4-5 years, the problem was still clearly evident in January 2004.

Land

A mixture of designations under City Plan (Brisbane City Council, 2004) occurs through the Section. At the northern end land is zoned Environmental Protection Area. Moving south this changes to Rural Area and then Low Density Residential Area. Three large Community Use Areas occur in the Section: the Priory, the adjacent Iona Retirement Village and the Kenmore Christian Theological College. The Priory is nearly surrounded by a narrow strip of Conservation Area. A wider band of Rural Area surrounds the College. Other Community Use Areas include land adjoining Moggill Creek, west of Paley Street and Scout and SES properties between Moggill Creek, Branton Street and Brookfield Road. Parkland areas occur along the western side of McKay Brook near Mirbelia Street, on McKay Brook near Mabb Street and along the western side of Paley Street. Kenmore Village in the southeastern corner of the Section is the only area designated as a Suburban Centre.

Community

There are currently (2004) 55 Catchment Group members within the Section.

Two Bushcare Groups, supported by Habitat Brisbane, operate in the area: McKay Brook and Mirbelia Street. Each Group meets 12 times annually, alternating between Saturday afternoons and Sunday mornings.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
504	524	241	1672	1898	866	5705

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	2238	3862	6100	1530	13,730

In addition, during 2003 9 private landholders within the Section received assistance from MCCG, comprising advice and:

- · 11 bales of mulch; and
- · 10 litres of herbicide.

Kenmore State High School is actively involved in managing its approximately one kilometre of creek frontage (onto McKay Brook and Moggill Creek; see also Section 2). Though revegetation work has been limited to date, a major expansion of this work is currently (August 2004) under way with funding and volunteer help from ANZ Bank and a six-month GreenCorps project. Catchment Group members (Bryan Hacker and Damien Egan) are on the Steering Committee for this project.

6.13.2 ISSUES AND TRENDS

Biodiversity

Woodland in the northern part of the Section is not particularly weedy, as infertile soils prevented clearing for dairying or horticulture. There has, however, been increasing pressure for development over the last 10-20 years, but minimum property sizes are restricted to acreage sites as a measure to preserve the integrity of the bushland area incorporating Mt Coot-tha.

The re-routing of McKay Brook below Hillcrest Place in about 1990 resulted in the destruction of a native vegetation community.

In 1996, Damien Egan started work on land below his property in Mondra Street, single-handedly clearing and replanting a substantial area with 4177 trees by November 2001, with support from Habitat Brisbane. In 1998 priorities for the McKay Brook catchment were determined at two public meetings and work started in the park below Mabb Street. Prior to the start of the Group's work, Celtis sinensis, Lantana camara, Neonotonia wightii and Caesalpinia decapetala were common along

the creek. Around 20 large Camphor laurels are present, *Pennisetum purpureum* is dominant in some areas and there are several outbreaks of *Anredera cordifolia*.

Together with Damien's plantings, the McKay Brook Bushcare Group has now removed weeds and revegetated almost the entire area to within 20 metres of the end of Belford Street (a strip of *Pennisetum purpureum* on the west side of the creek has been left temporarily for habitat purposes).

Students from Kenmore State High School currently cross McKay Brook between Brookfield Road and Belford Street. This is causing damage to the creek banks and is potentially dangerous when the creek is in flood.

In 1998, a decision was made to start work on the park at Mirbelia Street to Pamela Place and a second Bushcare Group was formed. Weeds were abundant in the park prior to the start of the Group, with C, sinensis, L, camara, N, wightii and C, decapetala dominating. This Group has largely completed the area from Mirbelia Street to Pamela Place, just omitting a steep corner of land to the west of this park. In addition, permission was obtained from the developers of townhouses immediately downstream from Pamela Place to revegetate their ~ 100 metre section of creek (to near Brookfield Road) and this has been completed.

Ongoing maintenance of Bushcare Group sites is required for at least three years. Considerable time in between working bees is spent watering and weeding planted sites. Since the Catchment Group has started work along the creek, dumping of garden rubbish has resulted in infestations of Singapore daisy as well as reinfestations of Madeira vine.

Natural regeneration, however, has also been observed: from existing trees of *Guioa semiglauca*, *A. philippensis*, *J. pseudo-rhus* and *Eucalyptus spp*. at the Mabb Street site; of *Grevillea robusta* at the Mirbelia Street site; and from planted *Hibiscus heterophyllus* at both sites.

A townhouse development at 78 Brookfield Road was permitted with the requirement that the developer revegetate the section of creek that ran across the company's land. The developer failed to this, so forfeiting a \$20,000 bond, which was made available to the McKay Brook Bushcare Group to undertake the work, in partnership with Habitat Brisbane. The work will be carried out in three stages and involves the removal of around 20 large Camphor laurels and a *Ficus indica*, followed by removal of smaller plants, bank stabilisation and replanting with natives, by contract. The first section is now complete, excluding a section where bank battering is required because of erosion problems.

A number of private acreage landholders in the Section are also actively involved in revegetation.

Water

There is little doubt that water quality in McKay Brook is deteriorating with increasing urban development. At the Brookfield Road Bridge, two approximately 80 centimetre drains bring runoff into the creek, resulting in extremely rapid rises in level and erosion with storm events. These drains undoubtedly carry various pollutants as well as grosser rubbish and cause erosion that would be unlikely to occur in a natural creek.

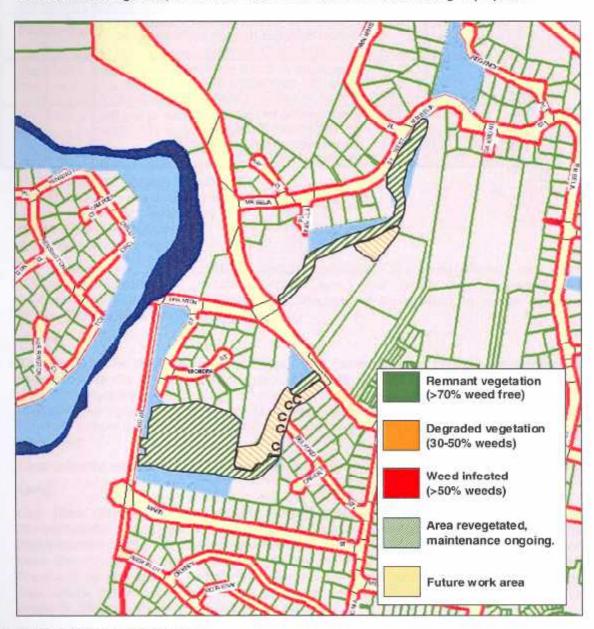
Below Belford Street, two sewerage manholes discharge raw sewerage down to the creek during storms. Although this has been reported several times over the last 4-5 years, the problem was still clearly evident in January 2004. In mid-2004 a BCC plan to run an ancillary septic line was developed to alleviate this problem; the options were discussed in detail with Bryan Hacker, Damien Egan and Habitat Brisbane Staff and the best option agreed upon.

Land

Serious waterway erosion is occurring in McKay Brook as a result of constructed drainage.

Community

Numbers at working bees have been declining in recent times, with rarely more than eight people in attendance. Considerable time is also required on maintenance in between working bees, to control weed invasion and water during dry spells.



6.13.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B11.1	Continue maintenance of planted parkland areas	С	С	
	B11.2	Undertake weed control of remaining parkland areas by early 2005	С		
Water	W11.1	Instigate discussion with Council regarding options for stormwater treatment and dispersal prior to its output into McKay Brook	С		

Theme	Action #	Details	2005	2006	2007
Land	L11.1	Instigate discussion with Council regarding options for stormwater treatment and dispersal prior to its output into McKay Brook	С		
Community	C11.1	Continue to support Kenmore State High School activities through membership of their Steering Committee	С	С	
	C11.2	Determine direction of future Group activities, eg practical assistance to the School or support neighbouring Sections		C	
	C11.3	Seek funding to provide a bridge across the creek between Brookfield Road and Belford Street where High School students currently cross		С	

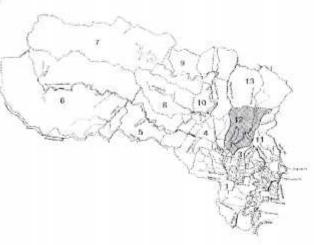
6.14 SECTION 12: GAP CREEK

Section Leader: Michael Humphreys

6.14.1 DESCRIPTION OF SECTION

Biodiversity

This Section is largely cleared with Gap Creek lined with mix of River she oak (Casuarina cunninghamiana), Black tea tree (Melaleuca bracteata) and Weeping bottlebrush (Callistemon viminalis). Dense vegetation is found along the Creek though only ~10% remnant species (scattered individuals), the remainder are weeds, with serious outbreaks of ochna (Ochna serrulata) and privet (Ligustrum sinense).



The understorey is generally in better condition. Scattered Forest red gum (Eucalyptus tereticornis), wattles (Acacia spp.) and Brush box (Lophostemon confertus) remain away from the creek. Pockets of bush occur in larger acreage blocks, though their condition is unknown.

Water

Gap Creek is the major waterway through the Section and is joined by a significant tributary near the intersection of Deerhurst and Brookfield Roads. Gap Creek doesn't flow continuously, comprising a chain of waterholes for most of the year. Underground flow may occur as the creek bed contains deep gravel in parts. Flooding occurs in heavy rain, particularly with the backing up of Moggill Creek (e.g. high tide).

Road culverts restrict water flow in some areas.

Land

City Plan (Brisbane City Council, 2004) designates most of the Section as Environmental Protection Area, with Rural Area designation covering southern and southwestern areas. (It should be noted that many existing properties are smaller than the current minimum area of 10 ha for Rural and Environment Protection Areas.) A narrow strip of Parkland Area runs along the eastern and western side of Gap Creek from Brookfield Road north to Kookaburra Street. One commercial property, Mappin Nursery, occurs in the Section.

Community

There are currently 32 Catchment Group members within the Section. Four families (5-6 people) regularly attend Habitat Brisbane working bees, though numbers fluctuate from 1-20.

Current knowledge and ability amongst working bee attendees is sufficient for the task at hand. Hands-on training by Habitat Brisbane staff, Catchment Group project staff and experienced Catchment Group members was given to new members at the start of the creek project.

MCCG provided the following number of plants to private landholders.

1999	2000	2001	2002	2003	2004	Total
87	0.0000000000000000000000000000000000000	614	1031	920	822	3,474

Habitat Brisbane provided the following number of plants (financial year ending).

1999	2000	2001	2002	2003	2004	Total
nd	nd	150	601	150	500	1,401

In addition, during 2003, 16 private landholders within the Section received assistance from MCCG, comprising advice.

Mappin Nursery operates in the Section, but currently has no involvement in Catchment Group activities.

University students from a wide range of fields (eg. University of Queensland History Department and soccer team) have participated in working bees.

6.14.2 ISSUES AND TRENDS

Biodiversity

Gap Creek is a potentially significant corridor between Brisbane Forest Park (Mt Coot-tha) and Moggill Creek.

Major weeds along Gap Creek include Camphor laurel, Chinese celtis, Broad-leaved privet, Brazilian pepper, Lantana, Ochna, Privet, Silver-leaf desmodium (Velcro weed), Singapore daisy, Asparagus vine, Potato vine (Solanum sp.), some Madeira vine, Easter cassia and Mulberry. Up to 90% of the vegetation along the Creek is weed.

Weed removal efforts have been focused on ~ 5 ha public land along the creek (3ha south-east side, north-west side 2ha) north of Brookfield Road. In 1990, a BCC work crew largely removed weeds from the park and planted, however, with no maintenance most of the plants died and weeds have regrown. The current Habitat Brisbane project started in 1999. Since then the Bushcare Group has removed weeds and planted 60% (~ 1.8 ha) of the southern and eastern side of the park.

Madeira vine has also been removed from along the Creek on several private properties in the south of the Section.

Water

No current concerns.

Land

A small amount of gully erosion, caused by overland flow, occurs within the park, extending from the Creek to inside the fence of the adjoining private property. This is under control in the park through planting of Lomandras and other species.

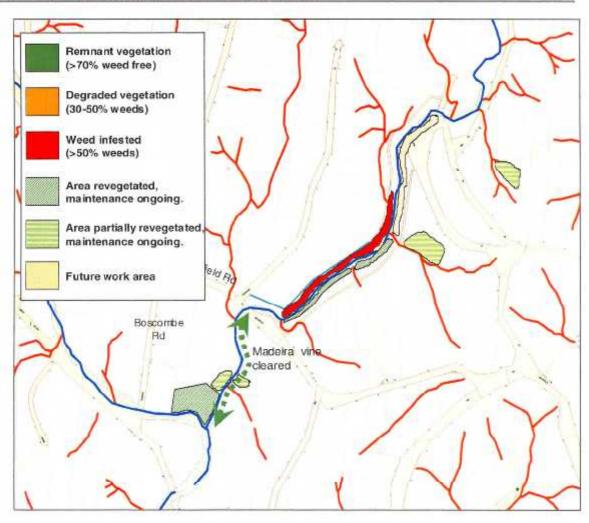
Council zoning offers a measure of protection to most of the Section; however, subdivision of larger properties at the northern end of the section along Gap Creek Rd is a potential threat to the creek's corridor function

Encroachment by park neighbours is a concern and clear delineation of boundaries is needed.

Community

The majority of older people in the group slow progress on weed removal from new areas; however, these are more inclined to undertake maintenance. A mix of generations is needed to achieve balance.

Working bee attendance is stable, though given the low levels of participation; the effects of one family leaving the area would be dramatic



6.14.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B12.1	A significant amount of work has been undertaken along the creek in this section. Targeting a small group of landholders in the middle of the section (eg. with private revegetation projects) could bridge the gap	С		
	B12.2	The Bushcare Group aims to undertake 0.5ha per year of weed control and planting within the park. Increasing maintenance of older planted areas will slow progress in future years	С	С	С
	B12.3	Help needed from BCC to remove large Camphor laurels from within park	С		
	B12.4	A Green Corps or similar team is needed to help remove dense weed infestations		С	
Water		No action required	С		
Land	L12.1	Encourage landholder at head of erosion gully to undertake remedial action	С	С	С
Community	C12.1	Campaign to attract fit, young people to participate in working bees	С		

Moggill Creek Catchment Group Business Plan 2005-2008

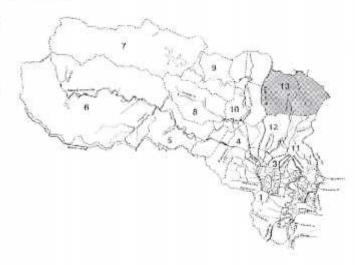
Theme	Action #	Details	2005	2006	2007
	C12.2	Obtain list of private revegetation participants in the Section	С		
	C12.3	Obtain updated list of Catchment Group members in the Section	С	С	С
	C12.4	Neighbouring properties are a weed seed source – an education/incentive campaign needed	С		

6.15 Section 13: Mt Coot-tha Park

Section Leader: John McKenzie (BCC)

6.15.1 DESCRIPTION OF SECTION

An area of approximately 546 ha of Mt coot-tha Park lies within Moggill Catchment. With the exception of a small area in the southwest, the Section is contained within Mt Coot-tha Forest (Brisbane's largest park and part of Brisbane Forest Park). The area of Forest within the Section is freehold land owned by Brisbane City Council. Information in this section has



been derived from the Mt Coot-tha Forest Management Plan (BCC, 2003).

Biodiversity

The eucalypt woodland and open forest communities found throughout this Section are in relatively good condition, with weed infestations mostly restricted to riparian areas. Dominant tree species include: Eucalyptus propinqua var. propinqua, E. microcorys, E. siderophloia, E. acmenoides, E. crebra, Corymbia henryi, C.citriodora and Lophostemon confertus.

A small area of *C. citriodora - E. siderophloia* woodland opposite Gap Creek Road, is the only area of this community found within Mt Coot-tha Forest. Though cleared in 1949, the area has revegetated.

Pockets of E. moluccana open forest occur on northerly slopes at three locations in the southwest of the Section.

A total of 456 species of plants, lichens and cyanobacteria and 362 vertebrate fauna species have been recorded from Mt Coot-tha Forest (species lists are contained in the Mt Coot-tha Forest Management Plan, BCC 2003). The proportion of these species found within the Section is unknown.

Water

The current alignment of Gap Creek Rd is un-gazetted. Due to an unknown error, Gap Creek Road actually lies on the next ridgeline to the west of its gazetted route. Several kilometres of this road are unsealed and this is subject to an annual program of maintenance including grading.

In 1996 it was identified that the existing internal road network throughout section 13 was badly degraded. Most of these tracks were created through ad hoc historical use, primarily by unauthorised off road use i.e. 4wd and motorcycles. Prior to 1996 there was limited success in the management of off road vehicles in this section. In the two years to 1998, through a combination of recurrent and capital funding. Local Asset Services had managed to secure the boundaries of the park and unauthorised vehicular activity decreased significantly.

The following stage involved rationalising tracks to the spatial arrangement of fire blocks as per the Mt Coot-ha Forest Fire Management Plan. In order to facilitate service vehicle movement and improve water quality, culverts were installed at all vehicle crossings. This negated the former practice of fording creeks, disturbing the bed, damaging creek banks on the approach and exit and therefore led to a significant reduction in sediment loading. From 1998 to 2002, a total of 8 culverts and 1 timber footbridge were installed in the Gap Creek, Boscombe and Jones Road areas.

Land

The Mt Coot-tha Forest Management Plan (BCC, 2003) identifies the underlying geology of the Park as predominantly Bunya Phyllite (slate, phyllite, arenite, metabasalt), with Neranleigh-Fernvale Beds (mudstone, shale, arenite, chert, jasper, basic metavolcanics, pillow lava, conglomerate) in the southwestern corner.

Soils in the Mt Coot-tha Forest Park are mostly a mix of lithosols and red podzolic soils (BCC, 2003). Soil erodibility: surface soil: moderate-high; subsoil: moderate-high; Underlying rock: low (BCC, 1997).

City Plan (Brisbane City Council, 2004) designates most of this Section as Conservation Area, with a small area of Environmental Protection Area between Boscombe Road and the Forest in the southwest of the Section. Gap Creek Road is unsurfaced through the Section.

Community

Gap Creek Reserve contains a picnic area and an extensive track network. The track network as recognised in the Mt Coot-tha Forest Management Plan is comprised of Multi use, walking and mountain bike single track. The multi use tracks are designed to allow for maintenance vehicles including wild fire suppression crews, horse riders, walkers and mountain bikes.

6.15.2 ISSUES AND TRENDS

Biodiversity

A significant creek corridor exists in this Section between Gold and Gap Creeks

Weeds threaten the integrity of natural vegetation, reduce biodiversity and increased the risk of fire. Weed management is crucial to the protection and management of biodiversity (BCC, 2003). Within the Section, Lantana (Lantana camara) dominates or is co-dominant with Panicum maximum in weed communities found in many of the gullies and along some ridges (BCC, 2003).

Other weeds found in these areas include:

Ageratum houstonianum Axonopus compressus Baccharis halimifolia

Bidens pilosa

Brachiaria decumbens

B. mutica

Cardiospermum grandiflorum

Cenchrus echinatus Cestrum parqui Celtis sinensis Chloris gayana

C. virgata

Cinnamomum camphora

Commelina diffusa Cynodon dactylon Dichanthium aristatum Digitaria ciliaris Diplachne fusca

Eragrostis tenuifolia

Eleusine indica

Eupatorium riparia

Gomphocarpus physocarpus

Koelreuteria elegans Lantana montevidensis Ligustrum sinense Melinis minutifolia Ochna serrulata Paspalum dilatatum Passiflora foetida

P. suberosa

Protoasparagus densiflorus

Melinis repens Ricinus communis

Senna pendula var. glabrata

Solanum seaforthionum

S. mauritianum Tradescantia albiflora Verbena bonariensis

V. litoralis

Dumping of garden waste and general rubbish is a problem, particularly along Gap Creek Road. Encroachment from adjoining land uses is an issue in some areas.

Land

The extensive track and trail networks are potential sites for erosion due to exposure of the soil surface and continual use or disturbance. This is mitigated by regular

maintenance of the track and fire access trail network, however inappropriate and illegal use counteracts these efforts to some degree.

Of significance are the recent release of the Mt Coot-tha Management Plan and the recruitment of a specific Mountain Bike Trail Care Coordinator. This officer will be responsible for the ongoing education of mountain bike users in the forest. Similar relationships between user groups and land management agencies in Australia and overseas have resulted in higher rates of compliance with regulated use and corresponding reductions in illegal track/trail construction. This officer will be responsible for recruiting and training trail care volunteers directly from the mountain bike user group. These groups will then begin maintenance/construction works on the single mountain bike trail network in the Gap Creek area and Mt Coot-tha Forest so that these trails will conform to a track specification adopted by the International Mountain Bike Association. Funding has only been made available for the financial year 2004-2005. However, due to the scope of work it is anticipated additional funding will be required in subsequent years.

A capital works project in 2003-2004 enabled BCC to install regulatory, directional and totem signage across Mt Coot-ha Forest, including the Gap Creek area. This has provided for a more informed public

Community

Privately managed lands outside the boundaries of Mt Coot-tha Forest are subject to development pressure, however the Environment Protection Area designation over private land within the Section mitigates this. Generally, development adjacent to the Forest has the potential to increase demand for access and consequently visitor numbers, further fragment the landscape, increase wildlife mortality, restrict wildlife movement and threaten the viability of wildlife populations.

Some conflicts occur over track use, however, these will be reduced following installation of signage identifying the purpose and allowed users of different stretches of the track network.





6.15.3 ADDRESSING THE ISSUES

Theme	Action #	Details	2005	2006	2007
Biodiversity	B13.1	Continue identification and control of threatening processes			
	B13.2	Restore and manage vegetation and watercourses to provide a variety of habitats			
	B13.3	Continue data gathering, monitoring and research to facilitate long-term management			
	B13.4	Identify the presences and abundance of pest plants and animals, assess their impact and undertake management programs			
	B13.5	Further develop existing working relationships with research bodies, neighbours, the community and user groups to improve understanding of pest plant and animal issues, encourage planting of indigenous species, assist with monitoring and minimise weed spread			
	B13.6	Promote responsible pet ownership			
	B13.7	Implement the Fire Management Plan for Mt Coot-tha			
	B13.8	Ensure fire management activities are consistent with the South-east Queensland Fire and Biodiversity Consortium guidelines			
	B13,9	Undertake regular monitoring of fire management activities to ensure risk is reduced and natural values maintained			

Theme	Action #	Details	2005	2006	2007
	B13.10	Develop codes of conduct/practice for recreational user groups		194	
Water	W13.1	Restore and manage vegetation and watercourses to provide a variety of habitats			
Land	L13.1	Develop codes of conduct/practice for recreational user groups			
	L13.2	Maintain a safe and serviceable track system			
Community	C13.1	Develop codes of conduct/practice for recreational user groups			
	C13.2	Establish and maintain partnerships with adjoining large property owners to promote appropriate conservation and joint fire management initiatives			
	C13.3	Undertake regular inspections to prevent illegal encroachment			

7 REFERENCES

BCC (1997) Moggill Creek Catchment Management Plan. Brisbane City Council. BCC (2003) Mount Coot-tha Forest Management Plan. Brisbane City Council.

8 ACKNOWLEDGEMENTS

MCCG wishes to thank Brisbane City Council for funding this Review and Business Plan and the Habitat Brisbane Program and Brisbane Forest Park for their assistance. Also MCCG wishes to thank Ms Liz Gould for her work in assisting in collecting information and significantly contributing to the preparation of the report.

APPENDIX A

MOGGILL CREEK CATCHMENT GROUP Strategic Plan – Version 3



July 2003

Introduction	Page 2
MCCG High Level Strategic Plan - Draft	Page 3
Detailed Strategic Plan Draft with Actions	Pages 4-8

INTRODUCTION

WHY DOES MCCG NEED A STRATEGIC PLAN?

Discussions held at the Water and Land Carers Qld (WALC) meetings have made it clear that future grant applications will be considered in the context of regional priorities. It has been recommended by WALC that Catchment Groups revisit their Strategic Plans with a view to aligning them to the 6 core elements within the Strategic Guide to Natural Resource Management in SEQ (2000), to ensure consistency across the region. (This Guide is available to anyone who would like to read it)

An auxiliary advantage of revisiting the Strategic Plan is that it will enable MCCG to do a stock take of its activities, shortcomings, and achievements, with a view to realising its full potential.

WHO IS INVOLVED IN THE DEVELOPMENT OF THE PLAN?

Although everyone on the MCCG Committee was invited to participate in the strategic planning sessions, not everyone had the time available. Those who were able to participate included Bryan Hacker, Malcolm Frost, Adrian Webb, Graeme Wilson, Judy Gower and Kate McVicar, with non-Committee members Robyn Frost and Chris Hosking.

Two strategic discussion sessions were held over 2 Saturdays, totalling 6 1/2 hours. The result is this document, the third Draft Strategic Plan which is now being circulated amongst the rest of the Committee for review.

HOW WAS THE PLAN DEVELOPED?

The draft strategic plan started as a collection of ideas to generate discussion. The format is based on the guidelines supplied by the Dept of NR&M.

Using the 6 designated themes below, the guidelines include a high level goal, strategies to achieve the goal and the actions required to support the strategies:

6 Themes

- Caring for Biodiversity
- Caring for Water
- Caring for Land
- Caring for Coasts and Seas
- Understanding and Participation
- Integrated Planning and Co-ordinated Management.

Recommended Headings under each theme

- High level goal
- Key strategies to achieve goal outcomes
- · Actions to implement strategies

Please note: The MCCG draft Strategic Plan does not include the theme of Caring for Coasts and Seas

MCCG High Level Strategic Plan – Draft Only – Version 3 Moggill Creek Catchment Group Business Plan 2005-2008

Mission

conserve & improve the local natural environment of its catchment on both private and public MCCG is a volunteer action community group aiming to

Biodiversity Caring For

Caring For Water

Caring For Land

Understanding &

Participation

Integrated Planning & co-ordinated

Goal

To restore and maintain native biodiversity in the catchment area

Goal

To improve, maintain and protect the health of the catchment watercourses

Goal

To support and promote conservation of land sustainable use and resources

motivated community, actively participating in improving the To have a well informed and

enhance our impact and allow

activity plan which will

us to monitor our success

To have an overall MCCG

Goal

Goal

local environment

Strategies

Strategies

communication program knowledge through a comprehensive and understanding and which reaches all educational sectors

Promote land use practices

ø

Adopt an integrated

4

natural ecosystems on

the restoration of

public and private land

approach to the restoration and

that account for suitability of land with focus on land stability, soil conservation.

minimising nutrient loss.

management of riparian

integrated approach to

Adopt a planned and

N

habitat restoration and

maintenance,

construction developments

within the catchment

ecologically sensitive

Actively support

2

quality improvement and

Participate in water

3

Increase community

Strategies

Strategies

conjunction with EPA. BCC, DNR and other responsible Groups

management of major weed infestations and

participation in the

awareness &

monitoring in

housing, land and

promotional program within the catchment through an active œ

- Improve community
- Increase MCCG visibility

Strategies

- and implementation of confinuity of activities plan which ensures Work to a business new activities. တ်
- of volunteers to enable effective management Maintain a wide base enable expansion of operations, and to of day to day activities 10

CARING FOR BIODIVERSITY

Goal: To restore and maintain biodiversity in the catchment area

Increase community awareness & participation in the management of major weed infestations and the restoration of natural ecosystems on public and private land STRATEGY 1

Actions

- Conduct survey(s) of current suburban and rural landholders to gain opinions on and understanding of environmental matters
- Increase number of MCCG members, thus widening our sphere of influence
- Offer advice and guidance to landowners on an individual level (gratis)
- Maintain nursery to propagate appropriate native plants for distribution to landholders
- Provide additional support such as mulch, herbicide, equipment to landholders on a special projects basis, Maybe explore sponsorship
- Education of private landholders through newsletters, flyers, fact sheets, information packs, workshops, field days. (See Understanding and Participation) Ó
- All 11 MCCG Sections to employ active Bushcare groups under the auspices of Habitat Brisbane
- Improve reporting of achievements on public land in order to publicise our achievements, encouraging more community involvement ó
- Encourage community involvement (See Understanding and Participation)
- Develop a support program to assist Section Leaders in the management of their section where the need exists
- 11. Lobby appropriate bodies for the continued development and use of biological controls for weed management

Adopt a planned and integrated approach to habitat restoration and maintenance STRATEGY 2

- Develop an understanding of the current condition of the catchment
- Develop a Work Plan, which has an integrated approach, taking into consideration linkages covering both public and private land to establish corridors.
- Co-ordinate work undertaken in accordance with the plan
- Institute a review program to monitor progress (tri-annually) Incorporate monitoring from other sources eg wildlife monitoring

CARING FOR WATER

Goal: To improve, maintain and protect the health of the catchment watercourses

Participate in water quality improvement and monitoring in conjunction with EPA, BCC, DNR&M and other responsible Groups STRATEGY 3

Actions

- Determine which groups or departments are involved with water quality improvement and monitoring (quality and water flow)
- Develop relationships and become involved with these groups in order to develop an understanding of the state of the catchment waterways ø
- In conjunction with these groups, develop an action plan to actively manage water quality (including off stream influences) ož.
- An educational program which emphasises the importance of water quality and how to achieve high water quality. (In our cverall educational curriculum)

STRATEGY 4 Adopt an integrated approach to the restoration and management of riparian zones

- Develop an understanding of the current condition of the catchment and institute a planned approach (as with Biodiversity above)
- Enhance public awareness of the importance of healthy riparian zones (water quality, wildlife, aesthetics) (in our overall educational program) N
- Assemble and promote locally relevant guidelines to assist private landholders and Bushcare groups in the management of riparian zones

CARING FOR LAND

To support and promote sustainable use and conservation of land resources

Actively support ecologically sensitive housing, land and construction developments within the catchment STRATEGY 5

- Respond to development proposals and actively participate in discussions, forums regarding development within the catchment
- Maintain partnerships with groups such as REPA thus remaining informed
- Ensure communication of information to MCCG members and committee to ensure they are well informed

Promote land use practices that account for suitability of land with focus on land stability, soil conservation, minimising nutrient loss STRATEGY 6

Actions

- Source and assemble information on sustainable land use which could be distributed as set of guidelines
- Provide this material to new landholders within the catchment, and to developers, where appropriate
- Maintain an overview of land use across the catchment
- Liaise with REPA where appropriate on development and planning proposals.

UNDERSTANDING AND PARTICIPATION

Goal: To have a well informed and motivated community, actively participating in improving the local environment

Improve community understanding and knowledge through a comprehensive and educational communication program which reaches all sectors STRATEGY 7

Action

- Identify community needs in terms of information
- Develop a communication program which defermines what, how and when we communicate with each community sector (e.g. schools, MCCG members, private landholders...
- Assemble and develop appropriate material for distribution and display
- Expansion and promotion of MCCG website providing up to date and comprehensive information to the community
- Exploration of, and application for, funding for development and printing of material (See Action Item 3 under Integrated Planning and co-ordinated 5
- Develop and implement educational activities such as field visits, workshops, demonstrations and presentations Ö
- 7. Evaluate the feasibility of developing and using demonstration sites

STRATEGY 8 Increase MCCG visibility within the catchment through an active promotional program

- 1. Cultivate local media to enable regular MCCG contributions and advertising of activities
- Participate in public events wherever possible (e.g. Brookfield Show)
- Link up with national environmental and regional initiatives e.g. National Tree Day, Clean Up Australia day, Weedbusters.eg.
- Increase the visibility of MCCG through the display of the MCCG logo, MCCG brochure and newsletters in public places 4
- Develop motivational and engaging activities such as competitions (eg Photo Competition), field excursions, 'drinks with residents' evenings 10
- Translate the Marketing Plan in to an Events Calendar to encourage planning and participation

INTEGRATED PLANNING AND COORDINATED MANAGEMENT

Goal: To have an overall MCCG Activity Management Plan, which will enhance our impact and allow us to monitor our success

Work to a business plan which ensures continuity of activities and implementation of new activities STRATEGY 9

- Identify key projects and activities within MCCG and prioritise in accordance with regional and strategic priorities
- Understand the operating financial needs of the group
- Develop an understanding of key funding sources (including regional funding developments), and develop a funding strategy plan
- Develop a process for management of funded projects (execution, monitoring, reporting)
- Develop and execute a results-based marketing plan based on MCCG strategy (Description of all activities planned for the year, and reason for doing them) co
- Gain an understanding of workload, enabling recruitment of volunteers and distribution of

ø

- Investigate the possibility of employing a Co-ordinator for MCCG
- Explore the possibility of a venue as a headquarters for MCCG at Brookfield Showgrounds
- Monitoring and reporting of overall achievements and success of MCCG against its objectives

Widen our base of volunteers to enable effective management of day to day operations, and to enable expansion of activities STRATEGY 10

Action

- Compile a list of tasks, projects, activities in order of priority
- Develop a plan to enlist volunteers (eg. Committee members to source people within their sections)
- Understand volunteer/member expertise and match volunteers with tasks
- Succession Planning
- 5. Develop a reward or recognition process for volunteers as an incentive