



**GOULBURN  
BROKEN**  
CATCHMENT  
MANAGEMENT  
AUTHORITY



# **Upland Slopes**

## SES Local Plan

## The Upland Slopes

The Upland Slopes extends across the southern hills and valleys of the Goulburn Broken Catchment. The landscape is typified by large old scattered trees within winding valleys, meandering between often forested hillsides. This includes the towns of Yea, Mansfield, and Alexandra.

The Taungurung were the first people of the rivers, valleys and mountains in this region. Before European settlement, the hills were covered in forests and open grassy woodlands dominated the valleys. More recently, this area has been dominated by agricultural land and natural events, such as drought and fire shape the landscape.

Many waterways yield good quality and quantity of water, which provides economic (agriculture and tourism), ecological and social (lifestyle and recreational (boating, fishing)) services. The remaining native vegetation is valued for the ecosystem services as well as economic (tourism, forestry) and social (recreation and lifestyle) values it provides. Agricultural production is valued, but the lifestyle opportunities of this area are increasingly appreciated by full-time and occasional residents.

The future aspiration for the Upland Slopes is an area of inspired and diverse community participating widely in sustainable agriculture and lifestyle land-use, for conservation, production and tourism outcomes.

## The Challenges Ahead

Several connected drivers of change pose significant threats to this region's ecosystem.

Climate variability led to unprecedented bushfires in 2006 and 2009, challenging the resilience of the area's environment and people. The capacity of individuals and community organisations to address the legacy of these bushfires, as well as other challenges such as floods and drought, is of significant concern.

Populations of many native species of flora and fauna also remain vulnerable as a result of the bushfires.

Nutrient laden run-off as result of land-use changes, including agriculture practices and the increase in "lifestyle" developments is also significant.

Climate variability and stock and domestic demand is threatening groundwater yield particularly as lifestyle developments expand into the upper parts of this area.

Although water policy reforms are considering the suite of ecosystem services provided by waterways, regulation of the waterways for multiple purposes, especially downstream supply, limits operation of the waterways in terms of water quality and ecological benefits.

Constraints to the delivery of environmental water are being considered.

Although the Upland Slopes have large areas of native vegetation, especially on public land, agricultural practices and land-use changes, including subdivision, on private land is threatening to result in the crossing of several biodiversity habitat thresholds, especially fragmentation, connectivity and fire frequency, and riparian width thresholds (for cleaning water).


Short-term agricultural production objectives (i.e. to produce more and different crops) and long-term native biodiversity objectives (i.e. establish corridors of vegetation) are not always easy to align in this area and there is risk that managing this may be made more difficult by drivers of change such as climate variability and increased farm production.

Land-use changes and the make-up of the population, including absentee landownership of near 50 per cent in some local government areas is creating difficulty in establishing networks between communities and agencies and reinforcing accountabilities at all levels.

## Actions and Effort - Embed the resilience approach

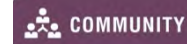
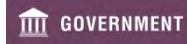
*\*Progress rating is an indicative qualitative assessment, these will be further refined through data analysis, stakeholder and community consultation.*

Strategic priority: Update and develop strategies			
Responsibility			GBCMA
<b>RCS Actions</b> Review and update existing strategic documents and sub-strategies and create new ones according to need	<b>Effort</b> Convert strategic plans to action plans that have meaning at the local level (WS)  Support community groups to develop their own strategies in light of larger ones e.g. RCS	<b>Progress*</b> 	<b>Case Studies</b>

Strategic priority: Plan at social-ecological system scale				
Responsibility		GOVERNMENT	COMMUNITY	GBCMA
<b>RCS Actions</b> Develop an adaptive planning process for social-ecological systems to build and enhance their resilience	<b>Effort</b> New strategies to manage and monitor roadside native vegetation (balance between environment and safety) (WS)  Build more of an understanding of resilience theory amongst agency staff and key stakeholders (WS)  Develop community based processes for understanding, measuring and planning NRM activities (WS)	<b>Progress*</b> 	<b>Case Studies</b>	

**Strategic priority: Provide adaptive management and leadership**

**Responsibility**



**RCS Actions**

Build community and agency capacity to respond together to drivers of change

Research resilience knowledge gaps to inform decision making based on thresholds and tipping points

**Effort**

Education in schools so that we continue to develop a generation of concerned agriculturalists and environmentalists (WS)

To build community leaders with support from agencies so that local people can make changes locally (WS)

Education, training and leadership program for community NRM volunteers and staff (WS)

Ensure that a well-planned and coordinated monitoring approach is in place in order to learn and apply learning's (WS)

**Progress\***



**Case Studies**

UGLN are working with school to do this (WS)

**Actions and Effort - To Strengthen Partnerships**

**Strategic priority: Reinforce relationships between agencies and industry**

**Responsibility**



**RCS Actions**

Define roles and relationships with regional delivery partners

**Effort**

Provide opportunities for knowledge sharing so that knowledge stays in and benefits the region (WS)

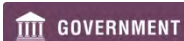
**Progress\***



**Case Studies**

## Strategic priority: Manage Public land collaboratively

### Responsibility



GOVERNMENT



COMMUNITY



GBCMA

### RCS Actions

Undertake works on public land and Crown land frontages to improve waterways and wetlands

Collaborate with Traditional Owners in catchment management

### Effort

Promote ongoing relationships between public land managers and other stakeholders (WS)

Value ecosystem services provided by forested public land and manage for multiple benefits e.g. water quality and quantity, carbon storage, tourism and recreation (WS)

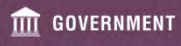
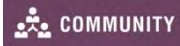


Investigate employment opportunities for TO in NRM (WS)

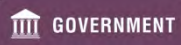
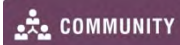


### Progress\*





### Case Studies

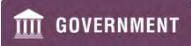


## Actions and Effort - Adapt to land-use change

Strategic priority: Capture opportunities from land development			
Responsibility			
 GOVERNMENT  COMMUNITY  GBCMA			
RCS Actions	Effort	Progress*	Case Studies
<p>Plan land-use to minimise loss of biodiversity</p> <p>Manage public land to minimise loss of biodiversity</p> <p>Promote land-use capability assessments and implementation, including use and management of water</p>	<p>Identify high value assets and potential biodiversity corridors in lifestyle areas and assist local government in the development of appropriate tools to include biodiversity in planning decisions (RCS)</p> <p>Address erosion, sedimentation and other pollution sources to waterways (RWS)</p> <p>Assist local government to develop and apply appropriate planning tools for all council plans and strategies (e.g. Municipal Strategic Statement review, policies, &amp; overlays) to increase the protection and reduce risks to biodiversity (e.g., matching land use intensity to land characteristics) (BS 2010)</p> <p>Strategic Land use planning for native vegetation off setting – Local Government over the counter Native Vegetation off setting program (WS)</p> <p>Partner agencies to become more involved in meetings that are making land management decisions (RCS)</p> <p>Influence forest management including timber harvesting to achieve improved biodiversity outcomes, when opportunities arise such as during reviews of relevant state legislation and policy. Work with local forest planners (BS 2010)</p> <p>Promote Whole Farm Planning program (including as a way to better protect biodiversity) (CNRMAP 2013)</p> <p>Incorporate into the Victorian Planning provisions the requirement for land management plans to be provided as subdivision stage (WS)</p>		

Strategic priority: Plan for and manage floods			
Responsibility			
 GOVERNMENT  COMMUNITY  GBCMA			
RCS Actions	Effort	Progress*	Case Studies
<p>Understand more about the nature of flooding to manage its impact on the natural and built environments</p>	<p>Demonstrate and education on the benefits of wetlands for flood mitigation (WS)</p>		<p>Updated Flood Overlay for Mansfield.</p>

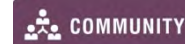
## Actions and Effort - Adapt to water policy reform

Strategic priority: Influence regional water policy			
Responsibility			
RCS Actions	Effort	Progress*	Case Studies
<p>Influence water policy development and implementation to secure water for improving natural asset condition and social and economic wellbeing</p> <p>Create opportunities for community leaders to contribute to water policy</p>	<p>Continued community, DEPI, Goulburn Broken CMA, industry and water authority partnerships to provide balanced and informed input into policy development (RCS)</p> <p>Work with Goulburn Murray Water and DEPI to integrate the management of surface and ground water for the benefit of groundwater dependent ecosystems and aquatic species and communities (BS 2010)</p> <p>Set limits for extraction in the Strathbogie Ranges including from waterways, ground water, bogs and via farm dams. There is a need to be supported by education and science. (WS)</p> <p>Identify and manage key areas likely to provide refuge in the face of climate change, including the prioritisation of wetlands for environmental watering (BS 2010)</p>		<p>Mansfield Shire Council domestic waste water plan adopted. 53 actions to be implemented. No funding to do so (WS)</p>

Strategic priority: Deliver water to waterways and wetlands			
Responsibility			
RCS Actions	Effort	Progress*	Case Studies
<p>Plan, deliver and monitor environmental water delivery to improve the condition of priority waterways and wetlands</p>	<p>Communicate with landholders, use their in depth knowledge to guide decision making (WS)</p>		

**Strategic priority: Use water efficiently on farms**

**Responsibility**



**RCS Actions**

Modernise water delivery on irrigated land to provide ecological and productivity benefits

**Effort**

Support planning for water management to secure water for agricultural production (WS)

**Progress\***



**Case Studies**

**Actions and Effort - Adapt to climate variability**

**Strategic priority: Adapt to climate variability risk**

**Responsibility**



**RCS Actions**

Factor risk of climate variability and identify adaptation strategies in Goulburn Broken CMA and partner plans

Factor risks to natural assets into public land fire management plans

**Effort**

Increase landscape connectivity (WS)

Ensure information about high priority biodiversity assets is considered by fire-fighting authorities prior to and during wildfires. (BS 2010)

**Progress\***






**Case Studies**


Biodiversity fund has created significant landholder interest in protecting and restoring biodiversity. Demand is great than supply. (WS)



### Strategic priority: Respond and recover from climatic events





<b>Responsibility</b>				 GOVERNMENT	 GBCMA
<b>RCS Actions</b> Plan and implement flood, fire and drought response and recovery	<b>Effort</b> Identify where agencies and community can have influence and build partnerships with public land managers (RCS)  Reduce the impact of flooding on Urban Centres including Taggerty, Acheron, Alexandra, Molesworth, Yea, Thornton, Eildon and Mansfield (IFS 2014)  Ensure proactive rather than reactive approach based on science and including natural asset protection (WS)	<b>Progress*</b> 	<b>Case Studies</b>		

### Strategic priority: Capture opportunities from a low carbon future

<b>Responsibility</b>				 GOVERNMENT	 GBCMA
<b>RCS Actions</b> Identify where carbon sequestration activities provide environmental, economic and social benefits	<b>Effort</b> Research and clear communication needed so that it can be incorporated into community planning (WS)	<b>Progress*</b> 	<b>Case Studies</b>		

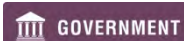
## Actions and Effort - To adapt to increased farm production


### Strategic priority: Manage risk to agricultural production

<b>Responsibility</b>				 GOVERNMENT	 COMMUNITY	 GBCMA
<b>RCS Actions</b>	<b>Effort</b> Research and development in utilising integrated and new approaches for managing risks to agriculture (WS)  Continue to deliver soil erosion remediation works (WS)	<b>Progress*</b> 	<b>Case Studies</b> Gecko Clan is doing erosion and salinity project with DEPI on private land (WS)			





## Strategic priority: Increase biodiversity in agricultural landuse

### Responsibility



RCS Actions	Effort	Progress*	Case Studies
<p>Create awareness and acceptance of land management practices that protect and improve terrestrial and aquatic habitat</p> <p>Identify environmental stewardship opportunities for land managers</p> <p>Work with landholders to protect and improve biodiversity on private land and build understanding of its contribution to sustainable and profitable farming</p>	<p>Increase biodiversity along minor waterways for benefits downstream (WS)</p> <p>Quantify and educate landholders regarding production benefits of good riparian management. Also need to secure funding to implement (WS)</p> <p>Use the vast knowledge of aging agency staff to educate landholders about the benefits to productive farming when biodiversity is increased. Often incentive are need for practise change (WS)</p> <p>Develop an education campaign that focuses on increasing knowledge and acceptance of the need for biodiversity conservation (RCS)</p> <p>Provide incentives for landholder stewardship (active management for conservation) (BS 2010)</p> <p>Promote benefits of strategic, whole-of-farm grazing management that promote both biodiversity and production (Apply learning’s from previous projects such as the Farm Business and Biodiversity Project, Green Graze, and Hill Country Environmental Management Incentives) (BS 2010)</p> <p>Provide landholders with information and/or incentives to improve the condition of terrestrial, riparian and wetland habitat (RCS)</p> <p>Manage erosion so that sediment load is reduced and productive land maintained (WS)</p>	<p>Progress*</p> 	<p>The <a href="#">Pasture Cropping project has been a great success for the Gecko CLaN.</a></p> <p>Support projects like the <a href="#">Grey-Crowned Babbler</a></p> <p><a href="#">Woodland tender project 1500Ha on private land</a></p> <p>The <a href="#">GB CMA SoilCare</a> Program promotes soil management plus better patures equals quality stock for selling.</p>

## Strategic priority: Establish sustainable agricultural practices

Responsibility				
		 GOVERNMENT	 COMMUNITY	 GBCMA
<b>RCS Actions</b>	<b>Effort</b>	<b>Progress*</b>	<b>Case Studies</b>	
Create awareness and acceptance of sustainable management practices to improve land and soil condition	<p>Educate landowners of their responsibilities (WS)</p> <p>Develop a series of workshops for landholders with holding under 250 acres on soil health, weed management and ID, fire prevention and planning (WS)</p> <p>Encourage research and development of small acreage farming so that regional production is enhanced despite sub-division of land (WS)</p> <p>Embrace new sustainable technologies/land use modelling systems (WS)</p>		<p><a href="#">Gecko Clan is practising mosaic burning with Yorta Yorta</a></p> <p><a href="#">Gecko Clan Pasture Cropping</a> promotes ground cover.</p> <p>The GB CMA <a href="#">SoilCare program</a> promotes 100% ground cover all year round.</p> <p>The <a href="#">GB CMA SoilCare Program</a> have run a series of forums highlighting the importance of organic matter in the soil, Composting and high level speakers promote whole of farm practices.</p>	

## Additional Actions and Effort

- Community keen to see forestry undertaken sustainably (L&B Team engagement)
- Use biodiversity information and knowledge to identify spatial priorities at the landscape-scale (e.g. existing and proposed bio links) (BS 2010)
- Some community concern over the economic impact of native animals on agriculture e.g., Kangaroos (L&B Team engagement)
- Community keen to see government take action on landholders undertaking poor land management practise particularly where they impact on others (L&B Team engagement)
- Undertaken pest plant and animal actions e.g. Blackberries, Paterson's Curse, Bridal Creeper, Foxes, Goats and Rabbits (L&B Team engagement, CNRMAP 2013)
- International investors buying up arable land purely for long term investment (WS)