



**GOULBURN
BROKEN**

CATCHMENT
MANAGEMENT
AUTHORITY

The background of the cover is a photograph of a rural landscape. In the foreground, there are rolling green hills. Several large, mature trees with dense foliage are scattered across the middle ground. The sky is filled with dark, heavy clouds, suggesting an approaching storm or late afternoon light. The bottom half of the cover is overlaid with a dark olive-green wavy graphic.

Productive Plains

SES Local Plan

The Productive Plains

The Productive Plains SES is located across the lower slopes and plains of the central Goulburn Broken Catchment and includes the towns of Nagambie, Euroa, Violet Town, Dookie and Tungamah.

The area's abundant food and water resources were first used by the Yorta Yorta and Taungurung Clans and the region's many cultural sites indicate its importance to Traditional Owners. Since European settlement, land-use change has included clearing for farming, gold rushes, the post-1930s farm mechanisation boom and the wool boom of the 1950s.

Agricultural land-use is highly valued in this area for the economic and social services it provides. There is also high value placed on the remaining native vegetation, on land and along waterways for the ecosystem and social services it contributes to. The future aspiration for the Productive Plains is to integrate productive capacity with ecological function and maintain social networks.

Working on Solid Foundations

Effort to sustain and restore the natural environment that underpins our way of life is by no means new. The area's landholders have worked with a range of stakeholders to maintain and improve region's land, water and biodiversity assets over the years. While acknowledging this effort there is also recognition building the region's resilience to adapt to current and future drivers of change is an ongoing challenge.

The Challenges Ahead

The ageing primary producer demographic suggests there could be significant land ownership or management changes over the next few decades, although it is very uncertain what land-use changes will result. Social capital, in the form of the community-based workforce, might also decline as long-term community members leave the SES or are no longer able to continue.

There are significant opportunities in many areas to:

- prevent the decline in native vegetation cover
- revegetate and connect remnant native vegetation patches. This landscape change also offers ecosystem services to increased farm production

Significant **land-use changes** are mostly in the south-western part of this area, in areas around Nagambie and across to the Strathbogie Ranges, where broad acre mixed farming properties are making way for more intensive enterprises such as thoroughbred horse studs. Such enterprises present significant challenges and opportunities for catchment management.

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.



Short-term **agricultural production** objectives and long-term native biodiversity objectives on the one piece of land are not always easy to align in this area: if climate variability and increased farm production drivers stimulate more intensive or different agricultural production systems, such as more cereal crops, biodiversity may be further threatened. These changes may also introduce new or increased threats to land and soil health, such as invasive pest species and soil acidity.

Fire risks in public land such as the Whroo Rushworth Forest are exacerbated when there are extended dry periods, which are part of climate variability, placing biodiversity habitat at risk. Droughts stemming from climate variability highlight the need for research into new crops, or modification of existing crops, and their management.





Climate variability has resulted in extreme drought and floods over the last decade, impacting on this area long after the event, exacerbating the burden on rural communities.

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			
RCS Actions Review and update existing strategic documents and sub-strategies and create new ones according to need.	Effort Monitor and record effectiveness of plan implementation (WS)	Progress* 	Case Studies The Goulburn Broken CMA Biodiversity Strategy is currently under review.



Strategic priority: Plan at social-ecological system scale





Responsibility			
			 GOVERNMENT  COMMUNITY  GBCMA
RCS Actions Develop an adaptive planning process for social-ecological systems to build and enhance their resilience.	Effort Plan for disasters, education need that it may be a “When” not “if” scenario (WS) Resourcing and monitoring needed	Progress* 	Case Studies A draft fire plan has been created for Rushworth in consultation with the community. All municipalities have Municipal Emergency Management Plans, you can access these via the relevant web links. Campaspe Shire , Strathbogie Shire , Moirra Shire , Benalla Rural City and Mitchell Shire not all shires have these plans on their websites. Each municipalities have a Municipal Emergency Resource Officer or Recovery Manager that is the main contact for emergencies in their shires. Resources and monitoring is carried out under the AIIMS structure which directs people to services required.

Strategic priority: Provide adaptive management and leadership


Responsibility			
			 GOVERNMENT  COMMUNITY  GBCMA
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 Identify successful land management mentors and ask them to share knowledge (WS) Undertake adaptive management	Progress* 	Case Studies Gecko CLaN - has funding for a High School Sustainable Agricultural project. An education day was run in conjunction with Taungurung Clans to increase school children’s knowledge of art, culture and music. Yorta Yorta Nation Aboriginal Corporation has recorded stories of traditional uses of Country. Seven demonstration sites are been conducted as part of the SoilCare Program.

Actions and Effort - To Strengthen Partnerships

Strategic priority: Reinforce relationships between agencies and industry			
Responsibility			 GBCMA
<p>RCS Actions</p> <p>Define roles and relationships with regional delivery partners</p>	<p>Effort</p> <p>Strengthen input into land management decisions and provide support for community interface (WS)</p>	<p>Progress*</p> 	<p>Case Studies</p> <p>Tacking Roadside Weeds - is a combine project with Strathbogie Shire Council, Granite Creek Landcare Group and Strathbogie Tablelands Landcare Group</p> <p>A Strong relationship has been established between Whroo Goldfield Conservation Management Network and Mandalay Resources.</p> <p>Yorta Yorta Nation Aboriginal Corporation have developed fact sheets that detail partnerships and leadership.</p> <p>The Yorta Yorta Whole of Country Plan identifies partnerships and values important to the Yorta Yorta board.</p> <p>The Taunurung Country Plan 2015-2025 identifies the need for Memorandums of Understanding with local governments and agencies as a priority.</p>

Strategic priority: Manage Public land collaboratively				
Responsibility		 GOVERNMENT	 COMMUNITY	 GBCMA
<p>RCS Actions</p>	<p>Effort</p> <p>Plan for disasters, education need that it may be a “When” not “if” scenario (WS)</p> <p>Resourcing and monitoring needed</p> <p>Investigate the possibility of Indigenous rangers been employed to manage crown land.</p>	<p>Progress*</p> 	<p>Case Studies</p> <p>The Taunurung Country Plan 2015-2025 identifies the need for Indigenous rangers on public land.</p>	

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>Deliver farm planning to integrate ecological and agricultural productivity benefits.</p> <p>Plan land-use to minimise loss of biodiversity</p> <p>Manage wastewater treatment and stormwater runoff to minimise pollutants to urban waterways and wetlands</p> <p>Promote land-use capability assessments and implementation, including use and management of water</p>	<p>Review whole farm planning processes to ensure biodiversity is adequately addressed</p> <p>Environmental Best Management Practice courses</p> <p>Primarily in the Box-Ironbark Forest areas, possible interventions: alternative firewood plantations, large tree protection, encouragement of natural regeneration, ecological thinning, native herbivore management, provision of permanent artificial hollows, reinstatement of understorey (including targeted seed collection programs). Also, seek historical data and monitoring results from the large natural reference area of Puckapunyal</p> <p>Strategic land use planning for native vegetation off setting – Local Government over the counter native vegetation off setting program</p> <p>Promote recycling of stormwater and runoff</p> <p>Work with local industries to reduce pollution including to stormwater</p> <p>Manage water extraction sustainably</p> <p>Incorporate into the Victorian Planning provisions the requirement for land management plans to be provided as subdivision stage</p> <p>Investigate the opportunities for Taunurung and Yorta Yorta to manage their own land for cultural practices, healing and camps.</p>		<p>Whole Farm Planning is currently been reviewed and funding sort to run the program.</p> <p>Whroo Goldfields Conservation Management Network has a 1000 Hollows project and are actively creating corridors and new habitat.</p>	

Strategic priority: Plan for and manage floods

Responsibility



RCS Actions

Provide floodplain decisions and advice in land-use planning.

Understand more about the nature of flooding to manage its impact on the natural and built environments.

Effort

Sustainable agriculture practice research and extension e.g. Gecko Clan's Pasture Cropping and sustainable farming education and Strathbogie Tablelands Landcare Alternative Fertiliser Trials.

Promote Whole Farm Planning program.

Promote the importance of flooding to the landscape including to urban people.

Ensure communities are aware of flood levels in relation to their properties.

Progress*



Case Studies

[Gecko CLaN's Pasture Cropping](#) project has created a great resource of information relating to sustainable agriculture.

[Strathbogie Tablelands Landcare group](#) have run a trial using alternative fertilizers.

GB CMA [SoilCare program](#) in conjunction with private landholders and groups are conducting seven demonstration sites.

Signage of past flooding levels have been placed in Murchison and along the Goulburn River.

[Yorta Yorta Country Plan](#) identify improving water flows and wetland restoration as important to them.

Actions and Effort - Adapt to water policy reform

Strategic priority: Influence regional water policy

Responsibility



RCS Actions

Influence water policy development and implementation to secure water for improving natural asset condition and social and economic wellbeing.

Create opportunities for community leaders to contribute to water policy.

Effort

Allow local input into regional implementation of overarching water policy.

Progress*



Case Studies

Development of groundwater local management plans Strathbogie 2013, Mid Goulburn underway, Broken 2015

[The Yorta Yorta Whole of Country Plan](#) identifies water as important.

Taunurung Country Plan 2015-2025 identifies water as an important cultural and economic right.

Strategic priority: Deliver water to waterways and wetlands

Responsibility



RCS Actions

Plan, deliver and monitor environmental water delivery to improve the condition of priority waterways and wetlands

Prioritise protection of waterway and wetlands within the modernised irrigation delivery system

Effort

Refer to the Regional Water Strategy for details.

Identify and manage key areas likely to provide refuge in the face of climate change, including the prioritisation of wetlands for environmental watering.

Restore environmental flows to Holyland Plains and Caniambo Swamp

Promote the importance of flooding to the landscape including to urban people.

Ensure communities are aware of flood levels in relation to their properties.

Work with Trust for Nature to protect key wetlands and/or use easements to allow for over bank flows

Progress*



Case Studies

Environmental water was put into Doctors Swamp in 2015.

The Goulburn River have had flushes to promote river bank growth, invertebrate breeding and fish breeding.

Past flooding signage has been placed along the Goulburn River.

Strategic priority: Use water efficiently on farms

Responsibility



RCS Actions

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

Effort

Adaptive shallow groundwater management occurring in the Agricultural Floodplains SES. Tools developed could be applied or adapted to Productive Plains

Promote collection and reuse opportunities within intensive agriculture industries e.g. capture water from large roofed areas


Progress*



Case Studies

The [GB CMA Farm Water Program](#) have been investing in improved water management across the catchment through a Commonwealth Funded project.

Actions and Effort - Adapt to climate variability

Strategic priority: Adapt to climate variability risk				
Responsibility		GOVERNMENT	COMMUNITY	GBCMA
<p>RCS Actions</p> <p>Factor risk of climate variability and identify adaptation strategies in Goulburn Broken CMA and partner plans.</p> <p>Create opportunities for community leaders to contribute to water policy</p>	<p>Effort</p> <p>Sustainable Agriculture Practices such as Gecko Clan’s Soil Carbon activities. Education of landholders to adapt to climate variability</p> <p>Target permanent protection of large habitat patches in fertile sites</p> <p>Improve habitat connection between Hills and Plains including use of waterways with flow reliability</p> <p>Encourage habitat protection along drainage lines and wetlands</p> <p>Build resilience of remnant habitat to absorb climate variability. Need to research thresholds in this areas</p> <p>Partner agencies involvement in fire management strategy development</p> <p>Identify and maintain well-functioning ecosystems and develop strategies for ecosystems to adapt, and transform if necessary</p>	<p>Progress*</p> 	<p>Case Studies</p> <p>VROT Action Statements.</p> <p>Gecko CLaN, Longwood Plains Conservation Mangment Network and the GB CMA SoilCare program are actively engaging with the community on sustainable agriculture practices.</p> <p>The Yorta Yorta Whole of Country Plan identifies climate change as an opportunity for involvement.</p> <p>Longwood Plains and Whroo Goldfields Conservation Management Networks and the GB CMA Woodlands Project are all projects that are protecting habitats.</p> <p>Whroo Goldfields Conservation Management Network has created vegetation corridors with its Woodland Birds Project and Yellow Gums and Goldfields Project.</p> <p>The Yorta Yorta Whole of Country Plan identifies traditional fire practices as a tool for modern fire management.</p> <p>The Yorta Yorta Whole of Country Plan identify management of flora and fauna as important.</p> <p>Taunurung Country Plan 2015-2025 identifies the need to be involved with climate change action.</p>	

Strategic priority: Respond and recover from climatic events

Responsibility



RCS Actions

Plan and implement flood, fire and drought response and recovery

Effort

Delivery of support to affected communities (RCS)

Ensure proactive rather than reactive approach

Reduce the impact of flooding on Urban Centres including Benalla, Seymour, Avenel, Longwood, Glenrowan and Baddaginnie

Integrate biodiversity enhancement planning with community fire safety planning

Work with Emergency Management Victoria to reduce recovery response times following natural disasters

Progress*



Case Studies

[Gecko Clan Fire Recovery Program](#)

All municipalities have Municipal Emergency Management Plans you can access these via the relevant web links.
[Campaspe Shire](#), [Strathbogie Shire](#), [Moirra Shire](#), [Benalla Rural City](#) and [Mitchell Shire](#) not all shires have these plans on their websites.

Strategic priority: Capture opportunities from a low carbon future

Responsibility



RCS Actions

Identify where carbon sequestration activities provide environmental, economic and social benefits

Effort

Support landholders wanting to enter the carbon market





Establish private/public partnerships to develop a low carbon restoration fund (WS) Trust for Nature to prepare a proposal





Progress*



Case Studies

Actions and Effort - Adapt to increase farm production

Strategic priority: Manage risk to agricultural production			
Responsibility			
 GOVERNMENT  COMMUNITY  GBCMA			
RCS Actions	Effort	Progress*	Case Studies
<p>Deliver surface and sub-surface drainage works across a modernised irrigation delivery system, including adaptive shallow groundwater management</p>	<p>Create awareness of good practice e.g. forums/field days</p> <p>Support farm planning to consider climate variability</p> <p>Dryland producers need to improve water storage in the face of climate change</p>		<p>Gecko CLaN are informing landholders at a number of events identifying good practice activities.</p> <p>The SoilCare program in conjunction with Department of Economic Development, Jobs, Transport and Resources staff are running Spring Stocktake workshops that assist farmers to measure their water holding capacity of their dams. Gecko CLaN and other community organisations are running similar events.</p>

Strategic priority: Establish sustainable agricultural practices			
Responsibility			
 GOVERNMENT  COMMUNITY  GBCMA			
RCS Actions	Effort	Progress*	Case Studies
<p>Create awareness and acceptance of sustainable management practices to improve land and soil condition</p>	<p>Promote and showcase land management methods and philosophies that demonstrate a whole-of-farm approach, where both biodiversity and production benefits can be realized</p> <p>Identify the best methods including education campaigns, of addressing the threats (e.g. cultivation, over grazing and inappropriate grazing regimes and cropping) to high priority biodiversity assets.</p> <p>Promote practices to maintain and improve ground cover at critical times</p> <p>Facilitate forums on how to make agricultural land more productive and how to identify suitable practices</p>		<p>Gecko CLaN is practising mosaic burning with Yorta Yorta</p> <p>The Seymour Secondary College have built an Indigenous garden showcasing Indigenous plants and art.</p> <p>Gecko CLaN Pasture Cropping promotes ground cover and multi species planting.</p> <p>The Goulburn Broken CMA SoilCare program promotes 100% ground cover all year round.</p> <p>The GB CMA SoilCare Program 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>

Strategic priority: Increase biodiversity in agricultural landuse

Responsibility



RCS Actions

Create awareness and acceptance of land management practices that protect and improve terrestrial and aquatic habitat

Identify environmental stewardship opportunities for land managers

Work with landholders to protect and improve biodiversity on private land and build understanding of its contribution to sustainable and profitable farming

Effort

Provide education opportunities through conservation groups such as Landcare and Conservation Management Networks

Engagement with farming groups on benefits of changed management practice e.g. Gecko Clan's Pasture Cropping project - farmers teaching farmers

Work with landholders to manage Noisy Miners in patches of remnants. This should include information on how best to and assistance with approvals

Update the Goulburn Broken Revegetation guide

Accelerate and expand stewardship programs that target large-scale landscape restoration

Establish or improve statutory measurements for environmental protection standards e.g. EU model

Implement a biodiversity incentives project that protects and enhances habitat (Regional Catchment Strategy) with follow up visits

Improve riparian vegetation and in stream habitat condition

Better promote the win/win of improved production and biodiversity

Progress*



Case Studies

[The Pasture Cropping project has been a great success for the Gecko CLaN.](#)

[Gecko CLaN has an Indian Myna project in the Benalla region.](#)

The Goulburn Broken revegetation guide is in the process of been updated.

Support projects like the [Grey-crowned Babbler](#) and [Regent Honeyeater](#) projects

[Woodland Tender project has a goal of 1500Ha on private land](#)

The [GB CMA SoilCare Program](#) promotes soil management + better pastures = equals stock for selling.

Actions and Effort - Additional Actions and Ideas

- Undertake projects to manage species such as Blackberry Indian Myna, Rabbits, Prickly Pear, Indian Fig (L&B Team engagement)
- Community concerns exists over increasing number of dams in this area and potential for salinity to return (L&B Team engagement)
- Community keen to see government take action on landholders undertaking poor land management practice particularly where they impact on others (L&B Team engagement)
- European Carp Control (GB RWS 2014)