Gannawarra Shire Council

Environmental Sustainability Strategy 2013 - 2016





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Contents

Executive Summary	2
Introduction	3
The Strategy	7
Energy and Greenhouse Gas	11
Water	14
Waste Management and Resource Efficiency	18
Land Use: Planning and Management	21
Heritage	24
Community Wellbeing	26
References	28
References	29
Consultations	30
Acronyms	31

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Executive Summary

The Shire of Gannawarra is committed to the delivery of a sustainable future for its communities. In the past economic, environmental and social goals have been pursued in isolation from one another. However, it is recognised that the Shire's long-term well-being depends as much on the promotion of a strong, vibrant society and the ongoing repair of it's environment, as it does on the pursuit of economic development. Not only is it apparent that these issues cannot be separated, but also it is equally clear that better outcomes can be realised through holistic responses.

To that end, and to complement other strategies, Gannawarra Shire has developed its first Environmental Sustainability Strategy (ESS) to identify priorities and actions that will balance the environmental, social and economic needs of the Shire.

The Strategy builds upon the achievements of Council to date in improving environmental sustainability outcomes. It also provides a consistent, cohesive and prioritised approach to decision making and activity implementation to achieve environmental sustainability outcomes.

The Strategy highlights the insights and themes attained through research and stakeholder consultation. Through this research, the priorities to be addressed by the Strategy have been identified and used to develop the key **focus areas**.

The focus areas of the strategy are:

- 1. Energy and Greenhouse Gas
- 2. Water
- 3. Waste Management and Resource Efficiency
- 4. Land Use: Planning and Management
- 5. Heritage
- 6. Community Wellbeing

From the above it is apparent that, in addition to established environmental sustainability focuses such as waste management and water, the strategy also prioritises issues that are specific to the social and economic success of the Shire, such as heritage and community wellbeing. This emphasis reflects the reality that environmental, social and economic factors are very closely interlinked in the Gannawarra Shire — and joined-up thinking and action is required to deliver sustainable change.

The Strategy is to be a Council and community owned plan. Priorities and actions have been developed to address common environmental, social and economic opportunities and needs.

The Strategy will remain relevant through an ongoing process of monitoring and review to ensure that both Council and community are able to respond to future opportunities and changes.

It is envisaged that, through the implementation of the Strategy, the world-class natural heritage of the Gannawarra Shire, so celebrated in this Strategy, will be protected and enhanced to the benefit of future generations. At the same time, the Strategy, along with other Council plans, will provide a framework for the ongoing management and enhancement of the Shire's social and economic circumstances.



Introduction

Background to the Strategy

In 2008, Gannawarra Shire produced its Environmental Sustainability Priority Statement to meet its commitments to the Victorian Sustainability Accord.

The "Accord" is a partnership initiative designed to strengthen collaborative efforts by the Victorian State Government and local governments to create better environmental sustainability outcomes at the local level.

The Priority Statement is a framework document that outlines the agreed local priorities for collaborative work between the two tiers of government and contains both a set of projects undertaken by the Shire as well as outlining the key challenges and opportunities for the Shire relating to this issue.

Gannawarra Shire commenced the development of its first Environmental Sustainability Strategy (ESS) early in 2012, using the 2008 Priority Statement as a launching platform. The ESS aims to bring together the work done by Council to date in the area of Environmental Sustainability and provide a consistent, cohesive and prioritised approach to decision making and activity implementation.

It is envisaged that the ESS will:

- Increase accountability in the outcomes for environmental sustainability
- Guide the development of environmentally sustainable practices (for Council and the Shire overall)
- Deliver outcomes that will enhance environmental outcomes
- Provide development opportunities based on environmental sustainability
- Strengthen community well-being
- Assist effective partnerships with Local and other Government and Non-Government agencies

Definition of Environmental Sustainability

In 1987, the United Nations, through the Brundtland Commission defined sustainable development as:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

A common approach to considering sustainability is through the terms of the 'three pillars of sustainability' - environment, society and economy. Decision-making which recognises and reflects the interconnected nature of these three 'pillars' enhances the prospect of delivering sustainable outcomes.

This model is applicable to the Gannawarra Shire's circumstances. Traditionally, the Shire's economy has been heavily reliant on agriculture – and it has been noted that healthy environments often correlate with sustainable agricultural activity. A sustainable economy and healthy environment similarly impact on a population's well-being and growth.

In recognition of the above, the Strategy considers social, economic and environmental outcomes. This will maximise the relevance and significance of the Strategy to the community and will optimise opportunities for service delivery support.

Environmental Sustainability within the Gannawarra context includes:

- Both the natural and built environment
- Environmental, economic and social outcomes



The Role of the Strategy

The Strategy is a tool to be used by both Council and the community. It brings together much of the work already done by Council to date and ensures alignment of objectives between the various plans. Delivery of each priority action will achieve outcomes for several other plans and strategies delivered by Council, not just the ESS.

This strategic document will provide a framework for Council decision making regarding Council approvals and activities where they impact environmental sustainability outcomes. The Strategy should be used to assist in decision making processes relating to:

- Planning related approvals (scheme amendments, development approvals, land zoning etc.)
- Infrastructure design, maintenance or consolidation
- Development of other Council plans and strategies. The ESS can influence the development of these other plans / strategies and where applicable, support their outcomes
- Supporting community development projects such as education programs and relationship management
- Supporting new industry
- Allocating funding towards community plans and projects
- Providing resources to other organisations or vice versa
- Advocating for support from State and Federal Government for local / regional improvements

The ESS will be used as a robust basis to seek funding and support from a variety of sources to deliver environmental sustainability projects.



About Gannawarra

The Gannawarra Shire is located in the Loddon Murray region abutting the Murray River. The Shire comprises the towns of Cohuna, Koondrook, Kerang, Murrabit, Lalbert, Quambatook and Leitchville as well as a large number of smaller rural settlements.

A three hour drive from Melbourne, the Shire is bounded by the adjoining Buloke, Loddon, Campaspe Shire Councils and the Swan Hill Rural City Council. The Shires of Wakool and Murray adjoin the municipality on the New South Wales side of the river. The major regional centres of Bendigo, Echuca and Swan Hill are each less than 90 minutes away by road.

The Shire has a diverse regional economy and contains significant natural assets such as the Gunbower National Park and the Kerang Lakes.

With significant natural features and a Mediterranean style climate, Gannawarra Shire is considered to enjoy many competitive advantages as a location that balances business and lifestyle considerations.

Gannawarra Shire Snapshot

Population: 10,366 (ABS Census, 2011)

Land area of Shire: 3,736 km2

Gunbower Island, the largest inland

island in the world

Areas of environmental

160 bird species located in the Shire

and natural significance: Home to Ibis rookery breeding ground - over 200,000 annually

Shire has diverse landscape ranging from wetlands to Mallee landscape

Rateable properties:

6,645 (as of November 2012)

Major employment Agriculture

sector:

Environmental Assets

Gannawarra Shire is located in an ecologically diverse region which encompasses a significant wetland network (57 lakes, swamps and marshes that form one of Australia's largest and most important wetland areas) and is bounded to the west by the Mallee landscape, which provides a stark contrast to the wetlands and forests.

The magnificent array of flora provides a lush environment for Gannawarra's significant bird population which is a major tourist drawcard. More than 160 bird species have been recorded in the Shire.

Reedy Lake is home to Australia's largest Ibis Rookery where as many as 200,000 lbis breed annually¹. The municipality also contains rare and threatened fauna species such as the plains-wanderer, barking owl, grey-crowned babbler and the carpet python¹.

Gunbower Island is the largest inland island in the world and is home to red gum forests, which were recognised by the Victorian Government through the establishment of the Gunbower National Park in 2010.

The Mallee region of the Shire contains significant areas of remnant native vegetation. The importance of this vegetation has been recognised and it is now protected, through the Conservation of Native Flora and Fauna overlay and through the Environmental Significance Overlay in the Gannawarra Planning Scheme.

Gannawarra Shire incorporates the alluvial plains of three major rivers, the Murray, Loddon, and Avoca. There are remnant grassland including black box grassy woodlands, Buloke grassy woodlands, river red gum forests and various shrublands.

The wetlands of the Kerang Lakes and Gunbower Forest are listed under the International Convention on Wetlands (the RAMSAR convention) and are of national and international significance for migratory birds. These areas have significant conservation value for native flora and fauna and important cultural and recreational value for the local community.

¹ Ballinger, R, Gannawarra Shire Heritage Study Stage One, Volume One Thematic Environmental History, December 2008



Economic Profile

The local economy is dominated by a strong agricultural base which is complemented by value added processing industry, manufacturing, retail and tourism and health services. Agriculture in the Gannawarra is estimated to be worth around \$283 million annually or 24% of total output, and like much of Northern Victoria, has been highly reliant on a strong local dairy industry and large scale grain production.

The Shire has extensive dry land and 137,000 hectares of irrigated land with a variety of soil types. This allows it to produce a large variety of crops such as hay, grain, barley, stone fruit, citrus and grapes for viticulture.

In common with many other areas, periods of drought and flooding have had an impact on agri-businesses in the Shire. At the same time, the Shire is subject to the same economic pressures as other rural districts during times of general economic downturn – this can have an impact upon the employment base of the region as businesses seek to rationalise and adopt new growth models. Recent improved climate conditions (in 2011/12) have seen productivity levels in the agricultural sector begin to rise again. New approaches are being considered to maximise the viability and vitality of the agricultural sector (for example, through ongoing work into new dryland farming practices).

The Shire's Economic Development Strategy, published in 2011, identifies several opportunities relating to environmental sustainability which can be pursued to bolster the Shire's economy, including the need to continue to implement new technologies. Agriculture is the dominant industry sector in Gannawarra, but opportunities exist for economic diversification which will enhance the vitality and sustainability of the Shire. Tourism and the service sector is also identified as an area for growth, with the capacity to redefine perceptions of the Shire as an area in which to live and work.

Over recent years, the Gannawarra Shire population profile has changed. In 2001, the population of the shire was 12,055. In the last decade, the population has declined to a current level of 10,366². Reasons for this trend may include younger people migrating to find work - or seek study opportunities - and the recent challenges brought about by drought and flooding leading businesses, and families, to relocate.

The primary demographic for Gannawarra Shire is older adults with 47% of residents aged over 50 years. The fastest growing age demographic in the Shire is in the 59 – 65 years age bracket whilst at the other end of the spectrum, Gannawarra Shire is underrepresented in the 15-34 year old age bracket.

Population decline is common to the shires of the Central Murray region, where only three out of ten shires have experienced a growth over the past ten years (Central Murray ACC, 2008). However, through its Strategic Community Plan – Gannawarra 2025, the Gannawarra Shire Council has identified a long-term program which aims to build upon the locational strengths of the area to reverse this trend.

Population and Demography

¹ Fleckney, P et al, Gannawarra Shire Economic Dvelopment Strategy, 2011 – 2015, February 2011.

² 2011 ABS Census Data



The Strategy

Developing the Strategy

Methodology

Figure 1 illustrates the methodology used to undertake the development of Gannawarra's Environmental Sustainability Strategy.

The development of the Strategy involved stakeholder consultation and research to ensure that the needs of stakeholders, policy context, and challenges and opportunities that the Strategy would be faced with were identified and understood.

Understanding the Context

- Desktop Research
 - Document Review
- Environmental Scanning and External Context Analysis

Identifying the Needs

- Internal and External Stakeholder Interviews
- Internal and External Stakeholder Forums (Council, Government, Community)

<u>Developing the Vision and</u> <u>Priorities</u>

- Review the Research and Analysis of the Shire's Environmental Sustainability Needs
 - Develop the Vision for the Strategy
- Identify Priorities for the Strategy

Strategy Development and Refinement

- Identify Key Performance
 Indicators and Monitoring and
 Evaluation of Strategy
 - Develop Priority Actions
- Test Strategy with Internal and External Stakeholders

Figure 1 – Methodology used to develop the Strategy



Delivering the Strategy

Challenges and Opportunities

Globally, major economies have for some time created policies and delivered on actions aimed at minimising humanity's impact on the environment to create sustainable outcomes.

The Australian Government has, over the years, developed and introduced many policies to manage environmental issues such as reducing carbon emissions, promoting renewable energy resources, improving resource efficiency and adapting to climate variability.

In July 2011, the Australian Government introduced the Clean Energy Futures package. The package, which includes a raft of policies, bills and legislations which were passed in Parliament in November 2011, aims to support communities and industries transition towards a low carbon economy. The package seeks to achieve this through:

- A carbon pricing mechanism
- A series of targeted funding opportunities to assist industries to innovate and find ways to improve efficiencies
- A tax reform and increased Government payments to assist households

At a state level, Victoria has delivered policies and strategies around energy efficiency through the Victorian Energy Efficiency Target Act, reducing and managing waste through the Towards Zero Waste Strategy, and reducing carbon emission levels through the Climate Change Act.

With all these external drivers coming to the fore, there is momentum driving local governments to take action around delivering, sustainable environmental outcomes.

Gannawarra has been pro-active in the environmental sustainability space, delivering successful programs like Living Green in Gannawarra and delivering on commitments to waste and water consumption reductions.

To continue to deliver positive environmental sustainability outcomes, the obstacles to delivery need to be understood and managed.

During the development of this Strategy three key themes around challenges to the delivery of the Strategy were raised by both internal and external stakeholders.

- Demographic Issues: Includes: ageing population; declining overall population; and Gannawarra is considered a disadvantaged area in accordance with economic / social disadvantage indicators.
- Climate Variability: Ongoing uncertainty over the frequency of extreme weather events and the impacts to the Shire as a result of increased climate variability.
- Resource Availability: Gannawarra is a small Shire with limited resources. This will impact the ability to:
 - a. Manage the numerous environmental assets of the Shire and
 - b. Adopt best practice processes relating to environmental sustainability.

To deliver on environmental, social and economic outcomes Gannawarra can seize on the following opportunities:

- 1. A picturesque and diverse environmental landscape and Mediterranean climate to attract new industries such as tourism and renewable energy industries
- Communities with a culture of volunteerism, camaraderie and resilience which have helped the Shire tackle major challenges such as the 2010 and 2011 floods
- A progressive Shire which has seen it manage environmental issues which larger Shires often struggle with including consolidating its landfills and delivering environmental sustainability education programs

Council can help to create a sustainable community for many years to come by continuing to foster these opportunities and promoting the benefits of the Shire.



Reading the Strategy

Focus Areas and Priority Objectives

The focus areas and priority objectives to be addressed in Gannawarra's ESS have been developed in response to Council and stakeholder priorities identified during the consultation process along with research undertaken around other local and regional strategies and priorities.

These themes were prioritised based on factors such as capability and capacity to deliver, available delivery partners, external contexts influencing the ESS, current strategies which the focus areas can align with, and highest positive impact to the environmental sustainability of the Shire. These prioritised themes made up the **focus areas** for the ESS.

The focus areas addressed within the ESS are:

- 1. Energy and Greenhouse Gas
- 2. Water
- 3. Waste Management and Resource Efficiency
- 4. Land Use: Planning and Management
- 5. Heritage
- 6. Community Wellbeing

By creating focus areas, the Strategy assists Council to target its resources and efforts appropriately. It is important to note that social outcomes are embedded in all the environmental sustainability focus areas. In addition, two focus areas were selected (*Heritage* and *Community Wellbeing*) which put social outcomes front and centre in the Strategy.

Complementary **Priority Objectives** have been developed for the Strategy in order to provide direction for Council and the community with regards to decision making with reference to environmental sustainability outcomes.

The priority objectives will also assist in creating community and Council ownership and accountability of the Strategy, and create a sense of community pride. In order to deliver the priority objectives, the Strategy outlines the proposed actions for each of the focus areas.

Action Plans

Each focus area identified for the Strategy has a set of priority objectives which are to be addressed. In order to meet these priority objectives, actions have been identified to assist Council and the community deliver on the objectives.

The Strategy document is split up by the Focus Areas. To acknowledge the work done by Council to date, major achievements undertaken by Council for each focus area are presented.

Following on from the major achievements, actions for each focus area are listed in tables. Actions to be delivered for each focus area:

- Are linked to priority objectives
- Have identified the relevant staff within Council responsible for implementing the action
- Are linked to the relevant Council plans and strategies as well as other regional plans and strategies
- Have identified potential delivery partners and
- Have timelines set out for intended period of completion.

Actions have four different timeline horizons.

- Ongoing
- 2. Short term action will be delivered in the current ESS period i.e. end 2016
- 3. Medium term action will be delivered in the next iteration of the ESS i.e. 2019 2020
- 4. Long term action will be delivered by the end of the Gannawarra 2025 time horizon i.e. by 2025



Monitoring and Evaluating the Strategy

The Strategy was developed in alignment to the *Victorian Sustainability Accord*. For Council to meet the Accord commitments the environmental sustainability outcomes of the ESS must be measured and evaluated.

Gannawarra Shire Council will be responsible for the implementation of the Strategy and will work with all internal and external stakeholders (community groups, Indigenous communities, State and Federal Government and Authorities, NGOs and industries) to support the delivery of the Strategy through a more detailed planning process.

The Strategy is a living document and will be reviewed and amended as circumstances change. The review will include assessing the progress of the Strategy deployment, assess whether the outcomes of the action bring the Shire closer to meeting the priority objectives, and amend and evolve the Strategy to reflect changing environmental needs in the Shire, new funding opportunities that may arise, or new policy which may be developed.

The review stage will occur before the end of the Strategy four year phase and will feed into the development of the following four year phase of the Strategy.

Council will report on how it is progressing with meeting the Strategy KPIs. This may include reporting the results in its annual Council Plan monitoring process or other similar documents.



Energy and Greenhouse Gas

Major Opportunities

Efforts in Australia are well underway in the field of energy efficiency, green-house gas reduction and renewable energy development and generation. Communities, local government and businesses can link in to various Government schemes, for example Clean Energy Futures (CEF), to assist them to adapt to a carbon constrained future.

The CEF aims to boost the renewable energy sector by providing funds and loans through programs like the *Solar Flagship Program* managed by ARENA, or through the new *Clean Energy Finance Corporation*.

In Victoria, residents and businesses can benefit from the *Energy Saver Incentive Scheme* which provides incentives to install energy efficiency products in homes and businesses at either no upfront cost or with savings to energy bills and pay-back for installation over time.

In addition, there are a suite of rebates or renewable energy credit programs on offer both at the State level and at the Federal level. They encourage house-holds and businesses to install solar hot water systems or solar panels.

Key Challenges

Approximately 90%¹ of Victoria's electricity is generated from brown coal, a highly polluting and non-renewable energy source. Gannawarra Shire is reliant on coal generated electricity as it does not have infrastructure to access natural gas, which has a lower greenhouse gas emission rating, nor are there large scale renewable power plants in the Shire.

Until alternative energy options are available, residents and businesses of Gannawarra will need to rely on more effective energy consumption practices in order to improve efficiency across the Shire.

Gannawarra is an ideal location to set up a solar power plant, as are other North-West regional Shires. The challenge will be to consider how to entice investment into the Shire.

Major Council Achievements to Date

- RayGen Solar were granted \$1 million from the Victorian Government to set up a pilot solar power plant in
 Kerang for wide-scale testing. The project was granted Planning Permission by Council in 2012. Once
 constructed the plant will be an ultra-efficient solar power system that concentrates solar power from a
 field of mirrors onto an array of super-efficient solar cells on a central tower.
- Green power is now used on 100 percent of all street lighting and 25 percent of all Council buildings.
- Gannawarra Council achieved Milestone Five of Five-milestone program for Cities for Climate Change CPP
 Program operate through ICLEI

¹ DPI Vic, Towards Near Zero Emissions from Victoria's Fossil Fuels, Nov 2011

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	Action	Timing	Responsibility	Plan/Strategy Alignment
Priori	ty Action - Increase energy efficiency practices where approp	priate, across th	e Shire and reduce the Shire's carbon footprint	
1.1	Reduce CO2 emissions from Council operation by 10% from 2013 by 2015	Short Term	Council: All Council: CVGA, DSE, EPA	Council Plan
1.2	Develop and implement energy efficient programs across Council buildings, building alterations and other assets.	Ongoing	Council: MDA, DIPRS, ETE. Co Partner(s): DSE, SV, DPI, EPA, CVGA, CVSC	Council Plan
1.3	Investigate converting energy use for Council assets to sustainable alternatives e.g. PV cells, co-generation plants and other energy efficient products.	Ongoing	Council: MDA, DIPRS, ETE Council: DSE, SV, DPI, EPA, CVGA, CVSC	Council Plan
1.4	Increase purchase of Green Power for Council activities/operations from 25% to 35% by 2015	Short Term		ustainability Priorities tatement
1.5	Continue to advocate for more energy efficient lighting	Ongoing		Council Plan, Sustainability riorities Statement
1.6	Investigate new Living Green in Gannawarra program to continue educating the community around resource efficiency – energy usage and alternative energy	Short Term	Partner(s): DSE, SV, CVGA, CVSC, Other Councils,	Council Plan, Gannawarra 025, Sustainability Priority tatement
1.7	Investigate partnering with a service provider and a funding partner to offer free/ subsidised energy efficiency audits in homes, businesses and schools in the Shire	Medium Term	Partner(s): DPI, SV, DSE, EE , CVGA, CVSC,	Sannawarra 2025, ustainability Priorities tatement
1.8	Be cognisant of funding and rebate opportunities to access energy efficient products to promote to communities	Ongoing	Partner(s): DPI, SV, DSE, EE , CVGA, CVSC,	Gannawarra 2025, ustainability Priorities tatement
1.9	Develop and implement de-lamping and retrofitting opportunities within Council assets	Short Term	Council: MDA, DIPRS, ETE Council: DSE, SV, CVGA	Council Plan
1.10	Advocate for the extension of existing supply pipelines to provide natural gas network connection to Gannawarra Shire.	Long Term		Gannawarra 2025, Community Jan, LMRSP(NR)

		Action	Timing	Responsibility	Plan/Strategy Alignment
	Priori	ty Action - Support and advocate for sustainable energy indu	ıstries within tl	ne Shire and Region	<u> </u>
	1.11	Support and advocate for sustainable energy industries within the Shire through the review and ongoing delivery of the Economic Development Strategy	Ongoing	Council: MED, MCS, MP Partner(s): MAV, DTF, Landowners, Industry	Economic Development Strategy
מ ס ט	1.12	Facilitate the development of large scale solar farms in the municipality.	Ongoing	Council: MED, MCS, MP Partner(s): DPI, DBI, DCCEE, RDV	Economic Development Strategy, LMRSP (NR)
	1.13	Investigate bio-energy production opportunities within the Shire	Short Term	Council: MED, MCS, MP Partner(s): DSE, RWMG, DPI, DAFF, DBI, RDV, SV	Economic Development Strategy
	1.14	Support opportunities for planting alternative crops for use in bio-fuel production	Ongoing	Council: MED, MCS, MP Partner(s): DSE, DPI, DBI, RDV, SV	Economic Development Strategy
	1.15	Work with local Education institutions to set up a training college specifically to skill people to work in the sustainable energy and resource efficiency industry	Long Term	Council: MED, DCS Partner(s): DEECD, DIISRTE, BDI, RDV, Businesses	Economic Development Strategy, Gannawarra 2025, LMRSP (NR)
	1.16	Advocate for feed-in tariffs to be retained for small solar power plants	Short Term	Council: Council Partner(s): DPI, VCEC	VCEC review on feed-in tariffs
	1.17	Support the investigation and where appropriate implementation of Carbon Farming Initiative projects for interested businesses.	Ongoing	Council: MED, MP Partner(s): DAFF, DPI, DCCEE, DSE, VFF, DBI	Economic Development Strategy, Gannawarra 2025, Sustainability Priorities Statement



Water

Major Opportunities

The waterways of the Shire provide exciting eco-tourism opportunities. Conservation of such waterways is key to supporting native flora and fauna and in attracting more visitors and residents to the Shire.

Council, in partnership with North Central Catchment Management Authority, water authorities, community groups, Indigenous communities and schools can work together to improve water quality outcomes. Through collaboration and connection to available funding, the Shire can maintain its natural assets.

Council, communities and industries in collaboration with local authorities can apply for State based grants such as the *Smart Water Fund*. At a Federal level, the *Water for the Future* program has a 10 year investment agenda specifically to assist with adapting to climate variability, securing water supplies and supporting healthy rivers.

Key Challenges

The Shire's most critical issue as identified by Council and the community is **water**. Water is inextricably linked to environment, social and economic outcomes in Gannawarra.

The Shire, like the rest of Victoria, experienced drought for over 10 years which had a dramatic impact on water quality and security.

During the years of drought, water availability changed the economy of the Shire. Due to significant reductions in water allocations, many traditional irrigators could no longer sustain their practice. Additionally, Gannawarra became a net exporter of water entitlements, resulting in a patchwork of small dry land allotments which are not commercially viable.

Major Council Achievements to Date

- Total domestic potable water used by Council for 2010 / 2011 was 22.4ML, compared to 76.0ML in 2009 / 2010
- Council has been implementing various actions to improve water efficiencies in the Shire and find opportunities for water capture and re use. This includes
 - An 8ML retention and retardation basin in Koondrook to collect stormwater runoff
 - Wetlands system has been installed within Koondrook to reduce initial stormwater flows to the Murray River.
- In 2012, Council worked collaboratively with the Murray River Group of Councils and also with the City of Greater Shepparton and Strathbogie Shire to develop a collective submission to the Murray Darling Basin Plan.
- Council is currently working with NCCMA on the 'Living with Less Water' project which is investigating best practice methods for dryland farming.

	Action	Timing		Responsibility	Plan/Strategy Alignment
Priori	ty Action - Improve water quality within the Shire's waterway	s and support	conservation	n of the Shire's wetlands	
2.10	Investigate the installation and maintenance of gross pollutant traps near waterways through the ongoing review and delivery of the Drainage Asset Management Plan and the Stormwater Management Plan.	Ongoing	Council: Partners:	ETE, MDA Water Authorities, CMA's, EPA, DPI, DSE, SV	Council Plan, NCCMA RCS, Stormwater Management Plan, Drainage Asset Management Plan
2.11	Introduce Water Sensitive Urban Design into the planning process to ensure new developments do not compromise water quality or deteriorate wetlands in the Shire	Ongoing	Council: Partners:	MP DPCD, Water Authorities, CMA, EPA	Council Plan, Gannawarra 2025, Urban and Regional Strategy Plan
2.12	Build capacity to support communities in developing and implementing conservation and rehabilitation plans	Medium Term	Council: Partners:	MCS, DCS, DIPRS DSE, Water Authorities, NCCMA, EPA, SV, DSEWPC, MDBA, NGOs, community groups	Council Plan, Gannawarra 2025, Tourism Strategy, NCCMA RCS
Priori	ty Action - Work with service delivery partners and water ass	et owners to n	naintain wate	er security for the Shire	
2.13	Advocate for best outcomes for Environmental Watering Plans as required by the Murray Darling Basin Plan	Ongoing	Council: Partners:	MP, MCS MDBA, NCCMA, Water Authorities	Economic Development Strategy
2.14	Continue to develop and maintain partnerships with local Water Authorities and NCCMA	Ongoing	Council: Partners:	DIPRS, DCS, MP NCCMA, Water Authorities, DSE	Council Plan, NCCMA RCS
2.15	Identify and pursue funding opportunities for conservation and rehabilitation of water assets of significance in the Shire	Ongoing	Council: Partners:	MCS, MDA DSE, Water Authorities, NCCMA, EPA, SV, DAFF, DCCEE, DSEWPC, CMA's,	Council Plan, Gannawarra 2025, Tourism Strategy, NCCMA RCS
2.16	Work with and support NCCMA, Landcare groups and Indigenous NRM crews to maintain healthy riparian zones	Ongoing	Council: Partners:	DCS, MCS, DIPRS NCCMA, NGOs, Indigenous communities	Council Plan, NCCMA RCS, Track and Trails Strategy, Gannawarra 2025
2.17	Work with Goulburn Murray Water to ensure best outcomes for reconfiguration of irrigation infrastructure.	Ongoing	Council: Partners:	MP, MCS GMW, Victorian State Government	Economic Development Strategy

		Action	Timing		Responsibility	Plan/Strategy Alignment
	Priori	ty Action - Develop tourism opportunities through the promo	tion of the Shi	re's wetland	s	
ıter	2.18	Promote water conservation projects implemented by communities and Council	Ongoing	Council: Partners:	DCS, DIPRS Community groups, NGOs	Council Plan, Gannawarra 2025
Ma	2.19	Advocate and promote the Shire's wetlands and use of waterways for tourism and water sports activities	Ongoing	Council: Partners:	MED, MCS Water sports organisations DRET	Economic Development Strategy, Tourism Strategy
	2.20	Improve access to the significant wetland areas of the Shire, whilst balancing the need to protect these assets.	Ongoing	Council: Partners:	MED, MCS, DIPRS NCCMA, DSE, DPI, PV, TV, Community Groups	Gannawarra 2025, Tourism Strategy, Economic Development Strategy



Waste Management and Resource Efficiency

Major opportunities

In March 2012, the *Waste Policy Review* was kicked off by DSE focussing on municipal, commercial and industrial (C & I) and construction and demolition (C & D) wastes. Outcomes from this policy will effect the regional waste strategies. The challenge for Gannawarra is to ensure that it is well placed to capitalise on new opportunities that arise from the review.

Reducing municipal waste is only one of the waste management opportunities being supported by Government. The Clean Energy Future package provides incentives to convert the waste into energy. For example, under the Carbon Farming Initiative (CFI) and where economically viable, carbon credits can be produced by methane capture from landfills and piggeries and using the methane to produce energy. An agriculture-centric Shire like Gannawarra could benefit from the CFI program.

New CFI methodologies are being reviewed relating to agriculture which will in the future assist agri-businesses in the Shire continue to prosper.

Key challenges

Avoiding environmental degradation from waste disposal is an issue that many countries are trying to tackle. The traditional disposal option of landfills can cause harmful impacts to the environment if not properly designed and maintained.

In Victoria, led by the *Towards Zero Waste Strategy*, both levels of government are working at improving waste management. The strategy has targets for reducing waste going to landfills and promoting resource recovery in accordance with the waste hierarchy principles.

This has seen councils like Gannawarra, consolidate its landfills, remediating them and creating plans to reduce waste. The Shire is facing roadblocks to achieving further waste management best practice. Factors like small population and large distances between towns make it uneconomical to pursue waste management solutions afforded to metropolitan centres. Council will need to find innovative solutions to these issues if it is to deliver better waste management outcomes for its constituents into the future.

Major Council achievements to date

- Council approved the Waste Management Strategy 2011-2015 for implementation.
- Successfully reduced from 12 landfills to one, near Kerang
- Have expanded amount of waste collected at transfer stations to now include E-waste and household oil
- Total recycling for 2010 / 2011 was 1,389 tonne, which is an increase of 48 tonne more than 2009 / 2010, almost a 4 percent increase in kerbside amounts recycled
- In 2008 / 2009 implemented a rebate system to encourage residents to purchase a compost bin or worm farm to reduce waste to landfill
- Council is an active member of the Central Murray Regional Waste Management Group. The group support
 Council to plan and manage for waste and recycling for all residents and to reduce the impact of waste and
 litter on the environment.

	Action	Timing	Resp	onsibility	Plan/Strategy Alignment
Prior	ity Action - Investigate waste minimisation, re-use and recycling ϵ	opportunities			
3.1	Review diversion rates and investigate opportunities for improvement	Ongoing	Council: MDA, ETI Partner(s): CMRWM	E G, DSE, SV	Council Plan, Waste management Strategy
3.2	Investigate the feasibility of participation in a Regional Recycling Initiative such as; waste tyre collection for use in bio-fuel production	Long Term	Council: MED, ETE Partner(s): Industry, CMRWM	DBI, EPA, DSE, SV,	Economic Development Strategy
3.3	Advocate for annual free TV recycling drop off programs	Short Term	Council: Council Partner(s): CMRWM	G, DSE, SV	CMRWMG Business Plan, Waste Management Plan
3.4	Advocate for continuation of the Battery Recycle Program in the region	Ongoing	Council: Council Partner(s): CMRWM	G, DSE, SV	CMRWMG Business Plan
3.5	Investigate feasibility of setting up a green waste resource recovery facility in the Shire and the using/selling the composted waste.	Medium Term	•	E, MED, DIPRS G, DSE, SV, EPA	Council Plan , Waste Management Strategy
3.6	Investigate feasibility of providing the option of a third bin to residents for green/organic waste.	Ongoing	Council: MDA, ETI Partner(s): CMRWM		Council Plan , Waste Management Strategy
3.7	Advocate for green waste composting / recycling opportunities on Farming Zones	Short Term	Council: MP Partner(s): CMRWM DSE, DPI	G, MWMG, DPCD, EPA,	Economic Development Strategy
3.8	Investigate plastic bag free program in Kerang Town Centre	Short Term	Council: MCS, ME Partner(s): SV, Busin	D ess Kerang, CMRWMG	Gannawarra 2025
3.9	Investigate re-introducing the rebate program for compost bins and worm farms for Shire residents	Short Term	Council: MCS, ETE Partner(s): SV, CMRV	WMG, Businesses	Waste Management Strategy
3.10	Support the development of an education program for on farm waste management	Medium Term	Council: MCS, ME Partner(s): SV, EPA,		NCRWMG Regional Plan
3.11	Investigate feasibility of a sustainable purchasing policy for Council	Medium Term	Council: DCCS Partner(s): SV, MAV,	, CMRWMG	Council Plan
3.12	Influence the review and ongoing delivery of the Waste Management Strategy	Ongoing	Council: MDA, ETI Partner(s): CMRWM	E G, EPA, SV	Council Plan, Waste Management Strategy, NCRWMG Regional Plan

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		Action	Timing	Responsibility	Plan/Strategy Alignment
^	Priori	ty Action - Increase waste efficiency knowledge across the Shire			
Efficiency	3.13	Partner with CMRWMG to deliver waste minimisation, reuse and recycle education programs	Ongoing	Council: ETE, MDA Partner(s): CMRWMG, DSE, SV	CMRWMG Business Plan, Waste Management Plan
	3.14	Partner with Sustainability Victoria to deliver education program and fund waste recycling projects in the Shire	Ongoing	Council: MDA, MCS Partner(s): CMRWMG, DSE, SV	Sustainability Priorities Statement
Resource	3.15	Advocate for Council, local schools and businesses to participate in ResourceSmart programs	Medium Term	Council: MCS, DCS Partner(s): SV, CMRWMG	Sustainability Priorities Statement
~	3.16	Maintain and manage litter education program in the Shire	Ongoing	Council: ETE, MDA Partner(s): SV, EPA, CMRWMG	Council Plan



Land Use: Planning and Management

Major opportunities

Gannawarra Shire is presented with many opportunities to address the challenges highlighted above through a balanced approach to land use planning.

Dairying, mixed farming and horticulture are the key drivers of our economy. Opportunity exits to promote and protect farming enterprises through clear planning policy and effective implementation.

Gannawarra Shire has identified the demand for residential, rural residential and tourism development throughout the Shire, particularly adjacent to our many lakes and waterways. Such development has the potential to attract new residents to our Shire to take advantage of Gannawarra's lifestyle and environment and to stimulate and sustain our rural communities and economy.

Opportunities exist for the establishment of new rural land uses and industries. Gannawarra Shire is ideally situated for the creation of solar power generation and planning policies and processes are being implemented to facilitate such developments.

Further opportunities have been identified to facilitate innovation in farming, particularly given likely future changes to water availability. Council is actively working within a consortium comprising the Loddon and Campaspe Shires, NCCMA and Latrobe University on an Innovative Farming Project to assist land holders plan for change and improve their sustainability.

Significant opportunities currently exist for Gannawarra Shire in a regional context. Council is working with DPCD and the municipalities that make up the Loddon Mallee North Region to provide a land use planning responses to the strategic directions and actions identified in the Loddon Mallee Regional Strategic Plan. The Loddon Mallee North RGP will provide a high level strategic and sustainable approach to land use planning that needs to occur across municipal borders.

Key challenges

Sustainable land use within Gannawarra Shire relates to the use and development of land in a strategic context; balancing physical, environmental, economic, social and cultural factors.

Gannawarra Shire is facing challenges associated with a declining and ageing population. The Shire is also recovering from an extended period of drought and more recently a significant flood event. In addition, the Shire is experiencing a loss of water entitlements resulting in substantial changes to agricultural practice.

The key land use challenges for Council are to address population decline, support the ongoing viability of existing communities, encourage innovation in farming and to protect and enhance the Shire's unique environmental and cultural assets.

Major Council achievements to date

- Council adoption of the Rural Excision Guidelines and Waterside Development Guidelines as Council Policy.
- The Shire had its final review of the Gannawarra Planning Scheme endorsed. The Scheme puts emphasis on growth for the Shire and encourages better biodiversity outcomes.
- Two planning permits issued for 30 MW solar farms south of Kerang.

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	Action	Timing		Responsibility	Plan/Strategy Alignments
Priorit	ty Action - Adopt an integrated planning strategy to manage	future develop	oments in the	Shire which is sensitive to the natural en	vironment
4.1	Implement Gannawarra Planning Scheme review (Amendment C30)	Short Term	Council: Partner(s):	MP DIPRS, DPCD	Gannawarra Planning Scheme Review
4.2	Complete and Implement the Lake Charm, Kangaroo Lake and Gunbower Creek Environs Strategy.	Short Term	Council: Partner(s):	MP DIPRS	Gannawarra Planning Scheme Review
4.3	Encourage developments to embrace environmentally sustainable design principles.	Ongoing	Council: Partner(s):	MP, MCS DPCD, Green Building Council, SV, DIISRTE, Developers	Council Plan, Gannawarra Planning Scheme, LMRSP(NR), Gannawarra 2025
Priorit	ty Action - Investigate alternative sustainable land use oppo	rtunities for un	der utilised a	gricultural land	
4.4	Ensure the ongoing review and maintenance of the Gannawarra Planning Scheme to ensure sustainable land use outcomes.	Ongoing	Council: Partner(s):	MP DIPRS, DPCD	Council Plan, Urban and Rural Strategy Plan 2007
4.5	Actively participate in the development of the Loddon Mallee North Regional Growth Plan to promote sustainable land use outcomes across the Region.	Ongoing	Council: Partner(s):	MP DPCD, CEO DIRPS, EDM	Loddon Mallee North Regional Growth Plan
4.6	Progress and implement the NCCMA Innovative Farming Project	Short Term	Council: Partner(s):	MP DPCD, DSE, CEO, DIPRS, MP, MED	
4.7	Investigate synergies between food production and tourism opportunities to encourage diversification in key sectors	Ongoing	Council: Partner(s):	MED, MCS DBI, DPI, businesses, Victoria's Foodbowl, Tourism Vic MRGC	LMRSP (NR), Gannawarra 2025, Economic Development Strategy, Tourism strategy
4.8	Support and promote carbon sequestration (off-set) projects on rural land	Ongoing	Council: Partner(s):	MP, MED DPI, DSE, DAFF, DCCEE, landowners	Economic Development Strategy, NCCMA, Northern Region Sustainable Water Strategy

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		Action	Timing		Responsibility	Plan/Strategy Alignments		
	Priority Action - Improve biodiversity outcomes through maintenance and restoration of natural assets							
	4.9	Develop and implement a Biodiversity Plan to manage sustainable outcomes for wildlife corridors	Medium Term	Council: Partner(s):	MP,MCS DPCD, DSE, PV, NGOs, communities, land owners, NCCMA, DPI,RDV	Sustainability Priority Statement, LMRSP (NR)		
	4.10	Develop and maintain partnerships with Indigenous communities, DSE and NCCMA to assist with improving biodiversity outcomes	Ongoing	Council: Partner(s):	DCS, MCS DPCD, LIN, DSE, NCCMA	Gannawarra 2025		
	4.11	Work with community groups to ascertain land areas of significance in the Shire and whether these areas are reflected in the Gannawarra Planning Scheme.	Ongoing	Council: Partner(s):	MCS, DSC DSE, Water Authorities, NCCMA, EPA, SV, MDBA, DSEWPC, NGOs, community groups	Council Plan, Gannawarra 2025, Tourism Strategy, NCCMA RCS, Shire Community Plans		
	4.12	Investigate funding opportunities and partnerships to rehabilitate agricultural land where public benefit is demonstrable	Ongoing	Council: Partner(s):	MCS DSE, NCCMA, DSEWPC	Gannawarra 2025 and NCCMA Innovative Farming Project.		
	4.13	Enhance tracks and trails network to promote increased recreational activity (including walking, bird watching etc)	Ongoing	Council: Partner(s):	MCS, DCS, MDA, MOS DSE, DSEWPC, Tourism Victoria, NGOs, Community groups	Council Plan, Tracks and Trails Strategy, Tourism Strategy, Gannawarra 2025		
	Priority Action - Improve weed and pest management practices across the Shire							
	4.14	Influence the review and ongoing delivery of the Roadside Management Plan	Ongoing	Council: Partner(s):	MOS PV, DSE, NCCMA	Roadside Management Plan		
	4.15	Work with Landcare groups, NGOs and Indigenous communities to provide training on biodiversity issues, weed and pest management and Indigenous ecological knowledge	Medium Term	Council: Partner(s):	MCS DSE, Water Authorities, NCCMA, NGOs, community groups, ICLEI,	Council Plan, Gannawarra 2025, Sustainability Priority Statement		



Heritage

Major opportunities

The Shire has a beautiful natural environment and unique built environment. There is also a rich Indigenous history in the Shire, one of the most significant in Victoria. The Barapa-Barapa Nation land covers the largest area in the Shire. The Wamba-Wamba and Yorta-Yorta Nation lands also cover parts of the Shire.

The community, in particular, take pride and enjoy the wetland network and the abundant birdlife that surrounds them. Two sites in Gannawarra have been awarded places of national significance status for migratory birds (International Convention on Wetlands, the RAMSAR convention). They are Kerang Lakes and Gunbower Forest.

The Shire's Mediterranean climate encourages an outdoor lifestyle which attracts many people to visit or move to the Shire.

The built environment of Gannawarra is also much admired, rivalling some of the bigger regional town centres such as Swan Hill.

The Heritage study will soon provide a framework to further protect these sites for future generations to enjoy.

The heritage and culture of the Shire is preserved through volunteer community groups and Indigenous communities. To support the sustainability of the work these groups undertake, they can take up Federal funding opportunities like the Your Community Heritage program and the Indigenous Heritage program to fund to support ongoing preservation of these community assets. Funding is also available at a state level through a variety of programs run by DPCD which aim to build communities.

Key challenges

Heritage and culture is at the heart of all communities. It gives a sense of identity and place, it tells a story of who we were and who we are now. It adds to the 'liveability factor' of a place and builds community pride. It is one of the reasons people stay in a place or are drawn to move there.

Councils must consider how to appropriately support the promotion of culture and protect the heritage within their communities. The challenge is to do this in a constrained fiscal environment. Competing needs such as improving health or infrastructure outcomes for example; can at times make it difficult for heritage to play a bigger role in Council activities.

Major Council Achievements to Date

- The Gannawarra Heritage Study will be completed by June 2013.
- The completion of the \$1.2 million Gateway to Gannawarra Education, Cultural and Heritage Centre project which provides an exciting new service for visitors and residents.
- Council launches its first Gannawarra Visitor Guide to inform visitors to the area of the many attractions, events and accommodation options across the Shire.

	Action	Timing		Responsibility	Plan/Strategy Alignment		
Prio	Priority Action - Increase community pride by promoting and maintaining Shire's natural and built environment						
5.1	Finalise Council's Heritage Study	Short Term	Council: Partner(s):	MP Heritage Victoria, DSEWPC,	Council Plan		
5.2	Implement Heritage Study recommendations as determined by Council through Planning Scheme Amendment process (Amendment C36)	Short Term	Council: Partner(s):	MP DPCD	Council Plan		
5.3	In partnership, identify and support the maintenance of Aboriginal heritage / culture	Ongoing	Council: Partner(s):	MP, MCS AAV, DPCD, DSEWPC, LIN RDV	Council Plan, YYNAC Strategic Plan, Kerang LIN Community Plan, LMRSP (NR)		
5.4	Support community groups to map sites of heritage significance - built and natural - to include in tourism promotion	Ongoing	Council: Partner(s):	MP, MCS, MED DPCD, Heritage Victoria, NGOs, Community groups	Council Plan, Tourism Strategy, Economic Development Strategy, Gannawarra 2025,		
5.5	Support Indigenous communities and community groups to develop signs for sites of heritage significance and 'welcome to country' signs	Ongoing	Council: Partner(s):	DCS, MCS, MED DPCD, AAV, DEEWR, NGOs, RDV, DSEWPC, LIN, Community Groups	Council Plan, Tourism Strategy, Economic Development Strategy, Gannawarra 2025, YYNAC Strategic Plan, LMRSP (NR)		
5.6	Investigate MOU to find opportunities to collaborate with Indigenous Nations, including in conjunction with projects of historic significance.	Short Term	Council: Partner(s):	MCS, CCC DPCD, AAV, DEEWR, DSEWPC, LIN	Gannawarra 2025, YYNAC Strategic Plan, Kerang LIN Community Plan		
Prio	Priority Action - Develop tourism opportunities celebrating the Shire's natural and built environment						
5.7	Investigate expanding the Visitor Information services and facilities in the Shire, including reference to new and existing attractions and recreational opportunities.	Short Term	Council: Partner(s):	MED, MCS DBI, Tourism Victoria, RDV, PV, Community groups	Tourism Strategy, Council Plan, Economic Development Strategy, LMRSP (NR), Gannawarra 2025		
5.8	Develop partnerships with community groups to develop tourism promotional material for the Shire	Short Term	Council: Partner(s):	MCS, MED DBI, Tourism Victoria, Community Groups	Tourism Strategy, Council Plan, Economic Development Strategy, Gannawarra 2025		
5.9	Progress technical and regulatory assessment, and seek funding for the proposed Koondrook Wharf, which will link with the Ports of the Murray project	Short Term	Council: Partner(s):	MED, MCS, MDA DBI, Tourism Victoria, DPCD, RDV, Wakool and Campaspe Shires, Community Groups	Tourism Strategy, Council Plan, Economic Development Strategy, Gannawarra 2025, LMRSP (NR)		



Community Wellbeing

Major opportunities

Council can undertake a variety of activities to support wellbeing. The Gannawarra 2025 strategy, developed by the community and supported by Council, outlines strategies for building a liveable community. Aligning to Gannawarra 2025 will ensure support of community wellbeing outcomes.

Opportunities to build community wellbeing include:

- Supporting communities to arm themselves with the knowledge and tools to adapt to climate variability
- Supporting wellbeing outcomes by providing social, mental and physical stimulus for communities
- Supporting environmentally sustainable projects championed by communities to foster community pride
- Celebrate community groups' successes and recognise the work done by communities to manage complex environmental and social issues.
- Work with partners (including DSE, Parks Victoria, and NCCMA) to improve access to landscape assets (ie State Forest, National Park, Wetland Areas etc).

Key challenges

The vision of the ESS focuses on nurturing social outcomes specifically, community wellbeing. Wellbeing is not just about physical and mental health. It is also about developing social inclusion and support, and building resilience.

Gannawarra has a number of social challenges it needs to address to improve community wellbeing. The priority items for consideration are addressing the impacts of an ageing and declining population and building resilience to handle impacts from climate variability.

Major Council Achievements to Date

• Successful deployment of the Living Green in Gannawarra and Surrounds program, a resource efficiency education program. The program, funded by DSE and run with Buloke, Loddon and Swan Hill saw an average of 30 people attend the workshops, with 74 people from Gannawarra attending the 3 workshops for the Shire. The program has been heralded a success by the State Government, providing encouragement for the program to find ways to continue therefore supporting the Shire to adapt to climate variability impacts.

	Action	Timing	Responsibility	Plan/Strategy Alignment			
Priorit	Priority Action - Support communities to respond to climate variability through education on environmentally sustainable practices						
6.1	Plan for settlement growth to address local demographic priorities	Ongoing	Council: MDA, MED, MCS, MP Partner(s): DPCD, MAV, RDV, ICLEI, GAA,	Council Plan, Gannawarra 2025, Gannawarra Planning Scheme, Regional Growth Plan, LMRSP (NR), Municipal Public Health & Wellbeing Plan			
6.2	Develop a framework for measuring community wellbeing against a range of indicators	Short Term	Council: MCS Partner(s): DPCD, Community Planning groups	Council Plan, Gannawarra 2025, Municipal Public Health & Wellbeing Plan			
6.3	Seek funding opportunities to assist vulnerable communities with adapting to climate variability	Ongoing	Council: MCS Partner(s): SV, DSE, DCCEE, DPCD	Council Plan, Gannawarra 2025, Municipal Public Health & Wellbeing Plan			
6.4	Assist with developing skills to build capacity and awareness of environmental issues/ challenges	Ongoing	Council: MCS, CDO Partner(s): SV, DSE, EPA, DCCEE, ICLEI, NVGA, NGOs, Community groups	Council Plan, Gannawarra 2025, Municipal Public Health & Wellbeing Plan			
Prior	ty Action - Develop partnerships with community leaders to	deliver enviror	mentally sustainable outcomes				
6.5	Support the volunteering culture within the Shire	Ongoing	Council: MCS, CDO, CCC, DCS Partner(s): DPCD, NGOs, Community groups	Council Plan, Gannawarra 2025, Volunteer Management Strategy, Municipal Public Health & Wellbeing Plan			
Prior	ty Action - Support communities to become more resilient in	n the face of cli	nate variability				
6.6	Review, renew and adopt Community Action/Sustainability Plans to reflect regional and strategic priorities	Ongoing	Council: DCS, MCS, CDO Partner(s): Community Planning Groups, DPCD	Council Plan, Gannawarra 2025, LMRSP(NR), Municipal Public Health & Wellbeing Plan			
Prior	Priority Action - Support environmental sustainability projects which increase community pride of their Shire						
6.7	Promote the work of the Shire and communities relating to environmental sustainability and their positive impacts	Ongoing	Council: DCS, MCCS, MCS Partner(s): Community Groups, NGOs	Council Plan, Gannawarra 2025, Municipal Public Health & Wellbeing Plan			
6.8	Encourage towns to become involved in Australia's Tidy Town awards	Short Term	Council: Council Partner(s): Keep Australia Beautiful	Community Plans, Gannawarra 2025, Municipal Public Health & Wellbeing Plan			





References

The following document review was undertaken and includes relevant Council and Regional documents:

Central Murray Regional Waste Management Group Regional 2011/2012 Business Plan	2011
Central Murray Regional Waste Management Group Regional Waste Management Plan	Mar-05
Gannawarra Shire Analysis and Mapping of Irrigated Land	Jun-11
Gannawarra 2025	Dec-10
Gannawarra 2025 - Future Scan	Oct-10
Gannawarra Planning Scheme	Nov-11
Gannawarra Shire Bridge Asset Management Plan	Dec-08
Gannawarra Shire Building Asset Management Plan	Mar-08
Gannawarra Shire Council Annual Budget 2011/2012	2011
Gannawarra Shire Council Plan 2009 – 2013 (2011 version)	Jul-11
Gannawarra Shire Drainage Asset Management Plan	Feb-11
Gannawarra Shire Economic Development Strategy 2011 – 2015	Feb-11
Gannawarra Shire Environmental Sustainability Priority Statement 2008	Aug-08
Gannawarra Shire Footpath Asset Management Plan	Feb-09
Gannawarra Shire Heritage Study Stage One Volume One Thematic Environmental History	Dec-08
Gannawarra Shire Municipal Public Health and Wellbeing Plan 2009 - 2013	Nov-09
Gannawarra Shire Recreation Asset Management Plan	Nov-02
Gannawarra Shire Riverside Park Development Plan	Mar-03
Gannawarra Shire Road Asset Management Plan	Jun-10
Gannawarra Shire Road Management Plan	Jun-10
Gannawarra Shire Sustainable Water Use Plan 2006	Apr-07
Gannawarra Shire Tourism Strategy 2008 - 2011	May-08
Gannawarra Shire Tracks and Trails Strategic Plan 2006	Jan-06
Gannawarra Shire Waste Management Strategy 2011 - 2015	Jul-05
Impacts of Sales of Permanent Water Entitlements and Land Use Planning Options for New Dry land	Feb-10
Gannawarra Shire Socio-Economic Impact of the Basin Plan	Nov-10
Gannawarra Shire Urban and Rural Strategy Plan	Nov-07
Gannawarra Shire Council Annual Report	Jul-05
MDBA - Plain English Summary of the Proposed Basin Plan - including explanatory notes	Nov-11
NCCMA Regional Catchment Strategy 2012 - 2018 Draft for consultation	May-12
RDV Loddon Mallee Strategic Plans: Southern & Northern Regions	

Additional References

The following additional documents were reviewed as reference to recommendations made in this report

DSE Waste Policy Review	Mar-12
DPI Towards Near Zero Emissions from Victoria's Fossil Fuels	Nov-11
SV Review of Sustainability Victoria Strategic Direction	Feb-12

Consultations

A series of consultations were undertaken to engage with internal and external stakeholders to attain insights to drive the ESS development. Between April and May 2012 the following consultations were undertaken.

- 1 to 1 interviews with Council and key external stakeholders
- Forums with Council staff
- Forums with Government Authorities
- Community forums
- Forum with Cohuna Secondary College students

A breakdown of attendees can be seen in the list below:

- Central Murray Regional Waste Management Group
- Cohuna & District Progress Association
- Cohuna Lions Club
- Cohuna Secondary College
- Department of Primary Industry
- Department of Sustainability and Environment
- Dingwall/Normanville/Lake Meran Community Group
- Gannawarra Council
- Goulburn-Murray Water
- Kerang Lions Club
- Lower-Murray Water
- North Central Catchment Management Authority
- Sustainability Victoria

Acronyms

AAV Aboriginal Affairs Victoria
CASA Civil Aviation Safety Authority
CCC Community care Coordinator
CDO Community Development Officer

CEF Clean Energy Future
CEO Chief Executive Officer

CMRWMG Central Murray Regional Waste Management Group

CVGA Central Victoria Greenhouse Alliance

CVSC Central Victoria Solar City

DAFF Department of Agriculture, Fisheries and Forestry

DBCDE Department of Broadband, Communication and the Digital Economy

DBI Department of Business Innovation

DCCEE Department of Climate Change of Energy Efficiency

DCCS Director Corporate and Customer Services

DCS Director Community Services

DEEWR Department of Education, Employment and Workplace Relations

DISRTE Department of Industry, Innovation, Science, Research and Tertiary Education

DIPRS Director Infrastructure, Planning and Regulatory Service

DoH Department of Health (Victoria)

DPCD Department of Planning and Community Development

DPI Department of Primary Industry

DRET Department of Resource, Energy and Tourism
DSE Department of Sustainability and Environment

DSEWPC Department of Sustainability, Environment, Water, Population and Communities

DTF Department of Treasury and Finance
EHO Environmental Health Officer
ETE Environment / Traffic Engineer

GAA Growth Area Authority

ICLEI Local Governments for Sustainability

LGA Local Government Authority
LIN Local Indigenous Network

LMRSP (NR) Loddon Mallee Regional Strategic Plan (Northern Region)

MAV Municipal Association of Victoria

MCCS Manager Communications and Customer Service

MCS Manager Community Sustainability
MDA Manager Design and Assets
MDBA Murray-Darling Basin Authority
MDBP Murray-Darling Basin Plan

MED Manager Economic Development MOS Manager Operational Services

MP Manager Planning

MRGC Murray River Group of Councils

MWMG Metropolitan Waste Management Group

NCCMA North-Central Catchment Management Authority

MGO Non-government organisation NRM Natural Resource Management

NVIRP Northern Victoria Irrigation Renewal Project

PV Parks Victoria

RCS Regional Catchment Strategy
RDV Regional Development Victoria

SV Sustainability Victoria
SWUP Sustainable Water Use Plan

VARRI Victorian Advanced Resource Recovery Initiative VCEC Victorian Competition and Efficiency Commission

Gannawarra Shire Council

Patchell Plaza, 47 Victoria Street PO Box 287 KERANG VIC 3579

Ph: (03) 5450 9333 Fax: (03) 5450 3023

council@gannawarra.vic.gov.au

