



ENVIRONMENT STRATEGY 2019



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FOREWORD

Indigo Shire is blessed with beautiful and ecologically important landscapes, vibrant and historic towns and imaginative and innovative people who care about how the environment is managed into the future. While our old stone buildings, remnants of gold mining and national parks remind us of our past, it is clear we now need to focus on the challenges to protecting what makes living in Indigo Shire special.

Council has a vision for a future which includes thriving communities, resilient agriculture, sustainable development and land use, nature-based tourism and a healthy natural environment.

This Environment Strategy sets out a principle-based approach to how we protect biodiversity, reduce water use and improve water quality, minimise waste, decrease energy use, and ensure development is environmentally sustainable, all within the context of a changing climate.

Importantly, Council has also set a responsible target of net zero greenhouse emissions by 2035.

This Strategy informs the Council Plan and challenges Council and the communities in the Shire to become leaders in environmental management and sustainability. It will guide our planning and decisions and provides strategies to ensure we achieve our goals.

From reducing our carbon footprint to encouraging protection of threatened species, from creating a Plasticwise Policy to implementing a Climate Change Adaptation Action Plan, Indigo Shire Council is working to ensure that the decisions we make today do not diminish the world our grandchildren will inherit.

Implementing the Environment Strategy will require determination and commitment, but to do less fails our obligations as a responsible community.

-Dr Jane Roots, Deputy Chair, Indigo Environment Advisory Committee (IEAC)

SUMMARY

Vision: A place of thriving communities building a sustainable future in a healthy and resilient environment.

The Indigo Shire Environment Strategy:

- Sets a cross-organisational approach, whereby environment and sustainability is owned by all of council, and embedded into day to day decisions across council functions.
- Describes the values and principles that staff and Councillors apply when making decisions that affect the environment and our sustainability.
- Recognises that leveraging partnerships and community engagement are critical to achieving this strategy.
- Aims to be nimble to respond to changing opportunities by separating out specific actions into annual implementation plans, which continue to support achievement of the goals in this strategy.

5 THEMES

The context, challenges and goals of this strategy are expressed across five themes:



CLIMATE CHANGE

GOAL: Our Council has net zero greenhouse gas emissions and our communities are resilient in the face of a changing climate and more extreme climatic events.

The first part of this goal aims to reduce greenhouse gas emissions resulting from operations and activities within Council's direct control. We will also support, enable and educate for community action on climate change. We also need to adapt to the reality of a warming climate - more frequent and extreme drought, fire and flood events as well as biological changes to minimise the financial, social and environmental impacts of climate change.



BIODIVERSITY

GOAL: Our habitats are improved to prevent further decline of our native plants and animals.

This goal aims to preserve and improve our unique natural ecosystems, remnant vegetation and threatened species and habitats.



WATER

GOAL: Our water resource is valued and conserved. Wetland and waterway habitat quality is improved.

This goal recognises the often competing demands on this scarce resource (both surface and groundwater). It aims to ensure the resource is conserved while safeguarding water quality. Council's role in this is via advocacy. Water is an important resource for agriculture as well as having an intrinsic value for future generations and contributing to the health of the broader landscape.



SUSTAINABLE DEVELOPMENT

GOAL: Our local economy is strengthened by environmentally sustainable activities, and our built environment is prepared for the future climate.

This goal aims to improve our natural and built landscapes, while promoting thriving local communities across the Shire. This goal recognises the importance of ensuring environmentally sustainable activities create robust, adaptive local economies, which provides resilience for future generations.



WASTE

GOAL: Our resources are conserved and waste to landfill is minimised.

This goal aims to reduce resource consumption and encourage reuse and recycling of materials currently considered as waste. By doing so, waste to landfill is reduced. Council will encourage the conservation of resources through responsible procurement, education, and the delivery of Council's operations and services.

INTRODUCTION

Indigo Shire Council has developed this Environment Strategy to reflect a whole of Council response to protecting and enhancing both our natural and built environment. This Strategy builds on the Environment Strategy developed in 2009 and sets Council's direction for the next ten years.

The Environment Strategy is a high level strategic document which is a key document under the Council Plan. It identifies key focus areas, goals and strategic actions which contribute to meeting the objectives of the current Council Plan and recognises future areas of work.

A healthy environment is central to life in Indigo Shire. The Shire has significant environmental assets featuring flora and fauna of national and state significance. The local economy is underpinned by tourism and agribusiness which rely on the health of the natural environment, drawing visitors to the region for recreation and local produce. This combination of natural and rural appeal, combined with vibrant and engaged communities, are part of the reason increasing numbers of people are choosing to live and work in Indigo Shire.

Maintaining a healthy and biodiverse environment is fundamental to sustaining a healthy social and economic system. The environment has a positive influence on human physical and mental health through provision of leisure and social opportunities. Cultural identity is supported by our environment through spiritual, heritage and aesthetic elements, helping to create a sense of connection to place.



Photo: Regent honeyeater (*Anthochaera phrygia*)
Source: I. Cheyne

As the third tier of government, local government's role in environmental management encompasses:

- direct management of roadsides and Council owned reserves
- implementing responsible land use planning
- maintaining strong partnerships with regional and state authorities and local community groups to support the community in addressing environmental and sustainability issues.

Through these activities, Council can advocate for, and have influence over, flora and fauna protection and habitat management, subdivision development, waste management and future economic activity.

Local government also has an opportunity to take a proactive approach to the development and renewal of the Council's built assets in such a way that reduces environmental impact, improves operational efficiency, and demonstrates a commitment to the long-term sustainable management of Council's facilities.

Community expectations of local government commitment and action in relation to the environment are changing. There is increasing demand for improved services such as recycling, greater community interest in land use planning decisions, community-led climate change action, and broader support for protection of native flora and fauna. This comes at a time when Indigo Shire Council is facing an increasing frequency and intensity of natural disasters, competing land use demands between population growth, agribusiness and habitat protection, and a constrained resource allocation. These drivers of change place Indigo Shire Council at an important crossroads for consideration of its role as a leader in environmental management and sustainability.

This Strategy acknowledges Council's leadership role in demonstrating, advocating, and regulating a sustainable approach to development, and supporting activities that minimise negative impact on environmental systems. Long term sustainability must be core to operational decision making to ensure that Indigo Shire remains a vibrant place to live, work and visit.

INTENT

The Environment Strategy is intended to promote environmental consideration in all Council activities and decisions, ensuring that we work collaboratively to reduce our impact on the environment, comply with environmental regulations, limit greenhouse gas emissions and preserve our natural assets and precious resources. The strategy outlines key challenges and a way forward for tackling those challenges as we work towards realising Council’s vision.

Accordingly, the Strategy is intended to be a key reference document for Councillors and Council staff across all areas of the organisation. It should be consulted during service delivery, project planning and development, and when assessing proposals. The Strategy builds on previous work by Council and the community to preserve and enhance the region’s natural and built environment, as well as strengthen local resilience.

This Strategy was developed in accordance with the methodology outlined in Appendix A. Appendix B provides a tool that can be used to apply the concepts in this strategy into decision making. The strategy is supported by an action plan that details actions to support delivery of the strategic goals. The action plan is a dynamic document maintained by the Coordinator Environment and Sustainability, with implementation across the whole of Council. It is designed to be updated and modified annually to align with changes in corporate and external priorities, opportunities and resources.



FIGURE 1: Indigo Shire council environment document map (Plan & Strategy level)

STRATEGY VISION

A place of thriving communities building a sustainable future in a healthy and resilient environment.

The Environment Strategy vision expands on the Indigo Shire Council vision: Heritage Shire – Bold Future. The vision contains three key elements; ‘thriving communities’, ‘sustainable future’ and ‘a healthy and resilient environment’. These elements support each other and are interdependent.

Thriving communities have a sense of place connected to the unique landscapes in which they dwell. This element represents the choices and opportunities we have in relation to preservation and enhancement of these landscapes. Thriving communities are well connected and supported by natural beauty and scenery, open space for recreation, cultural values and identity, and rural productivity.

The element *Sustainable future* refers to the key aspiration of our communities and is supported by well-functioning and resilient ecosystems, long term sustainability and strong economies. The Shire’s future lies with clean and green agriculture, experiential tourism emphasising connection to the environment, and sustainable development. Additionally, we need to be resource efficient and environmentally sensitive to the way we deliver business and live our lives. To foster this aspiration, long term sustainability should be a priority when undertaking all economic, community and development decision making.

A healthy and resilient environment is biodiverse with habitats supported by clean air and water. It has the capacity to absorb and adapt to change whilst retaining life sustaining functions. Notwithstanding the tangible ecosystem services that the environment gives to humans, all native life forms have an intrinsic right to exist. Thriving communities and a sustainable future are inextricably linked to our natural environment, therefore the enhancement and protection of native flora and fauna are intrinsic to creating and maintaining a healthy and resilient environment.



Figure 2. Interdependence of vision elements

GUIDING PRINCIPLES

The guiding principles on which this Strategy is built, are linked to organisational values and were developed at a workshop attended by Council staff and community members. The principles align with local government service delivery, areas of responsibility, delegation and sphere of influence. These principles support decision making for Councillors and staff when prioritising and evaluating service and project delivery.

LEADERSHIP

We will lead by example and demonstrate best practice in environmental stewardship and sustainable development and behaviour. We will consider future generations of Indigo Shire when making decisions about environment and sustainability.

COMMUNITY

We will consider environmental priorities identified by the community and assess opportunities for action. We will advocate for change where there is clear community will for improved practices.

ACCOUNTABILITY

We will prioritise environmental threats and issues where Council has clear management accountability and where actions are within Council's remit.

MAKING A DIFFERENCE

We will practice the mitigation hierarchy when considering the impact of development on the environment: avoid; minimise; restore; and offset, to protect and manage our natural resources. We will prioritise actions which have the best environmental benefit and/or sustainability outcome.

KNOWLEDGE

We will prioritise environment and sustainability actions which are evidence based and will include ongoing monitoring and evaluation to understand the effectiveness of our actions. We will collaborate and share learnings.

RESILIENCE

We will prioritise actions that have a clear environmental benefit such as restoring, protecting or enhancing our natural and built assets; preventing further degradation; reducing our resource consumption; or strengthening the community's ability to care for the environment.

HEALTH AND WELLBEING

A healthy environment is fundamental to healthy communities. We will prioritise actions which promote and enhance links between the environment and the health and wellbeing of the community.

OUR ENVIRONMENT

GEOGRAPHY AND POPULATION

Celebrated for its picturesque beauty and historic character, Indigo Shire is located 270 km from Melbourne in north east Victoria. The Shire is bordered by the Murray River to the north, Australian Alps to the east, and the shire boundaries of Alpine, Moira, Towong, Wangaratta and Wodonga. It covers a total land area of 2,044m² and includes the diverse townships of Barnawartha, Beechworth, Chiltern, Kergunyah, Kiewa-Tangambalanga, Rutherglen, Sandy Creek, Stanley, Wahgunyah and Yackandandah. The total population across the Shire is 16,035 (ABS 2016).

LANDSCAPES

Indigo Shire contains a diverse range of landscape and vegetation types, including the;

- Chiltern-Mt Pilot Landscape,
- Inland Slopes Forests and Woodlands,
- Riverine Plains and Wetlands,
- the Kiewa River Corridor, and,
- the Great Divide Contiguous Forest (NECMA 2013).

FLORA AND FAUNA

A range of habitat types occur throughout the Shire including remnant forest and woodlands, managed forest, scattered trees, roadside reserves, wetlands, as well as the urban and agricultural matrix. There are more than 50 Ecological Vegetation Classes, several of which are listed as high priority for protection and management. Indigo Shire is home to a number of endangered, threatened and vulnerable species listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* and the *Victorian Flora and Fauna Guarantee Act 1988*.



Photo:
Crimson spider orchid
(*Caladenia concolor*)
Source: E. Collins

WETLANDS AND WATERWAYS

Wetlands and waterways throughout the Shire provide important habitat for aquatic and avian fauna, support ecosystem functions (such as water purification, flood control, water storage and provision and hydrologic transfer), and provide recreation opportunities.

Waterways from the Shire, including the Kiewa River, feed into the Murray River with the broader north east Victorian area playing an essential role of collecting water resources for the Murray Darling Basin.

Indigo Shire also owns frontage to the Murray River, and therefore has a custodian role for part of the river.

PARKS AND RESERVES

The Shire encompasses Chiltern–Mt Pilot National Park, State Parks and forests such as Beechworth Historic Park, and other reserves such as Rutherglen Nature Conservation Reserve and Lake Moodemere Lake Reserve.

Chiltern-Mt Pilot National Park protects 21,560 hectares of ecologically valuable Box–Ironbark forest and Granitic Hills Woodlands and contains the highest number of mammal, bird and reptile species recorded in any Box–Ironbark site (ECC, 2001). It is a priority site for Brush-tail phascogale and Regent honeyeater recovery. It also has the only recorded population of the Mt Pilot Spider Orchid, and is the largest reserved area of Black Cypress-pine in Victoria. Chiltern–Mt Pilot National Park is also habitat for many other significant species in addition to holding valuable Aboriginal cultural and historic legacies (Parks Victoria, 2008).

Beechworth Historic Park covers 1,090 hectares and contains significant examples of the area's goldmining heritage. It is one of only four parks in Victoria reserved under the Victorian National Parks Act (1975) with a principal focus on the protection of cultural heritage values. In addition to its cultural value, the park has an important role in the protection of substantial remnants of forest and woodlands, and associated flora and fauna populations. Beechworth Historic Park presents unusual geology and transitional vegetation types, being a key site for the endangered Yellow Hyacinth-Orchid, and home to other rare and threatened flora and fauna species (Parks Victoria, 2007).

ROADSIDES

The Shire contains approximately 2,000 kilometres of roadsides, much of which also function as linear natural reserves and contain important areas of remnant vegetation. Often, roadsides contain the only intact vegetation in the area and are important for vegetation seed banks, animal movements, wind protection for stock, shade and visual character of the area. Roadside conservation is therefore an important part of biodiversity for Indigo Shire, but at times, there are tensions between biodiversity, fire risk and road safety. This is further discussed in the Roadside Conservation Management Plan.

BUILT ENVIRONMENT

Indigo Shire Council has several roles, responsibilities and influences on the built environment. Through the Indigo Planning Scheme, Council has influence on subdivision development and town place making. Council also has a role in the design, construction and maintenance of Council's buildings assets; with approximately 270 buildings and structures on its assets register, comprising various management arrangements. Collectively, management of the built environment, including use of best practise sustainability principles during all phases of the asset lifecycle, can reduce negative environmental impacts of the built environment and improve resilience into the future.

Indigo Shire is home to significant historic buildings many dating from the gold rush period in the mid to late 19th century. These include 48 heritage places listed on the Victorian Heritage Register and many sites of historical archaeological importance throughout the Shire. Historical buildings provide an important 'sense-of-place' to a landscape and add significantly to the amenity value of the area, both for visitors and residents. The operation and maintenance of heritage buildings often presents opportunities to improve energy efficiency and comfort levels, such as draught proofing, increased levels of insulation, and lighting upgrades. Council is strongly committed to protecting the rich historical fabric of the Shire while implementing innovative solutions which enhance environmental outcomes.

Photo: Dark Skies at the Rutherglen wine bottle. Source: T. Ierino









KEY CHALLENGES

CLIMATE CHANGE

Climate projections for the region predict a hotter, drier future with increasing frequency and intensity of bushfires, droughts, storms and floods.

HUME HAS BEEN GETTING WARMER AND DRIER. IN THE FUTURE THE REGION CAN EXPECT:

 <p>temperatures to continue to increase year round</p>	 <p>more hot days and warm spells</p>
 <p>fewer frosts</p>	 <p>less rainfall in autumn, winter and spring</p>
 <p>more frequent and more intense downpours</p>	 <p>harsher fire weather and longer fire seasons</p>

Source: Climate-ready Victoria – Hume, 2015, State Government Victoria

Climate change has implications for the health and wellbeing of the community, delivery of Council services, as well as tourism and agribusiness which underpin the region's economy. Climate change will also significantly impact on the biodiversity of our flora and fauna, increasing the level of disturbance in the landscape. These changes in climate are largely due to human activity increasing greenhouse gas emissions through the burning of fossil fuels.

CLIMATE VARIABILITY AND CHANGE

Our climate varies - it always has and always will. This climate variability means that some periods are cooler and wetter than average (as was the case in the 1970s), while others are hotter and drier (such as during the Millennium Drought). However, due to climate change, the long-term average is changing. Future climate will be different from that in the past.

Council is committed to reducing its greenhouse gas emissions through a range of projects such as the implementation of kerbside organics to divert putrescible general waste from landfill, installing energy efficiency and renewable energy technology (such as LED lighting and solar) where appropriate, and supporting the community to implement renewable energy and sustainability projects.

Responding to impacts of climate change is a dynamic area and there are multiple opportunities for mitigation and adaptation action as awareness, resources and technology become available. Council also has a role to play in supporting the community to adapt to a changing environment, through education which informs resilient decision making and drives behaviour change.

BIODIVERSITY DECLINE

Biodiversity is declining across Victoria and Indigo Shire. Areas of Indigo Shire have been densely settled and cleared resulting in the loss of habitat and degradation of our wetlands and water courses. Climate change will continue this degradation due to increasing average temperatures, changing rainfall regimes and modifying the seasons, bringing new threats to biodiversity. Natural habitat is being lost incrementally to construction and maintenance of roads, housing development and new industries. Vegetation clearing is now regulated by the planning scheme, and offsets are usually required to compensate for clearing. Offsets can be challenging to source and expensive to purchase. Council has a role to play in increasing awareness of vegetation clearing regulations and offset requirements, and promoting increased supply of offsets of Indigo Shire.



INVASIVE PLANT AND ANIMAL SPECIES

The spread of invasive plants and animals threatens agricultural production and biodiversity in the Shire. These threats can only be successfully managed by cooperative work between the state government, Council and landowners. Council is responsible for the management of weeds and pest animals on Council land and Council managed roadsides under the *State Catchment and Land Protection Act 1994*. Landowners are legally responsible for pest plant and animal management on their properties. A joint and coordinated response from all land managers offers the best opportunity for controlling the regional threat of invasive plants and animals

COMPETING DEMAND FOR RESOURCES

Population growth, demand for housing and economic development are increasing the pressure on natural resources such as land and water. Securing adequate water availability to meet the need of increasing population and intensive agricultural practices may be challenging given projected future reduction in rainfall. In addition, provision of land for food production may conflict with housing development due to population growth. Subsequently, there is a need to strategically balance natural resource management priorities with the potential impacts of regional growth.

WATER

Healthy waterways are critical for the survival of our ecosystems. They provide drinking water for all species, are vital for agricultural production, are a source of recreation promoting positive health and wellbeing. Threats to our waterways include pollution from litter and stormwater runoff, poorly managed or sited wastewater treatment systems, point source pollution from industry or agriculture, declining riparian vegetation and climate change impacts resulting in reduced groundwater recharge and increased sedimentation after fires. Council has a role to play in protecting our water quality through compliance and monitoring of wastewater treatment systems, drainage management, partnerships with regional and State authorities and implementation of State planning controls.



Photo: Regionally prohibited weed: Serrated tussock, *Nasella trichomata* Source: Agriculture Victoria

WASTE MANAGEMENT

Waste generation contributes to climate change, can negatively impact flora and fauna, is resource intensive, reduces viable land, and can pollute surface and groundwater. Significant efforts to reduce waste have been undertaken in Indigo Shire particularly with the introduction of a food and green organics collection service. However, community expectations and interest in exploring more sustainable solutions to waste management continue to grow. Waste management costs are largely borne by the ratepayer. These costs are rising, placing pressure on further improvement and delivery of services. Waste in Indigo Shire is managed in collaboration with the North East Waste and Resource Recovery Group (NEWRRG), and a separate Indigo Shire Council Waste Management Strategy supports the objectives of this Environment Strategy.



Photo: Green Team volunteers sorting waste at Yackandandah Folk Festival

LEGISLATION

Legislation is important in protecting our environment however the pace of societal change and emerging environmental threats can outstrip the intent of some laws. Local government is the closest tier of government to the community giving it the greatest exposure to changing community attitudes and priorities. When the interpretation of some laws no longer aligns with community values, Council has a role to play in advocating on behalf of its community for legislative change and undertaking localised proactive measure within its control and sphere of operation.

TACKLING THE CHALLENGES

Our vision has three elements which are supported by focus areas. These focus areas respond to the key challenges for environment and sustainability in Indigo Shire and form the basis for action over the coming decade.

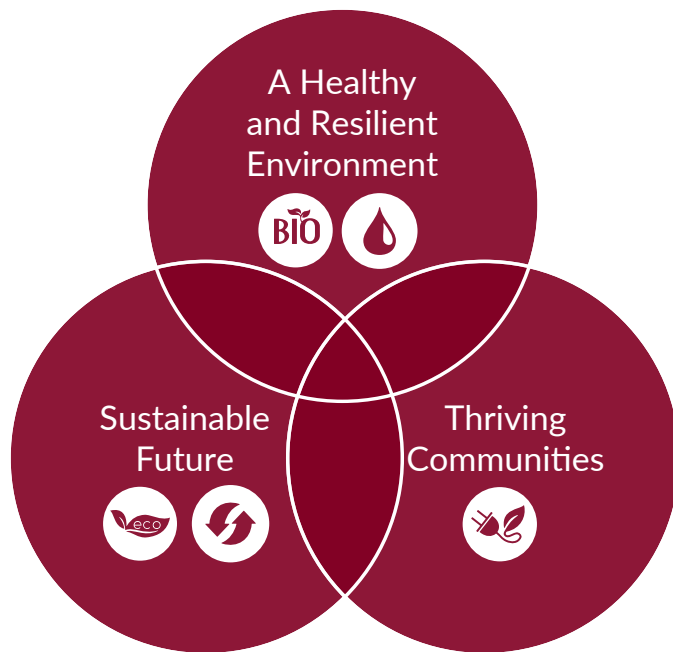


Figure 3: Supporting focus areas for each vision element

How we will achieve our goals

Our goals will be achieved by working with three key enablers which allow strategies and actions to be realised:

- **Council policy and service delivery.**
- **Community engagement.**
- **Partnerships.**

Council policy and service delivery refers to Council's role in leadership and stewardship, control over its direction and activities, and accountability for decisions. Governance documents outline policy positions held by Council, strategies which elucidate Council thinking and plans to deliver desired outcomes. Council actions to achieve the goals could relate to the reporting and enforcement of a policy, implementation of a plan, or a change in process.

Community engagement refers to a range of methods used to support, inform, build capacity and liaise with individuals or specific groups from within the community. This offers an opportunity to implement one of the key guidelines relating to prioritising community concerns, and might include actions relating to communication, providing material or organisational support, or advocacy to other organisations or levels of government.

Partnerships refers to working with other agencies, organisations and businesses at local, regional, state or national levels. Partnerships could include groups such as renewable energy groups, Landcare, the Greenhouse Alliance, Water and Catchment Management Authorities, as well as state and federal government departments. Partnership actions to achieve the goals include fostering strong relationships, knowledge sharing, collaboration and developing long and short term targets which align with common objectives.



Photo: Managing climate change risk in Agriculture conference, 2018, Beechworth

FOCUS AREA 1: CLIMATE CHANGE

Goal:

Our Council has net zero greenhouse gas emissions by 2035 and our communities are resilient in the face of a changing climate and more extreme climatic events.

Strategic context:

Council recognises the significant impacts of climate change on the community, infrastructure and services and is a founding member of the Sustainability Victoria's TAKE2 Pledge which commits council to taking action to reduce greenhouse gas emissions.

The Victorian Climate Change Act 2017 sets the state agenda to drive Victoria's transition to a climate resilient community and economy. The Victorian government has a target of net zero greenhouse gas emissions by 2050 and pledged to source 25% of electricity from renewables by 2020 increasing to 40% by 2025. At a national level, Australia has committed to reducing its emissions by 26-28% below 2005 levels by 2030 via the Paris Agreement.

Council has developed a *Climate Change Policy 2019*, as well as a *Climate Change Adaptation Action Plan 2017* to prepare for future impacts. Climate change is now recognised as a strategic risk on the council risk register and implementation of the Adaptation Plan is underway.

Adaptation approaches focus around assessment and management of risks, impacts and vulnerabilities. Timely identification, prioritisation, planning and implementation of climate change adaptation measures is essential to inform decision making and increase community and operational resilience into the future.

Across the municipality, community uptake and interest in renewable energy is high. The formation and subsequent achievements of community groups such as Totally Renewable Yackandandah (TRY) has seen the establishment of additional groups such as Totally Renewable Beechworth, Sustainably Powered Indigo North and the formation of the Indi Energy Working Group by the federal Member for Indi. Such groups are helping to drive community scale energy efficiency improvement, the uptake of renewable energy technology, and energy sector reform and transformation.

Strategies to achieve our goal:

- Develop and implement an emissions reduction plan for council to move towards zero emissions.
- Implement energy efficiency and renewable projects across Council's building portfolio.
- Promote and support community access to energy efficiency and greenhouse gas reduction initiatives and education.
- Collaborate with other local governments and agencies via the Greenhouse Alliance to leverage grant funding and partnerships for climate change related projects and initiatives.
- Continue to monitor the climate change adaptation plan, and develop new adaptation actions in response to newly identified risks.
- Support and partner with community renewable energy groups to drive community emissions reductions.

LONG TERM MEASURE: Greenhouse gas emissions from the Indigo Shire.

Organisations are reduced annually – in line with interim targets and the baseline to be established in the emissions reduction plan.

FOCUS AREA 2: BIODIVERSITY

Strategic context:

Indigo Shire is home to 90 animal and 114 plant species that are listed as rare, vulnerable, threatened or endangered, under either the *State Flora and Fauna Guarantee Act 1988*, and/or the *national Environmental Protection and Biodiversity Conservation Act 1999*. Concurrently, the Shire harbours a plethora of weed species, as well as pest animals.

Council has a role to play in preserving and improving our habitats and continuing to increase awareness of vegetation clearing regulations, offset requirements and promoting increased supply of offsets of Indigo Shire.

Council has management responsibility for roadsides adjacent to council managed roads and areas of vegetation on land owned by council, or crown land where council is the Committee of Management. Council also influences native vegetation management on private land through local statutory planning provisions. Council has the capacity to affect positive biodiversity outcomes through direct land management, as well as through education and targeted support to landowners.

Across the Shire large areas of native vegetation were cleared in the past for agricultural and forestry operations. Further removal of native vegetation is now regulated through the local planning scheme and aligns with the overarching goal of “no net loss to biodiversity” articulated in the state strategy *Protecting Victoria’s environment – Biodiversity 2037* and the native vegetation removal regulations.

Roadside reserves across the Shire are highly important to biodiversity, as vestiges of the natural environment in what is now a highly fragmented landscape. Roadside reserves provide habitat for animals, dispersal corridors, habitat trees and a seed bank of native flora species.

Under the *Catchment and Land Protection Act 1994 (CaLP Act)* landowners are responsible for the management of pest plants and animals on their property. All landowners have a responsibility to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of established pest animals. Council is responsible for the management of pest plants and animals on the land that it owns or manages.

Community interest in roadside management includes maintaining the aesthetic appeal of naturally vegetated roadsides, concerns over fire hazards, seeing it as a source of firewood, and as a host for pest plant and animal species which encroach onto private land. Indigo Shire has many excellent community-based volunteer programs and groups working on biodiversity, however many segments of our community are not engaged in meeting the biodiversity challenge.

Goal:

Our habitats are improved to prevent further decline of our native plants and animals.

Strategies to achieve our goal:

- Establish strategic biodiversity offset sites within Indigo Shire.
- Promote the conservation of natural habitat on private land through covenants or other means.
- Promote biodiverse habitat plantings where possible on Council-managed land.
- Raise the awareness of Indigo Shire community about the importance of the natural environment.
- Collaborate with council’s community development function and external partners to increase opportunities for all residents to connect with and protect biodiversity via healthy lifestyle and recreational opportunities.
- Investigate monitoring of key biodiversity elements, and/or make use of other monitoring data to understand the health status of biodiversity in the Shire (to generate further indicators of biodiversity health).
- Support and partner with Landcare and Friends of groups for on the ground biodiversity improvement projects.

LONG TERM MEASURE: No further loss of species in Indigo Shire.

Current indicators:

- Quantity of native vegetation planted annually by council and partners.
- Km’s of road treated for weeds annually.
- Number of applications to remove native vegetation.
- Number of unauthorised removal of native vegetation reports across the shire.

FOCUS AREA 3: WATER

Strategic context:

Management and responsibility of water resources in the Shire is complex. The health of rivers and streams in the Shire is overseen by the North East Catchment Management Authority which also provides leadership in water quality issues. Licences to remove groundwater and stream water are managed by *Goulburn Murray Water under the Victorian Water Act 1989*. North East Water manages the infrastructure for the reticulated supply and treatment of domestic water and waste water.

Council's role is to manage stormwater runoff, wastewater septic system compliance, the responsible consumption and disposal of water at council owned and managed sites. Council can also influence building and subdivision design through administration of the planning scheme, as well as compliance and enforcement of planning permits and advocating on behalf of its community for legislative change.

Community interest in water has grown since recent historic drought events, and contentious issues such as groundwater extraction for bottled water production from high value agricultural land.

Strategies to achieve our goal:

- Consider integrated water management projects in the planning and development process for new subdivision developments.
- Monitor water use in Council owned and operated facilities and implement water efficiency measures. Evaluate the findings of the Adapting to a low water future report from the former North East Greenhouse Alliance, and progress applicable recommendations for Indigo Shire.
- Note: there is no long term measure for this theme given the qualitative nature of the strategic directions. Performance indicators for specific actions are included in the Environment Strategy Implementation Action Plan.

Goal:

Our water resource is valued and conserved.
Wetland and waterway habitat is improved.
Advocate for the sustainable use of groundwater and surface water, in line with community aspirations.



Photo: Stormwater systems during flood event. Source: T. Ierino

FOCUS AREA 4: SUSTAINABLE DEVELOPMENT

Strategic context:

Local government is the responsible authority for administering the planning scheme under the *Planning and Environment Act 1987*. The Indigo planning scheme contains a Municipal Strategic Statement (MSS) which outlines the vision for the community and is supported by local planning policies. Indigo's built, urban and rural environments are influenced by the planning scheme and local laws, and land use may also be affected by various planning overlays.

The Victorian Planning Provisions include the aim of creating quality built environments that support the social, cultural, economic and environmental wellbeing of communities and towns. This encompasses planning for long term sustainability where open space, walkability to activity centres and public transport are important factors. Council is implementing place-making projects in Shire towns, working collaboratively with communities to improve urban design and strengthen their connection with public places.

Council has a role in enforcing Building Code of Australia regulations. These include aspects such as fire safety and structural provisions and energy efficiency. All new dwellings must comply with the minimum requirement, six-star energy standard addressing thermal efficiency as set out in the National Building Code.

Council's assets in the built environment includes physical infrastructure (roads, bridges, paved footpaths, underground drainage and major culverts) and community facilities (buildings, swimming pools, transfer stations, playgrounds, parks and reserves).

Buildings of historical significance often have oversight from Heritage Victoria or a local planning overlay which may limit the capacity for extensive modifications.

Council has an important role to play in ensuring municipal assets are prepared for the likely impacts of climate change, firstly through innovative sustainable and energy efficient design during the development of new assets and renewal of existing infrastructure, and secondly through strategic land use and social planning. Increasing operational costs, community expectations and environmental impacts demonstrate the importance of designing for the future. Such adaptation aims to build local resilience and reduce the impacts of climate change, improve occupancy comfort and reduce emissions as well as operating costs.

Population growth is expected in the region which will incur further light pollution. Light pollution has the potential to impact tourism and community recreation via stargazing and photographic pursuits. Dark skies (free of light pollution) are a rare asset, and Indigo Shire should take steps to preserve them when making planning and infrastructure decisions.

Goal:

Our local economy is strengthened by environmentally sustainable activities, and our built environment is prepared for the future climate.

Strategies to achieve our goal:

- Evaluate opportunities for energy efficiency and improvements in line with the sustainable development principles into all Council building renewals, upgrades, and new building works.
- Assess the sustainability of council and community facilities, and generate an action plan for future building improvements.
- Consider conservation of Dark Skies when reviewing the planning scheme and infrastructure design.
- Investigate opportunities for strategic attraction of "Green businesses" in the Shire, i.e. via linkage with the revised Investment Attraction Policy and Strategy.

FOCUS AREA 5: WASTE MANAGEMENT

Strategic context:

Council is responsible for collecting waste from households and public places within the Shire and contracts a third party to provide this service. Through the North East Waste and Resource Recovery Group (NEWRRG), Council leverages partnerships to deliver these waste services as well as educational programs. Waste to landfill is transported to the Albury Waste Management Centre operated by Albury City Council. Recyclables are taken to the Albury Materials Recovery Facility where components are separated by hand and machinery, and then sold to dynamic markets.

The introduction of a food and green organics program in 2015 resulted in a reduction in total tonnes of waste to landfill despite increasing household numbers. Contamination levels of recyclables have remained consistent over the period at approximately 10%, with the primary contaminant being soft plastics.

Community concern around the single use of plastics has resulted in the formation of Plasticwise groups in several towns. Local supermarkets are phasing out the use of plastic shopping bags and the Boomerang Bag scheme has been successfully implemented in some of the towns. Council has adopted a Plasticwise Policy, which aims to reduce, and eventually eliminate consumption of single use plastic within Council's operational control.

Indigo Shire's Procurement Policy outlines a commitment to consider sustainability, particularly waste, across a diverse range of procurement activities undertaken by council staff. Council's waste strategy details actions to achieve the goal outlined below. This Environment Strategy provides input to formulation of Waste Management and Resource Recovery Strategy actions.

Goal:

Our resources are conserved and waste to landfill is minimised.

Strategies to achieve our goal:

- Complete a detailed Waste Management strategy, identifying and evaluating opportunities for improvement.
- Work with waste partners to educate staff and the community about contamination of recyclables.
- Promote diversion from landfill through opportunities to further apply the waste management hierarchy.
- Continue to implement the Plasticwise Policy adopted by Council in 2018.

LONG TERM MEASURE:

- Percentage diversion from landfill is increased year by year, and total waste to landfill is reduced annually (per capita).

STRATEGY REVIEW AND REPORTING

Monitoring, evaluation and reporting is an important component of this Environment Strategy. Embedding a monitoring and evaluation process enables assessment of progress against goals and short term targets and assisting in establishing a continuous improvement cycle. Reporting on progress in implementing the Environment Strategy will improve performance, promote accountability and demonstrate to all stakeholders that Council is committed to achieving its goals. Table 1 outlines the reporting schedule for this strategy. The results of each review will inform update of the action plan.

Indigo Shire voluntarily reports on a suite of sustainability indicators developed by the Goulbourn Broken Greenhouse Alliance. These metrics include: waste, electricity consumption and generation, corporate resource use and biodiversity.

Table 1. Reporting and review schedule

FREQUENCY	REVIEW FORMAT	RESPONSIBILITY
Quarterly	Quarterly environment report to EMT (Executive Management Team) and IEAC (Indigo Environment Advisory Committee)	Coordinator Environment and Sustainability
Annually	Report on implementation and general progress against the action plan and applicable performance indicators. Communicate to EMT, Councillors and IEAC. Update action plan with progress and emerging priorities.	Coordinator Environment and Sustainability
Three yearly	Review of achievements against actions and objectives; assess goals and strategies against new information; assess guidelines against practicality of use; and consider incorporation of new trends and drivers against priorities. Update Strategy as required.	Director Infrastructure Services

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Parks Victoria, 2007. Beechworth Historic Park Management Plan.

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APPENDIX A.

METHODOLOGY

The original project brief was to assess and refocus the 2009 Environment Strategy and ensure broader communication, both internally and to the community, of Council's environmental commitments. Recommendations from a preliminary review undertaken by members of the Indigo Environment Advisory Committee (IEAC) concluded that the Environment Strategy be separated into two distinct documents – an Environment Strategy and an Action Plan. Further discussion with the IEAC subcommittee determined that a high level document was required comprising a vision, guiding principles and focus areas leaving specific actions to be developed as projects and opportunities arise.

A values based approach was used to develop the vision and a set of principles for prioritising environmental issues and actions. This approach also provides an opportunity to embed the project into Council culture by aligning with organisational values. IEAC members, Councillors and Council staff attended a workshop to develop the vision and values using qualitative methods. The raw data was synthesised to determine priority values and guiding principles were developed from these values. The vision was developed from a combination of vision statements developed in the workshop and responses to a vision question during semi-structured interviews.

Key Council staff were interviewed by project consultant FMW Projects using semi-structured interview techniques to determine the audience, content, focus areas, potential strategies and actions, barriers to change, monitoring and vision of the Environment Strategy. Interview responses inform much of the content of the strategy and have the added benefit of increasing awareness and ownership amongst the respondents.

The author would like to acknowledge the contribution of many people to this strategy and thank them for their valuable insights.

Table 2. Participants in the Vision and Values workshop and interviewees

NAME	TITLE At time of workshop/interview
Cr Jenny O'Connor	Mayor
Cr Sophie Price	Deputy Mayor
Cr Diane Sheppard	Councillor
Cr Barb Murdoch	Councillor
Trevor Ierino	CEO
Ian Ellett	Director Infrastructure Services
Mark Florence	Director Development and Community Services
Greg Pinkerton	Director Corporate Services
Kate Biglin	Manager Community Development and Services
Jason Musil	Manager IT
Ian Scholes	Manager Planning and Statutory Services
Paul McLachlan	Manager Assets and Property
Ron Sneddon	Manager Municipal Operations
Phil Garoni	Manager Finance
Susannah Doyle	Manager Tourism
Brad Dinsdale	Manager Capital Projects
Jill Croome	Coordinator Environment and Sustainability
Kim Warne	Team Leader Environmental Health and Buildings
Cassie Douglas	Coordinator Governance and Risk
Karen Gardner	Economic Development Officer
Helen Jones	Environmental Projects Officer
Jane Roots	Chair, Indigo Environment Advisory Committee (IEAC)
Rik Thwaites	IEAC member (Charles Sturt University)
Sue Berwick	IEAC member (DELWP)
Chelsea Cherry	IEAC member (DELWP)
Adam Greene	IEAC member (NECMA)
Nicki Munro	IEAC member (community)

APPENDIX B.

DECISION MATRIX

This matrix is a tool that can be used in the decision making framework for assessing projects and proposals. It includes a cost element to assist in determining the environmental benefit for a given level of investment. This tool may be developed over time to include additional categories.

		COST		
		LOW (within operating budgets)	MEDIUM (dedicated, new initiative budget item)	HIGH (grant funding, capex, or significant new initiative budget item)
ENVIRONMENTAL BENEFIT	HIGH Long term benefit over a wide area	Standard business practice. Implement as priorities are identified across all business units. Embed into standard operating procedures/practices.	Evaluate implementation during routine maintenance, process review and upgrade process	Requires robust triple bottom line impacts case study. Seek external resources to support delivery of objectives
	MEDIUM Medium term benefit; more than one area	Worth considering where action improves business as usual practices for council and/or the community	Requires robust triple bottom line case impacts study, and additional support	Seek external funding and resources to support implementation strategy
	LOW Token or highly localised	Worth considering, if resources allow	Not worth considering unless high level external funding and support provided to drive action.	Do not pursue.