RMCG

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Lake Wallace Strategic Plan 2022–2032

West Wimmera Shire Council

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Acknowledgements

ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Traditional Owners of the Country that we work on throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past, present and emerging and the Elders of other Aboriginal and Torres Strait Islander communities. Moreover, we express gratitude for the knowledge and insight that Traditional Owner and other Aboriginal and Torres Strait Islander people contribute to our shared work.

PARTNERS AND COMMUNITY

The task of developing the strategic plan involved many stakeholders and community members and without their input, this document would not have been truly reflective of the strategic issues facing Lake Wallace. The West Wimmera Shire Council acknowledges and thanks all involved.

Photos were provided by Kowree Advocate and Shaileigh Mulraney.







Environment, Land, Water and Planning



Council's Forward

The West Wimmera Shire Council, in association with the Wimmera Catchment Management Authority, Grampians Wimmera Mallee Water and Department of Environment, Land, Water and Planning are pleased to present the Lake Wallace Strategic Plan.

This is an important strategic document for the West Wimmera Shire which was developed following extensive consultation with a Project Advisory Group and Project Control Group (established to assist with the consultation and development process) and the community.

Lake Wallace is widely regarded as one of the most significant natural assets within West Wimmera Shire, which supports the economy by attracting visitors and community events into the Shire. The lake and its surrounds also have significance in relation to landscape, environmental values, cultural heritage and its overall influence on the health and wellbeing of our community.

The Lake Wallace Strategic Plan identifies a clear vision for Lake Wallace and is based on seven principles identified by the community: Environment, Township Liveability, Lake Levels and Water Supply, Recreation, Tourism and Cultural Heritage.

The task of developing the Plan involved many stakeholders and community members to ensure this Plan is reflective of the strategic issues facing Lake Wallace. The West Wimmera Shire Council acknowledges the effort of many volunteers and stakeholders to develop the Plan and will work alongside partner agencies to ensure the Plan's implementation over the next 10 years.



DAVID BEZUIDENHOUT Chief Executive Officer



BRUCE MEYER, OAM Mayor

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Vision for Lake Wallace

Lake Wallace, the heart of Edenhope, managed at all lake levels to ensure a healthy environment, a prosperous economy and a thriving community.

Summary

PLAN ON A PAGE

The strategic plan provides a clear vision for Lake Wallace and its future management. It includes a program of priority projects and a plan to pursue funding for longer term investments until 2032. These investments will develop and protect the lake's township liveability, water level, recreation, tourism, environmental and cultural values.

To ensure that these values are preserved and promoted, the plan contains principles for determining appropriate lake uses, infrastructure needs and maintenance at different water levels. The development of the strategic plan has taken a values-based approach to planning the level of service required to properly manage these values for all to enjoy.



PRIORITY PROJECTS

The West Wimmera Shire Council and partners, with help from the Edenhope community, have established a list of priority projects to be completed during the first two years of the life of the plan (subject to priorities and funding availability). Targeted investment will refresh the facilities and surrounds of Lake Wallace and increase accessibility to the lake and useability of the foreshore areas. This investment also capitalises on current opportunities to attract new residents and visitors to Edenhope. Eight priority proje cts that will revitalise visitor experiences and locals' use of the lake over the next two years (2022-23 to 2023-24) and ten longer term investment projects that will require external funding have been identified.

Recommendation: That Council make an annual budget commitment to begin to implement the priority projects and leverage additional funding for the longer term investments.

1 About the project

NEED FOR A PLAN

Visitation to Lake Wallace and visitor expenditure was estimated to be down by over 50% during 2020 and 2021, largely due to the COVID-19 pandemic¹ but also due to excessive aquatic plant growth preventing launching boats. Preceding COVID-19 the millennium drought (1996-2016) impacted the lake with low to empty lake levels. These events led to a dramatic decline in intra and interstate visitors to Edenhope and this had considerable impact on local businesses. Falling lake levels combined with prolific aquatic plant growth has restricted lake uses over time. Longer term planning for investment in lake facilities to improve the lake precinct and a plan to revitalise local clubs and volunteering is needed to augment the rebound from COVID. Planning for recovery will include bringing back events (with confidence) to attract more visitors and making a case for government investment to aid recovery. This recovery would also be amplified by improved water security.

HOW THE PLAN WAS DEVELOPED

After several years of community concern being expressed to West Wimmera Shire Council (WWSC), a Project Control Group (PCG) and Advisory Group (AG) was established to gather a range of views to inform the strategic plan. The PCG comprised relevant agency stakeholders including WWSC, Wimmera Catchment Management Authority (CMA), Grampians Wimmera Mallee Water (GWMWater), Department of Environment, Land, Water and Planning (DELWP), Barengi Gadjin Land Council, Fisheries Victoria and three community representatives. The AG comprised community members active in local groups and with a strong interest in Lake Wallace and the town of Edenhope.

The role of these groups was to:

- Provide advice about the issues, strategies and actions to be included in the plan
- Be a "sounding board" for ideas and strategies that were being considered for inclusion in the plan
- Provide comment and further input to the Discussion Paper and Draft Plan.

The development of this plan has been supported and informed by a considerable community and stakeholder consultation process that included a highly subscribed community survey (182 respondents), a public gathering attended by up to 70 people, a strategy workshop and several meetings with the PCG and AG.

Ongoing stakeholder engagement and input for the implementation of this Plan will be through Council's Innovation Platform. The plan needs to be dynamic and it is proposed that progress towards implementing this plan be reviewed every three years.

PLAN AREA AND LAND STATUS

The geographic scope or plan area covers Lake Wallace and its foreshore, and Back Swamp including Lions Park and the drainage depression connecting the two wetlands.

The land tenure of Lake Wallace is Crown Land owned by the State of Victoria (with oversight by DELWP). The WWSC is the delegated Committee of Management and Waterway Manager. Council has management responsibility for the lake (at all levels), lakebed and foreshore area (including the area under a water frontage licence). Noting that there is a small area situated along the eastern side which is freehold. The land beyond the foreshore is either freehold or council owned and managed. The Back Swamp reserve is classified as Unreserved Crown Land and is managed by DELWP. Land titles and plans specifying management responsibilities for Lake Wallace are shown in Appendix 1.

¹ Street Ryan 2021, Wimmera Southern Mallee Socio-economic value of recreational and environmental water, prepared for WDA.

LAKE WALLACE AT A GLANCE



LAKE VALUES

Environment



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Township liveability Township views and ambience

Intact habitat areas for native plants and animals



Lake levels and water supply Optimised for a range of uses



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Recreation For locals and visitors

Tourism Diverse visitor experiences

Aboriginal cultural heritage and European settlement history

VISITATION



EXPENDITURE





ECONOMIC CONTRIBUTION



2 Strategic context

CASE FOR CHANGE

The development of this plan has allowed stakeholders to step back and take stock of the values of Lake Wallace and decide what investment is needed to capitalise on its built, natural and cultural assets.

Planning for this project began in 2015 when issues were identified during local consultation. It was decided that the opportunities to enhance community use and development of the lake and surrounding landscapes needed to be communicated into a plan.

While the COVID-19 pandemic has had a negative impact on visitors to Edenhope because of restrictions on travel and events there could be more positive longer term impacts, resulting from increased demand for rural living and township properties. This 'tree-changing' trend could provide new opportunities for Edenhope.

Strategic responses and actions to address the lake issues have been developed for this strategic plan. These have been prioritised in the plan and project ideas developed to maximise what Lake Wallace has to offer.

LAKE WALLACE ASSETS

Lake Wallace is the lifeblood of Edenhope and at its highest water level covers a majestic expanse of water over five metres deep. It's been a popular recreation destination for a very long time. Its catchment area covers approximately 80km² extending from the south and southeast of Edenhope² with the land use predominantly livestock grazing with some broadacre cropping.

Back Swamp and Lions Park drainage depression act as a biofilter of inflows to Lake Wallace and help to maintain water quality and the ecological and recreation use values of the lake. They provide habitat for threatened plant and animal species and migratory birds species and linkages with other important wetlands.

The lake is host to an extensive range of passive and more active recreation activities for locals and visitors. It's of vital importance to the township of Edenhope with an estimated direct economic contribution from visitors in the order of \$1million in 2018–19³.

CHALLENGES

Reduced inflows over recent decades have led to lower lake levels experienced over longer periods when the lakebed dried out completely during the Millennium drought. The lake stayed dry until there were some inflows during the summer of 2010–11 and again, more significant inflows during 2016 and 2017, refilling to 4.2 metres depth. Water quality issues in Lake Wallace have included algal blooms, variable salinity levels, and at times, nutrient (phosphorus) and sediment rich water entering from the catchment⁴.

Excessive aquatic plant growth in the lake has caused concern at various times and has needed control in the past (from 1970s). More recently, extreme levels of plant growth has restricted boat access as water levels have receded. Appropriate management interventions for targeted plant removal in locations that will restore access are currently being investigated ⁵.

THE FUTURE

This plan is about protecting existing values and identifying changes in the short term to improve amenity, access and enjoyment of the lake and identifying and planning the longer term investments needed to secure the future of the lake as a magnificent asset for the West Wimmera communities and visitors. The plan explores opportunities for enhancing the values and uses of the lake according to water level, upgrading ageing infrastructure and township development, and advocating for a piped water supply to the lake.

² Lake Wallace Catchment Management Plan, 2002, prepared by Wimmera CMA, West Wimmera SC and agency and community stakeholders.

³ Street, Ryan 2019, Wimmera Southern Mallee: Socio-economic value of recreational and environmental water, report prepared for the WDA.

⁴ These management issues are discussed further in Section 2

⁵ Aquatic Technologies, 2021, Lake Wallace Lake Management Observations, report prepared for West Wimmera Shire Council

3 Values and uses of Lake Wallace

OVERVIEW

This section of the plan highlights what the process of developing the plan has discovered about Lake Wallace. The process has involved quite intensive community consultation (survey, a public gathering, meetings and workshop) and a close look at available literature and previous work that has provided the basis for developing the plan.

The strategic plan has identified the important values and attributes of Lake Wallace.

The values of the lake and its surrounds include:

- 1. **Environment** intact habitat areas for native plants and animals
- 2. **Township liveability** township views and ambience
- 3. Lake levels and water supply optimised for a range of uses
- 4. Recreation for locals and visitors
- 5. Tourism diverse visitor experiences
- 6. Cultural heritage Aboriginal cultural heritage and European settlement history.

The built assets or facilities on the foreshore and access to the lake, via vehicle or foot, provide social mobility and support the enjoyment of these values.

The values and uses of the lake are well integrated. Recreation uses in particular, are managed with the lake's environmental and other values in mind.

The geography of Lake Wallace and its proximity to the township of Edenhope is shown in Figure 3-1.

Some of the key attributes of the lake are:

- Western and southern aspects: supports township development
- Northern aspect: is a haven for migratory birds visiting lake, foreshore areas have a high degree of naturalness, have significant Aboriginal cultural heritage values and supports passive recreation (picnic area, bird watching, walking/cycling)
- South-eastern aspect: most active areas where recreation, community events and celebrations are focused; key features include Henley Park, Lions Park, playground, public amenities, a number of sporting facilities, caravan park, swimming zone and sandy beach
- 5.5 km perimeter walking track: a key amenity feature
- Boat access: three boat ramps
- Back Swamp: a key flood retention and bio-filtration wetland protecting Lake Wallace.

The plan has established principles for maintaining lake uses at different lake levels and identified how lake uses and the relative importance of lake values change (in response to water levels). Safe lake levels for types of recreational uses have also been established.



Figure 3-1: Lake Wallace and Edenhope township overview

LAKE WALLACE VALUES AND MANAGEMENT ISSUES

The following section provides the findings of a review of literature on Lake Wallace and highlights management issues that are affecting the values of the lake and its surrounds.

VALUE 1 ENVIRONMENT

Lake Wallace is a shallow freshwater lake filled by catchment and stormwater runoff, the majority via a constructed drain through Back Swamp wetland. Both ecosystems are part of a network of 2,000 wetlands in the southwest Wimmera. They provide value as wildlife refuge and migratory bird habitat.



Environmental values and management issues:

Conservation status

- Lake Wallace has high environmental value
- It has a bio-conservation status "D" i.e. depleted, which means that greater than 30% and up to 50% of the area's pre-European extent of this community remains intact. The ecological vegetation class (EVC) is 636 Brackish Lake Aggregate, and is rated as having a 'rare' geographical occurrence⁶.
- Lake Wallace has variable water levels leading to a changing riparian zone that supports aquatic and terrestrial vegetation around the lake margin
- Lake Wallace, Back Swamp and associated drainage depressions provide refuge for rare and threatened plants and animals, and migratory and other bird habitat:
 - The aquatic vegetation provides both habitat and a food source for fish and other aquatic animals that inhabit the lake and is a medium for absorption of nutrients in the water and (to some extent) facilitates the mitigation of algal blooms. The three most abundant aquatic plants identified in the lake during November 2021 were Ribbonweed (*Vallisneria sp.*), Tall Spikerush (*Eleocharis shacelata*) and Water Ribbons (*Triglochin procerum*)⁷
 - There are several known Growling Grass Frog habitat areas around the lake, at Back Swamp and Lions Park⁸ and there are multiple Brolga nesting sites
 - Migratory birds also include Latham's Snipe (protected under the international JAMBA agreement)
 - Also linkages with other important wetlands including Bool Lagoon, Ratzcastle, Charlegark.
- Hydrology and salinity
 - Early land management activities in the catchment area were focused on draining land for agricultural use and this meant higher inflows to Lake Wallace. Council constructed drains in the 1940s that enhanced the connectivity of two large swamps into the main drainage line entering the lake; further deepening and extending of drains was reported in 1960s.
 - The majority of water entering Lake Wallace is from catchment flows via Back Swamp
 - Back Swamp is a highly modified deep freshwater marsh (23 ha in size) that receives catchment runoff and stormwater runoff from Edenhope. A key role of this wetland is acting as a natural biofilter that reduces turbidity and nutrient loads into Lake Wallace.

⁶ Frood and Papas, 2016 A guide to water regime, salinity ranges and bioregional conservation status of Victorian wetland and Ecological Vegetation Classes, Arthur Rylah Institute for Environmental Research. Technical Report Series NO. 266

⁷ Aquatic Technologies, 2021, Lake Wallace Lake Management Observations, report prepared for West Wimmera Shire Council

⁸ Mitigation measures are outlined in Rakali Ecological Consulting, 2018, Significant impact assessment for the Growling Grass Frog (*Litoria raniformis*) at Lake Wallace and Back Swamp, Edenhope.

- Township stormwater runoff enters the lake untreated and impacts its water quality
- Modelled annual salt load imported into Lake Wallace is estimated at 33 tonnes/yr (assuming 6.5 ML of groundwater base flow entering lake @ 8,000 EC salinity concentration). While the mass of salt load is unlikely to change materially in future, any reductions in surface water flows could increase the water salinity in Lake Wallace over time⁹
- An earlier analysis of bore hydrographs in the study area (in 2004) showed a falling trend since 1995 attributed to low seasonal rainfall and drying of Lake Wallace during the Millennium drought¹⁰ (no current information on groundwater trends was made available)
- Despite several wet periods since it is likely that this overall falling trend is continuing. If the trend of below average winter rainfall continues to lead to a reduction in annual streamflow volumes; this could affect water salinity levels in the lake (depending on water table trends) and cause environmental damage.

Climate change impacts on catchment and lake hydrology

- Recent modelling of climate change scenarios has shown the most likely consequence of climate change is decreased water levels in Lake Wallace for longer periods and fewer spill events i.e. reducing from a modelled 32 spills (historically) to between 24 and 9 over the next 112 years¹¹. Spill patterns at Lake Wallace based on community records and reported in several different studies are shown in Appendix 2
- A previous study¹² concluded that four years of above average rainfall is required to cause an overflow or spill at Lake Wallace, assuming an estimated lake volume of 10.6 GL¹³ (noting that the updated volume ratings table figure is 8.3 GL to spill, Appendix 3)
- Measured annual streamflow volumes in a neighbouring catchment (Morambro Creek draining into SA with its headwaters in the West Wimmera) from 1979 to 2015 indicates a long term declining trend, with less years of above average streamflow compared with the preceding two decades, correlating with rainfall patterns¹⁴
- Future management actions will need to take expected lower inflows into account.

VALUE 2 TOWNSHIP LIVEABILITY

The lake is the lifeblood of Edenhope providing magnificent views and ambience, for locals and visitors alike. The lake and its connection with the township are paramount and there is opportunity to strengthen access and connectedness.



Township liveability values and management issues:

- Vegetation management
 - Variable seasonal conditions and water levels lead to maintenance challenges including abundant fairy grass growth at Back Swamp (blowing onto streets) and regenerating *Eucalyptus camaldulensis* (River Red Gum) at the lake edge. Aquatic plant growth (mainly Ribbonweed and Water Ribbons) affects boat access, fishing and amenity

⁹ Hocking, 2007 Landuse and surface water in the Lake Wallace and Mosquito Creek Catchments – South West Wimmera, prepared for the Wimmera CMA

¹⁰ Hocking & Dyson & Assoc. 2004 Landuse scenario modelling of the Victorian Millicent Coast (West Wimmera)

¹¹ Water Technology 2019 Wimmera wetland hydrology investigation: Final report prepared for the Wimmera CMA.

¹² DPI 2005, Fawcett and Huggins, Preliminary assessment of water balance model for Lake Wallace, Edenhope.

According to modelled inflows of 2.4GL/year, 1996 is considered an "average" year

¹⁴ DEWNR SA, 2016 Morambro Creek and Nyroca Channel PWCs and Morambro Creek PWA surface water report, Department of Environment, Water and Natural Resources, SA.

- Existing mature River Red Gum is valuable habitat and highly valued by the community around the perimeter of the lake
- Annual maintenance schedules need to be responsive to fluctuations in water levels.

Maintenance and upgrade

- Some new facilities have been recently established at Lake Wallace, in particular at Henley Park
- Other assets such as footpaths, signage and seating along the foreshore need upgrade or repair and this will improve accessibility and connection between the lake and the township

Water quality

- Recent water testing (samples taken 26/11/21) indicated high levels of Nitrogen and Phosphorous, and low dissolved oxygen in Lake Wallace, which is conducive for aquatic plant growth (Vallisneria) over algae dominated growth or blooms.¹⁵ There is limited data and evidence of trends in these indicators of water quality¹⁶
- Monitoring for risk of blue-green algae blooms is performed by GWMWater:
 - blue-green algae outbreaks occurred causing the lake to close in 2018 (April to May and November) and 2019 (October to November)
 - the lake was closed for five months from March to August 2021.

VALUE 3 LAKE LEVELS AND WATER SUPPLY

Lake Wallace completely dried during the Millennium drought (from 2002) and this greatly affected the town's identity and morale of its residents. A plan that will optimise lake levels and water supply to facilitate all uses is an important goal for the community.



Lake levels, water supply and management issues:

Trend in water levels and outlook

- The lake is the central focus of several major annual events that bring many visitors to the town (Henley on Lake Wallace, Edenhope Fishing Competition, for example) so the drying of the lake (during the Millennium drought) meant the town suffered greatly and these events were not held for many years.
- There is a high level of community enthusiasm for doing all that is feasible to restore previously experienced water levels in the lake. The options are to increase drainage inflows through interventions up catchment or bring water to the lake by pipeline. Interest in a pipeline has grown with the knowledge of the advantages that restoring water has provided in other regional towns supplied by the stock and domestic water network managed by GWMWater.
- Given the climate change outlook there is a strong community aspiration to offset the prevailing and projected reductions in inflows by bringing supplementary water to Lake Wallace via a pipeline. This is its own project and a technical feasibility study and business case was commissioned by GWMWater in 2018.¹⁷
- The technical feasibility study was focussed on constructing a pipeline to provide a more reliable rural water supply system to the West Wimmera region (stock and domestic for farms and townships). It provided a concept design that included an option to bring supplementary water to

¹⁵ Aquatic Technologies, 2021, Lake Wallace Lake Management Observations, report prepared for West Wimmera Shire Council

¹⁶ Data on water quality trends that would establish a water quality baseline is scarce

¹⁷ RMCG, W3Plus 2018, West Wimmera Rural Water Supply Technical Feasibility; GWMWater 2018, West Wimmera Rural Water Supply Business Case, submitted to the Minister for Water October 2018.

Lake Wallace. Several annual water volume options ranging between 500 and 1,200ML were considered. For the business case the incremental capital cost to supply up to 1,200ML was estimated to be \$8M. The purchase of growth water was assumed to be a further \$3M and there would be additional annual delivery/pumping costs.

- A supplementary supply would not aim to maintain a full lake but to reduce the frequency of the lake drying out. An earlier water balance study¹⁸ indicated that to maintain a steady level in the lake at 153.3m (or two metres depth) in a very dry year could require more than 2,000ML of supplementary water to account for primarily evaporation losses. However, the community advised that 1,000ML would be adequate in most years to counter these losses and avoid drying out (in conjunction with catchment runoff and direct rainfall into the lake).
- The technical feasibility study concluded that a full hydrologic study would need to be undertaken to determine the "top-up" water requirement with more certainty. An updated water storage volume ratings table was developed for Lake Wallace in March 2021¹⁹. These figures provide estimates on water volumes at different lake levels and surface areas (Appendix 3).
- Next steps
 - The strategic plan recognises that some of the technical aspects of providing supplementary water to Lake Wallace via a pipeline need to be resolved and that a business case is currently with DELWP for consideration.

VALUE 4 RECREATION

The recreation opportunities borne from the lake are vast and include major community events boating, fishing (annual competition), walking, riding, swimming and gathering for picnics and BBQs.



Recreation values and management issues:

Priority waterway

- Lake Wallace is identified in Wimmera Waterway Strategy²⁰ as a priority waterway due to its high social and economic values
- The variation in lake levels is important to reflect natural conditions for maintaining interconnected environmental values
- Passive or low impact activities
 - The most frequent lake uses are walking, bike riding, picnics and gatherings of family and friends
 - Other low impact activities are bird watching, canoeing, kayaking and swimming
- Fishing
 - Lake Wallace contains (small bodied) native and introduced fish species, including trout, redfin and perch. The lake has abundant habitat for fish and since the lake refilled in late 2016 Fisheries
 Victoria began restocking with fingerlings of Brown Trout (~11,000) and Rainbow Trout (~21,000)
 - Lake Wallace is a good Salmonid (Trout) water particularly after periods of drying and restocking.
 It's reasonable for fly fishing and capable of supporting heavier fishing pressure. The annual fishing competition draws large numbers of visitors to Edenhope

¹⁸ DPI 2005, Fawcett and Huggins, Preliminary assessment of water balance model for Lake Wallace, Edenhope.

¹⁹ Austral Research & Consulting, Lake Wallace Ratings Table, March 2021.

²⁰ Wimmera CMA, 2014, Wimmera Waterway Strategy 2014 - 2022

- The warmer months between Nov-April are the peak season for fishing when native fish are more active, and the weather is more attractive to anglers. Trout encourages fishing during winter
- Fishing is currently constrained to land based activity because the extensive growth of aquatic plants is hindering angler's ability to launch motorboats
- After periods of drying Lake Wallace also produces runs of yabbies
- Boating
 - Boating goes hand-in-hand with fishing, skiing and sailing on the lake. Zoning is important to manage safety risks arising with power boats and other vessels to assist compliance with boating rules. For example, only part of the lake is used for high speed activities and the western side is reserved for low speed boating and conservation
 - There are three boat ramps on the lake and launching requires a minimum depth of 2.2 m. Current
 infrastructure (fixed buoys, boat ramps) can't always accommodate low lake levels and ramps need
 redesigning and extending for boats to access lake at lower depths e.g. down to 1.2m.
 - Aquatic plant growth can also impact boating access to the lake
 - As lake levels recede, with lower water depths aquatic vegetation (in particular, Ribbonweed and Water Ribbons) begins to impact on accessibility for motorboats and in the shallower margins of the lake, fishing (particularly with lures from the bank or boat) can also be challenging
 - A chequerboard selective harvesting approach to managing aquatic vegetation to improve accessibility to the lake is being investigated. A 2021 consultant's report²¹ concluded that future aquatic harvesting should be confined to 10 to 20% of the lake area so as not to tip the aquatic plant growth balance to an algae dominated state.
- Health and liveability
 - Implementation of the plan will contribute to Council's health and liveability objectives (Municipal Health and Wellbeing Plan within the Council Plan) by increasing accessibility to and enjoyment of the lake reserve (walking track, outside exercise equipment, other foreshore reserve amenities and facilities) and nearby tennis and bowling club facilities.

VALUE 5 TOURISM

Lake Wallace is a major drawcard for tourists to Edenhope for both passive and active recreation. Spending by tourists is linked to water levels, particularly boating access for fishing, and the number of available activities. COVID-19 travel restrictions had a significant negative impact on visitor spend.

Tourism values and management issues:

- Lake Wallace brings visitors to Edenhope
 - Recreational water in West Wimmera makes a tremendous contribution to the regional economy; in 2018-19 this was estimated to be almost \$ 4 million and a further estimated \$200,000 in physical and mental health benefits (with Lake Wallace the largest contributor)
 - Recent events have had a severe and negative impact on the number of visitors to Edenhope and Lake Wallace i.e. a loss of two thirds of the visitation and an estimated 80 per cent decline in expenditure. Estimated Annual physical and mental health benefits to country Victorian users of

²¹ Aquatic Technologies, 2022, Lake Wallace lake management observations, report prepared for West Wimmera Shire Council

recreation lakes in the WWSC were estimated to be a further \$200,000 (with Lake Wallace the largest contributor)²²

 An increase in the diversity of activities will attract more visitors and attractions are needed to encourage visitors to stay longer and increase their spending, for example, the lake has high appeal to the bird watching community.

VALUE 6 CULTURAL HERITAGE

Lake Wallace has high cultural heritage values yet many culturally significant sites are not well documented. Water in the landscape has great significance to First Nations people and there is also a rich more recent European history of use of the lake and surrounds.



Cultural heritage values and management issues:

Heritage values are not well understood

- Traditional Owners include family groups Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk in Victoria and from Millicent Coast in South Australia
- Barengi Gadjin Land Council have identified and mapped some sites around the lake and it is expected that the lake and associated wetland areas would contain many more significant sites
- While indigenous culture is evident by the large number of relics on the Wimmera Plains locally, culturally significant sites around the lake are not yet documented. The Aboriginal name for Lake Wallace is reported as 'Connadoyan' in two published sources²³ and this should be confirmed during the research phase when developing a Cultural Heritage Management Plan (CHMP) for the lake and Back Swamp
- The development of a CHMP is a recognised priority by the community that will help raise awareness and inform foreshore maintenance plans in future. It is expected that the commissioning of a CHMP will require external funding and can be a 12-month process
- Lake Wallace was named after William Wallace, the first European visitor in 1843, and later occupied by the Hope Bros, operating Lake Wallace Station, some 50,000 ha
- The first XI Australian cricket team to tour England was an Aboriginal team in 1868, many were station workers who met formally and trained on the banks of the lake. The lake provides a place for reunions of subsequent tours.

²² Street, Ryan, 2019, Wimmera Southern Mallee Socio-economic value of recreational and environmental water

²³ Smyth, R.B., 1878. The Aborigines of Victoria, Melbourne, Victoria; Curr, E.M., 1886-7. The Australian Race: its origin, languages, customs, place of landing in Australia and the routes by which it spread itself over that continent, Melbourne, Victoria

PRINCIPLES FOR MANAGING LAKE USES AT DIFFERENT LAKE LEVELS

Historically, low lake levels were experienced infrequently. During and since the Millennium drought inflows to the lake have reduced and lake depths are shallower for longer. Without intervention this trend is expected to continue²⁴.

A recent study²⁵ was commissioned by GWMWater to review and align existing bathymetry and Lidar data for Lake Wallace. The outputs of the study included a volume ratings table for Lake Wallace that provides revised lake floor elevations and estimates of water volumes and surface area at lake level intervals. The data was provided in 0.05m increments and is shown in Appendix 3. The results for three lake levels: low, mid and high are summarised in Table 3-1. A relative representation of these lake levels is illustrated in Figure 3-2.

WATER LEVEL	% FULL	DEPTH (M)	LEVEL (AHD)	VOLUME BELOW (ML)	SURFACE AREA (HA)
Functionally empty	0 – 9%	< 0.5	< 151.75	< 180	< 67
Low	10–19%	0.5–1.2	152.5	608	99
Mid	20–49%	1.2–2.5	153.75	2,817	175
High	50–95%	2.5–5	156.25	7,733	213

 Table 3-1: Lake Wallace volume ratings table outputs for three water levels



Figure 3-2: Schematic view: three lake levels (low, mid and high)

²⁴ Water Technology 2019 Wimmera wetland hydrology investigation: Final report prepared for the Wimmera CMA including further anecdotal and historical records of lake levels; there is no complete data set available.

²⁵ Austral Research & Consulting, Lake Wallace Ratings Table, March 2021.

The plan has established principles for maintaining lake uses at different lake levels. The intention being to protect existing values at different levels and maximise sustainable use. These principles are outlined in Table 3-2.

MANAGEMENT ISSUE	GENERAL PRINCIPLE	LOWER WATER LEVELS	HIGHER WATER LEVELS
Foreshore maintenance Vegetation control	 Foreshore vegetation management should be undertaken to reduce the risk of injury or illness (as a priority) and improve amenity Foreshore vegetation management should consider environmental protection principles (below). 	For safety and amenity purposes additional management of grass cover, aquatic plant growth and perimeter river redgum regeneration may be required e.g. mowing foreshore, cutting aquatic plants. Repositioning of buoys as water recedes	Less maintenance of foreshore vegetation may be required. Monitoring aquatic plant growth. Attention to safety near drains (signposted, fenced as needed)
Facilities maintenance Lake users	 Existing infrastructure at Lake Wallace should be maintained to a safe and useable standard to maximise the benefits of previous investments Priority should be given to new works or maintenance works that increase the accessibility of the Lake for all abilities Facilities at the Lake should be kept safe at all times (and all lake water levels) Future investments in visitor facilities should demonstrate how it will enhance visitor experience and be at sustainable use levels. 	Additional safety measures needed at pier and boat ramps.	Additional maintenance of facilities when usage of the lake increases.
Environmental and cultural heritage protection	 Precautionary principle should be used when making decisions about substantial upgrade of built assets Management decisions must be underpinned by the best available knowledge and data at the time and consider the objectives of water policy and waterway management programs Vegetation management works should at all times consider environmental values (breeding habitat, threatened species, water quality) and avoid any negative impacts on the environment Works should be undertaken flexibly in response to seasonal conditions Environmental or infrastructure works must consider whether a Cultural Heritage Management Plan applies to assess the potential impact of that activity on Aboriginal cultural heritage. 	More attention to environmental protection: e.g. brolga nesting sites and growling grass frog habitat preservation (refer to Growling Grass Frog Management Plan). Management actions to control vegetation along foreshore when water levels are low need to consider impacts on protected wildlife. Predator control. Pest plants and animal control	More attention on: recreational uses of the lake and potential for damage.

	Table 3-2: Princi	ples to maximise	sustainable use at	different water levels
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Recreation-based lake uses and tourism values increase after the lake refills and when with water levels are sufficient for boating activities. As lake levels become shallower, recreation uses are reduced however environmental values remain high even at low water levels.

The change in lake uses and relative importance of lake values, in response to water levels, is illustrated in Figure 3-3.

FUNCTIONALLY EMPTY	VALUES	LAKE USES
	Recreation Tourism Township liveability	 ★ Walking perimeter track ★ Picnics & BBQs ☑ Dry lake bed events (cultural activities, lake bed walks, star gazing, dry boat regatta, lake bed cricket)
	Lake levels and water supply Environment Cultural Heritage	 Arboreal mammals nesting in hollows
OW WATER LEVEL	VALUES	LAKE USES
	Recreation Tourism Township liveability	 ★ Walking perimeter track ★ Picnics & BBQs 2* Bird watching <i>≠i</i> Fishing (on-land & motor boat)
	Lake levels and water supply Environment Cultural Heritage	 Waterbird nesting & breeding Aquatic plants Macroinvertebrate habitat Growling grass frog habitat Arboreal mammals nesting in hollows
MID WATER LEVEL	VALUES	LAKE USES
	Recreation Tourism Township liveability	 Walking perimeter track Pionics & BBQs Bird watching Swiminng Yabbying Fishing (on-land & motor boat) Canoeing & rowing Sailing On-water competitions and events Festivals and other events
	Lake levels and water supply Environment Cultural Heritage	 Waterbird nesting & breeding Aquatic plants Macroinvertebrate habitat Growling grass frog habitat Arboreal mammals nesting in hollows
HIGH WATER LEVEL	VALUES	LAKE USES
	Recreation Tourism Township liveability	 ★ Walking perimeter track A Picnics & BBQs ⇒ Bird watching ⇒ Swimimng ⇒ Yabbying ≠ Fishing (on-land & motor boat) ⇒ Canceing & rowing ▲ Sailing = On-water competitions and events ¬ Festivals and other events
	Lake levels and water supply Environment Cultural Heritage	 Aquatic plants Macroinvertebrate habitat Growling grass frog habitat Arboreal mammals nesting in hollows

Figure 3-3: Lake Wallace values at different water levels

4 Strategic direction

PLAN OVERVIEW

This plan is about bringing clarity to decision making on the use and development of Lake Wallace. The plan sets strategic direction on current and future opportunities to make the most of Lake Wallace, a unique natural asset for the Edenhope community. The plan has identified how to diversify and increase use of the lake and at the same time, protect and enhance its natural and cultural assets. The strategic foundations of the plan are illustrated in Figure 4-1. An overarching goal was identified by the community and agency stakeholders that would preserve six central values of Lake Wallace.



Figure 4-1: Lake Wallace Strategic Plan

PARTNERSHIPS

This plan aims to increase communication and cooperation between agencies, stakeholder groups and the community to protect and enhance the values and unique attributes of Lake Wallace. This will be done through effective partnerships.

Stronger partnerships will mean:

- A streamlined approach to inviting input and exchange of ideas on the management of the lake through Council's Innovation Platform
- Better communication on decisions affecting the facilities around the lake
- More clarity on agency roles and responsibilities.

PLAN OUTCOMES

The outcomes from implementing the plan will contribute to regional economic growth and the future prosperity of Edenhope and surrounding West Wimmera communities. Underlying this, the protection and promotion of the lake will serve as an important driver for community development; growing Edenhope's identity and connection that residents have to their community.

The strategic plan logic is shown in Figure 4-2 and provides a visual representation of how the overall vision of the plan can be realised.

39 actions have been identified and when implemented, will contribute to meeting the objectives under each of six value based goals:

- 19 actions are to be completed within two years
- 20 actions are longer term partnership investments over the next eight years.

The following section identifies important actions under each value, specifically noting what actions Council will undertake, what actions project partners will undertake and what actions can be supported by the community.



Figure 4-2: Strategic plan logic

1. ENVIRONMENT

Long term goal:

A healthy lake environment.

Objectives:

- 1. Optimise catchment and drainage inflows to protect water quality
- 2. Protect ecological values in and surrounding Lake Wallace
- 3. Manage pest plants and animals in the reserve

Indicators of progress:

- University research or supported citizen science project
- Maintain water quality by 2032 (from baseline level)

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

Subject to funding, Council will:	Council's partners will:	Community can support by:
 1.1 Advocate to DELWP to undertake a Back Swamp flood study to inform any future changes in management that will optimise inflows and improve water quality in Lake Wallace. 2.1 Advocate to and partner with DELWP, to establish a trail linking Back Swamp, Lions Park and Lake Wallace. 2.2 Support community projects to restore swamp area by planting native plant species and increased attention to maintenance and landscaping. 2.3 Adopt recommendations from Back Swamp flood study (Action 1.1) 2.4 Advocate for funding to undertake an ecological study on migratory bird and Growling Grass Frog habitat to understand what management techniques need to occur to protect and preserve these species. 2.5 Apply for/advocate for funding to prepare a maintenance plan that identifies known areas of Growling Grass Frog habitat and outlines mitigation measures to avoid damage to their habitat²⁶. 3.1 Prepare a yearly plan to manage pest plants and animals in the foreshore reserves of Lake Wallace and Lions Park. Advocate and partner with DELWP to manage pest plants and animals in Back Swamp. 	 Support submissions for funding for hydrological and ecological studies Support submissions for funding for linking trails and landscaping improvements Oversee landscaping improvements at Back Swamp (primarily DELWP) Support preparation of a yearly plan to control pest plants and animals in foreshore reserve areas Establish research opportunities for measuring and monitoring ecological values with universities Support citizen science projects for the protection of biodiversity and threatened species. 	 Working in partnership with agencies and community based groups e.g. Friends of Lake Wallace, Landcare, to enhance biodiversity in and around the lake and Back Swamp Provide local knowledge input to interpretative signage for trails Promote educational materials through community groups including Edenhope Tourism.

²⁶ Mitigation measures are outlined in Rakali Ecological Consulting, 2018, Significant impact assessment for the Growling Grass Frog (*Litoria raniformis*) at Lake Wallace and Back Swamp, Edenhope.

2. TOWNSHIP LIVEABILITY

Long term goal:

Strengthened connection between Lake Wallace and Edenhope township.

Objectives:

- 4. Construct and maintain amenities and infrastructure
- 5. Improve accessibility of the lake and its connection with other community assets
- 6. Enhance the visual aesthetic of the lake and surrounds

Indicators of progress:

- 10% increase in local visitation within 5 years
- Improved local's satisfaction
- Both based on benchmarks set in Street Ryan surveys

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

Subject to funding, Council will:	Council's partners will:	Community can support by:
 4.1 Construct and seal remaining section of perimeter track (subject to completion of action 5.1). 4.2 Upgrade picnic ground (near overflow) beside Lake Wallace overflow e.g. improved seating and bins. 4.3 Adopt approved maintenance schedule covering management of facilities and grounds (on-going/recurrent for safety, amenity and access). 5.1 Complete arrangements to secure easement on the eastern side of lake to complete perimeter track (complete prior to action 4.1). 5.2 Advocate and partner with DELWP to establish accessible links (footpaths/trail) connecting Back Swamp, Lions Park and Lake Wallace. 5.3 Improve signage that will connect and direct visitors to Lake Wallace, the town centre, services, accommodation and other points of interest. 6.1 Adopt place based planning to enhance amenity of foreshore areas and surrounds (e.g. Henley Park Plan, playground strategy). 	 Assist Council with resolving land tenure issue (DELWP) to complete perimeter track Assist Council with meeting approvals processes for projects. 	 Hosting and supporting community events at the lake Organising "working bees" to improve foreshore and surrounds e.g. collect rubbish, selective revegetation and targeted weed control.

3. LAKE LEVEL AND WATER SUPPLY

Long term goal:

Optimised lake levels and water supply to facilitate all uses

Objectives:

- 7. Pursue options to maintain water levels and a secure water supply
- 8. Targeted control of aquatic plants for safe and appropriate water access

Indicators of progress:

- Positive DELWP response to business case for a piped supply
- Increased boat access to lake

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

Subject to funding, Council will:	Council's partners will:	Community can support by:
7.1 Advocate for piped water supply to Lake Wallace and Edenhope (recreation, environment, cultural purposes).	 Work in partnership with Wimmera CMA, GWMWater, DELWP to advocate for a piped supply Provide support for 	 Working in partnership with agencies and community based groups
2 Advocate for research (socio-economic npacts of low lake levels, climate, inflows) to upport a business case for a piped supply.		to advocate for a piped supply.
8.1 Consider a targeted program of cutting aquatic plants to enable access to the lake for boats, onshore fishing and swimming (in accordance with a new aquatic plants maintenance plan).	continued research and data collection to support business case.	

4. RECREATION

Long term goal:

Safer and more diverse recreation uses at Lake Wallace

Objectives:

- 9. Provide and maintain infrastructure to support all uses at different water levels
- 10. Maximise accessibility for all lake uses
- 11. Improve safety on the water and in foreshore areas
- 12. Increased usage of lake and foreshore for recreation

Indicators of progress:

- 10% increase in usage level and increase in types of uses by 2032
- Increase in types of uses by 2032
- Based on benchmarks set in 2020 community survey (for plan) and Street Ryan surveys

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

ACTIONS

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Subject to funding, Council will:	Council's partners will:	Community can support by:
 9.1 Encourage community groups to have input to identifying infrastructure needs and new projects via Council's Innovation Platform (ongoing). 9.2 Procure a new floating pontoon (swimming). 9.3 Investigate options to upgrade/extend existing boat ramps to provide better access to the lake at different water levels. 10.1 Develop tender specifications for upgrading jetty to increase safety when water levels are low. 10.2 Investigate options for a new fishing pontoon with walkway to shore. 11.1 Improve pedestrian safety linking Elizabeth Street, Lake Street, Henley Park and the lake foreshore. 11.2 Review safety measures at playground in Henley Park in accordance with Council's Playground Strategy. 11.3 Review zoning and maritime rules pertaining to the recreation uses on the lake. 11.4. Install new and consistent signage (zoning, directions, water level, emergency information) and buoys on the water. 12.1 Upgrade sandy beach swimming area (sand, accessible seating, shade). 12.2 Upgrade bird hide, to improve usability, safety and interpretative signage. 	 Support submissions for funding for new lake foreshore infrastructure Directly support implementation of infrastructure projects, including approvals Provide in-kind and direct support to priority infrastructure projects Lead a review of zoning and maritime rules pertaining to the recreation uses of the lake e.g. Vessel Operating Zoning Rules (Maritime Safety Victoria, DELWP, GWMW, Fisheries Vic) Incorporate strategic actions into their recreational water plans (GWMWater). 	 Providing input to the implementation of the plan via Council's Innovation Platform Continuing to plan and host events e.g. fishing completions, boating activities, foreshore activities, markets.

5. TOURISM

Long term goal:

Lake Wallace is recognised as a popular tourist destination.

Objectives:

- 13. Improve the quality of tourist experiences
- 14. Attract more visitors to Lake Wallace (Edenhope) staying longer
- 15. Increase the average spend per visit by tourists

Indicators of progress:

- 10% increase in visitors 5 years (from 2018-19 levels)
- 20% increase in visitors in 10 years
- Improved visitor satisfaction (from baseline)

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

Subject to funding, Council will:	Council's partners will:	Community can support by:
 13.1 Identify a theme and design for interpretative signage. 13.2 Construct durable signage at points of interest e.g. linking Back Swamp, to Lions Park to Lake Wallace to showcase unique wildlife and cultural heritage stories. 13.3 Provide suitable promotion materials/media for visitors e.g. Aboriginal cricket team story. 14.1 Review options for free camping activities; trial preferred model on northern side of lake. 14.2 Review design options to increase caravan park accommodation capacity. 14.3 Support projects to upgrade caravan park (private and Council facilities). 14.4 Increase online profile of Lake Wallace to enhance marketing of the lake as a destination. 15.1 Review Council local laws and consider how to accommodate mobile food vendors with crown land manager consent process. 	 Provide guidance and support to securing necessary approvals to allow expanded accommodation options around the lake (if deemed feasible) Assist with interpretation of data on potential lake users (local, regional, interstate visitors) and support ideas to attract visitors Collaborate with Wimmera Mallee Tourism to identify how to increase visitors and their spend through improved services in Edenhope e.g. link with silo art trail project, Edenhope's bird art Provide factual information and other resources to assist development of interpretative signage targeted towards visitors Provide updates for Lake Wallace information web links and social media Support the development of interpretative signage to showcase unique wildlife and cultural heritage stories. 	 Local small businesses and community groups continuing to host or contribute to events at the lake Provide updates to Lake Wallace information web links and social media Continuing to provide volunteer resources to assist attracting more visitors to the town Working with neighbouring towns and councils to establish tourist trails to attract visitors.

6. CULTURAL HERITAGE

Long term goal:

Cultural heritage values are recognised and protected

Objectives:

- 16. Identify and protect Aboriginal cultural heritage values around the lake
- 17. Identify and protect sites of European cultural significance

Indicators of progress:

• CHMP developed by 2025.

Planned actions are colour coded as:

- Short term/high priority actions to be completed over the next two years
- Longer term investments over the next eight years.

Subject to funding, Council will:	Council's partners will:	Community can support by:
 16.1 Seek funding to resource the preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) for the lake. 16.2 Develop Aboriginal cultural heritage education materials for Lake Wallace. 17.1 Investigate (collect oral histories) and register historically significant sites around Lake Wallace and Edenhope e.g. First XI Aboriginal cricket team. 	 Work in partnership with and support Barengi Gadjin Land Council to have input to the development of a CHMP Include Wimmera CMA, GWMWater, DELWP, Fisheries Vic and Barengi Gadjin Land Council, Edenhope Tourism. 	 Working in partnership with agencies and community based groups e.g. Friends of Lake Wallace, Landcare Provide local knowledge input to interpretative signage Promote educational materials through community groups including Edenhope Tourism.

5 **Priority investments**

PRIORITY PROJECTS - NEXT TWO YEARS

The WWSC and partners, with help from the Edenhope community, have established a list of priority projects that will be completed during the first two years of the life of the plan (subject to funding availability). Targeted investment will refresh the facilities and surrounds of Lake Wallace and increase accessibility to the lake and useability of the foreshore areas. This investment also capitalises on current opportunities to attract new residents and visitors to Edenhope.

These eight priority projects (Table 5-1) will revitalise visitor experiences and locals' use of the lake over the next two years, 2022-23 to 2023-24.

Recommendation: That Council make an annual budget commitment to begin to implement the priority projects and leverage additional funding for the longer term investments (Table 5-3).

Table 5-1: Priority projects Years 1 to 2

#	PROJECT NAME	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE (NO.)	ACTIONS
1.	Aquatic plants (Ribbonweed, Water Ribbons) harvesting to enable boat access at ramps	Reduce plant growth to provide access for boats to increase community and visitor use of lake (~10% harvest).	8. Targeted control of aquatic plants for safe and appropriate water access	 8.1 Consider a targeted program of cutting aquatic plants to enable access to the lake for boats, onshore fishing and swimming (in accordance with a new aquatic plants maintenance plan) 4.3 Adopt approved maintenance schedule covering management of facilities and grounds (on-going/recurrent for safety, amenity and access)
2.	Business case progression for piped water supply (on-going)	Have a proactive plan in place to advocate for a piped supply. Build on existing evidence base with new research.	7. Pursue options to maintain water levels and secure water supply	 7.1 Advocate for piped water supply to Lake Wallace and Edenhope 7.2 Advocate for research (socio-economic impacts of low lake levels, climate, inflows) to support a business case for a piped supply.
3.	 Amenities and infrastructure upgrades: Scope the concept to extend main boat ramp (south east) Sealing (remaining) section of perimeter track Picnic ground near overflow Improved pedestrian safety at Henley Park 	Accessibility – Better access for boats at different lake heights – All weather walking track around lake. Upgraded facilities for passive recreation. Safer for families using park and foreshore.	 4. Construct and maintain amenities and infrastructure 5. Improve accessibility of the lake and its connection with other community assets 9. Provide and maintain infrastructure to support all uses at different water levels 10. Maximise accessibility for all lake uses 11. Improve safety on the water and in foreshore areas 12. Increased usage of lake and foreshore for recreation 	 9.3 Investigate options to upgrade/extend existing boat ramps to provide better access to the lake at different water levels. 4.1 Construct and seal remaining section of perimeter track (subject to completion of action 5.1) 5.1 Complete arrangements to secure easement on the eastern side of lake to complete perimeter track (complete prior to action 4.1) 6.1 Adopt place based planning to enhance amenity of foreshore areas and surrounds (e.g. Henley Park Plan, playground strategy) 11.1 Improve pedestrian safety linking Elizabeth Street, Lake Street, Henley Park and the lake foreshore 11.2 Review safety measures at playground strategy

#	PROJECT NAME	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE (NO.)	ACTIONS
4.	Establish theme and design for new signage	Interpretation of values. Refresh of ageing signs (amenity). Enhanced visitor access.	12. Improve the quality of tourist experiences	13.1 Identify a theme and design for interpretative signage.13.3 Provide suitable promotion materials/media for visitors e.g.Aboriginal cricket team story
5.	Review options for accommodating more visitors in lakeside area	Increased accommodation and food options.	 14. Attract more visitors to Lake Wallace (Edenhope) staying longer 15. Increase the average spend per visit by tourists 	 14.1 Review options for free camping activities; trial preferred model on northern side of lake 14.2 Review design options to increase caravan park accommodation capacity 15.1 Review Council local laws and consider how to accommodate mobile food vendors with crown land manager consent process
6.	Native species protection - Growling Grass Frog and migratory bird habitat	Protection of threatened species.	2. Improve the ecology and water quality in Lake Wallace	2.4 Advocate for funding to undertake an ecological study on migratory bird and Growling Grass Frog habitat to understand what management techniques need to occur to protect and preserve these species.
7.	Pest plant and animal management on foreshore. Advocate and partner with DELWP for pest plant and animal management for Back Swamp	Reduced nuisance and increased habitat for native species.	3. Manage pest plants and animals in the reserve	3.1 Prepare a yearly plan to manage pest plants and animals in the foreshore reserves of Lake Wallace, Back Swamp and Lions Park
8.	Cultural heritage tourism project	Recognition and promotion of heritage values	 12. Improve the quality of tourist experiences. 17. Identify and protect sites of European cultural significance. 	 17.1 Investigate (collect oral histories) and register historically significant sites around Lake Wallace and Edenhope e.g. First XI Aboriginal cricket team. 14.4 Increase online profile of Lake Wallace to enhance marketing of the lake as a destination.

RECURRENT WORK AT THE LAKE

Community input and ideas towards projects that will improve amenity and expand uses of Lake Wallace will be considered (via Councils Innovation Platform). The plan will also guide the recurring maintenance work undertaken along the foreshore of Lake Wallace. An annual maintenance schedule for the Lake Wallace foreshore is outlined in Appendix 4.

Table 5-2: Recurrent work

#	DESCRIPTION	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE (NO.)	ACTIONS
1.	Lake Wallace foreshore maintenance	Maintain assets and amenity around the foreshore.	 Protect ecological values in and surrounding Lake Wallace Manage pest plants and animals in the reserve Enhance the visual aesthetic of the lake and surrounds. 	4.3 Adopt approved maintenance schedule covering management of facilities and grounds (on-going/recurrent for safety, amenity and access)

LONGER TERM PARTNERSHIP PROJECTS

Business cases (prepared by Council and partners) will be required to support applications for external funding of more substantial longer term projects. A program of longer term investments over eight years will maximise the use and enjoyment of Lake Wallace and bring wider regional economic benefits to Edenhope. These projects will rely on external funding and close working partnerships with agencies. Proposed longer term partnership projects are outlined in Table 5-3.

Table 5-3: Longer term investment projects – Years 3 to 10

#	PROJECT NAME	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE	ACTIONS
	Years 3 & 4			
1.	Swimming area infrastructure upgrade – New floating pontoon – Upgrade sandy beach area	Increased amenity and enjoyment of swimming.	 Provide and maintain infrastructure to support all uses at different water levels Increased usage of lake and foreshore for recreation. 	9.2 Procure a new floating pontoon (swimming). 12.1 Upgrade sandy beach swimming area (sand, accessible seating, shade).
2.	Aboriginal Cultural Heritage Management Plan	Increased knowledge of cultural heritage and significant sites.	16. Identify and protect Aboriginal cultural heritage values around the lake.	16.1 Seek funding to resource the preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) for the lake.16.2 Develop Aboriginal cultural heritage education materials for Lake Wallace.
3.	Accommodation and hospitality project:	Increased capacity to host overnight visitors Improved functionality and leisure experience.	13. Improve the quality of tourist experiences14. Attract more visitors to Lake Wallace (Edenhope) staying longer	14.3 Support projects to upgrade caravan park (private and Council facilities). Note: is already in progress.

#	PROJECT NAME	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE	ACTIONS
	 Audit of availability in and around Edenhope Caravan park upgrade – rec room/kiosk and amenity buildings. 	Work on caravan park upgrade is in progress.	15. Increase the average spend per visit by tourists	
	Years 5 & 6		·	
4a. 4b.	Zoning and maritime rules review. Updated directional and zoning signage.	Safer for water sport users (boating, swimming and fishing).	 9. Provide and maintain infrastructure to support all uses at different water levels 11. Improve safety on the water and in foreshore areas 	 11.3 Review zoning and maritime rules pertaining to the recreation uses on the lake. 11.4. Install new and consistent signage (zoning, directions, water level, emergency information) and buoys on the water.
5.	Landscaping Back Swamp	Improved ecology and amenity of an important wetland; clean up adjacent industrial site areas.	2. Protect ecological values in and around Lake Wallace	 2.1 In partnership with DELWP, establish a trail linking Back Swamp, Lions Park and Lake Wallace. 2.2 Support community projects to restore swamp area by planting native plant species and increased attention to maintenance and landscaping. 2.3 Adopt recommendations from Back Swamp flood study (Action 1.1)
	Years 7 & 8			
6.	Back Swamp flood study	Optimise inflows to lake. Improve water quality.	1. Optimise catchment and drainage inflows to protect water quality	1.1 Advocate to DELWP to undertake a Back Swamp flood study to inform any future changes in management that will optimise inflows and improve water quality in Lake Wallace.
7.	Trails and interpretative signage – e.g. twitching and cultural heritage trails	Better linking residential and commercial areas, locals and visitors with wetlands. Highlighting of unique wildlife and other natural and cultural assets.	5. Improve accessibility of the lake and its connection with other community assets 13. Improve the quality of tourist experiences	 5.2 Establish accessible links (footpaths/trail) connecting Back Swamp, Lions Park and Lake Wallace. 5.3 Improve signage that will connect and direct visitors to Lake Wallace, the town centre, services, accommodation and other points of interest. 13.2 Construct durable signage at points of interest e.g. linking Back Swamp, to Lions Part to Lake Wallace to showcase unique wildlife and cultural heritage stories.
8.	Other infrastructure upgrades – Jetty	Safer access for locals and visitors. Enhanced experience for bird watching.	10. Maximise accessibility for all lake uses (where practical, infrastructure upgrades to be accessible)	10.1 Develop tender specifications for upgrading jetty to increase safety when water levels are low.

#	PROJECT NAME	NEED/OUTCOME	STRATEGIC PLAN OBJECTIVE	ACTIONS
	 Bird hide 		12. Increased usage of lake and foreshore for recreation	12.2 Upgrade bird hide, to improve usability, safety and interpretative signage.
	Years 9&10			
9.	Fishing pontoon		9. Provide and maintain infrastructure to support all uses at different water levels10. Maximise accessibility for all lake uses12. Increased usage of lake and foreshore for recreation	10.2 Investigate options for a new fishing pontoon with walkway to shore.
10.	Eco-tourism project.	Capitalised eco-tourism opportunities.	13. Improve quality of tourist experiences.15. Increase the average spend per visit by tourists.	14.4 Increase online profile of Lake Wallace to enhance marketing of the lake as a destination.

6 Monitoring implementation

OVERVIEW

The strategic plan provides a clear vision for Lake Wallace and its future management. It includes a program of priority projects and a plan to pursue funding for longer term investments until 2032. These investments will develop and protect the lake's recreation, tourism, township liveability, lake levels and water supply, environmental and cultural values.

The monitoring plan provides guidance on how to measure and monitor the implementation of actions and progress towards the goals of the Lake Wallace Strategic Plan.

The monitoring plan is comprised of two parts:

- Strategic Plan logic and indicators of success the logic provides a visual representation of how the actions delivered under the Lake Wallace Strategic Plan contribute to the goals and vision and lists the indicators of success
- 2. Monitoring and reporting overview outlining how often progress will be reviewed.

The strategic plan logic demonstrates the links between the objectives, goals, and vision as demonstrated in the previous Figure 4-1 and Figure 4-2.

Monitoring and reporting is the responsibility of WWSC. Table 6-1 outlines the type, content, and frequency of reporting on progress towards to the goals.

ТҮРЕ	CONTENT	FREQUENCY
Annual report	 Brief assessment of strategic plan actions commenced, completed, and not yet commenced Overview of the outputs from the actions partially or fully delivered An assessment of what worked well and what could be improved from the delivery of the actions, including community feedback Assessment of progress towards goals using the <i>indicators of progress</i> Expenditure Survey using Street Ryan method (expenditure and use) 	Annually
Mid-term evaluation	 Report on the strategic plan design, implementation and impact at the five-year mark using the key evaluation questions (outlined in the next section) Recommendation – Undertake a survey of the community and staff (responsible for implementation) to inform the findings of the evaluation. 	5 years (2027)
End-of-term evaluation	 Report on the strategic plan design, implementation and impact at the plan's conclusion. Recommendation – Undertake a survey of community and staff (responsible for implementation) to inform the findings of the evaluation. 	End of strategic plan term (2032)

Table 6-1: Monitoring and reporting

Appendix 1: Lake Wallace land titles and management responsibilities

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CROWN FOLIO STATEMENT

VOLUME 11795 FOLIO 866 No CofT exists CROWN FOLIO Security no : 124073898434T Produced 12/09/2018 03:35 pm

LAND DESCRIPTION

Crown Allotment 13 Section 5 Township of Edenhope Parish of Edenhope. Created by instrument MI259874F 06/08/2016

CROWN LAND ADMINISTRATOR

WEST WIMMERA SHIRE COUNCIL of 49 ELIZABETH STREET EDENHOPE VIC 3318 MI259874F 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

RESERVATION MI259876B 06/08/2016 TEMPORARY RECREATION OP74182

DIAGRAM LOCATION

SEE CD099923A FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

DOCUMENT END

Home Account: 324318 VICTORIA State Government	Authority Fee (GST exclusive): Service Fee(GST exclusive): GST Payable: \$0.77 Total: \$8.47	12/09/2018 03:35PM
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Location of Land Parish : EDENHOPE Township : EDENHOPE Section : 5 Allotment : 13	This plan has been created to assist in loc Warning: No warranty is given as to the a of this plan Any derived dimensions are approximate	eating a Crown land parcel
Standard Parcel Identifier (SPI) : 13~5\PP5266 Vicmap Parcel PFI : 45381237	Coordinate Position MGA: 526160, 5901250 (54) Vicroads Directory Reference : 543 R5	(ed. 6)
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CROWN FOLIO STATEMENT

VOLUME 11795 FOLIO 868 No CofT exists CROWN FOLIO Security no : 124073898475Y Produced 12/09/2018 03:36 pm

LAND DESCRIPTION

Crown Allotment 14 Section 5 Township of Edenhope Parish of Edenhope. Created by instrument MI259880L 06/08/2016

CROWN LAND ADMINISTRATOR

WEST WIMMERA SHIRE COUNCIL of 49 ELIZABETH STREET EDENHOPE VIC 3318 MI259880L 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

RESERVATION <u>MI259882G</u> 06/08/2016 TEMPORARY WATER SUPPLY

DIAGRAM LOCATION

SEE CD099925V FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

Additional information: (not part of the Crown Folio Statement)

Street Address: LAKE STREET EDENHOPE VIC 3318

DOCUMENT END

Home Account: 324318	Authority Fee(GST exclusive): Service Fee(GST exclusive): GST Payable: \$0.77 Total: \$8.47	12/09/2018 03:36PM
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Location of Land Farith EDENHOPE Samon: 5 Samon: 5 S	CROWN	DIAGRA	M		CD0	99925V
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Complete from VCMAP codastral mapping data Dete: 22/05/2019	Standard Parcel (d Vicmap Parcel PFI	lentifier (SPI) : I : 45381193	14~5\PP5266	 Coordinate Position MGA: 525640, 5901710 (Vicroads Directory Reference	54) æ: 543 Q4	(ed. 6)
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CROWN FOLIO STATEMENT

VOLUME 11733 FOLIO 134 No CofT exists CROWN FOLIO

Security no : 124073898516E Produced 12/09/2018 03:37 pm

LAND DESCRIPTION

Crown Allotment 24E Parish of Edenhope. Created by instrument MI090456N 06/08/2016

CROWN LAND ADMINISTRATOR

WEST WIMMERA SHIRE COUNCIL of 49 ELIZABETH STREET EDENHOPE VIC 3318 MI090456N 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

RESERVATION MI090458J 06/08/2016 TEMPORARY WATER SUPPLY

INDIGENOUS LAND USE AGREEMENT MI090459G 06/08/2016 NATIVE TITLE DETERMINATION VID6002/1998

DIAGRAM LOCATION

SEE CD037253V FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF CROWN FOLIO STATEMENT------

Additional information: (not part of the Crown Folio Statement)

Street Address: LAKE STREET EDENHOPE VIC 3318

DOCUMENT END

Home Account: 324318	VICTORIA State Government	Authority Fee(GST exclusive): Service Fee(GST exclusive): GST Pavable: \$0.77	12/09/2018 03:37PM
		Total: \$8.47	

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CROWN FOLIO STATEMENT

VOLUME 11733 FOLIO 136 No CofT exists CROWN FOLIO Security no : 124073898730W Produced 12/09/2018 03:44 pm

LAND DESCRIPTION

Crown Allotment 24F Parish of Edenhope. Created by instrument MI090462T 06/08/2016

CROWN LAND ADMINISTRATOR

WEST WIMMERA SHIRE COUNCIL of 49 ELIZABETH STREET EDENHOPE VIC 3318 MI090462T 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

RESERVATION as to part <u>MI090464P</u> 06/08/2016 TEMPORARY PUBLIC PURPOSES

DIAGRAM LOCATION

SEE CD037255R FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

Additional information: (not part of the Crown Folio Statement)

Street Address: YALLAKAR STREET EDENHOPE VIC 3318

DOCUMENT END

Home Account: 324318	Authority Fee(GST exclusive): Service Fee(GST exclusive): GST Payable: \$0.77 Total: \$8.47	12/09/2018 03:44PM
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CROWN FOLIO STATEMENT

VOLUME 11733 FOLIO 138 No CofT exists CROWN FOLIO

Security no : 124073898780S Produced 12/09/2018 03:46 pm

LAND DESCRIPTION

Crown Allotment 24D Parish of Edenhope. Created by instrument MI090468F 06/08/2016

CROWN LAND ADMINISTRATOR

WEST WIMMERA SHIRE COUNCIL of 49 ELIZABETH STREET EDENHOPE VIC 3318 MI090468F 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

RESERVATION <u>MI090470U</u> 06/08/2016 TEMPORARY PUBLIC PURPOSES

DIAGRAM LOCATION

SEE CD037257M FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

Additional information: (not part of the Crown Folio Statement)

Street Address: LAKE STREET EDENHOPE VIC 3318

DOCUMENT END

Home Accou 3243	nt: L8 VCTORIA State Government	Authority Fee(GST exclusive): Service Fee(GST exclusive): 03 GST Payable: \$0.77 Total: \$8.47)/2018 :46PM
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Excerpt from



A branch of Transport Safety Victoria

GUIDE:

Vessel Operating and Zoning Rules for Victorian Waters

October 2021

Version 33

Schedule 66: Lake Wallace

Waterway Manager: West Wimmera Shire Council

66.1. Five (5) knot speed restriction zone for the purposes of Clause 7.

The waters of Lake Wallace west of a line the limits of which are marked by red beacons, between the lake inlet culvert towards the north-east corner of Section 31 on the west shore to a point where it intersects from there along a line between the lake outlet weir and Section 9 are subject to a speed restriction of five (5) knots.

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66.2. Areas prohibited to vessels for the purposes of Clause 9.

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The waters of Lake Wallace on the eastern side of the pier that are within an area bounded by an imaginary line 100 metres from the shore along the pier or its extension into the lake, 60 metres at right angles to that line extending in an approximately east-north-east direction; thence extending to a position on the shore 30 metres south-westerly of the boat ramp, are prohibited to vessels.

Table showing details of notice(s) published in Government Gazette in relation to this Schedule

Gazette number/date	Waterway rule made	Relevant legislation
S221 28/06/2012	Schedule 66	MA 1988 s15
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Appendix 2: Historical lake spill pattern

Overflow date	Annual rainfall mm (calendar year)
Aug-23	714.2
Jul-46	898.4
Jul-47	
Sep-48	
Jul-50	469.9
Aug-53	660.3
Aug-55	
Jul-56	
Aug-64	645.7
Sep-65	551.9
Oct-71	
Oct-73	745.9
Aug-74	
Oct-75	754.6
Aug-81	668.2
Sep-84	754
Aug-87	541.2
Jun-88	634.8
Sep-91	613.8
Oct-92	738.2
1995	588.6
1996	580.8
2011	684.8
2017	672

<u>Source</u>: Community records, DPI 2005, Fawcett and Huggins, Preliminary assessment of water balance model for Lake Wallace, Edenhope, Water Technology 2019 Wimmera wetland hydrology investigation: Final report prepared for the Wimmera CMA.

BOM:

http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c= &p_stn_num=079011

Appendix 3: Water storage volume ratings table

Description	0/ 5-11	Dauth mature		Volume Below	
Description	% full	Deptn metres	Level (AHD)	(ML)	Surface Area (Ha)
Dry	0%	0	151.25	0	0
	5%	0.25	151.5	40.9	40.5
Functionally	4.004			100.0	
empty	10%	0.5	151.75	180.2	68.6
Low	14%	0.75	152	375.6	86.4
	19%	1	152.25	608	99.1
	24%	1.25	152.5	873.9	117.9
Mid	29%	1.5	152.75	1209.2	144.8
	33%	1.75	153	1581.8	153
	38%	2	153.25	1975.3	161.6
	43%	2.25	153.5	2388.1	168.5
	48%	2.5	153.75	2817.4	174.8
	52%	2.75	154	3260.7	179.6
High	57%	3	154.25	3714.9	183.8
	62%	3.25	154.5	4180.5	188.7
	67%	3.5	154.75	4658.2	193.4
	71%	3.75	155	5147	197.7
	76%	4	155.25	5646.9	202.2
	81%	4.25	155.5	6157.7	206.2
	86%	4.5	155.75	6677	209.1
	90%	4.75	156	7202.5	211.2
	95%	5	156.25	7732.8	212.9
Spill	100%	5.25	156.5	8267	214.4



Source: Adapted from Austral Research & Consulting, March 2021

Appendix 4: Recurrent maintenance schedule

LAKE WALLACE RESERVE MAINTENANCE SCHEDULE 22-23						
AREA	ACTIVITY	FREQUENCY	RESPONSIBILITY	ASSETS		
HENLEY PARK						
	Mowing	When exceeds 70mm, Every 2 weeks during growing season.	WWSC, Works			
	Watering,	As required, Twice weekly during summer	WWSC, Works	Pump, shed & tank		
	Toilet cleaning	Daily	Contractor	Toilet block		
	Service rubbish bins	3 times per week	Contractor	8 x Bins		
	BBQ area cleaning	Weekly	Contractor	2 x BBQ 's and shelters		
	Weeds, garden beds and tree maintenance	AS required .	WWSC, Works	Soundshell, stage		
	Building maintenance, including Jetty	As required.	WWSC, Assets	Main Jetty		
	Playground equipment and seating	As required.	WWSC, Works & Assets	Swing set, climbing set		
CARAVAN PARK						
	Grounds maintenance	As required.	Leasee			
	Tree maintenance	As required.	WWSC, Works			
	Buildings maintenance	As required.	WWSC, Assets/Leasee.	2 x Shower block.		
				Rec room & BBQ shelter		
TENNIS COURTS						
	Courts, fence and nets	As required	???	Fence		
	Building	As required	WWSC, Assets	Clubrooms		
	Weed Control	Seasonal	WWSC, Works.			
	Mowing parking area	As require	WWSC, Works.			
	Toilet	Weekly	Contractor	Toilet Block		
Anne Street Park						
	Mowing	When exceeds 70mm, Every 2 weeks during growing season.	WWSC, Works			
	Tree and shrub maintenance.	As required.	WWSC, Works			
	Playground equipment	As required.	WWSC, Works	Play set, swing		
	Servicing bins		Contractor	2 x Bins		
Fishing and Bird hide Jetties						
	Maintenance	As required.	WWSC, Assets	2 x Timber jetties		
Overflow area						
	Mowing/ weeds	When exceeds 70mm, Every 2 weeks during growing season.	WWSC, Works			
	Small Bridge, part of walk track.	Maintenance	WWSC, Assets	Bridge & overflow structure		
Walking track						
	Surface maintenance and repair	As required	WWSC, Works			
	Mowing cut width either side of track	Keep length to 100mm	WWSC, Works			
	Exercise equipment	As required	WWSC, Works/Assets	4 x sets exercise eqipment		
	Maintain seating and signs	As required	WWSC, Works/Assets	7 x seats, 2 x bins		
	Maintenance mowing to high water level in the area of the township.	Keep length to 100mm	WWSC, Works			
Lake Bed						
	Mowing/ slashing depending on lake level	Slash to water line as required	WWSC, Works			
Roads around lake reserve						
	Grade/pot hole	Annually	WWSC, Works	Approx 2 km's unsealed.		
Boating facilities			1444/00 A			
	Boat ramps	As required	WWVSC, Assets	2 x concrete ramps.		
NOTEO	Signs and Bouys	As required	wwwSC, Assets	various signs and bouys.		
WWSC as Comittee of Management						
west wimmera Shire Council is not r	esponsible for the following:					
The water quantity or quality.						
Bowing Club facilities and greens. Crampions Water sumpleteties and bits						
* Corovan Park residence and about	Cohine and onsite yans					
Garavan Faik residence and sheds,	Cabina and Unalle Valia.			1		

This report has been prepared by:

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Document review and authorisation

Project Number: #0963

Doc Version	Final/Draft	Date	Author	Project Director review	BST QA review	Release approved by	Issued to
1.0	Draft report outline	17/06/2021	J. McRobert M. Ludeman		-	J. McRobert	D. Pietsch
2.0	Draft report	03/08/2021	J. McRobert M. Ludeman	J. McRobert	J. Belz	J. McRobert	PCG & AG members
3.0	Revised draft outline	20/01/2022	J. McRobert			J. McRobert	D. Pietsch
4.0	Final Draft Plan	24/03/2022	J. McRobert	J. McRobert	J. Longford	J. McRobert	R. Upadhyaya PCG members
4.1	Final Draft Plan	6/5/2022	J. McRobert	J. McRobert		J. McRobert	WWSC Councillor endorsement