



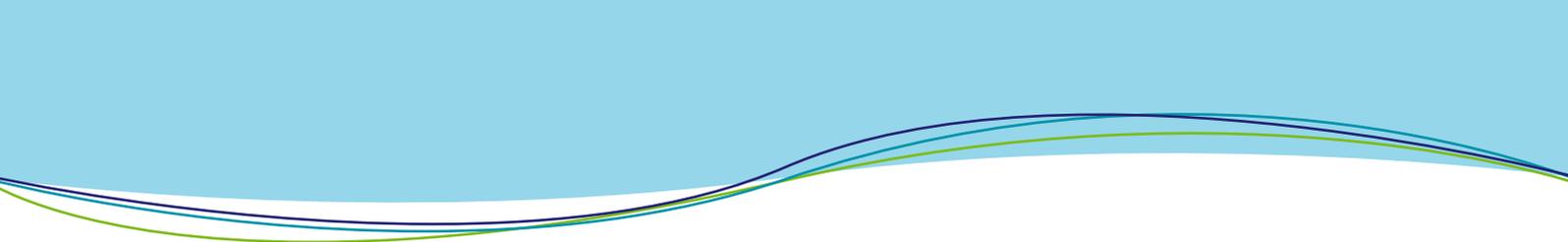
Draft 2023 Gippsland Lakes Ramsar Site Management Plan

Community Consultation Report May 2024



EAST GIPPSLAND
CATCHMENT
MANAGEMENT
AUTHORITY





We acknowledge the Gunaikurnai people, Traditional Owners of the land and waters of the Gippsland Lakes and pay our respects to their Elders, past and present. In particular, we pay tribute to the Brayakaulung, Brabralung and Tatungalung clans, whose intrinsic connection and custodianship of Country continue to be a vital element of the heritage, knowledge and future management of the Gippsland Lakes. Learn more about Gunaikurnai Country [here](#).

1. Introduction

The draft Gippsland Lakes Ramsar Site Management Plan was open for public comment from the 29th of November 2023 to the 19th of January, on the EngageVic website.

Community and stakeholders were invited to make submissions, by responding to a survey and/or by uploading a submission. A total of 20 written submissions were received on the EngageVic website and a further two submissions were received by email after the closing date.

Many submissions contained commentary on matters such as the legislative framework for Ramsar site management and the Australian Ramsar Management Principles. We have not responded to these parts of the submissions in this report as they were out of scope of this project. We also received feedback from two respondents on the [Ecological Character Description \(ECD\) Addendum](#) and updates to Limits of Acceptable Change (LAC). As noted on the EngageVic website these matters were deemed out of scope for the public consultation process.

Issues raised in the consultation process have been grouped into themes, the key themes raised through the process were:

- Change in Ecological Character – Article 3.2
- Ecological Character at the time of listing
- Entrance to the Lakes and dredging
- Evidence base for the management plan
- Assessment of LAC's – waterbirds
- Management strategies
- Migratory shorebirds
- Mine rehabilitation
- Purpose/objective of the Ramsar Site Management Plan
- Resource Condition Targets
- Risk assessment framework
- Scope of the Ramsar Site Management Plan
- Site coordination and management
- Threats and risk ratings

2. Key themes from the feedback and our response

Change in Ecological Character – Article 3.2

Issues raised

One submission queried whether changes in Ecological Character had accurately reflected in the plan; and expressed concern about the outcome of a previous third-party notification under Article 3.2 of the convention. A concern was also raised around the suitability of the current Limits of Acceptable Change (LAC) and the monitoring to enable assessment of change in Ecological Character.

One submission cited evidence from research regarding chlorophyll-a and cyanobacteria levels and suggested that there has been sustained change in the ecology of Lake King, and further suggested that there is a case for submitting an article 3.2 report to the Convention.

Response

In March 2009, the Gippsland Environment Group made a third-party notification to the Ramsar Secretary-General for the Gippsland Lakes Ramsar Site. A site's ecological character may have changed if LACs for critical components, processes and services are exceeded.

An assessment of evidence relating to the third-party notification was then undertaken by the Australian Government. They found that changes evident at the time of listing have the potential to cause ongoing adverse ecological change. However overall, they found that the ecological character of the Gippsland Lakes Ramsar Site has not undergone human-induced adverse alteration in the critical components, processes and benefits/services since the time it was listed in 1982 (DSEWPaC, n.d).

An assessment against the Limits of Acceptable Change was also undertaken in 2023 for the Draft Plan (Section 2.5). There was sufficient data to assess all LACs, with the exception of salinity in Sale Common, for which additional monitoring has been implemented. The assessment found no evidence of an exceedance of a LAC.

The Ramsar Coordinating Committee acknowledges there is evidence of ongoing increasing salinity levels within Lake Wellington and the fringing wetlands. This is recognised in the plan as a significant threat to the Ramsar site and is a priority for management.

In terms of the evidence regarding eutrophication. Results from the most recent wet period show an increase in chlorophyll-a but there is no ongoing trend in chlorophyll-a in any of the major lakes (1986 to 2023). Chlorophyll is highly variable and influenced by temperature and rainfall. Peaks were observed post-bushfire following increased load. The Perez paper cited in the submission is a paleo-ecology study on ancient DNA and is not relevant in this context.

No change to the Draft Plan

Ecological Character at the time of Listing

Issues raised

Two submissions queried the use of the time of listing as the baseline condition for maintaining, improving or restoring ecological character and called for a more sophisticated model of baseline condition that considers changes that may occurred prior to listing.

Response

The requirement to use the time of listing as the baseline condition arises from Resolution XI.8 :*Streamlining procedures for describing Ramsar Sites at the time of designation and subsequent updates*” from the 11th Meeting of the Conference of Parties provides the requirement to use the time of listing as the baseline with Annexure 2 to this resolution noting *“Contracting Parties Ramsar COP11 Resolution XI.8, Annex 2 (Rev. COP14), are expected to describe the site at the time of designation using the approved Ramsar Site Information Sheet (Appendix A) in sufficient detail to provide a baseline for subsequent monitoring to detect any changes to these ecological and hydrological attributes.”* (Ramsar Conference of the Parties , 2012; Ramsar Conference of Parties, 2012a).

This is the position adopted in Australia for all Ramsar wetlands and is reflected in Text Box 1 of the Draft Plan.

No change to the Draft Plan

Entrance to the Lakes and dredging

Issues raised

A number of submissions raised the issue of dredging of the entrance to the Lakes. This included disputing the evidence within the plan around the extent of dredging and possible effects on water exchange and salinity in the Lakes.

One submission also called for further hydrodynamic investigation supported by more robust salinity monitoring.

Another submission called for the Plan to re-consider measures to address increasing salinity in Lake Wellington through the construction of a physical barrier in McLennan Strait. The submission acknowledged that past investigations had been conducted including assessing the feasibility of rock, concrete and steel structures and called for the Plan to consider an alternative design based on a geo-textile structure.

Response

As stated in the Draft Plan, there is evidence of increasing salinity within the parts of the site associated with the permanent opening at Lakes Entrance and exacerbated by river regulation and diversion of water in the catchments. These changes were evident at the time of listing. Fluctuations in salinity evident at the entrance are largely associated with changes to freshwater inflows associated with rainfall. There is, however, no evidence that salinity has risen in Lake King since listing and there has been an extensive amount of work undertaken by several management agencies to investigate this. There are continuous salinity monitoring locations in Lake Wellington, Sale Common, Dowd Morass, Heart Morass and Macleod Morass and regular monitoring of salinity in Lakes King and Victoria.

The Plan recognises that salinity has the potential to cause ongoing adverse ecological change and needs to be managed. A comprehensive salinity monitoring program is in place across the site including tributaries, lakes and fringing wetlands.

Recent work undertaken by CSIRO and cited by submitters indicates that eventually king tides, sea level rise and storm surges will impact salinity across the system. These pathways have been identified as significant threats in the Plan.

Hard engineering options involving full or partial barriers at McLennan Strait have been investigated on several occasions (SKM, 2010; Unland, 2015). Not only are they expensive to install and maintain (the potentially most successful is estimated at over \$200 million), but it is also likely that significant erosion at the construction site would undermine the structure limiting its effectiveness. In addition, it would reduce hydrological and ecological connectivity and potentially increase the likelihood of algal blooms in Lake Wellington as nutrients accumulate in the system.

Additional text will be provided in Text Box 3 to demonstrate the relationship between salinity and rainfall. Given the existing balance of evidence, other more feasible options, and competing priorities, the value of additional hydrodynamic modelling or further investigation of measures such as a physical barrier to manage salinity in Lake Wellington is a low priority at this time, and is therefore not recommended in this plan.

Draft Plan to be updated as per response

Evidence base for the management plan and knowledge gaps

Issues raised

Several submissions raised concerns around the evidence base for the Draft Plan including:

- A perceived lack of knowledge for some issues (transition of the Lakes, sediment and nutrient sources, hydrodynamics of the Lakes).
- Concerns around the currency of the reports used to support the risk assessment.
- A perceived lack of monitoring (water quality including salinity, river inflows, contaminants and dredging).

One submission also argued that the Improving our Knowledge section did not go far enough in terms of identifying knowledge gaps to be addressed during the Plan.

Response

The Gippsland Lakes Ramsar Site is an exceptionally well-studied ecosystem. A large number of knowledge gaps were addressed through the implementation of the 2016 plan. Whilst some knowledge gaps remain, issues such as the transition of the Lakes, sediment and nutrient sources and hydrodynamics have been studied and considered in this Draft.

The Gippsland Lakes Environment Report collates monitoring data on water quality annually as does the EPA Victoria annual report card. There is sufficient monitoring to determine loads of nutrients and sediments entering the Lakes, to track trends in salinity, nutrients and chlorophyll-a over time and to assess biological responses in the extent and density of seagrass, extent of wetland vegetation and abundance and diversity of birds.

Development of the Plan has been based on the best available evidence and included a review of recent research and literature. It is the view of the site coordinators that a balance needs to be made between investing more in data collection and investigations versus on ground management. At this stage the Ramsar Coordinating Committee are comfortable with the balance.

No change to the Draft Plan

Assessment of LACs – waterbirds

Issues raised

Two submissions queried the assessment against LAC for waterbirds (Criterion 5). One submission argued there were gaps in survey coverage for waterbirds and queried why an assessment by Hansen et al (2021) had not been reviewed. Another submission expressed concerns about the potential for misinterpretation of Figure 6 (Waterbird abundance and diversity), with respect to the influence of survey effort (as explained on page 26), clarifications were also sought on the method for assessing the LAC, with some concern about the potential for double counting.

Response

The assessment against LACs for waterbirds combines data from various sources including BirdLife Australia monthly counts, Field and Game Australia, DEECA Summer Waterfowl Counts and the Atlas of Living Australia, which includes E-bird records). The Hansen et al (2021) paper was reviewed as part of the assessment; however it was felt that the data sources outlined above were more comprehensive.

There is no double counting of records. The method for assessing the LAC is based on summing annual maximum counts for individual species as per the Monitoring, Evaluation, Reporting and Improvement plan for the Ramsar Site (see below). The same principle was used to derive the LAC and is used at all Ramsar sites in Victoria.

- **Individual species** - Annual maximum counts (can be summed across locations if the data was collected on the same day). Compared with the most recent Wetlands International Waterbird Population Estimates.
- **Total abundance** - Totals are calculated by summing the maximum count of each species (regardless of time of year). Individual species counts can be summed across locations if the data was collected on the same day.

It is acknowledged that Figure 6 may be misinterpreted by some readers of the plan if they do not fully understand the impact of increased survey effort on the maximum counts.

The Ramsar Coordinating Committee will remove the graph Figure 6 and include additional text in section 2.3 to describe the protocols for calculating individual species and total abundance.

Draft Plan to be updated as per response

Management strategies

Issues raised and responses

Several submissions suggested changes to management strategies and/or additional management strategies. Details of the suggestions and responses are provided below.

Table 1. Summary of feedback and responses for management strategies

Management Strategy	Suggested change	Response
New	Review of data collection responsibility to enable assessment against LAC.	All LACs can be assessed. There were several RCTs that could not be assessed, due to a lack of benchmarks for indicators and poor wording. RCTs have been revised to make them measurable. No change to the Draft Plan
New ¹	Include an investigation into cost-effective management options that can halt the salinisation of freshwater wetlands (including brackish wetlands).	Numerous studies have already been undertaken to investigate the condition and management of Lake Wellington, including increasing salinity. The study and report "Understanding and responding to changed conditions in Lake Wellington and fringing wetlands" (Hale & Boon, 2022) has investigated and identified trajectories of change and management levers for the fringing freshwater and brackish wetlands. Additional text will be included in the Plan to reflect the findings from this investigation. Draft Plan to be updated as per response

¹ The submission quotes Strategy 6G – there is not strategy 6G and the feedback also does not relate to Strategy 6G from the 2015 Plan.

Management Strategy	Suggested change	Response
New	An investigation into the impacts of deeper dredging on the Deep and Shallow Lakes are also warranted.	Dredging to maintain navigable access to the Gippsland Lakes is conducted within the strict rules set out in the Gippsland Lakes Ocean Access Environmental Management Plan (https://www.gippslandports.vic.gov.au/ports-and-waterways/sand-management/) which establishes maximum depths for dredging of channels at historic levels of navigability. No change to the Draft Plan
New	Include measures related to water recovery in the context of mine rehabilitation to secure freshwater inflows from regulated rivers in the Latrobe, Thomson and Macalister system.	Mine rehabilitation is being addressed through a formal environmental impact process, with entitlement decisions informed by government policy. It is inappropriate for the management plan to foreshadow the outcomes of those processes. The Plan considers the threat associated with water resource use and pollution. No change to the Draft Plan
New	Ensure foreshore erosion (salinity induced or otherwise) be appropriately managed to protect cultural heritage and bio-cultural values and Country.	GLaWAC have identified a set of management strategies to enhance the Gippsland Lakes Cultural Landscape. This issue will be addressed in management strategy 5E to be included in the final plan. Draft Plan to be updated as per response
Not clear from submission ²	Expand this important strategy to partner with other groups/organisations including local citizen science groups to collect data on other wetlands that are likely to become more significant under climate change.	This suggested change does not relate to this strategy. Water quality monitoring by volunteers is supported through Waterwatch and Estuary Watch via the EGCMA and WGCMA. Several volunteer groups undertake water quality monitoring around the lakes and in fringing wetlands. No change to the Draft Plan

² The submission quotes Management Strategy 1G which is "Control illegal recreational activities to minimise / prevent physical damage to habitats in priority areas". However the feedback does not appear to relate to this strategy nor does it relate to 1G from the 2015 plan.

Management Strategy	Suggested change	Response
<p>6A Investigate potential management options for the risks to ecological character from toxicants and chemicals of emerging concern</p>	<p>This management strategy could readily incorporate citizen science gathered data to assist managers and researchers in the implementation of this very important strategy.</p>	<p>There is a growing body of evidence that toxicity is a problem in the lakes. However, there is a lack of knowledge of what can be done to address the issue.</p> <p>EPA work with business and industry to reduce the risk of harm to the environment and human health through the general environmental duty (GED). EPA also run specific citizen science programs that involve volunteers on science projects to assist in preventing harm to the environment from pollution.</p> <p>Additional context will be provided in Section 1.2.3 (Victorian state policy and legislation) of the plan to clarify how the EPA works to address all potential forms of pollution through application of the GED.</p> <p>Draft Plan to be updated as per response</p>
<p>3A Reduce nutrient and sediment loads to the Gippsland Lakes through riparian, in-stream and catchment works to improve water quality of river flows to the Gippsland Lakes</p>	<p>The report does not address how non-compliance by industries will be monitored controlled and dealt with.</p>	<p>The Environment Protection Amendment Act 2018 is the general environmental duty (GED). The GED requires Victorian businesses, industry and the community to take reasonably practicable steps to eliminate or otherwise reduce risks of harm to human health and the environment from pollution and waste.</p> <p>‘Reasonably practicable’ will be assessed having regard to the likelihood of the risk of harm, the degree of possible harm, the state of knowledge, suitability and cost of ways to eliminate or reduce the risk of harm.</p> <p>Unlike similar laws in other states and territories, a breach of the GED could lead to criminal or civil penalties. Compliance associated with the GED is undertaken by EPA.</p> <p>Section 1.2.3 (Victorian state policy and legislation) will be updated to provide more detail on the GED and associated compliance activity.</p> <p>Draft Plan to be updated as per response</p>

Management Strategy	Suggested change	Response
6E Investigate the severity and extent of impact deer are having on waterbird nest sites and sensitive wetland environments such as coastal saltmarsh	Why not also add goats and pigs to this list.	Wording of 6E to be adjusted to 'Investigate the severity and extent of impact deer and any other introduced herbivores are having on waterbird nest sites and sensitive wetland environments such as coastal saltmarsh'. Draft Plan to be updated as per response
2B Develop and implement measures to improve public awareness to reduce disturbance to migratory waders and nesting birds (Deep and Shallow Lakes only)	Expand 2B to encompass other important shorebird mega-habitats (variably and hypersaline wetlands) would be beneficial in reducing disturbance of shorebirds across all their most important habitat areas.	Wording of 2B to be amended to the following 2B. Develop and implement measures to improve public awareness to reduce disturbance to migratory waders and nesting birds (Deep and Shallow Lakes and any other mega-habitats where there are high recreational impacts) Draft Plan to be updated as per response
2E ³ Develop and implement a public awareness campaign to reduce harassment and boating injuries to Burrunan dolphins.	A public awareness campaign is of merit, however, compliance regulatory models and research all demonstrate that acceptable levels of compliance are only achieved with accompanying strong regulation and appropriate penalties that potential non-compliant individuals see being enforced. Additionally, key nursery areas identified for the Burrunan dolphins (2C) should be off-limits to the public, and this restriction strictly controlled and enforced.	This suggestion relates to a strategy from the 2015 Ramsar Site Management Plan. The Draft Gippsland Lakes Ramsar Management Plan is focused on strategies to maintain or improve Ecological Character as defined by the critical Components, Processes and Services. Burrunan dolphin is not listed within the site's CPS. Explanatory text will be included in the plan that clarifies the focus and scope of this plan and how it differs to the 2015 plan. Draft Plan to be updated as per response

³ This Management Strategy is from the 2015 Ramsar Site Management Plan

Migratory shorebirds

Issues raised

One submission noted discrepancies between the conservation status of migratory shorebirds in the Draft Plan and ECD Addendum as compared with the Department of Climate Change and Energy and Environment and Water's (DCCEE) Species and Threats Database.

Concerns were also raised because migratory shorebirds are no longer listed for C6 Abundance and Diversity of wetlands and the associated Limits of Acceptable Change. Several management strategies were identified as benefiting migratory shorebirds.

Response

The list of threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* was updated for a number of shorebirds in January 2024 after the release of the Draft Plan.

The following species that are regularly supported by the Gippsland Lakes Ramsar Site are now listed as threatened:

- Sharp-tailed sandpiper (*Calidris acuminata*) – Vulnerable
- Common greenshank (*Tringa nebularia*) - Endangered
- Latham's snipe (*Gallinago hardwickii*) - Vulnerable
- Bar-tailed godwit (*Limosa lapponica*) - Endangered

This means that the description in Section 2.3 Criteria met for Criterion 2 "A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities" will need to be updated to reflect the change in listing.

The Limits of Acceptable Change were reviewed and updated in the ECD Addendum, feedback on the ECD Addendum with respect to C6 is out of scope. Further, the Limits of Acceptable Change for C7 cannot be updated through the management planning process to reflect the change in status of migratory shorebirds.

An update to the ECD Addendum has been drafted with updated LACs to include additional listed threatened species. This is awaiting approval from the Australian Government and can't be incorporated into the plan until they are approved. A RCT has been drafted for inclusion in the final version of the plan and is being reviewed by stakeholders.

Draft Plan to be updated as per response

Mine rehabilitation

Issues raised

Several submissions raised concerns around mine rehabilitation including the guidance around water access for mine rehabilitation contained in the Latrobe Valley Regional Rehabilitation Strategy (LVRRS) Amendment and the Environmental Effects Statement and EPBC Act referral processes associated with Hazelwood Mine rehabilitation. Submissions asserted that the Draft Plan did not go far enough to protect freshwater flows to the Lakes in the context of mine rehabilitation.

Response

Mine rehabilitation is being addressed through formal environmental impact processes (see Management Strategy 7C). It is inappropriate for the Plan to foreshadow any outcomes from those processes. Water resource use and climate change (impacting on water regime and salinity) are identified as priority threats within the plan. As indicated in the Draft Plan the Central and Gippsland Region Sustainable Water Strategy provides the policy for water recovery. The LVRRS amendment provides guidance on how mine licensees will access water for rehabilitation – if they decide they need it.

Section 1.2 of the Plan will be updated to incorporate the Latrobe Valley Regional Rehabilitation Strategy and its Amendment. Section 4.7 and the management strategy 4A will be updated to reinforce the importance of maintaining freshwater flows into the Lakes and relevant government policy.

Draft Plan to be updated as per response

Purpose/objective of the Ramsar Site Management Plan

Issues raised

Three submissions objected to the wording of the Plan's objective '*To maintain, and where necessary improve, the ecological character of the Gippsland Lakes Ramsar Site and promote wise use.*' There were two key arguments related to the objection:

- That wise use provisions apply to wetlands that are not listed as internationally important, and the term is not needed when considering a listed site except when extending the mandate beyond the listed area.
- The definition of wise use should be considered as comprising of the maintenance of the ecological character within a relevant sustainable development context, making the term redundant.

Response

The purpose of the Plan is consistent with the requirements that Parties to the Convention are obliged to formulate and implement their planning so as to promote the conservation of the wetlands included in the list, and as far as possible the wise use of wetlands in their territory.

No change to the Draft Plan

Resource Condition Targets

Issues raised

Feedback was received around the proposed Resource Condition Targets for the Draft Plan.

Table 2. Summary of feedback and responses for Resource Condition Targets

Feedback	Response
<p>The following RCT's from the 2015 plan were removed without explanation</p> <ul style="list-style-type: none"> • 2015 RCT 3: Long term algal bloom target (<5 every 20 years) • 2015 RCT12: Successful Little and Fairy tern breeding (1.5 chicks per nest) • 2015 RCT 24: Maintain 2014 shoreline alignment in priority areas • 2015 RCT 26: Increase instream habitat in the estuarine reaches • 2015 RCT 22: Maintain extant and community composition of Gippsland Red Gum Grassy Woodland 	<p>The 2015 Plan had a broader scope and considered areas outside of the Ramsar boundary and values that are not critical CPS.</p> <p>Updated information on little and fairy terns breeding (RCT 12) indicated highly variable rates of success. The RCT was established on limited data and was not appropriate. It has been replaced by a more measurable and realistic RCT on waterbird breeding as informed by Birdlife Australia representatives.</p> <p>RCT 24 was related to areas outside the Ramsar site boundary (silt jetties and outer barrier) and so is not critical to ecological character.</p> <p>RCT's 26 (estuarine habitat) and 22 (Gippsland Red Gum Grassy Woodland) have been removed as they do not relate directly to CPS or habitats within the Ramsar site⁴.</p>
<p>The number of RCTs has decreased from 26 to 21.</p>	<p>RCTs have been revised along with the risk assessment, the revised RCTs are more measurable focus on critical CPS.</p> <p>A new RCT has been developed to replace RCT3 that provides a more robust and quantitative assessment of phytoplankton (see below).</p>
<p>RCT 3 was not met and has now been removed. RCT3 been replaced with an RCT measuring annual median chlorophyll-a concentrations. This is confusing and requires better definition. It seems to imply that algal blooms every year are now acceptable, and that large blooms covering more than 10% are acceptable provided they do not occur for mor more than two successive years.</p>	<p>RCT 3 was not measurable by empirical standards. There was no agreed definition of an algal bloom in terms of extent or concentration of phytoplankton. It has been replaced by a direct indicator of phytoplankton growth (chlorophyll-a concentration) which will allow for a transparent assessment against the RCT. The RCT was established based on advice by leading scientists.</p> <p>No change to the Draft Plan</p>

⁴ The estuarine reach of the Nicholson River is the only estuarine reach that falls within the Ramsar boundary, it has been incorporated into the Shallow Lakes mega habitat

Feedback	Response
<p>The specific resource condition target for phosphorous pollution into Lake Wellington should be included in the Resource Condition Targets for the Gippsland Lakes (as set out in the Lake Wellington Land and Water Management Plan). Unless there are sound scientific or policy reasons to depart from it.</p> <p>The balance of Resource Condition Targets set out in the Lake Wellington Land and Water Management Plan should be incorporated into the Plan or, alternatively, into a subsidiary Ramsar site management planning document concerned with this region as part of the 'transition' zone of the Ramsar Site.</p>	<p>In accordance with the findings of the VAGO audit on Victoria's management of Ramsar sites, the scope of RSMPs must be limited to the critical CPS for each Ramsar site. The Lake Wellington Land and Water Management Plan is a key mechanism to successfully implementing management strategy 3A, which will be updated to explicitly mention it.</p> <p>Draft Plan to be updated as per response</p>
<p>The Draft Plan contains no specific or direct Resource Condition Target for Migratory Shorebirds, though the RCTs relating to habitat condition (RCTs 4-10) and waterbird RCTs (11-12) can be considered indirect or surrogate RCTs for a number of migratory shorebirds.</p>	<p>The Ramsar Coordinating Committee agree that RCTs relating to habitat and waterbirds will benefit migratory shorebirds. The Ramsar Coordinating Committee agree that an additional RCT should be included for the newly listed threatened migratory shorebirds. The RCT has been drafted and is under review by stakeholders.</p> <p>Draft Plan to be updated as per response</p>

Risk Assessment framework

Issues Raised

Feedback was received on the readability of the risk assessment tables (Appendix A), and a suggestion was made to include a mega habitat identifier on each page as well as a summary.

One submission queried the currency of the risk standards underpinning the risk framework with changes noted to terms and definitions, albeit with acknowledgement that the fundamentals of the risk management process remain unchanged.

One submission also called for a broader consideration of risk within the risk assessment process to include categories such as organisational, governance, business and economic.

Response

It is acknowledged that the risk assessment tables as displayed in the Draft Plan are difficult to follow. Modifications to the display including an identifier on each page will be adopted.

The risk assessment framework is consistent with the approach applied for all Ramsar sites in Victoria. The Plan development has been based on an ecological risk assessment framework that uses an impact pathways approach. This process evaluates the likelihood of adverse ecological effects as a result of exposure to one or more stressors. The risk assessment is not intended to evaluate strategic, organisational or project risks.

No change to the Draft Plan

Scope of the Ramsar Site Management Plan

Issues Raised

Feedback was received in one submission about the geographic scope of the plan being constrained to critical CPS within the Ramsar Site boundary. The submission suggested that the scope of the Plan should be revised to include buffer and transition zones outside of the Ramsar site boundary to include ecological components directly adjacent to the site and areas further field with indirect influence on the Gippsland Lakes.

Response

The Ramsar Site Management Plan is required to identify threats and management strategies to protect the values for which the site is listed. The geographic scope for these values is within the boundary of the Ramsar site and is limited to the values recognised as critical CPS. This does not preclude the need to undertake actions to address threats from outside of the boundary that may be impacting on the site's ecological character (i.e. catchment inflows, pollutants etc.).

A range of other regional plans and strategies address the management of other values of the Gippsland Lakes and the surrounding environment including the Gunaikurnai Healthy Country Plan, East and West Gippsland Regional Catchment Strategies and Regional Waterway Strategies and the Lake Wellington Land and Water Management Plan.

The 2015 Gippsland Lakes Ramsar Site Management Plan took a broader view on the scope of the plan. However, in line with recommendations from the Victorian Auditor General's Office and Public Accounts and Estimates Committee, there is a need for site coordinators and managers to demonstrate that the actions they are taking are focused on maintaining ecological character. Management of private land adjacent to the site is not in scope except where threats are impacting ecological character.

An explanation of the scope of the Plan and changes since the 2015 Plan will be included in final version of the document.

Draft Plan to be updated as per response

Site coordination and management

Issues Raised

Several submissions provided feedback on the site coordination and management and made commentary on perceived inaction lack of coordination by the EGCMA and other site managers. One submission called for a review of the coordinating committee approach to ensure it is effective and achieves value for money. Another called for actions to be more coordinated with consultation and involvement of key groups (including First Peoples). One submission argued that there has been inadequate investigation of issues risking the ecological condition of the Gippsland Lakes and inadequate investment in science to underpin the management plan.

Response

Coordination of the Gippsland Lakes (GL) Program

There are over 40 agencies and community groups working together to achieve positive outcomes for the environment, communities and businesses across the Gippsland Lakes.

In 2015, the Victorian Government established a Gippsland Lakes Coordinating Committee (GLCC) to prioritise and oversee investment in community and agency projects that benefit the environmental health of the Gippsland Lakes. The GLCC is made up of five community representatives with skills in aquatic science, waterway management, cultural knowledge; and environmental science and conservation. It also includes five members who represent Victorian public-sector agencies with waterway management responsibilities. The Committee functions include: making evidence based recommendations to the Victorian Minister for Water on funding priorities, fostering collaboration between stakeholders, review of the Gippsland Lakes Priorities Plan, providing the latest knowledge and advice to the Minister on environmental issues concerning the Gippsland Lakes and reporting on outcomes to the Minister and the public.

The Gippsland Lakes Priorities Plan is an important document that guides decision making and provides a clear and transparent approach for making recommendations for funding for the GLCC. The GLCC submit the Priorities Plan to the Victorian Minister for Water for review and consent. The priorities are drawn from the endorsed environmental strategies and plans currently relevant to the Gippsland Lakes as follows:

- Gippsland Lakes Ramsar Site Management Plan (GLRSMP) (East Gippsland CMA 2015)
- East and West Gippsland Waterway Strategies (East Gippsland CMA 2014; West Gippsland CMA 2014)
- Parks Victoria/Traditional Owners Management Board Joint Management Plan (Gunaikurnai Traditional Owner Land Management Board 2018)
- Gunaikurnai Whole of County Plan (Gunaikurnai Land and Waters Aboriginal Corporation 2015)
- Biodiversity Response Planning for the Gippsland Lakes Landscape (DELWP 2021).

As the lakes are also a Ramsar site, the EGCMA act as the 'Ramsar Site Coordinator' and undertake the ongoing coordination and convening of the 'Gippsland Lakes Ramsar Site Coordinating Committee' (GLRSCC). The GLRSCC are responsible for overseeing and coordinating the implementation of the Gippsland Lakes Ramsar Site Management Plan. The GLRSCC also ensure that Ramsar Roles and Responsibilities, as agreed by the Ramsar inter-agency governance group, are implemented by the agencies involved at a site level. Membership includes all agencies that have a responsibility for managing the site. The GLRSCC are represented by the following agencies:

- East Gippsland Catchment Management Authority
- West Gippsland Catchment Management Authority
- Parks Victoria
- Department of Environment, Land, Water and Planning
- Gunaikurnai Land and Waters Aboriginal Corporation
- East Gippsland Water
- Gippsland Water
- East Gippsland Shire Council (EGSC)
- Wellington Shire Council (WSC)
- Environment Protection Authority.

At the operational level, the Gippsland Lakes Program is managed through the CMA's existing program management structures, including program planning and development, assessment, program oversight, procurement and reporting. Appointed Delivery Managers from partner agencies manage their projects through normal processes of those contributing agencies and groups. The CMA's and Delivery Managers group monitor progress of the works program ongoing and report progress to the GLCC. The Delivery Managers include representatives from a wide variety of organisations, government and non-government (e.g. GLaWAC, Parks Victoria, DEECA, EGSC, WSC, Trust for Nature, Greening Australia, Federation University, Gippsland Ports, Gippsland Water). The program also invests in science through collaboration with universities and technical experts to undertake research and assessment of a wide variety of environmental issues that impact the lakes. Involvement of Traditional Owners is integral to the program and GLaWAC are a key

partner in delivery of on ground works, project planning and preparation of the Gippsland Lakes Ramsar Site Management Plan and have been key to the development of the Traditional Owner Theme and management actions. Within the current Gippsland Lakes Program, GLaWAC are involved in 16 projects with project partners and manage sole delivery of another four projects.

Draft Plan to be updated as per response

Threats and risk ratings within the Risk Assessment

Issues Raised

Feedback was received on threats and risk ratings within the Risk Assessment and the consideration of threats as documented below.

Table 3. Summary of feedback and responses for threats and risk ratings

Theme	Summary of feedback	Response
General	Question why some risks have been removed (e.g., for Freshwater Wetlands: Water resource use, Reduced freshwater inflows)	<p>The Risk Assessment is focused on ecological character and critical CPS and so pathways related to things that are not critical to Ecological Character are no longer contained in the Risk Assessment. This includes visual amenity, fisheries, dolphins, recreation, commercial fishing and tourism.</p> <p>The wording of several other impact pathways including the freshwater wetlands example have been revised rather than removed (e.g., Freshwater Wetlands: Water resource use: Domestic, agricultural, mines, and plantations).</p> <p>The pre-amble of the risk assessment will be updated to indicate that impact pathways from the 2015 plan have been retained but reworded unless they relate to matters out of scope for the current Plan.</p> <p>Draft Plan to be updated as per response</p>

Theme	Summary of feedback	Response
Risk ratings	Disagree with a number of risk ratings (detailed comments provided on the risk assessment table)	<p>In general, no new evidence was presented with submission, except for a paper on PFAS in dolphins (Foord et al, 2024) that was published in January 2024. This will be added to the risk assessment; however, one of the paper's authors (K. Robb) was consulted as part of the risk assessment workshop so the risk rating will not change.</p> <p>Draft Plan to be updated as per response</p>
Climate change	The plan's limited climate risk focus on island habitats of the Deep Lakes is not supported by existing evidence, which clearly shows sea level rise and coastal inundation is highly likely to have profound direct impacts on ALL low-lying wetland habitats across the Gippsland Lakes	<p>The risk assessment follows an impact pathway approach - these risks have been considered and are identified as a high risk to fringing wetlands. The maps provided in the submission provide an indication of the stressor, not the impact and hence provide incomplete evidence to support the risk assessment.</p> <p>No change to the Draft Plan</p>
Climate change / sea level rise	<p>The draft plan canvasses but does not explicitly address the impact of sea level rise on the hydrogeological (and thus ecological) character of the Gippsland Lakes, and the management actions that will be required to respond.</p> <p>Sea level rise is a critical factor in coastal and wetland areas, as it can have profound effects on ecosystems, water levels, and overall landscape dynamics. In the case of the Gippsland Lakes, the continued erosion and potential breach of the Outer Barrier may determine whether or not the estuarine system is predominantly freshwater or marine in nature, with associated impacts on biodiversity from rapid change.</p>	<p>Climate change and sea level rise are addressed in the Risk Assessment and identified as a priority for management.</p> <p>No change to the Draft Plan</p>

Theme	Summary of feedback	Response
Changed Entrance Conditions	The Changed Entrance Conditions risk assessment asserts that the trailer hopper suction dredge ‘...did not increase the depth of the channel beyond permitted specifications.’ A more sophisticated assessment is required to include updated scientific analyses based on the historical and published assessments that drew attention to the issues associated with the management of the Entrance.	The evidence indicates the depth of the channel has not increased. No change to the Draft Plan
New threats	The Gippsland Lakes ecosystems and wetlands has never been so threatened with new risks to wetland values and features from: <ul style="list-style-type: none"> • uncertainty under climate change, • sea level rising • increased agricultural irrigation, • increased surface and groundwater take from upstream Latrobe Valley coal rehabilitation, • land use changes and development, and • policy settings for alternative water sources in entitlement and planning frameworks. 	All of these threats are addressed in the Risk Assessment except policy settings. As noted above the Plan adopts an ecological risk assessment framework with consideration to impact pathways. The stressor associated with this threat has not been specified. Perceived inadequate of policy settings does not fit within an ecological risk assessment framework. Water resource use is already addressed in the risk assessment. No change to the Draft Plan
Loss of species	Loss of identified threatened species due to inaction and inadequate protection is not addressed.	See the response above regarding the Ecological Risk Assessment framework. The stressor associated with this threat has not been specified. No change to the Draft Plan

Theme	Summary of feedback	Response
Human induced impacts (multiple)	The plan does not address negative human induced actions from the unwise use of natural resources that impact Ramsar sites from all feeder waterways (upstream and downstream including Gippsland Port's deep entrance dredging).	These matters are addressed in the Plan, however, as noted above there is no evidence of deeper entrance dredging. No change to the Draft Plan
Human induced impacts (multiple)	Human induced impacts relate to: <ul style="list-style-type: none"> • deep entrance dredging increasing flow velocity, sea water intrusion and sand bank erosion • ongoing legal dumping of pollutants • over extraction of surface and groundwater • reduced freshwater inflows upstream of wetlands • inappropriate landuse and buffer zones. 	All of these matters have been considered in the Risk Assessment. No change to the Draft Plan
Recreational activities	Needs to mention boat wash/wake specifically as a threat.	This issue is addressed in the Plan, however it was not deemed to be a significant threat. No change to the Draft Plan
Recreational activities	Two areas that don't get the attention that they deserve are shoreline erosion around Lake Wellington primarily due to wave action and the general degradation of state game reserves (e.g. Blond Bay and Clydebank) by over-use, hoon drivers and free-campers/caravanners.	These issues are both addressed in the Risk Assessment. No change to the Draft Plan
Carp	Not enough work is being done on the damage carp are doing to the local fish environment.	Invasive non-native species including Carp are identified as a priority threat and will be addressed through Management Strategy 1F. No change to the Draft Plan

Theme	Summary of feedback	Response
<p>Pollution, water resource use, salinity</p>	<p>The Draft Plan is silent on increasing threats of toxic sediments, increasing salinity and nutrient loading, species impacts and loss of vital freshwater flushes from upstream feeder rivers.</p>	<p>Salinity, altered water regime and pollutants are all addressed in the Plan including toxicants from sewage discharge. The Ramsar Coordinating Committee agree there is a need to recognise the potential impact of PFAS even though we don't yet understand the thresholds. The risk ratings associated with PFAS will be reviewed with a note included around the uncertainties and lack of knowledge around thresholds.</p> <p>The Australian Defence Force has a Remediation Action Plan for the RAAF Base East Sale to manage PFAS contamination and undertakes ongoing monitoring, the results of which are published on their website.</p> <p>Not all emerging contaminants or endocrine disrupters have standards as the risks and levels that cause harm to the environment and human health are not well understood. EPA undertake research into these emerging contaminants to build understanding of their impacts and development of standards for compliance. The Draft Plan will be updated to reference the ADF Remediation Action Plan and EPA's research into contaminants.</p> <p>Draft Plan to be updated as per response</p>
<p>Coastal acid sulphate soils</p>	<p>Addressing the impact of climate change induced disturbance of low-lying coastal acid sulphate soils needs to feature more prominently in the plan's risk assessment and management strategies.</p>	<p>The risk of exposure of Coastal Acid Sulphate Soils in the Heart Morass is actively managed using e-water, as per the VEWH's annual Seasonal Watering Plan.</p> <p>Mobilisation via dredging is considered by Gippsland Ports and the risk is managed but no evidence was presented for the remaining considerations for coastal acid sulphate soils. This will be identified as a knowledge gap and included in the Improving our Knowledge section.</p> <p>Draft Plan to be updated as per response</p>

Theme	Summary of feedback	Response
Deer	I was surprised to find that "deer" are said to be impacting vegetation and destroying waterbird nests in the draft plan and that this impacts on all five wetland types. As far as impacts on nesting birds is concerned, I question the information that this is based on and its significance, particularly as it is said to impact on all wetland types.	Data recently provided to the project team shows that hog deer in particular are the most frequent pest species in the sites monitored, very few pigs, goats and sambar deer were captured. Additional detail will be provided in the risk assessment and main body of the report. Draft Plan to be updated as per response
Foreshore erosion (impacting on cultural values)	We strongly believe the loss of important cultural heritage sites and degradation of bio-cultural values due to salinity-induced foreshore erosion needs to be a priority of the plan.	GLaWAC will consider the priorities to restore the Gippsland Lakes cultural landscape through implementation of the Plan. This will be reflected in the GLaWAC developed content that will be included in updated Plan. Draft Plan to be updated as per response
Offshore wind farms	Off-shore wind farms and their easements ARE a threat to the Gippsland Lakes Ramsar Site (with evidence from the Minister for Environment's decision around the Victorian Renewable Energy Terminal (Port of Hastings) cited to indicate that this is an issue of relevance to the Gippsland Lakes).	There is no proposal to construct a terminal in the Gippsland Lakes. Any large-scale development will be assessed by existing environmental impact processes. No change to the Draft Plan
Pollution	The Risk Assessment states there's been a nearly 7 times increase in nitrogen and 17 times increase in phosphorus inflows into the Lakes since 2017/2018. Given this, and the aim of risk assessments is to predict and mitigate future impacts, why are the subsequent risks mostly rated at MEDIUM or less?	This risk is assessed as Medium as there is no evidence that it is having an impact on Ecological Character. Seagrass extent has not changed and there is no sustained trend in chlorophyll-a concentrations. No change to the Draft Plan

Theme	Summary of feedback	Response
Pollution - PFAS	<p>The plan has failed to acknowledge PFAS toxicants as a major threat. Question why toxicants are identified as a knowledge gap when a 2018 SENVERSA report “Human Health and Ecological Risk Assessment RAAF Base East Sale – Per- and Poly-fluoroalkyl Substances (PFAS) Investigations Report “and EPA notifications noting PFAS uptake in waterfowl and fish are available.</p> <p>Concerns also noted around results for Lake King North, Jones Bay, MacLeod morass and the Bairnsdale WWTP.</p>	<p>PFAS is discussed in the Plan and both reports noted are referenced in the risk assessment (p. 190 of Draft Plan). See also response above regarding review of the risk ratings for PFAS.</p> <p>Draft Plan to be updated as per response</p>
Pollution – other sources including PFAS, agricultural and veterinary chemicals, residues of coal ash, sewage discharge, mercury, mine rehabilitation	<p>The Draft GLRSMP seemingly fails to recognise or at least examine pollution issues affecting the Gippsland Lakes as of cumulative harm or component of cumulative impacts. The Plan should consider the range of pollution risks and sources (e.g. PFAS, ag and vet chemicals, residues of coal ash, sewage discharge, mercury, mine rehabilitation).</p>	<p>See responses above to earlier comments related to pollution.</p>
Pollution – endocrine disruptors	<p>The Latrobe River is subject to pollution from sewage effluent discharges. But the greatest source of pollution to the Latrobe is the Macalister Irrigation District (MID). Research (Fisher & Scott, 2008), identifies a range of endocrine disruptors being discharged into the Latrobe River, and hence the lakes.</p> <p>In November 2023, EGW was found guilty of contamination of License. During a recent wet weather event, effluent ponds could not contain effluent flow; and it was released to the lakes. But it must be appreciated that E.G. Water has for years been refused funding by the State government to enlarge effluent storage. This is yet another example, that the government does not take lakes’ management seriously.</p>	<p>See responses above to earlier comments related to pollution.</p>

3. Summary of changes arising from the consultation process

Table 4. Overall summary of feedback and responses

Theme	Feedback	Response and changes to the Draft
Change in Ecological Character – Article 3.2	<ul style="list-style-type: none"> Concern about the outcome of a previous third-party notification under Article 3.2 of the convention. Concern around the suitability of the current Limits of Acceptable Change (LAC) and associated monitoring. Suggestion that evidence from research regarding chlorophyll-a and cyanobacteria levels provides a case for submitting an article 3.2 report to the Convention. 	<u>Not supported</u> - No change to Draft Plan
Ecological character at the time of listing	<ul style="list-style-type: none"> Query use of time of listing as baseline condition for maintaining or improving ecological character. 	<u>Not supported</u> - No change to Draft Plan
Entrance to the Lakes and dredging	<ul style="list-style-type: none"> Concerns around dredging the entrance to the Lakes, including disputing evidence within the plan around the extent of dredging and possible effects. Request for more hydrodynamic modelling and salinity monitoring. Reconsider measures to address increasing salinity in Lake Wellington through construction of physical barrier. 	<u>Partially supported</u> – No change to Draft Plan
Evidence base for the management plan and knowledge gaps	<p>Concerns around the evidence base for the Plan.</p> <ul style="list-style-type: none"> Perceived lack of knowledge for some issues (transition of the lakes, sediment and nutrient sources, hydrodynamics of the lakes). Concerns around the currency of the reports used to support the risk assessment. A perceived lack of monitoring (water quality including salinity, river inflows, contaminants and dredging). Improving our knowledge does not go far enough in terms of identifying knowledge gaps. 	<u>Not supported</u> - No change to Draft Plan

Theme	Feedback	Response and changes to the Draft
Assessment of LACs – waterbirds	<ul style="list-style-type: none"> • Querying the assessment against LAC for waterbirds. • Gaps in survey coverage, query why Hansen et al, 2021 was not used. • Concern around potential for misinterpretation of Figure 6 with respect to survey effort. 	<p><u>Partially supported</u> – some edits to be undertaken to address potential for misinterpretation.</p>
Management Strategies	<p>Suggested amendments and changes to management strategies. See Table 1 on pages 8-11 of this report.</p>	<p>Various - see Table 1 for more detail.</p>
Migratory shorebirds	<ul style="list-style-type: none"> • Discrepancies between conservation status in the report with the Department’s website. • Concern that migratory shorebirds are no longer specifically listed for C6. 	<p><u>Partially supported</u> – some changes proposed.</p> <p>Update description for Criterion 2. to include newly listed migratory species.</p> <p>RCT to be included for threatened migratory shorebirds.</p>
Mine rehabilitation	<ul style="list-style-type: none"> • Concerns around mine rehabilitation including guidance around water access in the LVRRS Amendment. • Submission asserted the Draft Plan did not go far enough to protect freshwater flows in the context of mine rehabilitation. 	<p><u>Not supported</u>, however Section 1.2 of the Plan will be updated to incorporate the Latrobe Valley Regional Rehabilitation Strategy and its Amendment, and Section 4.7 and management strategy 4A will be updated to reinforce and complement government policy.</p>
Purpose / objective of the Ramsar Site Management Plan	<ul style="list-style-type: none"> • Objections to the wording of the Plan’s objective. 	<p><u>Not supported</u> - No change to Draft Plan.</p>
Resource Condition Targets	<ul style="list-style-type: none"> • Various feedback on the RCTs. See Table 2 pages 13 and 15 of the report for detail. 	<p>Various - see Table 2 for more detail.</p>
Risk assessment framework	<ul style="list-style-type: none"> • Feedback on the readability of the risk assessment tables • Query currency of risk standards • Call for broader consideration of risk 	<p><u>Partially supported-</u></p> <p>Modifications will be made to the display including an identifier on each page.</p>

Theme	Feedback	Response and changes to the Draft
Scope of the Ramsar Site Management Plan	<ul style="list-style-type: none"> • Call for broader geographic scope to include buffer and transition zones. 	<p><u>Not supported</u> – No change to Draft Plan.</p>
Site coordination and management	<ul style="list-style-type: none"> • Perceived inaction and lack of coordination. • Call for review of coordinating committee approach. • Actions to be more coordination and consultation with key groups. • Inadequate investment in science to underpin the Plan. 	<p><u>Not supported</u> - Additional information to be provided in the front end of the Plan to provide more detail on the coordinating committee approach and investment programs.</p>
Threats and risk ratings	<ul style="list-style-type: none"> • Feedback on threats and risk ratings. See table 3 pages 19-25 of the report. 	<p>Various - see Table 3 for more detail.</p>