



Meeting Obligations to Protect Ramsar Wetlands



VICTORIA

Victorian
Auditor-General

Meeting Obligations to Protect Ramsar Wetlands

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The Hon Bruce Atkinson MLC
President
Legislative Council
Parliament House
Melbourne

The Hon Telmo Languiller MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my report on the audit *Meeting Obligations to Protect Ramsar Wetlands*.

Yours faithfully



Dr Peter Frost
Acting Auditor-General

14 September 2016

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Auditor-General's comments

Wetlands are a vital part of the natural environment. They provide refuge, breeding sites and food to animals and plants and are an important part of the landscape. Ramsar wetlands are recognised as having international importance under the *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, known as the Ramsar Convention. It is one of the first intergovernmental treaties for the conservation of natural resources. Victoria currently has 11 Ramsar listed sites.

Globally, there has been a loss of wetlands since European settlement, and Victoria is no exception. As well as threats relating to hydrology, invasive plants or animals, activities and recreational use, the impact of climate change is also an emerging threat to wetlands' ecological character. Effectively managing these threats is critical to maintaining the character of Victoria's Ramsar wetlands.

This audit assessed how effectively Victoria's Ramsar wetlands are being managed. In doing so, it looked at the role of the Department of Environment, Land, Water & Planning (DELWP) and the primary site managers—Parks Victoria and Melbourne Water—as well as the catchment management authorities (CMA) which also have a key management role.

I found that, while there are a number of effective on-ground management outcomes, these are not clearly linked to management plan actions or risks. Overall, the governance, coordination and oversight of the management of Ramsar sites must improve for Victoria to effectively meet its obligations under the Ramsar Convention.

Monitoring of Ramsar sites also requires improvement. Some short-term output-focused monitoring takes place, but there is limited ongoing monitoring with a focus on outcomes. As a result, management effectiveness is not systematically monitored, reviewed or evaluated. Failing to maintain the ecological character of these sites risks breaching Australia's international obligations under the Ramsar Convention.

Some of the issues in this audit have been highlighted in previous performance audits in the environment and natural resource management area. These audits have also found complicated and poorly coordinated governance arrangements, a lack of oversight and accountability and poor evaluation, compromised by limitations in data. These systemic issues still need addressing, and all environmental or natural resource management agencies should have close regard to these recurring issues.

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Nevertheless, it is encouraging that, as a result of the emerging findings from this audit, DELWP is considering establishing a Victorian Ramsar forum that would bring together staff from DELWP, CMAs, Parks Victoria and Melbourne Water to share information, communicate issues and national updates, and to progress issues at a site and statewide level. This should also allow better understanding of roles and responsibilities, and the development of a shared understanding of priority values and threats at each site, as well as helping to track progress in implementing site management plans.

I would like to thank the staff from DELWP, Parks Victoria, Melbourne Water and CMAs who engaged with my office constructively and positively during this audit.

A handwritten signature in black ink, appearing to read 'Peter Frost', with a long horizontal stroke extending to the right.

Dr Peter Frost
Acting Auditor-General
September 2016

Audit summary

Wetlands are a critical part of our natural environment and have environmental, cultural, social and economic value. They are important for sustaining biodiversity regionally, nationally and internationally and provide a habitat for threatened species. Threats to the ecological character of a wetland including changes in water level, flow and quality, invasive species, climate change and recreational use. These threats make conserving these sites challenging.

The *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, or the Ramsar Convention, is an international intergovernmental treaty that provides a framework for the conservation and wise use of designated wetland ecosystems throughout the world. Australia is a signatory to the agreement and has 65 Ramsar listed sites, 11 of which are in Victoria.

In designating a Ramsar site, countries agree to set up and oversee a management framework aimed at conserving and maintaining the wetland and its ecological character.

The Department of Environment, Land, Water & Planning (DELWP) and primary site managers— Parks Victoria and Melbourne Water—all have a role in conserving and maintaining Victoria's Ramsar sites. Site managers must monitor and detect changes and threats to a site's ecological character, implement management practices to address these, and report any actual or likely changes in ecological character to DELWP. As waterway managers, catchment management authorities (CMA) also have a role in managing Ramsar sites—most Ramsar site management plans are incorporated into the regional waterway strategies (RWS) developed by CMAs.

Our audit looked at how effectively Ramsar wetlands are being managed, including interagency collaboration, and whether Victoria is meeting its national and international obligations. We assessed:

- the adequacy of Ramsar wetlands management plans and their implementation
- whether monitoring, evaluation and reporting occurs and is used to understand the impacts of management activities, inform management practices and meet reporting obligations.

As part of this assessment, we visited three Ramsar sites to determine whether management plans were being implemented as intended. The audit did not assess the effectiveness of Commonwealth or non-government agencies.

Conclusions

There is limited evidence that all Ramsar sites are being effectively managed and protected from decline. There is also evidence of potential change in the ecological character of some sites, while changes at other sites cannot be fully determined due to limitations such as a lack of data.

Some of Victoria's Ramsar sites are better managed than others. The one managed by Melbourne Water is a good example—this has a standalone management plan with clear roles and responsibilities for implementation and monitoring. Roles and responsibilities are less clear for the sites where Parks Victoria is the primary site manager. Some projects have improved outcomes for Ramsar sites, but these activities are not clearly linked to Ramsar management plan actions or risks.

Overall, the governance, coordination and oversight of the management of Ramsar sites must improve for Victoria to effectively meet its obligations. Without this improvement, site managers will continue to be guided by their own priorities, rather than responding to key threats to Ramsar sites' ecological character.

Monitoring the implementation of management plans requires improvement. Some short-term output-focused monitoring takes place, but there is limited ongoing monitoring of plan implementation or whether actions are achieving the intended outcomes. DELWP reviews Ramsar sites every three years to detect changes in critical site elements and to inform national condition reporting. This information is provided to site managers, however, it is not intended to inform short-term site management. Management effectiveness is not systematically monitored, reviewed or evaluated.

Encouragingly, DELWP has committed to improving its outcome-based monitoring of management plans through the development of a statewide approach to monitoring Ramsar sites.

Findings

Ramsar management responsibilities in Victoria

The state, through DELWP and site managers, has certain responsibilities, however, the Commonwealth Government has overall responsibility for administering the convention nationally.

The Ramsar Convention requires that the following key documents be developed to guide the maintenance and management of the ecological character of the wetland and to set a baseline for measuring change:

- Ramsar information sheet (RIS)
- ecological character description (ECD)
- site management plan.

Ramsar information sheet

The RIS provides essential data on each designated wetland. Signatories to the Ramsar Convention commit to preparing and updating an RIS every six years or when the character of a site changes. DELWP does not comply with this requirement, as no site has a current RIS. Ten sites were last updated in 1999, and the Edithvale–Seaford Wetlands site RIS was updated in 2001. DELWP advised that updates were drafted in 2005 and again in 2016 but have not yet been finalised by the Commonwealth Government.

Ecological character description

An ECD describes the baseline condition at each site at the time of listing and provides the foundation for a management plan. Of Victoria's 11 Ramsar sites, 10 have a published ECD. The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula ECD has been in draft since 2011, as it has not been published by the Commonwealth Government.

Final ECDs for nine wetlands formally listed in 1982 and one in 2001 were only developed between 2010 and 2012, following the development of national guidelines. The amount of time between listing and establishing the ECDs means there is limited information on the historical baseline condition of these sites.

Limits of acceptable change

ECDs must specify limits of acceptable change (LAC) for all identified critical ecological elements of a site. The Ramsar Secretariat must be notified if there has been a change in ecological character. If an LAC is exceeded, this may indicate an adverse change in the wetland's ecological character.

Victoria's ECDs identify 88 critical elements for which LACs must be determined. Currently, 118 of these have been determined. Only five of the 11 Ramsar sites have LACs for all their identified critical ecological elements. This is mainly due to knowledge gaps and poor baseline data.

Site management plans

Management plans should outline the management, monitoring and evaluation activities required to maintain the ecological character of the Ramsar site and to address emerging risks.

There are no national guidelines for the development of Ramsar site management plans. Seven of Victoria's sites have a current management plan embedded within an RWS, three have standalone plans—one of which is in draft—and one has no current management plan. None of these plans met all the Australian requirements to be considered a comprehensive management framework.

Governance, oversight, and roles and responsibilities

Governance

Due to the ecological complexity of Ramsar sites and the number of stakeholders involved, sound governance arrangements are required to manage them effectively. There is not a robust governance framework or procedures in place to help implement plans in a risk-based, prioritised manner. As a result, there is little evidence that plans have been effectively implemented.

While most of the management plans in place assign lead agencies to activities, there is limited accountability for implementation and monitoring their effectiveness. Without adequate governance, site managers mainly use their own planning priorities rather than being accountable for delivering management plan actions.

A number of management plans, including Gippsland Lakes, Kerang Wetlands and Edithvale–Seaford Wetlands Ramsar sites, specify clear governance arrangements for their implementation. These should be used as examples of better practice.

Oversight

Limited oversight means management plans are not always effectively implemented. DELWP, which is responsible for promoting the wise use and conservation of Ramsar wetlands and reporting on their ecological status, has limited oversight of how plans for all 11 sites are implemented and evaluated.

Parks Victoria also poorly oversees the implementation of management plans for the 10 sites it manages. While it carries out many habitat-management activities that often improve environmental outcomes, this work is mainly implemented through projects and specifically funded initiatives. It is opportunistic and reactive, based on available funding. These activities are generally not guided by the current Ramsar management plan, and this can result in significant ecological risks not being addressed in a timely way.

Roles and responsibilities

Site managers and CMAs are generally responsible for implementing management plans, but roles and responsibilities for specific actions are not always clear or documented. This means that, while lead agencies are identified, actions are not always implemented. CMAs led the development of management plans for most Parks Victoria sites, but are they not fully responsible for implementing all actions. This results in limited accountability. This is not the case for Melbourne Water, which is the site manager for the Edithvale–Seaford Wetlands site and responsible for developing and implementing its management plan.

DELWP acknowledges that improvements should be made in governance and in better integration between agencies that have a role in Ramsar site management. It is planning to address this.

Funding for delivery

Inadequate ongoing resourcing arrangements are a major hurdle to the effective management of Ramsar sites in Victoria. Not all management plan actions are funded, so responsible agencies rely on grants, and meeting sometimes competing Commonwealth and state priorities is challenging.

Funding is provided to DELWP through the State Budget process, and DELWP allocates a large portion of these funds to CMAs to deliver the actions in their RWSs. CMAs may allocate funding to other parties, including Parks Victoria, to complete this work. In addition, there are other grant and program funding opportunities available.

Parks Victoria should be able to assess its 10 Ramsar sites and know what resources it requires to manage them, but it currently cannot do so. It is planning to collect this information as it introduces its new planning process.

The Commonwealth Government had a Ramsar program from 2008–09 to 2011–12 that funded the development and review of ECDs and some RIS updates. It also funded the first Ramsar rolling review in 2011. It no longer provides funding for this, and DELWP funded the second round.

Monitoring and reporting against management plans

Monitoring and reporting of Ramsar site management plans is focused on implementation of actions rather than their effectiveness. That is, monitoring focuses on short-term and output-based actions—for example, hectares of fencing installed—rather than long-term, outcome-focused actions—for example, water quality changes.

Parks Victoria

Parks Victoria does not monitor and report on the implementation of management plans for the 10 sites it manages and does not evaluate its actions. Instead, it monitors actions against its own regional plans, which are not clearly linked to Ramsar management plans.

In 2013, Parks Victoria reviewed the status of its Ramsar management activities using the Ramsar management plans it prepared in 2002–03. This review identified outstanding actions but did not make further recommendations, and it is not clear how it has helped planning. The most common reason identified for not carrying out actions was a lack of funding, and there was also confusion over responsibilities. This reinforces the need to improve governance and accountability for implementing plans.

Melbourne Water

Melbourne Water monitors a number of environmental outcome indicators at its two Ramsar sites. It regularly monitors the ecological indicators outlined in the management plan for the Edithvale–Seaford Wetlands site. In the absence of a specific plan for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula site, Melbourne Water uses the Western Treatment Plant plan to monitor indicators such as the number of shorebirds, ibis and growling grass frogs every year.

Catchment management authorities

RWSs are supported by an overall monitoring, evaluation, reporting and improvement framework based on an eight-year adaptive management cycle set out in the Victorian Waterway Management Strategy. However, not all CMAs have developed plans to apply this framework. Two regional plans have been completed, with the remaining eight plans to be completed by the end of 2016. These will link activities and outputs to long-term resource condition outcomes and regional goals.

Monitoring for adaptive management

Monitoring is important to support an adaptive management approach—the ongoing adjustment of strategies based on monitoring and evaluation. There is limited evidence of an overall adaptive management approach being applied to each of the Ramsar sites. However, we found some examples of adaptive management to address specific threats, which had resulted in improved environmental outcomes.

Reporting on site management plans

Reporting on the implementation of Ramsar site management plans or on the outcomes of monitoring occurs infrequently. As a result, reporting by site managers and CMAs is inadequate. DELWP reports the outcomes of its monitoring as part of the Ramsar ‘Rolling Review’ process, but this is not linked to management plans or used to inform management practices. Melbourne Water advised that it reports every seven years—when the management plans are renewed.

CMAs do not directly report on Ramsar site management, as their annual reports to DELWP are framed against agreed outputs contained in service level agreements. These outputs are not directly linked to Ramsar sites. Reporting to DELWP on the progress of RWS actions, where Ramsar management plans are embedded, is scheduled to occur in 2018 and 2022.

State-level monitoring by the Department of Environment, Land, Water & Planning

DELWP reviews the condition of Ramsar sites and reports to the Commonwealth Government on their status through:

- the national Ramsar Rolling Review
- a state project to improve the monitoring of Ramsar sites.

Ramsar Rolling Review

The first Ramsar Rolling Review was undertaken in 2011 and aimed to identify changes in ecological character. This was a nationally funded program coordinated by the Commonwealth Government. The Rolling Review takes place every three years to assess the status of the ecological character of each site by comparing the condition of the critical elements against the LAC. The status of the key threats is assessed at the same time. The review is not publicly available but, if there are changes to the site, these are made public.

A second state-funded review took place in 2014–15 and 2015–16 which found that some LACs were not met and, in several instances, LACs could not be assessed due to a lack of data. The results of this second round are still in draft and have not yet been endorsed by the Commonwealth Government.

Project to improve Ramsar site monitoring

In October 2015, DELWP began a project aimed at improving monitoring at Ramsar sites, which included addressing data gaps and deficiencies and improving the link between monitoring and Ramsar site management planning. The project is scheduled to be completed by 30 November 2016.

Department of Environment, Land, Water & Planning reporting to the Commonwealth Government

DELWP is required to advise the Commonwealth Government as soon as it becomes aware of a potential or actual change in ecological character at a Ramsar site. DELWP also reports on changes to the ecological character of Ramsar sites to the Commonwealth Government through:

- six-yearly updates to the RIS, in which DELWP reports whether there have been any changes to the area or to the ecological character of a site
- three-yearly reports to inform national reporting on changes to the ecological character of wetlands.

DELWP has not reported a change in the ecological character of Ramsar wetlands since the sites were listed. However, the draft results of the 2014–15 Ramsar Rolling Review indicate a potential change in ecological character at some Victorian sites. DELWP has advised that this will be reported to the Commonwealth Government.

Recommendations

Number	Recommendation	Page
1.	That the Department of Environment, Land, Water & Planning, in conjunction with Parks Victoria and catchment management authorities: <ul style="list-style-type: none"> • develop and implement robust governance arrangements for managing Ramsar sites, including clarifying roles, responsibilities and accountabilities for planning, management and reporting • strengthen management plans to include time frames and resourcing to ensure that actions are carried out effectively and in a timely way. 	25
2.	That the Department of Environment, Land, Water & Planning: <ul style="list-style-type: none"> • oversee the development of a finalised Ramsar management plan for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula and Western Port sites • work with catchment management authorities and site managers to develop and assess options for the direct funding of management plan activities focused on high-priority threats that impact on the ecological character of Ramsar sites • implement arrangements to oversee how management plans are put into effect. 	25
3.	That the Department of Environment, Land, Water & Planning lead the development of a statewide approach to monitoring the ecological character of Ramsar sites, through a specific monitoring, evaluation and reporting framework.	36

Submissions and comments received

We have professionally engaged with the Department of Environment, Land, Water & Planning, Parks Victoria, Melbourne Water, Corangamite Catchment Management Authority, North Central Catchment Management Authority, Glenelg Hopkins Catchment Management Authority, East Gippsland Catchment Management Authority and West Gippsland Catchment Management Authority throughout the course of the audit. In accordance with section 16(3) of the *Audit Act 1994* we provided a copy of this report to those agencies and requested their submissions or comments. We also provided a copy of the report to the Department of Premier & Cabinet.

We have considered those views in reaching our audit conclusions and have represented them to the extent relevant and warranted. Their full section 16(3) submissions and comments are included in Appendix C.

1 Background

1.1 Introduction

1.1.1 Wetlands

Wetlands are areas that hold still or slow-moving water permanently, periodically or intermittently. They may be formed by natural processes or made by humans. Wetlands are diverse and include swamps, billabongs, lakes, mangroves, coral reefs, peatlands, mudflats, estuaries and seagrass areas.

Wetland functions and values

Wetlands are an important part of the natural environment and are culturally, socially, environmentally and economically valuable. They protect shores from wave action, reduce the impacts of floods, absorb pollutants, improve water quality and provide a habitat for diverse animals and plants. Often, they are also areas of natural beauty. Indigenous people are the traditional owners of many wetlands, which are important to them.

Wetlands provide economic benefits by supporting commercial and recreational activities, such as fishing, tourism, boating and game hunting.

Threats to wetlands

There are a range of threats to wetlands including:

- changed water regimes—alterations to the frequency, duration or season of inundation including river regulation, water extraction, drainage or changes to the catchment flow that interrupt the natural ebb and flow of the wetland system
- water quality—such as changes in salinity and increases in nutrient levels from nearby agriculture, which can trigger an algal bloom
- agricultural use—including draining, cropping and grazing of wetlands
- invasive species—invasive animals and plants competing with and degrading the environment of native animals and plants
- climate change—impacts include changes to water regimes from increased temperatures and decreased rainfall, and salinisation of coastal systems due to sea level rise
- recreational use—camping, hiking, fishing, boating, duck hunting and other recreational activities can disturb the soil, habitat and native flora and fauna.



Algal bloom at Macleod Morass, Gippsland Lakes, April 2016.

These threats make conserving wetlands challenging. A consequence of the declining health of wetlands is the decline or loss of many bird and fish species. In 2015, the University of New South Wales annual *Eastern Australian Waterbirds Survey* found a continuing long-term decline in water bird numbers, wetland area, breeding numbers and breeding species richness throughout Australia.

1.1.2 Victoria's wetlands

The Department of Environment, Land, Water & Planning (DELWP) maintains the Victorian wetland inventory, which was last updated in August 2014. The inventory contains data on 35 499 natural and artificial wetlands, covering 1 960 990 hectares. The number of wetlands occurring on public and private land is shown in Figure 1A.

Figure 1A
Number of wetlands on public and private land according to wetland origin

Origin	Completely private	Completely public	Both private and public	Total
Natural	17 207	5 457	2 960	25 624
Artificial	8 945	445	344	9 734
Unknown	43	82	16	141
Total	26 195	5 984	3 320	35 499

Source: VAGO based on information provided by DELWP.

As shown in Figure 1B, natural wetlands occupy around 94 per cent of Victoria's wetland area while artificial wetlands make up less than 6 per cent.

Figure 1B
Natural and artificial wetlands in Victoria

Origin	Area (hectares)	Per cent of total
Natural	1 843 896	94%
Artificial	107 914	5.5%
Unknown	9 180	0.5%
Total	1 960 990	100%

Source: VAGO based on information provided by DELWP.

It is estimated that more than a quarter of Victoria's wetlands have been lost since European settlement.

1.2 Wetlands of international importance

1.2.1 Ramsar Convention

The *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, or the Ramsar Convention, is an international intergovernmental treaty. The convention provides a framework for the conservation and wise use of wetlands throughout the world.

Under the Ramsar Convention, sites containing representative, rare, unique wetlands important for conserving biological diversity may be designated as wetlands of international importance and placed on the Ramsar List of Wetlands of International Importance. Listed wetlands are known as Ramsar wetlands or Ramsar sites.

For a wetland to be included on the list, it must satisfy one or more of nine criteria. The current Ramsar criteria are listed in Appendix A.

In designating a wetland as a Ramsar site, countries agree to set up and oversee a management framework aimed at conserving the wetland and ensuring its wise use by maintaining the wetland's ecological character. These terms are defined in Figure 1C.

Figure 1C
Ramsar Convention definitions

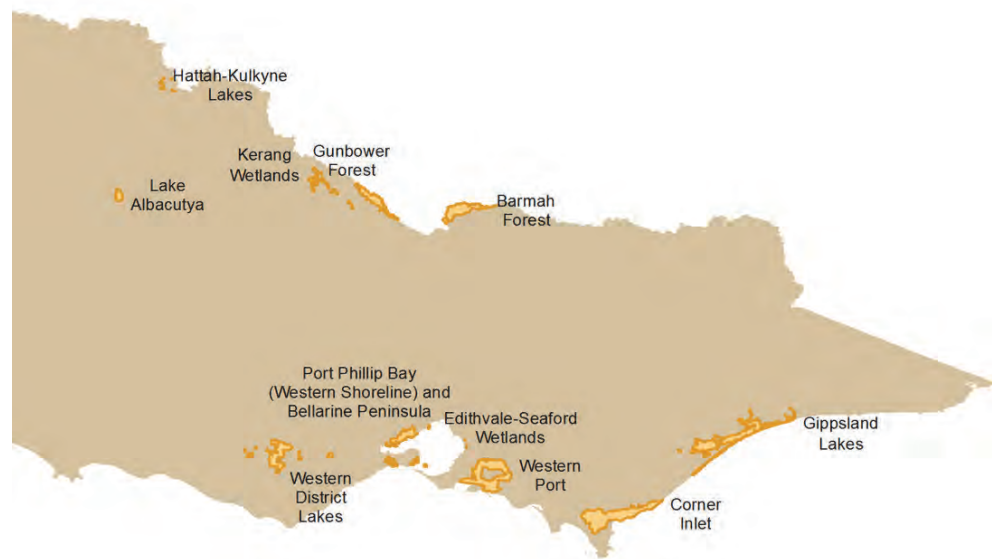
Wise use—the maintenance of the ecological character of wetlands, achieved through the implementation of ecosystem approaches, within the context of sustainable development.
Ecological character—the combination of ecosystem components, processes and benefits/services that characterise the wetland at a given point in time.

Source: VAGO based on Ramsar Convention definitions.

Changes to the wetland's ecological character outside natural variations could mean that impacts on the site are unsustainable and could degrade natural processes and the wetland's ecology, biology and hydrology.

As of May 2016, there were 169 signatories to the Ramsar Convention and 2 222 Ramsar sites. Australia became a contracting party in 1974 and currently has 65 Ramsar sites, with 11 in Victoria, as shown in Figure 1D.

Figure 1D
Location of Victoria's Ramsar sites



Source: DELWP.

The Commonwealth Environmental Water Office at the Department of Environment & Energy is responsible for Australia's Ramsar commitment. Some of its key responsibilities include:

- designating Australian sites to be added to the List of Wetlands of International Importance
- leading the development of national guidance on and approaches to implementing the Ramsar Convention in Australia
- working with state and territory governments to promote the conservation of Ramsar sites and wise use of all wetlands and to review the condition of Ramsar sites
- representing Australia at the triennial Conference of Parties and collating the national report for these meetings
- coordinating other reporting for the Ramsar Convention, including updates of Ramsar information sheets (RIS), reporting any changes to the ecological character of Australia's listed wetlands and responding to inquiries from the secretariat about reports from third parties
- providing advice on the Ramsar Convention and any agreed assistance to wetland managers.

Key documents for Ramsar management

Three key documents are prepared and maintained for each Victorian Ramsar site—the RIS, ecological character description (ECD) and the management plan.

The RIS is a requirement under the Ramsar Convention. It is a standard data sheet for each site that includes information on the criteria met, the wetland type, the wetland values and the conservation measures taken or planned. An up-to-date map and boundary description accompanies the RIS. The Ramsar Secretariat uses the RIS to populate the Ramsar information database.

The ECD is a national requirement. It provides the baseline description of the wetland at a certain time and can be used to assess ecological changes at a site. An ECD should be prepared for all Ramsar sites and should identify:

- the critical elements—components, processes, benefits and services—that form the ecological character of the site
- limits of acceptable change for each critical component of the ecological character of the site
- threats to the site
- knowledge gaps
- monitoring needs
- any change in ecological character.

The management plan is a requirement of the Ramsar Convention. It promotes the wise use and conservation of a wetland and should detail:

- the characteristics that make the wetland internationally important
- strategies to maintain the wetland's ecological character and reduce risks to the wetland
- provisions for continuing monitoring and reporting.

The management plan should be reviewed every seven years.

Site management

The site manager is the landowner or legal manager of a Ramsar site. The site manager may be the government, a community entity, traditional owners, a company or organisation, or a private owner. Site managers are encouraged to:

- manage the Ramsar site to maintain its ecological character
- have procedures in place to monitor and detect changes and threats to the site's ecological character
- where possible, create and implement strategies to reverse changes in ecological character
- report any actual or likely changes in ecological character to DELWP
- carry out site updates for the RIS and report as required
- seek approval under the *Environment Protection and Biodiversity Conservation Act 1999* before doing anything that will, or is likely to, have a significant impact on the ecological character of the site.

Figure 1E shows the size of Victoria's Ramsar sites and their primary site managers.

Figure 1E
Victoria's Ramsar sites

Ramsar site	Area (hectares)	Primary site manager
Barmah Forest	29 305	Parks Victoria
Corner Inlet	67 193	Parks Victoria
Edithvale–Seaford Wetlands	261	Melbourne Water
Gippsland Lakes	61 151	Parks Victoria
Gunbower Forest	20 218	Parks Victoria DELWP
Hattah–Kulkyne Lakes	977	Parks Victoria
Kerang Wetlands	9 793	Parks Victoria Goulburn-Murray Water
Lake Albacutya	5 659	Parks Victoria
Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	22 646	Parks Victoria Melbourne Water
Western District Lakes	32 671	Parks Victoria
Western Port	59 955	Parks Victoria DELWP

Source: VAGO based on information provided by DELWP.

There are also a number of other organisations including councils, traditional owners and other authorities with some involvement in site management.

1.3 Relevant legislation and policy

Key Commonwealth legislation relevant to protecting and managing Ramsar sites is described in Figure 1F.

Figure 1F
Key Commonwealth legislation relevant to Ramsar sites

Legislation	
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Provides the legal framework for the protection and management of nine matters of national environmental significance, including Ramsar. Other relevant matters include listed migratory species and listed threatened species and ecological communities.
<i>Water Act 2007</i>	Establishes the Murray-Darling Basin Authority's functions and powers, including enforcement powers, needed to ensure that basin water resources including wetlands are managed in an integrated and sustainable way. Also establishes a Commonwealth Environmental Water Holder to protect and restore the environmental assets of the Murray-Darling Basin and other areas where the Commonwealth owns water.

Source: VAGO.

State legislation does not specifically cover Ramsar sites. However, legislation that is relevant to wetland management includes:

- *Catchment and Land Protection Act 1994*
- *Environment Protection Act 1970*
- *Environment Effects Act 1978*
- *Flora and Fauna Guarantee Act 1988*
- *Water Act 1989*.

Victorian Waterway Management Strategy 2013

The former Department of Environment and Primary Industries (now DELWP) prepared *Improving our Waterways: Victorian Waterway Management Strategy*.

The strategy sets up an integrated waterway management framework that provides:

- clear policy directions for waterway management
- specific actions to make the management of waterways more effective and efficient
- aspirational targets that summarise key regional management activities over eight years, with the aim of maintaining or improving the condition of waterways
- for adaptive management (see Part 3.3.1).

The strategy integrates wetland management into an overall waterway management framework and has policies and actions that relate to Ramsar sites (see Appendix B). It also streamlines the processes for approving, investing in and reporting on outcomes for Ramsar sites and introduces a role for catchment management authorities (CMA) in Ramsar management through their regional waterway strategies (RWS).

Regional waterway strategies

The RWS is a single planning document for river, estuary and wetland management in each region. It supports the Victorian Waterway Management Strategy.

RWS is developed by waterway managers in partnership with other regional agencies, authorities and boards, plus traditional owners, regional communities and other key stakeholders. They outline regional goals for waterway management and set out strategic regional work programs for priority waterways.

Ramsar management plans are incorporated into the RWSs for seven sites—see Figure 2B. CMAs lead the development of RWSs.

1.4 Agencies

Several bodies have a role in planning for or managing Victoria's Ramsar wetlands.

Department of Environment, Land, Water & Planning

DELWP is the main body responsible for legislation and policy for managing Victoria's wetlands. It aims to improve the environmental condition of waterways to ensure that Victoria has safe and sustainable water resources to meet future needs.

To comply with Ramsar and *Environment Protection and Biodiversity Conservation Act 1999* requirements, DELWP must:

- adhere to national Ramsar guidelines, including management principles, management plans and the requirement to describe and report changes or potential changes to the ecological character of sites to the Commonwealth Government
- coordinate and maintain documents for Ramsar sites—including RISs, ECDs, management plans, site descriptions and maps
- together with the Commonwealth Government, lead the nomination of potential Ramsar sites.

Parks Victoria

Parks Victoria manages national, state and metropolitan parks and marine national parks, as well as having a role in managing Melbourne's bays, waterways and other significant cultural assets. It is the primary site manager for 10 of the 11 Victorian Ramsar sites. Four of these sites also have another primary site manager, because they have multiple tenures and are on different parcels of land.

Melbourne Water

Melbourne Water is a statutory authority that manages water catchments, treats and supplies drinking and recycled water, removes and treats most of Melbourne's sewage and manages waterways and major drainage systems in the Port Phillip Bay (Western Shoreline) and Western Port region. It is the main site manager for the Edithvale–Seaford Wetlands site and manages the Western Treatment Plant and part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula site.

Catchment management authorities

CMAs are statutory authorities set up to maximise community involvement in decision-making and to deliver programs to effectively manage catchments. They have a lead role in developing and delivering regional programs for waterway management.

CMAs' functions include:

- developing RWSs and associated action plans
- developing and implementing work programs
- authorising works on waterways and acting as a referral body for planning applications, for licences to take and use water and construct dams, for water use and for other waterway health issues
- identifying regional priorities for environmental water management and facilitating the delivery of environmental water
- providing input to water allocation processes
- developing and coordinating regional flood plain management plans
- managing regional drainage in specified areas
- responding to natural disasters and incidents affecting waterways such as bushfires, floods and algal blooms
- undertaking community participation and awareness programs.

1.5 Audit objective and scope

This audit assessed how effectively Victoria's Ramsar wetlands are managed, including how effectively agencies are working with each other, and whether Victoria is meeting its national and international obligations.

To address these objectives, we assessed whether:

- comprehensive, reliable and current information and effective consultation with stakeholders informs the management of Ramsar wetlands
- comprehensive management plans are in place
- management plans are implemented as intended
- monitoring, evaluation and reporting occur and whether these are used to understand the impact of management activities, inform management practices and meet reporting obligations.

We audited DELWP, Parks Victoria, Melbourne Water and relevant CMAs.

We did not assess the effectiveness of Commonwealth or non-government agencies.

1.6 Audit method and cost

To test the effectiveness of Ramsar wetland management in Victoria, we reviewed relevant legislation, policies and documents, such as site management plans and ecological character descriptions. We interviewed and consulted agency staff and stakeholders.

We tested management activities at three Ramsar sites—Gippsland Lakes, Kerang Wetlands and Western District Lakes. We chose these sites because they have a range of different management arrangements, site values, threats and land tenure.

The audit was carried out under section 15 of the *Audit Act 1994*, in keeping with the Australian Auditing and Assurance Standards. Pursuant to section 20(3) of the *Audit Act 1994*, unless otherwise indicated, any persons named in this report are not the subject of adverse comment or opinion.

The total cost of the audit was \$330 000.

1.7 Structure of the report

The report is structured as follows:

- Part 2 looks at how Ramsar management plans are planned and implemented
- Part 3 looks at monitoring, evaluation and reporting on the management of wetlands using examples from selected sites.

2 Victoria's Ramsar site management framework

At a glance

Background

Sound planning and management is required to conserve the ecological character of Ramsar sites and detect any unacceptable change.

Conclusion

There is limited evidence that all Ramsar sites are managed effectively and protected from further decline. The governance, coordination and oversight of the management of Ramsar sites require significant improvement for Victoria to effectively meet its obligations under the Ramsar Convention. Without this improvement, site managers will continue to work to their own priorities rather than responding to significant threats and working to prevent ecological decline.

Findings

- The management framework for most Ramsar sites lacks accountability, as governance and oversight processes are poor, and roles and responsibilities for the implementation and monitoring of management plans are not clear.
- Current documents for sites required under the Ramsar Convention are either not up to date or are not complete.
- There are some examples of good planning and management by Melbourne Water, demonstrating effective governance and clear accountabilities.

Recommendations

- That the Department of Environment, Land, Water & Planning, in conjunction with Parks Victoria and catchment management authorities, improve implementation of management plans by improving governance arrangements, and outlining clear roles and responsibilities, time frames and resourcing.
- That the Department of Environment, Land, Water & Planning oversee the development of finalised management plans for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula and Western Port Ramsar sites.

2.1 Introduction

The *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, or the Ramsar Convention, obliges signatories to prepare management plans that promote the sustainable use of wetlands. Multiple organisations have a role in looking after Ramsar sites in Victoria, so effective governance arrangements that clearly assign specific roles and responsibilities are required. Such arrangements reduce the risk of overlap and service gaps, and improve accountability by clearly attributing responsibility for the implementation of management plan actions.

Robust management plans are the foundation for the wise use and conservation of wetlands. They should be based on a comprehensive understanding of the ecological character of a site and identify actions to conserve the site's ecological character by addressing emerging threats. Good management also requires continuous monitoring, evaluation and reporting to assess the effectiveness of management actions.

2.2 Conclusion

There is limited evidence that all Ramsar sites are being effectively managed and protected from decline. There is also evidence of potential change in the ecological character of some sites, while changes at other sites cannot be fully determined due to limitations such as a lack of data.

Some sites are better managed than others. The site managed by Melbourne Water is a good example—it has a standalone management plan with clear roles and responsibilities for implementation and monitoring. Roles and responsibilities are less clear for the 10 sites managed by Parks Victoria. Some projects have improved outcomes for Ramsar sites, but these activities are not clearly linked to management plan actions or risks.

Overall, the governance, coordination and oversight of the implementation of management plans for Ramsar sites must improve for Victoria to effectively meet its obligations. Without this improvement, site managers will continue to be guided by their own priorities rather than responding to key threats to Ramsar sites.

2.3 Ramsar management responsibilities in Victoria

The state of Victoria—through the Department of Environment, Land, Water & Planning (DELWP) and site managers, including Parks Victoria and Melbourne Water—has certain responsibilities which include preparing Ramsar information sheets (RIS), an ecological character description (ECD) and a management plan for each Ramsar site.

2.3.1 Ramsar information sheet

Ramsar Convention contracting parties commit to preparing and updating an RIS every six years or when the character of a Ramsar site changes. Victoria does not comply with this requirement, as no site has a current RIS. RISs for 10 sites were dated 1999, and the RIS for the Edithvale–Seaford Wetlands site was dated 2001. DELWP advised that updates were drafted in 2005 but were not finalised by the Commonwealth Government. DELWP has updated the RIS boundary descriptions and maps to comply with national guidelines in the first half of 2016 and has provided these to the Commonwealth Government for review and endorsement.

2.3.2 Ecological character description

An ECD describes the baseline condition of a wetland at the time of its listing as a Ramsar site. An ECD provides the foundation for a management plan and is important for monitoring and assessing changes to a wetland's ecological character. In line with a national framework, an ECD must include:

- site details
- a description of the components, processes, benefits and services of the site
- limits of acceptable change (LAC)— the acceptable variation limits of an ecological characteristic or process at the time of listing
- potential threats to the site
- knowledge gaps and key monitoring needs.

Of the 11 Ramsar sites, 10 have a published ECD. The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula ECD has been in draft since 2011 as the Commonwealth Government has not yet endorsed it.

The ECDs for Victoria's Ramsar sites identify 88 critical elements for which LACs must be determined. Currently, 118 LACs have been determined. The national framework for describing ecological character states that there may not be enough information to set LACs for some critical components and processes. In these instances, the lack of information should be described as a knowledge gap. All of the completed ECDs identify knowledge gaps.

LACs are important for determining whether a wetland's ecology has changed. They are used to measure changes in hydrology, vegetation, native fish, waterbirds or threatened species. The Ramsar Secretariat must be notified if there has been a change in ecological character. If an LAC for a site is exceeded, it may indicate an adverse change in the wetland's ecological character.

Only five of the 11 Ramsar sites assessed have LACs for all their critical ecological elements. This is mainly due to knowledge gaps and poor baseline data at the time of listing. LACs should be determined based on the condition of the wetland at the time the site was listed, to provide a baseline against which to compare changes at the site. However, as ECDs were not developed until 2010–12, LACs could not be determined at the time of listing, which was 1982 for all sites except the Edithvale–Seaford Wetlands site, which was listed in 2001.

The Edithvale–Seaford Wetlands site has no established LACs because its ECD predates the government-prepared guidance on the critical elements that characterise a wetland, which act as the base for determining LACs. Without LACs, it is difficult to determine whether a site is degrading because changes in ecological character cannot be monitored effectively.

The case study in Figure 2A outlines a notification of change in ecological character by a third party—a member of the public, non-government organisation or community group—directly to the international Ramsar Secretariat. This demonstrates the importance of baseline data and establishing LACs in a timely way.

Figure 2A
Case study: Third-party notification

In March 2009, concerns were raised by a third party about an increase in salinity at Lake Wellington in the Gippsland Lakes Ramsar site. The Ramsar Secretariat notified the Commonwealth Government which then informed DELWP. The Commonwealth Government led an assessment of ecological character change and, in February 2012, concluded that:

Based on the best available scientific evidence, the Gippsland Lakes Ramsar Site had not undergone human-induced adverse alteration in the critical components, processes and benefits/services since the time it was listed in 1982.

At this time, an LAC for salinity at Lake Wellington was not set. The 2015 Gippsland Lakes Management Plan indicates an increase in salinity at Lake Wellington from 1986 to 2015. In reviewing the ECD for the site, DELWP developed a draft addendum to include an LAC for salinity at Lake Wellington. In 2015–16, after a further third-party notification, the site was reassessed against this LAC. The findings will be included in the ECD addendum when this is finalised in consultation with the Commonwealth Government.

Source: VAGO based on information provided by DELWP.

DELWP is aware of several problems with ECDs, including:

- the availability of new information that may update LACs to more accurately reflect the condition of sites at the time of listing
- the absence of LACs for some critical elements
- the absence of monitoring data for some LACs and threat indicators
- methods, time frames and accountabilities for monitoring LACs and threat indicators not being generally documented in management plans or other Ramsar site documents.

To address these issues, DELWP began a project to revise and update ECDs in October 2015, including setting and reviewing LACs. The project is further discussed in Section 3.4.



Lake Albacutya, photographed in 2014, is threatened by the impact of climate change and has been dry for the last 20 years. It has contained water for only four periods in the last century: 1909–29, 1956–68, 1974–83 and 1992–94.

2.3.3 Management plans

Management plans should outline the management, monitoring and evaluation activities required to maintain the ecological character of Ramsar sites and should address current and emerging risks. ECDs should guide their development.

National regulations set out general principles for the development of Ramsar site management plans. These should contain a description of the site's ecological character, actions necessary to maintain its ecological character, and monitoring and reporting provisions. The principles recommend that management plans be reviewed every seven years.

DELWP has also developed guidance for catchment management authorities (CMA) outlining when and how Ramsar site management should be incorporated into regional waterway strategies (RWS).

Of Victoria's 11 Ramsar sites, seven have a current management plan embedded within an RWS, three have standalone plans—one of which is in draft—and one site (Port Phillip Bay (Western Shoreline) and Bellarine Peninsula) does not have a current management plan. DELWP advised that work to renew this plan has commenced. It has funded Corangamite CMA to lead the plan development, which is expected to be completed by December 2017.

The location and status of Ramsar management plans is shown in Figure 2B.

Figure 2B
Location of Ramsar site management plans

Ramsar site	Location of management plan
Barmah Forest	Goulburn Broken Regional Waterway Strategy 2014–22
Corner Inlet	West Gippsland Waterway Strategy 2014–22
Edithvale–Seaford Wetlands	Edithvale–Seaford Wetlands Management Plan 2009
Gippsland Lakes	Gippsland Lakes Ramsar Site Management Plan 2015
Gunbower Forest	North Central Waterway Strategy 2014–22
Hattah–Kulkyne Lakes	Mallee Waterway Strategy 2014–22
Kerang Wetlands	North Central Waterway Strategy 2014–22
Lake Albacutya	Wimmera Waterway Strategy 2014–22
Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	Out of date
Western District Lakes	Corangamite Waterway Strategy 2014–22
Western Port	In draft

Source: VAGO based on information from DELWP.

Parks Victoria and the former Department of Sustainability & Environment prepared Ramsar management plans in 2002–04 before they were embedded in RWSs. Despite being out of date, these plans remain on the Parks Victoria website and, in 2013, Parks Victoria used these plans to review the status of management actions—see Section 3.3. This audit did not assess the development of these plans.

Assessment of Ramsar management plans

Our assessment of current Ramsar management plans, based on the key Australian Ramsar management principles, is shown in Figure 2C. No one plan met all the requirements to be considered a comprehensive management framework for a Ramsar site.



Photographed in 2016, Lake Wellington's dying vegetation—phragmites reed beds—is thought to be caused by increased salinity in the lake.

Figure 2C
Ramsar management planning requirements

Criteria	Met	Not met	Partly met
A management plan exists for the site.	9	1	1 ^(a)
The management plan describes the ecological character of the site.	9	1	1
The management plan states the Ramsar criteria met.	10	1	–
The management plan has management actions for the conservation and maintenance of the ecological character of the site.	5	1	5
The management plan promotes actions for the wise use of the wetland.	7	1	3
The plan has management actions to address threats that impact the wetland's ecological character.	2	1	8
The development of the management plan utilised a public consultation.	9	2	–
The management plan involved people with an interest in the wetland and provides for continuing community and technical input.	10	1	–
The management plan adequately considers monitoring and reporting on the state of the wetland's ecological character on a continuing basis.	8	1	2
The management plan will be reviewed every seven years.	2	9	–

(a) The management plan is in draft form and currently available for public comment.

Note: CMAs' RWSs assume an eight-year review cycle. This analysis included the draft management plan for Western Port. Port Phillip Bay (Western Shoreline) and Bellarine Peninsula does not have a management plan and was rated as 'not met' for all categories.

Source: VAGO based on the Australian national Ramsar management principles.

Overall, seven of the 10 plans assessed by VAGO ensured the ecological character of the site would be conserved by linking management actions to ecological values requiring conservation and protection. The draft Western Port plan also clearly links management actions and targets to the ecological character of the site. Three plans were assessed by VAGO as only partly meeting this requirement.

Eight of the plans only partly addressed the stated threats to ecological character, as they did not include management actions to address all the identified risks. Risks such as invasive animals and plants and changes in water level and flow were addressed well, but identified risks from recreational activity, changes in water quality and climate change were rarely addressed.

Recreational activities such as fishing and gaming provide social value but may pose a threat to ecological character. The impact of these threats was not identified in most management plans. Ducks are hunted at many sites, including at Lake Murdeduke and Lake Colongulac, part of the Western District Lakes site. One of the site's environmental values, identified in the management plan, is supporting waterbird habitat. However, the potential impacts of duck hunting—such as the accidental shooting of protected species and disturbances to habitat and fauna—have not been assessed.

Eight of the plans outlined requirements to monitor the effectiveness of actions, which were also identified in the ECD. These plans described what monitoring was required and the time frames and responsibility for it. The Gippsland Lakes Ramsar site management plan is an example of this approach.

Nine plans met the requirement for public consultation by issuing the draft plan/strategy for public comment, holding workshops with agencies and community groups, and indirect consultation through emails and advertisements.

2.4 Governance, oversight, and roles and responsibilities

Sound governance arrangements are required to manage Ramsar sites effectively due to the sites' complexity and the number of organisations involved. Clear roles and responsibilities and good oversight are required for the effective implementation of management plan actions. Together these reduce the risk of overlap and service gaps and increase accountability for the implementation of management plans.

Governance

Governance processes for implementing most management plans are generally poor. There is no robust governance framework, nor procedures in place to help implement plans in a risk-based, prioritised manner. As a result, there is limited evidence that plans are implemented as intended. While most management plans do assign lead agencies to activities, there is limited accountability for implementation and monitoring the impact of management activities. Without adequate governance, site managers mainly use their own planning priorities rather than being accountable for delivering management plan actions.

A number of management plans specify clear governance arrangements for their implementation and these should be used as better-practice models:

- The Gippsland Lakes plan directs agencies to prepare an implementation plan for each management action they are responsible for. East Gippsland CMA then collates these into a single plan, which also sets monitoring, evaluation and reporting requirements. The plan also specifies that a multi-agency Ramsar steering committee will be formed for the Gippsland Lakes.
- North Central CMA is developing an action plan for the Kerang Wetlands site, for which DELWP has provided \$200 000. A steering committee of representatives from other agencies in the region has been set up to overcome the problem of agencies working in isolation. When completed, the action plan is expected to make clear what is required and from whom.
- Melbourne Water is both the site manager and plan owner for the Edithvale–Seaford Wetlands site. It has clear accountabilities for managing and monitoring the site and internal processes that ensure that it funds high-priority actions for Ramsar sites. Melbourne Water also tracks the implementation of its management activities. The Ramsar plan has 77 management actions. Of these, all high-priority actions have been implemented but 11 are uncompleted—these actions were not completed as they were no longer deemed a high priority.

While these examples illustrate effective operational governance arrangements, there is limited opportunity for site managers to have ongoing input into processes that impact the management of Ramsar sites. A wetland working group that includes representatives from Melbourne Water, Parks Victoria, CMAs, DELWP and the Commonwealth Government meets three times a year. The group discusses wetland management matters broadly, but Ramsar site matters are only discussed as required rather than being an ongoing agenda item. This forum shares information but lacks formal arrangements to help set priorities.

Oversight

Inadequate oversight of Ramsar site management means management plans are not always effectively implemented. DELWP, which is responsible for promoting the wise use and conservation of Ramsar wetlands and reporting on their ecological status, has limited oversight of how plans for all sites are implemented and evaluated.

Parks Victoria has poor oversight of the implementation of management plans for the 10 sites it manages. Parks Victoria carries out many habitat-management activities in these wetlands, which often result in improved environmental outcomes, and they work in collaboration with other partners to reduce threats—see Figure 2D. However, this work is mainly implemented through projects and specifically funded initiatives, so it is opportunistic and reactive to when funding is available. These activities are generally not guided by the current Ramsar management plan, and this can result in significant ecological risks not being addressed in a timely way.

Figure 2D
Examples of opportunistic management activities

Site	Project
<p>Gippsland Lakes</p>	<p>Water management at Sale Common</p> <p>During a dry period in 2008–10, the native plant giant rush spread throughout the Sale Common. Changes in the water created an environment that encouraged growth of the plant.</p> <p>The giant rush can provide excellent habitat for waterbird and colonial nesting species but can also create tall, dense stands, competing with other native vegetation and decreasing the ecological value of the wetland.</p> <p>The West Gippsland CMA and Parks Victoria responded by preparing a management strategy to drown the rush by artificially filling the wetland and maintaining high water levels for about three years. Rainfall filled the Sale Commons in 2010, resulting in the giant rush seedlings being drowned.</p> <p>Reducing the extent and density of the giant rush led to other vegetation types being restored. This management activity directly responds to a management action in the Gippsland Lakes Ramsar site management plan, which requires control of native invasive species such as the giant rush.</p>
<p>Kerang Wetlands</p>	<p>Protecting and enhancing priority wetlands</p> <p>This project, led by North Central CMA, aims to protect endangered and threatened flora and fauna species supported by the Kerang Wetlands site. This project ran over four years and ended on 30 June 2016, with no further funding available. It delivered land management activities within and near the wetlands including:</p> <ul style="list-style-type: none"> • monitoring outputs and outcomes through vegetation surveys and wetland condition assessments • managing invasive plants and animals • fencing and revegetation work • maintaining conduits at sites where environmental water was to be delivered • talking with communities and Indigenous people to raise awareness of the value of the wetlands. <p>These activities respond to various actions in the Kerang Wetlands management plan, including controlling weeds, rabbits and foxes, mapping vegetation, and assessing the condition of the wetland.</p>
<p>Western District Lakes</p>	<p>Borrell-a-kandelop Wetland Restoration Project</p> <p>Between 2001 and 2014, Greening Australia, Parks Victoria and Corangamite CMA jointly carried out this project, aimed at preserving habitat for migratory birds through conservation work, including revegetation, building fencing and fox baiting.</p> <p>One of the major challenges at the Western District Lakes is that the site boundary abuts private land and some management activities depend on the willingness of local landowners to take part in the project.</p> <p>Part of this project was to stop grazing on the wetland. Parks Victoria engaged and negotiated with landowners to fence the boundary between the lake and private land.</p> <p>The Borrell-a-kandelop project started under the former management plan for the Western District Lakes, prepared in 2002. The name 'Borrell-a-kandelop' relates to the objective of the site's management plan—'protect and, where appropriate, enhance ecosystem services, processes, habitats and species.' Management activities for this project aligned to the priorities of the Ramsar site management plan.</p>

Source: VAGO based on information provided by Parks Victoria and CMAs.

In 2015, Parks Victoria introduced a new approach to improve its planning, governance and oversight processes for public parks and reserves, which includes Ramsar sites. This approach involves preparing management plans for 16 areas with similar landscapes. At present, no plan that covers a Ramsar site has been completed, so this process is not advanced enough to assess how well Ramsar sites will be catered for. The River Red Gums landscape plan, in the early stages of development, includes four Ramsar sites—Barmah Forest, Gunbower Forest, Kerang Wetlands and Hattah–Kulkyne Lakes. It is unclear how this plan will link to the relevant RWSs for these sites, which include Ramsar management plans.

Roles and responsibilities for implementation

Site managers and CMAs are generally responsible for developing and implementing management plans, but roles and responsibilities for specific actions are not always clear or documented. This means that, while lead agencies are identified, actions are not always implemented. CMAs led the development of Ramsar management plans for the Parks Victoria sites, where the plans are embedded in RWSs, but they are not fully responsible for the plans' implementation. This results in limited accountability for the implementation of management actions. This is not the case for Melbourne Water, which is the site manager for the Edithvale–Seaford Wetlands site—it is responsible for developing and implementing its management plan.

Most management plans also do not contain clear roles and responsibilities for monitoring the outcomes and effectiveness of management actions. As a result of this limited accountability, most site managers determine their own management priorities based on available funding and resources, rather than those identified through the Ramsar management planning process.

DELWP acknowledges that improvements should be made in governance and in better integrating agencies who have a role in Ramsar site management. It is planning to resource a Victorian Ramsar forum to bring together agencies with management responsibilities to share information, communicate issues and national updates, and progress issues across the state.

2.5 Funding for delivery

Inadequate resource planning is a major hurdle to the effective management of Ramsar sites in Victoria. Not all management plan actions are funded, so responsible agencies rely on grants. In addition, meeting sometimes competing Commonwealth and state priorities is challenging. DELWP advised that funds for management plans, generally in resource management, are limited.

Despite this, agencies should know what resources are required to manage these sites to avoid any change to their ecological character, and should budget appropriately.

State funding

In Victoria, funding is provided to DELWP through the State Budget process, and DELWP allocates a large portion of these funds to CMAs to deliver the actions in their RWSs. In addition, there are other grant and program-funding opportunities available.

Under its Waterway Health Program, DELWP provides CMAs with some funds for Ramsar site planning and on-ground management. DELWP also provides advice on developing Ramsar management plans to be embedded into RWSs and advice on renewal and/or development of standalone Ramsar site management plans.

CMAs apply for annual funding through the Victorian Water Programs Investment Framework, which includes a component to manage Ramsar sites. Funding is allocated through annual service level agreements (SLA) between CMAs and DELWP, covering projects related to river and estuary management, as well as wetlands. In 2015–16, only the SLA for North Central CMA had a dedicated Ramsar program for the Kerang Wetlands and Gunbower Forest Ramsar sites. The other SLAs integrated funding for Ramsar sites into general wetland projects.

With no dedicated funding for the management of Ramsar sites, CMAs also use funding from other sources, including the National Landcare Programme to plan and manage these sites. One CMA advised that the issue with this type of project-specific funding is that it is not ongoing and does not necessarily need to be spent on monitoring or maintenance activities.

Under RWSs, Parks Victoria and other agencies are assigned management actions. However, these actions do not have funds specifically allocated to them. CMAs are funded to complete management activities in priority waterways and may allocate funding to other agencies, including Parks Victoria, to complete this work.

DELWP and Parks Victoria have a management service agreement detailing arrangements for managing parks and reserves. The agreement does not make specific funding provisions for the management of Ramsar wetlands but does cover environmental management activities—threatened species, invasive plants and animals, native animal management, habitat restoration, catchment and water management, ecological fire management and marine management. Many of these activities are undertaken at Ramsar sites.

As environmental management is part of Parks Victoria's core service, it should be able to assess and know what resources it requires to manage its 10 Ramsar sites, but it currently cannot do so. Parks Victoria is aware of this issue and intends to collect this information as it introduces its new planning process.

Figure 2E details funding spent at each Ramsar site for the last two years. However, we are not confident about the reliability and completeness of this information and had difficulty compiling this data. Parks Victoria did not have this information readily available because it tracks expenditure at a program level rather than at a Ramsar site level. Parks Victoria demonstrated that it could provide a reasonable estimate of the funds it expends at each site.

Figure 2E
Funding for Ramsar sites

Ramsar site	State funding (\$)		Commonwealth grants (\$)	Joint funding/ TLM ^(a) (\$)
	Total state	Parks Victoria		
2014–15	Total state	Parks Victoria		
Barmah Forest	67 547	20 047	553 223	237 872
Corner Inlet	228 305	11 825	745 000	–
Edithvale–Seaford Wetlands	309 170 ^(b)	–	–	–
Gippsland Lakes	4 749 860	126 100	31 500	–
Gunbower Forest	15 120	15 120	747 550	–
Hattah–Kulykne Lakes	151 166	151 166	887 247	1 277 373
Kerang Wetlands	143 000	32 000	522 440	–
Lake Albacutya	10 250	10 250	95 404	–
Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	1 508 640 ^(c)	21 600	893 940	–
Western District Lakes	345 000	25 000	30 000	–
Western Port	726 600 ^(c)	40 000	550 000	–
Total	8 254 658	453 108	5 056 304	1 515 245
2015–16	Total state	Parks Victoria		
Barmah Forest	200 924	100 924	442 578	318 083
Corner Inlet	355 699	16 000	585 385	–
Edithvale–Seaford Wetlands	791 615 ^(b)	–	–	–
Gippsland Lakes	1 795 606	149 250	56 000	–
Gunbower Forest	85 060	17 400	346 964	–
Hattah–Kulykne Lakes	355 794	157 360	373 638	1 870 455
Kerang Wetlands	468 642	4 200	209 166	–
Lake Albacutya	37 107	14 530	75 534	–
Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	1 230 678 ^(c)	31 650	68 975	–
Western District Lakes	63 000	7 000	30 000	–
Western Port	421 600 ^(c)	43 500	306 225	–
Total	5 805 725	541 814	2 494 465	2 188 538

(a) 'Joint funding' comprises funding from Victoria and the Commonwealth Government. Funding from 'The Living Murray' (TLM) initiative comprises contributions from Victoria, other state and the Commonwealth governments—see Figure 2F.

(b) Entire contribution from Melbourne Water.

(c) Includes contributions from Melbourne Water made up of:

For 2014–15, Melbourne Water contributed \$1 412 040 to Port Phillip Bay (Western Shoreline) and Bellarine Peninsula and \$686 600 to Western Port.

For 2015–16 Melbourne Water contributed \$908 400 to Port Phillip Bay (Western Shoreline) and Bellarine Peninsula and \$274 600 to Western Port.

Note: Parks Victoria contribution is included in the state funding column.

Source: VAGO based on information provided by DELWP, Parks Victoria, Melbourne Water and CMAs.

Commonwealth Government support

From 2008–09 to 2011–12, the Commonwealth Government had a Ramsar program that funded the development and review of ECDs, updates to some RISs, and the first Ramsar Rolling Review in 2011. While the Commonwealth Government does not currently fund these, funding from Commonwealth programs has been used for on-ground management activities at Ramsar sites. Some of these programs are summarised in Figure 2F.

Figure 2F

Selected Commonwealth/joint programs relevant to Ramsar sites

Caring for our Country—this natural resource management investment program was largely focused on delivering outcome targets against six national priority areas. Actions that supported the environmental Ramsar values formed a key aspect of the coastal and critical aquatic habitat priority area. These actions included restoring and protecting nationally significant threatened species and ecological communities, and controlling weeds of national significance. The first stage of the grant program ran between June 2008 and 2012. The second stage ran between 2012 and December 2015.

National Landcare Programme—this current natural resource management investment program commenced in 2015. It focuses on managing natural resources with the aim of maintaining and improving ecosystem services. It aims to do this through sustainable management and increasing the restoration and rehabilitation of the natural environment, including protecting and conserving nationally and internationally significant species, ecosystems and ecological communities. This includes protecting and/or conserving 'Matters of National Environmental Significance' such as Ramsar wetlands.

The Living Murray Initiative—this joint initiative is funded by the New South Wales, Victorian, South Australian, Australian Capital Territory and Commonwealth governments. Coordinated by the Murray-Darling Basin Authority, it is a restoration program that aims to improve ecological conditions along the River Murray, by recovering water for the environment and building water management structures at six significant sites, including:

- Barmah–Millewa Forest, which includes the Barmah Forest Ramsar site
- Gunbower–Koondrook–Perricoota Forest, which includes the Gunbower Forest Ramsar site
- Hattah Lakes, which includes the Hattah–Kulkyne Lakes Ramsar site.

DELWP advised that some of the funds assigned to The Living Murray initiative consist of joint funding contributed by state and Commonwealth governments to undertake joint programs.

Source: VAGO.

This funding available through these programs is not ongoing and is provided for the delivery of Commonwealth priorities, which include Ramsar site management. The risk with relying on this form of funding is that projects may only be short term and funds may not be spent on monitoring or maintaining ecological character.

Recommendations

1. That the Department of Environment, Land, Water & Planning, in conjunction with Parks Victoria and catchment management authorities:
 - develop and implement robust governance arrangements for managing Ramsar sites, including clarifying roles, responsibilities and accountabilities for planning, management and reporting
 - strengthen management plans to include time frames and resourcing to ensure that actions are carried out effectively and in a timely way.
 2. That the Department of Environment, Land, Water & Planning:
 - oversee the development of a finalised Ramsar management plan for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula and Western Port sites
 - work with catchment management authorities and site managers to develop and assess options for the direct funding of management plan activities focused on high-priority threats that impact on the ecological character of Ramsar sites
 - implement arrangements to oversee how management plans are put into effect.
-

3 Monitoring, reporting and continuous improvement

At a glance

Background

Meeting obligations under the Ramsar Convention requires the effective monitoring and reviewing of management plans. This allows site managers to understand the impact and effectiveness of their activities and informs changes to these to more effectively manage risk.

Conclusion

Site managers cannot evaluate whether management activities are effective in preventing a decline in the condition of Ramsar sites. This is because the limited monitoring and review that occurs is generally short term and focused on outputs, rather than long term and focused on outcomes. The Department of Environment, Land, Water & Planning (DELWP) reviews the character of Ramsar sites every three years to detect changes and to fulfil national reporting requirements. However these reviews are not intended to inform short-term site management. Encouragingly, DELWP has committed to improving monitoring by adopting a statewide approach.

Findings

- Parks Victoria has limited evidence to demonstrate that it monitors and reports on the progress of management plan actions. However, catchment management authorities do track progress.
- The frequency and quality of monitoring across Ramsar sites varies. The monitoring that does take place is short term and focuses on outputs.
- At some sites, changes in management practices that have resulted from evaluation have led to improved environmental outcomes.

Recommendation

That the Department of Environment, Land, Water & Planning lead the development of a statewide approach to monitoring the ecological character of Ramsar sites, through a specific monitoring, evaluation and reporting framework.

3.1 Introduction

Long-term ongoing monitoring, evaluation and reporting of management actions is necessary to meet obligations under the Ramsar Convention. This approach allows site managers to detect changes and emerging threats to a site's ecological character, as well as helping them to assess the effectiveness of management activities and change their practices if risks are not being managed.

3.2 Conclusion

There is limited evidence that site managers are monitoring and reviewing the effectiveness of management plans. Although some short-term output-focused monitoring takes place as a result of individual projects, there is limited ongoing outcome-focused monitoring. The status of the ecological character of some sites cannot be fully determined due to limitations such as a lack of data. There is evidence of potential change at some other sites.

The Department of Environment, Land, Water & Planning (DELWP) reviews Ramsar sites every three years to detect changes in critical site elements and to fulfil national condition reporting requirements. However, these reviews are not intended to inform short-term site management, though they may trigger management actions. Encouragingly, DELWP has committed to improving outcome-based monitoring through the development of a statewide approach to monitoring Ramsar sites.

3.3 Monitoring and reporting against management plans

3.3.1 Monitoring of site management plans

Parks Victoria is the site manager for 10 Ramsar sites, but it does not monitor and report on progress and actions of current Ramsar management plans and does not evaluate the effectiveness of its actions through long-term monitoring. Instead, it carries out short-term output monitoring against its own regional action plans, which are not clearly linked to Ramsar site plans. Melbourne Water monitors the effectiveness of site management plans more effectively using environmental indicators and outcomes.

Parks Victoria

In 2013, Parks Victoria reviewed the status of its Ramsar management activities against Ramsar management plans prepared in 2002–03. This review consisted of telephone interviews with Parks Victoria staff about progress on actions. A report provided some insight on the outstanding matters. However, the review did not make recommendations, and it is not clear how it has helped further planning.

Our analysis of this review found there were 404 actions listed for 10 Ramsar sites. Of these, about half—51 per cent—had been carried out, while 83 actions—20 per cent—had not. The most common reasons for not implementing actions were the lack of funding and resourcing and the lack of a plan to guide the action. The remaining 115 actions were only partly carried out or deemed by Parks Victoria to be the responsibility of another agency. This reinforces the need to improve governance and accountability for implementing actions and identifying and assigning appropriate resources up-front.

Parks Victoria uses its Signs of Healthy Parks program to monitor parks and reserves. This monitoring program is designed to evaluate the effectiveness of its management of parks and protected areas and to inform and improve park management. However, this program was not designed to monitor Ramsar sites or progress of specific actions against management plans, nor does it provide an accurate and current description of the ecological state of Ramsar sites.

Melbourne Water

Melbourne Water monitors some environmental outcome indicators at its two Ramsar sites. Even though there is no current plan for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula site, Melbourne Water annually monitors indicators such as the number of shorebirds, ibis and growling grass frogs, under the Western Treatment Plant management plan.

For the Edithvale–Seaford Wetlands site, Melbourne Water regularly monitors the ecological indicators outlined in the management plan. These indicators include:

- mosquito numbers
- monthly bird counts, carried out by Bird Life Australia
- water level
- water quality.

The case study in Figure 3A demonstrates how Melbourne Water's monitoring of the growling grass frog informed management strategies.

Figure 3A

Case study: Growling grass frogs at the Western Treatment Plant

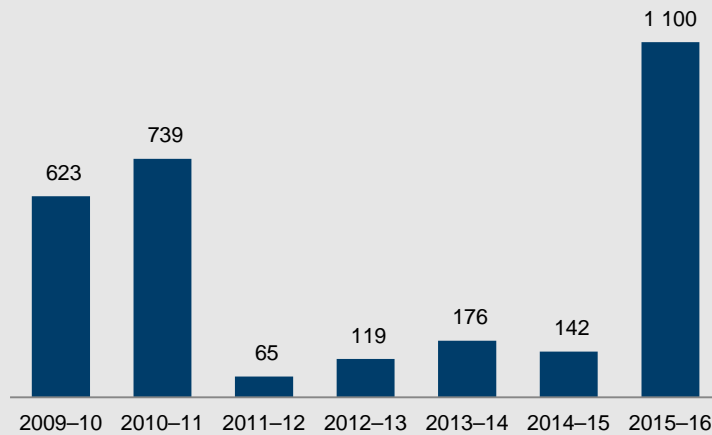
The Western Treatment Plant, managed by Melbourne Water, forms part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site, listed in 1982. It contains a network of lagoons, wetlands, inter-tidal and shoreline areas that provide a haven for thousands of birds.

Melbourne Water used an adaptive management approach in the protection of the growling grass frog, which is listed as a vulnerable and threatened species. The agency's efforts resulted in record numbers of the frog at the site.

In 1998, to meet new requirements, Melbourne Water began an environmental improvement project, which included upgrading the treatment process to reduce impacts to Port Phillip Bay. To ensure that the growling grass frog did not suffer from this process, Melbourne Water prepared a management plan to address habitat and monitoring requirements for the growling grass frog. Melbourne Water has been monitoring the growling grass frog population at selected areas of the Western Treatment Plant every year since 2002. The results of this monitoring are shown below.

The results indicate a large decline in population numbers from 2010–11 to 2014–15, likely the result of declining water levels during the summer breeding season.

Growling grass frog count at selected areas at the Western Treatment Plant



To address the decline, Melbourne Water allocated water to achieve a balance between the conservation requirements of waterfowl, shorebirds, saltmarsh restoration and the growling grass frog. It maintained the western lagoon drain at capacity for the duration of the breeding season to provide refuge for growling grass frogs in case other ponds dried out. Melbourne Water created additional ponds at the Western Treatment Plant to encourage breeding. By using an adapted management plans informed by the data and evidence available, Melbourne Water saw the number of growling grass frogs at the Western Treatment Plant increase to a record of more than 1 100 in the 2015–16 breeding season.

Source: VAGO based on data provided by Melbourne Water.

Regional waterway strategies

Regional waterway strategies (RWS), incorporating Ramsar site management plans, have an overall monitoring, evaluation, reporting and improvement framework based on an eight-year adaptive management cycle—see Figure 3B. However, not all catchment management authorities (CMA) have developed plans to apply this framework. They are in the process of doing so. Plans will be based on a model that links activities and outputs to long-term resource outcomes and regional goals.

Two of these plans have been completed and the remaining plans are expected to be completed by the end of 2016. Completed plans consider the monitoring needs for the Ramsar site within its region. To support monitoring the ecological character of the sites, the plans refer to the three-year Ramsar Rolling Review and DELWP's statewide project to improve monitoring at Ramsar sites. These are discussed in Section 3.4.

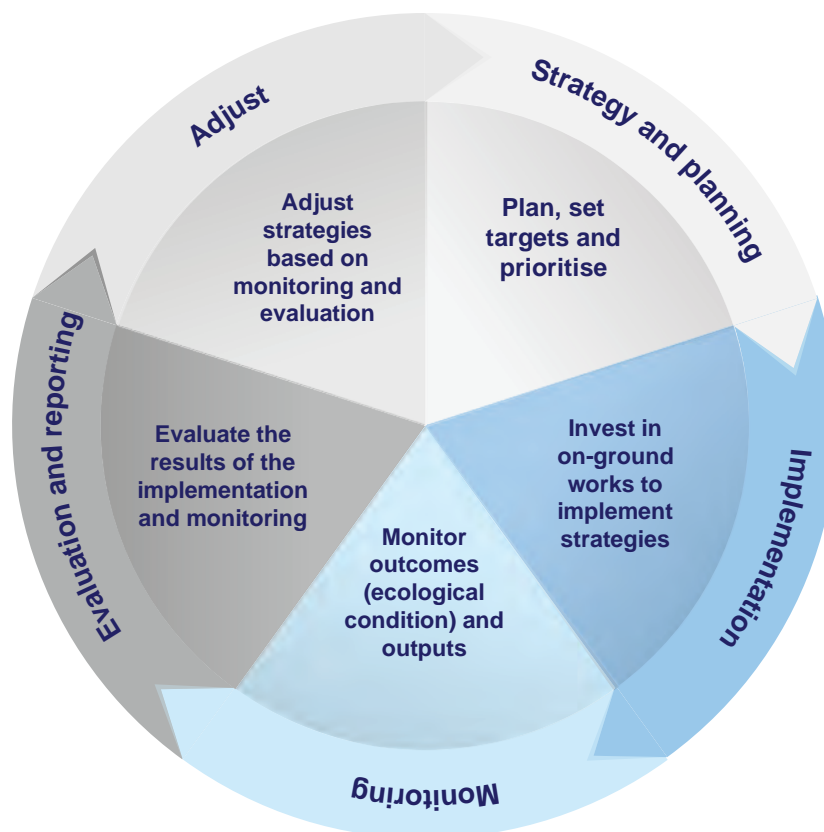
At two sites we assessed—Kerang Wetlands and Western District Lakes—there was no ongoing monitoring of ecological character or condition. CMAs' regular monitoring of these Ramsar sites was restricted to checking progress on actions and outputs in management plans and did not focus on impact or outcomes. There is some ongoing monitoring at Gippsland Lakes, but the frequency and quality of monitoring varied. Some wetlands within Ramsar sites were not monitored. For example, the ecological character of Foster's Swamp—an urban wastewater treatment facility at Kerang Wetlands—is not monitored by the CMA, but there is some community monitoring. CMAs at the sites we visited advised that monitoring did not regularly occur because of the uncertainty around who is responsible and because of a lack of resources.

There are, however, examples of good practice where standalone plans—such as the Gippsland Lakes plan and the draft Western Port plan—specifically outline monitoring requirements and responsibilities. These requirements often include monitoring ecological character, limits of acceptable change and threats to the site. Monitoring commonly includes water quality, native fish and waterbird abundance and diversity, threatened species and vegetation mapping. Such monitoring is better practice and should be adopted more widely.

Monitoring for adaptive management

Monitoring is important for assessing overall wetland condition and for supporting adaptive management. Adaptive management is the ongoing adjustment of management approaches based on monitoring and evaluation. This approach is illustrated by Figure 3B.

Figure 3B
Adaptive management cycle



Source: VAGO.

There is limited evidence of adaptive management principles being applied at Ramsar sites. However, with some exceptions, adaptive management practices used by site managers led to improved environmental outcomes, as outlined in Figure 3C and 3D.

Figure 3C
Case study: Restoring habitat for the little tern and fairy tern at Gippsland Lakes

At Gippsland Lakes, Parks Victoria used adaptive management to restore habitat and breeding grounds for the little tern and fairy tern—threatened migratory birds. The ecological character description (ECD) for the site includes the presence and breeding of the terns as part of the Gippsland Lakes ecological character. However, because of the poor quality of the habitat, terns had not used Crescent Island in Lake Victoria for more than six breeding seasons.

From May to June 2015, sand from dredge sites was relocated to Crescent Island and Pelican Island to address erosion, alongside targeted revegetation. The project resulted in 19 fairy tern fledglings and eight little tern fledglings being raised at these islands. Also, three pairs of endangered hooded plovers nested on the new habitat and raised six fledglings between them. More than 20 species of non-threatened birds also used the new habitat at Crescent Island.

Source: VAGO based on information provided by Parks Victoria.



A fairy tern. Photograph courtesy of Glenn Ehmke, BirdLife Australia.

Figure 3D

Case study: Environmental watering and environmental outcomes at Kerang Wetlands

Between April 2015 and February 2016, the North Central CMA allocated environmental water to Johnson Swamp—part of the Kerang Wetlands site—three times. The CMA strategically planned the volume and timing of the environmental water delivery to help improve environmental outcomes.

North Central CMA monitored and photographed the biological and hydrological changes in this wetland after water delivery, recording birds, frogs, vegetation and water quality and quantity. It compared the results from before the water delivery in April 2015, during delivery in September 2015, after delivery in March 2016 and again in June 2016. This monitoring showed:

- an increase in vegetation, including 13 threatened species
- an increase in bird species from 21 to 59, including 21 threatened species
- numerous waterbird species breeding, including nationally listed Australasian bittern and threatened Australian little bittern and brolga
- many frogs, including the spotted marsh frog, pobblebonk, barking marsh frog and Peron's tree frog.

Source: VAGO based on information provided by North Central CMA.

3.3.2 Reporting on site management plans

Most site managers and CMAs do not adequately report progress against Ramsar management plans, and there is no reporting on the outcomes of monitoring outside the Ramsar Rolling Review. This is because there is currently no Commonwealth requirement to do so. Melbourne Water has advised that reporting takes place only every seven years—when the management plans are renewed. DELWP acknowledges that improvements can be made in this area.

CMAs have an annual process for reporting to DELWP on activities funded through annual service level agreements, where they report on progress against agreed outputs. These output-based reports do not directly report on management actions for Ramsar sites. Parks Victoria is also required to report every year to DELWP on its management services agreement.

Where Ramsar management plans are incorporated into regional waterway strategies (RWS), reporting to DELWP is scheduled at their mid-term review and renewal. For the current strategies, this is not expected to happen until 2018 and 2022 respectively.

DELWP has advised that, in 2018, it will fund each CMA to conduct an internal review to assess its progress in implementing the management activities outlined in its RWSs, including activities associated with Ramsar sites. As a result of this, CMAs may adapt their management activities for the remaining years of the RWSs.

RWSs will also be independently reviewed in 2022 to determine progress against all targets and to capture the lessons learned, to inform future regional programs and management approaches.

Standalone Ramsar management plans identify monitoring programs that assess progress towards resource targets and any changes in ecological character. The monitoring program for the Western Port site identifies responsible agencies and links to existing relevant programs. However, it recognises that implementation of this program will depend on agency resources. The draft plan for this site specifies that a targeted intervention monitoring and evaluation program should be developed, to assess the effectiveness of management actions on ecosystem condition. The results of intervention monitoring are intended to inform future management actions.

For Gippsland Lakes, an eight-year monitoring program has been adopted in line with the RWS. The program reports on changes in the condition of the site's ecological character and progress towards meeting resource targets.

3.4 State-level monitoring by the Department of Environment, Land, Water & Planning

DELWP assesses the condition of Ramsar sites and reports to the Commonwealth Government on their status through:

- the national Ramsar Rolling Review
- a statewide project to improve the monitoring of Ramsar sites.

Ramsar Rolling Review

The first Ramsar Rolling Review was undertaken in 2011. This was a nationally funded program coordinated by the state. The Rolling Review takes place every three years and assesses the status of the ecological character of each site by comparing its critical elements against the limits of acceptable change (LAC). The status of key threats is also assessed at the same time. This review is outcome focused and is intended to inform medium- to long-term site management.

Site managers and CMAs have the opportunity to review results from the Rolling Review to confirm that they reflect their understanding of the conditions at the site. However, this could be communicated more broadly—some staff at the sites we visited were not aware of the results nor that the reviews occurred. Outside this review, site managers do not report any potential change in ecological character to DELWP.

If the Ramsar Rolling Review finds a potential change in ecological character, DELWP follows the formal process set out in the national guidelines. While the review is not publicly available, any changes to the site are made public through a range of online and published reports.

A second state-funded Rolling Review round took place over 2014–15 and 2015–16. Six sites were assessed in 2014–15, and the remaining five in 2015–16. The results are in draft as they have not yet been endorsed by the Commonwealth Government. Figure 3E provides a snapshot of the ecological character status of each site from the latest review.

Figure 3E
Draft ecological character status of Victoria's Ramsar sites

Site ^(a)	Have any LACs been exceeded?	Does this indicate a potential change in character?
1	Yes—three LACs were exceeded.	Yes—while two of the exceeded LACs are not considered to indicate a change in character, one does represent a potential change.
2	Yes—three LACs were exceeded.	No—a reassessment of the data on which the LACs were based indicates the benchmarks were incorrect.
3	This site has no LACs. DELWP's project to improve monitoring will determine LACs for the site.	No
4	Yes—one LAC was exceeded.	Yes
5	Yes—three LACs were exceeded.	No
6	Yes—one LAC was exceeded.	No
7	Yes—one LAC was exceeded.	No
8	Yes—two LACs were exceeded. ^(b)	No
9	Yes—one LAC was exceeded.	No
10	Yes—three LACs were exceeded.	Yes
11	Yes—one LAC was exceeded.	No—the benchmark may require review.

(a) Sites have been de-identified.

(b) Draft results are not available for this site. The assessment is based on the national report to the Conference of Contracting Parties 2015.

Source: VAGO based on documents provided by DELWP.

The Rolling Review process is important as it is currently the only systematic process to detect changes in ecological character. However, in some instances it is made difficult by a lack of baseline data.

The draft results of the latest round of the review indicate that around 70 per cent of LACs have not been exceeded and 15 per cent have been exceeded. The remaining 15 per cent have insufficient data to allow for assessment, meaning there is no assurance that a change in ecological character has not taken place.

Project to improve monitoring of Ramsar sites

In October 2015, DELWP began a project aimed at:

- improving Ramsar site monitoring
- addressing data gaps and deficiencies
- improving the link between monitoring and site management planning.

The project is scheduled to be completed by 30 November 2016.

This project will result in:

- an addendum to the published ECDs for Victoria's Ramsar sites where DELWP and the Commonwealth Government agree that changes are warranted
- a final published ECD for the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site
- a monitoring schedule covering the needs of all of Victoria's Ramsar sites
- an analysis of current gaps in monitoring
- a monitoring tool to help plan and oversee a monitoring program for Ramsar sites.

In addition, DELWP is working on improving the link between management outputs, environmental outcomes and long-term changes at Ramsar sites through its Wetland Intervention Monitoring program. This project is in its early stages.

3.4.1 Department of Environment, Land, Water & Planning reporting to the Commonwealth Government

DELWP is required to inform the Commonwealth Government when it becomes aware of any potential change in the ecological character of a site through the Ramsar Rolling Review or any other means. An investigation then takes place, to confirm the change before the Ramsar Secretariat is notified.

DELWP has not reported such a change since Victoria's sites were listed. While past assessments have found a number of potential changes in ecological character, to date, these have not been considered as actual changes by the Commonwealth Government.

Recommendation

3. That the Department of Environment, Land, Water & Planning lead the development of a statewide approach to monitoring the ecological character of Ramsar sites, through a specific monitoring, evaluation and reporting framework.
-

Appendix A.

Ramsar Convention criteria

The Ramsar Convention currently contains nine criteria, listed in Figure A1. To be listed under the Ramsar Convention, a wetland need only meet one criterion.

Figure A1
Criteria for listing under the Ramsar Convention

Ramsar Criteria	
Group A: Sites containing representative, rare or unique wetland types	
Criterion one	A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
Group B: Sites of international importance for conserving biological diversity—criteria based on species and ecological communities	
Criterion two	A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
Criterion three	A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
Criterion four	A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
Specific criteria based on waterbirds	
Criterion five	A wetland should be considered internationally important if it regularly supports 20 000 or more waterbirds.
Criterion six	A wetland should be considered internationally important if it regularly supports 1 per cent of the individuals in a population of one species or subspecies of waterbird.
Specific criteria based on fish	
Criterion seven	A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
Criterion eight	A wetland should be considered internationally important if it is an important source of food for fish, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.
Specific criteria based on other taxa	
Criterion nine	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland—dependent non-avian animal species

Source: VAGO from publicly available information from the Commonwealth Department of Environment & Energy.

Appendix B.

Victorian Waterway Management Strategy policies

Improving our Waterways: Victorian Waterway Management Strategy, prepared by the former Department of Environment and Primary Industries (now DELWP), integrates wetland management into an overall waterway management framework. Figure B1 outlines the policies and actions that relate to Ramsar sites.

Figure B1
Victorian Waterway Management Strategy Ramsar policies and actions

Policy	Action
<p>12.1: The <i>Victorian Waterway Management Strategy</i> will provide the leading statewide strategic direction on the management of the environmental condition of wetlands.</p> <p>Regional management of wetland condition will be integrated with that for rivers and estuaries through the regional Waterway Strategies.</p>	<p>12.1: Endorse the ecological character descriptions and updated RISs for Victoria's Ramsar sites that are being developed by the Australian Government.</p>
<p>12.2: The Department of Environment, Land, Water & Planning will work in partnership with Ramsar site managers and the Australian Government to maintain and report on the ecological character of Ramsar sites and the status of Ramsar site documentation. Ramsar sites in Victoria will be monitored to detect change in ecological character.</p>	<p>12.2: Monitor the ecological character of Ramsar sites and provide information to the Australian Government on the status of ecological character and Ramsar site documentation for inclusion in three-yearly national reports to the Ramsar Convention.</p>
<p>12.3: Regional Waterway Strategies will incorporate Ramsar site management planning, unless the complexity of management arrangements for the site warrants an individual management plan. Ramsar site management planning documents will set out the range of management activities required to maintain the ecological character of Ramsar sites and address emerging risks. The maintenance of the ecological character of Ramsar sites will be given high priority in the management of environmental water.</p>	<p>12.3: Evaluate and renew management planning for Victoria's Ramsar sites.</p>

Figure B1
Victorian Waterway Management Strategy Ramsar policies and actions
– continued

Policy	Action
<p>12.4: The Victorian Government will continue to require all necessary approvals for actions with the potential to cause long-term change to the ecological character of Ramsar sites.</p>	<p>12.4: Develop, implement, monitor and evaluate management response strategies for any Ramsar sites where monitoring indicates that a change in ecological character has occurred or is likely to occur.</p>
<p>12.5: If monitoring indicates the ecological character of a Ramsar site is likely to change or has changed, the Victorian Government will notify the Australian Government and develop a response strategy for the site and monitor the effectiveness of its implementation. If there are no feasible or cost-effective management response options to maintain the site’s ecological character, Victoria will engage the Australian Government to agree on a process to review management objectives for the site. This will be done in consultation with the community and will be aimed at facilitating adaptation to a new ecological regime that maximises existing and likely future values.</p> <p>Deleting or restricting the boundary of a Ramsar site will only be investigated where irreversible change results in a loss of critical values to the extent that the Ramsar site fails to meet any of the Ramsar criteria for identifying wetlands of international importance.</p>	<p>None listed.</p>
<p>12.6: Investigations to list a new Ramsar site or extend the boundaries of an existing site may be initiated in response to proposals by the community or other parties and will consider the following factors:</p> <ul style="list-style-type: none"> • the Ramsar Convention criteria for identifying wetlands of international importance met by the wetland • the Ramsar Convention Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands and any national strategic direction on priorities for Ramsar site listing • agreement by the land manager and key stakeholders involved in the management of the wetland and the actions they propose to meet relevant Ramsar obligations • the current degree of protection of the wetland and the opportunities for increasing the level of protection by listing the wetland as a new Ramsar site • alternative legislative and management frameworks for management of the wetland • the level of threat to the wetland, and the contribution that listing would make to improving the management of threats • the feasibility and cost-effectiveness of maintaining the ecological character of the wetland in the long term 	<p>None listed.</p>

Figure B1
Victorian Waterway Management Strategy Ramsar policies and actions
– continued

Policy	Action
<p>12.6 (continued):</p> <ul style="list-style-type: none"> • the contribution that listing would make to awareness raising and community education in relation to the values of the wetland and wetland conservation in general • the level of community support for listing • the national and international documentation and administrative requirements. <p>The Victorian Government will recommend listing of a new Ramsar site or extending the boundaries of an existing site to the Australian Government where:</p> <ul style="list-style-type: none"> • there is agreement by the owner or manager of the wetland • there is compelling evidence that listing will provide clear benefits in: <ul style="list-style-type: none"> • protecting highly significant wetland values relating to the Ramsar criteria for listing • raising the wetland profile • increasing the level of support for conservation and wise use measures that cannot be achieved through other mechanisms. 	

Source: VAGO based on the Victorian Waterway Management Strategy 2013.

Appendix C.

Audit Act 1994 section 16— submissions and comments

Introduction

In accordance with section 16(3) of the *Audit Act 1994*, a copy of this report was provided to the Department of Environment, Land, Water & Planning, Parks Victoria, Melbourne Water, Corangamite Catchment Management Authority, North Central Catchment Management Authority, Glenelg Hopkins Catchment Management Authority, East Gippsland Catchment Management Authority and West Gippsland Catchment Management Authority. We also provided a copy of the report to the Department of Premier & Cabinet.

The submissions and comments provided are not subject to audit nor the evidentiary standards required to reach an audit conclusion. Responsibility for the accuracy, fairness and balance of those comments rests solely with the agency head.

Responses were received as follows:

Corangamite Catchment Management Authority	44
Department of Environment, Land, Water & Planning	45
Melbourne Water	47

RESPONSE provided by the Chief Executive Officer, Corangamite Catchment Management Authority



CCMA Ref. LEG/06-0008

6 September 2016

Dr Peter Frost
Acting Auditor-General
Victorian Auditor-General's Office
Level 24, 35 Collins Street
Melbourne Vic 3000

Dear Dr Frost,

Proposed Performance Audit Report 'Meeting obligations to protect Ramsar wetlands'

Thank you for the opportunity to comment on the proposed report on 'Meeting obligations to protect Ramsar wetlands'. The Corangamite CMA supports the recommendations of the report and has contributed to DELWP's management action plan to address the recommendations of the performance audit.

Corangamite CMA is committed to working with DELWP and other key stakeholders to improve management of Ramsar sites in the Corangamite region in line with the management action plan.

If you have any questions on the response above, please contact our Strategy and Planning Manager, Jayden Woolley on 03 5232 9145.

Yours sincerely

A handwritten signature in blue ink, appearing to be "Gareth Smith".

Gareth Smith
Chief Executive Officer



RESPONSE provided by the Secretary, Department of Environment, Land, Water & Planning



Department of Environment,
Land, Water & Planning



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Dr Peter Frost
Acting Auditor-General
Victorian Auditor-General's Office
Level 24, 35 Collins Street
MELBOURNE VIC 3000

Ref: SEC012203

05 SEP 2016

Dear Dr Frost

PROPOSED PERFORMANCE AUDIT MEETING OBLIGATIONS TO PROTECT RAMSAR WETLANDS

Thank you for the opportunity to comment on the proposed report on the performance audit *Meeting obligations to protect Ramsar wetlands*.

The report has provided some useful insights into how the Department of Environment, Land, Water and Planning (DELWP) can work more effectively with Parks Victoria, Melbourne Water and relevant catchment management authorities (CMAs) to ensure Ramsar Convention and national obligations for the 11 Ramsar sites in Victoria are met to a higher standard.

In recent years, DELWP and CMAs have been actively working to improve Victoria's performance in managing Ramsar sites. The 2013 *Victorian Waterway Management Strategy* sets out policy and actions to this purpose and DELWP has been working to implement these over the last three years.

I am pleased to confirm that DELWP welcomes the report's findings and accepts all the recommendations.

The attached management action plan has been developed in consultation with CMAs, Parks Victoria and Melbourne Water. It sets out how DELWP and these agencies plan to work together to implement the report's recommendations.

I am confident that the management action plan will drive improvements for Ramsar site management in Victoria.

Yours sincerely

Adam Fennessy
Secretary

Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorized by law. Enquiries about access to information about you held by the Department should be directed to the Privacy Coordinator, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002



RESPONSE provided by the Secretary, Department of Environment, Land, Water & Planning – continued

VAGO performance audit report – Meeting obligations to protect Ramsar wetlands Management Action Plan

Rec	VAGO provisional report recommendation*	Management action plan
	That the Department of Environment, Land, Water and Planning, in conjunction with Parks Victoria and catchment management authorities:	
1a	develop and implement robust governance arrangements for managing Ramsar sites, including clarifying roles, responsibilities and accountabilities for planning, management and reporting	DELWP, catchment management authorities (CMAs), Parks Victoria (PV) and Melbourne Water will convene a high level inter-agency governance group to agree on roles and responsibilities and oversee the implementation of agreed roles and responsibilities for Victoria's Ramsar sites within each agency. The governance framework will be established by June 2017. DELWP, CMAs, PV and Melbourne Water will ensure that coordination arrangements are in place for managing each individual Ramsar site by June 2017. Other stakeholders, including Traditional Owners, will be involved as appropriate.
1b	strengthen management plans to include time frames and resourcing to ensure that actions are carried out efficiently and in a timely way	DELWP, via the Ramsar site inter-agency governance group, will oversee the development of a framework for management plan implementation that will specify timeframes and resourcing by June 2018.
	That the Department of Environment, Land, Water and Planning:	
2a	oversee the development of a finalised Ramsar management plan for Port Phillip, Bellarine Peninsula and Western Port sites	DELWP will finalise the Western Port Ramsar Management Plan by December 2016. DELWP will oversee the renewal of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Management Plan (to be led by Corangamite CMA). The plan will be completed by December 2017.
2b	work with catchment management authorities and site managers to develop and assess options for the direct funding of management plan activities focused on high priority threats that impact on the ecological character of Ramsar sites	Where relevant, the regional investment process ('roundtables') delivered under the Our Catchments Our Communities strategy will include consideration of the priority Ramsar site management actions identified by individual Ramsar site coordination groups and align agency investment in Ramsar site actions.
2c	implement arrangements to oversee how management plans are put into effect	DELWP will improve tracking of management plan implementation for each Ramsar site by June 2017.
	That the Department of Environment, Land, Water and Planning:	
3	lead the development of a statewide approach to monitoring the ecological character of Ramsar sites, through a specific monitoring, evaluation and reporting framework	DELWP will develop a statewide Ramsar site monitoring, evaluation, reporting and improvement plan and oversee the implementation of the plan by each individual Ramsar Site coordinating group by December 2017.

RESPONSE provided by the Managing Director, Melbourne Water



2 September 2016

Dr Peter Frost
Acting Auditor General
Victorian Auditor General's Office
Level 24, 35 Collins Street
MELBOURNE VIC 3000



Dr Frost,

Performance Audit Report: Meeting Obligations to Protect Ramsar Wetlands

Thank you for your letter of 25 August 2016 with the attached proposed Performance Audit Report on meeting obligations to protect Ramsar wetlands.

Melbourne Water accepts the conclusions and recommendations of the performance audit report. We believe this report accurately identifies a number of areas for improvement in how Victoria manages its Ramsar wetlands, and the report's recommendations appropriately target these problem areas. We look forward to seeing improvements from this audit's recommendations being realised through improved co-ordination, direction and oversight of the program by Department of Environment Land Water and planning (DELWP), and improved resourcing for site management.

Melbourne Water is committed to continuing to work closely with DELWP, Parks Victoria and the Port Phillip and Westernport Catchment Management Authority to ensure our region's Ramsar wetlands are appropriately protected and managed. While your report has no specific recommendations directed at Melbourne Water our officers have worked with DELWP officials in the preparation of their action plan.

Melbourne Water would like to acknowledge the highly professional and constructive approach of the VAGO audit team.

Should you require any further information or clarification please do not hesitate to contact Hannah Pexton, Manager of Land, Liveability & Stewardship on (03) 9679 6671, or Hannah.pexton@melbournewater.com.au.

Regards

Michael Wandmaker
Managing Director

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