

VAGO

Victorian Auditor-General's Office



Follow Up of Selected 2012–13 and 2013–14 Performance Audits

June 2018

VAGO

Victorian Auditor-General's Office

Follow Up of Selected 2012–13 and 2013–14 Performance Audits

Independent assurance report to Parliament

Ordered to be published

VICTORIAN GOVERNMENT PRINTER

June 2018

PP no 399, Session 2014–18

This report is printed on Monza Recycled paper. Monza Recycled is certified Carbon Neutral by The Carbon Reduction Institute (CRI) in accordance with the global Greenhouse Gas Protocol and ISO 14040 framework. The Lifecycle Analysis for Monza Recycled is cradle to grave including Scopes 1, 2 and 3. It has FSC Mix Certification combined with 99% recycled content.

ISBN 978 1 925678 23 9

VAGO

Victorian Auditor-General's Office

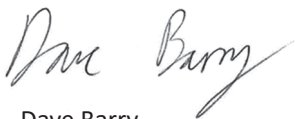
The Hon Bruce Atkinson MLC
President
Legislative Council
Parliament House
Melbourne

The Hon Colin Brooks 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 *Follow Up of Selected 2012–13 and 2013–14 Performance Audits*.

Yours faithfully



Dave Barry
Acting Auditor-General

20 June 2018

Contents

Audit overview	7
Findings.....	8
Recommendations.....	9
Responses to report and recommendations	9
What these follow up audits examined and how	10
Report structure	10
1 Management of Freshwater Fisheries	11
1.1 Context	11
Roles and responsibilities	12
Our previous audit.....	12
1.2 Conclusion	13
1.3 Findings.....	13
Planning and management of sustainable recreational freshwater fisheries	13
Decisions about stocking	18
Performance reporting.....	20
1.4 Recommendation	23
2 Managing Victoria’s Native Forest Timber Resources	25
2.1 Context	25
Roles and responsibilities	25
Our previous audit.....	26
2.2 Conclusion	27
2.3 Findings.....	28
Identifying harvest areas and setting harvest levels	28
Regenerating harvested areas.....	33
Protecting forest values.....	36
Supporting regional communities	41
Sustainability goals and performance	42
2.4 Recommendations.....	45
Appendix A. Audit Act 1994 section 16—submissions and comments	47
Appendix B. Example fish report card.....	55
Appendix C. Map of forest regions	63

Acronyms and abbreviations

Biodiversity 2037	<i>Protecting Victoria's Environment—Biodiversity 2037</i>
CMA	Catchment management authority
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
DEPI	Department of Environment and Primary Industries
DPI	Department of Primary Industries
DTF	Department of Treasury and Finance
FFMP	Freshwater Fisheries Management Plan
ha	Hectares
RFA	Regional forest agreement
RICH model	Resource Industry Community Household model
VAGO	Victorian Auditor-General's Office
VFA	Victorian Fisheries Authority
VR Fish	Victorian Recreational Fishing Peak Body

Audit overview

This report follows up two performance audits we completed in 2012–13 and 2013–14.

Performance audits focus on the efficiency, economy, effectiveness and legislative compliance of public sector agencies, and include recommendations to improve the management and delivery of public services.

Each year we ask agencies to attest to their progress in implementing actions that address previous performance audit recommendations that they accepted. Using these attestations—as well as our assessment of the public interest and materiality of audit topics—we selected two audits to follow up:

- *Management of Freshwater Fisheries, 2012–13*
This audit examined whether the former Department of Primary Industries (DPI) was managing recreational freshwater fisheries in an ecologically sustainable manner so that fisheries, habitats and supporting ecosystems are protected and conserved for future generations.
- *Managing Victoria’s Native Forest Timber Resources, 2013–14*
This audit examined whether the former Department of Environment and Primary Industries (DEPI) and VicForests were managing native forest timber resources on public land productively and sustainably and whether DEPI and the Department of Treasury and Finance (DTF) were fulfilling their oversight and advisory roles adequately.

Findings

For each audit, we assessed the agencies' progress in implementing actions that addressed our recommendations. We found that the relevant agencies have completed four of the 22 recommendations, as summarised in Figure A.

Figure A
Audits selected to follow up and status of recommendations

Audit	Tabling date	Current agencies	Accepted recommendations			
			Made	Complete	In progress	Not complete (no further action planned)
<i>Management of Freshwater Fisheries^(a)</i>	March 2013	Victorian Fisheries Authority (VFA)	9	2	7	0
<i>Managing Victoria's Native Forest Timber Resources^(b)</i>	November 2013	Department of Environment, Land, Water and Planning (DELWP)	7	2	3	2
		Department of Economic Development, Jobs, Transport and Resources (DEDJTR)	3	0	1	2
		VicForests	3	0	2	1

(a) Seven of the *Management of Freshwater Fisheries* recommendations were accepted. Two of the recommendations were partially accepted.

(b) There were 11 recommendations in total for the *Managing Victoria's Native Forest Timber Resources* audit, with two recommendations shared between agencies. All of the original recommendations were accepted.

Source: VAGO.

Sustainably managing resources is a common challenge for the fisheries and timber industries, and it can take a long time to see how management actions impact the industry's sustainability. Across both audits, agencies have made some important improvements to address our recommendations, but there are also areas where progress has been slow.

To achieve good outcomes, increased collaboration between departments and agencies in their roles as the industry managers and natural resource managers, more timely completion of management plans and tools, and better progress measurement will be essential.

Recommendations

In addition to the original recommendations, we make three further recommendations.

We recommend that the Victorian Fisheries Authority:

1. prioritise the timely development of a harvest strategy and engage with fisheries' stakeholders to collect robust and scientific data (see Section 1.3).

We recommend that the Department of Environment, Land, Water and Planning:

2. undertake a comprehensive forest management zoning review as a priority action to better inform its sustainable forest planning and management (see Section 2.3)
3. lead the coordination and development of a clear goal for state forest management in collaboration with the Department of Economic Development, Jobs, Transport and Resources (see Section 2.3).

Responses to report and recommendations

We have consulted with VFA, DELWP, DEDJTR and VicForests, and we considered their views when reaching our audit conclusions. As required by section 16(3) of the *Audit Act 1994*, we gave a draft copy of this report, or parts thereof, to those agencies and asked for their submissions and comments. We also provided a copy to the Department of Premier and Cabinet.

The following is a summary of those responses. The full responses are included in Appendix A.

Follow up of Management of Freshwater Fisheries—VFA agrees with the report's conclusions and has accepted the new recommendation we make to it regarding its harvest strategy for freshwater fisheries.

Follow up of Managing Victoria's Native Forest Timber Resources—DELWP agrees with the report's findings and has accepted in principle the two new recommendations we direct to it. DEDJTR accepts that further work is needed to address the original recommendations and commits to addressing these, as well as to supporting DELWP in implementing the new recommendations. VicForests has noted further work it intends to do to address the original recommendations directed to it.

What these follow up audits examined and how

The objective of these follow up audits was to determine whether the agencies have effectively addressed the audit recommendations that they accepted.

We considered whether:

- performance issues relating to the recommendations have been addressed
- timely action has been taken to address recommendations
- plans are in place to address incomplete recommendations
- actions are monitored for review and impact.

As part of the audits, we sought to verify the agencies' attestations about their progress in addressing the recommendations, reviewed documents, interviewed staff, and examined the application of new plans and processes.

We conducted our audit in accordance with section 15 of the *Audit Act 1994* and ASAE 3500 *Performance Engagements*. We complied with the independence and other relevant ethical requirements related to assurance engagements. The cost of this audit was \$165 000 for the follow up of *Management of Freshwater Fisheries*, and \$175 000 for the follow up of *Managing Victoria's Native Forest Timber Resources*.

Report structure

Each part of this report covers one audit and includes conclusions specific to that particular audit:

- Part 1 details the findings and conclusions of our follow up of the *Management of Freshwater Fisheries* audit
- Part 2 details the findings and conclusions of our follow up of the *Managing Victoria's Native Forest Timber Resources* audit.

1

Management of Freshwater Fisheries

1.1 Context

Victoria's freshwater creeks, rivers, lakes and dams are home to native and introduced fish species. Native fish are integral to the health of these waterways, and many native and introduced species are important for recreational fishing.

Victoria's freshwater recreational fisheries include over 60 native species as well as introduced species. Popular recreational fishing species include the native Murray cod, trout cod, golden perch and common yabby, as well as the introduced brown trout, rainbow trout and redfin perch. Recreational fishing occurs across Victoria, particularly in the Goulburn, Howqua and Ovens rivers and Lakes Eildon, Eppalock and Hume.

The Victorian Recreational Fishing Peak Body (VR Fish) estimated that, in 2013–14, recreational fishing directly contributed \$2.6 billion to the Victorian economy and supported over 16 000 jobs, with around 42 per cent of this generated from freshwater fishing.

Stocking—the introduction of young fish, or fingerlings, to a waterway to boost fish numbers.

In 2017, VFA stocked Victoria's rivers and lakes with 4.35 million young fish—around two-thirds native and the remainder introduced species.

The Victorian Government has invested \$46 million in its Target One Million plan to increase participation in recreational fishing from 730 000 to 1 million people between 2015 and 2020. Key activities under this program include increasing fish stocking and improving fishing facilities. Around 40 per cent of recreational anglers fish in freshwaters.

Harvest strategy— clarifies a fishery’s overall objectives, performance indicators, triggers for management action and management responses, such as the need to set catch limits.

Roles and responsibilities

VFA is an independent statutory authority established in July 2017 to manage Victoria’s fisheries resources.

VFA supports the development of sustainable recreational and commercial fishing and aquaculture, regulates fisheries and advises government on a range of fisheries management opportunities. It is directly accountable for the administration, licensing, compliance and enforcement activities involved in fisheries management. As part of this work, it develops plans and harvest strategies to manage fisheries.

DEDJTR is involved in coordinating fisheries stakeholders and developing strategic policy, to support the Minister for Agriculture as the minister responsible for fisheries in Victoria.

The establishment of VFA is the most recent change in the agencies responsible for freshwater fisheries. The former Fisheries Victoria, which operated as a separate division of various departments in recent years including DEDJTR, DEPI and DPI, previously held these roles and responsibilities.

DPI was the responsible department at the time of our 2013 audit.

The key legislation that assigns these responsibilities and governs fisheries management in Victoria is the *Fisheries Act 1995* and the *Victorian Fisheries Authority Act 2016*.

DELWP and catchment management authorities (CMA) also have responsibilities for the management and health of waterways but were not part of our 2013 audit.

Our previous audit

Our 2013 audit examined whether DPI was managing recreational freshwater fisheries in an ecologically sustainable manner that protects and conserves fisheries, habitats and their supporting ecosystems for future generations.

The audit concluded that DPI was not effectively discharging its legislative responsibilities to deliver balanced and sustainable outcomes for recreational freshwater fisheries. The audit also concluded that DPI did not manage freshwater fisheries in the most efficient or effective way to protect fishery resources and habitats for future generations.

We made nine recommendations in the original audit. DPI accepted seven, and partially accepted the remaining two.

1.2 Conclusion

VFA has responded to our recommendations, although some actions are still ongoing. VFA is strengthening the alignment of its draft plans with the objectives of the *Fisheries Act 1995*, improving its engagement with natural resource managers and developing a stronger evidence base to support future decision-making. It will take several years to see how these changes improve the sustainability of fisheries, but VFA's current and planned initiatives better position the agency to manage freshwater fisheries in an ecologically sustainable manner.

Despite VFA's progress, its actions have not been timely. As a result, further work remains to protect and conserve fisheries. A harvest strategy is an important tool to actively manage fisheries, but VFA has not yet developed this. VFA also needs to develop a performance management framework that includes performance indicators, otherwise the impact of its actions on the sustainability of freshwater fisheries cannot be determined.

1.3 Findings

Planning and management of sustainable recreational freshwater fisheries

In our 2013 audit, we concluded that DPI did not adequately consider or address the ecological sustainability, habitat protection and conservation objectives of the *Fisheries Act 1995*. It focused instead on meeting recreational fishing demands and improving opportunities for anglers by stocking more fish.

DPI lacked an overarching strategy that effectively considered and brought together all the key management processes and steps required to sustainably manage each fishery. An effective overarching strategy would include:

- key objectives and performance indicators
- risk assessments
- a monitoring and assessment framework
- a harvest strategy
- an engagement strategy.

The original audit identified the risk that DPI was not managing freshwater fisheries in the most effective and efficient way to support their long-term sustainability.

Figure 1A outlines the 2013 audit recommendations related to the planning and management of recreational freshwater fisheries and our assessment of the actions VFA has taken to address them.

Figure 1A

Status of recommendations related to planning and management

	Recommendation	Agency progress
1	That DPI finalise its 2012 draft Fisheries Statement and apply its objectives and principles to the planning and management of recreational freshwater fisheries.	In progress
	<p>The draft Fisheries Statement was not finalised, as it was a component of the cancelled Future Fisheries Strategy. It was replaced by:</p> <ul style="list-style-type: none"> • the <i>Fisheries Victoria Strategy 2017–2021</i>, finalised by DEDJTR in 2016, which takes an agency-wide approach and outlines objectives and principles to plan and manage fisheries • the draft Freshwater Fisheries Management Plan (FFMP), which VFA expects to be finalised in June 2018, that provides the overarching strategic direction for managing freshwater fisheries in Victoria. 	
2	That DPI finalise the policy for its draft 2011 Harvest Strategy and implement the principles and guidelines uniformly across all recreational freshwater fisheries.	In progress
	<p>DPI did not finalise its draft 2011 Harvest Strategy, as it was a component of the cancelled Future Fisheries Strategy.</p> <p>DEPI’s 2014 <i>Guide for Victorian Wild Catch Fishery Management Plans</i> guides VFA in addressing sustainable harvest practices in the absence of a harvest strategy.</p> <p>VFA’s draft FFMP commits VFA to developing a harvest strategy after the fifth year of the plan, 2023, when it will have collected sufficient data on selected fish species, including through the Wild Trout Fisheries Management and Native Fish Report Card programs. It established these programs in 2014 and 2017 respectively.</p>	
3	That DPI finalise its draft 2011 Stakeholder Engagement Strategy and implement the principles and guidelines across recreational freshwater fishing consultative processes.	In progress
	<p>DPI did not finalise the 2011 Stakeholder Engagement Strategy, as it was a component of the cancelled Future Fisheries Strategy.</p> <p>In 2018, VFA developed its draft Victorian Fisheries Authority Stakeholder Engagement Strategy—April 2018 to June 2019, which identifies key stakeholders, accountabilities and reporting responsibilities. This is due for completion in June 2018.</p> <p>VFA has also increased its engagement with natural resource managers.</p>	

Figure 1A

Status of recommendations related to planning and management—*continued*

	Recommendation	Agency progress
4	<p>That DPI develop a management plan for all recreational freshwater fisheries which includes:</p> <ul style="list-style-type: none"> • clear performance outcomes, operational objectives and a suite of robust, balanced and measurable outcome-focused performance indicators that are clearly linked to the legislative objectives for the management of fisheries • management actions and targets to mitigate high-priority risks identified through a risk assessment process that at least adopts the principles identified in the 2003 <i>Guidelines for the ecologically sustainable management reporting framework for fisheries</i> • a harvest strategy that sets catch and take limits and targets • identification of gaps in information and data, and prioritises research, information collection and monitoring activities to address high-risk gaps • a set of regularly monitored predetermined reference points or triggers for high-risk fishery issues, supported by predetermined decision rules if the triggers are reached • the identification and allocation of resources and time frames to implement management plan actions • a detailed performance monitoring and reporting framework to track the progress and effectiveness of the plan against its objectives. 	In progress
	<p>The draft FFMP is the management plan for all recreational freshwater fisheries. However, it does not include a harvest strategy, performance indicators, resourcing and time frames, or predetermined reference points or triggers for high-risk fisheries issues.</p> <p>VFA stated that it will:</p> <ul style="list-style-type: none"> • develop resourcing and time frames by July 2018, when implementing the FFMP • develop a harvest strategy by 2023 as a separate document and include predetermined triggers for high-risk fisheries after running the Native Fish Report Card Program for five years. <p>VFA has developed a monitoring and evaluation plan and a risk assessment that underpins the draft FFMP.</p>	
5	<p>That DPI review its Fisheries Statement Action Plan to reflect the above actions, to address the poor planning and management of freshwater recreational fisheries.</p> <p>The draft FFMP replaces the Fisheries Statement Action Plan, which did not proceed.</p> <p>VFA intends to submit the plan for the Minister for Agriculture’s approval by June 2018.</p>	In progress

Source: VAGO.

Progress and performance improvements

VFA has increased its focus on protecting and conserving ecological processes and habitats, and supporting ecosystems. The *Fisheries Victoria Strategy 2017–2021* is an agency-wide document that outlines VFA's key outcomes and objectives. These include promoting sustainable fishing practices, improving information collection on recreational harvests, and identifying the economic, social and cultural value of fishing in Victoria.

VFA's draft FFMP provides the overarching, strategic direction for managing freshwater recreational fisheries in Victoria. If finalised in its current form, the FFMP will address three of the nine audit recommendations.

Objectives of the *Fisheries Act 1995* include:

- providing for the management, development and use of Victoria's fisheries in an efficient, effective and ecologically sustainable manner
- protecting and conserving fisheries resources, habitats and ecosystems
- encouraging the participation of resource users and the community in fisheries management.

The draft FFMP's five objectives broadly align with the objectives of the *Fisheries Act 1995* and address our audit recommendation to improve the focus on ecological sustainability, habitat protection and conservation. In the draft FFMP, VFA details how it will improve the sustainability of fisheries in Victoria by:

- rehabilitating waterways and fish habitat
- strategically stocking fish
- focusing effort on managing 'at-risk' species to protect and recover fish populations, with the vision of rebuilding fisheries
- managing noxious fish, to reduce their impacts on valued native and introduced fisheries, and fish habitat.

The draft FFMP indicates VFA will develop a harvest strategy for recreational fisheries after five years, to allow sufficient time for VFA and its partner agencies to monitor and collect robust data on the priority native and wild trout fisheries. Figure 1B identifies the priority native fisheries, which span several inland rivers and a number of species, some of which are threatened.

Harvest strategies for recreational fisheries are uncommon globally, and involve significant challenges due to the difficulty in collecting catch and effort data, as outlined in the *National Guidelines for Developing Harvest Strategies*. However, it will be at least 10 years from our original audit recommendation to the creation of a harvest strategy, which is not timely.

Despite the delay, VFA is undertaking a range of fishery-specific programs to improve fish management and harvesting. For example, in 2014 VFA worked with researchers, recreational anglers and other stakeholders to explore and introduce a minimum and maximum size limit—a 'slot limit'—for Murray cod to protect populations and improve fisheries for the species.

Through its monitoring program, VFA can now identify whether species are being negatively impacted by harvesting. This complements the work DELWP and CMAs are doing, which shows the numbers of many species increasing. The Native Fish Report Card Program—which began in 2017 and is funded to 2019—aims to monitor, assess and communicate the performance of key native recreational fish species in Victoria annually. While no native fish report cards have been published yet, Appendix B provides an example of a fish report card from the Wild Trout Fisheries Management Program.

Figure 1B
Priority native river fisheries and target species

CMA region	Priority river	Recreational species	Priority threatened species
Corangamite	Gellibrand River	River blackfish	Australian grayling
East Gippsland	Mitchell River	Australian bass	Australian grayling
Glenelg Hopkins	Glenelg River	Estuary perch	Nil
Goulburn Broken	Lower Goulburn River	Murray cod, golden perch	Trout cod, silver perch
Mallee	Lindsay River/Mullaroo Creek	Golden perch, Murray cod	Silver perch
Melbourne Water	Yarra River	Murray cod, Macquarie perch	Australian grayling
North Central	Gunbower Creek	Murray cod, golden perch	Trout cod, silver perch
North East	Ovens River	Murray cod, golden perch	Trout cod, Macquarie perch
West Gippsland	Thomson River (including Macalister River downstream Lake Glenmaggie)	Australian bass	Australian grayling
Wimmera	Wimmera River	Freshwater catfish, golden perch	Nil

Source: VAGO based on VFA.

VFA is currently developing a stakeholder engagement strategy. Its draft strategy articulates a more consistent and planned approach to engage a range of stakeholders active in fisheries in Victoria. The strategy identifies accountabilities and reporting responsibilities to support its implementation.

Despite the absence of a finalised stakeholder engagement strategy, VFA and its predecessors have improved their engagement with natural resource managers since 2013, when the focus was predominantly on engaging with recreational fishing interest groups. For example, DELWP, CMAs and VFA are involved in the new Native Fish Report Card Program, and natural resource managers and recreational fishing groups participate on the steering committee for the development of the draft FFMP and in other regular meetings.

Natural resource manager—a person or agency responsible for managing natural resources such as land, water, soil, plants and animals, including how people interact with them.

Impact

VFA's improved engagement with natural resource managers has led to increased co-funding of projects that seek to improve fishery management and habitat protection. For example, in 2016 DELWP contributed \$1 million to the Angler Riparian Partnerships Program to improve fishery habitat and management.

Residual risks

VFA has been slow to act in response to our recommendations. There is no evidence that its senior management actively monitored or sought timely implementation of actions to respond to our recommendations. Some actions are underway. However, they need to be expedited.

There is a risk the draft FFMP will not be finalised and implemented. VFA needs to develop an implementation plan and assign resources, accountabilities and time lines to ensure it delivers the priorities and objectives outlined in the plan. VFA advised us that the FFMP steering committee will develop an implementation plan once the draft FFMP has been submitted to the Minister for Agriculture for approval, which VFA plans to do in June 2018.

VFA needs to prioritise the development of a harvest strategy because it is a key gap in its new strategic approach to improve freshwater fisheries management. It also needs to continue to collect data to manage freshwater fisheries for the long term. Without this data, VFA risks making decisions on harvesting that negatively impact the sustainability of the fisheries.

Decisions about stocking

Our 2013 audit found that:

- DPI did not use robust scientific information or reliable data to support its stocking decision-making framework
- the information used to make planning decisions for the stocking of recreational freshwater fisheries was not robust or comprehensive, as information was sourced primarily from recreational anglers
- DPI had not adequately assessed the potential adverse impacts of stocking activities on non-target fish species, fishery habitats and supporting ecological processes.

Figure 1C outlines the 2013 audit recommendations related to fish stocking and our assessment of the actions VFA has taken to address them.

Figure 1C
Status of recommendations related to fish stocking

	Recommendation	Agency progress
6	<p>That DPI collate previous and current existing stocking records and research data into a clear evidence-based tool to guide current decision-making for fish stocking.</p> <p>VFA developed the online Vic Fish Stocking database in 2014. It is interactive and shows where and when fish are stocked. To do this, VFA collated all stocking records available since the 1990s. It has also collated all the fish stocking records from 1871 to the 1990s in a separate database.</p> <p>VFA holds the Vic Fish Stock annual forum, where it now makes decisions on fish stocking using information from the Vic Fish Stocking database, in consultation with relevant fishing stakeholders, including CMAs, DELWP and angling clubs. The forum aims to:</p> <ul style="list-style-type: none"> • determine the management objectives for the fishery • review the current fishery in light of the current year’s stocking plan and identify modifications • draft the following year’s stocking plan • identify other opportunities to improve fish stocking • identify current fishery management issues • assess additional proposals for future stocking. 	Complete
7	<p>That DPI prioritise and implement the relevant high priority recommendations from its internal reviews of its stocking processes and programs, to improve its current decision-making framework in relation to:</p> <ul style="list-style-type: none"> • the assessment and evaluation of the performance of annual stocking programs in improving fishery sustainability • the assessment and information gathering of the potential impact of stocking activities on freshwater fisheries ecology, non-target species and supporting fishery habitats. <p>Since the original audit, VFA has improved its assessment and evaluation of its stocking programs and projects for both native and introduced fish, to determine whether they have improved fishery sustainability. It does this primarily in conjunction with DELWP’s research arm—the Arthur Rylah Institute—and other research providers such as universities and private consultants.</p> <p>VFA stocks ‘at-risk’ species for conservation purposes, in addition to the stocking it does to support recreational fisheries. It also evaluates the success of these activities. For example, it was able to demonstrate a sustained increase in trout cod numbers in the Ovens River following a 10-year stocking program.</p> <p>Some of the research that VFA works on with the Arthur Rylah Institute enables it to monitor freshwater fish populations and gain insight into the effectiveness of management interventions such as fish stocking, as well as potential impacts on the broader freshwater fish ecology and other species.</p>	Complete

Source: VAGO.

Catch and effort data—the fish caught (catch) in numbers or weight taken for a given amount of fishing effort over time (effort).

Progress and performance improvements

VFA is collecting data on fish stocking that is more robust, scientific and reliable. In addition to its scientific research projects such as the Wild Trout Fisheries Management Program and the Native Fish Report Card Program, it collects data through:

- the Vic Fish Stocking database, which collates all fish stocking records dating back to the 1990s
- angler catch and effort programs such as the Angler Diary program and MyCatch, which collect data from individual anglers and Victorian angling clubs.

By assessing stocking records and research with DELWP and introducing new data collection methods since 2013, VFA has significantly improved its evidence base for decision-making on stocking. VFA no longer solely relies on angler catch and effort data reported by recreational fishers, as the original audit identified weaknesses with the quality of data provided through this method.

VFA makes decisions on the species and location of fish stocking at its annual Vic Fish Stock forums. Reports from these events show that its decisions are informed by available data and input from key representatives from the fishing community—including recreational fishing groups, natural resource managers and conservationists.

Impact

Improved data collection has enabled VFA to make better, more informed decisions on stocking for some species. For example, the new Native Fish Report Card Program provides information on the status of native fish populations and on the condition of native fisheries, which informs VFA's decisions on how to manage them.

VFA expects its monitoring and assessment of the impacts of its stocking activities will improve the sustainability of freshwater fishery habitat and increase numbers of fish. While no native fish report cards have been published yet, Appendix B provides an example of a fish report card from the Wild Trout Fisheries Management Program.

Residual risks

We found no residual risks—VFA has responded to our recommendations and acted to address the underlying issues identified in the 2013 audit.

Performance reporting

A conclusion from our 2013 audit was that DPI's approach to performance reporting for recreational freshwater fisheries did not provide enough assurance that it is meeting its responsibilities to:

- manage fisheries in a way that protects and conserves fishery habitats and ecosystems
- improve recreational fishing opportunities.

DPI did not clearly articulate performance objectives for fisheries management and its performance indicators did not measure the quality, effectiveness or efficiency of its activities.

Figure 1D outlines the 2013 audit recommendations related to performance reporting and our assessment of actions that VFA has taken to address them.

Figure 1D
Status of recommendations related to performance reporting

	Recommendation	Agency progress
8	<p>That DPI develop a performance reporting framework for fisheries that includes clear performance outcomes aligned with its core legislative objectives, which has balanced, measurable and outcome-focused performance indicators, underpinned by quality assured performance data.</p> <p>The <i>Minister’s Statement of Expectations</i>, the <i>Fisheries Victoria Strategy 2017–2021</i>, the draft FFMP and Target One Million include performance objectives broadly aligned to the <i>Fisheries Act 1995</i>. However, VFA has not implemented a performance management and reporting framework. VFA has advised that it intends to develop one but has not set any time frames for it yet.</p> <p>VFA’s current approach to performance management and reporting does not provide assurance that it is meeting its responsibilities.</p>	In progress
9	<p>That DPI develop and document performance reporting policies and standards, including those for the collection and verification of performance data.</p> <p>VFA has developed some standards for collecting data on fish health and volumes, including the Wild Trout Fisheries Management Program and the new Native Fish Report Card Program—see Appendix B. However, VFA’s performance-reporting policies and standards will remain incomplete until it develops a performance management framework.</p>	In progress

Source: VAGO.

Progress and performance improvements

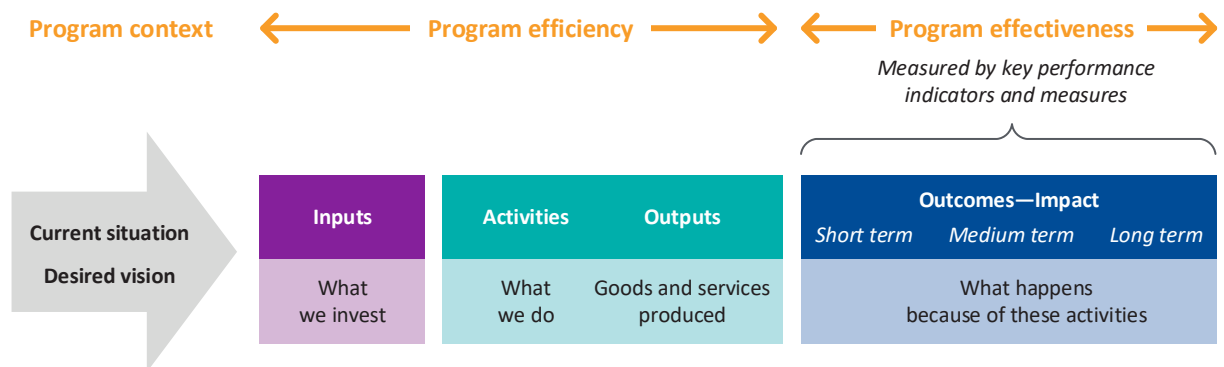
The *Fisheries Victoria Strategy 2017–2021* outlines objectives and outcomes for VFA and specifies actions to meet the objectives. These objectives align to the *Fisheries Act 1995*. The draft FFMP sits below the strategy and includes objectives that align to the strategy. However, it is unclear how VFA will measure its performance against these objectives.

VFA intends to develop a comprehensive performance management and reporting framework but it has not yet set any time lines for this.

Since 2013, VFA has included nine new measures and actions in the State Budget Papers for service delivery, however, most of these are activity measures.

VFA does not clearly articulate how its performance objectives link to outcomes, indicators of improvement or reportable measures, in line with the logical flow from objectives to outcomes shown in Figure 1E.

Figure 1E
Measuring agencies' performance in delivering objectives and outcomes



Source: VAGO.

Our 2013 audit identified that DPI needed a performance management and reporting framework for fisheries that included performance indicators, underpinned by quality-assured performance data.

VFA has not developed performance indicators but has started collecting the performance data needed to underpin these. Additionally, it has not developed leading performance indicators to show its progress in the interim while it collects the data.

Impact

Without a performance management and reporting framework, VFA does not provide enough assurance that it is meeting its responsibilities to manage fisheries sustainably or improve opportunities for recreational fishing.

Residual risks

VFA has multiple performance objectives outlined in several documents. The risk of this approach is that its strategy and direction becomes fragmented and not focused on what it is trying to achieve and how it intends to achieve it.

VFA has not implemented a performance management and reporting framework. Without it, the impact of its current and future initiatives on the sustainability of freshwater fisheries cannot be determined.

Its performance management and reporting policies and standards will remain incomplete until it develops a performance-reporting framework.

1.4
Recommendation

In addition to the original recommendations, we recommend that the Victorian Fisheries Authority:

1. prioritise the timely development of a harvest strategy and engage with fisheries' stakeholders to collect robust and scientific data.

2

Managing Victoria's Native Forest Timber Resources

2.1 Context

Just over 3 million hectares (ha) of Victoria's 7.9 million ha of public forest is state forest, where native timber harvesting is permitted. Around 450 000 ha of this (15 per cent) is available and commercially suitable for timber production in eastern Victoria, where the actual area harvested has averaged 3 000 ha annually over the last five years. Small-scale timber harvesting also occurs in western Victoria.

Timber is only one of the values Victoria's forests provide. Forests provide a range of environmental, economic and social benefits. For example, they help to maintain biodiversity, improve water quality, produce honey and firewood, and provide recreational and cultural sites.

There is potential conflict between some of these values—for example, timber harvesting can have long-term adverse impacts on biodiversity and the forest ecosystem. To manage this, Victoria has harvesting controls and broader forest management arrangements in place.

Roles and responsibilities

When we conducted our audit in 2013, DEPI was responsible for sustainably managing all Victorian public forests and for regulating timber harvesting. Following the change of government in 2014 and new policy priorities, responsibility for forest management was split between two newly created departments—DELWP and DEDJTR—with effect from 1 January 2015.

Department of Environment, Land, Water and Planning

DELWP is responsible for the environmental regulation of timber harvesting, to ensure harvesting does not adversely affect other forest values. It does this as part of its broader duties for sustainably managing Victoria's public forests to provide timber and other forest products, conserve flora and fauna, protect other forest values and provide recreational opportunities.

Department of Economic Development, Jobs, Transport and Resources

DEDJTR is responsible for forest industries policy, and for overseeing and regulating aspects of harvesting operations. DEDJTR also supports the Minister for Agriculture's governance of VicForests.

VicForests

VicForests was established as a state-owned business by the Victorian Government in 2003 and is responsible for the management, sustainable harvest and commercial sale of public native timber in Victoria.

Department of Treasury and Finance

DTF supports the Treasurer—the shareholder of VicForests—by monitoring and advising on VicForests' financial performance, corporate governance, compliance with financial legislative obligations and commercial functions. As we did not make any recommendations to DTF in our 2013 audit, it was not part of this follow up audit.

There is a range of state legislation that assigns these responsibilities and directs timber harvesting and forest management in Victoria. The focus of our previous audit and of this one is the *Sustainable Forests (Timber) Act 2004*, which establishes the principles of ecologically sustainable development that improves quality of life. Under the Act, ecologically sustainable development aims to:

- enhance individual and community wellbeing and welfare following a path of economic development that safeguards the welfare of future generations
- provide for equity within and between generations
- protect biological diversity and maintain essential ecological processes and life support systems.

Our previous audit

Our 2013 audit focused on how the responsible Victorian Government agencies managed the systems in place to deliver a sustainable timber harvest industry while protecting forest values and supporting regional communities. It examined whether:

- DEPI and VicForests were managing native forest timber resources on public land productively and sustainably
- DEPI and DTF were adequately fulfilling their oversight and advisory roles.

The audit focused on VicForests' operations in eastern Victoria and concluded that Victoria's timber resources were managed productively. However, it found that to enhance the environmental, social and economic sustainability of timber resource management DEPI could improve the way it:

- protects forest values
- documents decisions affecting where harvesting can occur
- manages its backlog of forest regeneration.

The audit also concluded that VicForests' approach to estimating sustainable harvest levels was largely sound. However, there were some weaknesses in estimating harvesting costs and future timber availability, including considering how its harvest schedule may influence future forest condition and modelling the impacts of thinning on wood yield. These weaknesses needed to be addressed.

2.2 Conclusion

DELWP and VicForests have taken steps to address most of our recommendations but progress has been slow. DEDJTR has made little progress.

Agencies' improvements have focused on managing Victoria's forest resources more productively and sustainably, but it is too early to determine what effect any improvements have had on forest sustainability.

DELWP has improved its approaches to protecting forest values including building its seed store, using biodiversity research to underpin its management actions and introducing a risk-based approach to managing environmental compliance. However, it still has more to do, including:

- setting a holistic goal for state forest management, in collaboration with stakeholders
- reviewing the forest management zoning that helps determine where harvesting can occur
- managing threatened species
- ensuring there is adequate seed supply for forest regeneration.

While DEDJTR's oversight of VicForests' compliance with its obligations for sustainable harvest level planning is limited, VicForests has improved the way it determines sustainable harvest levels.

DEDJTR has no plans to address the forest regeneration backlog. While it has modelled impacts to the industry and affected regional communities it has not developed any long-term plans to support the industry. This may limit the opportunity for the industry and communities to adjust to change.

VicForests can make public reporting of its forest regeneration efforts more transparent to provide more meaningful information on the progress of forest regeneration and improve its accountability.

2.3 Findings

Identifying harvest areas and setting harvest levels

Our 2013 audit identified that the audited agencies could do more to make sure the harvesting program is sustainable—that is, harvesting trees in native forests in a way that enables harvested areas to grow back into a similar form before they are harvested again. Our recommendations related to the need to improve forest zoning and harvest planning processes to achieve sustainable harvest levels.

Our 2013 audit concluded that VicForests was harvesting within the areas allowed and within the estimated sustainable harvesting level. However, we identified weaknesses in DEPI’s processes for determining the areas where harvesting is permitted (forest management zones) and in VicForests’ processes for estimating the sustainable harvest level. Neither agency could assure us that harvesting would not adversely affect the long-term sustainability of forest and timber resources.

Figure 2A shows our 2013 audit recommendations relating to improving the way the harvesting areas and sustainable harvest levels are set and our assessment of the actions that DELWP, DEDJTR and VicForests have taken in response to these recommendations.

Figure 2A
Status of recommendations related to identifying harvesting areas and sustainable harvest levels

Recommendation	Agency progress
<p>2 That DEPI improves the way it manages the forest management zoning scheme, by:</p> <ul style="list-style-type: none"> • reviewing the forest management zoning for eastern Victoria by March 2015 as planned, documenting its approach and the trade-offs made between conservation needs and productive uses • better documenting the assessments underpinning amendment decisions and periodically reviewing how consistently it applies its zoning amendment process. 	<p>Not complete (DELWP)</p>
<p>DELWP has not completed the zoning review, as it considers this recommendation is no longer relevant in its current form because of a change in government priorities from 2014. In 2015, DELWP evaluated the forest management zoning process but has only partially addressed the identified weaknesses.</p> <p>A zoning review is still needed. DELWP expects that it will review the zoning as part of modernising the regional forest agreements (RFA) but has not started planning to do this.</p> <p>DELWP reviewed the zoning amendment process as part of a broader review of its operating procedures, but it has not taken further steps since 2014 to improve its amendment decisions.</p>	

Figure 2A
Status of recommendations related to identifying harvesting areas and sustainable harvest levels—*continued*

	Recommendation	Agency progress
3	That DEPI engage appropriate experts to oversee its future five-yearly audits of VicForests’ sustainable harvest level planning—with expertise spanning the environmental, social, economic and commercial dimensions of sustainability.	Not complete (DEDJTR)
	DEDJTR no longer plans to conduct five-yearly audits of VicForests’ planning process for determining sustainable harvest levels. DEDJTR considers that VicForests’ compliance with third-party certification requirements and its legal obligations provide sufficient assurance over its harvesting planning.	
5	That VicForests continue to improve its approach to scheduling the sustainable harvest level to address identified weaknesses.	In progress (VicForests)
	VicForests is improving its harvest modelling and scheduling approaches. Of four weaknesses we identified in 2013, it has addressed two relating to its estimates of harvesting costs and future timber availability. The remaining two—considering how its harvest schedule may influence future forest condition and modelling the impacts of thinning on wood yield—need further action.	

Source: VAGO.

Progress and improvements

Forest management zoning

Under national agreements, state legislation and planning, the Victorian Government has committed to meeting requirements for conserving native forests and protecting conservation values, while still allowing timber harvesting. To meet these requirements, DELWP needs to determine which areas of state forest it should protect for conservation reasons and which should be available for harvesting. Forest management zoning makes an important contribution to this.

Our audit concluded that the poor transparency of DEPI’s zoning amendment assessments and its inadequate review of forest management plans and zoning amendments over many years meant that it did not understand how these changes had impacted the state of the forests. Our recommendation called for DEPI to review the forest management zoning for eastern Victoria (where harvesting activities were focused) by 2015. This did not occur.

DELWP considers this recommendation is no longer relevant in its current form because the zoning review was a commitment of the former Victorian Government under its *Timber Industry Action Plan*, which lapsed with the 2014 change of government. DEPI started the zoning review for the Central Highlands region of eastern Victoria, but DELWP did not finalise the revised zoning. It advised that this was stopped when the Leadbeater’s Possum Advisory Group was established in 2014, as management actions stemming from the advisory group’s work would likely affect zoning.

DEPI had the zoning review methodology evaluated. The evaluation report noted significant deficiencies in the methodology and made 17 recommendations for improvement. DELWP has only partially addressed seven of the recommendations, because of changes to government priorities.

A full zoning review is needed as a priority to:

- assess whether the aim of sustainably balancing forest values, such as harvesting and biodiversity, has been achieved
- better inform forest management planning and decision-making.

DELWP has begun to modernise its RFAs. It expects that this process will enable a systematic review of the reserves system that underpins Victoria's forest management, although it has not started any planning for this review. State forest zones are a key element of the reserves system, along with national parks, conservation reserves and other protected areas.

Our original audit recommendation also called for DEPI to document the assessments underpinning its more minor zoning amendment decisions transparently, and review how consistently it applies its zoning amendment process. DELWP advised that, since 2013, it has improved its forest management zoning scheme processes. This includes reviewing its standard operating procedures for forest management zoning decisions and replacing the previous paper-based field survey forms with electronic data collection. However, DELWP has provided limited evidence of these initiatives and could not demonstrate how it has applied improved processes to its zoning amendment decision-making.

[Engaging experts to oversee harvest level compliance audits](#)

DEDJTR has not comprehensively audited VicForests' harvest level planning. In 2017, it engaged an independent expert to review aspects of VicForests' harvest planning in response to industry concerns about reduced future timber supply. The review examined VicForests' assumptions in determining future availability of timber from ash species and did not look at the environmental and social aspects of sustainable harvest planning. It found the assumptions were largely reasonable.

In our 2013 audit, DEPI planned to do five-yearly audits of VicForests' sustainable harvest level planning. DEDJTR has no plans to undertake five-yearly audits in the future. However, it advised that it would review VicForests' sustainable harvest level planning in future if the wood supply forecast were to change significantly. DEDJTR considers that VicForests' third-party certification audits under the Responsible Wood Certification Scheme (formerly the Australian Forestry Standard) and its legal obligations provide assurance that VicForests adequately incorporates environmental, social and economic elements.

Third-party certification audit reports over the past three years concluded that VicForests had complied with all criteria and recommended the continuation of VicForests' certification. However, these reports provide limited detail on which aspects of sustainable harvest level planning were assessed.

Determining the sustainable harvest level

Although VicForests is allocated a defined forest area in which it can harvest timber, not all of this area is available and suitable for harvesting. For example, some parts of the forest have regulations restricting harvesting, trees may be the wrong type and not suitable for harvesting, or trees may be too far from saw mills and therefore harvesting is not economically viable. To supply the wood types and volumes needed, VicForests must determine what is available and suitable, then schedule where and when it will harvest.

Our 2013 audit identified that VicForests' overall approach to determining the sustainable harvest level was sound but could be improved. The Victorian Environment Assessment Council's 2017 review and VicForests' own 2017 review reached similar conclusions.

Coupes—defined areas of forest managed for a specific purpose, for example, logging. Coupes are regenerated after harvesting.

VicForests is currently updating its overall modelling approach, using improved aerial survey data, to incorporate better information on the areas it harvests and their timber and biodiversity values.

Since our audit, VicForests has addressed two of four weaknesses we identified in the way it models and schedules its harvesting activities.

One relates to the way VicForests plans where and when it will harvest. Its harvest scheduling process is driven by the need to be able to supply relatively consistent volumes and grades of logs over time, while also smoothing out the cost of doing this. The cost of harvesting varies depending on factors such as proximity of the harvested areas to mills and how readily accessible the timber is to the harvesters. In 2013, VicForests included a profitability factor in its cost estimates, which contained fixed costs. We identified that including fixed costs weakened its planning by ruling out coupes too early in the decision-making process as being too expensive to harvest. VicForests has revised its planning approach and now focuses on spreading the yield of wood products from coupes over time, irrespective of cost and profitability, which it considers later in its harvest planning process.

Sawlogs—logs that are large enough to be processed directly into lumber, beams and planks, mainly used for structural and appearance purposes.

Log grade yields—the quality and potential end use of sawlogs has significant influence on their value.

The second way VicForests has changed how it models and schedules harvesting activities relates to how it estimates future timber availability. In 2013, we identified that VicForests needed better data on the quality and proportion of sawlogs that will become available after 2030. VicForests has improved the way it estimates sawlog availability. Since the audit, it has introduced:

- detailed log-grade estimates into its wood supply modelling system rather than continuing with a simple prediction of total sawlog volume
- an annual monitoring and reconciliation process that reviews actual log grade yields by species and location across eastern Victoria and matches them to predictions from its yield modelling system
- monitoring processes to ensure that any unforeseen shift between estimated and actual yield is identified and incorporated into the modelling.

The third weakness we identified in VicForests' modelling approach is that it does not consider forest condition, which should be as good as—or better than—it was at the end of the proposed 20-year harvest schedule. VicForests advised that it considers that harvesting regulations, regeneration standards it needs to meet under the timber harvesting regulations and past studies collectively provide sufficient reason to assume this is occurring.

VicForests does not test whether its proposed harvest schedule is likely to maintain environmental, social and other economic values in the regrown forest, such as biodiversity and carbon storage. It has been involved in recent research into maintaining biodiversity in forests where harvesting occurs, which could provide an initial step towards estimating this.

Thinning—selectively removing trees to improve the growth of those remaining.

In 2013, we also identified that VicForests needed to model the impact of its thinning activities on current harvest volumes and future growth rates. It analysed the impacts in 2011 but did not include the results in its wood supply modelling between 2013 and 2017 because its thinning operations effectively halted after 2013. VicForests advised us it plans to resume thinning soon, and that the new planning system it is developing will include thinning.

VicForests' improved approach to determining the sustainable harvest level has improved its wood supply estimates and planning, which form the basis of the regular supply forecasts it provides to industry and its timber supply contracts.

Residual risks

Over time, DELWP has made many successive incremental zoning amendments. However, it has not comprehensively reviewed forest management zoning and therefore has not assessed the impact of its zoning amendments on the originally zoned areas and the balance of forest values and uses. This zoning is part of DELWP's core responsibilities and, without a review, DELWP cannot be sure what impact its zoning amendments have on forest values.

DEDJTR's decision not to periodically audit VicForests' planning process for determining sustainable harvest levels diminishes regulatory oversight of a process that is fundamental to sustainable harvesting.

Because VicForests has not estimated the impact of its harvest schedule on the likely future condition of forests, its harvest strategy does not sufficiently balance its focus on maintaining timber resources with consideration about maintaining forest health, biodiversity and other values in the longer term.

Thinning a forest area can increase the growth rates of the remaining trees and provide an important source of wood. If VicForests conducts a significant amount of thinning—as it advised us it is planning to do—but does not model the impacts, its pulpwood and sawlog volume forecasts may be inaccurate, reducing its ability to optimise its timber sales.

Regenerating harvested areas

The state regulations for timber harvesting—currently the *Code of Practice for Timber Production 2014*—require responsible agencies to regenerate harvested areas and maintain their biodiversity. The responsible agencies—DEDJTR for areas harvested before 2004, and VicForests for areas harvested since 2004—need to take action if the areas do not regenerate naturally to an acceptable level.

Our 2013 audit found that DEPI was responsible for a backlog of areas harvested before 2004 that had not been successfully regenerated. The audit also identified that neither VicForests nor DEPI had accurately reconciled the cumulative regenerated area against the cumulative harvested area, even though this is critical to sustainability. In addition, DEPI did not have enough seed in store to meet its projected regeneration requirements, for example, following a bushfire. DEPI and VicForests needed to address these issues to strengthen the sustainability of timber harvesting.

Figure 2B shows our 2013 audit recommendations to improve the regeneration of harvested areas and our assessment of the actions the responsible agencies have taken in response to the recommendations.

Figure 2B
Status of recommendations related to regenerating harvested areas

	Recommendation	Agency progress
4	<p>That DEPI improves the way it manages its responsibilities for regenerating forests, and monitors VicForests’ regeneration compliance, by:</p> <ul style="list-style-type: none"> • prioritising the regeneration of its backlog to the accepted standards • reconciling VicForests’ regeneration against harvested areas <p>DEPI assessed the regeneration backlog in 2014, improving its understanding of the area involved and how much had likely grown back naturally over time. DEDJTR used these results in 2015 to identify further work needed but has made little progress since then.</p> <p>Since 2014, DEDJTR has required VicForests to report annually on the areas it has harvested and regenerated. This enables DEDJTR to reconcile the two figures, but DEDJTR does not verify or use the data.</p>	Not complete (DEDJTR)
	<ul style="list-style-type: none"> • collecting enough seed to meet regeneration backlog and bushfire recovery needs. <p>DELWP’s seed store has increased substantially but it still has significantly less than it estimates it needs, in part due to low seed production in some forests since 2013. In February 2018, DEDJTR identified that some key tree species’ exceptional flowering that summer provides an opportunity for it to collect large quantities of seed in 2019 and 2020, but it has not started planning for this work.</p>	In progress (DELWP)

Figure 2B
Status of recommendations related to regenerating harvested areas—
continued

	Recommendation	Agency progress
6	That VicForests clearly and accurately reconciles its successfully regenerated areas against the area harvested and reports this publicly.	Not complete (VicForests)
	VicForests publicly reported in 2015 on the area it had harvested between 2004 and 2014 and how much of this area it had regenerated. This demonstrated that it was successfully regenerating the areas it had harvested, within an acceptable three-year time lag which reflects the time it takes to establish successful regeneration. However, it has not publicly reported on this since.	

Source: VAGO.

Progress and improvements

DEDJTR's regeneration performance

In 2014, DEPI refined its estimate of the gross area of potential regeneration backlog to 27 400 ha. It also surveyed 9 839 ha of this in more detail using aerial photography, to assess the area's regeneration status and help prioritise future regeneration work. This survey found that around 8 000 ha had successfully regenerated naturally to commercial standards.

In 2015, DEDJTR identified the need to assess the 17 561 ha of backlog regeneration area that had not been surveyed and to treat the 1 839 ha that it has confirmed need regenerating. However, it still has no firm plans to do this, which is not consistent with its requirements under the *Code of Practice for Timber Production 2014*.

DEDJTR advised that its lack of a plan for this work is because regeneration is costly and it is unlikely to get funding to regenerate any areas that have not regenerated naturally. It has an informal agreement with DELWP to regenerate any areas affected by bushfire.

VicForests' regeneration performance

VicForests largely addressed our recommendation about regeneration performance in its *Sustainability Report 2014–15*, which outlined how much of the area harvested from 2004 to 2014 it had regenerated. However, since 2015, the transparency of VicForests' regeneration efforts has decreased because it has not reported publicly on:

- the area that has regenerated
- the cumulative areas it has harvested and regenerated over time.

Between 2004 and 2014, VicForests successfully regenerated 79 per cent of the 46 616 ha harvested. This rate of regeneration kept pace with harvesting, within the industry-accepted three-year lag (around 9 000 ha) between harvest and regeneration. VicForests' data shows it has reduced the gap between harvested and regenerated areas in subsequent years.

In 2013, DEPI checked that VicForests had successfully regenerated each coupe but it did not check how much of the harvested area had been successfully regenerated over time, by reconciling the cumulative harvested area with the cumulative regenerated area. DEDJTR now receives annual data from VicForests on the area harvested and regenerated, but it could not show us how it verifies or uses the data.

DELWP's seed store

DELWP's seed store needs to include seed collected from different species and forest areas, because it is preferable to regenerate an area with seed from the same area. The seed store also needs to be updated regularly as seed can lose its viability—ability to germinate—as it ages. The quantity of seed that trees produce each year varies depending on factors such as weather, flowering and pollination.

In 2013, DEPI had less than one tonne of seed in store. Since then, DELWP has:

- increased its stores of ash seed to close to four tonnes, but estimates that it needs 12 tonnes to assist in future fire recovery works
- increased its stores of seed from other species to 2.4 tonnes, but has not estimated how much it needs in store.

DELWP does not know how much of its stored seed is viable.

In 2015 and 2018, DELWP—in conjunction with VicForests—engaged experts to monitor flowering and seed development and forecast the availability of collectable seed crops. The experts' 2015 report identified that poor flowering in 2014 would reduce seed availability between 2015 and 2018, but the February 2018 report identified an opportunity for large-scale seed collection in 2019 and 2020. DELWP has reviewed its current arrangements for storing seed and opportunities to store more seed, but it has not developed a plan or budget to support large-scale seed collection in 2019 and 2020. DELWP advised us it is planning to do this.

Residual risks

Without a plan or budget to increase the seed store in 2019 and 2020, there is the potential that DELWP may miss the opportunity to adequately support future regeneration efforts.

Oversight of VicForests' regeneration has reduced since 2013. At that time, DEPI checked the harvested areas to determine whether they had successfully regenerated and periodically audited VicForests' regeneration process. DEDJTR now oversees VicForests' regeneration activities and the reconciliation, but does not check the success of VicForests regeneration or systematically review the reconciliation data. DELWP still includes regeneration in its annual forest audits. VicForests' certification audits under the Responsible Wood Certification Scheme include limited physical checks of regeneration.

Collectively, the deficiency in DELWP’s seed storage, along with DEDJTR’s slow progress on the regeneration backlog, weaker departmental oversight and reduced transparency of VicForests’ regeneration activities present a risk to the success of future regeneration efforts.

Protecting forest values

DEPI’s and VicForests’ approaches to managing native forest timber harvesting aim to protect forest values. Our original audit found that VicForests had generally managed its responsibilities to protect forest values from potential timber harvesting impacts well. However, DEPI had not effectively delivered all the actions it committed to for planning, delivering and reviewing its protection approach. Specifically, DEPI had not responded quickly enough to protect some threatened species and did not gather enough data to measure actions and monitor the delivery of promised actions. We found that both agencies could also improve the way they assessed and weighed up the risks to forest values resulting from their decisions about managing biodiversity in areas where harvesting is allowed.

Figure 2C shows our 2013 audit recommendations related to protecting forest values and our assessment of the actions DELWP and VicForests have taken in response to the recommendations.

Figure 2C
Status of recommendations related to protecting forest values

Recommendation	Agency progress
<p>7 That DEPI improve its delivery of forest-related plans and strategies through timely and comprehensive planning, monitoring and review, including:</p> <ul style="list-style-type: none"> • completing, reviewing or renewing the action statements required under the <i>Flora and Fauna Guarantee Act 1988</i> • strengthening its business systems so that the delivery of, monitoring, reporting and review of its commitments for managing forest values is consistent, thorough and timely. 	<p>In progress (DELWP)</p>
<p>In December 2013, DEPI prepared a three-year implementation plan for action statements. Since the audit, DELWP has completed 19 action statements for threatened species. A further 21 are currently in preparation.</p> <p>DELWP is currently reviewing the <i>Flora and Fauna Guarantee Act 1988</i> as part of the government’s broader long-term agenda for ensuring stronger protection of important biodiversity.</p> <p>DELWP has improved its business systems—for example, by revising its standard operating procedures and finalising the Victorian Forest Monitoring Program—but it has not assessed how this has improved its delivery of forest-related plans.</p>	

Figure 2C

Status of recommendations related to protecting forest values—*continued*

	Recommendation	Agency progress
8	<p>That DEPI use its recent biodiversity research findings to:</p> <ul style="list-style-type: none"> • further analyse the impacts of harvesting on at-risk species to determine whether any changes to management approaches or interim measures are needed • inform its reviews of forest management zoning and action statements, and its development of the new integrated regional plans. 	Complete (DELWP)
	<p>DELWP is reviewing its biodiversity policy and associated legislation. It has applied new information and research findings as part of its ongoing management of Victoria’s forests. This includes:</p> <ul style="list-style-type: none"> • implementing Victoria’s 2017 biodiversity strategy, <i>Protecting Victoria’s Environment—Biodiversity 2037</i> (Biodiversity 2037) • reviewing the <i>Flora and Fauna Guarantee Act 1988</i> • preparing action statements created under the <i>Flora and Fauna Guarantee Act 1988</i> • updating standard operating procedures. 	
9	<p>That DEPI strengthen its auditing of VicForests’ compliance by documenting the rationale underpinning its identification of the high compliance risks associated with harvesting, and mandating the audits.</p>	Complete (DELWP)
	<p>In April 2015, DELWP finalised its Timber Harvesting on Public Land Risk-Based Compliance Strategy. DELWP has applied this approach to a number of compliance audits under the Forest Audit Program.</p>	
10	<p>That DEPI and VicForests improve and better document the assessment of threats and consequences that biodiversity management decisions in timber production areas may have on forest environmental, economic and social values, and more transparently manage the risks and trade-offs involved.</p>	In progress (DELWP and VicForests)
	<p>DELWP has strengthened its approach to assessing the consequences of its decisions about managing biodiversity since our 2013 audit, in particular by mandating this through the <i>Code of Practice for Timber Production 2014</i>.</p> <p>VicForests has also strengthened its approach to managing biodiversity since 2013, by drafting and starting to apply a more systematic approach to protecting identified high conservation values—including vegetation types such as rainforest, habitat such as hollow-bearing trees, and threatened species—where these are likely to occur.</p> <p>Both agencies can further improve their assessment of the risks and consequences of potential management options that inform their biodiversity management decisions.</p>	

Source: VAGO.

The *Flora and Fauna Guarantee Act 1988* provides for the listing of Victoria's threatened species, ecological communities and potentially threatening processes. Under the Act, an action statement must be prepared following a listing. It outlines what has already been done to conserve and manage items listed and what is intended to be done.

Progress and improvements

Action statements

DELWP developed a three-year implementation plan for action statements to assist it to fulfil its obligations under the *Flora and Fauna Guarantee Act 1988*. This plan, approved in December 2013, established a framework for the preparation of action statements and included guidance on governance and a process for prioritising the development of the statements based on environmental risk and complexity.

The 2013 implementation plan identified that, as at 30 June 2013, there were 689 threatened species and communities, and threatening processes listed under the *Flora and Fauna Guarantee Act 1988*. Of those, 209 had a published action statement, 206 had an unpublished draft statement, and statements for 274 were still in the very early stages of development.

DELWP has made little progress in preparing action statements since the recommendation, and there are still many species that do not have action statements. Since 2013, DELWP completed and published 19 action statements, all between 2013 and 2015. A further 21 are currently under preparation.

The future of action statements is uncertain. DELWP is reviewing the *Flora and Fauna Guarantee Act 1988*. Its January 2017 consultation paper on the proposed amendments to the legislation highlighted a number of issues with action statements, including that 'development of action statements is a resource intensive and often protracted process and has failed to keep up with the listing of species, communities and threats'.

To address this, DELWP proposed significant changes to the way threatened species are managed under the *Flora and Fauna Guarantee Act 1988*. These include replacing the mandatory preparation of action statements with conservation advice—which would still be mandatory—and selective use of risk-based management plans. The amendment bill is currently being finalised for government consideration.

Business systems

The 2013 audit highlighted a need for DEPI to strengthen its business systems to overcome its inconsistent and sometimes fragmented and slow approach to protecting forest values.

During this audit, DELWP advised us that continuous improvement to business systems is the central principle behind its operational programs. DELWP provided details of business system improvements made since our 2013 audit, including:

- revision of its standard operating procedures
- finalisation of the Victorian Forest Monitoring Program, which provides data for statutory reporting, forest policy, management decisions and assessing performance.

DELWP has not assessed how these actions have improved its delivery of forest-related plans.

Biodiversity research

DELWP has used research findings and information to analyse the impacts of harvesting on at-risk species. An example is detailed in Figure 2D.

Figure 2D

Case study: Using research to understand the impact on Leadbeater's possum

In 2017, DELWP reviewed the effectiveness and impact of establishing timber harvesting exclusion zones to protect possum colonies.

This review used recent biodiversity research and modelling, and new survey techniques. It resulted in improved decision-making for the protection and conservation of Leadbeater's possum.

Source: VAGO.

Since the 2013 audit, DELWP has used research findings to:

- develop Biodiversity 2037, in conjunction with regional stakeholders and agencies
- revise planning standards for timber harvesting operations in Victoria's state forests
- refine its approach to managing threatened species to include a more strategic 'habitat-based' approach.

Timber harvesting compliance strategy

DELWP's development of the Timber Harvesting on Public Land Risk-Based Compliance Strategy in 2015 was a timely response to our audit.

The strategy mandates a risk-based approach to compliance and enforcement activities across the DELWP portfolio and incorporates the risk criteria that DELWP applies to its compliance monitoring. The strategy includes DELWP's rationale for determining risk in the compliance audits it conducts into timber harvesting operations, through its Forest Audit Program—'more targeted audits that assess compliance for higher-priority compliance obligations and risks'. DELWP applied this risk-based approach to a number of compliance audits in 2016 under the program. DELWP publishes the results of these audits on its website.

DELWP is undertaking further initiatives to enhance its department-wide compliance functions, including the development of a three-year business plan for compliance. DELWP was allocated an additional \$30.3 million in the 2017–18 State Budget to create additional compliance positions—including for timber compliance—which in turn will significantly boost its compliance capacity.

Biodiversity management decisions

In 2013, we concluded that DEPI's and VicForests' overall approaches to managing native forest timber harvesting were designed to protect forest values. However, we found that both agencies could improve the way they assess and manage the risks to forest values as part of their management decisions.

Victoria's regulatory framework for native forest timber harvesting applies a precautionary approach that minimises the threat to biodiversity posed by harvesting operations. These protections have improved since our 2013 audit, for example, through:

- the inclusion of more forest areas in the conservation parks and reserves system where harvesting is not allowed
- new rules to protect Leadbeater's possum and its habitat from harvesting operations.

The Leadbeater's possum protections, developed by the Leadbeater's Possum Advisory Group, were based on an assessment of the benefits, costs and consequences of harvesting management options. A key outcome was the decision to exclude harvesting within 200 metres of a known possum colony.

DELWP has introduced new processes to strengthen its management of biodiversity and reduce the threat that harvesting may pose to at-risk species. For example, its revised *Code of Practice for Timber Production 2014* now mandates the application of its precautionary principle, including the need to assess the likely consequences of management options. Neither the code of practice nor the *Management Standards and Procedures for timber harvesting operations in Victoria's state forests 2014* provide guidance on how decision-makers should do this.

The guiding principles of Biodiversity 2037 also include basing decisions on the precautionary principle, although it does not explicitly require agencies to consider the risk-weighted consequences of management options.

DELWP's assessments of the benefits, consequences and risks to forest values from specific biodiversity management activities are not well documented.

VicForests' management systems also include elements designed to protect biodiversity. Through its draft 2015 Ecologically Sustainable Forest Management Plan and 2017 *VicForests Management for High Conservation Values* plan, VicForests has introduced new processes to strengthen its biodiversity management and reduce the threat that harvesting may pose to at-risk species. These documents describe how it will assess forest values and apply a risk-based approach to protecting and monitoring them.

VicForests is at an early stage of applying these new processes across its operations. Its revised approach should help it to more proactively and systematically identify biodiversity values and assess management options, but its overarching plans do not specify the risk assessment approach that it intends to apply.

Precautionary principle—when contemplating decisions that will affect the environment, careful evaluation of management options be undertaken to, wherever practical, avoid serious or irreversible damage to the environment; and to properly assess the risk-weighted consequences of various options.

When dealing with threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

VicForests has demonstrated aspects of its new biodiversity approach in managing greater glider populations. The greater glider was listed as a vulnerable species under the *Flora and Fauna Guarantee Act 1988* in June 2017. VicForests changed its harvesting plans in November 2017 to protect the glider from timber harvesting in areas such as the Strathbogie Ranges, where there are no existing state harvesting protections or management standards. The changes, which include retaining trees and habitat, will remain in place until DELWP completes the action statement currently under development to manage the species.

VicForests makes other decisions about biodiversity management, including during its harvesting operations, but does not document how it assesses different management options.

It is too early yet to assess how well VicForests applies its new biodiversity management processes across its operations and the extent to which this contributes to conservation improvements.

Residual risks

DELWP has introduced some initiatives to improve the management of threatened species. However, until the proposed changes to flora and fauna legislation are finalised, many species remain unprotected and there remains uncertainty around the development of future plans for managing threatened species in Victoria's forests. We have proposed an audit of threatened species as part of our *Annual Plan 2018–19*.

The 2013 audit observed that compliance audits under the Forest Audit Program are not mandatory, rather they are at the discretion of the responsible minister. As these audits are the main mechanism for providing assurance, our audit recommended that they be compulsory. However, at the time of this follow up audit, DELWP has made no decision to mandate compliance audits.

DELWP and VicForests are improving their approaches to assessing the potential consequences of management options before deciding which option to pursue. They will need to improve this further to ensure they comply with the *Code of Practice for Timber Production 2014* and reduce the risk that they do not manage the forest sustainably, as they are required to do under the *Sustainable Forests (Timber) Act 2004*.

Supporting regional communities

Our 2013 audit found that VicForests strategically assessed the potential risks and opportunities for the longer-term use of native forests to generate profits and socio-economic benefits, but that DEPI did not. DEPI did not holistically and broadly consider a range of future options for addressing emerging issues and supporting the industry. Instead, it addressed individual issues in an ad hoc or reactive way.

Figure 2E shows our 2013 audit recommendation related to regional communities and our assessment of the actions DEDJTR has taken in response to the recommendation.

Figure 2E

Status of recommendation related to supporting regional communities

	Recommendation	Agency progress
11	That DEPI more strategically and holistically assess options for addressing issues and opportunities for the industry, and continue to update this planning based on socio-economic information relevant to the native forest timber industry sector.	In progress (DEDJTR)
	DEDJTR has developed the Resource Industry Community Household (RICH) model and used it to inform policy advice to government on socio-economic changes relevant to the native timber industry. It has not developed any plans to support the timber industry.	

Source: VAGO.

Progress and improvements

DEDJTR advised that it still supports the 2013 audit recommendation, and that including socio-economic considerations in policy development is one of DEDJTR’s ongoing priorities.

DEDJTR advised it uses its RICH model to inform policy advice to the government. The RICH model is designed to predict the socio-economic changes likely to occur from a ‘shock’ to industry conditions—for example, the impact on employment in a given area if there is a reduction in wood supply over time, and any flow-on effects.

In 2017, in conjunction with other relevant portfolios, DEDJTR undertook RICH modelling in response to forecast reductions in timber supply from ash species to inform government deliberations. DEDJTR advised it is waiting on a response from government before it can proceed with future planning. However, prior to 2017, DEDJTR could not demonstrate that it had done any planning to support the timber industry since our original audit. This may limit the opportunity for the industry and communities to adjust to any changes.

Sustainability goals and performance

Our 2013 audit found that DEPI did not develop an overarching goal for state forest management describing its aims, which would complement the regional goals outlined in forest management plans. DEPI did not have the regional objectives, measures and targets needed to show the progress and success of timber resource and state forest management. The audit concluded that gaps in management performance reporting made it difficult to:

- assess how well DEPI and VicForests’ efforts are contributing to sustainable state forest management and outcomes
- provide meaningful information to the public about the state’s performance on forest management.

Figure 2F shows our 2013 audit recommendation related to sustainability goals and performance and our assessment of the actions DELWP has taken in response to the recommendation.

Figure 2F
Status of recommendation related to sustainability goals and performance

	Recommendation	Agency progress
1	<p>That DEPI strengthen its sustainable state forest timber resource performance management by:</p> <ul style="list-style-type: none"> • setting a clear goal for state forest management • establishing regional objectives, progress measures and targets for state forests that take into account both forest and timber resource management • reporting publicly on progress in achieving these. <p>DELWP advised that it no longer considers this recommendation as relevant in its current form and that future action on setting goals for state forest management will occur within the government’s renewal of the 20-year RFAs. DELWP has not committed to establishing a clear goal for state forest management.</p>	Not complete (DELWP)

Source: VAGO.

Progress and improvements

DELWP explained that, due to significant changes in government policy following the 2014 election, it does not consider this recommendation to be relevant in its current form. One of the changes resulting from the change of government was the separation of responsibilities for forest management between the newly created departments DELWP and DEDJTR.

The Forest Industry Taskforce, introduced in 2015, was charged with advising government on future industry direction. DELWP advised that this work was needed to inform a statewide goal, but that as the taskforce has not yet provided this advice, future action on setting a goal will occur within the government’s renewal of the 20-year RFAs. We discuss these processes below.

We also recommended that DEPI develop regional objectives, progress measures and targets for state forest management, to complement the statewide objectives and indicators. Under the *Sustainable Forests (Timber) Act 2004*, the 2006 *Sustainability Charter for Victoria’s State Forests* sets statewide objectives for state forests and the *Criteria and Indicators for Sustainable Forest Management* established in 2007 set sustainability criteria and indicators, which are publicly reported on five-yearly through the State of the Forests reports.

DELWP has not:

- revised the regional objectives in the forest management plans—which pre-date the sustainability charter—to align with the charter’s objectives
- introduced progress measures to show how its actions to manage the forests and support sustainability contribute to achieving legislative objectives and criteria for state forests.

Forest Industry Taskforce

In November 2015, the government established the Forest Industry Taskforce to provide a forum for major stakeholders to agree on proposals to address future issues facing the timber and forestry industry. The taskforce was due to finalise its deliberations and provide recommendations to government by the end of June 2016. However, it has not provided any recommendations.

Modernising regional forest agreements

RFAs are 20-year intergovernment plans established for the sustainable management and conservation of Australia's native forests. The Commonwealth coordinates a national approach, while state and territory governments have constitutional responsibility for forest management. These agreements aim to balance the environmental, social, economic and heritage values that forests can provide for future sustainability.

There are 10 RFAs covering four Australian states, and five of these are in Victoria, as shown in Appendix C. These were developed following a comprehensive assessment of forest values for each RFA area. The RFAs provide important considerations for regional forest management goals, which are part of DELWP's regional forest management plans.

In March 2018, the government announced that three RFAs in Victoria have been extended for a further two years to 2020, which means all five will expire in March 2020.

The Victorian Government recently announced a process for modernising RFAs. A memorandum of understanding has recently been finalised between Victoria and the Commonwealth. This work is scheduled for implementation by March 2020.

According to the memorandum, key policy aims of this process are:

- robust engagement with Victorian communities on forest values
- updated scientific assessments of forest values—environmental, indigenous heritage, economic and social—and ecologically sustainable development
- modernised content and requirements of RFAs, underpinned by updated forest management plans and a revised forest regulatory and policy framework.

While this process may develop regional goals, DELWP has not committed to establishing a goal for state forest management.

Residual risks

Setting a holistic goal for state forest management remains a relevant recommendation that needs to be addressed through interdepartmental collaboration.

DELWP should play a lead role in collaborating with DEDJTR to develop a clear goal for state forest management that is informed by stakeholders and consistent with government policy. The absence of an overarching goal and appropriate regional objectives creates a lack of clarity and uncertainty for the future of Victoria's forests and inhibits effective planning by responsible government agencies.

2.4 Recommendations

In addition to the original recommendations, we recommend that the Department of Environment, Land, Water and Planning:

2. undertake a comprehensive forest management zoning review as a priority action to better inform its sustainable forest planning and management
3. lead the coordination and development of a clear goal for state forest management in collaboration with the Department of Economic Development, Jobs, Transport and Resources.

Appendix A

Audit Act 1994 section 16— submissions and comments

We have consulted with VFA, DELWP, DEDJTR and VicForests, and we considered their views when reaching our audit conclusions. As required by section 16(3) of the *Audit Act 1994*, we gave a draft copy of this report, or relevant extracts, to those agencies and asked for their submissions and comments. We also provided a copy to the Department of Premier and Cabinet.

Responsibility for the accuracy, fairness and balance of those comments rests solely with the relevant agency head.

Responses were received as follows:

VFA.....	48
DELWP	50
DEDJTR.....	52
VicForests	53

RESPONSE provided by the Chief Executive Officer, VFA



A GPO Box 4509
Melbourne Victoria 3001
E victorianfisheries@vfa.vic.gov.au
T 136 186

Mr Andrew Greaves,
Auditor-General, Victorian Auditor-General's Office
Level 31, 35 Collins Street Melbourne
VIC 3000

Dear Mr Greaves,

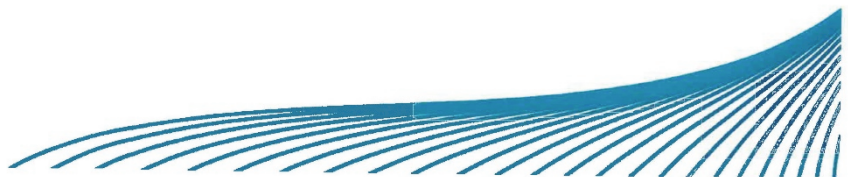
Re: Proposed Performance Audit Report – Follow up of 2012-13 and 2013-14 performance audits: Management of Freshwater Fisheries and Managing Victoria's Native Forest Timber Resources

Thank you for your letter of 10 May 2018 inviting the Victorian Fisheries Authority (VFA) to provide a submission to the proposed performance audit report.

I welcome the Victorian Auditor-General's Office (VAGO) conclusion that the VFA has responded to recommendations made by VAGO to the Department of Primary Industries in the 2013 audit. The VFA has strengthened the alignment of draft plans with the objectives of the *Fisheries Act 1995*, improved its engagement with natural resource managers and developed a stronger evidence base to support decision-making and manage freshwater fisheries in an ecologically sustainable manner.

I also welcome the report recommendation that the VFA prioritise the development of a harvest strategy and engage with fisheries stakeholders to collect robust and scientific data. Under the Freshwater Fisheries Management Plan the VFA is committed to systematically collecting fish population health and recreational fishing information that will enable the development of harvest strategies for priority freshwater fisheries. One of the first subcommittees to be formed under the Implementation Committee for the Freshwater Fisheries Management Plan will focus on harvest strategy development in partnership with key stakeholders. Developing harvest strategies for recreational fisheries is a challenging task and one that has been rarely achieved in Australia and worldwide. VFA will be leading fisheries management in this regard.

vfa.vic.gov.au



RESPONSE provided by the Chief Executive Officer, VFA—continued

A GPO Box 4509
Melbourne Victoria 3001
E victorianfisheries@vfa.vic.gov.au
T 136 186



I am pleased to see that the proposed audit report recognises the significant improvements made to freshwater fisheries management in recent years including;

- Acknowledgment of your finding of VFA's responsible approach to fish stocking through robust and reliable scientific data collection and evaluation to inform decision making, in consultation with recreational fishing groups, natural resource managers and conservationists.
- Preparation of the Freshwater Fisheries Management Plan, which provides the overarching state-wide strategic direction for managing freshwater recreational fisheries in Victoria for the next ten years. The Plan recognises the need for shared agency responsibility for freshwater fisheries and brings together fish, water and land management.
- Establishment of systematic data collection programs that are being used to inform fisheries management and develop harvest strategies. These include the Native Fish Report Card and Wild Trout Fisheries Management Programs, as well as expansion of angler catch and effort programs such as the Victorian Angler Diary Program.
- Improved stakeholder engagement, in particular with natural resource managers through collaborative projects, the Freshwater Fisheries Management Plan and other regular meetings. This is evidenced by increased co-funding towards mutually beneficial projects such as the Angler Riparian Partnerships Program.
- Other fishery-specific programs to improve fisheries management such as scientific research and monitoring, communication and engagement of key stakeholders, management scenario evaluation and regulation amendments.

I am pleased to acknowledge that the VFA's current and planned initiatives will better position the agency to manage freshwater fisheries in an ecologically sustainable manner, so that fishery habitats and supporting ecosystems are protected and conserved for future generations.

Thank you again for providing me with the opportunity to respond to the proposed performance audit report.

Yours sincerely

A handwritten signature in black ink, appearing to read "Travis Dowling".

Travis Dowling
Chief Executive Officer

28/05/18



vfa.vic.gov.au

RESPONSE provided by the Secretary, DELWP



Department of Environment,
Land, Water and Planning

PO Box 500, East Melbourne,
Victoria 8002 Australia
delwp.vic.gov.au

Mr Andrew Greaves
Auditor-General
Level 31, 35 Collins Street
MELBOURNE VIC 3000

Ref: SEC013587



Dear Mr Greaves

**FOLLOW UP PERFORMANCE AUDIT - MANAGEMENT OF FRESHWATER FISHERIES AND
MANAGING VICTORIA'S NATIVE FOREST TIMBER RESOURCES**

Thank you for the opportunity to respond to the proposed follow up performance audit report for Managing Victoria's Native Forest Timber Resources.

Since the original audit of 2013, there have been significant changes to the machinery of government dividing the responsibilities of the former Department of Environment and Primary Industries. I am pleased to see this acknowledged in the report. The report identifies both challenges and significant progress made towards the original report's recommendations by the Department of Environment, Land, Water and Planning (DELWP), the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) and VicForests. DELWP welcomes the report's findings and accepts in principle the two recommendations.

DELWP supports in principle the report's conclusion that the current forest management zoning system requires review. The recent agreement between the Victorian and Australian governments to a two-year process to modernise the state's Regional Forest Agreements (RFAs) provides a timely basis to consider the zoning scheme as part of the Comprehensive, Adequate and Representative reserve system which forms a cornerstone of these agreements

DELWP also welcomes the report's recommendation that it lead the coordination and development of a clear goal for state forest management in collaboration with DEDJTR. As with the first recommendation, DELWP considers the best way to provide a basis for leading work to set forest management goals is through the RFA modernisation process. This process will include updating scientific assessments of forest values and engaging with the community.

In addition, the recent government response to the Victorian Environmental Assessment Council's Statewide Assessment of Public Land Final Report commits the government to introducing amendments to the *Forest Act 1958* and *Land Act 1958*, with the goal of managing and administering state forests under the one act with clear management objectives and uniform provisions.

The report identifies improvements to DELWP's monitoring, planning and the use of biodiversity research findings, to inform forest and threatened species management. Projects such as the Biodiversity 2037 Initiative, the review of the *Flora and Fauna Guarantee Act 1988* and the expansion and refinement of the Victorian Forest Monitoring Program, illustrate this. Beginning in the 2018-19 financial year, DELWP will also implement a program of enhanced pre-harvest surveys, providing greater assurance that threatened species and other values, are being protected in accordance with regulatory requirements.

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 foi.unit@delwp.vic.gov.au or FOI Unit, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002.



RESPONSE provided by the Secretary, DELWP—continued

DELWP also notes the finding that the department has strengthened strategies for better compliance with regulations, with the introduction of a new dedicated Environmental Regulation Branch, 35 additional compliance officers and the timely development of the Risk-Base Compliance Strategy. An essential component of this is both proactive and reactive forest auditing, to assess compliance within a risk-based framework. The audit program is designed to ensure that DELWP's compliance and enforcement activities are focused on the areas where the risks to the environment are greatest.

Thank you for the opportunity to comment on the report.

Yours sincerely



John Bradley
Secretary

23/5/18

RESPONSE provided by the Secretary, DEDJTR



Department of Economic Development,
Jobs, Transport and Resources

GPO Box 4509
Melbourne Victoria 3001 Australia
Telephone: 03 9651 9999
ecodev.vic.gov.au
DX 210074

Ref: BSEC18000438R

Mr Andrew Greaves
Auditor-General
Victorian Auditor-General's Office
Level 31, 35 Collins Street
MELBOURNE VIC 3000

Dear Mr Greaves

**FOLLOW UP OF THE 2013-14 PERFORMANCE AUDIT: MANAGING VICTORIA'S NATIVE
FOREST TIMBER RESOURCES**

Thank you for your letter dated 10 May 2018 inviting comments on the Performance Audit Report *Follow-up of Managing Victoria's Native Forest Timber Resources*. The department welcomes your interest in the management of the State's timber resources.

We accept your finding that further work is required to implement the original recommendations assigned to my department, noting that this will require future funding and policy decisions.

The Department notes the two additional recommendations for the Department of Environment, Land, Water and Planning (DELWP) and my department will support DELWP in its implementation of these recommendations.

Thank you for the report.

Yours sincerely

Richard Bolt
Secretary

Date: 5 / 6 /2018



RESPONSE provided by the Chief Executive Officer, VicForests

Our Ref:
Your Ref:

1 June 2018

Mr Andrew Greaves
Auditor-General
Victorian Auditor-General's Office
Level 31, 35 Collins Street
Melbourne, Victoria 3000



Level 12, 461 Bourke Street
Melbourne Vic 3000

GPO Box 191 Melbourne 3001

Tel. +61 3 9608 9500

www.vicforests.com.au

ABN 7684 6538 543



Dear Mr Greaves

Response to Follow up of Performance Audit

Thank you for your letter providing VicForests with the opportunity to comment under section 16(3) of the *Audit Act 1994* on the proposed audit report on the Follow Up on Selected 2012/13 and 2013/14 Performance Audits.

Since the 2013 Performance Audit - *Managing Victoria's Native Forests Timber Resources* - we have continued to make improvements in the way we manage our operations and have made significant progress in relation to the three recommendations contained in the audit report there were specific to VicForests.

VicForests has reviewed the report and notes the following:

Recommendation 5 – *VicForests should continue to improve its approach to scheduling the sustainable harvest level to address identified weaknesses*

VicForests continues to implement measures to strengthen our long term timber resource projections and in particular the links between our Resource Outlook and the scheduling of timber harvesting across the landscapes.

Currently our model focuses on commercial and sustainable timber supply. We believe that modelling to consider other values and future forest condition would be best done after establishing holistic goals for State forest management.

While we support the modelling of forest condition across the entire forest estate including parks and reserves systems, VicForests does not have the data across the entire forest estate to undertake this modelling.

Recommendation 6 – *VicForests should clearly and accurately reconcile its successfully regenerated areas against the area harvested and report this publicly*

VicForests agrees that accurate reconciliation and public reporting of forest regeneration following timber harvesting is important for public confidence in the sustainability of our operations. As outlined in the report we did provide a full and historic reconciliation of our regeneration performance in 2015 and we intend to do this on a more regular basis in the future.



RESPONSE provided by the Chief Executive Officer, VicForests—continued

2



Recommendation 10 – *That the Department of Environment and Primary Industries and VicForests should improve and better document the assessment of threats and consequences that biodiversity management decisions in timber production areas may have on forest environmental, economic and social values, and more transparently manage the risks and trade-offs involved*

VicForests is committed to the continued improvement of the way we manage biodiversity and improving our approach to protecting high conservation values.

VicForests adopts a precautionary approach to the way we conduct our operations and we are meeting our responsibilities to limit the potentially adverse impacts of harvesting on forest values.

The progress on the work outlined above will continued to be monitored by the Board of VicForests.

Yours sincerely

A handwritten signature in blue ink, appearing to read "N. Trushell".

Nathan Trushell
Chief Executive Officer

Appendix B

Example fish report card

Figure B1 shows an example of a fish report card from the Wild Trout Fisheries Management Program. It contains information on the overall health of the species.

The VFA is compiling similar report cards for 14 native fish in a joint project with DELWP called the Native Fish Report Card Program.

Figure B1
Example of a fish report card for wild trout, 2017



Health cards for 10 wild trout streams 2017

Brett A. Ingram¹, Taylor Hunt¹, and Jason Lieschke³
1 Victorian Fisheries Authority, 2 Arthur Rylah Institute, DELWP

Aim:
Produce health cards for each of our monitored streams to assess the past and current health of our wild trout streams.

Overview:
The information in these *Health cards* is aimed to give the reader a better understanding of the health of particular trout streams now and into the future. It is hoped the health cards will also provide some information useful for your future trout fishing adventures.

The information provided on the *Health cards* is based on recent and past survey information collected using electro-fishing methods. Electro-fishing is an effective sampling tool for providing a snapshot of the presence and abundance of fish present in a stream. However, electro-fishing is not perfect and does not catch all the fish present. For example, some studies suggest electro-fishing catches around 28% of trout present at a site, and not all habitat is fished (or fishable), particularly in larger streams, such as the Goulburn River tailrace. Often fish are observed but cannot be caught. Therefore, the numbers of fish presented in the *Health cards* should be considered an underestimate. **There are likely to be many more fish in the system available to fishers, than just those recorded in the surveys!**


It is also important to remember that trout populations vary widely and trout are a resilient species. Some streams support large populations and others support small populations, depending on the carry capacity of the stream. Some streams have lots of small fish and others have few big fish. Streams that fished poorly last year may fish well the next season, or vice versa. Fluctuation is normal in fish populations and trout are particularly good at responding to their environment. These *Health cards* provide a snapshot insight into the current health of a variety of trout populations in Victoria.

What we did:
Between late January and early May 2017, 10 trout streams (Table 1) were surveyed using electro-fishing methods, which are described by Lieschke *et al* (2017), in this document. Two to five sites were surveyed in each stream, and 130 - 1,600 m of stream was surveyed at each site (0.55– 3.4 km per stream). The length of trout caught was measured and their abundance (number of trout caught per 100 m of stream) was estimated. These results were compared with surveys conducted in previous years as part of the *Wild Trout Wild Trout Fisheries Management Program* (Hunt and Lieschke 2015, Hunt and Lieschke 2016) (Appendix I), and historic electro-fishing surveys of the streams conducted by fisheries scientists. This information was then summarised into a *Health card* for each stream, and key health indicators assessed.



19

Figure B1
Example of a fish report card for wild trout, 2017—continued



How to read the Health cards:
 The green **Key Health Indicators** box provides an easy to read overall evaluation of key health attributes of the trout population in the stream and an overall rating, which are:

Abundance (fish/100 m):	↑	Up compared to historic records collected over at least three years.
	↓	Down compared to historic records collected over at least three years.
	↔	Stable compared to historic records collected over at least three years.
	?	Insufficient information.
Recent recruitment:	✓	Good numbers of small trout < 12 cm (5 inches) ¹ present, indicating that trout have spawned recently (last 12 months) (or that a stocking event has recently occurred). Some small trout < 12 cm (5 inches) present.
	Some	No small trout present
	✗	No small trout present
Multiple size classes:	✓	Wide range of fish sizes present indicating multiple year classes present in the stream.
	Some	Some size classes present.
	✗	Very few size classes present.
Mature fish:	✓	Trout > 30 cm (12 inches) ² present, indicating mature fish capable of spawning are present in the stream.
	Some	Some trout > 30 cm (12 inches) present.
	✗	No trout > 30 cm (12 inches) present.
Overall rating:	Low Moderate Good Very good Excellent	

1. Indicative size only as growth of juvenile trout may vary between streams and years.
 2. Indicative size only as size at maturity varies between species, streams and years.

The pink **Monitoring Results** section provides a summary the fish surveys conducted in the stream, including the number of brown trout and rainbow trout caught and their abundance (fish per 100 m), the size of the largest trout caught, the percentage of trout that were over 20 cm in length (defined as catchable), and the abundance and average size of trout over over 20 cm in length. All abundance estimates for current and historic data are derived from fish caught only, and excludes fish that were observed but 0.5not caught.

The map shows the locations of each survey site and abundance of trout sampled at each survey site.


The second page of the card provides important information about the shape of the population (size structure) of the trout population in the stream and the relative abundance compared with previous surveys. Information is also presented on recent stocking events in the streams surveyed in 2017 (see Appendix II for details). Finally, a simple overview summary statement of the *Health card* report is provided.

What we found:
 A summary of the key health indicators for the 10 wild trout streams surveyed in 2017 and overall ratings for these streams from 2016 and 2015 surveys are provided in Table 1. In 2017, three streams had an overall rating of Excellent, One Good, three Moderate and three Low.

Trout abundance
 A summary of trout abundance records for all sites surveyed in streams as part of the *Wild Trout Wild Trout Fisheries Management Program (2015-2017)*, along with historic records back to 1997 for these streams, is presented in Appendix III. Abundances range from <1 trout/100m to 130 trout/100m, with few records (20%) being >20 trout/100m. Abundance estimates for surveys conducted in 2017 are provided in Figure 1.

Trout abundance estimates for the upper Goulburn River and Howqua Rive were up compared to historic records while the abundance estimate for the Howqua River was similar to historic records. However, in four other streams the abundance estimates were generally down on previous years and historic records (Table 1).

Brown trout were caught in all streams surveyed. Rainbow were not caught in the Merri and Hopkins rivers, Traralgon River and Wellington River. Abundance estimates in the streams surveyed in 2017 were generally higher for brown trout than rainbow trout, with the exception of upper Goulburn River and the Ovens River. For brown trout abundance was greatest in Howqua river (average 20.2 fish per 100 m), which was due to an



20

Figure B1
Example of a fish report card for wild trout, 2017—continued



exceptionally high catch at the Bindaree site (71 fish per 100 m) (Figure 1). For rainbow trout the higher abundance was recorded in the upper Goulburn River (average 20.8 fish per 100 m), with an exception catch from the Johnson Hill Track site (79 fish per 100 m) (Figure 1).

Stony Creek was surveyed, but no trout were caught, and no historic records are available.

Trout size range

The size (length) of brown trout and rainbow trout caught during surveys conducted in 2017 is provided in Figure 2

The highest average length of brown trout was observed in the Hopkins and Merri rivers (31 cm, 12 inches), followed by the Goulburn River tailrace (27 cm, 11 inches) (Figure 2). The largest brown trout measured (55 cm, 22 inches) was also caught in the Hopkins and Merri rivers. The highest average length of rainbow trout was observed in the Nariel Creek system rivers (24 cm, 9.5 inches), followed by the Goulburn River tailrace (22 cm, 8.5 inches) (Figure 2), but the largest measured (37 cm, 14.5 inches) was caught in the Howqua River (Figure 2).

Length weight relationships for brown trout and rainbow trout are provided in Appendix IV.

Table 1. Summary of key health indicators for 10 wild trout streams surveyed in 2017 (excludes Stony Creek where no trout were caught), and overall ratings for these streams from 2016 and 2015 surveys.

Stream	2017 Results					2016 Overall rating	2015 Overall rating
	Abundance	Recent recruitment	Multiple year classes	Mature fish	Overall rating		
Goulburn River tailrace	↓	Some	✓	✓	Moderate		
Upper Goulburn River	↑	✓	✓	Some	Good	Moderate	Good
Howqua River	↑	✓	✓	✓	Excellent	Excellent	Very good
Jamieson River	↔	Some	✓	✓	Good	Low	Moderate
Merri and Hopkins Rivers	?	Some*	✓	✓	Excellent	Excellent	
Mitta Mitta River system	↓	✓	✓	✓	Good	Very good	Excellent
Nariel Creek system	↓	✗	✓	✓	Low	Good	Low
Ovens River system	↓	✓	✓	✓	Moderate	Moderate	Recovering
Traralgon Creek	?	✓	✓	✓	Excellent		
Wellington River	?	✗	Some	✗	Low		

* Recruitment may be due to recent stocking (Appendix II).



Figure B1
Example of a fish report card for wild trout, 2017—continued

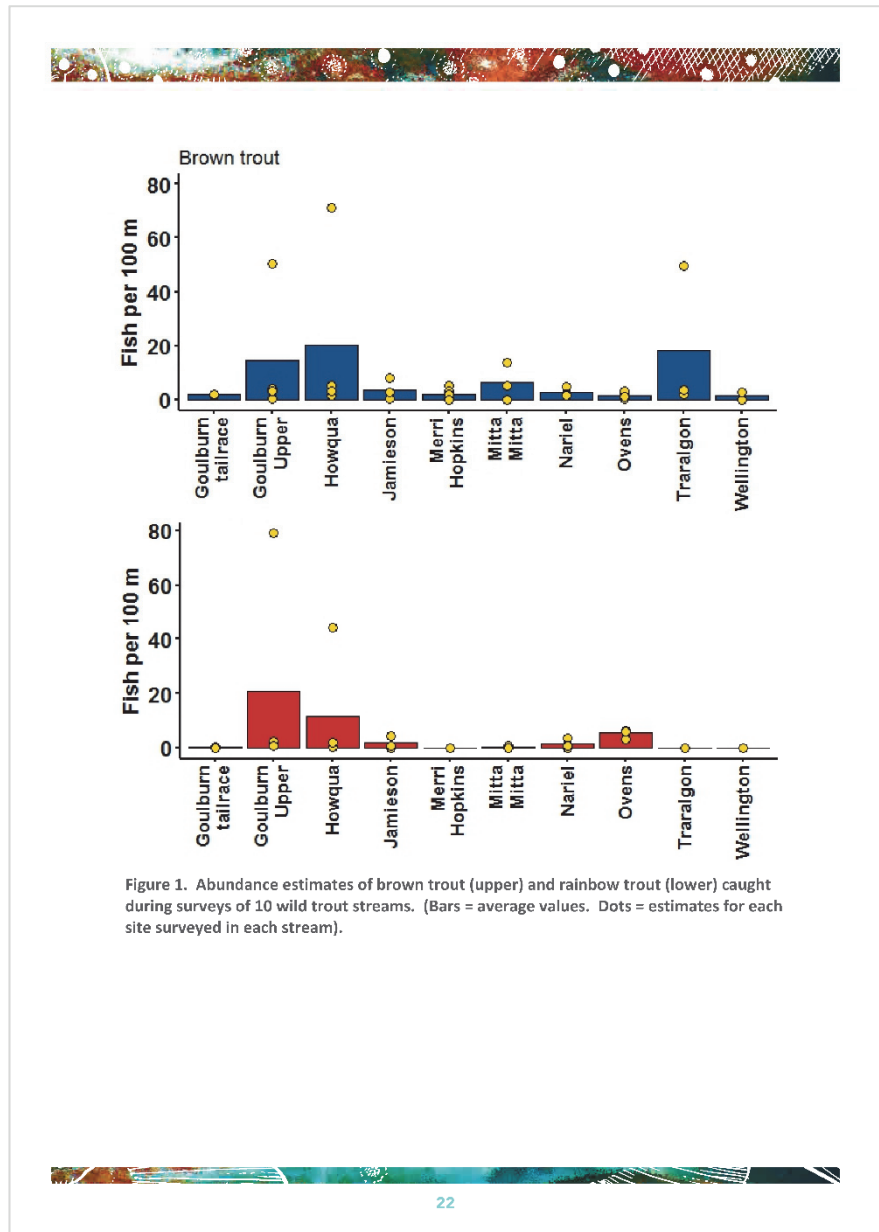


Figure B1
Example of a fish report card for wild trout, 2017—continued

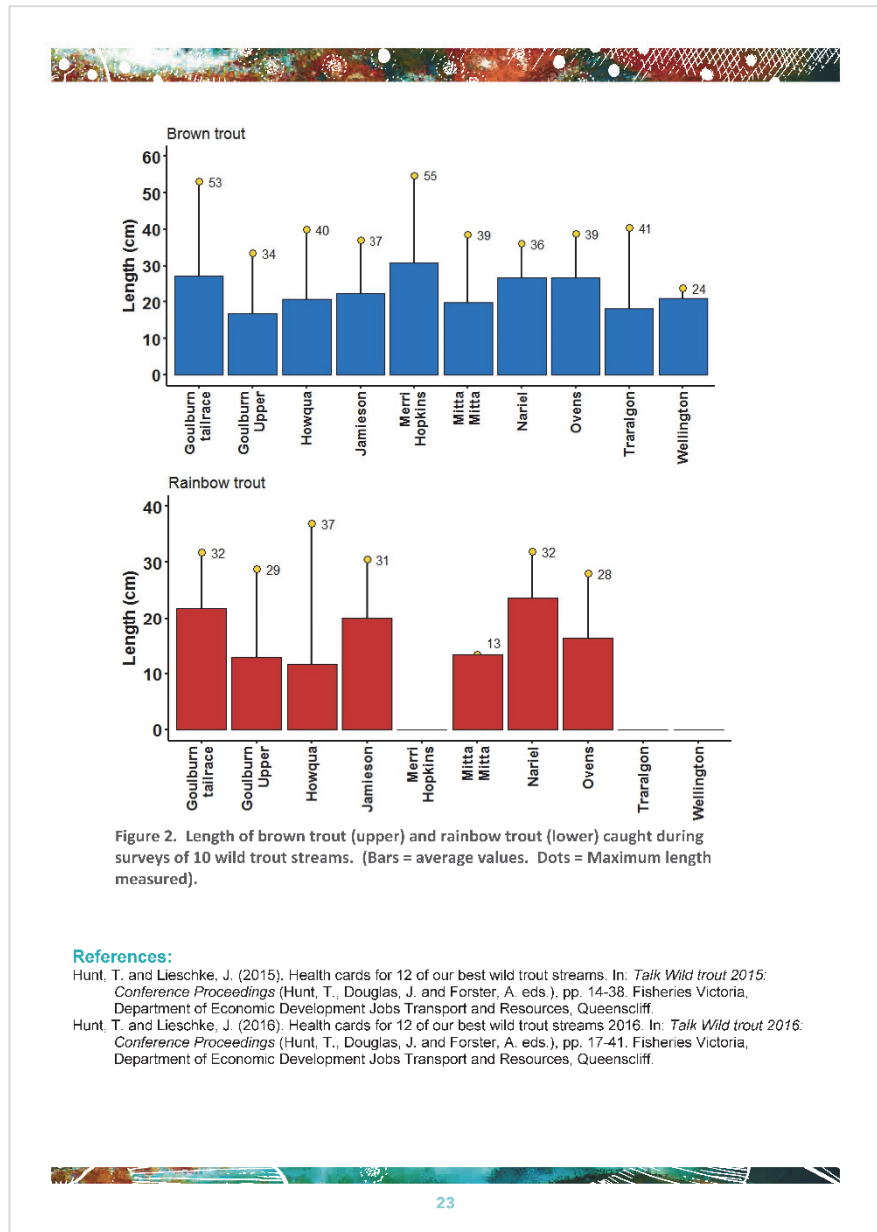


Figure B1
Example of a fish report card for wild trout, 2017—continued

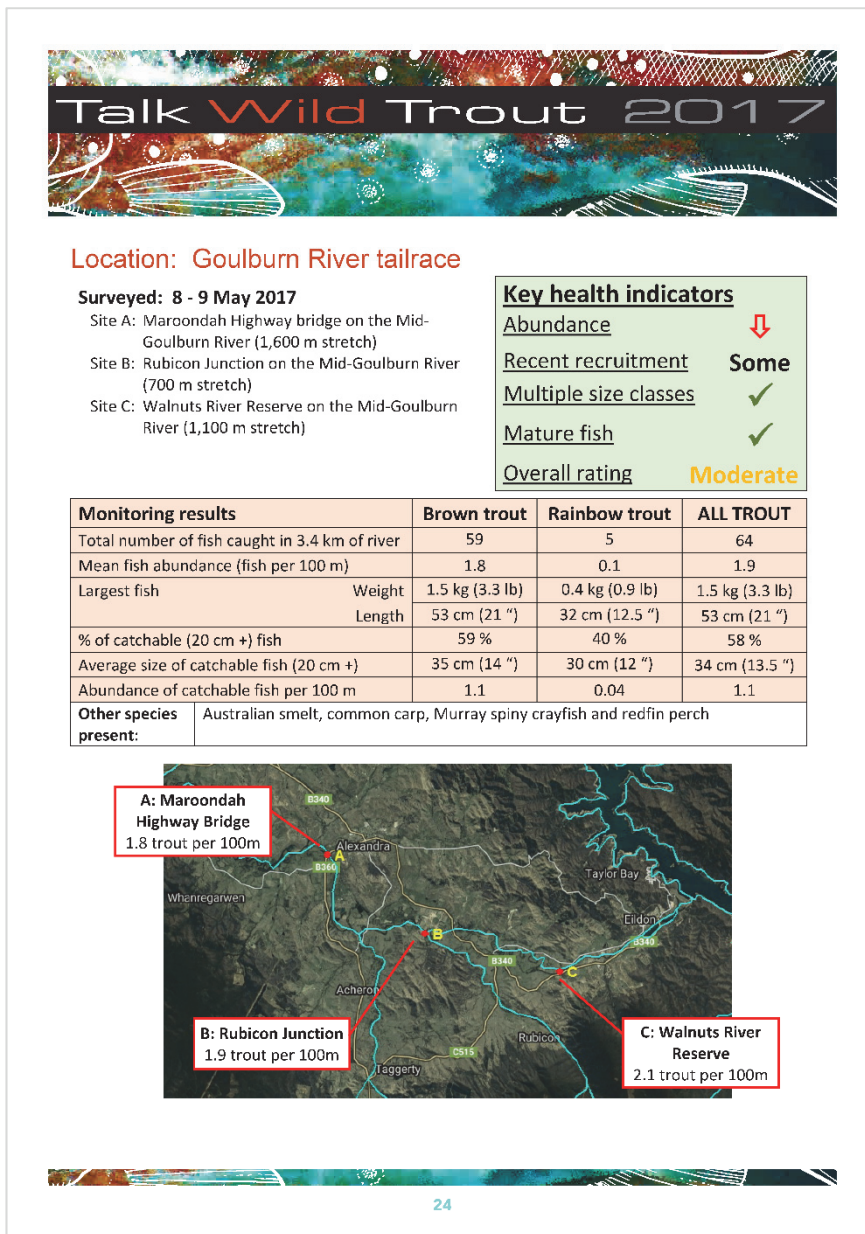
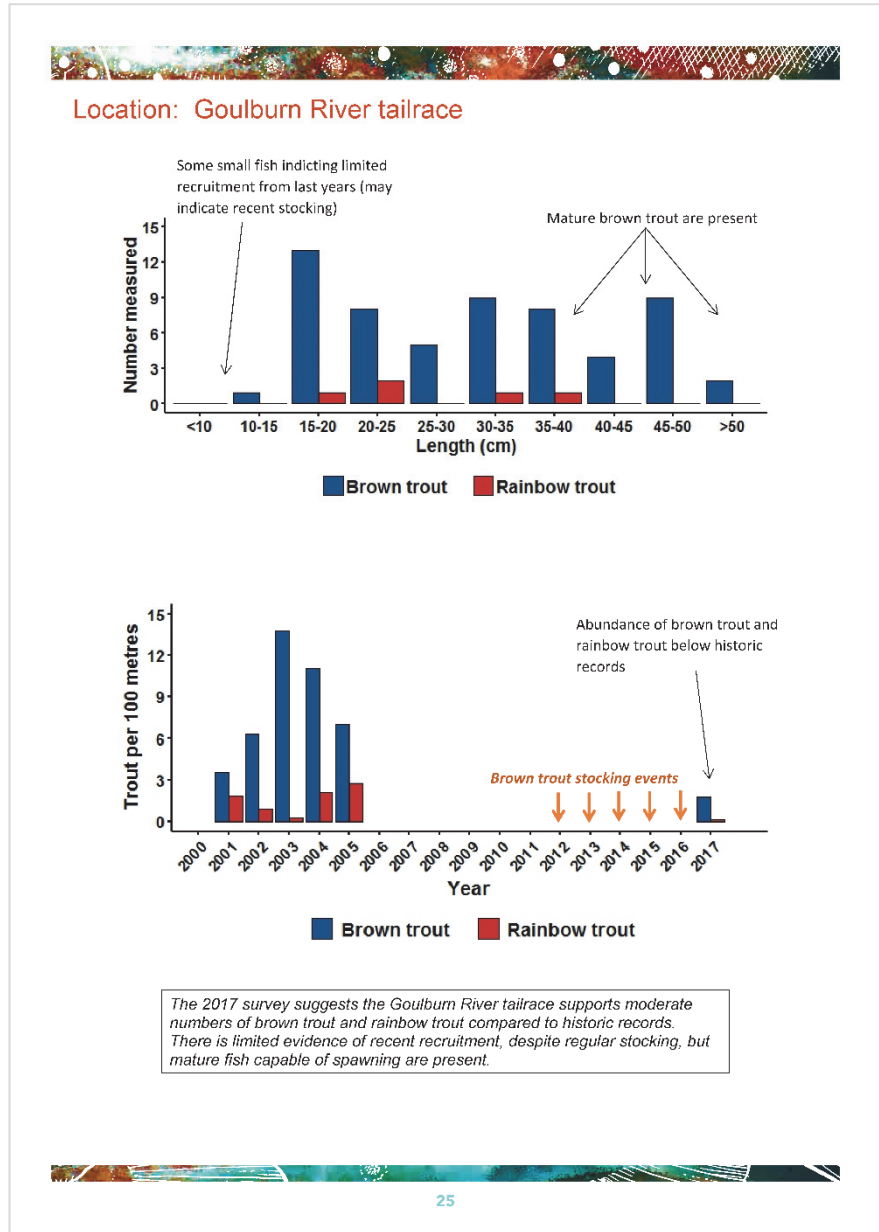


Figure B1
Example of a fish report card for wild trout, 2017—continued



Source: VFA, 2017.

Appendix C

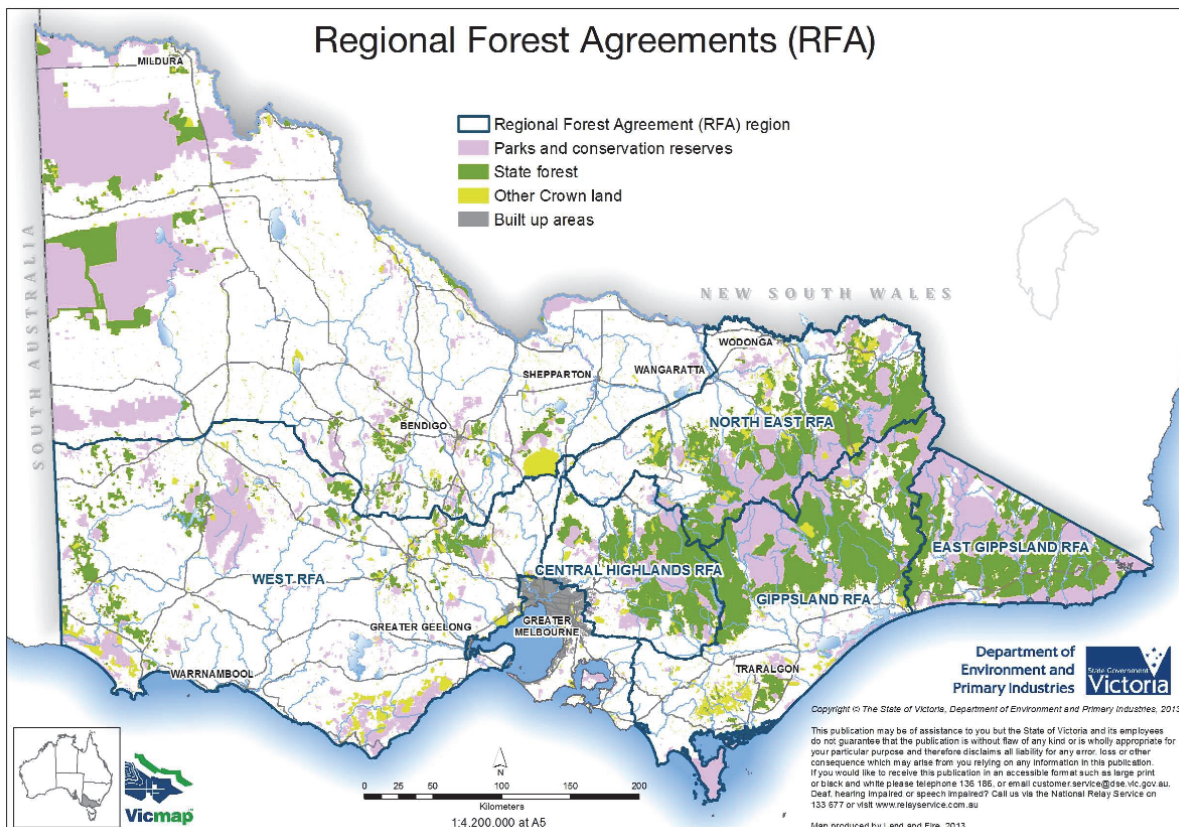
Map of forest regions

RFAs between the Commonwealth and the states designate areas that can be logged under state supervision.

RFAs are designed to provide for access to forest resources, making possible continued development of internationally competitive and ecologically sustainable industries. They also aim to identify industry development opportunities and protect the environmental and heritage values of forests through national parks and other conservation reserves.

Figure C1 shows the state's five RFA regions.

Figure C1
Victoria's RFA regions



Source: DEPI, Victoria's State of the Forests Report 2013.

Auditor-General's reports tabled during 2017–18

Report title	Date tabled
V/Line Passenger Services (2017–18:1)	August 2017
Internal Audit Performance (2017–18:2)	August 2017
Effectively Planning for Population Growth (2017–18:3)	August 2017
Victorian Public Hospital Operating Theatre Efficiency (2017–18:4)	October 2017
Auditor-General's Report on the Annual Financial Report of the State of Victoria, 2016–17 (2017–18:5)	November 2017
Results of 2016–17 Audits: Water Entities (2017–18:6)	November 2017
Results of 2016–17 Audits: Public Hospitals (2017–18:7)	November 2017
Results of 2016–17 Audits: Local Government (2017–18:8)	November 2017
ICT Disaster Recovery Planning (2017–18:9)	November 2017
Managing the Level Crossing Removal Program (2017–18:10)	December 2017
Improving Victoria's Air Quality (2017–18:11)	March 2018
Local Government and Economic Development (2017–18:12)	March 2018
Managing Surplus Government Land (2017–18:13)	March 2018
Protecting Victoria's Coastal Assets (2017–18:14)	March 2018
Safety and Cost Effectiveness of Private Prisons (2017–18:15)	March 2018
Fraud and Corruption Control (2017–18:16)	March 2018
Maintaining the Mental Health of Child Protection Practitioners (2017–18:17)	May 2018
Assessing Benefits from the Regional Rail Link Project (2017–18:18)	May 2018
Results of 2017 Audits: Technical and Further Education Institutes (2017–18:19)	May 2018
Results of 2017 Audits: Universities (2017–18:20)	May 2018
Community Health Program (2017–18:21)	June 2018
The Victorian Government ICT Dashboard (2017–18:22)	June 2018



All reports are available for download in PDF and HTML format on our website
www.audit.vic.gov.au

Victorian Auditor-General's Office
Level 31, 35 Collins Street
Melbourne Vic 3000
AUSTRALIA

Phone +61 3 8601 7000
Email enquiries@audit.vic.gov.au