Gippsland Region Sustainable Water Strategy



Five-yearly assessment report



Environment, Land, Water and Planning Front cover: Snowy estuary and wetlands Image: Graeme Dear

Acknowledgement of Victoria's Aboriginal communities

The Victorian Government proudly acknowledges Victoria's Aboriginal communities and their rich culture; and pays its respects to their Elders past and present, present and emerging. The government also recognises the intrinsic connection of Traditional Owners to Country and acknowledges their contribution in the management of land, water and resources. We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

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At a glance

About this report

This report is of the five-yearly assessment of the *Gippsland Region Sustainable Water Strategy* (GRSWS). Five-yearly assessments of sustainable water strategies (SWSs) do not develop new policies or actions. The GRSWS remains current and stays current until a future strategy is developed for the region.

Water for Victoria, released in 2016, requires fiveyearly assessments of all Victoria's SWSs, beginning in 2017 with the Gippsland Region and Western Region SWSs.

This five-yearly assessment report updates catchment inflow data, determines the status of each action, consolidates feedback about the process for development and implementation of the strategy and makes recommendations to support the review of the SWS. The five-yearly assessments are intended to be an intermediate check of progress with each action, given that a full review of each strategy is required at least 10 years after its publication. There is also ongoing water planning and management activity that the fiveyearly assessments both draw on and contribute to.

The GRSWS, released in November 2011, included 15 policies and 68 actions — most of which were to be completed within two years —to meet the region's water needs and to ensure sustainable management of the region's water resources for the next 50 years.

The assessment found that of the GRSWS's 68 actions:

- 7 actions either part or all of the action are being progressed through *Water for Victoria*
- 12 actions have been partly achieved or not yet achieved
- 25 actions have been achieved and are ongoing: the strategy's requirements have been met, but ongoing effort is needed to ensure the intended outcome of the action continues to be maintained
- 24 actions have been achieved and completed: they have been completed in full.

This report explains the state of achievement of each action in the GRSWS. Each explanation references the action title but doesn't reproduce the description of the action in the strategy. For a full description of the action and its policy and other contexts, see the <u>Gippsland Region Sustainable</u> <u>Water Strategy</u>.





actions progressed through *WfV*

actions partly or not yet achieved

Recommendations

The report's recommendations aim to:

- strengthen the current requirements for monitoring and reporting on the implementation of the strategy, and reviewing it
- have DELWP coordinate a process involving organisations with responsibility for implementing GRSWS actions to develop an implementation plan for GRSWS actions.



How to navigate this report

The 'click' instructions below only work if you are viewing this report on screen and connected to the internet.



The Gippsland Region Sustainable Water Strategy (GRSWS) report was released in November 2011 and includes 21 policies and 68 actions to meet the region's water needs and ensure sustainable management of the region's water resources for the next 50 years.

<< To read the GRSWS or its actions, click on the linked image on the left.

This is the report of the five-yearly assessment of the GRSWS. The report identifies the status of each of the strategy's 68 actions. There are four statuses.

To go to the actions with that status, click on one of the four symbols below.



Being progressed through Water for Victoria: part or all of the action is being undertaken, or is a priority, or its intent is being addressed, through Water for Victoria (7 actions).



Achieved and ongoing the action has been achieved and the strategy's requirements have been met, but ongoing effort is needed to ensure the intended outcome of the action continues to be maintained (25 actions).



Partly or not yet achieved: the action has been partly achieved or has not yet been achieved (12 actions).



Achieved and completed: the action has been completed in full (24 actions).

You can quickly find the status of an action, if you know its number. Here's what to do, using Action 3.10 as an example.

Go to the Action status summary table on the next page.

- To go to the action, click on the Action number in column 1.
- The action title is in column 2.
- The organisation(s) responsible for implementing the action are in column 3.
- To see the abbreviated names, click here.
- The action status is in column 4, using the status symbols above. Actions being progressed through *Water for Victoria* also show the relevant action in the plan.
- The action's page number in the printed version of this report is in column 5.

As with all PDF-format documents, you can also search for mentions of items of interest (such as your organisation's name) by using your browser's search function.

Actions status summary

#	Action	Responsible organisations	Status	Page		
Chap	Chapter 3: Protecting Gippsland's water future					
3.1	Balanced approach to allocating new water entitlements in unregulated catchment areas	DELWP, SRW, CMAs		26		
3.2	Strategic groundwater resource assessments	DELWP	\mathcal{L}	30		
3.3	Staged release of unallocated water	SRW		26		
3.4	Developing local management plans for unregulated surface water and groundwater systems	SRW, DELWP, CMAs, local water users	\bigcirc	40		
3.5	Reviewing the process for declaring water supply protection areas and developing statutory management plans	Minister for Water, DELWP, SRW	\bigcirc	41		
3.6	Providing more security to section 51 take and use licence holders	Minister for Water, SRW, CMAs	+ WfV 8.2	22		
3.7	Improving information-sharing about climate variability and risks	DELWP	\sim	30		
3.8	Upgrading and refining the groundwater monitoring network	DELWP, SRW, environmental managers	\bigcirc	41		
3.9	Establishing secure ongoing funding for future maintenance and renewal of the monitoring network	DELWP, SRW, environmental managers	\sim	30		
3.10	Amend the <i>Water Act 1989</i> so intensive management areas can be declared to control water intensive land use changes	DELWP	(+) WfV 8.4	22		
3.11	Statewide recording of water use by land use changes	DELWP		26		
3.12	Improving information about domestic and stock dams	Minister for Water, DELWP, SRW	(+) WfV 8.4	23		
3.13	Requiring property owners to register new domestic and stock bores	Minister for Water, DELWP, SRW	(+) WfV 8.4	23		
3.14	Monitoring and tracking water use outside the entitlement framework	DELWP	\mathcal{L}	31		
3.15	Revising groundwater management units (GMUs)	DELWP	\bigcirc	41		
3.16	Considering adverse impacts of existing oil and gas extractions	Victorian Government		27		
3.17	Consistent groundwater licensing requirements for new quarries and mines	DELWP	\bigcirc	27		
3.18	Understanding and monitoring the risk of coastal subsidence	DELWP	\bigcirc	41		

#	Action	Responsible organisations	Status	Page
3.19	Emerging technologies	DELWP, DEDJTR	\sim	31
3.20	Considering water impacts when undertaking planned burning and other bushfire control measures	DELWP	\sim	31
Chap	ter 4: Promoting sustainable use of water			
4.1	Promoting water conservation and efficiency	DELWP, SRW, UWCs, individuals	\sim	31
4.2	Improving opportunities for water trading in groundwater and unregulated river systems	DELWP, SRW, DEDJTR, CMAs	(+) WfV 9.7	23
4.3	Harvesting high flows	DELWP, SRW, CMAs	(+) WfV 8.3	24
4.4	Streamlining the approval of section 67 licences to construct storages	Minister for Water, DELWP, SRW, CMAs		27
4.5	Encouraging fit-for-purpose use of alternative water supplies	DELWP, UWCs, RWCs	(+) WfV 5.1	24
4.6	Extending the reticulated supply network	DELWP, UWCs	ŝ	32
4.7	Promoting sustainable water management on dryland farms	DELWP, DEDJTR	ŝ	32
4.8	Updating water supply-demand strategies	UWCs, DELWP	\bigcirc	42
4.9	Review of the Victorian Uniform Drought Water Restriction Guidelines and permanent water saving rules	VicWater, DELWP	\bigcirc	42
4.10	Facilitating integrated water planning	LGs, UWCs, DELWP	Ś	32
4.11	Identifying water-dependent sites of cultural importance	CMAs, Parks Victoria, TOs	ŝ	32
4.12	Indigenous involvement in water management	DELWP, CMAs, RWCs, UWCs	ŝ	33
4.13	Better coordination of regional Indigenous reference groups	CMAs, DELWP, Parks Victoria	Ś	33
4.14	Using consumptive water en route	DELWP, SRW, CMAs	$\langle \rangle$	33
4.15	Managing riparian land	CMAs, DELWP	\sim	33
4.16	Changing environmental management objectives	CMAs, DELWP	\mathcal{D}	34
4.17	Develop Ministerial guidelines for groundwater dependent ecosystems	DELWP, CMAs	\bigcirc	42

#	Action	Responsible organisations	Status	Page		
Chap	Chapter 5: South Gippsland					
5.1	Local management plans for the main river systems in South Gippsland	SRW, WGCMA	<~>	34		
5.2	Revised cap on the amount of unallocated surface water available for winter-fill (July to October) diversions in South Gippsland's catchments	DELWP, SRW, CMAs		27		
5.3	Water supply-demand strategy — South Gippsland Water	SGW	\bigcirc	43		
5.4	Protecting and improving the condition of South Gippsland inlets and estuaries through a continued focus on catchment management	WGCMA	Ś	34		
Chap	ter 6: Catchments of the Gippsland Lakes					
6.1	Local management plans for unregulated river systems	SRW, WGCMA, EGCMA	2	34		
6.2	Revised cap on the amount of unallocated surface water available for winter-fill (July to October) diversions in the Mitchell and Tambo catchments	DELWP, SRW, EGCMA	G	28		
6.3	Establishing a drought reserve in Blue Rock Reservoir	DELWP, SRW	\bigcirc	43		
6.4	Improved recreational opportunities on Lake Narracan	SRW	\bigcirc	43		
6.5	Establishing operating arrangements to improve recreation opportunities on Lake Narracan	SRW, DELWP	\bigcirc	44		
6.6	Water supply-demand strategy — Gippsland Water	GW	\bigcirc	44		
6.7	Additional access to water in Blue Rock Reservoir for urban use	GW	\bigcirc	44		
6.8	Open-cut coal mine closure and restoration strategies	DEDJTR	\bigcirc	44		
6.9	Water supply-demand strategy — East Gippsland Water	EGW	\bigcirc	45		
6.10	Opportunity for additional access to water in Blue Rock Reservoir for irrigators	SRW	\bigcirc	28		
6.11	Sharing of industrial water returns along the lower Latrobe River	DELWP, SRW	\bigcirc	45		
6.12	Development of a business case for the MID 2030 project	SRW	\bigcirc	45		

#	Action	Responsible organisations	Status	Page
6.13	Promoting sustainable irrigation	DELWP, DEDJTR, WGCMA	\sim	35
6.14	Thorpdale – opportunity to purchase additional entitlement in cases where storage capacity exceeds the annual extraction limit	SRW	\bigcirc	45
6.15	Additional 10 GL environmental share for the Latrobe River system	DELWP	\bigcirc	46
6.16	Managing the new environmental entitlement for the Latrobe River	WGCMA, DELWP, VEWH	\sim	35
6.17	Maximising environmental benefits from investments made to manage the environmental impacts of coalmining on the Latrobe tributaries	WGCMA		28
6.18	Additional 8 GL environmental share for the Thomson River	DELWP	\bigcirc	46
6.19	More flexible environmental releases from the Thomson Reservoir	DELWP	\bigcirc	46
6.20	Managing the Gippsland Lakes	CMAs, DELWP, Gippsland Lakes Taskforce		36
6.21	Providing water to the fringing wetlands of the lower Latrobe River	WGCMA, VEWH	\sim	37
Chap	ter 7: Far East Gippsland			
7.1	Local management plans for the main river systems in Far East Gippsland	SRW, EGCMA	\bigcirc	47
7.2	Revised cap on the amount of unallocated surface water available for winter-fill (July to October) diversions in Far East Gippsland's catchments	DELWP, SRW, EGCMA	G	28
7.3	Water supply-demand strategy — East Gippsland Water	EGW	\bigcirc	47
7.4	Protecting Far East Gippsland's high-value rivers through a continued focus on catchment management	EGCMA	2	37
7.5	Greater transparency in environmental water accounts and reporting for the Snowy River	VEWH	Ś	37
7.6	Environmental flows for the Victorian reaches of the Snowy River, estuary and wetlands	EGCMA, VEWH	\bigcirc	29

Abbreviations

Abbreviation	Title
СМА	Catchment management authority
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
EGCMA	East Gippsland Catchment Management Authority
EGW	East Gippsland Water
GW	Gippsland Water
LGs	Local governments
RWC	Rural water corporation
SGW	South Gippsland Water
SRW	Southern Rural Water
TOs	Traditional Owners
UWC	Urban water corporation
VEWH	Victorian Environmental Water Holder
WfV	Water for Victoria
WGCMA	West Gippsland Catchment Management Authority

Macalister River Image: West Gippsland CMA

1. Introduction



About the Gippsland Region Sustainable Water Strategy

The *Water Act 1989* empowers the Minister to prepare sustainable water strategies (SWSs) for a region of Victoria. SWSs are long-term plans for water resources in Victoria. They identify threats to water supply and quality, and they include actions to help water users, water corporations and catchment management authorities (CMAs) manage and respond to risks over the next 50 years.

The *Gippsland Region Sustainable Water Strategy* (GRSWS) was released in November 2011. It aims to ensure sustainable management of the region's water resources — by managing demand for and securing an adequate supply of water — for the region's people, industries and the environment over the 50 years to 2055.

The GRSWS's vision for the Gippsland Region's water future is:

'The region will work together to achieve a future where healthy rivers, lakes, estuaries and aquifers support a healthy environment and regional prosperity, providing water security for individuals, agriculture, industry and the environment and access to water resources for the benefit of current and future generations.'

To achieve this vision, it includes 15 policies and 68 actions to be implemented at a regional and local scales. These policies and actions aim to provide increased certainty to water users and the environment, promote sustainable water use and protect and improve the health of the waterways, aquifers, wetlands and estuaries. The strategy's policies and actions were particularly intended to:

- understand and address challenges to water availability and quality, and to the health of rivers, aquifers and wetlands arising from climate risk
- help regional communities better manage dry periods
- secure entitlements to water for towns, industry and the environment
- ensure a reliable supply of water for economically viable, sustainable agriculture
- recognise and respond to the Aboriginal and other cultural and heritage values of the region's rivers and catchments.

The GRSWS included seven principles to guide the policies and actions. They were:

- maximising efficiency and seeking multiple benefits
- shared responsibility and shared benefit
- recognising existing rights and entitlements
- allowing individuals to manage their own risk and exercise their choices
- being prepared without acting prematurely
- maintaining healthy environments and maximising environmental outcomes
- socially responsible decision-making.

The GRSWS (together with the Western Region SWS) was the last Victorian SWSs to be published, the Central Region SWS having been published in 2006 and the Northern Region SWS in 2009. All the strategies are available on DELWP'S <u>website</u>.

About the Gippsland Region

Figure 1 shows the Gippsland Region is the area south of the Great Dividing Range in Victoria. The

Figure 1: The Gippsland Region

region includes the South Gippsland, Latrobe, Thomson, Macalister, Avon, Mitchell, Tambo and Nicholson, Snowy and East Gippsland river basins and associated groundwater systems.



The main urban centres are Bairnsdale, Sale, the Latrobe Valley towns, Warragul and Wonthaggi. The main uses for water are for electricity generation, coal mining, oil and gas extraction, paper manufacturing, dairy production, horticulture, forestry, fisheries, tourism and urban consumption.

The region has many high-value environmental assets including national parks, state forests, heritage-listed rivers and internationally recognised (Ramsar) wetlands. The Gippsland Lakes are also a tourism hot-spot. The region is a major contributor to the state's agricultural sector, and it includes the Macalister Irrigation District, the largest irrigation area in southern Victoria.

In 2012, the Victorian Desalination Project was built at Dalyston, near Wonthaggi. The desalination plant was built under commitments made in the <u>2007 Our</u> <u>Water Our Future: The Next Stage of the</u> <u>Government's Water Plan</u>, before the GRSWS was developed.

About the five-yearly assessment

In October 2016, the Victorian Government released *Water for Victoria (WfV),* which requires five-yearly assessments of the SWSs, beginning with the Gippsland Region and Western Region SWSs (which were both released in 2011).

The five-yearly assessments look back, to identify any key trends and issues to be taken up by future reviews. They offer the opportunity to consider reprioritising or refocusing some actions and to identify barriers to implementing actions. The

Figure 2: Five-yearly assessment process

five-yearly assessments do not develop new policy or actions.

Figure 2 shows the process for developing the five-yearly assessment. It started with DELWP commissioning consultants in 2016 to do a stocktake to determine the state of achievement of the strategy's 68 actions. It then engaged other consultants to consult with stakeholders involved in developing and/or implementing the strategy to update the 2016 findings in 2017–18. Their report forms the basis of the state of achievement reported for each GRSWS action in this assessment report.



The approach to producing the five-yearly assessment reports emphasises consultation. Stakeholders involved in developing and implementing the GRSWS were interviewed, and a workshop was held with representatives of organisations implementing it. Stakeholders were also invited to comment on drafts of this report. This report of the five-yearly assessment of the GRSWS contributes to the future review of the GRSWS by:

- identifying the status of each of the strategy's 68 actions
- recognising achievements so far and identifying learnings
- making recommendations to strengthen current monitoring and reporting requirements and for DELWP to coordinate a process to develop an implementation plan for GRSWS actions.



Water security challenges

The Millennium Drought

The Millennium Drought, which began with low rainfall in late 1996 and ended in 2010, resulted in the lowest inflows on record into many of the region's catchments.

Throughout the region, rainfall was well below long-term averages. Figure 3 shows annual

streamflows for the Mitchell River at Glenaladale between 1995 and 2017. It shows that for almost all years during the Millennium Drought the annual streamflow was well below the long-term mean annual flow, and that the Millennium Drought mean annual flow was about two-thirds of the long-term average. Across Gippsland, annual average inflows to water storages reduced by up to 49% of long-term averages. These inflows were far less than the worst-case forecasts of the region's water managers.

Figure 3: Mitchell River streamflows and key water policy events, 1995–2017



The low rainfall plus above-average temperatures resulted in extremely dry conditions that put unprecedented pressure on water resources. The GRSWS was developed against this backdrop.

Important water conservation measures were needed during the Millennium Drought. For example, in 2006 South Gippsland Water applied Stage 4 water restrictions in most of the towns it services. Some small towns in South Gippsland had to cart water to maintain supply. Latrobe Valley power generators were forced to buy water from the state's share of Blue Rock Reservoir. Additionally, bushfires and flooding in 2006 and 2007 resulted in greater concentrations of suspended sediment in the region's rivers, particularly in the Mitchell River.

The GRSWS was developed in the final years of the drought, and the thinking behind it was heavily influenced by the impact of the drought on the region. The GRSWS was released after the 2010–11 floods that ended the drought: the widespread, extreme flooding only reinforced the extreme variability of the climate, and the impacts of climate change on that variability.

After the GRSWS was published and after the drought ended in 2010–11, the region had four years of stable, average climate conditions. But by 2015–16, inflows into systems across the state (including the Gippsland Region) were below the long-term average again.

Although droughts in south-east Victoria are generally shorter and less-severe than in north-west

Victoria, their effects are considerable because they occur in areas which expect and plan for regular rainfall.

Other water security challenges

Apart from the Millennium Drought, there have been other, ongoing water security challenges for the Gippsland Region in recent years. They include:

- low average rainfalls continue to pose a risk to water security — in 2017–18 some areas around the Gippsland Lakes had their lowest summer rainfall on record — and the most recent BOM seasonal outlook predicts warmer-than-average temperatures across Victoria, especially throughout the Gippsland Region
- some smaller systems which supply towns in the Gippsland Region are vulnerable to dry conditions, which cause water shortages that occasionally need the implementation of water restrictions to help manage demand: for example, Korumburra was put on stage 3 water restrictions, most recently from May 2018 to July 2018, and Loch, Poowong and Nyora on stage 2 water restrictions from March to June 2016
- aquifer depletion, which is also a future risk in areas that rely on groundwater
- water-quality issues in the region caused by fires (such as in the Buchan system in East Gippsland) and algae outbreaks reduce supply, which is a particular problem for agriculture.

Mitchell River estuary Image: DELWP

2. Status of strategy actions

Stock grazing, South Gippsland Image: DELWP The GRSWS includes 15 policies and 68 actions, most of which were to be completed in the first two years. The main organisations involved in implementing GRSWS actions are DELWP, rural and urban water corporations and CMAs. The effort to implement the actions has resulted in almost three-quarters of the actions now having been achieved. As Table 1 shows, at this time — seven years from the release of the strategy and three years before it is to be reviewed — 49 of the 68 actions have been achieved, 7 are being progressed through *WfV* and 12 have been partly achieved or are not yet achieved.

DELWP acknowledges that actions which have been assessed as achieved and completed, achieved and ongoing, partly achieved and not yet achieved may not always have resulted in the outcomes stakeholders or communities expected from the action.

Recommendation 2 — to develop an implementation plan for GRSWS actions by March 2019 — provides a further opportunity for responsible organisations, stakeholders and communities to work together to identify how ongoing actions and the completion of partly achieved and not-yet-achieved actions can support the realisation of expected outcomes.

Action status		Status meaning	#
(+)	Actions being progressed through <i>Water for Victoria</i>	Part or all of the action is being undertaken, or is a priority, or its intent is being addressed, through <i>WfV</i> .	7
	Actions partly or not yet achieved	The action has been partly achieved or has not yet been achieved.	12
$\langle \rangle$	Actions achieved and ongoing	The action has been achieved and the strategy's requirements met, but ongoing effort is needed to ensure the intended outcome of the action continues to be maintained.	25
\bigcirc	Actions achieved and completed	The action has been completed in full.	24

Table 1: Status of GRSWS actions



68





(+)

ACTIONS BEING PROGRESSED

(through Water for Victoria)

There are 7 GRSWS actions that are being progressed — the whole action or parts of it — through WfV.

When the GRSWS was developed, achievement of many of these actions required amendments to the *Water Act 1989.* The necessary amendments were proposed in the Water Bill 2014, but the Bill did not proceed. *WfV* addresses these actions, capturing their intent and re-examining the most appropriate mechanism to progress that intent.

GRSWS actions **3.6**, **3.10**, **3.12**, **3.13**, **4.2**, **4.3** and **4.5** are being progressed by *WfV* actions. *WfV* includes an implementation plan that names, for each action, the lead delivery agency and partners and the timeframe for achieving it.

The **Delivering Water for Victoria Progress Report** provides the action status for all actions in WfV.

Chapter 3: Protecting Gippsland's water future

 $\left(+
ight)$ Action 3.6: Providing more security to section 51 take and use licence holders

Action linked to: WfV 8.2 Provide greater flexibility and choice for licence-holders

This action was to increase certainty for water users and the environment. The Water Bill 2014 proposed to extend section 51 take and use licences to 20 years, but it did not proceed through parliament.

Investigating the merits of converting take and use licences (section 51 licences under the Water Act) in unregulated surface water and groundwater systems into water shares and other related products is being pursued through *WfV* action 8.2.

Action 3.10: Amend the *Water Act 1989* so intensive management areas can be declared to control water intensive land use changes

Action linked to: WfV 8.4 Better record and report on emerging significant uses of water

This action focused on amending the *Water Act 1989* to enable the Minister for Water to declare and manage an area according to the process explained in the GRSWS. To better manage the impact of land use change on water resources, the GRSWS proposed a process to declare intensive management areas, based on the intensity of water stress, the significance of water-dependent values and the potential for land use changes to affect these values. Intensive management areas would have specific rules and management actions to ensure the integrity of high-value water systems are maintained. Amendments to the Act to declare intensive management areas were proposed in the Water Bill 2014, but the Bill did not proceed through parliament.

WfV action 8.4 continues to recognise the importance of water-intensive land use changes and proposes an approach to gain better information about the impacts of changes in land use on water resources. This work will inform the review of the GRSWS about the risks to water resources and whether action is required to mitigate them.

ACTIONS BEING PROGRESSED

ho) Action 3.12: Improving information about domestic and stock dams

Action linked to: WfV 8.4 Better record and report on emerging significant uses of water

This action was to improve knowledge of farm dams to enhance understanding of overall water harvesting within a catchment. The Water Bill 2014 proposed amendments to do this, but it did not proceed through parliament. Regulations requiring registration of new and modified farm dams in rural residential areas were revoked in 2017 after a review found they did not achieve their purpose and were an unreasonable burden on dam owners. *WfV* commits to recording and reporting on all emerging, significant uses of water including investigating a reasonable-use limit for domestic and stock rights under Section 8 of the Water Act. This should improve monitoring and reporting on the use of these rights and effects on other water users and the environment through the Victorian Water Accounts.

WfV action 8.4 maintains this as a priority.

(+) Action 3.13: Requiring property owners to register new domestic and stock bores

Action linked to: WfV 8.4 Better record and report on emerging significant uses of water

This action was to improve knowledge about the use of bores for stock and domestic purposes. The Water Bill 2014 proposed amendments to do this, but it did not proceed through parliament. *WfV* commits to improved monitoring and reporting on significant uses of water through the Victorian Water Accounts.

WfV action 8.4 maintains this as a priority.

Chapter 4: Promoting sustainable use of water

Action 4.2: Improving opportunities for water trading in groundwater and unregulated river systems

Action linked to: WfV 9.7 Develop trading rules in other water systems

This action was to support increased access to water by improving the ability to trade in groundwater and unregulated systems. The GRSWS helped put more information about water markets on the Victorian Water Register website, and Southern Rural Water established its **WaterMatch** website for buyers and sellers to contact each other. Updates to statutory management plans and the increased use of local management plans have improved the documentation of trading rules that reflect the areas to which they apply, but this has not always resulted in increased opportunities for trade. Water corporations have introduced intensity rules to reduce the cost of assessments for temporary and permanent transfers of groundwater licences. **Take and use licensing policies** were amended to permit temporary transfers for a period of up to five years in specified circumstances, which reduced administrative costs. DELWP reports annually on surface water trading and has released the **Effectiveness of Victoria's Water Markets**, the first statewide review of the effectiveness of Victoria's water markets) and the first report on early trends in groundwater trade. The previous report identified that the main requirements for further development of groundwater markets are the need to set caps, allocation of available water, refinement of management area boundaries and education of licence holders.

WfV action 9.7 maintains water trading in groundwater and unregulated systems as a priority by reviewing statewide unregulated surface water trading rules and developing policy to facilitate trade in groundwater systems.

ACTIONS BEING PROGRESSED

)) Action 4.3: Harvesting high flows

Action linked to: *WfV* 8.3 Investigate increased flexibility for taking water under winter-fill licences

This action was to help explore more-adaptive water-extraction options through the capture of high flows outside the winter-fill period. DELWP investigated the option of providing access to high flows (outside the winter-fill period) and although diversion opportunities would be highly unreliable, guidelines are proposed to permit high-flow extraction on a case-by-case basis.

WfV action 8.3 maintains this as a priority.

(+) Action 4.5: Encouraging fit-for-purpose use of alternative water supplies

Action linked to: WfV 5.1 Use diverse water sources to protect public spaces

This action was to explore the use of fit-for-purpose alternative water supplies to provide benefits to communities and reduce demand on potable water supplies. Alternative water sources — mainly recycled water, stormwater and desalinated water — can improve amenity and alleviate pressures on stressed water systems. Shortly after the GRSWS was published, water supply-demand strategy guidelines to consider alternative water supply were published and such consideration continues to be a part of water corporations' most recent water supply-demand strategies.

<u>Policies</u> for the assessment and approval of local desalination systems and for brine disposal management were released in 2013.

WfV action 5.1 maintains it as a priority, and stormwater allocation is being discussed across Victoria in integrated water management forums.

New procedures, existing ones updated

Action 4.5 promotes increased, fit-for-purpose alternative water sources (such as recycled water, stormwater and in situ desalination). The GRSWS says that well-implemented alternative water supply options can reduce pressure on existing, stressed, supply systems and the environment, and improve amenity for communities. Water supply-demand strategy guidelines for considering alternative water supply options were published shortly after the GRSWS, and were superseded in 2016 by guidelines for urban water strategies, which also address alternative water sources. Policies for the assessment and approval of local desalination systems and for brine disposal management were released in 2013: desalination can improve the quality of saline groundwater.

Other procedures updated through GRSWS actions include:

- establishing ongoing funding for the future maintenance and renewal of the monitoring network (action **3.9**)
- revising groundwater management units (action **3.15**)

- developing Ministerial guidelines for groundwater-dependent ecosystems (action 4.17)
- making environmental water accounts and reporting on the Snowy River, estuaries and wetlands more transparent (action **7.5**).

GRSWS actions that are being progressed through *WfV* include:

- providing more security to Section 51 take and use licence holders (action **3.6**)
- amending the *Water Act 1989* so intensive management areas can be declared to control water intensive land use changes (action **3.10**)

GRSWS actions about improved processes that are not yet achieved include:

- providing consistent groundwater licensing requirements for new quarries and mines (action **3.17**)
- streamlining the approval of section 67 licences to construct storages (action 4.4).





There are 12 GRSWS actions that have been partly achieved or are not yet achieved and have not been directly picked up in *WfV*. The actions were scheduled to be completed in 2012 or 2013, so they are overdue.

Chapter 3: Protecting Gippsland's water future

Action 3.1: Balanced approach to allocating new water entitlements in unregulated catchment areas

This action is to provide an approach to managing unallocated water on unregulated rivers and streams, which balances the needs of consumptive users and the environment.

The Victorian winter-fill Sustainable Diversion Limits have been updated and are applied when assessing applications for new surface water licences and transfers.

Action 3.3: Staged release of unallocated water

This action is to provide more water to meet the needs of consumptive users in an environmentally sensitive manner. The staged release of unallocated water has been planned to give consumptive users greater access to the water in a manner informed by a better understanding of the sustainable yield of the relevant water system. Unallocated water is to be released through auctions and tenders, so prices are based on the value of the resource. This occurs through the <u>WaterBid</u> platform, launched in 2015.



) Action 3.11: Statewide recording of water use by land use changes

This action is to improve understanding about the impact of land use changes on water use and the capability to estimate and report on these interactions.

New technologies (such as satellite imagery and remote-sensing) are improving our understanding of how changes in land use affect water resources, and the importance of this understanding is increasingly recognised.

In 2011–12, the National Water Commission funded the (then) Department of Sustainability and Environment (DSE) to prepare the groundwork to regularly estimate and report on water use by land use. This work included estimates of evapotranspiration, which is a key water use in vegetated landscapes. DSE contracted consultants to provide the tools and guidance to make evapotranspiration estimates, and they are now made annually using Victorian Land Use Information System land use data. However, water use estimates are only reported at a whole-of-basin scale, and they are not broken down by land use category or land use change. DELWP is now working to report water use by basin and land use category in future Victorian Water Accounts.

) Action 3.16: Considering adverse impacts of existing oil and gas extractions

This action is to enable the Victorian Government to request updates to environmental plans for offshore oil and gas extraction, if that extraction has significant impacts onshore. To date, there have been no requests for review. There have also not been any new offshore extractions for oil and gas requiring specific management actions for the Latrobe aquifer or to address subsidence.

Action 3.17: Consistent groundwater licensing requirements for new quarries and mines

This action requires the Victorian Government to review the licensing requirements under the *Water Act* 1989 for mines and quarries and take steps to ensure they are applied consistently across Victoria.

Amendments to achieve the action were proposed in the *Water Bill 2014*, but the Bill did not proceed through parliament. This issue will continue to be pursued as part of future amendments to the *Water Act 1989*.

Chapter 4: Promoting sustainable use of water

\mathbf{r}) Action 4.4: Streamlining the approval of section 67 licences to construct storages

This action is to provide guidance and clarity for section 67 storage construction licence applicants and assessing authorities. At the time the GRSWS was published, applicants for section 67 works licences had to undertake various investigations and environmental assessments, which were often burdensome. DELWP is currently progressing options for providing improved guidance to RWCs about the assessment required for licence applications and to improve the application process.

Chapter 5: South Gippsland

Action 5.2: Revised cap on the amount of unallocated surface water available for winterfill (July to October) diversions in South Gippsland's catchments

This action is to revise the caps on the amount of unallocated surface water available for winter-fill diversions in South Gippsland's catchments. The winter-fill sustainable diversion limits were amended to account for reduced volumes of additional available water. Rural water corporations are managing the revised SDLs. The **PCV Surface Water Order 2010** will be updated to reflect these changes. The amount of water available for new entitlements in South Gippsland's catchments is to be reviewed as part of the GRSWS review process.

Chapter 6: Catchments of the Gippsland Lakes

Action 6.2: Revised cap on the amount of unallocated surface water available for winterfill (July to October) diversions in the Mitchell and Tambo catchments

This action is to revise the caps on the amount of unallocated surface water available for winter-fill diversions in the Mitchell and Tambo catchments. The winter-fill sustainable diversion limits (SDLs) were amended to account for reduced volumes of additional available water. Rural water corporations are managing to the revised SDLs. The **PCV Surface Water Order 2010** will be updated to reflect these changes. The amount of water available for new entitlements in the Mitchell and Tambo catchments is to be reviewed as part of the GRSWS review process.



This action was to make additional entitlement available for irrigators in the regulated Latrobe system, supplied by an additional 1% (about 800 ML) share of Blue Rock Reservoir, but it has not yet been achieved. Southern Rural Water and DELWP are continuing to work to achieve the action.

Action 6.17: Maximising environmental benefits from investments made to manage the environmental impacts of coalmining on the Latrobe tributaries

This action intends to maximise environmental benefits from investments made to manage the environmental impacts of coalmining on the Latrobe tributaries. The lower reaches of the Morwell River, a tributary of the Latrobe River, and other waterways near the Latrobe Valley coal mines had been highly modified as a result of their proximity to the coal mines. There have been no diversions of the Latrobe tributaries since the GRSWS was published. With recent works on mine closure planning, it is unclear if there will be any further action.

Chapter 7: Far East Gippsland

Action 7.2: Revised cap on the amount of unallocated surface water available for winterfill (July to October) diversions in Far East Gippsland's catchments

This action is to revise the caps on the amount of unallocated surface water available for winter-fill (July– October) diversions in the far East Gippsland catchments. The winter-fill sustainable diversion limits (SDLs) were amended to account for reduced volumes of additional available water. Rural water corporations are managing to the revised SDLs. The <u>PCV Surface Water Order 2010</u> will be updated to reflect these changes.

Action 7.6: Environmental flows for the Victorian reaches of the Snowy River, estuary and wetlands

This action is to negotiate an environmental flow regime that benefits the Victorian reaches of the Snowy River, estuary and wetlands. The NSW Department of Industry is responsible for planning environmental flow releases in the Snowy River, and it consults East Gippsland CMA and the Victorian and Australian governments about the releases.

This action specified that the VEWH and East Gippsland CMA would inform the Snowy Scientific Committee about the effects of environmental flow releases in Victoria, but the committee was disbanded.

In July 2018, the NSW Minister for Regional Water appointed the Snowy Advisory Committee to provide expert and community input to the design of environmental flows to the Snowy River and Snowy Mountain rivers. The committee brings together the local knowledge and expertise of people from Snowy River and Snowy Mountains communities and the NSW and Victorian governments.

Also, East Gippsland CMA continues to evaluate the effects of flow releases on the lower river and estuary, to better understand the riverine system.





There are 25 GRSWS actions that have been achieved and are by their nature ongoing. That means that while the strategy's requirements have been met, the achievement requires ongoing effort to ensure the intended outcome of it continues to be maintained.

Chapter 3: Protecting Gippsland's water future



This ongoing action contributes to improving knowledge about groundwater resources and identifies opportunities for further water to be made available with consideration of other users and the environment. To improve water supply for consumptive users, the GRSWS suggests that additional allocations of water from some groundwater systems may be possible.

The bioregional assessment process provided significant information about the region's groundwater resources.

) Action 3.7: Improving information-sharing about climate variability and risks

This ongoing action contributes to improving information-sharing about climate variability and risks. Research reports by the South Eastern Australian Climate Initiative (SEACI) is available on its **website**. In 2013, DELWP, the Bureau of Meteorology and the CSIRO launched the Victorian Climate Initiative (VicCI); and its research, which covers climate change's past impacts and projections for Victoria, is available on its **website**. In 2017, the Victorian Water and Climate Initiative was launched, which will look at past, current and future climate research. Communicating research results to the water sector is an important function of the initiative.

Action 3.9: Establishing secure ongoing funding for future maintenance and renewal of the monitoring network

This ongoing action helps to ensure funding for maintaining and renewing Victoria's monitoring network. A formal process was needed to determine an operating and maintenance program that shares costs on a beneficiary-pays basis. The forward works program is now submitted for consideration under routine budgetary processes. Costs are shared between DELWP (funded through the Environment Contribution Levy) and water corporations (funded through fees and charges approved through the Essential Services Commission's pricing determination processes).

For groundwater, monitoring costs are covered by a partnership of water corporations, CMAs and DELWP. For surface water monitoring, costs are covered by a partnership of water corporations, CMAs, local governments, the Bureau of Meteorology and DELWP.

Action 3.14: Monitoring and tracking water use outside the entitlement framework

This ongoing action contributes to improving knowledge about unaccounted water use which will help to improve management of water use outside the entitlement framework. National Water Commission funding initiated the action. Although the NWC has been dismantled, the Victorian Water Accounts include estimates of water use by small catchment dams. Further, all domestic and stock bores require a construction licence and estimated use volumes are reported in the water accounts. *WfV* action 8.4 commits to recording and reporting on all emerging significant uses of water.

Action 3.19: Emerging technologies

This ongoing action assists in protecting the region's groundwater resources. New technologies and industries that affect water resources and water users include geothermal energy and <u>carbon capture and</u> <u>storage</u>. DELWP and DEDJTR have studied the impacts of emerging technologies and industries through small-scale trials and regional studies of the likelihood and impacts of coal seam gas and shale gas development.

Action 3.20: Considering water impacts when undertaking planned burning and other bushfire control measures

This ongoing action contributes to greater recognition, knowledge and consideration of the impact that bushfire management actions have on water quality and quantity. Bushfires can reduce water quality, and since the GRSWS some strategic bushfire plans have considered water quality. The Integrated Forest Ecosystem Research Program also continues to study bushfire impacts on forested catchments including on water quality and quantity. When prioritising planned burns, planners consider wildfire risks to water quality and quantity and puantity and burns can reduce this risk.

Chapter 4: Promoting sustainable use of water

Action 4.1: Promoting water conservation and efficiency

This ongoing action promotes proactive demand management by supporting water corporations to continue to pursue water conservation and efficiency measures at various levels. The Millennium Drought highlighted the importance of water conservation, water use efficiency and robust planning of water supply and demand. Many initiatives and processes have since been developed, either along with or as a result of the GRSWS, and the Victorian Government continues to support them. They include voluntary water efficiency programs across Victoria, sustainable irrigation programs and irrigation development rules at the CMA level, and water supply and demand planning for urban water corporations. Sufficient progress implementing the intent of this action has resulted in it being assessed as achieved. To ensure the intent of the action is retained, there are some components that are still ongoing (such as the development of reasonable domestic and domestic stock use guidelines.).

) Action 4.6: Extending the reticulated supply network

This ongoing action contributes to cost-effectively increasing water reliability and reducing the risks to water reliability by dry conditions. Expanding the reticulated water supply network is a cost-effective way to improve water reliability for communities close to existing supply networks that do not yet have access to those networks.

While there is not a consistent approach to managing the expansion of water supply systems, the intent of this action has been achieved, evidenced by the extensions to systems that have been proposed or approved (such as the Warragul-Moe water supply interconnect).

Action 4.7: Promoting sustainable water management on dryland farms

This ongoing action contributes to promoting additional online resources for dryland farmers to manage water sustainably and mitigate climate risks. Historically, there has been less guidance for dryland farmers then for irrigators about efficient and sustainable water use. Since 2015, Agriculture Victoria has published guidance for farmers and will continue to do so.

) Action 4.10: Facilitating integrated water planning

This ongoing action encourages adaptive, innovative and productive water management as well as the use of alternative water sources (such as stormwater, desalinated water and recycled water). Integrating land use and water planning can improve the cost-effectiveness and adaptiveness of water resource management. Water supply-demand strategy guidelines issued in 2011 require water corporations to work with local governments to integrate their planning, and the provision of water services is included in regional growth plans.

The *Gippsland Regional Growth Plan* was published in May 2014. Integrated water management forums have been established in the GRSWS region.

) Action 4.11: Identifying water-dependent sites of cultural importance

This ongoing action contributes to improved collaboration with Traditional Owners to identify waterdependent sites of cultural importance, to strengthen connection to Country. As part of the action, barriers to access were identified and steps taken to remove them. The <u>West Gippsland Waterway Strategy</u> <u>2014-2022</u> and the <u>East Gippsland Waterway Strategy 2014-2022</u> establish the foundations to continue building on the action. The West Gippsland strategy lists priorities for Traditional Owners, including protecting cultural heritage. Traditional Owners were consulted as part of developing the waterway strategy. Given this progress, and the intent of the action being incorporated into the waterway strategies, this action is considered achieved, although there is still work to be done in identifying sites of cultural importance.

Action 4.12: Aboriginal involvement in water management

This ongoing action provides the opportunity for increased Aboriginal involvement in water management through activities that support capacity building and participation. Traditional Owners have managed the state's water resources for millennia but in post-settlement times lack of resources and expertise has disadvantaged their capacity to do so. The GRSWS details capacity building programs for young Aboriginal leaders through universities, water corporations, CMAs and DELWP. These programs occurred as planned, but Traditional Owner groups and Aboriginal Victorians still need to be involved in the management of water resources, beyond their involvement in consultation processes, through partnerships and employment. Chapter 6 of *WfV* also addresses this issue.

Action 4.13: Better coordination of regional Aboriginal reference groups

This ongoing action contributes to better coordination of regional Aboriginal reference groups. The two Registered Aboriginal Parties (RAPs) in the Gippsland Region are the Gunaikurnai Land and Waters Aboriginal Corporation (GLAWAC) and the Bunurong Land Council Aboriginal Corporation (BLCAC). The RAPs are the primary point of contact for Traditional Owner involvement in water management: they are formally recognised and can speak for Traditional Owners in their declared areas. Chapter 6 of *WfV* encourages Traditional Owner involvement, which has helped increase engagement and participation. The RAPs work collaboratively with CMAs, DELWP and Parks Victoria. As such, this action is considered achieved.

) Action 4.14: Using consumptive water en route

This ongoing action contributes to creating benefits for consumptive users, the environment and local communities through innovative water system planning. Releases of water for consumptive use can be timed to also provide benefits for the environment, recreational uses and others (so long as timing alterations do not disadvantage consumptive users). The VEWH annual seasonal watering plan addresses the use of consumptive water en route to provide environmental benefits. For example, water delivery in the Latrobe River from Blue Rock Reservoir to diverters and return flows from power companies improve environmental outcomes. This is further supported by the increasing focus on recreational values (achieving shared benefits) as outlined in Chapter 6 of *WfV*.



Stock grazing and invasive weeds pose a continuous risk to riverine and riparian ecosystems. This ongoing action helps to protect waterway health and water quality by ensuring that riparian land is managed appropriately through activities such as fencing, revegetation, weed management and vegetation enhancement.

Managing riparian land is a priority for CMAs, and specific management goals and targets in each region are set out in the regional waterway management strategies. To accelerate the implementation of riparian works, the state government launched the *Regional Riparian Action Plan* in 2015.

The action has ensured continued Environmental Contribution funding for works on a large scale to ensure there is ongoing provision of cost-effective, off-stream, stock watering infrastructure.

Action 4.16: Changing environmental management objectives

This ongoing action promotes adaptive management by ensuring that a process is in place to alter environmental objectives in response to long-term changes in water availability. Climate change will most likely make Victoria drier, and adapting to the changed conditions will probably need severe actions. The 2013 *Victorian Waterway Management Strategy* includes a framework for assessing and changing management objectives in regional waterway strategies, which CMAs develop, and which will inform the 15-year long-term water resource assessment due in 2019.

Chapter 5: South Gippsland

$_{ m B}$) Action 5.1: Local management plans for the main river systems in South Gippsland

This ongoing action contributes to operating arrangements for Gippsland's surface water and groundwater systems, improving the transparency of their management. Existing operating arrangements were documented on the Southern Rural Water <u>website</u> and <u>ministerial guidelines</u> were released for new and to amend existing local management plans.

See action 3.4 for more information about this action.

Action 5.4: Protecting and improving the condition of South Gippsland inlets and estuaries through a continued focus on catchment management

This ongoing action contributes to the protection and improvements to the condition of South Gippsland's inlets and estuaries. There are wetlands in these inlets and estuaries which are listed as of national importance, including the Corner Inlet Ramsar wetland. **Part D** of the *West Gippsland Regional Waterway Strategy* details the works program to protect these inlets and estuaries, and the part includes the Corner Inlet Ramsar Site Management Plan. The <u>Corner Inlet Water Quality Improvement Plan 2013</u> also provides direction for protection of and improvements at the inlet. The West Gippsland CMA works with project partners to implement priority actions in both plans, with state and federal funding, and it reports progress on the works it undertakes each year in its biannual project progress report. The CMA has also worked with the EPA and DELWP to include load targets consistent with the water-quality improvement plan in the draft revised SEPP.

Chapter 6: Catchments of the Gippsland Lakes

Action 6.1: Local management plans for unregulated river systems

This ongoing action helps to formalise the operating arrangements for Gippsland's surface water systems, improving the transparency of their management. The 'Rivers and creeks management rules and plans' drop-down on the Southern Rural Water **website** has the operating arrangements for the Gippsland Lakes catchments: the Thomson, Latrobe, Mitchell and Tambo river basins. <u>Ministerial guidelines</u> were released for new and to amend existing local management plans.

See action **3.4** for more information about this action.

Action 6.13: Promoting sustainable irrigation

This ongoing action helps to promote sustainable irrigation in the Gippsland Lakes catchments.

DELWP, Agriculture Victoria and CMAs are delivering the Sustainable Irrigation Program with funding from the Environmental Contribution Levy, Tranche 4, of \$59.5 million over 4 years. The program provides incentives to irrigators to implement whole-farm planning and to implement efficient water use measures. The focus in the region is on reducing nitrogen and phosphorus on farms.

The *Sustainable Irrigation Program Biennial Report 2013-15* notes that the 2015 review of the Victorian Irrigation Drainage Program found the program had successfully mitigated the most severe waterlogging, salinity, water quality and drainage risks in Victoria's landscapes.

The Victorian Government's Gippsland Lakes Rescue Package is funding activities to improve water quality in the Gippsland Lakes. The Gippsland Lakes and Catchment Task Force was established in 2001 and it developed the *Gippsland Lakes Future Directions and Actions Plan*, and \$6 million was invested in phase 3 activities under the plan from 2006–07 to 2008–09.

West Gippsland CMA is reviewing the <u>Macalister Land and Water Management Plan</u>, after which the plan will be replaced by the Lake Wellington Land and Water Management Plan.

Under the action, the Gippsland Irrigation Development Guidelines were prepared.

Having established the frameworks for sustainable irrigation, they are to be applied consistently to ensure the objectives are achieved in the long term. This in an area for ongoing focus to ensure that plans are developed consistently with the guidance, and that triggers in plans are applied or any variations from them are clearly documented.

Action 6.16: Managing the new environmental entitlement for the Latrobe River

This ongoing action contributes to establishing the processes for managing the environmental entitlement for the Latrobe River. The VEWH's annual seasonal watering plan, which addresses use of the entitlement under a range of possible seasonal climactic scenarios to mitigate risks to the river, is based on West Gippsland CMA's seasonal watering proposal.

DEDJTR is preparing a *Latrobe Valley Regional Rehabilitation Strategy*, which will involve extensive water, geotechnic and environmental studies (including ongoing monitoring) as part of preparing and implementing it. As part of preparing the strategy, the West Gippsland CMA are working with DELWP and the VEWH on the regional water study, which includes an updated flows study to inform future environmental flows in the system.

Action 6.20: Managing the Gippsland Lakes

This ongoing action contributes to the management and protection of the Gippsland Lakes.

The Victorian Government has continued to invest in CMAs, which utilise these funds for ongoing catchment management works. These works are typically guided by the CMAs regional catchment strategies and waterway strategies, and by Ramsar site management plans. These strategies and plans set out frameworks for managing land, water and biodiversity programs. They also identify works needed to protect, restore or enhance natural resources in the medium and longer terms.

The Lower Latrobe Wetlands are managed by West Gippsland CMA and other partners, who undertake on-ground actions and provide advice to VEWH about environmental watering through the *Lower Latrobe Wetlands Environmental Entitlement 2010.* The Thomson, Macalister and Latrobe rivers also have environmental entitlements managed by the VEWH, that provide flow-on benefits to the Gippsland Lakes.

The East Gippsland CMA is the Ramsar site coordinator, and in 2016, they published the <u>Gippsland Lakes</u> Ramsar Site Management Plan.

Hydrological data for basins feeding into the Gippsland Lakes are reported annually in the Victorian Water Accounts. DELWP monitors the environmental outcomes (such as fish spawning) of environmental watering in the Thomson River through the VEFMAP program, and it also monitors blue-green algae conditions in the lakes. The VEWH monitors some hydrological and ecological conditions. Other agencies also conduct monitoring, some of which is funded by the VEWH (such as monitoring of water quality and water level in Heart and Dowd Morass, the Latrobe River and Lake Wellington) and DELWP.

The Gippsland Lakes Coordinating Committee fosters collaboration between agency and community stakeholders to better coordinate the environmental management of the Gippsland Lakes. The committee was allocated \$12.5 million over the 2015–16 to 2019–20 period through the Gippsland Lakes Environment Fund. The funding was allocated to implement the <u>Gippsland Lakes Priorities Plan</u> and the <u>Gippsland</u> <u>Lakes Ramsar Site Management Plan</u>.

The 2014 *Mitchell River Basin LMP* describes allocations and the number of licences for the Mitchell, Tambo and Nicholson catchments, and it identifies 6 GL of new winter-fill water entitlements.

) Action 6.21: Providing water to the fringing wetlands of the lower Latrobe River

This ongoing action contributes to improving the health of the lower Latrobe wetlands and estuary. The *Lower Latrobe Wetlands Environmental Entitlement 2010* was established, and it provides for water to be diverted from the Latrobe River to inundate floodplain wetlands.

The <u>West Gippsland Waterway Strategy 2014-2022</u> aims to improve the condition of the Lower Latrobe wetlands through a program of environmental watering, weed control and rehabilitation of remnant riparian and floodplain vegetation.

The VEWH's annual seasonal watering plans provide the ongoing direction to complete this action.

The Victorian Government has funded WGCMA to undertake work to inform the watering plan for the wetlands and to design and cost wetland watering infrastructure. The environmental water requirements of the Latrobe estuary were investigated in 2013 and the flow, level and salinity effects of inflows to the Latrobe estuary monitored since 2017. A risk assessment for Dowd Morass is being conducted of short- and medium-term implications of sea level rise for this wetland and its management.

To improve the effectiveness and efficiency of environmental watering in the wetlands, Sale Common's regulator was upgraded in 2012, while a regulator in the Heart Morass was upgraded in 2018. Earthworks were also undertaken in 2015 to facilitate water inflows from Flooding Creek to Heart Morass.

Chapter 7: Far East Gippsland

Action 7.4: Protecting Far East Gippsland's high-value rivers through a continued focus on catchment management

This ongoing action helps to protect and improve the health of far East Gippsland's high-value rivers through a continued focus on catchment management. The *East Gippsland Waterway Strategy 2014-2022* details planned works and their objectives, and the *East Gippsland Regional Catchment Strategy 2013–2019* provides additional detail, setting out priorities for the region for the six-year period.

Action 7.5: Greater transparency in environmental water accounts and reporting for the Snowy River

This ongoing action enhances transparency in environmental water accounts and in reporting for the Snowy River. The <u>Victorian Water Accounts</u> detail allocation volumes and allocation percentages for the Snowy River catchment entitlements. The VEWH reports annually on the Snowy River entitlements it holds and water made available each year.

The <u>Victorian Water Register</u> has a user-friendly layout and search function to examine records of trade and entitlements for all catchments throughout the state.

The strategy is improving planning, management and transparency

The GRSWS has provided high-level guidance for the planning and management of the region's catchments and waterways. The GRSWS does not apply at the sub-catchment scale, but it does influence policies and operations at that level. For example, it guides the VEWH when it develops the annual seasonal watering plan, and it influences CMAs when they decide the content of their regional waterway strategies.

Supporting implementation of action **6.21**, the *West Gippsland Waterway Strategy 2014–2022* aims (among other things) to improve the condition of the Lower Latrobe Wetlands with an integrated program of environmental watering, weed control and revegetation.

The GRSWS built on the work of existing strategies and programs and many of its actions improve planning and management, specifically to maximise environmental benefit. These actions include:

- water supply-demand strategies (superseded by urban water strategies) that require water corporations to work with local governments and which recognise the integrated water management forums now in place throughout the region
- using consumptive water en route (action
 4.14): for example, Latrobe River

 environmental outcomes are improved by
 water deliveries from Blue Rock Reservoir to
 diverters and return flows from power
 companies
- managing riparian land (action **4.15**), with management goals and targets specified in regional waterway strategies
- changing environmental management objectives (action **4.16**)
- protecting and improving the condition of South Gippsland's inlets and estuaries (action
 5.4), with the West Gippsland CMA working with project partners and with state and Commonwealth Government funding to implement priority actions in the Corner Inlet Water Quality Improvement Plan; the CMA

also worked with the EPA and DELWP to include load targets consistent with the plan in the draft revised SEPP

- managing the Gippsland Lakes (action 6.20), with various agencies monitoring water quality and level in Heart and Dowd Morass, the Latrobe River and Lake Wellington); the Gippsland Lakes Coordinating Committee has also received \$12.5 m for 2015-20 from the Gippsland Lakes Environment Fund to protect and improve the health of the lakes
- providing water to fringing wetlands of the lower Latrobe River (action **6.21**)
- protecting far-east Gippsland's high-value rivers (action **7.4**).

GRSWS actions enabled water managers to better understand the region's groundwater resources. Action 3.2 ensures continuous and regular monitoring of these resources, to ensure they are adequate to supply additional water to new or existing users without detriment to existing users, including the environment. Implementing the action, the Victorian Government in conjunction with Southern Rural Water upgraded and refined the groundwater monitoring network. Southern Rural Water and the Victorian Government have also invested heavily in the 3D mapping of Victoria's aquifers and groundwater salinity and in making the data available through on-line tools such as Visualising Victoria's Groundwater and through information products (such as the **Gippsland** Groundwater Atlas).

Under GRSWS actions **3.4**, **5.1**, **6.1** and **7.1**, local management plans (LMPs) were established for the region's surface water and groundwater systems. These actions made management of the systems more transparent by formalising existing operating arrangements. Ministerial guidelines for new LMPs, and to amend existing LMPs, were released.

The GRSWS explained reasons for developing LMPs, including to clearly document watersharing arrangements and allow management of licensed water use to be more responsive and adaptable to local conditions.

Greater collaboration with Traditional Owners

GRSWS actions helped improve collaboration with Traditional Owners. Action 4.13 resulted in better coordination of regional Aboriginal reference groups by providing further impetus for the rationalisation of reference groups into Registered Aboriginal Parties (RAPs). Two RAPs have now been established in the Gippsland Region: the Gunaikurnai Land and Waters Aboriginal Corporation (GLAWAC) and Bunurong Land Council Aboriginal Corporation (BLCAC). The RAPs are the primary point of contact for Traditional Owner involvement in water management: they are formally recognised and can speak for Traditional Owners in their declared areas. The RAPs are currently working collaboratively with CMAs, water corporations, DELWP and Parks Victoria.

Through this collaboration, Traditional Owners identified water-dependent sites of cultural importance, to strengthen connection to Country and to identify and address barriers to access.

Stakeholders told the assessment Traditional Owners' voices are now more prominent in water planning and management, and the community listens more to that voice. However, some stakeholders said further progress could have been made, by capacity building to involve Traditional Owners in decision-making and the production of knowledge. *WfV*, and particularly Chapter 6 Recognising and Managing for Aboriginal Values, has resulted in funding to improve collaboration with Traditional Owners.



There are 24 GRSWS actions that have been achieved and are completed in full. Several of these actions were achieved through water corporations' urban water strategies and through CMAs' regional waterway strategies.

Chapter 3: Protecting Gippsland's water future

Action 3.4: Developing local management plans for unregulated surface water and groundwater systems

Achieved: 2010-16

This action was to document existing management rules into local management plans. A LMP improves management by providing a more flexible way to clarify water sharing arrangements in most groundwater and unregulated surface water systems. Documentation in LMPs will improve transparency and provide greater certainty to users about the processes for reviewing and changing these rules over time.

The GRSWS envisaged that LMPs would be prepared by documenting the existing water trading rules, carryover (where appropriate) and caps (where set) in a defined area. LMPs could then be reviewed or amended as required. LMPs were to be publicly available on water corporations' websites.

This action is considered achieved for a system when its existing rules are documented and published on the water corporation's website, and many of the LMPs listed below are documentation of existing rules only.

In May 2014, DELWP released guidelines for preparing LMPs. Under the guidelines, consultation is not required if the corporation considers the existing rules are sufficient and working effectively and has no immediate concern about reliability of supply, and proceeds to document the existing rules. Consultation is required if the water corporation decides to review and amend a LMP (such as if new information becomes available, concerns arise about the reliability of supply or the existing rules stop working effectively).

LMPs were developed for all surface water systems listed in the GRSWS including for the Latrobe River, South Gippsland, East Gippsland (included in the Snowy River Basin), Tambo River, Mitchell River, Snowy River and Thomson River (included in the Avon River Basin LMP) basins.

Groundwater catchment statements were developed for each groundwater catchment listed in the GRSWS, summarising the statutory management plans and local management plans within each catchment.

LMPs are available at Southern Rural Water's website under 'Groundwater management rules and plans'.

See actions **5.1**, **6.1** and **7.1** for actions relating to region-specific LMPs.

Action 3.5: Reviewing the process for declaring water supply protection areas and developing statutory management plans

Achieved: 2012-13

This action was to review the process and establish opportunities for streamlining surface water and groundwater management plans to provide more efficient water management. Statutory management plans are administratively costly and can take more than two years to develop. In the meantime, local management plans have been the main way groundwater and unregulated surface water is managed. After a review of WSPA processes, amendments to the Water Act were proposed in the Water Bill 2014, but the Bill did not proceed through parliament. In line with *WfV* action 8.9, DELWP intends to streamline the process and will propose amendments to the Act at the next opportunity.

) Action 3.8: Upgrading and refining the groundwater monitoring network

Achieved: 2013-14

This action contributed to a revised and improved groundwater monitoring network. Groundwater in Victoria is monitored mainly through the State Observation Bore Network (SOBN). At the time of the publication of the GRSWS, groundwater monitoring infrastructure was inadequate in some areas. Who would fund the SOBN was also unclear, which put at risk the long-term maintenance and operation of the network. The SOBN was restructured soon after the GRSWS was published. The restructured SOBN is now a regional monitoring network with a clearly defined purpose for each site. The ageing monitoring infrastructure has been upgraded through a program of bore refurbishment works. Key stakeholders have been identified for each monitoring site, and the approach to future cost-sharing is to be negotiated. Annual expenditure on maintaining and developing the SOBN is currently being reported.

Action 3.15: Revising groundwater management units (GMUs)

Achieved: 2012

The action was completed through DELWP's Secure Allocations, Future Entitlements project. The groundwater catchments that were introduced after the project reflected connected groundwater resources and flow systems. All groundwater resources are within a groundwater catchment, allowing for amalgamation of management areas and for management to be documented for all groundwater resources. As knowledge improves, there will be further changes to management areas to reduce administration and costs and to support market development.

Action 3.18: Understanding and monitoring the risk of coastal subsidence

Achieved: 2014

This action facilitates improved understanding of coastal subsidence. A <u>trial satellite radar interferometry</u> (InSAR) study was successfully completed in 2012. An ongoing InSAR monitoring program based on the pilot study was developed, completing the action. The monitoring program as planned has not been implemented.

Since the trial study, additional high-resolution light detection and ranging (LIDAR) data has been collected for Gippsland, and there is an ongoing program to collect this data. DELWP intends to review the need for further monitoring and the best method for any ongoing subsidence monitoring program.

Chapter 4: Promoting sustainable use of water

) Action 4.8: Updating water supply-demand strategies

Achieved: 2011-12

This action contributed to effective and comprehensive water supply and demand planning to ensure the reliability of supply for urban and industrial users. The GRSWS articulates requirements to ensure urban water corporations' water supply-demand strategies follow planning best practices. These requirements, which DELWP set out in WSDS guidelines, include exploring alternative water sources, making agreements about service levels that meet community expectations and completing annual water supply outlooks. Urban water corporations have developed water supply-demand strategies for their regions, consistent with DELWP's 2011 WSDS guidelines.

Urban water corporations continue to undertake strategic supply and demand planning. They revised their water supply-demand strategies as urban water strategies in 2017, as required by *WfV*.



Achieved: 2011

This action contributed to a better understanding of and more consistent guidance about Victorian water restrictions during drought and water scarcity. The Millennium Drought saw widespread water restrictions which had major consequences for Victorians. A review to better manage those impacts in the future was completed in 2011. The review's main recommendations — simple permanent water savings rules, a revised set of four-stage water restrictions and a model water restriction by-law — have been implemented.



Achieved: April 2015

This action contributed to improved knowledge of groundwater-dependent ecosystems (GDEs) and their integrated management. The GRSWS acknowledged there was insufficient understanding of GDEs when it was published, and it recommended a risk-based approach to manage impacts on GDEs including monitoring and risk assessments when addressing licensing decisions. Ministerial guidelines for groundwater licensing and the protection of high-value, GDEs were published in 2015 and outline the approach licensing authorities should take to consider risks.

Chapter 5: South Gippsland

🛇) Action 5.3: Water supply-demand strategy — South Gippsland Water

Achieved: 2011, 2017

This action contributed to effective and comprehensive water supply and demand planning to ensure the reliability of supply for urban and industrial users. South Gippsland Water developed a water supply-demand strategy in December 2011 and updated it in April 2017 as the *South Gippsland Water Urban Water Strategy*, in line with the *WfV* requirement for Victoria's urban water corporations to develop urban water strategies, which provide detailed, 50-year forecasts of demand, and supply options. Urban water strategies are to be based on the government's climate guidelines, which set out essential data and advice about how to assess the impact of climate change on water supplies.

The strategy is one of several South Gippsland Water long-term plans: others address drought response, financial expenditure, asset management, water quality and wastewater. The main change in the updated strategy reflects the connection of several of South Gippsland Water's supply systems to the Melbourne supply system, which reduces the region's future supply risk from population growth, climate change and land use changes.

Chapter 6: Catchments of the Gippsland Lakes

Action 6.3: Establishing a drought reserve in Blue Rock Reservoir

Achieved: July 2013

This action contributed to the establishment of a drought reserve in Blue Rock Reservoir, meaning more water will be available for entitlement holders in the Latrobe system. The drought reserve was established through the *Bulk Entitlement (Latrobe Reserve) Order 2013.* Southern Rural Water holds the entitlement, and it calculates how much water is available in the drought reserve each month and offer it to Latrobe system entitlement holders. Southern Rural Water has a <u>fact sheet</u> explaining how it works.



Achieved: -

This action helped to improve recreational opportunities on Lake Narracan. Southern Rural Water manages water releases from Blue Rock Reservoir to Lake Narracan for the local power stations. The action arranged to keep enough water in the lake for major water skiing events between December and April, subject to conditions agreed with the Latrobe Council and Latrobe Valley Water Ski Club. The arrangement is included in the Latrobe System Storage Management Rules.

Action 6.5: Establishing operating arrangements to improve recreation opportunities on Lake Narracan

Achieved: -

This action contributed to the revision of the operating arrangements for Lake Narracan. Southern Rural Water revised storage management rules to specify how it will operate Lake Narracan to maintain water levels for water skiing (as explained above). The rules also specify how bulk entitlement holders will be compensated for any water losses incurred as a result of the action.

) Action 6.6: Water supply-demand strategy — Gippsland Water

Achieved: 2012, 2017

This action contributed to effective and comprehensive water supply and demand planning to ensure the reliability of supply for urban and industrial users. Gippsland Water developed a water supply-demand strategy in April 2012. *WfV* now requires Victoria's urban water corporations to develop urban water strategies, which provide detailed, 50-year forecasts of demand, and supply options. Urban water strategies are to be based on the government's climate guidelines, which set out essential data and advice about how to assess the impact of climate change on water supplies. Gippsland Water revised its water supply-demand strategy as an urban water strategy in 2017.

Gippsland Water publishes an <u>annual water outlook</u> in December each year, to tell its customers the current status of its systems, how they compare to the long-term trends forecast in the urban water strategy, the climate outlook and the likelihood of water restrictions in each system.

) Action 6.7: Additional access to water in Blue Rock Reservoir for urban use

Achieved: July 2013

This action contributed to greater access to water for urban use. An additional permanent 3.87% inflow and storage capacity share (corresponding to a long-term average of 3 GL/year) from Blue Rock Reservoir was made available for purchase by Gippsland Water to meet its immediate demand growth needs. In 2014, Gippsland Water's Blue Rock bulk entitlement was amended to increase Gippsland Water's share of Blue Rock by 3.87% to 16.27%. This was later increased to 17.08% to reflect the change in the recorded storage volume of the reservoir, due to silt.

Action 6.8: Open-cut coal mine closure and restoration strategies

Achieved: December 2016

The action has been completed as per the Hazelwood Mine Fire Inquiry: Implementation of recommendations and affirmations (Annual Report 2017). Open-cut coal mine closure and restoration strategies advanced greatly, driven by the <u>Hazelwood Mine Fire Inquiry Report 2015/16 Volume IV – Mine</u> <u>Rehabilitation</u>. DEDJTR is working with DELWP to prepare <u>The Latrobe Valley Regional Rehabilitation</u> <u>Strategy</u>, which supports this action.

Action 6.9: Water supply-demand strategy — East Gippsland Water

Achieved: 2010, 2011, 2017

This action contributed to effective and comprehensive water supply and demand planning to ensure the reliability of supply for urban and industrial users. East Gippsland Water developed water supply-demand strategies in 2010 and 2011 for each of its nine water supply systems. *WfV* now requires Victoria's urban water corporations to develop urban water strategies, which provide detailed, 50-year forecasts of demand, and supply options. Urban water strategies are to be based on the government's climate guidelines, which set out essential data and advice about how to assess the impact of climate change on water supplies. East Gippsland Water subsequently developed one urban water strategy for all systems in 2017.

East Gippsland Water publishes an <u>annual water outlook</u> in December each year, to tell its customers the current status of its systems, how they compare to the long-term trends forecast in the urban water strategy, the climate outlook and the likelihood of water restrictions in each system.

) Action 6.11: Sharing of industrial water returns along the lower Latrobe River

Achieved: July 2013

The action improved the reliability of supply to Latrobe River irrigators, as Southern Rural Water amended the rules to confirm that return flows to the river from power stations and industrial water users would continue to be shared 50:50 between the environment and irrigators. This arrangement helps irrigators in dry periods, and it also provides additional water for the environment.

) Action 6.12: Development of a business case for the MID 2030 project

Achieved: 2011

This action helped Southern Rural Water seek a government contribution for the MID 2030 project. In May 2013, the Victorian Government committed to provide \$16 million for Phase 1A of the <u>MID 2030 Project</u>, a project to modernise a section of the Macalister Irrigation District. An equal co-contribution was made by MID customers through SRW. The government made a further \$20 million contribution in the 2016-17 State Budget towards MID Phase 1B, along with contributions from SRW and the Commonwealth Government.

Action 6.14: Thorpdale – opportunity to purchase additional entitlement in cases where storage capacity exceeds the annual extraction limit

Achieved: June 2015

This action provided irrigators with the opportunity to purchase additional entitlement, if storage capacity exceeded the annual extraction limit. Under the action, eight applications to purchase additional entitlement were approved, for a total 131.8 ML.

) Action 6.15: Additional 10 GL environmental share for the Latrobe River system

Achieved: July 2013

This action contributed to the establishment of a new environmental entitlement which provides a longterm average of 10 GL/year for the environment in the Latrobe River system. The *Blue Rock Environmental Entitlement 2013* provides a 9.45% inflow and storage capacity share of Blue Rock Reservoir. This entitlement has been used to provide environmental benefits in the lower Tanjil River, in the Latrobe River downstream of the junction with the Tanjil River and in the fringing wetlands along the lower Latrobe River near Lake Wellington.

Action 6.18: Additional 8 GL environmental share for the Thomson River

Achieved: May 2017

This action contributed to the provision of additional water for the environment in the Thomson River through a new 3.9% inflow and 8 GL storage capacity share in the *Bulk Entitlement (Thomson River – Environment) Order 2005*, equivalent to a long-term average of 8 GL/year. The action was in line with a previous government commitment. The additional water enables delivery of more of the high-priority watering actions in the seasonal watering plans for the Thomson River.

) Action 6.19: More flexible environmental releases from the Thomson Reservoir

Achieved: May 2013

This action helped to allow passing-flow water-sharing rules to be more flexible. Passing flow requirements were amended in 2013 via the *Bulk Entitlement (Thomson River - Environment) Amendment Order 2013*. Although the work to allow this occurred over many years, the first trial was in July 2017. The accrual of this water allowed the delivery of higher-priority water actions at other times during the year.

Chapter 7: Far East Gippsland

ightarrow) Action 7.1: Local management plans for the main river systems in Far East Gippsland

Achieved: 2010-16

This action helped to formalise the operating arrangements for far East Gippsland's surface water and groundwater systems, improving the transparency of their management. The 'Rivers and creeks management rules and plans' drop-down on the Southern Rural Water <u>website</u> has the operating arrangements for the East Gippsland Basin (including the Snowy River Basin). <u>Ministerial guidelines</u> were released for new and to amend existing local management plans.

See action 3.4 for more information about this action.

) Action 7.3: Water supply-demand strategy — East Gippsland Water

Achieved: 2010, 2011, 2017

This action contributed to effective and comprehensive water supply and demand planning to ensure the reliability of supply for urban and industrial users. East Gippsland Water published nine water supply-demand strategies in 2010 and 2011, one for each of its nine water supply systems.

WfV now requires Victoria's urban water corporations to develop urban water strategies, which provide detailed, 50-year forecasts of demand, and supply options. Urban water strategies are to be based on the government's climate guidelines, which set out essential data and advice about how to assess the impact of climate change on water supplies. In 2017, East Gippsland Water revised its water supply-demand strategies as the *East Gippsland Water Urban Water Strategy*, which is one document for all nine systems.

East Gippsland Water publishes an annual water outlook in December each year, to tell its customers the current status of its systems, how they compare to the long-term trends forecast in the urban water strategy, the climate outlook and the likelihood of water restrictions in each system.

Updating the approach to water allocation

Action **3.1** provided a balanced approach to allocating new entitlements in unregulated catchment areas.

GRSWS action **6.11** reinforced the sharing of industrial water returns between the environment and irrigators equally along the lower Latrobe River.

GRSWS action **5.2** resulted in a revised cap on the amount of unallocated surface water

available for winter-fill (July to October) diversions across catchments throughout Gippsland. The winter-fill sustainable diversion limits were amended to account for reduced volumes of additional available water. Rural water corporations are now managing to the revised sustainable diversion limits. The Permissible Consumptive Volume Surface Water Order 2010 has yet to be amended to reflect these changes.

Benefiting waterways, aquifers, wetlands and estuaries

The GRSWS reinforced recognition of the environment as a legitimate water user. In line with action **6.15**, the *Blue Rock Environmental Entitlement 2013* was gazetted, providing a permanent 9.45% inflow and storage capacity share of Blue Rock Reservoir (equivalent to an average of about 10 GL/year) for the Latrobe River system. The VEWH uses the entitlement in association with the West Gippsland CMA to provide water for the environment and to deliver shared benefits along the lower Tanjil River, the Latrobe River downstream of the junction with the Tanjil River and the fringing wetlands along the lower Latrobe River near Lake Wellington.



Improving water security

GRSWS actions improved water security for urban users. Action **6.3** established a drought reserve at Blue Rock Reservoir, which enables entitlement holders in the Latrobe system to access additional water during water shortages. Before the GRSWS, the government held an unallocated water share equivalent to about 19 GL/year to 26 GL/year in the Latrobe River system.

Water corporations throughout the region had previously developed water supply-demand strategies, setting out actions to meet the needs of cities and towns without taking water from other water users (including the environment). *WfV* now requires Victoria's urban water corporations to develop urban water strategies, which provide detailed, 50-year forecasts of demand, and supply options. Urban water strategies are to be based on the government's climate guidelines, which set out essential data and advice about how to assess the impact of climate change on water supplies. Accordingly, South Gippsland Water, Gippsland Water and East Gippsland Water have updated their WSDSs as urban water strategies.

Action **6.9** relates to nine WSDSs: one for each of the nine water supply systems. These WSDSs have since been superseded by the *East*

Gippsland Water Urban Water Strategy, which is one document for all nine systems.

Gippsland Water's water security for local towns was further improved by its purchase of a 3.87% inflow and storage capacity share of Blue Rock Reservoir from the government's unallocated share.

The GRSWS supported the region's move to sustainable irrigation. Action **6.12** led to Southern Rural Water developing a business case (which subsequently received funding) to modernise the Macalister Irrigation District (known as the MID 2030 Leading Works Program), a major achievement given the district is the largest irrigation area in southern Victoria. MID 2030 overhauls a largely antiquated irrigation system with a low level of water efficiency. Phase 1A and Phase 1B of MID2030 have been completed or are under construction.

Action **6.13** helped irrigators adopt sustainable irrigation practices. While some work had been done before the GRSWS (particularly about salinity, nutrient reduction and irrigation drainage in the Gippsland Lakes catchments), the action further supported the Sustainable Irrigation Program.

Increased recreational opportunities

Actions **6.4** and **6.5** increased recreational opportunities in the region, specifically opportunities at Lake Narracan. Southern Rural Water manages water releases from Blue Rock Reservoir to Lake Narracan for the local power stations. The action arranged to keep enough water in the lake for major water skiing events between December and April, subject to conditions agreed with the Latrobe Council and Latrobe Valley Water Ski Club. The arrangement is included in the Latrobe System Storage Management Rules.

Hardwood plantation Image: DEDJTR

3. Feedback about strategy development and implementation



As the introduction to this report explained, the five-yearly assessment emphasised consultation with stakeholders involved in developing and implementing the GRSWS. The information about the status of strategy actions draws heavily on what stakeholders told us about how actions have been achieved and what is in place or planned to be done to achieve outstanding actions. Stakeholders also provided other feedback about strategy, which is explained below.

Strategy development

Stakeholders said the GRSWS provided a holistic overview of the factors they needed to consider, to create a sustainable water future. They said the GRSWS addressed the needs of all users, creating opportunities for informed, cross-organisational discussions. The process of developing the GRSWS ensured they considered the whole picture of water security and resources planning, rather than just managing systems in isolation from one another. This holistic, integrated planning approach had improved understanding of the complexity and meaning of water security.

Some stakeholders were concerned about how adequately the GRSWS prepared the region for climate change and population growth. It is difficult to make accurate projections of population growth and climate change effects over long time frames, limiting the accuracy and usefulness of long-term plans. This could result in chronic, ongoing water shortages in the future where the need for trade-offs between different types of water users and new augmentations (such as using recycled water in inland areas) may not have been fully considered.

The GRSWS reinforced recognition of the environment as a legitimate water user. Traditionally, the environment's share of water was considered to be the water remaining in the system after consumptive needs had been met. In the early 2000s, specific entitlements for the environment were established. The SWSs built on this foundation to put greater emphasis on environmental considerations in decision-making, improve knowledge about environmental values (such as about groundwater-dependent ecosystems) and generally to recognise the environment as a legitimate water user and to promote more environmentally conscious mindsets. Consequently, environmental water managers engaged with other stakeholders more as equal partners.

The process of developing and implementing the GRSWS created strong relationships between stakeholders. The development process was the first time many stakeholders had engaged with each other, and it enabled stakeholders to hear and understand the needs and issues of other water users. Many of the relationships built while developing the GRSWS have been maintained and have helped improve the way organisations now manage water resources.

Some stakeholders said the GRSWS is a powerful instrument for change, particularly as it helps secure funding for programs. For example, the establishment of the Blue Rock Reservoir drought reserve resolved a long-standing regional issue.

Stakeholders see the broader community's increased awareness of water issues as a lasting outcome of the GRSWS, the development of which included extensive community engagement. There is now greater community understanding of water uses and needs, water resources planning issues and the water entitlement framework. Stakeholders praised the process to develop the GRSWS as collaborative and well-communicated, and attribute many of the GRSWS's achievements to the quality of the process. However, they also said not all discussions during the development of the GRSWS were recorded. Many options had been debated, but sometimes only the preferred options and actions were recorded in the GRSWS. Some stakeholders said that a record of all the options considered and the rationale for not pursuing some of them would be of great value if assumptions change: it would enable adaptive pathways planning.

Strategy implementation

Many stakeholders said the process for implementing the GRSWS has been less collaborative than the process to develop it. They said there was no implementation plan for the actions, and no implementation committee to oversee their delivery: both would have helped the process. They also said the lack of an evaluation framework to implement the GRSWS was an oversight. For example, the Hazelwood Mine closed sooner than expected, which action **6.8** did not anticipate. Nevertheless, stakeholders said the shortcomings did not impede completion of the actions because the responsible parties had committed to them. Stakeholders considered the timeframes for implementing the GRSWS to be ambitious: the strategy indicated most of the actions were to be taken within two years. They said the limited resources of their organisations had made the timeframes unrealistic, although they acknowledged DELWP had understood the challenge and had helped where possible. Stakeholders said the strategy's actions should perhaps have been prioritised, to inform decisions about how best to allocate resources to implementation. Also, it was difficult to differentiate between short- and longterm actions, small- and large-scale actions and foundational- and non-foundational actions. They said not all actions were of equal importance, scale or priority. They suggested in future there be an implementation plan with timeframes that identifies interdependencies between actions, and that identifying responsibilities for resourcing actions might also help to set realistic timeframes. The realities of long-term planning are that:

- it might not be feasible to develop objectives and outcomes that remain relevant over a 10-year planning horizon
- it can be difficult to identify actions that need to be implemented over a 10-year period
- it can also be difficult to commit to actions so far into the future, given the uncertain and changing environment.

Lindenow Valley Image: DELWP

4. Next steps

Mitchell River, Bairnsdale near Mitchell Port road Image: Yvette Baker, DELWP

The next steps for the GRSWS are to implement this assessment report's recommendations, and to undertake the GRSWS review.

The report's recommendations aim to:

- strengthen the current requirements for monitoring and reporting on the implementation of the strategy, and for reviewing it
- have DELWP coordinate a process involving organisations responsible for implementing GRSWS actions to develop an implementation plan for GRSWS actions.



RECOMMENDATION 1:

that DELWP monitors implementation of GRSWS actions, and publishes annually a summary of the status of implementation for inclusion in its annual report.

The *Water Act 1989* requires reporting about any current SWS and draft strategy, including measures being taken to implement the SWS and the priorities that apply to actions.

Ongoing monitoring and reporting about implementation of the SWS's actions helps stakeholders understand barriers to

progressing some actions, and it provides an opportunity to highlight measures being taken by the organisations responsible for implementing the actions. It also helps to build capacity and improve accountability, which adds to the credibility of the SWS.







RECOMMENDATION 2:

that DELWP, in partnership with organisations responsible for implementing GRSWS actions, develops by March 2019 an implementation plan for GRSWS actions. The implementation plan is to support the GRSWS review and should:

- ensure ongoing collaboration across organisations responsible for implementing GRSWS actions
- clarify governance arrangements for implementing the actions and the role of organisations responsible for implementing GRSWS actions
- document progress implementing actions and changes in direction and priorities, including reasons why an action might be no longer relevant
- identify the risks of delaying or not completing the actions
- explore options to ensure that local knowledge is considered

- document priority steps to support implementation of the actions
- inform the annual monitoring information to be provided to DELWP in June of each year.

Feedback from the five-yearly assessment workshops indicated that stakeholders supported the process to develop the SWSs as collaborative and well-communicated. However, they also said the process for implementing the GRSWS has been lesscollaborative, as there was no implementation plan for the actions and no clear, articulated governance arrangements.





RECOMMENDATION 3:

that the GRSWS review update the status of actions and assess if further work is needed to achieve actions or their intended outcomes. That, if necessary, the review also propose further effort to achieve actions and consider discontinuing actions that might be no longer relevant.

The Water Act 1989 requires SWS reviews to determine whether or not the timeframes and targets in the SWS were met. A review is supported by a consultative committee and includes at least two months of public consultation. This enables the review to take a rigorous approach to making recommendations, considering lessons learned, challenges and current policy positions.

The GRSWS review will be informed by:

• annual monitoring and reporting, about which this report makes a recommendation

- this five-yearly assessment report, the contribution of which is explained above
- the long-term water resource assessment, which DELWP is currently conducting
- the grid oversight function, a partnership between the Victorian Government, water corporations and key stakeholders to improve Victoria's water grid and how it operates.

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