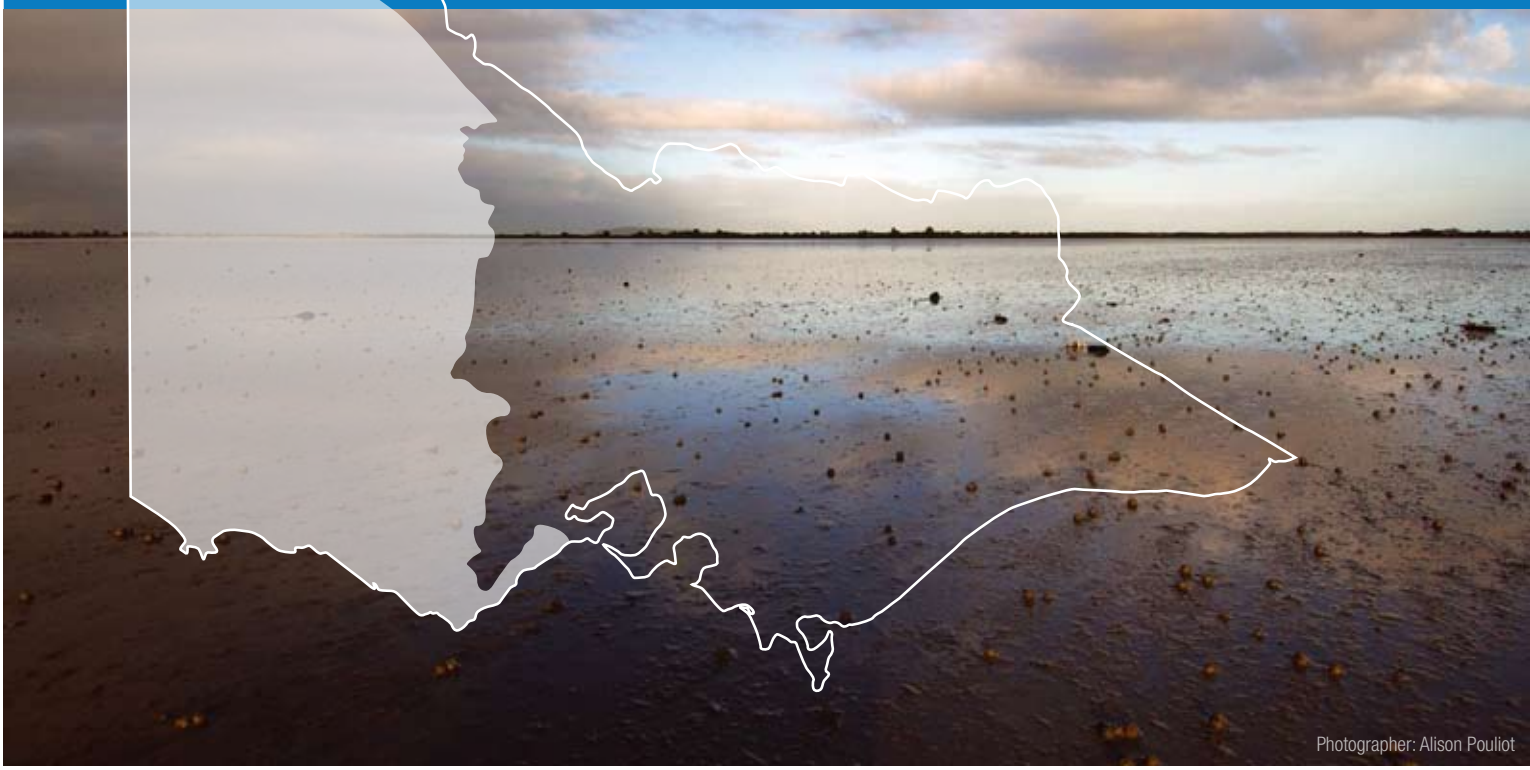
Western Region
Sustainable Water Strategy



What is a Sustainable Water Strategy?

Sustainable Water Strategies are an initiative of the Victorian Government's *Our Water Our Future* 2004 White Paper. Together with regional stakeholders, the Department of Sustainability and Environment (DSE) is developing a Sustainable Water Strategy for the Western Region of Victoria.

The Strategy is the Western Region's response to **future drought** and the uncertainty of **climate change** and will secure our water resources for the next 50 years.

Our water future

The Western Region's water resources support significant economic, environmental and social values. The past 12 years have been extraordinarily dry, with record low inflows in 2006/07. While it is not known whether this is the early onset of climate change, or a prolonged drought, we need to plan now if we wish to provide a secure water future.

A number of steps have already been taken to secure supplies for the region, including the development of the Wimmera-Mallee Pipeline Project and the Hamilton-Grampians pipeline. After analysing all aspects of water management in the region, the Strategy will explore what other actions should be pursued over the next 50 years to secure the region's water supplies in the face of drought and climate change. Options will aim to determine a fair and sustainable balance between urban, industrial, agricultural and environmental water needs.

The Strategy will analyse potential risks to water availability for all users including towns, irrigation and the environment. Potential risks include:

- **reduced water availability** and reliability because of climate change and drought
- **changing demands for water** due to population increases and decreases, changing farm and industry practices, and new businesses coming into the region
- **increased interception** of water from land use change, farm dams, the expansion of plantations and bushfires.

The draft Strategy will outline proposals for the future management of the Western Region's water resources for public comment before the final Strategy is released.


Photographer: Alison Pouliot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Planning for the future

The uncertainty of climate change and the impact of a continuation of the current drought are major risks to future water availability in the Western Region. Over the past 12 years, the Western Region has suffered the greatest proportional reductions in streamflows compared to the rest of Victoria. While we cannot predict the next 50 years with certainty, we do know there is likely to be less water available.

To help us understand what the Western Region's water resources may look like in 2055, the Strategy focuses on two possible climate scenarios - the medium climate change scenario and a continuation of recent low inflows. The Strategy will develop management approaches to respond to these scenarios.

River system*	Water availability scenarios at 2055			D continuation of recent low inflows (1996-2007)
	A Low climate change	B Medium climate change	C High climate change	
Avoca	-11%	-32%	-59%	-90%
Wimmera –Avon	-13%	-38%	-62%	-77%
Glenelg	-16%	-32%	-51%	-65%
Portland Coast	-13%	-29%	-46%	-56%
Hopkins	-14%	-32%	-52%	-40%
Lake Corangamite	-14%	-31%	-54%	-84%
Otway Coast	-10%	-21%	-34%	-30%

*The seven river basins depicted in this table predominantly rely on surface water resources. The Mallee and Millicent Coast river basins are mainly reliant on groundwater resources.

The impact of climate change or a continuation of recent low flows could mean:

- urban users are faced with more frequent and severe restrictions
- rural users may have increased restrictions and bans
- less water for rivers and lakes may reduce ecological values.

The Strategy will respond to a future with less water by investigating different ways of using and managing water. Options for the Western Region will seek to:

- ensure secure supplies for towns and industry
- encourage economically viable and sustainable agriculture
- protect and, where possible, improve the health of rivers, wetlands, estuaries and aquifers.

The Strategy will be guided by a set of principles that acknowledge:

- everyone needs to act to secure water
- entitlement holders should be allowed to manage their own risk
- strategy actions need to be able to respond to all water availability scenarios.

Developing options for the future will be achieved by looking at how the region's water resources have been allocated and managed in the past, determining if these arrangements are still appropriate in light of an uncertain future and creating new ways to use and manage water for the future.

The Western Region extends from Colac in the south-east to Ouyen in Victoria's north-west, incorporating the townships of Horsham, Stawell, Ararat, Hamilton, Warrnambool and Camperdown. The region contains the Mallee, Avoca, Wimmera-Avon, Millicent, Glenelg, Hopkins, Portland Coast, Lake Corangamite and Otway Coast river basins and is home to many groundwater management areas, including Portland, Heywood, Goroke, Murrayville and Glenelg.

The Western Region has extensive groundwater resources that in some areas, such as the Mallee and Millicent Coast basins, are the only reliable water source for towns, farms and landholders. Groundwater is an important resource for many users throughout the region. More information about the management of the region's groundwater resources will be provided to the community during the development of the strategy.

The region also contains extensive wetlands, lakes, rivers and estuaries that have many important values for towns, businesses, recreation and the environment.

Avoca River Basin

The Avoca River is a focal point in the township of Avoca and provides a picturesque area for locals and visitors. Farmland adjoining the river supports the region's many popular vineyards, as well as dryland and irrigated agriculture. Fishing and camping are popular leisure activities, particularly at Yawong Weir.

In high rainfall years, the Avoca River has supplied many wetlands that make up the internationally significant Kerang Wetlands. This area is characterised by a number of swamps, lakes and marshes, including Lake Bael Bael.

Avoca River Basin potential streamflow reductions range from 11 to 90 per cent.

Wimmera-Avon River Basin

The Wimmera–Avon River Basin includes the Heritage-listed Wimmera River and the Avon-Richardson rivers. These rivers support agricultural, tourism, cultural, social and economic development in the region. The basin includes Lake Albacutya which is internationally recognised under the Ramsar Convention.

The Wimmera-Avon River Basin is home to the cities of Horsham and Stawell and the towns of Warracknabeal, Rainbow, Hopetoun, Dimboola, Jeparit, Halls Gap, Donald and other small towns. Broadacre agriculture underpins the regional economy. Significant national and state parks, reserves, rivers and wetlands also support extensive biodiversity and tourism.

Wimmera-Avon River Basin potential streamflow reductions range from 13 to 77 per cent.

Lake Corangamite Basin

Major towns in the Lake Corangamite Basin include Colac, Camperdown and Lismore. Corangamite's economic mainstays are industry, tourism and agriculture including dairying, cropping, grazing and forestry. Water resources support agriculture and tourism industries and supply the Western District Lakes (Ramsar-listed wetlands).

Lake Corangamite is one of the main features of the basin. This Ramsar-listed permanent salt lake is the largest in Australia and part of a complex system of lakes formed by volcanic activity thousands of years ago.

Lake Corangamite Basin potential streamflow reductions range from 14 to 84 per cent.

Otway Coast Basin

The Otway Coast is home to the Gellibrand River, and supplies water to Warrnambool, Colac, Camperdown, Cobden and Koroit. The basin also supplies water to Anglesea, Lorne and Apollo Bay.

The basin includes significant national and state parks, reserves, rivers and wetlands that generate tourism and also support extensive biodiversity. Approximately 60 per cent of the basin is covered by native forests with significant dairying and grazing in the west.

Potential reductions in streamflow for the Otway Coast Basin range from 10 to 30 per cent.


Photographer: David Fletcher

Portland Coast Basin

The Portland Coast Basin is home to a number of important rivers including the Moyne, Eumeralla and Fitzroy Rivers. These rivers also support important estuaries. Major townships include Portland, Port Fairy and Heywood. The regional economy is supported by agriculture, including grazing, cropping, dairying, forestry and tourism. There are significant cultural values across the Western Region including the National Heritage-listed Budj Bim landscape which includes Lake Condah.

Portland Coast Basin potential streamflow reductions range from 13 to 56 per cent.

Hopkins River Basin

The Hopkins River Basin, which includes the Merri River, supports significant agricultural activity and includes the major towns of Warrnambool and Ararat. This is primarily broadacre grazing, with increasing cropping and dairy production. There are some areas of remnant forest and grasslands, and Lake Bookar, a Ramsar-listed site that is part of the Western District Lakes. The Hopkins and Merri River estuaries have high social and economic value associated with the major township of Warrnambool.

The Hopkins Basin supports irrigation, cropping, dairying, grazing, pastural activity, and commercial eel and recreational fishing. Rowing and passive recreation is also quite common along the estuarine reaches and adjacent wetlands.

Hopkins River Basin potential streamflow reductions range from 14 to 40 per cent.

Glenelg River Basin

Major towns in the Glenelg River Basin include Hamilton and Casterton. Broadacre agriculture is the predominant land use, with forestry an increasingly important industry. The basin also includes significant national and state parks, reserves, rivers and wetlands that generate tourism and support extensive biodiversity, including many species with state and national conservation status.

The Glenelg River is the major river in the basin and the largest in south-west Victoria. The Glenelg is a Heritage-listed river and highly valued for both environmental and recreation assets, particularly fishing and boating. More than 60 per cent of the flow of the upper Glenelg River is diverted to the Wimmera River via Rocklands and Moora Moora Reservoirs.

Glenelg River Basin potential streamflow reductions range from 16 to 65 per cent.

River Basins
Western Region Sustainable Water Strategy

Mallee Basin

Only part of the Mallee Basin is included in the Draft Western Region Sustainable Water Strategy. This is because its most northern part has been included in the Northern Region Sustainable Water Strategy.

The Mallee Basin is situated in the region's far north-west and relies on both groundwater and transfers of surface water from the Murray River to support towns, businesses and farms.

The semi-arid region is home to several small rural towns, stretching from Ouyen in the north to Beulah in the south, west to the South Australian border and east to Lalbert Creek. The basin relies on groundwater for irrigation and also supports dryland farming including wheat, barley and sheep production. There is also a major mineral sands development east of Ouyen.

Millicent Coast Basin

The Millicent Coast Basin spans Victoria and South Australia. Instead of major river systems, it features extensive groundwater reserves that support homes, agricultural industries and communities. It is also home to unique and extensive fresh and saline wetlands and the townships of Apsley, Kaniva, Lillimur, Goroke, Serviceton, Miram, Edenhope and Harrow.

*The impact of climate change on groundwater resources in the **Mallee** and **Millicent Coast** Basins will be looked at as part of the Draft Western Region Sustainable Water Strategy. Coordination of resource management between Victoria and South Australia will also be considered.*

Who is contributing to the Strategy?

Key stakeholders and the broader community are helping drive the development of the Western Region Sustainable Water Strategy. The Minister for Water has appointed a Consultative Committee to provide strategic guidance, advice and oversight. The Committee includes representatives from a range of organisations and interest groups (see "Who to contact").

Having a say

The Draft Strategy will provide an opportunity for the community to help determine what needs to be done to share water between farms, towns, industry and the environment, and improve water resource management in light of future water scarcity.

The Draft Western Region Sustainable Water Strategy will be released in **mid-2009** for community comment and feedback. Communities, businesses and individuals in the Western Region will be encouraged to respond and provide feedback about the options presented in the Draft Strategy. The final Strategy is expected to be released in **late 2009**.

Who to contact

If you would like more information about the Strategy, please contact one of your regional representatives, or email DSE at western.sws@dse.vic.gov.au.

Organisation	Phone
Darryl Argall - *Consultative Committee Independent Chair*	0428 344764
Central Highlands Water	5320 3100
Southern Rural Water	1300 139 510
GWM Water	1300 659 961
Wannon Water	1300 926 666
Barwon Water	1300 656 007
Wimmera CMA	5382 1544
Corangamite CMA	5232 9100
Glenelg Hopkins CMA	5571 2526
Mallee CMA	5051 4377
North Central CMA	5448 7124
DPI Horsham	136 186
DSE Ballarat	136 186
Victorian Farmers Federation	1300 882 833
Environment Victoria	9341 8100

Photographer: David Fletcher

Published by the Victorian Government
Department of Sustainability and Environment
Melbourne, May 2009

Authorised by the Victorian Government,
8 Nicholson Street, East Melbourne.

Printed by Stream Solutions
Printed on 100% Recycled paper

ISBN 978-1-74208-954-6 (print)
ISBN 978-1-74208-955-3 (online)

For more information contact the DSE Customer Service Centre 136 186

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