

Upper Ovens River Water Management Plan

Fact Sheet

May 2009

Introduction

The Upper Ovens catchment has highly connected ground water and surface water resources. This area has been identified as a priority in the Victorian Government's *Our Water Our Future*. The high degree of connectivity between these resources requires the preparation of a joint groundwater and stream flow management plan known as a water management plan (WMP). The WMP aims to balance the sharing of these water resources between all users.

The Upper Ovens catchment is experiencing stress, particularly during summer, when water is extracted for irrigation purposes. This stress can lead to a decline in the water quality, available habitat for native species and the general health of the river. The Government aims to improve the health of this river by sharing the stream flow and groundwater resources between users through a WMP.

This fact sheet summarises the social, economic and environmental assets reliant on the groundwater and surface water in the catchment. It provides readers with background about the draft Stream Flow Management Plan (SFMP) prepared in 2003 while briefly describing future WMP activities. It also provides information about complementary river health activities which aim to improve the catchment.

Physical characteristics of the Upper Ovens River catchment

- The Upper Ovens catchment, located within the Ovens Basin, is the gateway to the snowfields, supporting high value agriculture, a year-round tourism industry and a softwood plantation industry.
- Average annual rainfall in the Upper Ovens catchment varies from 900 mm at Myrtleford to 2000 mm at Mount Hotham.¹
- Townships are located throughout the Upper Ovens River catchment, including Myrtleford, Ovens, Porepunkah, Bright, Wandiligong and Harrietville.

Surface Water

- The Upper Ovens catchment above Myrtleford covers approximately 1,580 km² (figure 2).²
- The catchment area of the Upper Ovens River includes Morses Creek, Buckland River, Buffalo Creek, Happy Valley Creek, Barwidgee Creek, Shamrock Creek, Smoko Creek, Stony Creek and Snowy Creek.
- Upstream of Harrietville, the Upper Ovens River exists as two typical fast flowing mountain streams. The east and west branches join at Harrietville, forming a narrow floodplain only a few hundred metres wide and is joined by the Buckland River downstream of the Porepunkah township.

Groundwater

- Groundwater resources in the Ovens Valley are managed under the Upper Ovens River Water Supply Protection Area (WSPA) and the Lower Ovens Groundwater Management Area (GMA) (figure 2). The groundwater resources in the Upper Ovens River catchment will be managed together with the surface waters in the Upper Ovens WSPA.
- Groundwater is used throughout the catchment and is known to significantly interact with stream flow. This interaction is particularly important during summer.³
- The groundwater in the Upper Ovens WSPA supports summer surface water flows and groundwater dependent ecosystems including wetlands in the floodplain such as freshwater meadows and shallow freshwater marshes.

Water dependent assets of the Upper Ovens River catchment

Rivers and groundwater provide vital water for our homes, towns, farms and businesses.

Summarised below are important social, economic and environmental assets that exist within the catchment and are reliant on the quality and quantity of the water resources of the Upper Ovens River.

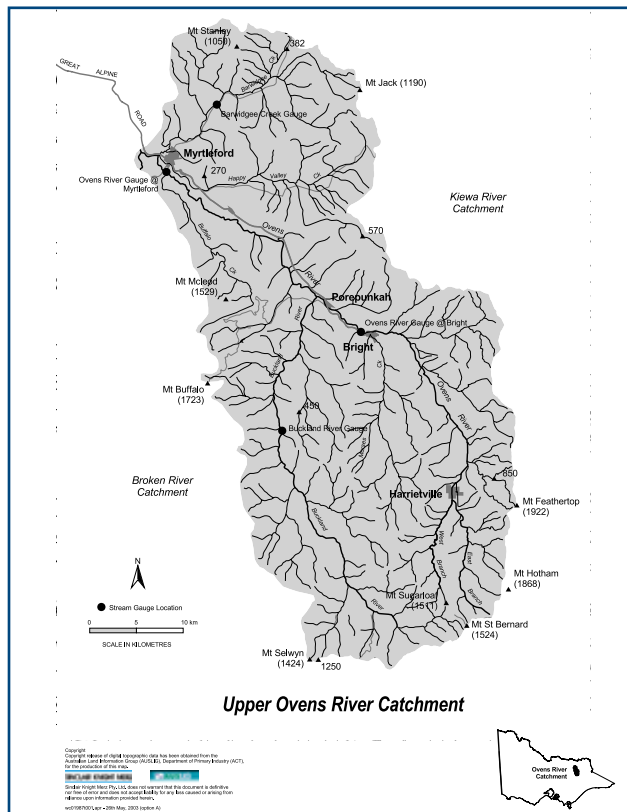


Figure 1: Upper Ovens WSPA



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Social Assets

- Swimming, snow skiing (water is used for snow making), fishing and associated tourism, such as walking and camping⁴.
- Water use (e.g. wine grapes) contributes to the rural character of the catchment.

Economic Assets

- Water supply for urban townships, irrigation, commercial and domestic & stock use.
- The main rural land uses in the catchment are aquaculture, cropping, grazing for beef production, hobby farms, horticulture (nuts, wine grapes, hops and apples) and pine plantations⁵.

Environmental Assets

The Upper Ovens catchment provides important ground and surface water to the environmentally valued, heritage listed, Lower Ovens River⁶ and the Murray River. It contains important native fish populations, wetlands and vegetation communities.

Fauna⁷

- 11 species of freshwater fish, of which Mountain Galaxias (*Galaxiasolidus*) and Trout Cod (stocked) (*Maccullochella macquariensis*) have conservation status in Victoria. The Upper Ovens River is also critical for the lifecycle of Murray Cod (*Maccullochella peelii peelii*), listed as Vulnerable under the *Flora and Fauna Guarantee Act 1988*.
- 190 native bird species, 47 native mammal species, 38 native reptile species and 12 native frog species have been recorded in the Upper Ovens River catchment.

Notable species of conservation significance in the catchment include the Grey Goshawk (*Accipiter novaehollandiae*), Royal Spoonbill (*Platalea regia*), Great Egret (*Ardea alba*), Australasian Bittern (*Botaurus poiciloptilus*) and Spotted Tree Frog (*Litoria spenceri*, 1961 Buckland River) as well as significant platypus and water rat populations.

Flora⁸

- A wide variety of remnant threatened Ecological Vegetation Classes are linked to the river and its floodplain.
- Over 800 native plant species have been recorded along the Ovens River and its tributaries. Fourteen native species are of national significance while 62 are of conservation significance in Victoria.
- Environmentally significant freshwater meadows and shallow freshwater marshes exist in the Upper Ovens River catchment.

Managing water resources

Goulburn-Murray Water is the corporation responsible for the management of surface water diversions and groundwater extractions within the Upper Ovens catchment.

The Upper Ovens catchment is located within the Murray-Darling Basin (MDB) and the management of surface water diversions must comply with the MDB cap. Each year around 14,000 ML of surface water from the Upper Ovens River and its tributaries is authorised to be used by landholders and town water supplies. Groundwater is also a significant resource in the catchment and licences allow approximately 3,800 ML to be taken each year. Surface water and groundwater resources in this catchment are highly connected. Given this, an integrated management approach is required to sustainably manage the Upper Ovens' water resources.

The timing and duration of groundwater and surface water diversions changes the stream flow in the Upper Ovens catchment. Understanding how groundwater and surface

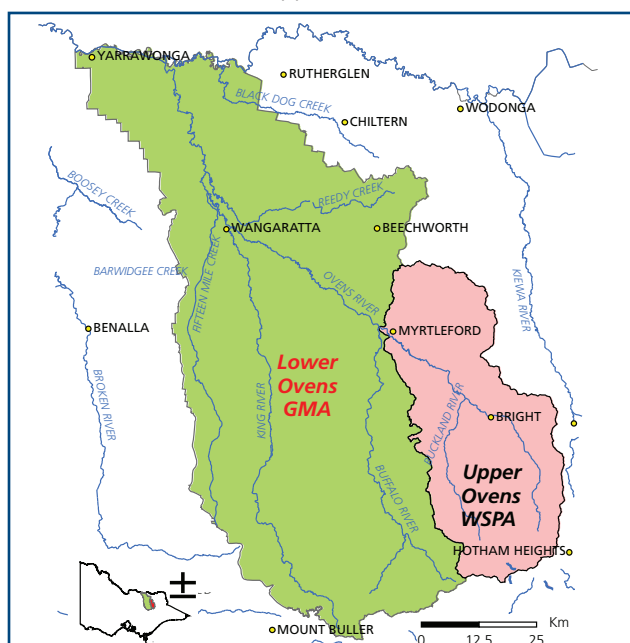
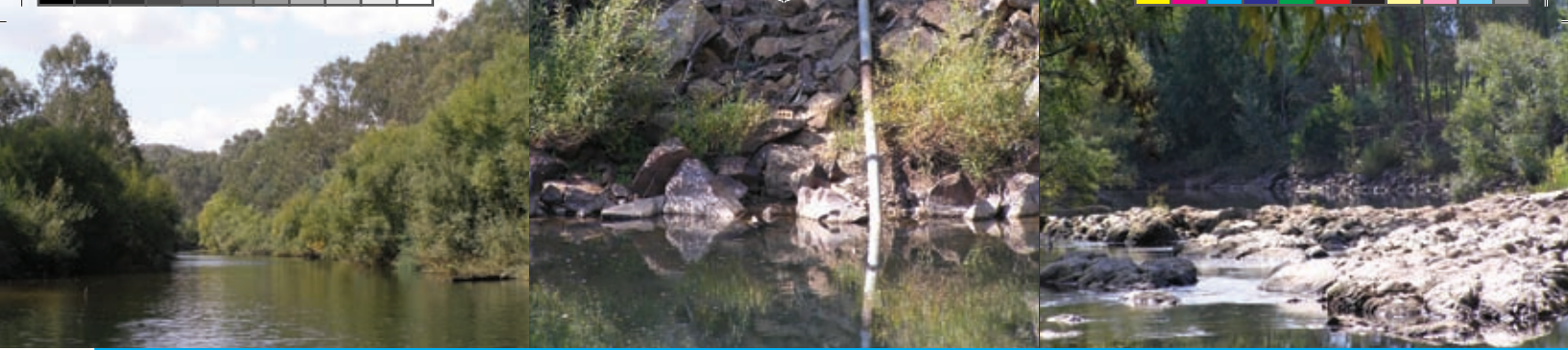


Figure 2: The Lower Ovens GMA and the Upper Ovens WSPA



Hops grown in the Upper Ovens WSPA



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water use affects stream flows is crucial to understanding the effect this has on the environmental assets that rely on the river.

Water was historically managed to share resources between consumptive users with little regard for the environment because little was known about its needs. A WMP will consider allocation and management of groundwater and surface water resources for consumptive use into the future.

The following table shows the allocation of bulk and private entitlements to water in the Upper Ovens catchment. The table shows that surface water diversions represent the most significant licensed use of water. Although not represented in the tables, the majority of surface water licences allow the diversions of streamflows during summer when streamflows are at their lowest.

Water Allocation and Use⁹

Although the information presented in the table below shows the total licensed water allocation in the Upper Ovens catchment, actual water use varies considerably between seasons/years and is dependant on climate, rainfall, stream flow, irrigation method and land use (e.g. crop type).

Allocation Category	No. of Licences	Volume (ML)
Surface Water Licence	242	7,763
Groundwater Licence	164	3,790
Farm Dam (Registered)	71	2,061
Domestic and Stock (Licensed)	290	632
Bulk Entitlement	4	3,385
Total Allocation		17,631

There is currently limited knowledge of water use in the catchment. Metering of all active irrigation and commercial surface water use licences 10 ML and above and groundwater licences 20 ML and above has been introduced. This will enable users to operate within their licence conditions and entitlements and provide water resource managers with a better knowledge of water use impacts on the environment



Irrigation pump on the Upper Ovens River

Stream Flow

The North East Regional Water Monitoring Partnership (and their predecessors) have monitored stream flows in the Upper Ovens River at Myrtleford since 1945. The table below shows that stream flows are highly variable, with high flows in winter (July and October inclusive) and low flows in summer (November and June inclusive), when the majority of surface water licence holders divert water.

Flow	Season	Rate
Average Daily	Summer	489 (ML/day)
Average Season Total	Summer	44,995 (ML/season)
Minimum Daily on record	Summer	0 (ML/day)
Average Daily	Winter	2399 (ML/day)
Average Season Total	Winter	219,468 (ML/season)
Minimum Daily on record	Winter	110 (ML/day)
Total Annual Average		570,000 (ML/year)

Information obtained from Gauge # 403210 on the Ovens River at Myrtleford for the period 1972–2004.

Water Management Plan Status

- The process of developing a WMP is difficult and the Victorian Government understands the challenges confronting water users affected by the implementation of WMPs. It will take time, however the outcomes will benefit all Victorians.
- A draft SFMP for the Upper Ovens River was developed in October 2003. This draft was used in the development of current Government policy particularly the licensing and registration of irrigation and commercial farm dams, metering and waterway determinations. In developing its current policy, the Government has taken a fair and equitable approach to all aspects of water sharing.
- The WMP will be consistent with changes to the *Water Act 1989*, development of improved methodologies to determine a river's environmental water requirements and the Victorian Government's *Our Water Our Future* action plan.
- The WMP will include groundwater resources.



Stream flow gauge in the Upper Ovens River



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- The environmental water requirements and an updated water allocation and use model of the Upper Ovens River will be discussed by a consultative committee appointed to prepare the draft WMP. The outcomes will result in agreed environmental objectives and a flow regime that sustains those agreed objectives.
- The Upper Ovens Water Supply Protection Area was declared on 16 October 2008. The declaration requires that no permanent trading of water licences occur until a WMP is completed.

Diversion Operations

Goulburn-Murray Water's regional office is located in Ford Street, Wangaratta, and can be contacted on telephone 03 5721 5033.

Other activities to improve river health

The North East Catchment Management Authority (CMA) is the caretaker of river health in the Upper Ovens catchment. The *Victorian River Health Strategy* and the *North East River Health Strategy* provide the framework for integrated management of land and water resources, including groundwater, in the region.

The North East CMA works with landholders and regional communities to carry out complementary integrated river health activities to collectively treat the problems of declining water quality and degraded riverine habitats. Activities in the Ovens Basin include:

- Riparian and floodplain revegetation
- Weed management in the riparian zone
- Reinstating in-stream habitat (e.g. large woody debris)
- Constructing structures to limit bed and bank erosion (e.g. rock chutes, pile fields)
- Protecting endangered Ecological Vegetation Classes
- Riparian fencing to limit stock access
- Installing off-stream watering points for stock
- Removing barriers to fish and other aquatic life migration
- Developing a regional wetland strategy
- Mapping the extent and assessing the condition of river health (i.e. Index of Stream Condition) and significant wetlands (i.e. Index of Wetland Condition).

Partners of the North East CMA River Health Program

- Landholders
- Alpine Shire Council
- Goulburn-Murray Water
- Parks Victoria
- Department of Primary Industries
- Department of Sustainability and Environment
- North East Regional Water Corporation

Restoring the Upper Ovens River through the establishment of the Environmental Water Reserve is a key initiative of the Victorian Government's *Our Water Our Future* action plan to secure water for Victoria's future.

For more information about the Upper Ovens River Water Management Plan please contact:

- **Goulburn-Murray Water on telephone 03 5833 5500 or visit www.g-mwater.com.au;**
or
- **North East CMA on telephone 02 6043 7600 or visit www.necma.vic.gov.au**

References

- 1 Rainfall data 1961–1990, Bureau of Meteorology
- 2 Upper Ovens River Environmental FLOWS assessment, SKM, September 2006
- 3 Upper Ovens River Environmental FLOWS assessment, SKM, September 2006
- 4 North East Regional River Health Strategy, North East CMA, March 2006, Wodonga, Victoria
- 5 Draft Upper Ovens River Stream Flow Management Plan, Goulburn-Murray Water, October 2003, Tatura, Victoria
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- 7 Environmental Flow Studies for the Upper Ovens River, final Report, Sinclair Knight Merz, October 2001, Armadale, Victoria
- 8 Environmental Flows Study for the Upper Ovens River, Final report, Sinclair Knight Merz, October 2001, Armadale, Victoria
- 9 Groundwater Planning Unit, Goulburn-Murray Water, Tatura, Victoria

Photos courtesy of DSE, North East CMA and Goulburn-Murray Water.

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