

Reference guide #2: Water resource management

Limits on water entitlements

It is important that water allocation and diversions do not reduce reliability of supply for other entitlement-holders or impact on important environmental values. There are a range of tools to limit water entitlements to achieve this.

The Murray-Darling Basin Cap

limits the volume of surface water that can be diverted from each of the Basin's major rivers. The limit is set at the volume that was diverted under the 1993/94 levels of development. As a result, Victoria does not issue any new entitlements or licences unless water is created from water savings projects. Allocations to existing entitlements must remain below the Cap.

Permissible consumptive volumes (PCVs)

are the maximum volume of water that can be used for consumptive purposes for groundwater or surface water. In northern Victoria, PCVs are progressively being set for all groundwater management areas and water supply protection areas. For these areas, licences are not issued if the PCV is already reached or if licences would cause it to be exceeded.

Sustainable diversion limits (SDLs)

limit water use in unregulated systems. They prevent the issuing of summer licences and determine the upper limit on winter-fill diversions, beyond which there is an unacceptable risk to the environment. SDLs have been set for 1,584 sub-catchments across Victoria. They determine if a licence can be traded from one sub-catchment to another.

Key processes to change entitlements

To protect the integrity of Victoria's entitlements, the *Water Act 1989* outlines clear, consultative processes that must be undertaken before entitlements can be changed.

Permanent changes

15-year review of water resources

A water resource assessment must be undertaken every 15 years to identify if there has been any long-term reduction in water availability and whether this has fallen disproportionately on water users or the environment. It will also identify any flow-related deterioration in waterway health. If either is the case, a review must be undertaken to determine the appropriate action considering social, economic and environmental values. This could include a permanent change to entitlements. The first 15-year review is due in 2019.

Management plans for water supply protection areas

In highly stressed groundwater and unregulated river systems, a management plan can be used to change conditions on Section 51 licences to ensure long-term sustainable use.

Temporary changes

Qualification of rights

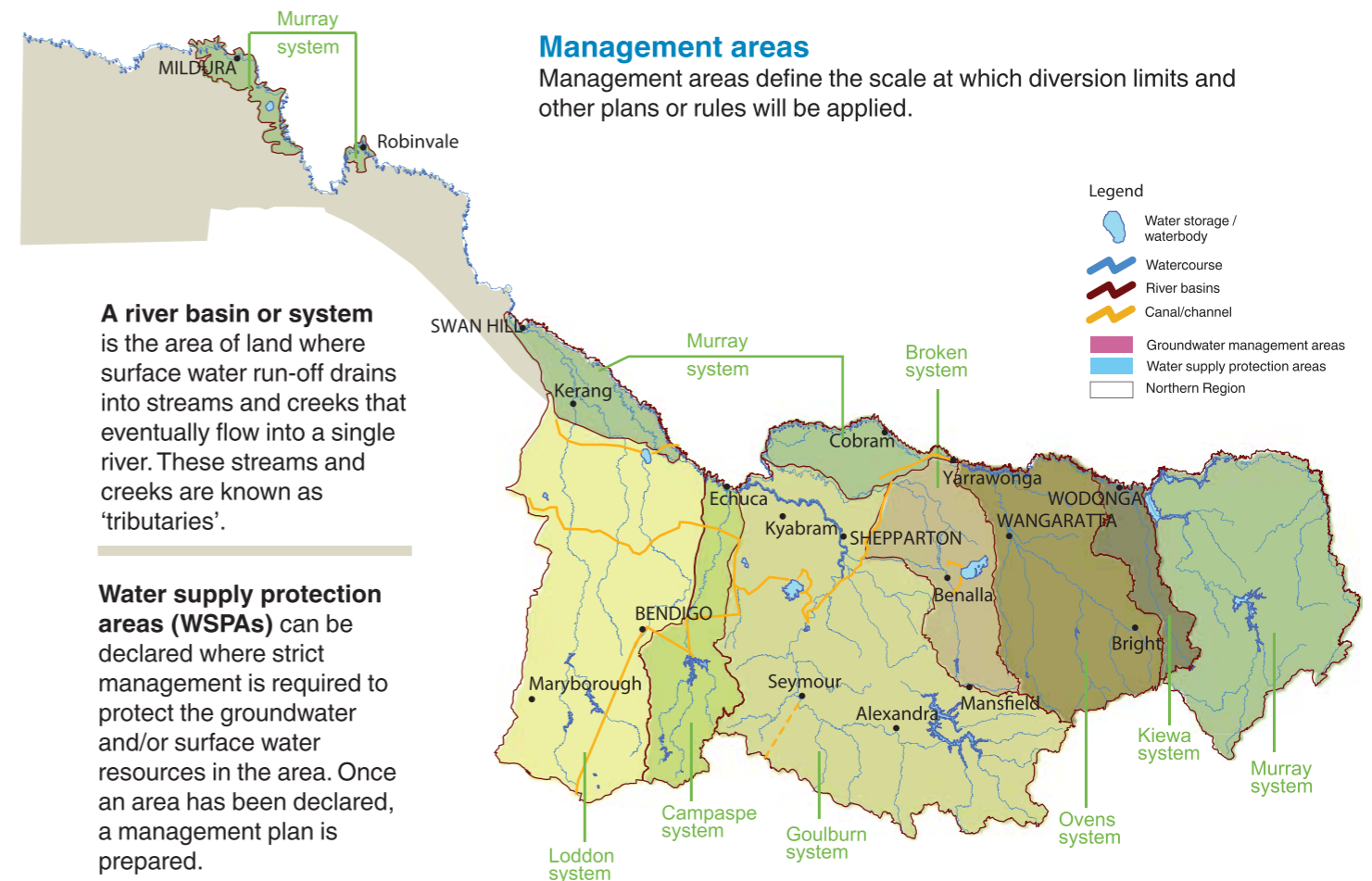
The *Water Act 1989* provides the Minister for Water, (as a last resort under severe conditions) with powers to declare a water shortage and temporarily over-ride existing water entitlements to reallocate water to priority uses. This process is known as a qualification of rights. In effect, water is taken from some entitlement-holders and used to supply others, normally to meet critical human needs.

Critical human needs can be defined as the amount of water required to meet Stage 4 restricted demand in urban areas, supply domestic and stock needs and operate the distribution system to deliver that water.

As qualifications advantage one group of water users at the expense of another, generally with no compensation, qualifying rights is undertaken in line with clear and transparent guidelines.

Victorian Water Register

To improve the recording and transparency of its water entitlements, Victoria has developed the Victorian Water Register (see www.waterregister.vic.gov.au). The register records bulk entitlements, environmental entitlements, water shares and licences to improve integrity and enable proper water accounting. It keeps track of the water market and produces crucial information for managing the State's water resources.



A river basin or system is the area of land where surface water run-off drains into streams and creeks that eventually flow into a single river. These streams and creeks are known as 'tributaries'.

Water supply protection areas (WSPAs) can be declared where strict management is required to protect the groundwater and/or surface water resources in the area. Once an area has been declared, a management plan is prepared.

Groundwater management areas (GMA's) are the defined areas from which water is extracted from an aquifer, generally where groundwater has been developed or has the potential to be developed.

Unincorporated areas are generally areas in which groundwater resources are of poor quality and yield.

Management areas

Management areas define the scale at which diversion limits and other plans or rules will be applied.



Responding to seasonal variability

Water availability varies considerably from year to year. This means an entitlement-holder may not always have access to their full entitlement volume. Annual use is determined by the following methods.

Seasonal allocations are the volume of water provided to water share-holders in a given year, expressed as a percentage of the total entitlement volume.

Urban water restrictions are introduced by water corporations in towns and cities to restrict outdoor use in times of shortage.

Rosters, restrictions and bans are applied in unregulated river and groundwater systems to limit the timing or amount of water extraction. The rules for applying these are documented in local management rules.