Summary of **GOULBURN–BROKEN REGION**

From the *Guide to the proposed Basin Plan*

This publication summarises proposals outlined in the *Guide to the proposed Basin Plan* as they relate to the Goulburn–Broken region.

**THE REGION**

Lying in central Victoria, the Goulburn–Broken region forms part of the southern edge of the Murray–Darling Basin. The Goulburn is the region’s major river and the River Murray’s largest Victorian tributary. The major urban centres and towns include Shepparton–Mooroopna, Benalla, Seymour and Kyabram.
WATER USE AND ENVIRONMENTAL HEALTH

The dryland areas have traditionally held large wool and beef industries, while the Shepparton and Central Goulburn irrigation areas are the region’s primary water users. These two types of agriculture are interlinked, with supplementary feed from dryland farming supporting irrigated dairy farms during drought and some dryland cropping on irrigated farms in low water-allocation years.

There are a number of factors indicating poor ecological condition in the Goulburn–Broken region. For example: Vegetation condition is poor, with very low levels of remnant vegetation in the catchment. Native fish diversity is moderate, with exotic species making up over 80% of individuals. Hydrological conditions in the Broken valley are considered moderate to good, but poor in the Goulburn valley. Macroinvertebrate communities exhibit moderate to high diversity but overall score poorly, while stream condition is considered moderate. Cold water pollution, high nutrients and turbidity and low dissolved oxygen are major water quality issues in the Goulburn–Broken.

ASSESSING ENVIRONMENTAL WATER NEEDS

Many of the environmental assets and functions of the Murray–Darling Basin have been degraded by the over-extraction of water from the Basin’s rivers. The Water Act 2007 (Cwlth) and Basin Plan seek to address the over-extraction of water to restore and maintain the Basin’s key environmental assets and key ecosystem functions.

To determine sustainable diversion limit (SDL) proposals it is necessary to work out how much water is needed to sustain the health of the Basin’s river systems, wetlands and floodplains. To do this, the Authority has undertaken an assessment of the environmental water requirements of key environmental assets and key ecosystem functions across the Murray–Darling Basin. In the most part, the assets assessed are large flood-dependent wetland and floodplain systems that support populations of waterbirds and fish, and large forests and woodlands. The assessment of key ecosystem functions gave particular attention to the environmental water requirements of rivers, and system wide processes such as connectivity between rivers and floodplains.
Together, these assessments included specific analysis of flows at 106 hydrologic indicator sites across the Basin (88 sites to assess the water needs for the Basin’s key ecosystem functions and 18 to assess the water needs for key environmental assets), as well as analysis of end of system flows in each region.

The environmental water requirements at a Basin scale have been estimated between 22,100 GL/y and 26,700 GL/y (an increase between 3,000GL/y to 7,600GL/y from the 19,100 GL/y currently available for the environment).

In the Goulburn–Broken region, 153 key environmental assets have been identified. Of the 106 hydrological indicator sites across the Basin, the Goulburn–Broken region contains 8 hydrological indicator sites for key ecosystem functions and one hydrologic indicator site for key environmental assets. This is the Lower Goulburn River Floodplain.

The environmental water requirements for the Goulburn–Broken region have been estimated between 552 GL/y and 1,272 GL/y (an increase between 352 GL/y and 1,072 GL/y from the 200 GL/y currently available for the environment).

Further information on assessing the environmental water requirements of the Basin is available at www.mdba.gov.au/basin_plan/water-assessment-report.

SUSTAINABLE DIVERSION LIMIT PROPOSALS AT THE BASIN AND REGIONAL SCALE

The Authority is required to establish new long-term average SDLs for surface water and groundwater. SDLs represent the long-term average amount of water which can be used for consumptive purposes after meeting the environmental water needs that have been identified.

In the Guide, the Authority presents the SDLs as a range of scenarios for discussion at this stage, rather than choosing a particular value in this range. This range takes into account all the available evidence, the quality of that evidence, and the inherent uncertainty of modelling.

The Authority has determined that 3% of the current diversion limit (around 410 GL/y for the Basin as a whole and around 53 GL/y for the Goulburn–Broken region) is an appropriate allowance to account for the effect of climate change on surface water SDL proposals. The SDL proposals for groundwater do not include a climate change component.

The SDL proposals would require a reduction in the current long-term average surface water diversion limit at the Basin scale from 13,700 GL per year to between 10,700 GL and 9,700 GL per year (reduction between 3,000 GL and 4,000 GL per year or 22% to 29%).

For the Goulburn–Broken region this would equate to a reduction in current long-term average surface water diversion limit from 1,759 GL/y to between 1,311 GL and 1,160 GL per year (reduction between 448 GL and 599 GL per year or 25% to 34%).

The SDL proposals would also require a reduction in the current long-term average groundwater diversion limit at the Basin scale by an aggregate 186 GL or an average reduction of 10% across the Basin. The reductions in current diversion limits are required in only 11 of the 78 groundwater SDL areas. No reductions are proposed for the remaining 67 groundwater SDL areas where the current diversions are assessed as sustainable.

SDL proposals for the surface water and groundwater SDL areas of the Goulburn–Broken region are set out on page 5.

SUPPORTING COMMUNITIES

The Murray–Darling Basin Authority acknowledges that implementing SDLs may have significant social and economic implications for individual entitlement holders and communities across the Basin.

However, the Australian Government has committed to recovering sufficient water access entitlements to fully offset the impact of SDLs across the Basin, including the Goulburn–Broken region. This will be achieved through a combination of purchasing entitlements in the market and investments in more efficient irrigation infrastructure.

Consequently, should these targets be met, there are likely to be no reductions in individual water entitlement holder allocations.

For further information about these activities go to www.environment.gov.au/water.
There are two surface water SDL areas within the Goulburn–Broken region.

1) Goulburn
- Current diversion limit: 1,702 GL/y
- SDL proposal: from 1,260 GL/y to 1,109 GL/y
- Reduction: from 442 GL/y (26%) to 593 GL/y (35%)

2) Broken
- Current diversion limit: 57 GL/y
- SDL proposal: from 51.4 GL/y to 50.7 GL/y
- Reduction: from 5.6 GL/y (10%) to 6.3 GL/y (11%)

There are two groundwater SDL areas wholly or partly contained within the Goulburn–Broken region.

1) Goulburn–Broken Highlands
- Current diversion limit: 9.8 GL/y
- SDL proposal: 9.8 GL/y
- Reduction: Nil

2a) Victorian Riverine Sedimentary Plain: shallow Shepparton formation
- Current diversion limit: 83.3 GL/y
- SDL proposal: 83.3 GL/y
- Reduction: Nil – potential for unassigned water

2b) Victorian Riverine Sedimentary Plain: deep Calivil and Renmark Group formations
- Current diversion limit: 89.6 GL/y
- SDL proposal: 89.6 GL/y
- Reduction: Nil – potential for unassigned water
ABOUT MDBA

The Murray–Darling Basin Authority (MDBA) is the statutory agency that manages, in conjunction with the Basin states, the Murray–Darling Basin’s water resources in the national interest.

MDBA is responsible for preparing and overseeing a legally-enforceable management plan — the Basin Plan.

The Basin Plan will:

• optimise social, economic and environmental outcomes
• set and enforce environmentally sustainable limits on the quantities of water that may be taken from Basin water resources
• set Basin-wide environmental, water quality and salinity objectives
• develop efficient water trading regimes across the Basin
• set requirements for state water resource plans
• improve water security for all Basin users.

This document has been prepared by the Murray–Darling Basin Authority for public consultation purposes, using the best efforts to ensure that the material it presents is current and accurate. The opinions, comments and analysis (including those of third parties) expressed in this document are for consultation purposes only.

FURTHER INFORMATION AND FEEDBACK

For further information on the Guide to the proposed Basin Plan, visit the MDBA website at: www.mdba.gov.au

Our website also provides details about community information sessions and ways to provide feedback on the Guide.

You can also find out about upcoming events and information releases by subscribing to our engagement email and the monthly E-newsletter.

You may also phone us on 1800 230 067 (free call) or write to us at:

Murray–Darling Basin Authority
GPO Box 3001, Canberra ACT 2601.

PHOTOGRAPHER CREDITS

Fleur Baldi, Goulburn–Broken CMA: page 1
Arthur Mostead: page 2
Irene Dowdy: page 6