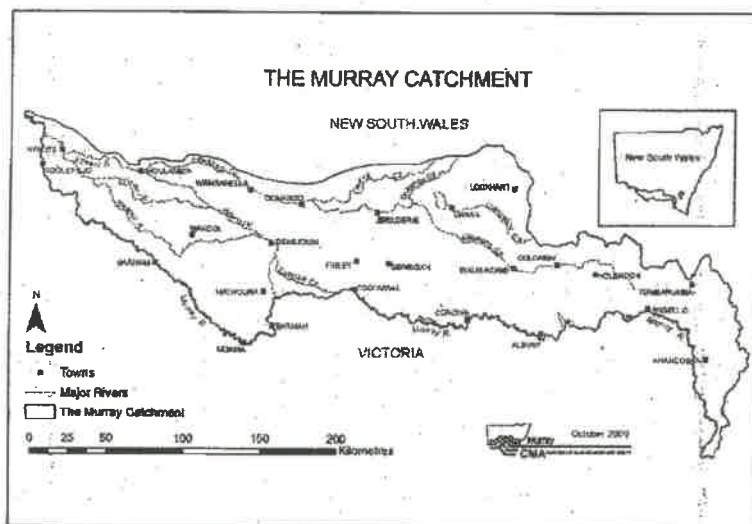


**Murray CMA's submission to MDBA on  
Development of Sustainable Diversion Limits  
Submission due Friday 18.12.09**

**1 Overview**

The Murray Catchment Management Authority was established in 2004 under the Catchment Management Authorities Act 2003 (CMA Act). It is a statutory body that coordinates natural resource management in the NSW Murray Catchment and ensures that regional communities have a significant say in how natural resources are managed. In line with the objectives of the Basin Plan the CMA is interested in protecting water dependent assets while assisting regional communities to make informed decisions about water management and adjust to reduced water availability.

The NSW Murray Catchment, bounded by the Murray River to the south and the Murrumbidgee River catchment divide to the north, spans an area of 35,170 square kilometres.



**Fig 1. The Murray CMA Area of Operations**

Water dependent assets of national or international significance include:

- The NSW Central Murray State Forests (comprising the Millewa, Werai and Koondrook-Pericoota Forests) – Ramsar, DIWA listed and icon sites under the Living Murray program
- The River Murray – icon site under The Living Murray program
- Gum Swamp and Kosciusko Alpen Fens, Bogs and Lakes and Wakool-Tullakool Evaporation Basins – DIWA listed

The resources of the Catchment support a population of over 100,000 people, a rural land capital value of about \$2.1 billion and a highly developed, vibrant and diverse agricultural sector (grazing, cropping, irrigation, forestry and horticulture being predominant) with an annual farm gate value in excess of \$800 million. Around 60% of the land within the Catchment is in private ownership.

**2.1 Which Water Resource Plan areas should be used?**

**2.1.1 Murray CMA supports:**

- a) the application of boundaries currently used under existing NSW Water Sharing Plans
- b) the integration of surface and groundwater provisions (within the individual plans) where high connectivity is demonstrated (refer to response under 2.6)

**2.1.2 Murray CMA expresses concern regarding the intent to develop cross state resource plans in the timeframe available. We recognise the need to work towards integration of water resource planning across states based on hydrological and hydrogeological boundaries.**

**2.2 Which forms of 'take' should be limited by the SDL?**

**2.2.1 Murray CMA supports:**

- a) Limiting the following forms of take: licensed take, authorised take, licensed interception, and authorised interception
- b) The application of 'net' use of water to assess take, which accounts for return flows
- c) Not distinguish between taking for environmental purposes and non-environmental purposes. It is acknowledged that the water specifically designated under a plan as environmental water and used in accordance with the environmental water management plan is unlikely to compromise the environmentally sustainable level of take characteristics.

**2.2.2 Murray CMA does not support:**

- a) Classifying afforestation activities as Incidental Authorisation given afforestation has the potential to significantly affect flows and environmental assets
- b) Tolerating unauthorised take and interception - Unauthorised take and interception has potential to compromise environmentally sustainable levels of take characteristics and if considered in establishing Sustainable Diversion Limits (SDLs) will impact on third parties. Environmental assets may also be compromised if not considered. Further consideration of inclusion of this category in setting SDLs must be considered in combination with compliance activities.

**2.2.3 Murray CMA seeks further information on the classification of irrigation storages and re-use systems. Can it be assumed that runoff and tailwater captured in irrigation reuse storages on farm is already classified under Licenced Take?**

- 2.3 **What are your views on the proposed approach to treating interception activities as set out in this paper? Which interception activities are significant enough to be explicitly identified in the SDL provision?**
- 2.3.1 Murray CMA recommends:
- a) Application of licences for interception activities over a particular threshold (including afforestation and farm dams)
  - b) Classifying afforestation as licenced interception with take estimates made and monitored – given future afforestation either for timber products or carbon market responses has the potential to significantly impact on flow and environmentally sustainable levels of take characteristics as well as third parties.
  - c) Consideration of future land use trends in defining licensed and authorized interception
  - d) An assessment of interception activities to identify opportunities for licensing that is subject to SDL. Water market mechanisms could be used to manage further future development.
- 2.3.2 Murray CMA seeks further information on take as defined under 4.2 (c) and how it fits within the 6 main categories. Take under 4.2 (c), releases from a wetland, may be consistent with desired environmental flow objectives and supports sustainable environmental take characteristics. It may also represent a credit into a water source.
- 2.4 **What are your views on the proposed approach to optimizing economic, social and environmental outcomes through SDLs as set out in this paper?**
- 2.4.1 We commend the MDBA on their intention to undertake social and economic assessment to develop options that minimise the level of impact and to monitor the level of impact post implementation. Such information is valuable to communities faced with certain change and is critical in identifying opportunities for transformation. We note that the proposed approach reflects an objective to minimise impact rather than optimise socio-economic outcomes for which a different methodology would apply.
- 2.4.2 The CMA supports the inclusion of socio-economic information, however we note:
- a) The time available is not conducive to best practice - identifying the options, particularly with inter-valley sharing, and associated social and economic impacts will be complex and time consuming
  - b) That information identified in the discussion paper focuses mainly on gross value of irrigated agriculture and does not consider flow on impacts to industry and community.
- 2.4.3 Murray CMA supports:
- a) Transition periods where the SDL for the water resource is lower than the long-term average quantity of water that has been taken from the water resource or existing plan limits, as opposed to the entitlement level.

**2.4.4 Murray CMA recommends the MDBA:**

- a) Consider how socio-economic outcomes can be optimised including using socio-economic assessment in combination with environmental values to define the SDL and trade provisions rather than in defining the impact of the SDL.
- b) Consider economic impacts flowing on to other regional business and industry and not just gross value of irrigated land
- c) Undertake the assessment at a scale that can be applied by local communities to develop mechanisms to reduce the impact of SDLs.
- d) Clarify adjustment arrangements, if any.
- e) Consider patterns of investment, extraction and policy at individual Water Resource Plan level when developing transition arrangements - The Achieving Sustainable Groundwater Entitlements Program demonstrated that socio-economic impacts are a combination of the level of take and the level of investment. History of extraction may be within sustainable yield however investment may have continued dependent on advice from Government and level of personal risk.
- f) Collate existing data and reports - We suggest that MDBA work with the Council ROCs who are conducting relevant projects under the Sustaining Basin Communities program.
- g) Select appropriate sample size to determine the socio-economic baseline of a community.

**2.5 What is the best way to maximize input from particular communities of interest in the time available?**

**2.5.1 Murray CMA recommends:**

- a) that engagement occurs on the most local level possible
- b) regular discussion between MDBA and peak groups who represent stakeholders and regions
- c) engaging the community in developing and reviewing options and allowing time for adjustment to reduce social and economic impacts

**2.5.2 Murray CMA is willing to assist the MDBA to expand their engagement program and would welcome the opportunity to discuss this further.**

**2.6 How should surface water – groundwater connectivity be dealt with?**

**2.6.1 Murray CMA supports:**

- a) Integration of surface and groundwater provisions (within individual plans) where high connectivity can be demonstrated (eg the use of groundwater extraction limits linked to surface water allocations).
- b) Investment to establish the level of connectivity between surface and groundwater systems to increase confidence
- c) Consideration of the potential for localised impact on environmental assets and third parties from market pressure to transfer extraction from lower water quality areas to higher water quality areas
- d) Consideration of climatic variability, climate change and changes in policy on the level of take from each resource.

## **2.7 How should SDL's be set and expressed?**

### **2.7.1 Murray CMA supports:**

- a) Expressing water for critical human needs volumetrically given the small volumes required, although catchments with high population density may need to consider this carefully.
- b) Setting SDLs on a percentage of resource available rather than a volumetric basis to reflect the cyclical nature of the environment we exist in and incorporate climate change impacts.
- c) Establishing conditions to protect key environmental assets from irreversible damage. A combination of approaches may be warranted.

### **2.7.2 Murray CMA recommends further consideration be given to:**

- a) Trade between valleys and impacts on SDLs
- b) Excluding environmental water from SDL calculations and potential third party impacts
- c) Environmental benefits from conveyance of other forms of take
- d) The relationship between the salinity and water quality management plan and sustainable diversion limits - for example, diversion limits may be necessary to reduce the risk of manifestation of sulfidic sediments and to control the impacts of release of acid and toxic metals from sulfidic sediments.

## **3 Other considerations**

### **3.1 Groundwater Dependent Ecosystems**

3.1.1 Little is known on groundwater dependent ecosystems within the Murray catchment - The WSP for the NSW Murray Valley identified the need to improve knowledge on groundwater dependent ecosystems. The Murray CMA will undertake an assessment of riverine assets in the next 18 months. Investment and support will be sought to investigate groundwater dependency of priority water dependent assets.

### **3.2 Communication**

3.2.1 Communication needs to be clear on the meaning of 'productive base' and that this does not include agricultural productive base which has been assumed by some stakeholders. Such assumptions may raise expectations of industry.

### **3.3 Monitoring and Review**

3.3.1 An understanding of how new information to define the key environmental assets, ecosystem functions, productive base and environmental outcomes will be considered in revising the SDLs and the Basin Plan over time.

3.3.2 Murray CMA is well placed to monitor the success of the Basin Plan within our catchment and would welcome dialogue with the MDBA about a role in providing information for monitoring the plans performance in protecting key water dependent assets and making improvements going forward.