

INQUIRY INTO THE IMPACTS OF MINING IN THE MURRAY DARLING BASIN

Submission by the Department of the Environment, Water, Heritage and the Arts (DEWHA)

Terms of Reference

On 12 August 2009 the Senate referred the following matters to the Senate Standing Committee on Environment, Communications and the Arts for inquiry and report on:

- a. the potential impacts of current and projected mining operations on all environmental values in the Murray-Darling Basin and, in particular, the potential impacts upon surficial and groundwater flows and quality in the alluvial flood plains at its headwaters in the Namoi Valley and the Darling Downs catchments; and*
- b. evaluation of the potential impacts in the context of the Murray-Darling Plan and agricultural productivity.*

In these terms of reference, 'mining operations' includes all minerals exploration and all minerals extraction including exploration for and extraction of gas. Submissions should be received by 17 September 2009. The reporting date is 26 October 2009.

Submission

Australian Government's role

In Australia onshore mining operations are primarily regulated under state government legislation. The Australian Government (Department of Resources, Energy and Tourism) does regulate offshore mining operations within Commonwealth waters and the mining of uranium in the Northern Territory, although this is outside the terms of reference for this inquiry.

Mining can have three main types of impacts on water:

- consumption of water (eg. in processing of ore);
- dewatering of mines and subsequent disposal of wastewater (which can be highly saline); and
- aquifer interference (that is, where mining activities damage or destroy groundwater systems).

If a mining activity is likely to have a significant impact on matters of National Environmental Significance (NES) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), then the project may require assessment and approval from the Minister for the Environment, Heritage and the Arts, and that approval may include conditions being imposed on the project. This would normally occur once any relevant state conditions have been placed on a project. The matters of NES include: listed threatened species and ecological communities, listed migratory species, wetlands of international importance,

Commonwealth marine areas, World Heritage properties, National Heritage places and nuclear actions.

The 2004 Intergovernmental Agreement on a National Water Initiative (NWI), signed by the Commonwealth and all states and territories, is Australia's national blueprint for water reform (see www.nwc.gov.au). The overall objective of the NWI is to achieve a nationally compatible market, regulatory and planning-based system for managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes.

There is a general expectation under the NWI that governments will ensure that all water extraction is within environmentally sustainable limits [see NWI paragraphs 5, 23(iv) and 25(ii and v)] and that the majority of access to water resources is through perpetual or ongoing water access entitlements (NWI paragraphs 2, 28 and 31-33). Such entitlements provide access to a share of the water resource that is available for use in a given year, and are an improvement over the previous approach of volumetric entitlements, which are unsuited to Australia's highly variable water systems.

The NWI does allow for special management arrangements to be put in place for mining and other extractive industry activities where needed.

In 2008 the Intergovernmental Agreement on Murray-Darling Basin Reform (IGA) further progressed the objectives of the NWI with the aim of achieving co-operative, efficient and effective planning and management of the Basin's water and other natural resources. The IGA provided for new governance and planning arrangements for the Basin, including the development - by the new Murray-Darling Basin Authority (MDBA) - of a Basin Plan for sustainable water management across the whole Basin. A copy of the IGA is at www.coag.gov.au.

The reforms agreed in the IGA are now reflected in the Commonwealth *Water Act 2007* (the Act), which was amended late in 2008. A key task for the MDBA is to prepare a Basin Plan for adoption by the Minister for Climate Change and Water. The plan will for the first time set sustainable diversion limits on the amount of water that can be taken from surface and groundwater systems across the Basin. The Basin Plan will also include an environmental watering plan and a salinity and water quality plan. The Act requires that the MDBA prepare a proposed Basin Plan and seek submissions on the proposed Plan, before giving the Basin Plan to the Minister who may either adopt the Plan or require the MDBA to modify the Plan before it is adopted. The first Basin Plan is expected to be available in draft form in 2010 and finalised in 2011.

When existing state water resource plans (transitional and interim water resource plans) expire (eg. by 2014 in NSW, Qld and SA, and in 2019 in Victoria), water resource plans will be required to comply with the Basin Plan.

Section 22(3)(d) of the Act provides that the Basin Plan must include requirements for state water resource plans to regulate interception activities that significantly impact on water resources.

Section 22(7) of the Act provides that the Basin Plan may require state water resource plans to contain provisions such that interception activities with (or with potential to have) a significant impact on water resources are assessed to determine whether they

are consistent with the water resource plan before they are approved under the State law.

Section 22(7) provides that the Basin Plan may also require that water access rights are held for specified kinds of interception activities.

Mining activities could be among the interception activities regulated by the Basin Plan under these provisions.

Section 255A of the Act requires that prior to licences being granted for subsidence mining operations on floodplains that have underlying groundwater systems forming part of the Murray-Darling Basin system inflows, an independent expert study must be undertaken to determine the impacts of the proposed mining operations on the connectivity of groundwater systems, surface water and ground water flows and water quality.

Recent Commonwealth initiatives

On 2 December 2008, the Minister for Climate Change and Water announced funding of up to \$1.5 million as a one-third contribution towards a joint study into the surface and groundwater resources of the Namoi Catchment in NSW. The study is intended to provide high quality information to help identify the risks associated with mining on water resources in the region, and to inform the NSW Government's decision-making processes. The arrangements for this study are being discussed with the NSW Government.

The National Water Commission has funded a \$2 million multi-jurisdictional study on 'the potential local and cumulative impacts of mining on groundwater resources'. This study will develop national tools and methodologies to understand and manage the potential impacts of mining on water resources. The project commenced in September 2008 and is expected to be finalised in 2010.

The rapid growth of the coal seam gas industry is resulting in increasing quantities of CSG water, and there are potential environmental and resource management risks associated with its extraction, use and disposal. The Government has committed to fund, subject to due diligence, up to \$5 million for a feasibility study to analyse opportunities, risks and the practicability of the use of coal seam gas water in parts of the Basin in Queensland.