



# Hunter Environment Lobby Inc.

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## **Submission Draft State Groundwater Strategy**

### **Introduction**

Hunter Environment Lobby Inc. is a regional community-based environmental organization that has been active for over 30 years on the issues of environmental degradation, species and habitat loss, and climate change.

Our major concern has been the unassessed cumulative impact of large-scale opencut mining operations in the Upper Hunter. The interception and destruction of alluvial aquifers associated with the Hunter River and its major tributaries is a major legacy issue that must be assessed. Contamination of waterways through acid mine drainage, release of unmonitored metals and metalloids through the Hunter Salinity Trading Scheme and the impact of multiple final voids remaining in the landscape are causing significant longterm, unassessed cumulative environmental damage.

We support the in principle approach taken by the draft State Water Strategy, however, do not consider that it will improve the protection of groundwater sources in the Hunter Region with the current proposed actions.

The Strategy priority 3 to improve groundwater management decisions with better information needs much stronger actions for the Hunter to improve the protection and sustainability of groundwater sources.

### **Key Issues**

#### **1. Loss of base flows to the Hunter River and tributaries**

From the top of the Goulburn River to the Lower Hunter coal mining operations are intercepting baseflows to river systems. The cumulative impact of this disturbance to groundwater systems was investigated in 2015 through the Northern Sydney Basin Bioregional Assessment of coal and coal seam gas resource in the Hunter Subregion conducted by the Federal Independent Expert Scientific Committee.

It was predicted that a loss of up to 12 GL of water measured at the Greta gauge was likely in the regulated Hunter River system. There have been a number of additional mines and mine expansion approved in the region since that assessment. The assessment stated that the impact on groundwater would increase as mines expand.

The Greater Hunter Regional Water Strategy 2018 found that reductions in the base flows of rivers have occurred, and will continue to occur, as mining intercepts surface runoff and lowers groundwater levels near rivers.

**Recommendation:** That the State Groundwater Strategy include a comprehensive study of the loss of base flows from groundwater interception by mining in the Hunter Region.

## **2. Final Voids**

A significant area of the Upper Hunter landscape will have a legacy of highly toxic final voids acting as groundwater sinks for many hundreds of years if not in perpetuity. The ongoing cumulative drawdown of aquifers in the Hunter Region due to large scale mining operations is a significant environmental impact that has not been adequately assessed, monitored or mitigated.

Over 5,000 ha of land will be left in the Upper Hunter intercepting groundwater for an undetermined volume and period of time. The recognition in the draft Groundwater Strategy that groundwater management needs to be better integrated with land use planning processes and major project approvals to actively consider and protect groundwater sources and their dependent ecosystem functions is essential in the Hunter.

**Recommendation:** That the State Groundwater Strategy include a cumulative impact assessment of approved final voids on groundwater sources and a moratorium on the approval of additional final voids in the Hunter Region.

## **3. Destruction of groundwater sources**

The continued expansion of large scale coal mining operations in the Upper Hunter is causing the cumulative loss of structural integrity of alluvial aquifers and disturbance of groundwater sources in the landscape. It is essential that the longterm removal of groundwater sources for future use is assessed in the Hunter Region as a critical legacy of the coal industry.

**Recommendation:** That the State Groundwater Strategy include a cumulative impact assessment of the loss of alluvial aquifer systems in the Hunter Region including those associated with the Goulburn River and other Hunter catchment tributaries.

## **4. Aquifer Interference Policy**

The current Aquifer Interference Policy does not protect alluvial aquifers from permanent destruction due to mining operations in the Hunter Region. This Policy needs to be updated and strengthened to ensure that intergenerational access to alluvial groundwater sources is protected.

The actual volume of intercepted groundwater through mining operations in the Hunter Region is unknown.

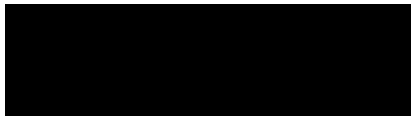
**Recommendation:** That the State Groundwater Strategy include the strengthening of the Aquifer Interference Policy and an assessment of the total interception of groundwater through mining operations.

### **Conclusion**

Hunter Environment Lobby considers that a State Groundwater Strategy is an important step in recognizing the importance of groundwater sources to the environment and its dependent ecosystems.

It is essential that the Strategy recognize the level of damage and condition of groundwater sources before permitting any further interception and destruction of this vital water source in the Hunter Region.

Yours sincerely

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