POEO (HRSTS) Regulation Review Reform and Compliance Branch
Environment Protection Authority
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Sydney South NSW 1232
Email: HRSTS.Review@epa.nsw.gov.au

7 February 2014

Dear Sir/Madam,

I wish to make the following Submission to the **Hunter River Salinity Trading Scheme Review.**

**I am a long term resident of the Hunter Valley and currently undertaking a PhD study into the Surface and groundwater connectivity in the Goulburn River and the influence of land use and climate variability (ANU NOW ARC Project: LP100100567).** This includes an assessment of the influence of current and future mining on stream flows and salt loads in the Goulburn River. As you are aware the Goulburn catchment represents approximately 40% of the total Hunter catchment and 23% of flows, with the potential to contribute a significant salt loads to the system.

The expansion of the three large coal mines in the Ulan Wollar area (Ulan Coal, Moolarben Coal and Wilpinjong Coal Mines) has resulted in an increasing demand for offsite discharge licenses of excess mine water. Ulan Coal is predicting a steady increase in the need to discharge surplus intercepted groundwater and treated mine water and has a current discharge license of 30 ML/day (EC 900-1000 - EPL 394). Moolarben Coal Mine currently has a 10 ML/day (900 EC discharge license - EPL 12932), Wilpinjong 5 ML/day (EPL12425). In July 2013 Ulan Coal discharged an average of 9 tonnes salt per day (July 2013 Ulan Complex Monthly Pollution Monitoring Report). The Goulburn catchment has been identified with a high potential for further coal mines and CSG development across many sub-catchments in the north and south. A precautionary response is required considering the downstream impacts on water quality and stream health and as such all potential point and diffuse salt inputs into the Hunter system must be fully investigated and incorporated into future management decisions.

Due to limited time I am only able to make a brief comment on the review. I would like to raise the following points.

1. There needs to be improved transparency and access to all river discharge and monitoring data of mine release information (i.e. real time water quality data, volumes and timing of releases) for all mines across the catchment that are publically available. This should include regular monitoring and assessment of river ecosystem health.

2. Additional research is needed on the short and long term effects of salinity and other contaminants (e.g. metals/metalloids) on macro and micro instream fauna (stygofauna) and river ecosystem health.

3. Mine water discharge offsite pollution licenses (EPLS) need to include total daily salt load limits and testing for range of water quality parameters as part of their monitoring and reporting requirements.

4. The lack of spatial and temporal data and inadequate monitoring and research means there can be no scientific justification for an increase in salinity discharge levels or changes to the definition of a 'high flow' event (so that a discharge event can be triggered at a lower flow). Management must be supported by evidence based science not economic convenience.

5. Additional revenue generated via salinity credit auctions should be invested in the monitoring and assessments. In particular a more comprehensive and representative groundwater monitoring program for the whole Hunter-Goulburn catchment.

Yours sincere[redacted]

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