

Environment Protection Authority Hunter River Salinity Trading Scheme Review HRSTS.Review@epa.nsw.gov.au

Friday 7th February 2014

Dear Madam/Sir,

Please accept this submission on the Hunter River Salinity Trading Scheme Review.

Salinity targets

We support a reduction in salinity targets for the Scheme (currently 600 EC in upper section and 900 EC in the middle and lower sections), due to evidence that that macro-invertebate health in the Hunter River is significantly impaired in the area where the scheme operates.

We note that the EPA is considering not raising salinity targets at this time¹, and we strongly endorse the EPA's position on that. However, the Discussion Paper seems mostly to overlook the question of whether the salinity targets should actually be reduced. This is apparently because of the Salinity Assessment's conclusion that the available data suggests that throughout the catchment, macroinvertebrate 'health' is on average good, but there are some areas where this is quite poor².

However closer examination of the results of the Assessment show that one of these areas of 'quite poor' health is the Hunter Regulated River Alluvial Zone – the very area most affected by the Scheme. As stated in the Assessment:

A relatively high number of sites in the Hunter Regulated River Alluvial Zone were found to be in a significantly impaired (band B) condition.³

The Assessment goes on to indicate that saline water discharges from Scheme participants may be a significant cause of the observed poor macroinvertebrate health in this area of the Hunter River:

Although salinity is one of several factors affecting stream macroinvertebrate communities in the Hunter River catchment, salinity appears to be a relatively important factor. A number of scientific studies suggest that saline discharges can potentially have impacts on macroinvertebrate communities at conductivity levels similar to or well below those currently being discharged by Scheme participants⁴.

This is cause for concern, and we submit that at the very least, there needs to be further investigation of the impact of the current salinity targets on macroinvertebrate health in the Hunter River, and whether these targets should be lowered.

There are reasons to lower the existing salinity targets too, including:

- to allow for a wider range of irrigated cropping potential;
- 1 p7, Discussion Paper
- 2 p7, Discussion Paper
- 3 section 7.1, Salinity Assessment
- 4 ibid

 to bring the existing target of 900 EC Singleton and Glennies Creek in line with the accepted upper limit for drinking water, which is 800 EC⁵.

Salt from the Goulburn River subcatchment

As discussed in the Discussion Paper, there are several mines in upper Goulburn River catchment that are not subjected to the Scheme due to technical reasons related to their position in the upper reaches of the catchment. These mines do impact on salinity levels in the Hunter, as acknowledged, and if the mining industry has its way, the contribution of the Goulburn River to salinity levels in the Hunter will increase considerably in the future, as mines expand and new mines are opened.

We strongly urge the EPA to explore ways to include upper Goulburn River mines in the Scheme.

Other pollutants

As discussed in both the Discussion Paper and the Assessment Report, not all salts have the same impacts on water quality, and there are potentially harmful chemical compounds in mine water discharge that are unaffected by the operation of the Scheme. The Assessment recommends further studies are done to assess the environmental effects of the different components of saline water. We urge the EPA to pursue that recommendation.

Flood flow exemption

As canvassed in the Discussion Paper, there are many arguments in favour removing the current exemption allowing credit-free saline water discharge during flood flow events. Lock The Gate supports the removal of the flood flow exemption.

Redefining high flow events

One of the potential reforms flagged in the Discussion Paper is lowering the standard of a "high flow" event in order to allow Scheme participants more opportunities to pollute. Lock The Gate strongly opposes this option, as it will decrease the effectiveness of the Scheme and risk higher salinity levels in the Hunter River. Any changes to the Scheme must serve only to strengthen it, and increase the water quality in the Hunter River, not the reverse.

Greater public transparency

The Discussion Paper flags a range of potential measures to increase the transparency and accountability of the Scheme by increasing the flow of public information, including⁶:

- who the current Scheme participants are (e.g. with links to licences);
- when and where discharges occur;
- the nature of those discharges (e.g. with links to licensees' published data);
- ambient water quality in the Hunter River catchment;
- who else holds credits (i.e. if there are any non-participant credit-holders);
- when and how credits are traded;
- the price paid for credits (when traded and at auction);
- general information on buying and holding credits;
- who represents each stakeholder group on the Scheme Operations Committee;
- all available water quality data and the results of investigations into water quality and the health of the river system.

Lock The Gate strongly supports these measures.

Revenue from credit auctions used to fund further monitoring and study

The Salinity Assessment report highlighted a range of gaps in information and understanding of the Hunter

⁵ NHMRC (2011) Australian Drinking Water Guidelines, National Health and Medical Research Council, Commonwealth of Australia, Canberra.

⁶ p19, Discussion Paper

River and the efficacy of the Scheme. We submit that the revenue generated from credit auctions under the scheme should be used to address this problem. This should include funding:

- A more comprehensive and representative groundwater monitoring program for the Hunter catchment.
- Studies to fully understand the environmental effects of the different components of mine and power station discharge water (eg ionic composition, metals/metalloid contamination etc).
- Strategic real-time monitoring of flow and salinity in the upper Goulburn River catchment.
- Assessment of high EC levels in Wollombi Brook at Warkworth.

Thank you for the opportunity to comment on the review of the Hunter River Salinity Trading Scheme.

Yours faithfully,

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