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Submission to Review of Load-based Licensing Scheme

Hunter Environment Lobby Inc. (HEL) is a regional community-based environmental organization that has been active for over 20 years on the issues of environmental degradation, species and habitat loss, and climate change.

HEL welcomes the opportunity to provide comments on the Issues Paper as part of the Review of the Load-based Licensing (LBL) Scheme (the scheme), the first comprehensive review of scheme since its introduction in 1999.

We fully support the aims of the LBL scheme to encourage cleaner production through the application of the 'polluter pays' principle. We note that the scheme currently requires only some environment protection licensees to pay part of their licence fees based on the load of certain air and water pollutants their activities release to the environment.

Over the past 20 years the Hunter region has experienced a significant increase in air and water pollution from the major expansion of opencut coal mining operations. It is of considerable concern to the community that coal mining is not included in the scheme.

HEL has participated in water planning and management policy in the Hunter region since the commencement of water reform processes in 1998. We note that the mining and coal-fired power industries are now the largest owners and users of water licences in the Hunter catchment and the largest contributors to water pollution.

We also provided detailed comments on the review of the Hunter River Salinity Trading Scheme (HRSTS). The HRSTS aims to improve and maintain the health of the Hunter River system. However, as noted in the LBL scheme issues paper:

‘One of the findings of the salinity assessment was that further investigation is required in order to understand the full environmental effects of the different constituents of saline water discharged by participants into the Hunter River. Ionic composition (e.g. water that is high in sodium bicarbonate) and complex mixtures of metals, metalloids and non-metallic inorganic constituents in mine water discharges are emerging issues in the scientific literature (e.g. Cardno Ecology Lab Pty Ltd 2010 cited in EPA 2013c).’¹

We consider it critical for the health of the Hunter River system that these additional pollutants, particularly persistent and bioaccumulating heavy metals, are better regulated in the Hunter.

HEL has also participated in the improvements to air quality monitoring in the Hunter region and has had a representative on the Upper Hunter Air Quality Monitoring Network Advisory Committee. We contributed to the recent review of the National Environment Protection (Ambient Air Quality) Measure.

It is of concern to the community that coal mining is the largest contributor to particulate pollution in NSW, and a significant contributor to NSW’s overall load of airborne volatile organic compounds and arsenic. It is also the biggest contributor to water pollution of arsenic, selenium, Chromium III and a significantly contributor of other water pollution.

Despite this, there are no “assessable pollutants” listed on the LBL scheme schedule for coal mining.

As identified in the Issues Paper the objectives of the LBL scheme as set out in clause 13 of the POEO General Regulation are:

- (a) To provide incentives to reduce the load of pollutants emitted based on the polluter pays principle and to do so within an equitable framework.
- (b) To reduce pollution (in particular, assessable pollutants) in a cost-effective and timely manner.
- (c) To give industry incentives for ongoing improvements in environmental performance and the adoption of cleaner technologies.
- (d) To provide incentives that are complementary to existing regulation and education programs for environment protection.

HEL considers that these objectives are not being met in the Hunter region. There are significant cumulative impacts of pollution emissions from coal mines that are not adequately regulated.

We also note that the intent and key features of the LBL scheme² are to:

¹ LBL scheme issues paper p 19

² Ibid p 9

- provide a framework for managing cumulative impacts of pollution
- eventually apply LBL fees to more (or all) licensees as suitable load calculation techniques were finalised
- increase LBL fees over time to fully implement the polluter pays principle
- increase the use of load limits on licences over time, to better control cumulative impacts

To achieve these outcomes the Hunter Region must be identified as a ‘critical zone’ so that all mining pollution emissions are managed under the LBL scheme. The EPA needs to coordinate load based licencing of air pollution, salt discharge and other pollutants from coal mining with EPLs, pollution reduction programs and the development consent process to ensure national standards are being met.

‘Aspects of the scheme such as critical zones, enable emission reduction incentives to be tailored to the specific pollutants of most concern for an area, thereby helping to manage the development of cumulative impacts.’³

We note that coastal catchments, excepting the Hawksbury-Nepean, are currently not included in critical zones. This is because they are assumed to have a relatively good capacity to dilute and flush pollutants.⁴

HEL has major concerns that the scale of water use in the region for mining and power generation has significantly impacted on the health of the Hunter River and limited its capacity to dilute and flush pollutants.

The review of the Hunter Regulated Water Sharing Plan has not been finalised. Proposed changes to water sharing include setting a lower end of system flow target during dry times and trebling access to supplementary flows. These are significant flushing mechanisms in the Hunter River that are likely to be removed, if the changes are implemented.

HEL is also concerned that the continued interception of base flows and contamination of aquifer systems in the Hunter has not been adequately researched.

The Issues Paper identifies that: *‘New data is also available on tidal flows and dilution or flushing capacity in coastal catchments that shows many coastal catchments in NSW have only intermittent connections to the ocean and consequently relatively poor flushing capacity. Consideration will be given to whether critical zones should be applied to some coastal areas.’⁵*

We note that the EPA has determined the following criteria for critical zones (or priority areas), which will be applied through the review. Critical zones are areas:

- where environmental, social and/or economic attributes are high in value or importance, and there is a high impact risk associated with cumulative loads

³ Ibid

⁴ Ibid p36

⁵ Ibid p 37

- where established environmental quality thresholds, standards or guidelines are exceeded or likely to be exceeded
- with low resilience or limited capacity to assimilate and recover from exposure to specific pollutants, and
- with significant cumulative pollutant loads (total mass – from all point and non-point sources), and contributing licensed industry.⁶

HEL considers that the Hunter Region meets this criteria.

The pollutants for which coal mining is a major contributor in New South Wales should be listed as assessable pollutants for coal mining: pollution to air by PM₁₀, PM_{2.5}, VOCs, arsenic, PAHs and NOX and pollution to water by chromium, selenium, arsenic and lead. The EPA should consider the addition of new metals as assessable pollutants to waters in the LBL scheme, particularly aluminum, cobalt and nickel. Other elements in coal of major concern include mercury, cadmium, boron, fluorine and molybdenum.

The particulate pollutants of size PM_{2.5} should be included in the LBL scheme and listed as an assessable pollutant for coal mining, petroleum exploration and production and electricity generation.

The EPA must ensure that there is a 50% reduction in human-made sources of particle pollution, which is required to ensure Singleton and Muswellbrook meet national clean air standards.

The fees for the LBL scheme need to be increased ensuring that they meet two core functions of the scheme, that the cost imposed on pollution is greater than the cost of pollution abatement and that the cost imposed on pollution internalises the cost burden that pollution imposes on the public.

HEL fully supports the EPA consideration of including mining impacts under the LBL scheme and looks forward to participating in the next stage of the review process.

The community and environment of the Hunter region should not bear the burden of the health impacts of poor air quality and a polluted river system.

Yours sincerely



Jan Davis
President

⁶ Ibid