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Nature Conservation Saves for Tomorrow

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General Purpose Standing Committee No 5

Email: gpscsecretariat@parliament.nsw.gov.au

Upper House Inquiry into the NSW Environment Protection Authority

[Submission deadline: 29 August 2014]

Preamble

The Blue Mountains Conservation Society has a membership of about 850. Although predominantly drawn from the Greater Blue Mountains area, the members range from the Sydney region down past Wollongong and northward into the Northern Rivers region, whilst inland they extend to Oberon, Canberra, the Bathurst-Orange district, and up through the upper Hunter region.

The Society has extensive dealings directly and indirectly with the EPA in relation to happenings in the Western Coalfield, impacts on Sydney's water-supply catchment, and on waters entering the Greater Blue Mountains World Heritage Area (GBMWhA).

1. The Function of the Environment Protection Authority (EPA)

The overriding role of the EPA should be to protect the environment and affected communities from impacts arising from mining processes, coal-seam gas exploitation, agricultural activities, forestry and other forms of development, irrespective of their scale and irrespective of the cumulative nature of such impacts over the broader region. Under its guiding legislation this is encapsulated as protecting, restoring and enhancing the quality of the environment, with due regard to maintaining ecologically sustainable development.

The above statements are easy to make, but they require the EPA's staff to cover a very wide range of legislation and to have an equally wide range of in-house expertise. They therefore require that the EPA is adequately funded to carry out the assigned responsibilities; that is, it has the financial, human and technical resources to independently monitor activities subject to an Environmental Protection Licence (EPL).

Unfortunately, as is the case with so many of the other types of monitoring requirement that are stipulated in approval conditions imposed by DP&E, and needed to ensure the company's compliance, the onus is placed on the company to do the work and report accordingly. Many companies may do this faithfully, whereas others may abuse the process. This may take the form of massaging data (often ascribed to equipment malfunction), or omission of any information which may be known to the company but is not prescribed by the EPL. As many have observed, the EPL may be notable for what it doesn't contain and, by such omissions, effectively comprises a licence to pollute!

Without the capacity to independently monitor the compliance with the EPL (irrespective of the adequacy/inadequacy of the EPL) the function of the EPA is compromised and inevitably raises concerns about corrupt practices.

Recommendation 1: the funding of the EPA must be made consistent with what is being asked of the EPA – its function is fundamental to environmental and social protection, so its activities must be transparent and not be castigated as ‘green/red tape’.

2. The EPA in practice

Polluting activities have been going on for tens (even a couple of hundred) of years, but over the last half-century an awareness of the impacts of pollution has grown exponentially and this has been followed by the need to determine standards and constrain the polluting activities. In effect, there has been a substantial lag between the perceived need, the determination of what constitutes ‘acceptable’ impacts, and the imposition and enforcement of adequately specified EPLs.

In relation to the perceived need, analyses can tell us about the chemical and physical properties of mine-water, or water derived from CSG activities, and this can be compared with the receiving waters (irrespective of whether these are surface water or groundwater). In theory it should therefore be possible to draw up a comprehensive EPL which limits the chemical and physical properties of the discharged waters such that they match those of the receiving environment. This in turn places the onus upon the proponent to meet the EPL’s specifications by a treatment regime.

It is unfortunate that this logical approach has generally not happened and remains unlikely to happen because:

- (a) the EPL may have been issued some years ago when the requirements were less stringent, and even when the EPL is reviewed the outcomes are subject to negotiations between the EPA and the company – in other words the EPA knows that the EPL is deficient, yet through negotiation achieves sub-optimal outcomes;
- (b) the available work on the chemistry of the mine-water-make and the receiving environment is insufficiently comprehensive, so deficient ‘current practice’ is adopted as the default position, despite dissatisfaction with such an approach being expressed by opposing envirogroups;
- (c) consultants to the company assemble ‘pertinent’ past data and opine that the discharge-water quality will approximate that of the groundwater, or ‘not significantly’ impact the surface water regime due to dilution factors, or the matter is immaterial because the aim (subject to unforeseen weather extremes) is to have a closed system such that the water is kept on site – these are the company-paid experts yet their views seem to carry much weight with the EPA; and,
- (d) the Precautionary Principle, which would suggest erring in favour of environmental protection, tends to be superseded by a risk-management approach and statements about reassessing the EPL when more operational data are available – that is, the environment carries the risk such that the company’s operations are not impeded.

The above takes place within a culture whereby the EPA seemingly sees its role as negotiating a ‘practicable’ environmental outcome rather than ‘unacceptably’ impacting the development proposal and/or enforcing proper compliance through economically insignificant penalties. The latter point is made because fines imposed for lack of compliance are treated as a minor operating expense. As long as the company sees paying the fine for an exceedance as having less ‘bottom-line’ impact than actually preventing the exceedance, then a company will select the economically (as opposed to the environmentally) rational outcome. It would seem that the EPA feels constrained by concerns about the economic viability of the commercial enterprise and even acts as an apologist, as is apparent in the case of Port Waratah Coal Services (PWCS) and highlighted by the Nature Conservation Council in an article by Peter Hannam¹.

Recommendation 2: the EPA should devise licences which fully protect the environment from pollution by the proponent. It is totally unsatisfactory to impose an insubstantial licence on the basis that it will be tightened when it comes up for review.

¹ <http://www.smh.com.au/environment/newcastle-coal-port-bidder-accused-of-treating-pollution-limits-as-optional-20140825-1084hf.html>

Recommendation 3: licences should not be based on past practice in the region. The EPA should devise licences which fully protect the environment from pollution. A licence nominating a few factors whilst seemingly disregarding others effectively facilitates pollution.

Recommendation 4: negotiations over the composition of an EPL should not be behind closed doors between the EPA and the company, irrespective of the nature of the technical complications (usually put forward by the company) in support of ‘moderating’ the licence. There is a strong case for an independent mediator and a qualified ‘third party’ representative².

3. Abridged case histories

These will be highly abridged because the full information is available through the EPA, BMCS and pertinent company records.

3.1 Canyon Colliery

This is an old mine which is subject to rehabilitation of surface infrastructure and is scheduled for addition (once the reparations are deemed satisfactory by OEH) to the National Park’s estate³; this has still not happened. Work by Ian Wright of UWS established that leakage from the old underground workings was discharging via a small tributary into the Grose River and damaging the macroinvertebrate fauna. Zinc salinity and pH changes were (and still are) of major concern, yet the original EPL 558 permitted the discharge of toxic levels of Zn, and did not regulate pH or salinity⁴. This is contamination of a system which entered the Blue Mountains National Park and is now part of the GBMWhA. The current view of OEH is that rectifying the problem (if practicable) will cause more environmental damage than ‘doing nothing’.

The total inadequacy of the EPL is a classic example of why new licences and licence-revisions should not reflect past or even current practices; the EPA should aim higher.

3.2 Upper Coxs River – BMCS v s Delta Electricity

The Lithgow Environment Group, as part of the Stream Watch program, investigated pollution of the Upper Coxs and its tributaries as a consequence of coal mining activities and power station discharges. One outcome of the work resulted in BMCS paying for additional testing to check the results seemingly due to discharges by Delta Electricity. Following completion of the work and advice by DECC (Department of the Environment and Climate Change) in April 2008 that it did not intend to prosecute Delta, BMCS opted to take legal action through the Environmental Defenders Office in June 2009. Details of actions leading to a mediation settlement in October 2011 are referenced below⁵.

The outcomes from mediation were, and still are, that Delta:

- agreed to ask the EPA to include a licence-condition requiring implementation of a works program for the full treatment of cooling tower blow down water from Wallerawang power station;
- agreed to apply to the EPA to vary its licence to specify maximum concentration levels for copper, zinc, aluminium, boron, fluoride, arsenic, salt and nickel;
- agreed to do the works necessary to stop the pollution by 2015-end and, in the interim, to apply for limits to be set on those pollutants.

² This might be an appointee of (say) the Nature Conservation Council, the Environmental Defenders Office, or a highly concerned and potentially impacted local environmental or community group.

³ DEC Assessment Report: Gardens of Stone Stage 2 Proposal – State conservation Areas and Park Extensions, August 2006

⁴ <http://www.abc.net.au/lateline/content/2012/s3505426.htm>;
<http://www.epa.nsw.gov.au/resources/endeavourcoal/DrIWrightAppendix2.pdf>

⁵ <http://www.bluemountains.org.au/delta.html> and also at
http://www.edonsw.org.au/blue_mountains_conservation_society_v_delta_electricity

The process is ongoing and the next meeting with Delta (now EnergyAustralia) will take place on October 1, 2014. But what has been happening in terms of the EPA's involvement?

- (a) Various proposals and modification of those proposals regarding the full treatment of the cooling tower blow down water have been put to the EPA involving a host of operational, climatic and market factors. But the current bottom line is that Wallerawang power station has been shut down, will probably not be reopened unless demand for power escalates (it is currently contracting!), and that this obviates the need for such treatment.

BMCS notes that some work has been done such that were Wallerawang to be reopened, the cooling tower could be treated apparently to the EPA's satisfaction.

- (b) Much discussion and negotiation between 'Delta' and the EPA has focused on the licence variations and interim improvements to the discharge-water quality. BMCS had input regarding what was desirable, but the EPA and 'Delta' have looked at what is achievable. A revised licence was put forward by the EPA and effectively rejected. 'Delta' argued that more data were needed (including some related to the impact of certain metallic ion concentrations on macroinvertebrate species).

It was advised that BMCS and the EPA were facing a 'catch 22' situation. If the proposed licence conditions were insisted upon, 'Delta' would appeal against them in the Land & Environment Court and this could well tie up the whole process until after 2015-end. In effect, the option was either negotiate practicable licence conditions (from 'Delta's viewpoint) or face excessive court actions which would render any interim improvements redundant.

What has happened with the 'Delta'-EPA negotiations subsequent to that is unknown. BMCS has on several occasions been told that the negotiations are between the 'Delta' and the EPA. The implication is that if BMCS wished to challenge this in the context of the mediation agreement, it would involve another legal circus.

This is a classic example of the limitations of the EPA in negotiating an environmentally satisfactory outcome. As an occasional party to aspects of the negotiations, it seemed to BMCS that 'Delta' had the necessary expertise to support its various arguments whereas the EPA's representative tended to be isolated and less certain about what was being presented. It also seemed clear that there was no stomach within the EPA to insist on the draft licence and tell 'Delta' to take the matter to court if it believed it could win.

3.5 Wollangambe River and Clarence Colliery

Investigations by Nakia Belmer, Dr Ian Wright and their co-workers have demonstrated that Clarence Colliery's operations are polluting the Wollangambe River, a declared wild river⁶, which flows through the Blue Mountains National Park and therefore the GBMWA. The Australian Government has an international obligation, under the World Heritage Convention, to ensure the identification, protection and conservation of the area and to ensure its transmission to future generations. The level of pollution is inconsistent with this obligation and constitutes a significant threat to a Matter of National Environmental Significance.

Dr Wright and Mr Belmer presented their peer-reviewed research findings to over 150 people at a meeting convened by BMCS on August 17. Their work shows that the discharge of mine water effluent from Clarence Colliery under EPL 726 induces pollution-related changes to the Wollengambe's water quality in terms of its physical and chemical properties, and ecological degradation in respect of the macroinvertebrate family richness and abundance. Upstream of the discharge site the salinity (expressed as the mean electrical conductivity – EC) and the pH are low and acidic (30.0µS/cm and pH 5.6), whereas below the discharge point EC is eleven times greater at 342 µS/cm and the pH has increased to 7.2. Below the discharge point the water-temperature increases by at least 2.5°C, and high-toxicity zinc is recorded at 101.5 µg/L⁷ and nickel (although not regulated by the EPL) is twice that stipulated in the ANZECC guidelines. These

⁶ NSW Gov. Gaz. No 20, page 449, 22 Jan 2009

⁷ It is noteworthy that the EPL permits a ridiculously high discharge-level of 2500 µg/L, which is 10 times higher than recommended in ANZECC guidelines for the protection of ecosystems

changes in water quality below the discharge site have cumulatively resulted in the macroinvertebrate family richness decreasing by 65% and overall abundance by 90%. This inevitably reverberates up the food chain by affecting vertebrate species such as fish, amphibians, reptiles and some birds.

In an article to appear in the September issue of the Colong Bulletin, Mr Keith Muir notes that some 15 years ago Centennial Coal acknowledged its inability to meet the water quality discharge standard for 'Protected Waters', yet it still pumps around 18 megalitres/day of eco-toxic saline effluent into the otherwise pristine Wollangambe River. But what has happened in the interim? What has the EPA done to deal with the outrageous situation?

The saga, which is fully documented by Mr Muir, is condensed below:

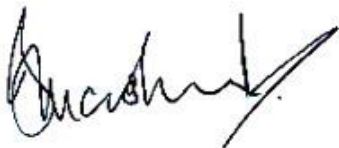
- (a) Various schemes to transfer the effluent to Lithgow's water supply dam and the nearby power stations effectively came to nothing. Likewise, Clarence Colliery's installation of a water treatment plant (2004) to improve water quality failed to meet expectations.
- (b) Government then found an administrative solution in 2006 by repealing the *Clean Waters Act, 1970*; all that was eco-toxic and saline was seemingly rendered 'acceptable'.
- (c) The repeal of the *Clean Waters Act* enabled the EPA to face the challenge; unfortunately it **weakened** the waste discharge standards for the Clarence Colliery in 2007 and 2010 and, as is now demonstrated by Wright and Belmer's work, the Wollangambe pollution continues.

The Clarence Colliery EPL is up for review shortly (in September). It is time for the EPA to accept its responsibilities and ensure that the Wollangambe River is protected from this highly polluting discharge by imposing environmentally realistic limits on all the eco-toxic contaminants.

4. In conclusion

The EPA is seemingly conflicted in its duties in terms of the relative importance of dedicated environmental protection, devising and enforcing compliance with EPLs, negotiating compromises over the limits imposed in EPLs and the revision of EPLs, and dealing with pressures from other divisions of government in terms of the political imperative. This was partly addressed in Recommendation 4, but the ensuing recommendation looks at the issue more broadly.

Recommendation 5: the EPA's board should be expanded to give voice to the environment and those in other ways impacted by the licensing process; and the Board should support and provide guidance to the EPA executive in the face of the considerable pressures exerted by affected companies and government. It is fundamental that the EPA fearlessly carry out its function rather than acceding to such pressures.



***Dr Brian Marshall,
For the Management committee.***