



WOLLONDILLY  
SHIRE COUNCIL

Ref:606bst, 1148-2



The Manager Illawarra  
Environment Protection Authority  
PO Box 513  
Wollongong NSW 2520

26 October 2012

ATT: The Manager Illawarra

**Variation to an environment protection licence EPL2504 Endeavour Coal Pty Ltd**

Wollondilly Shire Council has reviewed the documentation associated with the proposed variation to Licence discharge no EPL2504 and makes the following comments.

**L2 Point 10**

Wollondilly Shire Council supports the inclusion of pollutants (aluminium, nickel, zinc, copper, arsenic, lead and Salinity) in to the monitoring suite. The limits should however reflect the ANZECC Guidelines.

Council recommends the following analytes also be considered for testing at this location; Magnesium, Total Kjeldahl Nitrogen (TKN), Ammonia, phosphates, hydrogen cyanide and sulphates and sulphide and Ethoxylates. This has been suggested as these pollutants can indicate alkaline results and may contribute to the "carbonate" issue as identified in the report supplied by EcoEngineers. Ammonia has the potential to be highly ecotoxic.

Wollondilly Shire Council also supports the addition of Total dissolved Solids (TDS) and concentrations to be added to the licence for the metals ( aluminium, nickel, zinc, copper, arsenic, lead and Salinity) These should be listed separately and a total TDS result determined.

Wollondilly Shire Council suggests that the monthly testing is too infrequent and that weekly sampling regime needs to be implemented with a 6 month review. This review would include the consideration of the appropriateness of the use of rolling average concentrations, given the potential for higher impacts during some seasonal conditions.

Council suggests that the seasonal variation and the localised water quality of the Catchment should be used as a base indicator for determining impact as well as using ANZECC Guidelines. Variations in pH can kill macroinvertebrates instantly, council suggests that some form of flow based monitoring be adopted where the pH

and electrical conductivity is tested continuously and that discrete samples can be taken if the pH goes over a certain threshold.

### **M2.3**

Wollondilly Shire Council supports the inclusion of pollutants (aluminium, nickel, zinc, copper, arsenic, lead and Salinity) in to the monitoring suite. Council recommends the following analytes also be considered for testing at this location; Magnesium, Total Kjeldahl Nitrogen (TKN), Ammonia, phosphates, hydrogen cyanide and sulphates and sulphide and Ethoxylates. This has been suggested as these pollutants can indicate alkaline results and may contribute to the "carbonate" issue as identified in the report supplied by EcoEngineers.

### **PRP**

Wollondilly Shire Council Supports the addition of NH<sub>3</sub> -N, cobalt, cadmium, magnesium and COD (unsure what magnanse is) Council also suggests that the inclusion of the following analytes be considered; TKN, Ammonia, phosphates, hydrogen cyanide and sulphates and sulphide and Ethoxylates. A detailed suite of cations and anions should be represented in a PRP so that the water matrix can be interpreted with greater accuracy.

### **General comments**

Wollondilly Shire council has concerns with regards to the information supplied. There appears to be a number of contaminants not tested and conclusions have been drawn without comprehensive testing of cations and anions. There has also been no comparison to flow and discharge rates and the concentrations that exist in these conditions. The results in the report were based off 52 samples over 8 years; at an assumed frequency of 1 per month this leaves 44 samples unaccounted for (assuming 12 per year over 8 years) with no explanation to why there was missing data or any raw data to interpret.

Another concern is the potential downstream impacts. Many metals exist in a more stable form whilst the pH is alkaline, which potentially could become soluble and toxic if and when the pH reduces. This poses a potential impact downstream and in low flow conditions when the temperature may also increase. There has been no sediment testing or comprehensive water sampling downstream to investigate any accumulative impacts.

Council wishes to express concern with the process of formalising more analytes into a licence monitoring regime, it is highlighted that these potential contaminants have been knowingly discharged over an extended period. This process then also places precedence and acceptance that previous pollution impact has now become the baseline. Council has concerns that a vast amount of pollutant material already exists in the water course and this has had impacts already on the macroinvertebrate population and water quality throughout these locations. For this reason the suggested limits should be assessed and potentially a limit closer to those recommended in the ANZECC Guidelines is set.

Wollondilly Council has not commissioned any independent water monitoring studies for the Georges River and associated tributaries; however Council has participated in the Georges River Combined Council Committee Water quality Sampling.



A salt like crust has been observed on the sandstone downstream of L2 Point 10. The sandstone also appears to have a "scoured" effect on its surface. The sandstone appears to be suffering from the effects off salinity. Council is concerned if there are any Cultural Heritage Sites in the river this continued action of salinity will erode these areas of significance. Council believes this should be investigated and monitored if it applies to any grind sites in the river downstream of the discharge point.

In conclusion Council recommends that the monthly data be made available through the OEH website.

Thank you for the opportunity to comment

Should you require any further information please contact Ms Alexandra Stengl, Team Leader Environmental Services on 46771177 or at [Alexandra.stengl@wollondilly.nsw.gov.au](mailto:Alexandra.stengl@wollondilly.nsw.gov.au)

Yours Sincerely



Brad Staggs  
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Environmental Services