

# The Georges River Environmental Alliance

The Georges River Environmental Alliance is a community and environmental coalition representing individuals and groups from both the upper and downstream catchment of the Georges River, home to more than a million people.

Attention; The Manager, EPA, Illawarra Branch  
[epa.illawarra@epa.nsw.gov.au](mailto:epa.illawarra@epa.nsw.gov.au)  
25/10/12

## **Re; Community expectations regarding Discharge from Westcliff Colliery, Appin: Endeavour Coal Application to vary EPL 2504**

The Georges River Environmental Alliance (GREA) is grateful to have the opportunity to have input into the determination of an EPL in this instance where we see that the standards imposed on discharges from the Westcliff coal mining and waste emplacement operation need to become more stringent, so as to achieve improved water quality in the receiving waters. The desired and urgent objective, is that the discharge from Brennans Ck dam should mimic the background levels of pH, salinity, metals and volumes of a 'reference' local stream that is 'near pristine', as Brennan's Creek was prior to coal mining impacts. Basically, this is the application of the nil or negligible harm principle, that was established in the Planning and Assessment Commission Report on the Bulli Seam Operations.

*"The Panel is of the view that it is no longer a viable proposition for mining to cause more than negligible damage to pristine or near pristine waterways in drinking water catchments or where these waterways are elements of significant conservation areas or significant river systems".*

(Exec. Summary, PAC Report July 2010

<https://majorprojects.affinitylive.com/public/4acfbefb562c74c619405e3b4b37d00f/PAC%20Report.pdf> )

We believe the Georges River is a significant river system.

The Westcliff Pit Top and Waste Emplacement is the outstanding and most significant point source polluter of the Georges River (via Brennans Ck dam), immediately upstream of the growing community of Appin. Our vision for this stretch of the Georges River is that it should be restored to achieve its pre-mining natural condition, in order to support both the most sensitive of organisms within its complex matrix of freshwater life, and become as it once was, a valued aesthetic and recreational asset to the community.

We believe that there is a rising level of concern about mining impacts, with a succession of issues notably the cracking, draining and polluting of the upper Georges at Jutt's Crossing and Marhnyes Hole spectacularly evident in 2005, and most lately strident local and regional objections to the Bulli Seam Operations planned expansion in 2010-11. Community participation in the Riverhealth Monitoring Program for the Georges River, and the publication of lay-person friendly Report Cards, clearly demonstrate just how poor Brennans Ck, and subsequently the upper Georges River, is compared to other streams not affected by the Westcliff operation.

<http://www.georgesriver.org.au/IgnitionSuite/uploads/docs/georges%20river%20mid%202011%202%20web1.pdf>

If this review of the EPL results in stricter controls on the quality of waste discharges from coal mining, it will provide an opportunity for a renewal of community trust in both the corporate entity, Endeavour Coal, and the regulator, the EPA.

## Background

- We understand that the EPA will negotiate with BHP a new EPL (pollution license) for their discharge from Brennans Ck dam which collects both surface waste water from the pit top and the coal waste dump (emplacement), and mine waste water.
- The current license allows a pH discharge from 6.5 to 9.0, whereas the ambient, or background level in nearby pristine streams, not affected by coal mining, is usually low ie 5.5 -7.0. GREA regards the current license upper limit as far too high. Further, we do not regard the generalized triggers established for water quality standards by the ANZECC guidelines as appropriate in this instance. Instead we would refer to parameters developed that are specific to the Georges River catchment, and would recommend those established by a recent study, as pH 5.1-7.1 as being more appropriate (Tippler et. al 2012., <http://www.georgesriver.org.au/IgnitionSuite/uploads/docs/6ASM%20Conference%20Paper.pdf> )
- We understand that there is no standard for Salinity in the current EPL (ie measured as Electrical Conductivity) despite the fact that in freshwater systems, highly saline discharge is eco-toxic. In a recent News Release from the EPA (7/9/12) it is reported that independent testing of the Brennans Ck discharge were found to be acutely lethal to larval fish. We find this disturbing. Background levels of EC in nearby pristine streams are characteristically below 200 micro seimens.
- Dr Ian Wright has made submissions to the Bulli Seam Operation PAC, and most lately to a meeting of EPA and OEH staff with community members present on 18/10/12. He identified reference streams, including the Georges River upstream of the Brennans Ck confluence. His findings are that EC levels after the impact of the Westcliff complex were between 3.6 and 18.3 times the background levels of the reference streams. For other parameters; pH levels were between .5 and 2.28 above, turbidity up to 30.3 times the background levels, similarly levels of metals like Copper, Zinc and Aluminium were multiples above background levels. The pollution impact of the Westcliff complex appears to be appalling.
- Dr Ian Wright argues that a polluted plume, that can be directly attributable to the Westcliff coal operations, downstream of the confluence of Brennans Ck with the Georges, can be detected for 13-15 kms! Just a little further downstream there is a Platypus population.
- Brennans Ck Dam was built in 1976, so presumably these pollution problems are long term, and past Pollution Reduction Programs put in place by the regulator have done nothing to address this. That is extremely regrettable!
- The approved expansion of the Bulli Seam Operation will reduce the holding capacity of Brennan's Creek dam, and reduce the current number of its on-site detention ponds, which are part of the current water management regime. It is therefore urgent that waste water management 'best practice' is implemented now that the opportunity is before us. The corporate owner of the polluting operations should have been anticipating and planning for the eventuality of stricter controls for a long time.

### **Explicit expectations that GREA has for this EPL process and outcomes**

- A Salinity standard to be established, and a pH standard revised, so as to expect Brennans Ck dam discharges to mimic or match natural, non polluted, background levels of nearby pristine streams. The same should be applied to metals. ANZECC guidelines are just too generalized.
- Water treatment technologies to be negotiated between the polluter and the regulator. Action should be predicated on the assumption that the polluter has had ample time, to come to grips with its options. GREA does note that locally a de-salination plant has been installed by BHP to treat the coal mining wastewater directed towards the Nepean-Hawkesbury via Allans Ck from Appin West Mine. BHP uses desalination technology elsewhere in Australia, so the Georges should be assumed to be of as much value as other waterways protected in this manner.
- In regard to volumes of release water from Brennans Ck, once the water chemistry is 'fixed', flow should mimic what would have been the natural flow regime before mining and damming impacts.

### **Conclusion**

GREA believes that since this problem has been unsatisfactorily dealt with since the 1970's it is time it is fixed. Groups like ours reflect a more heightened community awareness, and a more focused determination to see that the upper Georges River is no longer treated as a waste water sink for in this instance, eco-toxic waste water from mining and coal dumping operations. Whilst we acknowledge the complications of other diffuse pollution sources from Appin township downstream, there is no doubt that Westcliff is the culprit upstream of the town. It needs to rectify its hugely negatively impact on the health of the upper Georges River, by meeting the urgent new standards soon to be set hopefully by the EPA.

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Secretary

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