Cadia Gold/Copper Mine
Cadia East Modification 6 – Processing Rate Increase
Application Number 06 0295 MOD 6

NSW Department of Planning and Environment

23-33 Bridge st Sydney

Planner
Elle Donelly
elle.donnelley@planning.nsw.gov.au

Area of Concern: WATER and SOCIO- ECONOMIC BENEFIT

In making a submission on the Cadia East Project I will concentrate on the associated water issue in regard to the project.

It must be noted that Gilbert & Associates P/L in the Site Water Balance Report indicate that there are facets of the water balance missing in the report and further recommend the design of some dams should be reviewed and "that remedial measures such as catchment reduction or capacity enlargement be undertaken".

The submission, in regard to water, forwarded to the State is very narrow and doesn't make any reference to the Murray Darling Basin Plan, the Lachlan River Catchment or Centroc Water Study and so is very much under investigated. I would advocate that the implication on the water balance be fully explored to take these concerns into account.

The economic value of employing 20 construction workers for the project is over stated in the submission by CVO and can't justify the additional water use for the project. In fact the socioeconomic value of CVO to the local community was seriously questioned in a State Future Planning meeting in Orange a couple years ago. In many ways the operation of CVO has impacted negatively on the Orange community: house prices, rents, condition of roads but in particular the affect on the stormwater harvesting and purple line water in Orange. Although, millions of dollars have been invested in the stormwater harvesting and purple line water projects they are not operational as designed. This is due to the consequences of the contractual arrangements for the effluent transfer from Orange to Cadia.

On my reading of the submission, I can't find enough reliable information to warrant the approval of this project.

Yours Truly

Yours Truly Cyril Smith PO Box 1272 Orange NSW 2800 30<sup>th</sup> April 2015 Department of Planniing and Environment Planner Elle Donnelley

Dear Officer,

## My background

I am concerned about the sustainable use of water: locally, regionally, nationally and internationally. It must be acknowledge that the finite amount of available water is a most precious resource and as such must be used wisely. A sensible and sustainable use of water must be achieved between water users now and into the future. This must include environmental use as outlined in the MDBP.

I spent considerable time and effort in exploring the water issue because of my involvement with the Orange and Region Water Security Alliance and Orange Ratepayers Association's analytical review of the Macquarie River to Orange Pipeline Project.

It may be useful to re-acquaint yourself with the submissions on the pipeline project because there would be a good deal of relevant information in them.

Due to the limited period for comment on this project I will expand on the submission made above in the near future.

Regards

Cyril Smith PO Box 1272

Orange NSW 2800

Ph (02) 6362 0694

cyril.r.smith@gmail.com

Cyaell Sunt

30<sup>th</sup> April 2015

Cadia Gold/Copper Mine
Cadia East Modification 6 – Processing Rate Increase
Application Number 06\_0295 MOD 6
Supplementary Submission to the Submission of 30<sup>th</sup> April 2015

NSW Department of Planning and Environment 23-33 Bridge st Sydney

Planner
Elle Donelly
elle.donnelley@planning.nsw.gov.au

Re: additional information to be considered with my submission of 30<sup>th</sup> April 2015.

Area of Concern: Water and Economic Value

I do have serious concerns in regard to the methodology of the hydrology of the proposal.

Firstly, I can not follow why Gilbert and Associations would base their study on an "estimate" for the original Cadia Valley Operations (CVO) project. The reliability of this estimate, in my opinion, is questionable. I can't see any justification for its use when CVO could supply actual water use figures extending back for at least a decade. I think it would be possible to extrapolate future water demand from actual figures.

Secondly, the site water balance is based on estimations (around 2008) together with water supply based on the rare occurrence of "high total storage water volume at the start of the simulation period (Feb 2015)". The water supply reliability could be distorted by the fact of using this figure (possibly indicating full water capacity). It must be remembered that a few years past, CVO purchased water from Orange City Council (OCC) water storage in order to maintain their operations.

Since the approval of the effluent transfer from OCC to CVO, the water balance in the area has been greatly affected (Oct 1996?). The affected water users by this transfer along Summer Hill creek have been seeking redress for the provision of an appropriate water supply. This was due to the disruption of the normal water supply caused by the effluent transfer. I'm lead to believe that an agreement has been reached between Summer Hill creek water users and OCC in the Land and Environment Court. I don't know the full details of this agreement.

The effluent transfer to CVO also affected the completion and operation of the Stormwater Harvesting Scheme and the purple line water scheme in Orange. The stormwater harvesting project could not be used because of licensing issues associated with the Summer Hill Creek water users. The purple line designed for the reuse of Orange's effluent could not be used because the water was not available as is was diverted to CVO. A deplorable situation that existed because of the impact CVO had on the water balance in the area.

Because of this situation, OCC perceived a need to obtain a secure source of water by building the "Macquarie to Orange Pipeline". It must be noted that OCC has been waiting months to commission the "pipeline". This delay is because of the lower than trigger level flows in the Macquarie River. It should be noted that the Belabula River is a smaller river than the Macquarie and the question remains: "can an additional 10Ml/day of water be extracted from it"?

As with the Macquarie River to Orange Pipeline, the State should undertake a truly independent water study for this Cadia East Extension Project. It should not be up to any individual community group(s) to undertake a water study to prove the validity of the submitted water study. As with the Macquarie Pipeline this proposed extension project deserves an independent water study.

The Centroc Water Study 2009 was a good guide for that time and should be updated to reflect the changes that have occurred since. A revised Centroc Water Study should be completed before considering this Cadia project. The original study had the support of CVO and hopefully CVO would support any revision.

If we were to apply water use to economic benefit (to the community, region, State or the Commonwealth) for this proposed extension project I would assert that there would be little to none. There appears to be no additional employment associated with this additional water consumption. In fact, recent history of employment figures for CVO would indicate a decreasing work force and a decrease in flow-on economic opportunities.

From the research and submissions to the Macquarie Pipeline we see that Orange effectively uses about 3Ml (megalitre) of water/day. This is based on (in recent years) the average annual water extraction for Orange to be about 4300Ml and the possible return to the catchment via the water treatment plant of about 3300Ml (1000Ml/365days: approx 2.7Ml or about 3Ml/day). I can not see that the additional 10Ml/day water use by CVO generating over 3 times the economic activity of Orange when compared on water usage.

The Western Research Institute in the CVO's submission states CVO contributes "6.5% of full time equivalent employment for the region" (4.6 p26). I would assert that CVO consumes more than the equivalent amount of water as does the regional townships (particularly if based on extraction minus return to catchment). It than appears that the regional townships generate the majority of the other 93.5% of full time equivalent employment with much less water than used by CVO.

CVO is an important contributor to the economic activity of the area, region, State and Australia but we must admit that its contribution is only temporary. The mine has a finite life span and all concerned should be investigating and preparing for other enterprises to be developed and sustained into the future (a new abattoir for Blayney?). The approval of additional water to CVO may impact adversely on the future economic growth of the region. There must be a balance between competing activities for water. A comprehensive update to the Centroc Water Study 2009 may help in this regard.

The relationship between CVO and the regional community is one of two opposing poles. We can observe the financial support given to many community organisations by CVO and on the other a reluctance to be fully transparent and accountable in a "partnership" with the regional community. CVO acclaims the supportive role it plays in the community but it is worthwhile to briefly look at the latter.

Although, the effluent transfer was approved in 1996 there is no way of knowing the details of the agreement between OCC and CVO. Both organisations have refused to release information regarding the arrangements for the transfer. On studying the transfer document it appears that OCC and CVO may not have met the conditions of the transfer. This could be the possible reason for the protracted negations with the Summer Hill creek water users.

Another protracted dispute over rapian water rights between CVO and a local landowner indicated how difficult it is to arrive at a quick and congenial solution with CVO when water is involved.

During discussion between CVO and the Orange and region water Security Alliance, CVO did not entertain the idea of allowing some of the effluent water from Orange to be used in the purple water line network that existed in Orange. Orange had to maintain potable water in this water system instead of the effluent water as designed.

CVO's attitude and interest in the region may possibly be indicated by; showing no willingness to support a water study into the Macquarie Pipeline but advertises the support given to a study into a propose bike track in the Canobolas State Forest by two community groups.

## IN CONCLUSION

The proposed extraction of an additional 10Ml/day from the Belubula River by CVO is not relecting the objectives of the Murray Darling Basin Plan (MDBP). The MDBP aims to retain and increase the amount of water in our river system whereas this proposal aims to extract more water from the river system.

The CVO submitted water study, in my opinion, lacks validity due to the premises that it was based on. Namely, an estimate used for the original water study (about 1994) and the use of possibly full water capacity storage for the water balance study. I think that the reliability of the water studies is questionable.

I would request that the State undertake an independent hydrology study into the proposal as a peer review may be base on the same (and possibly false) assumptions.

From media reports and conferences that I have attended; the message is a questioning of the benefit to the community of an operational mine has on the community. There is no doubt that there are some benefits but they may come at a cost to the community. Apparently in Orange, the contract between OCC and CVO allows for no charge on the secure effluent water transfer.

In this proposal there is no indication that the community is to gain additional economic benefit from the approval of this project. The current indicators are that any benefits to the community are declining and that CVO aim to improve their "Project economics" (1.3) by the approval of this project.

In my opinion, the current proposal would fail a quadruple assessment examination and therefore I would ask that the proposal be not approved base on this CVO submission.

Cyril Smith Orange 12<sup>th</sup> May 2015