Mid Coast Water Submission 28 October 2013

Rocky Hill Coal Project Environmental Impact Statement

MidCoast Water (MCW) is a County Council responsible for the reticulated water supply and sewerage systems in the Greater Taree, Great Lakes and Gloucester Shire local government areas. MCW operates the Manning District Water Supply Scheme which draws water from the Manning River catchment downstream of the proposed development. It is a major regional water supply system servicing the population of over 75,000 people.

The main focus of this submission is therefore the potential of the project to impact on the downstream catchments during the project duration and in longer term. MCW was included in the consultation process during the preliminary design stage for the Rocky Hill Coal Project, including participation in the planning focus meeting providing input to the Director General requirements for the project environmental assessment. We also provided some comments on the adequacy of the EIS prior to its release for exhibition.

The Rocky Hill mine is the first mine in the Gloucester area which proposes to discharge run-off from areas disturbed by mining activities (referred to in the EIS as Dirty Water Zone) to the local waterways. Both Duralie and Stratford mines dispose of excess water through on-site agricultural irrigation. The run-off from areas disturbed by mining is contained within water storages at both mines.

We are not supporting the water management strategy developed for the Rocky Hill mine. The adopted strategy relies too heavily on discharges into local waterways. In addition the management of the Dirty Water Zone or Sediment-laden water from areas disturbed by mine operation is poorly described lacking volumes and details of actual areas/activities included in the run-off to the sediment dams, interconnections between the dams and water quality expected from each activity.

:

Gaps in description of the Water management System

Section 4.7.4 and 3.1 describe the proposed system. The proposed water management system comprises three distinct zones, each dealing with the following type of water:

Saline Water Zone - groundwater seepage and surface runoff to mining pits

Dirty (Sediment-laden) Water Zone - runoff from the overburden emplacements

Clear water Zone - runoff from undisturbed areas (upstream diversion)

The description does not provide information under which zone the runoff from CHPP, stockpiled ROM, reject emplacement areas or other areas disturbed by the mining operation will be managed.

Dirty (Sediment-laden) Water Zone operation and Discharges to waterways

MCW have concerns with the management of water in the Dirty (Sediment -laden) Water Zone.

The system collects water from disturbed areas of mine operation including, for example, runoff from interim overburden emplacements areas, covering approximately 68 ha, and containing 13 million loose cubic meters of overburden (page 2-46). The overburden is randomly mixed with rejects. The salinity and concentration of some trace metals in runoff and seepage from reject materials may be elevated and increase with exposure to atmospheric conditions (page 5-86). Runoff from such emplacement will be stored in the sediment dams and released to the waterways after settling.

Sediment- laden Water will be collected in sediment dams and tested before release through a number of discharge points to Avon, Waukivory or Oaky Creek. The applicant requires release of water even though it is a “no discharge’ mine. MidCoast Water requested during the consultation prior to the release of Director’s General requirements that other mines in the region have ‘no discharge’ of water and it would be expected that Rocky Hill project achieves the same standard.

There is no provision proposed in the EIS for the water management alternative in case the tested water in a sediment dam will not comply with the licence limits.

There is a risk for some of the sediment dams being flooded during flood events. The S2 dam is located below the reach of pre-mine flood event on figure 4.23 (page 5-126). The sediment accumulated in the dam will be released to the waterways.

MidCoast Water ABN 33 274 464 218 All correspondence to PO Box 671 Taree, NSW 2430
General enquiries 1300 133 455 Fax 02 6555 816 Web midcoastwater.com.au
Taree Customer Service Centre 26 Muldoon Street Taree

Drainage from the Rail Load-out Facility

The proposed drainage from the Rail Load-out Facility area is captured in Rail Loop Dam (Section 3.1.1.) It collects water which may have come into contact with spilt coal and generally the water from disturbed areas. In runoff events larger than 1 in 20 AEP 72h the spillway overflow would flow through the existing rail cross-drainage structures, and make their way to the Avon River. Overflows from the dams draining a stockpiled material will also flow into the Avon River (page 5-73). Such uncontrolled releases to the waterways are not acceptable. The 1 in 100 AEP 72h should be used to size the dams.

In section 4.7.4.3 it is mentioned that the water stored in the dams at the Rail Load-out Facility will be released to the river if it meets the criteria nominated on the environment protection licence or irrigated on site.

Site Water Balance

The water balance was only developed for the Saline Water Zone (Section 4.7.4.6 Site Water Balance). There is no water balance developed for Dirty Water Zone. The discharge volumes to waterways are unknown. It was a condition of the Director General requirements to estimate the volumes of predicted discharges to waterways.

Water management schematic presented in figure 4.44 (page 4-178) and reproduced in Figure 3.1 (page 5-66) lacks basic details, such as for example, the rain water inflow and cannot be used to understand the balance of water being managed. None of the flows balances add up, “Prior to year 10” mix ML/a with L/s, none of the inflows are fully accounted for in the outflows. For “Post Year 10’, none of the inflows are fully accounted for in the outflows and flows to Pit areas are not modelled. Table 4.50 groundwater inflows for Weismantel Pit at year 7.75 (zero inflow) do not mach with “Prior to year 10” figure 4.44 inflows (977 to 712 ML/a). Figure 4.44 demand for dust suppression is different to the requirements presented in Table 4.52.

More sophisticated and accurate schematic should be developed for such significant development covering all water managed by the development.

MidCoast Water ABN 33 274 464 218 All correspondence to PO Box 671 Taree, NSW 2430
General enquiries 1300 133 455 Fax 02 6555 816 Web midcoastwater.com.au
Taree Customer Service Centre 26 Muldoon Street Taree

:

Saline Water Management

In section 4.6.6.3 contingency measures should be thought through prior to proceeding with the development and not waiting till the annual report is prepared. If all saline groundwater is not utilised some specific contingency plan will be required prior to the problem developing and the system is about to overflow.

It is noted that salinity/water level/metals/hydrocarbons trigger values are not yet nominated. The contingency measures for exceeding the trigger values are not established, with the development of a formal report as the only action provided.

Downstream Flows

An increase to flow in the Oaky Creek by 13% (section 4.7.5.2) is a major alteration to creek flows impacting on base flow and peak flows. This will increase base and peak flow erosion and bank stability. Monitoring of bank stability in this section of the creek should be undertaken. More erosion control works may be required in Oaky Creek.

There is also provision to extract large quantity of water for the mine operation in the initial stages of life. There is an impact on the flow in the Waukivory Creek, as the mine encroaches 200m into the Creek alluvium. The volume extracted or lost due to discharge from the alluvium to the active pit is covered by the extraction licence held by the applicant, which is used to justify the impacts.

Clean Water Management

In section 4.7.4.2 clean water diversion is proposed by creating two channels following the natural contours on the hill slopes. Section 3.1.3 (page 5-69) provides some additional information about the diversion. The capacity of this system needs explaining in terms of catchment area and design flow. More channel stability works may be needed for the diversion.

MidCoast Water ABN 33 274 464 218 All correspondence to PO Box 671 Taree, NSW 2430
General enquiries 1300 133 455 Fax 02 6555 816 Web midcoastwater.com.au
Taree Customer Service Centre 26 Muldoon Street Taree

MidCoast Water ABN 33 274 464 218 All correspondence to PO Box 671 Taree, NSW 2430
General enquiries 1300 133 455 Fax 02 6555 816 Web midcoastwater.com.au
Taree Customer Service Centre 26 Muldoon Street Taree