Mid Coast Water Submission 16 September 2016

Amended 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 original Rocky Hill Coal Project in 2013, including participation in the planning focus meeting providing input to the Director General requirements for the project environmental assessment.

The amended Rocky Hill mine project proposes to discharge treated water from Saline Water Zone and 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 relying more extensively that the proposed Rocky Hill project on water storages. The run-off from areas disturbed by mining is contained within water storages at both mines.

We have concerns with the water management strategy developed for the amended Rocky Hill mine project. The adopted strategy relies too heavily on discharges into local waterways. In addition EIS makes misleading statements around the discharges.

Saline Water Zone

Water coming from groundwater seepage and surface runoff from the open cut pit areas is likely to have elevated salinities, dissolved metals and hydrocarbons. Such water is managed within the Saline Water Zone.

In Chapter 3.1.1 *Saline Water Zone* of Part 5 *Surface Water Assessment* a statement is made that the Saline Water Zone system will be "a closed" system and it is "to be sized and operated to contain water captured within this Saline Water Zone without release to the environment". Similar statements are repeated through the Environmental Impact Statement. The Saline Water Zone Water Management System Schematic presented in Figure 3.1 illustrates a system with no discharges to the Avon River included. We would support such a system, but the description of the water management in the Saline Water Zone is misleading.

In Chapter 3.5.4 *Water Treatment Plant* of Part 5 *Surface Water Assessment* it is revealed that the proposed Water Treatment Plant (WTP) will treat excess water in the Saline Water Zone to a standard suitable for release to the Avon River. It is stated further that "The treated water would only be released to the Avon River during high flows and when irrigation is not possible." The location of discharge point to the river from the Saline Water Zone is only mentioned in the Chapter 4.12.2 *Dirty Water Zone* in the statement - "The sixth release point would be used to release water from the water treatment plant if required". This is not "a closed" system "without release to the environment" as claimed in the description of the water management within the Dirty Water Zone presented in *Chapter 3.1.1.*

There is no estimate of the volumes of water to be released to the Avon River from the WTP or modelling of the frequency of release. We assume the water quality criteria for the river release will be the same as for water release from the Dirty Water Zone and presented in the Table 4.15.

In addition the estimated irrigation area requirement is based on the figures obtained from AGL report from their 20013-15 blended water deficit irrigation program on Tiedman property. Application rate achieved by the AGL trial is not suitable for use for irrigation of pasture as the trial was undertaken during extreme dry conditions and the water was applied into pasture which was heavily modified to maximise the re-use. Adaptation of AGL irrigation application figures will lead to underestimation of the frequency of river discharge from the Saline Water

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Zone. The water storages in the Saline Water Zone should be increased to minimise river discharges.

Dirty Water Zone

The system collects water from disturbed areas of mine operation including runoff from the overburden emplacement. The run-off will be directed to a series of sediment dams. 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. Runoff from such emplacement will be stored in the big numbers of sediment dams and released to the waterways after settling. There will be up to 8 discharge points to the Waukivory Creek and up to 6 discharge points into the Avon River. The sedimentation dams will be of sufficient size to capture runoff for most rainfall events. Overflows would occur via the sediment dam spillways in large rainfall events.

MCW have concerns with such management of water in the Dirty Water Zone. It relies heavily on a big number of river discharges and assumes good quality of the runoff which may not be the case. There is no provision proposed in the EIS for the water management alternative in case the tested water in a sediment dams will not comply with the proposed water quality criteria presented in Table 4.15.

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