APPENDIX F: WATERNSW ADVICE ON WATER QUALITY UNCERTAINTY ANALYSIS

Rose-Anne Hawkeswood

From: Girja Sharma <Girja.Sharma@waternsw.com.au>
Sent: Tuesday, 7 February 2017 4:27 PM
To: Rose-Anne Hawkeswood
Subject: RE: Springvale Coal Mine Mod 1

Hi Rose-Anne,

WaterNSW has reviewed the additional water quality uncertainty analyses undertaken for Lake Wallace and Lake Burragorang due to potential daily fluctuations in mine inflows. Springvale Mine Extension Project (SMEP) Mod 1 proposes to increase coal production resulting in an increase in mine water discharge of 10L/s (or 0.86ML/d) which was previously modelled as 1ML/d. The uncertainty analysis was conducted assuming a constant and maximum increase in mine water discharge rate increased by +2 ML/day, +3 ML/day, +4 ML/day and +6 ML/day.

The modelling results predicts a negligible change in median salinity (1 to 2% increase) in Lake Burragorang as a result of the proposed modification compared to original SMEP modelling results which can fall within in error of margin.

The modelling results predicts a minor increase in median salinity in Lake Wallace as a result of the proposed modification compared to original SMEP modelling results as follows:
For 10%-ile – 1 to 7% increase
For 50%-ile – 1 to 5% increase, and
For 90%-ile – 1 to 3% increase.

WaterNSW notes that these increases are within historical observed salinity values, as stated in the report. These increases show a minor deterioration of water quality as a result of SMEP Mod 1.

WaterNSW also notes that salinity increase in Lake Wallace as a result of SMEP Mod 1 is likely to improve post implementation of Springvale Water Treatment Plant Project, if approved.

Happy to discuss these comments.

Regards

Girja

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