

NRAR Quarterly Report 8: Q2 2025

17/07/2025

To: Jordan Aitken Natural Resources Access Regulator (NRAR)

Enforceable Undertaking Commitments

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Water Balance Model (WBM)

The Goldsim Water Balance Model (WBM) has been implemented and reported internally every month which is assisting in guiding a wholistic approach to water management, across the site.

The WBM is also allowing BCOPL to validate water intercepted from undisturbed catchments and forecast when groundwater/river extraction will be required due to low site water storage.

The WBM was updated in March 2025 to include modelling of future site storages. In accordance with Appendix 1 of the Enforceable Undertaking (EU), BCOPL will notify NRAR of major changes in future quarterly reports.

Proposed Water Metering

As previously mentioned, all metering and telemetry has been installed in accordance with Appendix 1 of the EU and monitoring is ongoing.

There have been some minor changes to the Water Management System to what is described in Appendix 1 of the EU. The SD23 dam has been decommissioned with pumps and fill points being moved to alternate locations in the pit. All fill points still have water meter telemetry capability, and all other dams are compliant with Appendix 1 of the EU.

Calculating Water Take



A verification model was run to assess the model's accuracy in representing the rainfall runoff response to the WMS and to estimate the volume of runoff intercepted from the undisturbed catchment in the previous quarter.

The Site Water Balance data in **Figure 1** indicates the modelled storage volume (blue line) is similar to the observed storage volume (orange line). The modelled storage has showed a reasonable fit throughout 2024 and the start of 2025 before slightly overestimating site storages after a high rainfall event at the end of March. A review of site rainfall data indicates substantial spatial variation in rainfall totals during the event, which is typical of large rainfall events of this magnitude (10–20% AEP). It is anticipated that the rainfall totals applied to the model overestimate actual site rainfall, contributing to the overestimation of runoff. While the rainfall gauge used in the water balance model may not reflect site-wide conditions, it was used to ensure consistency with the existing modelling methodology. This event and the associated calibration will be reviewed in the 2025 Annual Review and updated where necessary.



Figure 1: Water Model Run as of 30 June 2025.

Table 1: Rainfall during reporting period

Month	Rainfall (mm)
March 2025	174.8
April 2025	102.2
May 2025	54
June 2025	16

March rainfall is included in Q2 report due to significant rainfall event occurring 28/29 March which caused significant runoff.



Table 2: Estimated & Actual volume of runoff intercepted from soil stockpile dam undisturbed catchment Apr-Jun 2025

	Estimated runoff Volumes into Soil Stockpile dam from undisturbed catchment	Metered pump volumes Actual Interception (Soil Stockpile dam)
Volume (ML)	43.54	19.06

As discussed above, highly variable rainfall totals around the mine have likely led to an overestimation of runoff.

BCOPL had sufficient licence to account for unregulated water take during the quarter.

Table 3: Total Licensable take for Apr-Jun 2025

	Runoff from Third order and higher watercourses	Runoff from minor watercourses	Runoff from minor watercourses in excess of landholdings' harvestable rights
Volume (ML)	166.42	97.97	0

Table 4: Total Licensable take for the 2024/25 Water Year

	Runoff from Third order and higher watercourses	Runoff from minor watercourses	Runoff from minor watercourses in excess of landholdings' harvestable rights
Volume (ML)	278.5	97.97	0

Total Bluevale water take under WAL44134 in 2024/25 Water Year: 278.5ML

As seen above, BCOPL had sufficient licence (586ML) to account for water take from the Bluevale water Source in the 2024/25 Water Year.

Forecasting water take for acquisition allocation.

A Water Balance Model forecast was run to ensure BCOPL holds sufficient water allocation to account for future surface water take (See figure 2). See results below:

Three-month BOM Climate Outlook Jul – Sep 2025: Wet

Table 5: Predicted water take Jul-Sep 2025

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	Predicted Runoff from Third order and higher watercourses	Predicted runoff from minor watercourses	Predicted runoff from minor watercourses in excess of landholdings' harvestable rights	Predicted volume requiring licencing
Volume (ML)	43.63	15.34	0	46.63

Total allocation held for 2025/26 Water Year: 586ML.

Industry learnings

- The installation of real-time metering has allowed BCOPL water managers to make real-time decisions around storages and water movement across the site.
- Additional pumping, pipework and filtration installed as part of the process has facilitated the use of dam water in the Coal Processing Plant, thereby reducing the requirement for the use of bore water.
- The real-time storage monitoring will also reduce the need for regular survey pickup of dam storage levels which is a strain on resources and can vary with human error.
- The Goldsim model has provided reliable modelling of our site water storages recently during dry times which has allowed the mine to adequately prepare groundwater bore infrastructure and implement water saving initiatives on site.

Surface Water Management Plan (SWMP)

DPHI approved BCOPL's SWMP on 17 September 2024. A copy was emailed to NRAR on 24 September. The approved SWMP includes relevant information from the Enforceable Undertaking including licencing, metering, telemetry and monitoring requirements. BCOPL has revised the SWMP due to the recently approved Modification 8 and it was submitted for approval on 3 June. Once approved, BCOPL will provide a copy to NRAR.

Consultation

The Final Consultation Report was provided to NRAR on the June 26 2025 and detailed all EU consultation that had taken place with the local Aboriginal community.

BCOPL will continue to consult with community members, RAP's and members of the local Aboriginal community at ASCF & CCC meetings about the water management system at BCOPL.



Figure 2: Predicted licensable water take for Jul-Sep 2025.



Final Result Non_Minor_Watercourse_Runoff Max

80%

10





