MEMORANDUM

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PROJECT TITLE	Winu Copper Gold Project		
SUBJECT	Winu Site-Wide Water Balance Peer Review		
DATE	21 May 2025	**OUR REF**	124050.02 Rev2

1 EXECUTIVE SUMMARY

ATCW completed a peer review of the Winu Site-Wide Water Balance Model (Water Balance Model) for the Rio Tinto Winu Pty Limited copper-gold mine (the Project). A review of the Water Balance Winu Copper Gold Project report (Water Balance Report)**[1]** and the Water Balance Assumptions Register (Assumptions Register)**[2]** was also completed as part of the work.

The key objectives of the Water Balance Model and report are to provide the forecast water surplus and required water import from the regional borefield over the operational period. At this stage of the Project, the Water Balance Model and Water Balance Report meet the requirements to answer the key objectives, support project approval, and provide confidence to the regulator and stakeholders.

The Water Balance Report and Assumptions Register provide information on the Water Balance Model structure, inputs, assumptions, and sensitivity analysis completed as part of the latest water balance scope of work.

The Water Balance Model employs the following methodologies that align with current industry practice:

- **Platform** – The Water Balance Model was built in GoldSim **[3]**, an industry-standard software for probabilistic water-balance modelling, enabling the incorporation of time-varying inputs and stochastic outputs.
- **Climate inputs** – Precipitation and evaporation are represented by cycling historical SILO climate records capturing natural variability.
- **Inflows** – mine-dewatering, groundwater seepage to the pit, direct rainfall and rainfall-run-off, and make-up water supplied from the regional borefield.
- **Outflows** – evaporation (pond surfaces and tailings beach areas), entrainment in deposited tailings, process consumption, non-process demand, and discharge of surplus water.
- **Tailings** – Tailings water demand and bleed volumes are calculated for the high and low sulphur tailings streams, based on the production rate and tailings properties. The Water Balance Model includes the conservative assumption that the solids content of the tailings will increase from 60% of the design content to 100% over the first two years of operation.
- **Surplus water** – excess non-contact water is routed to infiltration ponds for release.

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The projected base case median results forecast the Project will be in water surplus from year 0 to approximately year 17 and then in water demand to year 32. The surplus of water is primarily attributed to inflow from mine dewatering. However, it should be noted that large rainfall events will also result in excess water being released. During the latter years when the Project is in water demand, the modelled median annual water demand from the regional borefield increases to approximately 1,000 ML/yr by year 21. The highest median annual demand during this period is approximately 1,480 ML/year in year 26.

Sensitivity analyses were completed based on the mine dewatering rate, process water demand, non-process water demand, effectiveness of evaporation inhibitors, and climate change. These assessments provide an initial indication of how sensitive the modelled results are to variations in these inputs. Both the timing and magnitude of water surplus and regional borefield water demand were projected. These results provide an indication of the influence these input parameters have on the Water Balance Model results and provide a range of potential water management scenarios to consider.

The Water Balance Model and supporting documents adequately serve to answer the key objectives, support project approval, and provide confidence to the regulator and stakeholders, however, ATCW recommend the following updates are adopted in future work.

Improvements recommended to the Water Balance Model and supporting documents include:

- Use of synthetic climate data and increased number of model realisations,
- Addition of maximum storage volumes for the High Sulphur TSF Cells and the Reclaim Pond,
- Transfer of overflow water from the Low Sulphur TSFs to the Reclaim Pond is reported separately to other pumped water transfers,
- Spill assessment of the contaminated water storages,
- Inclusion of tailings test results into the entrainment and bleed calculations,
- Update of the Water Balance Model to include water inflows with ore,
- Update run-off calculations to be based on the Australian Water Balance Model **[4]** or simplified Boughton runoff model **[5]**.
- Interpolation between storage curves for determined time periods or provide justification to support the stepped approach adopted,
- Review catchment area and surface water area modelled for the Reclaim Pond during years 0 to 3,
- Review maximum storage volume implemented for the Reclaim Pond,
- Confirm the spill risks adopted in the TSF and contact water storage designs are equal to, or lower than, those predicted in the Water Balance Model results,
- Confirm results presented for the reporting time steps capture maximums and minimums from the modelled daily time step,
- Future updates to sensitivity assessment to be refined based on supporting data sources.

These updates intend to add confidence to the Water Balance Model results and assist in the detailed design of the water management structures and site water management.

Updates to the Water Balance Model logic, inputs, and assumptions that can be made as more information becomes available will add confidence to the modelled results and assist in the Project design work.

2 INTRODUCTION

Rio Tinto Winu Pty Limited plans to develop a copper-gold mine approximately 300 km south of Broome and 320 km east of Port Headland in the Pilbara region of Northwestern Western Australia. The Project has production target of approximately 10 Mtpa for a period of 32 years. A site-wide water balance model has been developed to predict site water demand and surplus through this period. The water management logic implemented in the Water Balance Model is intended to maximising water recycling and minimising water import.

Tailings are managed within a Low Sulphur TSF and two High Sulphur TSF Cells. A minimum pond depth of 1 meter is maintained within the High Sulphur TSF Cells. Water inflow to the TSFs is from tailings bleed water, rainfall and dewatering of the in-pit sumps (via the pit dewatering pond). Excess water is pumped from the High Sulphur TSF Cells to the Reclaim Pond. A minimum water volume of approximately 30,000 m^3 is maintained in the Low Sulphur TSF through year 15 and approximately 53,000 m^3 for the rest of the operating period. The water volume in the Low Sulphur TSF is managed by pumping excess water to the Reclaim Pond and directing overflow to the Reclaim Pond.

The Reclaim Pond receives water from the Low Sulphur and High Sulphur TSFs and from the potentially contaminated catchment areas. Water from the Reclaim Pond is pumped back to the Processing Plant to be re-used. The Water Balance Model assumes that the Reclaim Pond will be designed to have sufficient capacity to safely store the modelled water volumes.

The Project will source clean water from dewatering bores (ex-pit and in-pit) and supplementary water from the regional bore fields. Clean water from the dewatering bores and regional borefields is pumped to the Clean Water Dam. Clean water is used for process and non-process use. Water is lost to evaporation and the management of surplus water is via the infiltration ponds.

Excess clean water is expected to be discharged from the site mainly during the wet season. The Water Balance Model forecasts this to be required even during years when supplementary water from the regional borefield is required.

Rio Tinto has requested ATCW to provide a peer review of the Water Balance Model and the latest Water Balance Model Report to support the Project's approval and give confidence to the regulator and stakeholders that the water balance is fit for purpose at this stage of the Project.

3 WATER BALANCE AND REPORT REVIEW

The Water Balance Model was developed using the GoldSim software which enables the incorporation of variable inputs and multiple realisations to produce probabilistic results. The model is set up to operate at a daily time step and is run for the 32-year operational period.

The Water Balance Model was initially developed by Golder (2022) and has subsequentially updated by Worley to reflect the current design. The site-wide water balance model incorporates the TSF water balance formulations developed by Red Earth Engineering in 2022 and updated by WWL (2024) for the current TSF design.

A review of the model logic, inputs, and assumptions applied in the model, as well as the information provided in the Water Balance Report and Assumptions Register, is provided below.

3.1 Climate

The Water Balance Model uses daily SILO rainfall and evaporation data from between 1900 – 2023 obtained from the grid point -20.75, 121.75. The SILO data is looped, with each model realisation starting the climate data on a different year. This approach outputs statistical results based on the historical rainfall data.

The report provides a comparison of the monthly average rainfall from the SILO grid point data and data from the Telfer Mine Airport weather station (approximately 100 km SE of the Project) and shows similar values.

The Assumptions Register **[2]** provides a comparison of the SILO synthetic evaporation data and Telfer Mine Airport weather station data and discusses the SILO data as 5.2% lower than the recorded values from 1974 to 1995. A correction factor was applied in the model to increase in the SILO synthetic evaporation data.

Looping of historical climate data is adopted by many in the industry. However, an improvement to the model would be the incorporation of synthetic rainfall and evaporation data based on the statistics of the historical data (data limited to a period based on an assessment of the quality of the grid point data). By using synthetic data, more realisations can be run, resulting in a more extensive range of potential climate scenarios being modelled.

3.1.1 Climate Change

The Water Balance Report **[1]** discussed that a low emissions climate forecast (SSP1-2.6) and high emissions climate forecast (SSP5-8.5) have were adopted for assessment in the updated Water Balance Model based on Rio Tinto Leading Practice Guideline (LPG) - Incorporating Climate Change into Mine Water Management Planning [RTEC-D-001, 2024].

Under these emission scenarios, climate projections were generated with an ensemble of Global Climate Models (GCM) by CLIMSystems for the Winu site. Worley incorporated the forecast climate changes under these climate scenarios into the model.

CLIMSystems produced forecast monthly changes to the mean baseline precipitation and evaporation for SSP1-2.6 and SSP5-8.5 emission scenarios at 5 year increments from 2005 to 2100. The 5th, 50th and 90th percentile changes were incorporated into the model.

A sensitivity analysis was performed using scenarios based on the emission, rainfall percentile and evaporation percentiles outlined in **Table 1[1]**. The forecast changes in mean rainfall and evaporation (from the Water Balance Report **[1]**) are shown in **Figure 1** and **Figure 2**.

While the sensitivity analysis is understood to be a high-level assessment of the potential impact that climate change may have on the outcomes of the water balance, the scenarios that apply the 5th and 95th percentiles may be compounding and overly conservative as statistical extremes don’t necessarily coincide. This approach may be fit for the purposes of this study, however, it is recommended that future modelling assesses the application of the climate change percentiles.

Table 1 - Climate change sensitivity analysis scenarios

Scenario	SSP	Rainfall	Evaporation
Low emission	1-2.6	Median	Median
High emission	5-8.5	Median	Median
Low emission - Wet	1-2.6	95th percentile	5th percentile
Low emission - Dry	1-2.6	5th percentile	95th percentile
High emission – Wet	5-8.5	95th percentile	5th percentile
High emission – Dry	5-8.5	5th percentile	95th percentile

Figure 1 - Climate forecast percentage change in annual mean rainfall

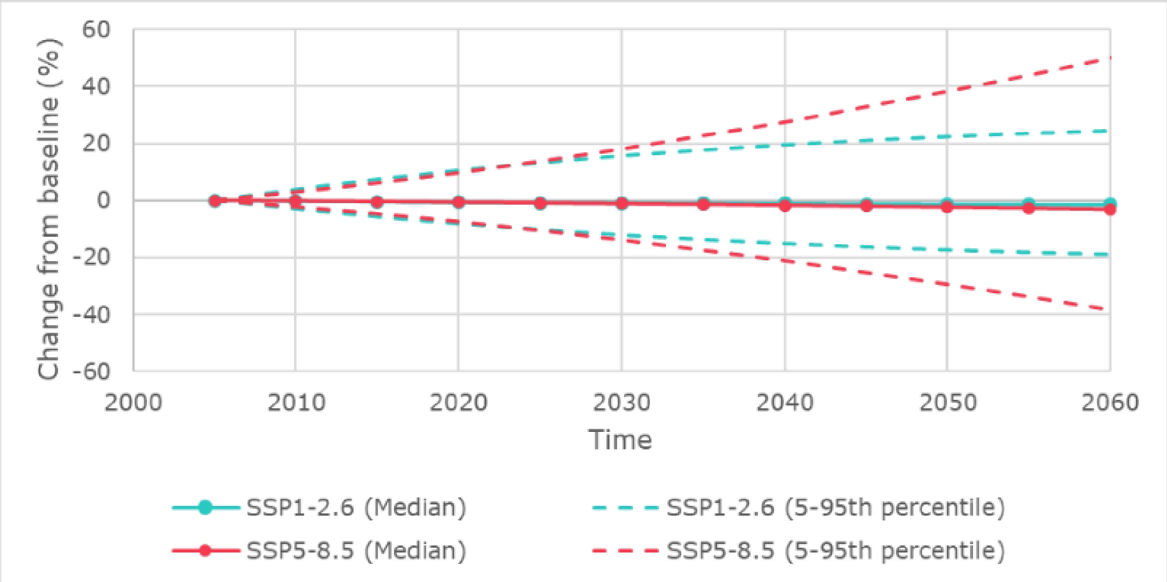
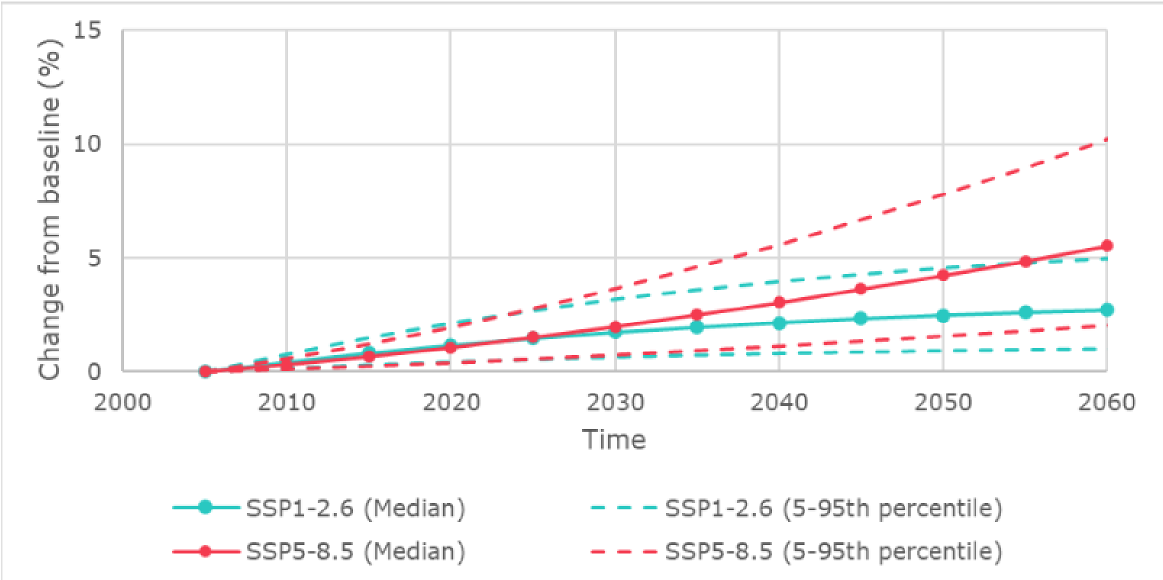


Figure 2 - Climate forecast percentage change in annual mean evaporation



3.1.2 Evaporation Pan Factors

The Water Balance Model applies a monthly pan factor to account for the difference in evaporation from a water storage and a pan evaporation instrument. Application of a pan factor is the standard approach with an annual factor typically being adopted and monthly factors adopted when information is available to support the added detail. Pan factors estimated for the Giles Met Station in McMahon et al. (2013a **[6]**, 2013b **[7]**) have been adopted in the model.

3.2 Process Water

Process water demand is calculated as equal to the sum of the tailings water discharged to the TSFs, the water content in the concentrate and the cooling tower water demand.

3.2.1 Concentrate Water

Water lost from the site with the concentrate is based on a concentrate water content (by weight) of 12%. However, it is recommended that Worley review the water loss calculation as it currently estimates the water loss to be equal to the concentrate mass. This adds an approximate 2.5% increase to the process water demand. Additionally, ATCW recommends incorporating the ore water content as an inflow to the model.

The cooling tower water demand is estimated to be 12 m^3/day, as provided to Worley for modelling purposes, which is less than 1 % of the total process water demand.

3.2.2 Tailings Water

Tailings water makes up the majority of the process water demand. The modelled tailings water demand is based on the production rate and the solids content of the tailings underflow (Low Sulphur Tailings 64-68% w/w High Sulphur Tailings 14% w/w.

The Water Balance Report and Assumptions Register **[2]** provide the tailings water requirement per tonne of ore type. While the modelled and reported methods are different, the modelled methodology is appropriate, provided it is based on tailings test results. ATCW recommend updating the model and both documents to include tailings and thickener test results and the calculation method used to estimate tailings water.

3.2.2.1 Tailings Solids Ramp Up

Conservatively, the Water Balance Model incorporates a ramp up of the tailings solids content from 60% to 100% of the normal operating value for the Low Sulphur Tailings over the initial two years of tailings production. This is not applied to the High Sulphur tailings solids.

The ramp up of the solids content increase the plant water demand and the volume of contaminated water that is stored in the TSFs.

The plant water demand peaks during the ramp up period at approximately 16,000 ML/yr, close to double that during the remainder of the Project. This is shown in **Figure 3** below.

Figure 4 shows that the Low Sulphur TSF pond volume peaks at approximately 720 ML during the ramp up period, more than seven times the operating volume for the remainder of the Project. It is recommended the Low Sulphur TSF pond volume results are presented in the Water Balance Report **[1]** to highlight the volume of water stored in the facility over the ramp up period to assist in design and water management requirements.

Figure 5 [1] shows the probabilistic results of the total TSF storage volume, where the maximum volume of water stored in the combined TSFs (High Sulphur, Low Sulphur and Reclaim Ponds) is during the ramp up period.

The approach of adopting a ramp up of solids content is conservative and shows the potential requirements for water demand and water storage due to the lower tailings solids content. However, if the tailings team can determine that higher solids content can be achieved during the start up period this will greatly reduce challenges in water management.

Figure 3 - Plant Water Demand

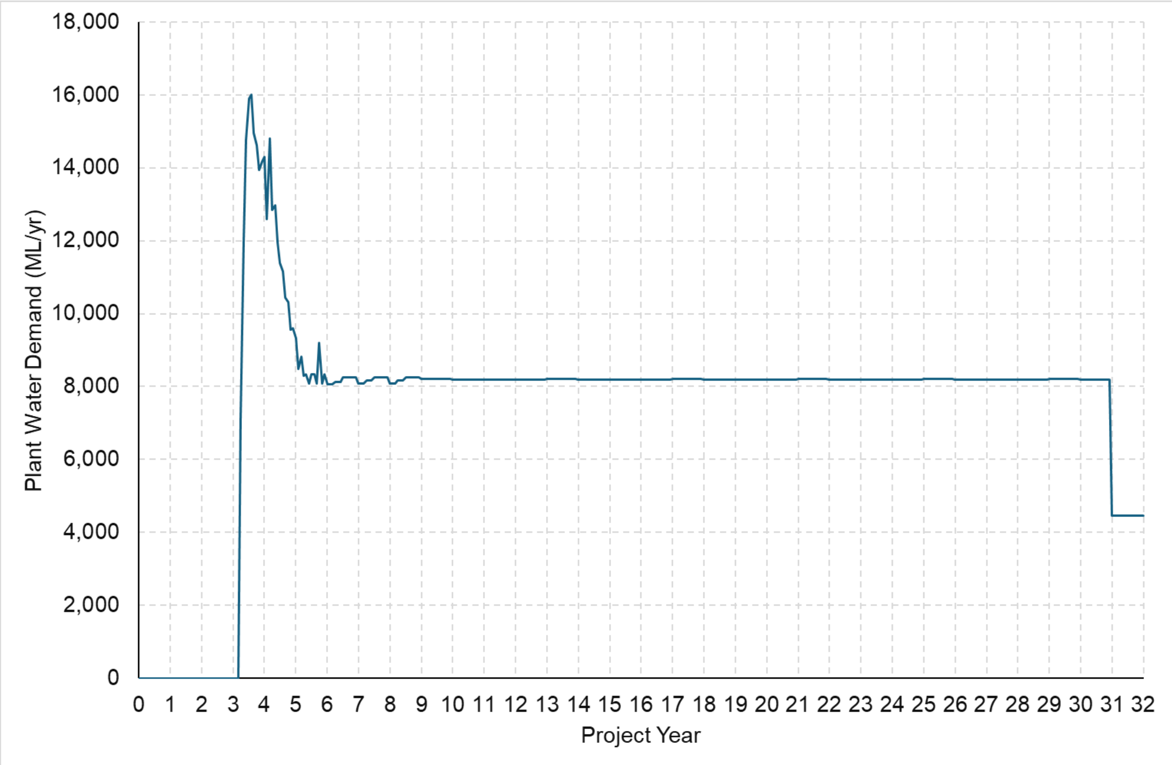


Figure 4 - Low Sulphur Pond Volume

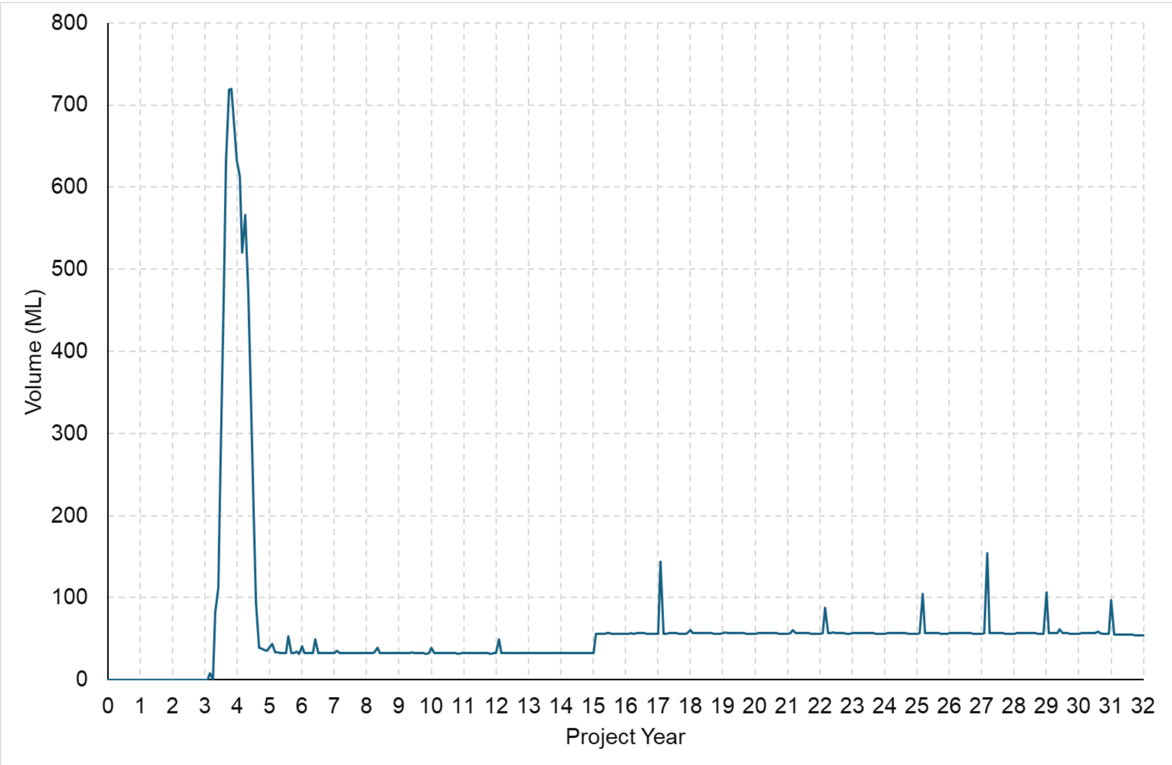


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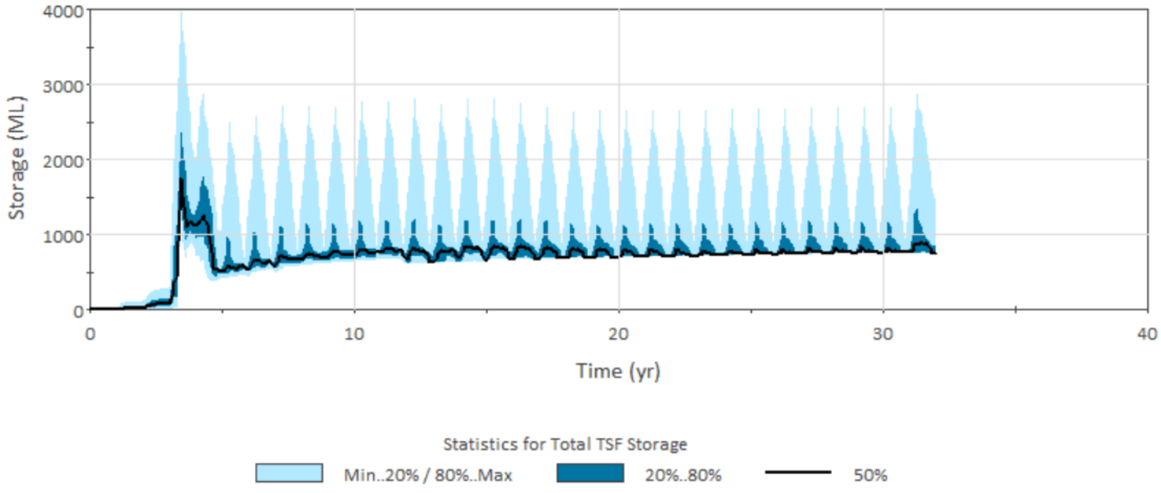
Figure 5 - Total TSF Storage Volume Probabilistic Range



3.3 Entrainment and Tailings Bleed Water

Tailings bleed water is calculated based on the total tailings water minus the water entrained in the tailings. The entrained water is calculated by multiplying the tailings dry weight by a percentage factor. In the model, the percentage values used are 30% and 31% for the Low Sulphur and High Sulphur tailings, respectively.

This method is appropriate, provided the input values are based on tailings test results from the Project or values from similar projects (where tailings testing has not yet been completed). These inputs greatly influence the tailings water demand, entrainment, and bleed water values. For example, entrained water can vary by approximately 60% depending on whether an initial settled density of 1.2 tonnes/m^3 or 1.55 tonnes/m^3 is used.

ATCW recommends updating the Water Balance Model and Assumptions Register **[2]** to include tailings test results and the calculation method used to estimate entrainment and tailings bleed water.

3.4 Run-off

Runoff is calculated using runoff coefficients for all catchment areas. The coefficients are applied in the Water Balance Model to the different catchment types as a function of the daily rainfall.

There is a general move away from using runoff coefficients as models become more detailed and computed at a daily time step. This allows more detailed runoff methods, such as the Australian Water Balance Model (Boughton, 2004 **[3]**) or the simplified Boughton Runoff Model (Boughton, 1984 **[5]**), to be used. These methods take into account parameters such as surface storage capacity, surface saturation, evaporation, and seepage.

The benefit of the more detailed methods is that runoff from high rainfall events is generally more conservative (higher) as surfaces can be completely saturated, resulting in increased runoff.

These methods challenge the estimation of several input parameters. This estimation may be based on calibration using gauged flow from a catchment area and/or engineering judgment based on experience from water balances with similar characteristics.

ATCW recommends considering adopting the Australian Water Balance Model or Boughton runoff model for surface runoff calculations. If these are not adopted, a review of the current runoff coefficients is recommended, with attention to high rainfall events where a higher runoff coefficient would be a more conservative approach.

3.5 Water Management

As stated in the Water Balance Report, the Water Balance Model objectives are to:

- Delay and minimise the need for water use from the regional bore field by optimising the use of mine dewatering,
- Operate the tailings reclaim pond at the target storage in all climatic conditions,
- Ensure that water is not stored in the TSF system following significant rainfall,
- Minimise the discharge of surplus mine dewatering while maintaining the pit dewatering targets,
- Reuse water captured in the WSPs, and
- Minimise water supplied from the regional bore field.

The objectives are implemented through the model's water pumping logic and process water supply priority, which are detailed in Table 2-1 of the Water Balance Report. Generally, the priority is to use potentially contaminated water, followed by mine dewatering water and water from the regional bore field. On review of the model, this process water priority is performing as intended.

3.6 Storages

3.6.1 Low Sulphur TSF

Water inflow to the Low Sulphur TSF decant pond comes from tailings, direct rainfall, and rainfall runoff. Water outflow or losses are due to evaporation, water entrainment in the tailings, water pumped to the reclaim pond, and water overflow to the reclaim pond.

3.6.1.1 Low Sulphur Evaporative Losses

Evaporative losses are calculated for the pond surface, wet, and damp beach areas. For the wet and damp beach areas, evaporation losses are calculated using the monthly pan evaporation factor and an additional factor of 0.8 and 0.4, respectively. The pond area is subtracted from the active TSF area (time series input), and the wet and damp beach areas are each estimated to be 10% of the exposed active TSF area.

While ATCW use a different approach based on an understanding of the tailings settlement and bleed water run-off, an industry standard to estimate evaporative losses from the beach areas of a TSF is , the method adopted generally has a large influence on the model results. ATCW recommend clearly defining the basis of the assumptions adopted to estimate the TSF areas and evaporation coefficients in the Water Balance Report.

3.6.1.2 Low Sulphur TSF Storage Curve

The Low Sulphur TSF decant pond storage curve is changed at year 5, year 16, and year 18. The maximum storage volume is defined at the same model years. The storage curves are elevation and area input data, with an integral method used to calculate the volume to elevation. In the model, the overflow rate is not limited.

ATCW recommends that the storage curves are integrated in the model using and interpolation method to eliminate any modelled step changes that are unlikely to be observed in operation. It is also recommended that the Low Sulphur TSF storage curve data and information on overflow structures be included in the Water Balance Report.

3.6.1.3 Low Sulphur Target Operating Volume

Water is pumped from the Low Sulphur TSF to the Reclaim Pond based on target operating water volumes in the Low Sulphur TSF. The target volumes are changed at year 2, year 13 and year 15. As these target volumes change at different years compared to the applied storage curves, ATCW recommends reviewing these values and the timing of their implementation. Including this information in the water balance report would assist in understanding the water management of the Low Sulphur TSF.

3.6.2 High Sulphur TSFs

Two High Sulphur TSF Cells are included in the Water Balance Model and a minimum water depth of 1 m is maintained in both cells. Water inflow to the cells is from tailings, direct rainfall, pit dewatering (via the dewatering pond), and runoff. Water outflow is to evaporation, entrainment in the tailings, water pumped to the reclaim pond and potential overflow.

Evaporation inhibitors reduce evaporation from the High Sulphur TSFs by a factor of 35% under the base case scenario.

For both cells, a constant storage curve is used. The cumulative tailings volume is accounted for in the model to estimate the water surface elevation and water volume. The cumulative tailings volume is based on tailings settled density of 1.55 tonnes/m^3; ATCW recommends including this input in the Water Balance Report. There is no maximum storage capacity implemented in the model; however, the Assumptions Register **[2]** lists a 'full storage level' of 353 ML. ATCW suggest implementing a maximum storage volume for the High Sulphur TSF Cells in the model to evaluate if there is potential overflow.

3.6.3 Water Settling Ponds

Four water settling ponds are included in the Water Balance Model. They capture surface water runoff from potentially contaminated surfaces (largely stockpiles and the process plant area). Excess water is pumped to the Reclaim Pond, where it can be pumped back to the plant for process use.

These storages have constant storage curves and maximum storage capacities. Water settling ponds 1, 2, and 3 have a capacity equal to the 1% AEP, 72 hr containment volume. The overflow from the water settling ponds is not captured by another storage in the water balance model. ATCW recommends a review of whether this water can be released to the environment or needs to be captured by another storage facility to meet the project requirements.

3.6.4 Mine Pit and Dewatering Pond

Runoff and seepage in the mine pit is captured in the pit sumps, where water is lost to evaporation or overflow to the pit floor. Evaporation factors are applied to both the seepage and rainfall runoff as a function of the daily and previous days' rainfall. Water ponding on the pit floor is pumped out to the dewatering ponds. ATCW recommend including these details in the water balance report with references to the adopted calculation methods where possible.

3.6.5 Reclaim Water Pond

The Reclaim Water Pond receives inflow from the High Sulphur TSFs, Low Sulphur TSF, water settling ponds, direct rainfall, and rainfall runoff. Water outflow and losses are due to evaporation and the return of pumped water to the process plant.

Evaporation inhibitors reduce evaporation from the Reclaim Pond by a factor of 40% under the base case scenario.

3.6.5.1 Reclaim Water Pond Storage Curves

The Reclaim Water Pond storage curve is changed at year 5, year 16, and year 18. The storage curves are elevation and area input data, with an integral method used to calculate the volume to elevation relationship.

ATCW recommended including information describing the step changes in the Reclaim Pond Storage Curve data to the Water Balance Report or Assumptions Register.

3.6.5.2 Reclaim Pond Operating Volume

Input operating target volumes are interpolated between years 0-2, 2-30, and 30-31 and maintained as a constant from years 31-36. Figure 3-22 in the Water Balance Assumptions Register **[2]** shows these target volumes.

When the Reclaim Pond volume is equal to or less than the Target operating volumes, the return pump turns off. The operating volume is also used to calculate the priority pumping from the Reclaim Pond.

ATCW recommends adding to the Water Balance Report or Assumptions Register **[2]** information describing why the target volume changes on a different schedule from the storage curves.

3.6.5.3 Maximum Reclaim Pond Volume

The Water Balance Model does not include a maximum reclaim pond volume, and there is no overflow modelled from the pond. Full storage values for each storage curve are provided in Tables 3-7 in the Water Balance Assumptions Register. ATCW recommends including maximum water storage volumes for the Reclaim Pond to evaluate the spill risk.

3.6.6 Clean Water Dam

The Clean Water Dam receives inflow from the mine dewatering bores, direct rain and the regional bore field. Water outflow and losses are to evaporation, process water demand, non-process water demand, and overflow to the infiltration ponds.

As mentioned in the **Section 2** (the introduction) the Water Balance Model forecasts excess clean water to be discharged from the site and for this to occur mainly during the wet season. During years when water is required to be brought in from the regional borefields excess water is still modelled to be discharged following rainfall events during the wet season. ATCW recommend investigating whether water management options can reduce the release of water and reduce the amount of water brought in from the regional borefields during these years.

Evaporation inhibitors reduce evaporation from the Clean Water Dam by a factor of 25% under the base case scenario.

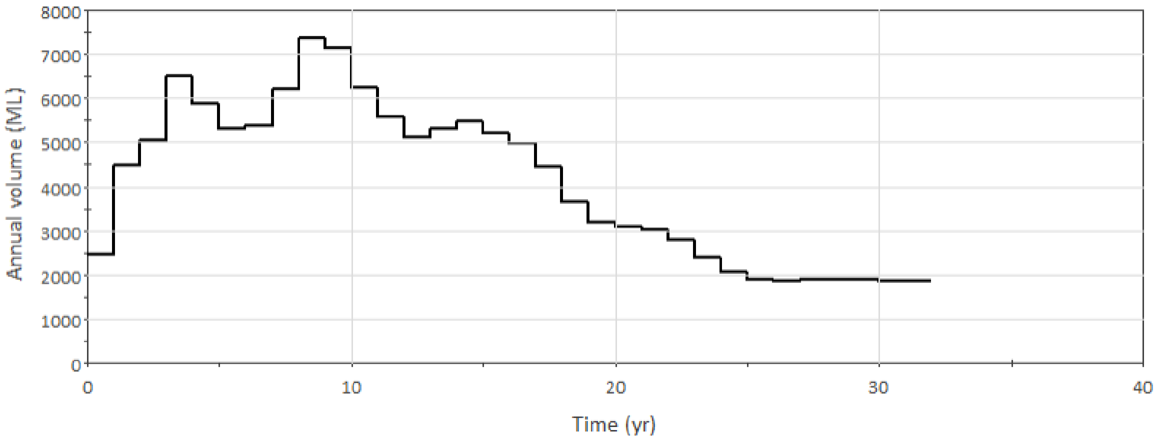
3.7 Mine Dewatering

Mine dewatering rates (dewatering bores and pit seepage) are input to the Water Balance Model as a time series generated from groundwater modelling based on the latest Mine Plan Schedule 55 bench progression. Mine dewatering accounts for the largest water inflow to the site-wide water balance model. This water is clean and can be released to the infiltration pond without risk of contamination.

Figure 6 shows the estimated annual dewatering volumes are highest over years 0-17, peaking in year 8 at approximately 7,400 ML/yr. From year 17 to 25 annual dewatering decreases from 5,000 ML/yr to 2,000 ML/yr, where it remains constant to the end of the modelled period.

The modelled water excess and water demand are shown in the report to be largely influenced by the dewatering volumes. ATCW recommend that the water balance model is reviewed following the collection of dewatering data and verification of the groundwater model.

Figure 6 - Annual Mine Dewatering Rates [1]



3.8 Non-process requirements

Non-process water demands from:

- On-site haul road dust suppression,
- Water requirements for construction earthworks and dust suppression,
- Non-process mine infrastructure,
- Potable requirements for the mine and accommodation, and
- Cooling tower

These water demands are appropriately implemented in the Water Balance Model as time series inputs and the data source referenced in the Water Balance Report.

3.9 Evaporation Inhibitors

Evaporation inhibitors have been applied in the Water Balance Model to the Clean Water Dam, Reclaim Pond and High Sulphur Tailings TSF Cells.

The evaporation reduction factors adopted in the model are based on Worley's experience. The Water Balance Report discusses that uncertainty in effectiveness remains, and a sensitivity analysis of the evaporation reduction factors was completed to assess the impact of these assumed values.

3.10 Sensitivity Analysis

A sensitivity analysis was completed based on the mine dewatering, process water demand, non-process demand and evaporation inhibitor effectiveness values. The following factors were applied in the sensitivity analysis:

- Mine dewatering rates were assessed based on 10th and 90th percentile groundwater model results
- Process demands +/- 10%
- Non-process demands +/- 20%
- Evaporation inhibitor effectiveness (minimum 20%, maximum 70% for the Reclaim Pond, 80% for the High Sulphur TSF Cells)
- Clean water dam capacity
- Tailings solids content
- Climate change forecast emissions scenarios

The Water Balance Report **[1]** discusses the range of values input under the sensitivity assessments. The values used may be reasonable to provide information on where Water Balance

Model is most sensitive, however, it is recommended that additional information or justification for the values used is included in the Water Balance Report.

4 SUMMARY

ATCW's review of the Winu site-wide water balance model indicates that at this stage of the Project it adequately estimates the water surplus and water import requirements. The review identified recommendations to be considered to improve the model and Water Balance Report.

Improvements recommended to the model include:

- Use of synthetic climate data and increased number of model realisations,
- Maximum storage volumes for the High Sulphur TSF Cells and the Reclaim Pond,
- Maximum discharge rates,
- Spill assessment of the contaminated water storages,
- Inclusion of tailings test results into the entrainment and bleed calculations,
- Update calculation of water losses with concentrate and addition of water inflow with ore,
- Update run-off calculations to be based on the Australian Water Balance Model or simplified Boughton runoff model.

Water balance model inputs and information that are recommended to be updated in the Water Balance report include information and data on the following:

- Storage curves for the Low Sulphur TSF and the Reclaim Pond,
- Overflow and water management from the Low Sulphur TSF and Water Storage Ponds,
- Basis of evaporation calculations from the TSF beach areas,
- Information used to guide the range of values applied in the sensitivity analysis.

The site-wide water balance model and report meet the requirements to answer the key objectives in forecasting the Project water surplus and need for water from the regional bore field. Ongoing refinements to the model will continue to improve confidence in the modelled results and assist in the Project design tasks.

5 REFERENCES

[1] Worley. (2025). Water Balance - Winu Copper Gold Project. Report Rev 0: 311012-01475-REP-WB-039.

[2] Worley. (2025). Water Balance Assumptions Register update 2025. Report 311012-01475

[3] GoldSim software Version 14, GoldSim Technology Group LLC

[4] Boughton, WC (2004). "The Australian Water Balance Model". Environmental Modelling and Software, vol.19, pp. 943-956.

[5] Boughton, WC (1984). "A Simple Model for Estimating the Water Yield of Ungauged Catchments". Civ. Eng. Trans., IEAust, Vol. CE26, No. 2 pp88.

[6] McMahon, T., Peel, M., Lowe, L., Srikanthan, R. and McVicar, T. (2013a) Estimating actual, potential, reference crop and pan evaporation. Hydrol. Earth Syst. Sci., 17, 1331–1363, 2013.

[7] McMahon, T., Peel, M., Lowe, L., Srikanthan, R. and McVicar, T. (2013b) Supplementary Material to paper 'Estimating actual, potential, reference crop and pan evaporation using standard meteorological data: A pragmatic synthesis' using standard meteorological data: a pragmatic synthesis.