Appendix 4: Site-Wide Water Balance (WSP, 2025b)

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Katanning Gold Project

Site-Wide Water Balance

October 2025

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A	13 June 2025	Draft Report
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	Name	Date	Signature
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Abbreviations

Ausgold	Ausgold Limited
BO	Borefield
BoM	Bureau of Meteorology
CCiA	Climate Change in Australia
CR	Catchment Runoff
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DP	Direct Precipitation
EF	Evaporation Factor
EN	Entrained Water
FS	Feasibility study
GCMs	Global Climate Models
GG	Greenhouse Gas
GW	Groundwater
KGP	Katanning Gold project
MAR	Managed Aquifer Recharge
ME	Mechanical Evaporator
NRM	Natural Resource Management
OV	Overtopping
PE	Pond Evaporation
PS	Prefeasibility study
RCP	Representative Concentration Pathways
PWR	Pit Wall Runoff
RO	Runoff
ROM	Run of Mine
SILO	Queensland Department of Environment and Science's SILO Data Drill
SP	Seepage
SWMP	Surface Water Management Plan
TDS	Total Dissolved Solids
TE	Tailings Evaporation
T_P	Decanting Pumping

TR	Tailings Runoff
TS	Tailings Slurry
TSF	Tailings Storage Facility
WB	Water Balance
WSP	WSP Australia Pty Limited
WRD	Waste Rock Dump

1 Project background

1.1 Introduction

WSP Australia Pty Ltd (WSP) has been engaged by Ausgold Limited (Ausgold) to develop a site-wide Water Balance (WB) for the Katanning Gold project (KGP). The site is located approximately 40 km northeast of the town of Katanning in the southwest region of Western Australia. The project is undergoing feasibility (FS) and prefeasibility scoping (PFS) studies to provide an overarching strategy for future mining operations. This study aims to develop a site-wide WB model to provide a general understanding on the site water management requirements and to support the regulatory approval process.

The focus of the site-wide WB is on tracking the contact water and estimate the annual water surplus that will require management through systems such as mechanical evaporator system or managed aquifer recharge (MAR). Non-contact water will be diverted and managed according to the site Surface Water Management Plan (SWMP), which was also developed by WSP in a parallel scope (WSP, 2025a). This approach will prevent any mixing of contact and non-contact water.

This report summarises the methodology as presented in the Basis of Assessment (WSP, 2025b), outlines the conceptualisation of the model, and presents the findings of the water balance modelling.

1.2 Site overview

The site is situated approximately 40 km northeast of the town of Katanning in the southwest region of Western Australia. The tenements span more than 4,000 km^2 across the Katanning Greenstone Belt in the southwest corner of the Yilgarn Craton. The KGP represents a 17 km long mineralised trend with significant potential. The general site location is shown in Figure 1.1 and the site layout is shown in Figure 1.2.

Figure 1.1 KGP location

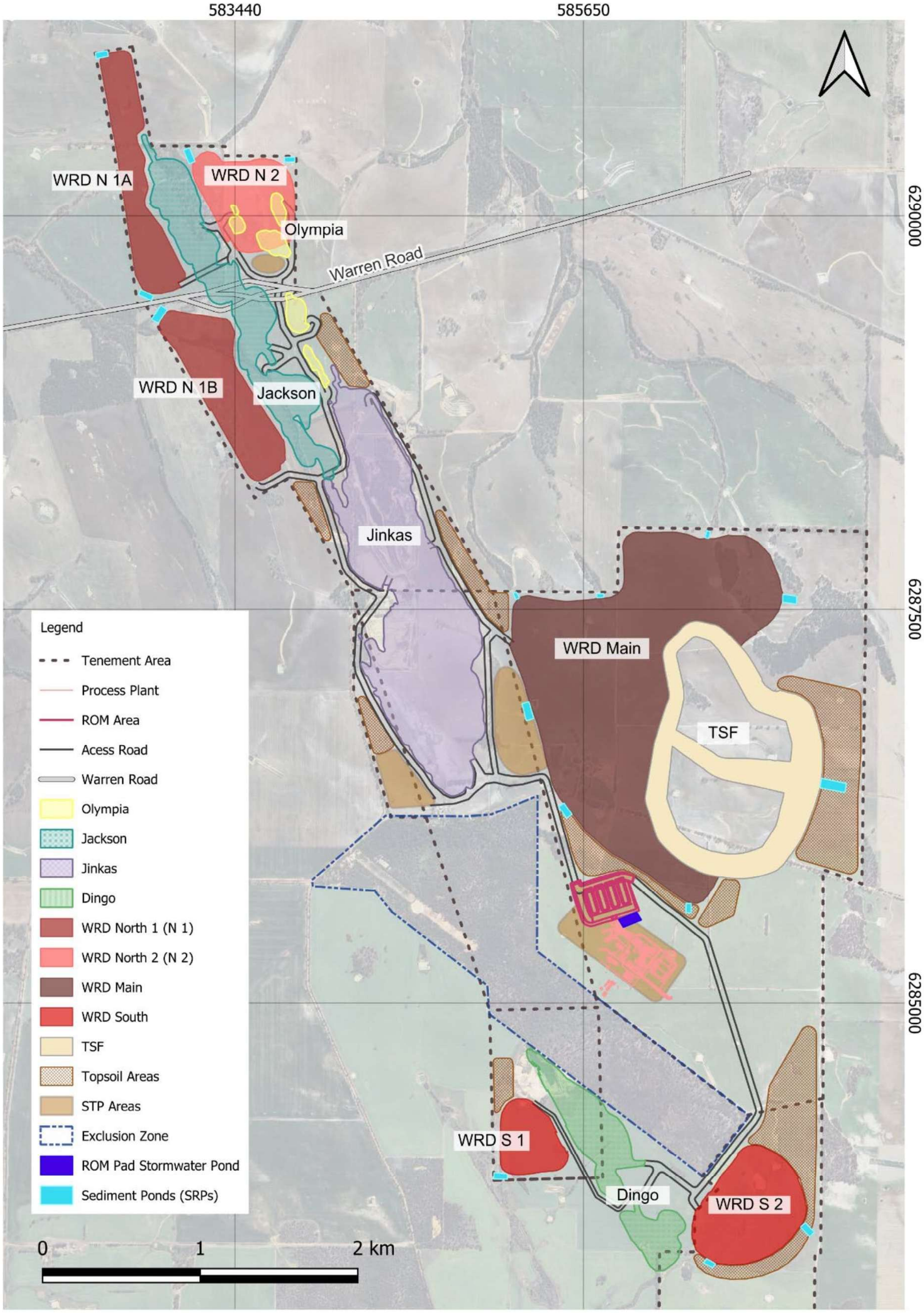

Figure 1.2 Site layout

2 Model overview

2.1 Objectives and considerations

The WB model was developed using the GoldSim software. The model operates on a daily time step to predict the water storage volumes for key structures. The predictive simulations incorporate a probabilistic (stochastic) climate generator to account for uncertainties related to future climatic conditions and variability in selected model inputs and parameters. This approach enables the prediction of the likely long-term interactive performance of the site's infrastructure under alternative climatic sequences.

The objective of the site-wide WB was to establish a base model to inform the strategic planning for the operational phase focusing on:

- Understanding fluxes: Analysing the inflows and outflows of the main infrastructure under stochastic climate time series.
- Quantifying the yearly water surplus that will require management through systems such as mechanical evaporator system or managed aquifer recharge (MAR), adhering to the 'zero release' stipulation.

2.2 Software

The WB was developed in GoldSim (Version 15.0) (GoldSim Technology Group, 2021). GoldSim is used globally to simulate dynamic systems, to understand the factors which control the systems and to predict the future behaviour. Any system that can be quantitatively described using equations and/or rules can be modelled using GoldSim.

GoldSim models are composed of containers and functional elements such as inputs, expressions, stocks, events, delays, cell pathways and results. Each functional element forms part of the model structure which is developed specifically for a particular modelled system. The calculations within and relationship between functional elements are built by the modeller. Input data are stored within the model and can come in the form of a scalar value, a vector or a matrix.

Model simulations are run at a daily time-step over an identified simulation period with one or multiple model realisations. A realisation is defined as a single model run under one set of stochastic inputs (e.g., climate dataset). The purpose of using multiple realisations in this case is to test the system under multiple alternative rainfall/evaporation time series or other input patterns.

2.3 Conceptualisation

A simplified version of the process flow diagram for the WB is presented in Figure 2.1 showing the general interactions between the main storages. In general, the contact water flow during operations is as follows:

- **Pits:** There are four main pits on site (Jackson, Jinkas, Dingo, and Olympia), with each pit developed in stages (refer to Section 3.2 for details). Pits in general receive water from direct precipitation, catchment runoff, pit wall runoff and groundwater inflow, the latter as a result of the pit being mined below the regional groundwater level (except Olympia). Water ponding within a pit is mainly lost through dewatering pumping to the process plant.
- **Sediment Ponds and Storm Water pond:** 16 Sediment ponds are expected to collect runoff and seepage from the Waste Rock Dumps (WRDs) across the mine area, and 1 Storm Water pond is expected to collect runoff from the Run of Mine (ROM) pad (refer to Section 3.3 for details) Operational rules governing pumping from the sediment ponds to the process plant are applied. The sediment ponds are expected to be clay lined, and therefore only minimal seepage is expected.

- **Tailings Storage Facility (TSF):** The TSF comprises two cells (Northern cell and Southern cell) (refer to Section 3.4 for details). The TSF cells receive water from Direct precipitation, Water released from the tailings slurry, and runoff from the tailings surface. The main outflow from the TSF cells is decanting pumping directed back to the process plant. A minimal seepage is expected to be captured via an underdrainage system or collection system returning the water to the processing plant. The model would consider this seepage as a loss in the water balance.
- **Process Plant:** The process plant receives water from the pits, sediment ponds, and TSF cells. It has an annual water demand of approximately 3700 ML and if the inflow is insufficient, borefields are used to supplement the water supply (refer to Section 3.4.3 for details).

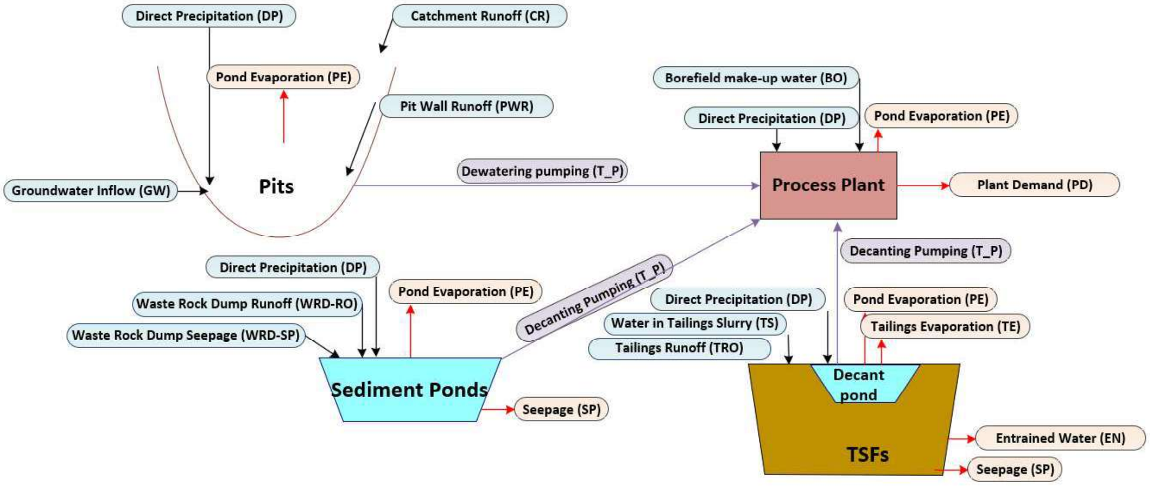

Figure 2.1 Simplified process flow diagram for KGP

2.4 Model inflows and outflows

Inflows, outflows, and water transfers for each storage are summarised in Table 2.1 to Table 2.7 for each storage type. Fluxes were assigned a FLOW ID based on the flow type.

Table 2.1 TSF inflows and outflows

Flow ID	Flow	Description	Rationale for calculation
Inflows			
DP	Direct precipitation	Direct precipitation over the ponding area	Water volumes generated by direct precipitation over the decant pond assuming a runoff coefficient of 1 (i.e., no losses). Area was considered variable depending on the pond volume at each time step.

<table>
<tr><th>Flow ID</th><th>Flow</th><th>Description</th><th>Rationale for calculation</th></tr>
<tr><td>TR</td><td>Tailings runoff</td><td>Run off from the tailings area</td><td>Runoff from the tailings was calculated based on the saturation level (beach condition) and runoff coefficient for each area. The values, presented in Table 2.2, are adopted from the TSF design report (WSP, 2025c).
Table 2.2 Area contributions and runoff coefficients for different areas of the tailings
<table>
<tr><th>Saturation level</th><th>% Area</th><th>Runoff coefficient</th></tr>
<tr><td>Wet beach</td><td>30%</td><td>90%</td></tr>
<tr><td>Drying beach</td><td>10%</td><td>80%</td></tr>
<tr><td>Dry beach</td><td>40%</td><td>60%</td></tr>
</table></td></tr>
<tr><td>TS</td><td>Water in tailings slurry</td><td>Water within the tailings</td><td>Tailings pumped into the TSF includes slurry water of which some is released from the tailings and eventually flows to the TSF pond. The water in slurry released from the tailings depends on the tailings characteristics, and in particular the tailings solids content, defined as follows:
$$(eq1)\ Water\ in\ \text{tailings}\ slurry = \frac{Production\ Rate}{\delta_w} \times \frac{1 - Tailings\ Solids\ Content}{Tailings\ Solids\ Content}$$
δw = Density of water (1 t/m^3)</td></tr>
<tr><td colspan="4">Outflows</td></tr>
<tr><td>PE</td><td>Pond evaporation</td><td>Evaporation over the ponding area</td><td>Evaporation was estimated by applying pan evaporation rates scaled by a pan evaporation factor (EF=0.7) to the ponding surface area.</td></tr>
<tr><td>TE</td><td>Tailings evaporation</td><td>Tailings evaporation</td><td>To estimate the evaporation from the different beach areas within the TSF (as mentioned in Table 2.2), the parameters presented in Table 2.3 were considered.
Table 2.3 Factors to derive evaporation from different beach areas
<table>
<tr><th>Saturation levels</th><th>% Area</th><th>Evaporation factor</th></tr>
<tr><td>Wet Beach Factor</td><td>30%</td><td>60%</td></tr>
<tr><td>Drying beach</td><td>10%</td><td>30%</td></tr>
<tr><td>Dry beach</td><td>40%</td><td>10%</td></tr>
</table></td></tr>
<tr><td>T_P</td><td>Decanting pumping</td><td>Decanting pumping</td><td>TSF decant pond is designed to have a decant pond no larger than 20% of the tailings area, therefore excess water in the TSF pond was pumped out to the process plant, even if the process plant has no capacity to store any water in excess of process requirements.</td></tr>
</table>

Flow ID	Flow	Description	Rationale for calculation
EN	Entrained water	Entrained water	As tailings is pumped to the TSF some water is entrained as interstitial water. The proportion depends on the tailings characteristics, and in particular the initial settled dry density (δdi), specific gravity (SG) of tailings material and tailings solids content, defined as follows: $(eq2)\ Entrained\ water = \frac{Production\ Rate\ \times w}{\delta_w}$ $(eq6)\ w = \frac{(SG\ \times\ \delta_w) - \delta_{di}}{SG\ \times\ \delta_{di}}$ where: w = Moisture content of tailings (% w/w) SG = Specific gravity of tailings material (dimensionless) δw = Density of water (1 t/m^3) δdi = Initial settled dry density of pumped tailings (t/m^3).
SP	Seepage	Seepage	Seepage water from tailings is assumed to occur at a rate 0.044 L/s for the Southern Cell and 0.045 L/s for the Northern Cell based on the TSF Design report (WSP, 2025c). Although seepage is expected to be minimal and negligible in terms of its impact on the overall water balance, it is tracked as an outflow. This is to ensure that in case the seepage is not captured by the underdrainage system, the total volumes can be tracked for environmental checks. Seepage is considered a loss in the system.
OV	Overtopping	Overflow from the TSF	Overflow from the TSF.

Table 2.4 Pit inflows and outflows

<table>
<tr><th>Flow ID</th><th>Flow</th><th>Description</th><th>Rationale for calculation</th></tr>
<tr><td colspan="4">**Inflows**</td></tr>
<tr><td>DP</td><td>Direct precipitation</td><td>Direct precipitation over the ponding area</td><td>Water volumes generated by direct precipitation over the decant pond in a Pit assume a runoff coefficient of 1 (i.e., no losses). A constant pond area of 2240 m^2 was adopted considering the dewatering will aim to maintain the pond (sump) in a pit at a minimal water depth of 0.5 m.</td></tr>
<tr><td>CR</td><td>Catchment runoff</td><td>Catchment runoff</td><td>This inflow was estimated by the rainfall-runoff relationship established by McCullough, Marchand and Unseld (2013) and varies depending on the magnitude of the daily rainfall and the preceding day's rainfall to account for antecedent moisture conditions as summarised in Table 2.5.
Table 2.5 Runoff coefficients for pit walls
<table>
<tr><th>Current day rainfall</th><th>Previous day rainfall</th><th>Runoff coefficient for catchment area (CR)</th><th>Runoff coefficient for pit wall (PWR).</th></tr>
<tr><td>< 5 mm/d</td><td>N/A</td><td>0</td><td>0</td></tr>
<tr><td>< 40 mm/d</td><td>< 20 mm/d</td><td>0.15</td><td>0.30</td></tr>
<tr><td>< 40 mm/d</td><td>> 20 mm/d</td><td>0.40</td><td>0.65</td></tr>
<tr><td>≥ 40 mm/d</td><td>N/A</td><td>0.40</td><td>0.65</td></tr>
</table></td></tr>
</table>

Flow ID	Flow	Description	Rationale for calculation
PWR	Pit wall runoff	Pit wall runoff	This inflow was estimated by the rainfall-runoff relationship established by McCullough, Marchand and Unseld (2013). See Table 2.5.
GW	Groundwater inflow	Groundwater inflow	Continuous groundwater (GW) inflow occurs due to the head difference between the regional GW level and the pit lake level. Ausgold has provided GW inflow data for each pit as a yearly inflow (see Section 3.2). It is assumed the GW inflow has a TDS concentration of (12,600 ppm=mg/L) (Pers comm, 2025a).
Outflows			
PE	Pond evaporation	Evaporation over the ponding area	Evaporation was estimated by applying two factors to the pan evaporation rates as follows: — **Pan evaporation factor** (EF): To convert pan evaporation to pond evaporation a factor of 0.7 adopted. — **Salinity factor (SF):** Leanny and Christen (Leaney, 2020) estimated the decrease in the evaporation rate due to the increase in salinity as per equation 1, where S corresponds to salinity in g/L $eq1. SF = 1.025 - 0.0246\ e^{0.00879 * S}$
T_P	Dewatering pumping	Dewatering pumping	Excess water in the pit voids will be pumped out and directed to the process plant. The pump rate will be defined based on the requirement to maintain a constant water level of 0.5 m in the pond.
OV	Overtopping	Overflow from the pits	Overflow from the pit if pond surface elevation exceeds perimeter ground elevation.

Table 2.6 Sediment ponds inflows and outflows

Flow ID	Flow	Description	Rationale for calculation
Inflows			
DP	Direct precipitation	Direct precipitation over the ponding area	Water volumes generated by direct precipitation over the sediment ponds assume a runoff coefficient of 1 (i.e., no losses). The water surface area of the pond was considered for the calculation.
WRD_RO	Run off	Run off	A 10% runoff coefficient is applied to the WRDs and 90% to the ROM pad for daily rainfall.
WRD_SP	Seepage from the WRD	Seepage from the WRD	A 35% coefficient for daily rainfall is assumed to represent seepage from the WRDs.
Outflows			
PE	Pond Evaporation	Evaporation over the ponding area	Evaporation was estimated by applying pan evaporation rates scaled by a pan evaporation factor (EF=0.7) to the surface area of the pond.
T_P	Dewatering pumping	Dewatering pumping	A pump capacity of 200 m^3/hour was adopted with pumping assumed to be activated when the water level in the pond is within 1 meter of the crest (using the crest as a reference due to variable pond depths) and deactivated when the water level reduces below 0.5 m.

Flow ID	Flow	Description	Rationale for calculation
SP	Seepage	Seepage	Calculated considering a clay lined pond with a seepage rate of 10 mm/d over the ponded area.
OV	Overtopping	Overflow from the sediment ponds	Overflow from the sediment ponds.

Table 2.7 Process plant inflows and outflows

Flow ID	Flow	Description	Rationale for calculation
Inflows			
DP	Direct precipitation	Direct precipitation over the ponding area	Water volumes generated by direct precipitation over the process plant storage assuming a runoff coefficient of 1 (i.e., no losses). The water surface area of the process plant (90 m x 40 m=3600 m^2) was considered for the calculation.
T_P-TSF	Decanting from TSF	Decanting from pits and sediment ponds	See T_P in Table 2.1.
T_P-Pits	Transfer, decanting from TSF	Transfer, decanting from TSF	See T_P in Table 2.4.
T_P-SedPonds	Transfer, decanting from Sediment ponds	Transfer, decanting from Sediment ponds	See T_P in Table 2.6.
BO	Borefield make-up water	Borefield make-up water	In case of shortfall to meet water demand of the process plant, required make-up water will be sourced from the nearby borefield.
Outflows			
PE	Pond evaporation	Evaporation over the ponding area	Evaporation was estimated by applying pan evaporation rates scaled by a pan evaporation factor (EF=0.7) to the surface area of the pond.
PD	Plant demand	Plant demand	Plant demand provided by Ausgold in monthly timestep (Pers comm, 2025a).
ME	Mechanical evaporator loss	Losses required for the system to balance	Estimated as the overflow from the process plant pond, considering a storage capacity of 12 ML.

3 Model input data

3.1 Climate

This section provides a summary of the climate conditions at the site, as the WB simulates the system based on daily rainfall and evaporation data. KGP is located within a temperate climate zone with a hot dry summer and cold winter, typically featuring low but highly variable annual rainfall in which there is a significant surplus of evaporation over rainfall. Baseline climate conditions were derived from the Queensland Department of Environment and Science's SILO Data Drill (SILO) gridded data for the period 1986-2005 (see Section 3.1.1). Monthly climate change factors were derived from publicly available data from Climate Change in Australia (CCiA) for rainfall and evaporation based on future period 2020 to 2040 (centred in 2030) and are applicable to the adopted baseline data period form 1986-2005. Three climate change scenarios were considered (see Section 3.1.2):

- Wetter scenario
- Drier Scenario
- Max consensus scenario.

To assess climate variability, the model uses daily stochastically generated rainfall and evaporation data (see Section 3.1.3).

3.1.1 Baseline climate conditions

3.1.1.1 Baseline – Data comparison

The baseline climate condition for the project site was analysed based on five data sources (summarised below) including four Bureau of Meteorology (BoM) weather stations. The period 1973-2011 was selected for concurrent comparison as it includes the most consistent recorded climate data for all stations:

- Badgebup, located approximately 10 km south of the site (BoM ref: 010508; in operation since 1915),
- Dumbleyung, located 30 km north of the site (BoM ref: 010546; in operation since 1910),
- Kwobrup, located 10 km southeast of the site (BoM ref: 010589; in operation since 1915)
- Nairibin, located 20 km north of the site (BoM ref: 010657; in operation since 1915)
- SILO gridded data interpolated for the KGP site location (Lat: -33.55°; Long: 117.90°).

SILO accesses grids of data interpolated from point observations for stations operated by the BoM providing long-term estimates of continuous daily rainfall and evapotranspiration records (from 1889 to present) for any location in Australia. A comparison of the average monthly and annual rainfalls for the five sources is provided in Table 3.1. The comparison shows that the monthly SILO values follow a similar trend and are comparable to the BoM stations, although the BoM stations recorded slightly lower values for July.

Table 3.1 Average monthly rainfalls (mm) for Badgebup BoM station, Dumbleyung BoM station, Kwobrup BoM station, Nairibin BoM station, KGP SILO dataset 1973 to 2011

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Badgebup	18.4	16.0	15.1	27.0	46.7	52.5	54.3	47.7	37.9	30.9	25.6	16.2	388.4
Dumbleyung	17.0	17.3	14.0	24.3	42.3	49.6	53.3	47.6	31.7	23.0	26.9	16.0	363.0
Kwobrup	17.4	13.9	15.3	27.1	45.7	50.2	54.4	47.8	34.4	26.2	28.6	16.1	377.0
Nairibin	15.5	15.9	11.7	20.8	37.7	44.7	46.3	42.1	27.7	21.0	22.9	13.1	319.4
SILO KGP site location	17.8	15.7	13.7	25.2	43.3	54.0	60.2	46.7	35.8	28.4	25.6	15.3	381.5

3.1.1.2 Baseline adopted

Daily pan evaporation data from SILO are available from 1970-2024 and daily rainfall data from 1889-2024. However, the period of rainfall data from 1986-2005 has been adopted for the water balance assessment for consistency with the baseline period used by CCiA to derive the monthly climate change factors. Table 3.2 summarises the mean monthly climate data adopted for the KGP site and compares it to the longer period from 1970-2024. The comparison shows similar seasonal trends and values for the respective monthly rainfalls and evaporation.

Table 3.2 Mean baseline climate for site (mm)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Rainfall													
1970–2024	17.1	17.7	18.0	23.7	41.9	53.3	58.8	47.4	36.1	28.7	25.0	14.5	382.2
1986–2005 (adopted)	14.0	14.6	19.7	24.7	46.4	53.9	60.9	47.2	37.1	23.9	24.0	12.4	378.8
Evaporation													
1970–2024	248.5	202.7	170.1	103.8	66.3	46.8	48.4	62.2	88.0	134.6	180.1	235.6	1587.0
1986–2005 (adopted)	242.9	198.3	167.5	103.0	63.2	46.1	47.0	60.6	85.7	131.6	178.8	228.8	1553.4

In summary, for the adopted period:

- **Rainfall**: The average annual rainfall is 379 mm, with summer rainfall, i.e., November to April, averaging 109 mm and winter rainfall, i.e., May to October, averaging 269 mm. Further rainfall statistics based on SILO data are shown in Figure 3.1 and Figure 3.2.
- **Pan Evaporation:** The average annual Pan evaporation is 1553 mm, with summer evaporation, i.e., November to April, averaging 1019 mm and winter evaporation, i.e., May to October, averaging 434 mm. Pan evaporation statistics are shown in Figure 3.3 and Figure 3.4.

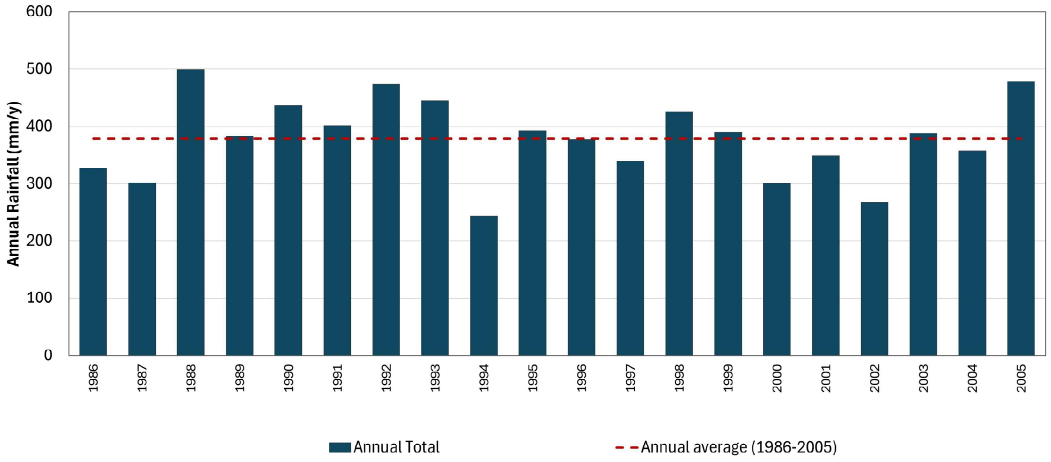

Figure 3.1 Annual rainfall at KGP from SILO (1986 to 2005)

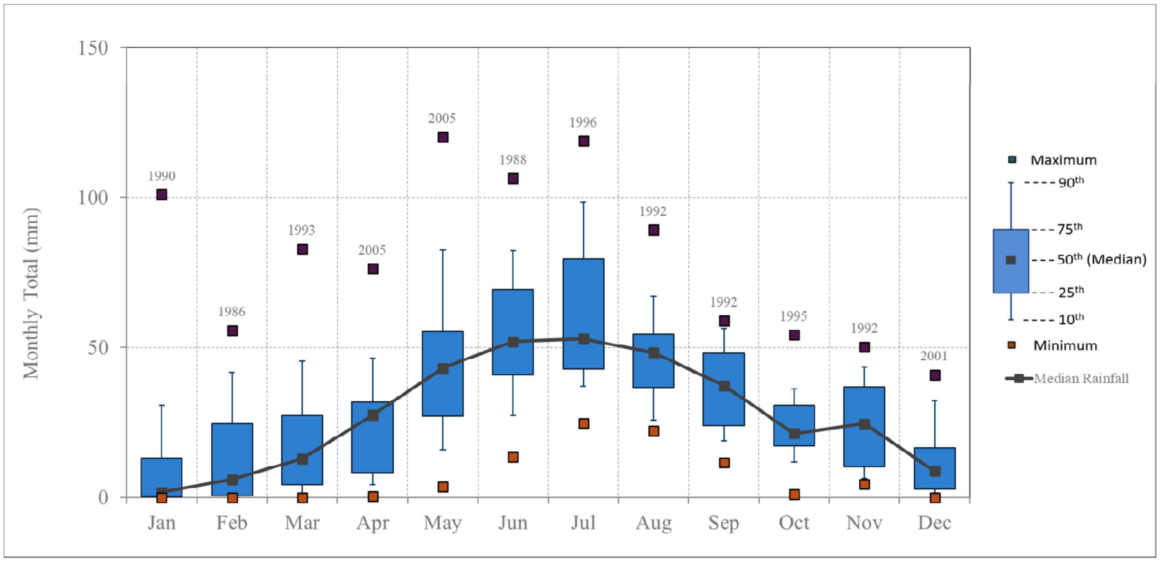

Figure 3.2 Monthly rainfall distribution at KGP from SILO (1986 to 2005)

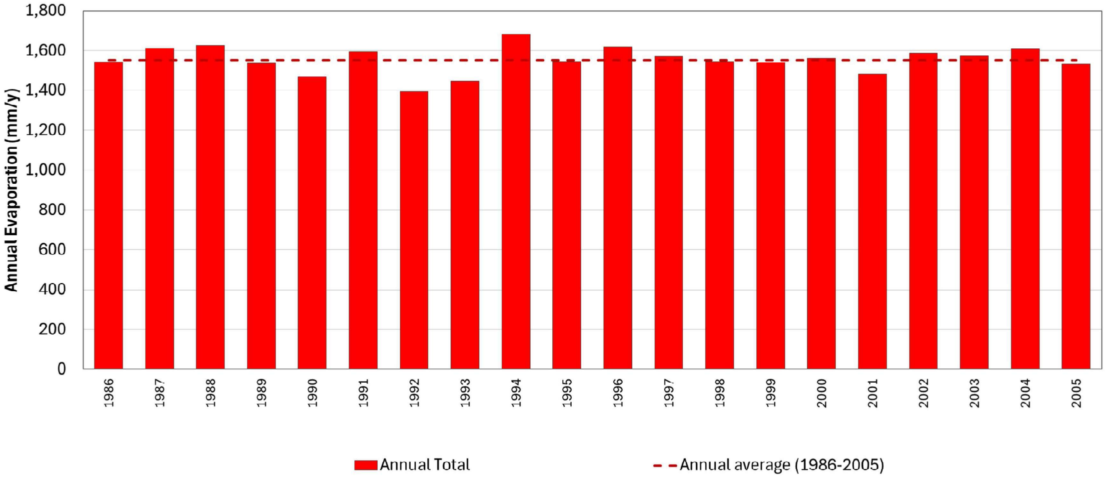

Figure 3.3 Annual pan evaporation at KGP from SILO (1986 to 2005)

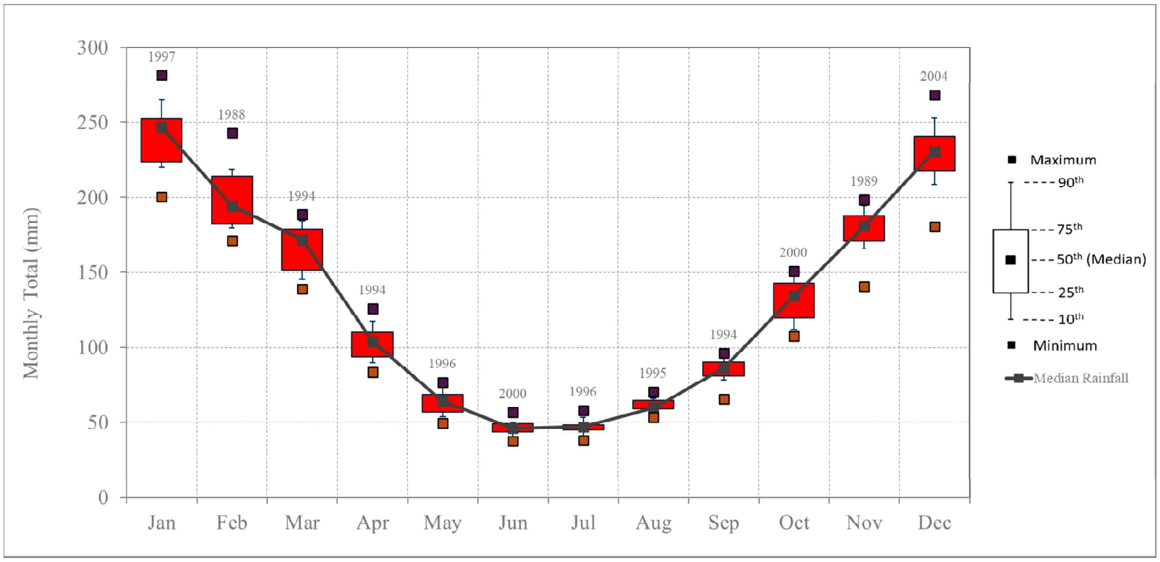

Figure 3.4 Monthly pan evaporation distribution at KGP from SILO (1986 to 2005)

3.1.2 *Climate change*

A climate change assessment was carried out to provide an understanding of the projected future climate conditions (i.e., rainfall and evaporation) at the project site based on a range of global Greenhouse Gas (GG) emission scenarios. The assessment was carried out for the near future (2020-2040) centred in 2030 (herein referred to as 2030) to estimate the possible climatic conditions for the operational period, considering a Life of Mine ending in 2035. The projected monthly changes for rainfall and evapotranspiration were incorporated into the water balance model as an additional scenario to assess the potential impacts of climate change on the water balance model.

3.1.2.1 Future climate methodology

To investigate and assess climate change impacts, researchers propose different future climate scenarios based on current human activities (e.g., burning fossil fuels). A measure of this is the Representative Concentration Pathways (RCPs), which are projected GG concentrations through to the end of this century dependent on different human behaviour scenarios. These scenarios range from RCP 8.5 (representing high emissions or the most pessimistic scenario), RCP 6.5 (representing intermediate emissions), RCP 4.5 (representing intermediate emissions), and RCP 2.6 (representing low emissions or the most optimistic scenario), as shown in Figure 3.5. The current global commitment for reducing GG emissions is closer to the RCP 4.5 trajectory, whereas the continuing historical pattern of GG emissions leads to RCP 8.5 (Commonwealth of Australia, 2018).

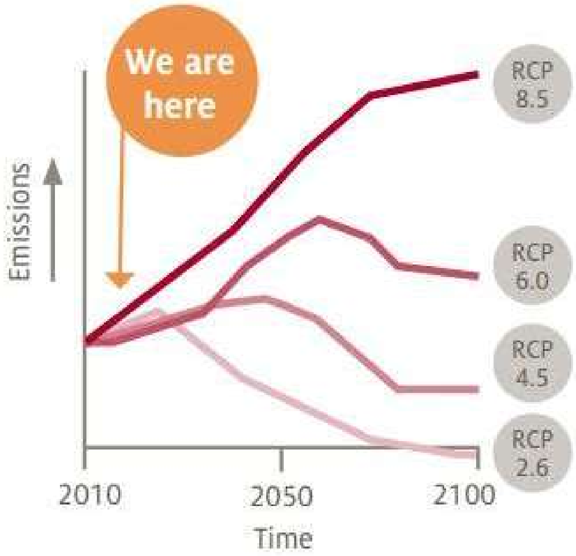

Figure 3.5 Greenhouse gas emission scenarios based on different representative concentration pathways

Global climate models (GCMs) are pivotal in the understanding of future climatic conditions, with their results accessible via the Coupled Model Intercomparison Project. Projections of Australia's future climate are based on the latest research informed by Australian government agencies and international research efforts. A key contributor is the collaborative research conducted by Commonwealth Scientific and Industrial Research Organisation (CSIRO) and BoM, as presented in the ‘Climate Change in Australia (CCiA)’ website (CSIRO & BoM, 2022). This source provides a comprehensive assessment of future climate for Australia.

The project site is located within the Southern and South-Western Flatlands Natural Resource Management (NRM) cluster (see Figure 3.6). For this region, CCiA predicts a rise in temperature between 0.7°C and 0.9°C for the period 2030, leading to scenarios where both substantially wetter conditions and markedly drier conditions are plausible. It is important to highlight that, irrespective of precipitation changes, a rise in temperature will invariably result in higher evaporation rates.

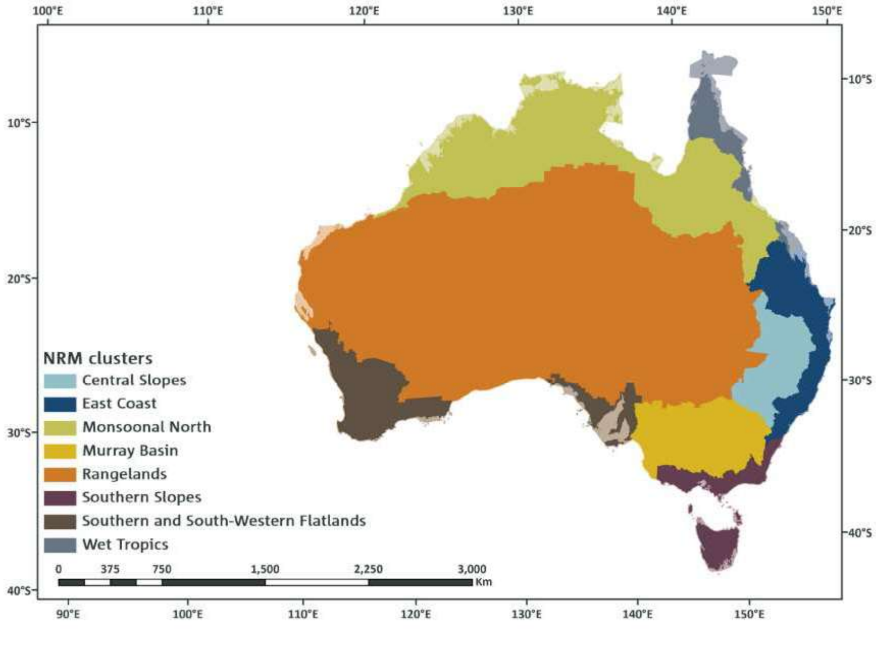

Figure 3.6 Australian natural resources management (NRM) clusters

3.1.2.2 Climate change model scenario selection

To account for a range of possible climate futures, this study assessed three climate change scenarios: Wetter, Drier, and Maximum Consensus.

Representative models were selected from the range of models for RCPs 4.5 and 8.5. The representative climate change model for each scenario was selected using the Climate Futures Projection Builder, based on the NRM cluster conditions from the CCiA website. To identify the representative models, the tool ranks all models using a multivariate statistical technique to find the best fit for the selected settings. Additionally, the tool identifies the maximum consensus climate future, which is the climate future projected by at least 33% of the models and includes at least 10% more models than any other scenario. Settings for the Drier and Wetter conditions were defined as follows:

- Drier conditions: Decrease in monthly and annual rainfall and increase in evapotranspiration.
- Wetter conditions: Increase in monthly and annual rainfall with little change in evapotranspiration.

Monthly percentual change factors for rainfall and evaporation of the assessed models and the adopted models are shown in Table 3.3 and Table 3.4 for the following scenarios:

- Drier scenario model: RCP 4.5 GFDL-ESM2M
- Wetter scenario model: RCP 8.5 CNRM-CM5
- Maximum consensus (Max Con) model: RCP 4.5 ACCESS1-0 (corresponding to the climate prediction with the highest degree of model agreement).

Table 3.3 Monthly percentual change factors for rainfall (%)

Models	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RCP 4.5 GFDL-ESM2M **(Drier scenario)**	-35.90	-35.90	-44.80	-44.80	-44.80	-16.50	-16.50	-16.50	-46.10	-46.10	-46.10	-35.90
RCP 4.5 NorESM1-M	-5.00	-5.00	9.70	9.70	9.70	-8.20	-8.20	-8.20	-1.20	-1.20	-1.20	-5.00
RCP 4.5 ACCESS1-0 **(Max Con Scenario)**	-9.60	-9.60	-1.50	-1.50	-1.50	-16.60	-16.60	-16.60	3.40	3.40	3.40	-9.60
RCP 8.5 CanESM2	-2.90	-2.90	-24.90	-24.90	-24.90	-10.70	-10.70	-10.70	-23.20	-23.20	-23.20	-2.90
RCP 8.5 CNRM-CM5 **(Wetter Scenario)**	19.70	19.70	15.50	15.50	15.50	-3.70	-3.70	-3.70	3.20	3.20	3.20	19.70
RCP 8.5 CESM1-CAM5	-11.00	-11.00	3.50	3.50	3.50	-8.10	-8.10	-8.10	-4.90	-4.90	-4.90	-11.00

Table 3.4 Monthly percentual change factors for evaporation (%)

Models	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RCP 4.5 GFDL-ESM2M **(Drier scenario)**	0.30	0.30	5.60	5.60	5.60	7.30	7.30	7.30	-0.70	-0.70	-0.70	0.30
RCP 4.5 NorESM1-M	3.70	3.70	1.10	1.10	1.10	4.30	4.30	4.30	2.20	2.20	2.20	3.70
RCP 4.5 ACCESS1-0 **(Max Con Scenario)**	3.20	3.20	2.30	2.30	2.30	4.40	4.40	4.40	2.00	2.00	2.00	3.20
RCP 8.5 CanESM2	1.70	1.70	7.80	7.80	7.80	7.40	7.40	7.40	7.00	7.00	7.00	1.70

Models	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
RCP 8.5 CNRM-CM5 **(Wetter Scenario)**	2.60	2.60	2.20	2.20	2.20	2.90	2.90	2.90	2.20	2.20	2.20	2.60
RCP 8.5 CESM1-CAM5	2.30	2.30	3.70	3.70	3.70	8.80	8.80	8.80	2.40	2.40	2.40	2.30

Table 3.5 and Table 3.6 summarise the monthly and total (annual) rainfalls and evaporation for the selected models applying the factors to the corresponding baseline period 1986-2005. Figure 3.7 and Figure 3.8 illustrate the changes for each scenario.

Table 3.5 Comparison of predicted monthly rainfalls for a range of climate models

Models	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Baseline Rainfall	14	15	20	25	46	54	61	47	37	24	24	12	379
RCP 4.5 GFDL-ESM2M **(Drier scenario)**	9	9	11	14	26	45	51	39	20	13	13	8	257
RCP 4.5 ACCESS1-0 **(Max Con Scenario)**	13	13	19	24	46	45	51	39	38	25	25	11	349
RCP 8.5 CNRM-CM5 **(Wetter Scenario)**	17	17	23	29	54	52	59	45	38	25	25	15	398

Table 3.6 Comparison of predicted monthly evaporations for a range of climate models

Models	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Baseline Evaporation	243	198	167	103	63	46	47	61	86	132	179	229	1553
RCP 4.5 GFDL-ESM2M **(Drier scenario)**	244	199	177	109	67	49	50	65	85	131	178	229	1583
RCP 4.5 ACCESS1-0 **(Max Con Scenario)**	251	205	171	105	65	48	49	63	87	134	182	236	1597
RCP 8.5 CNRM-CM5 **(Wetter Scenario)**	249	203	171	105	65	47	48	62	88	134	183	235	1591

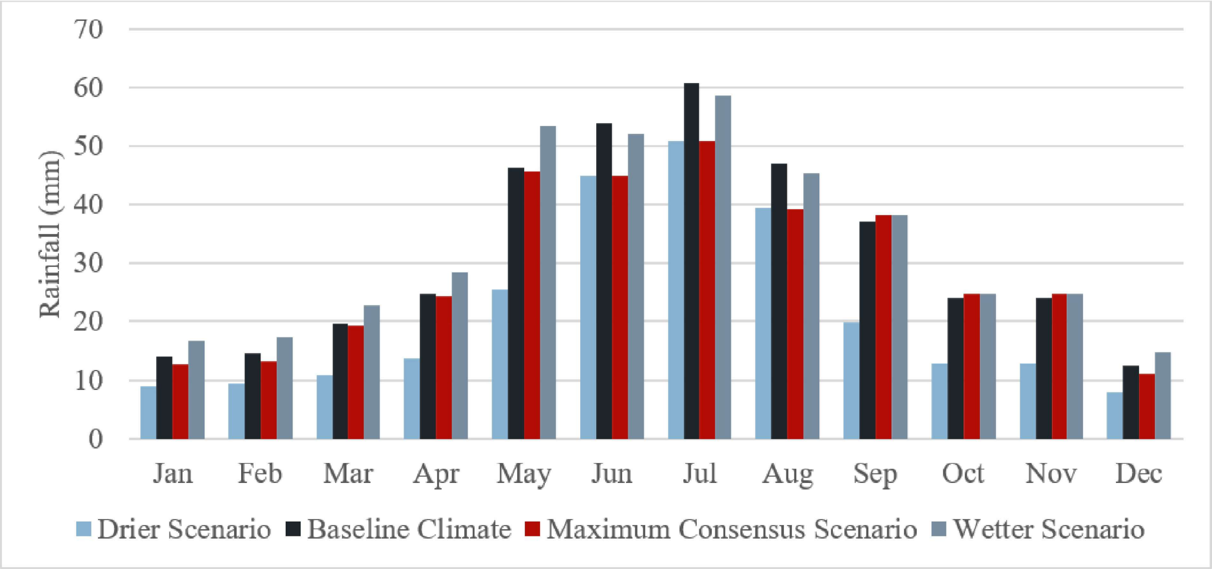

Figure 3.7 Average monthly rainfalls for the four climate scenarios

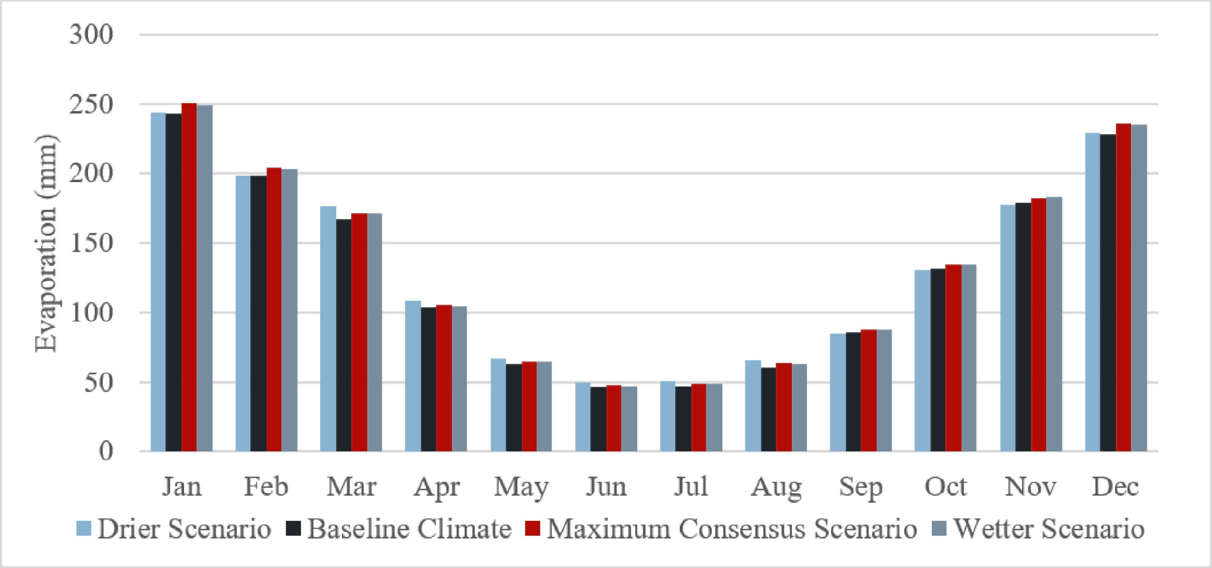

Figure 3.8 Average monthly evaporations for the four climate scenarios

3.1.3 *Stochastic climate generation*

Simulating the water balance using stochastic climate sequences provides alternative yet equally possible model climate sequences to indicate the range and variability in likely fluxes and stores within the water balance. The stochastic rainfall and evaporation modules, which are based on the approach developed by the Catchment Research Centre (CRC) for Catchment Hydrology (Boughton, 1999), generate synthetic sequences of daily precipitation and evaporation based on transitional probability matrices (TPMs) defined for each month from the respective historical sequences or projected future climate sequences. These matrices define the probability of occurrence of daily rainfall/evaporation rates occurring within various ranges also taking in account the previous day's value. By 'fitting' appropriate TPMs, the monthly and annual statistics of the SILO datasets can then be more accurately preserved in the stochastic sequences. On this basis the stochastic model can then be considered valid for the generation of alternative climatic data for application in the water balance model.

However, when a day of rainfall occurs evaporation generally reduces due to additional cloud cover and humidity. As the two generating modules for rainfall and evaporation would not explicitly preserve the daily interrelationship (cross-correlation) between these parameters (as they are modelled independently of each other), a variation to the approach for the concurrent generation of rainfall and evaporation datasets was therefore applied. The approach was based on the following:

- For the rainfall generation module, a random number Ran_{RF} (between 0 and 1) is generated, which is integral in defining the magnitude of the rainfall estimate. Generally, the larger the random number the higher the rainfall estimate.
- For the evaporation module the random number for evaporation Ran_{Evap} for each concurrent day was therefore replaced by $1 – Ran_{RF}$ thereby generating a generally lower evaporation on days of higher rainfall.

This modification to the evaporation model better preserves the cross-correlations between the two climate datasets on a daily basis while still ensuring monthly and annual statistics of the stochastic evaporation datasets remain comparable to those of the historic data.

3.1.3.1 Calibrated generation results

Daily climate sequences for 500 years were generated and the associated statistics compared to those from the adopted datasets, that is the baseline climate data from SILO for the period 1986–2005. A comparison of the monthly observed and stochastically generated climate results for different scenarios are presented in Figure 3.9. The monthly distributions show agreement between generated and observed datasets, indicating the stochastic modules are capable of preserving the monthly patterns and the statistics of the historic climate data.

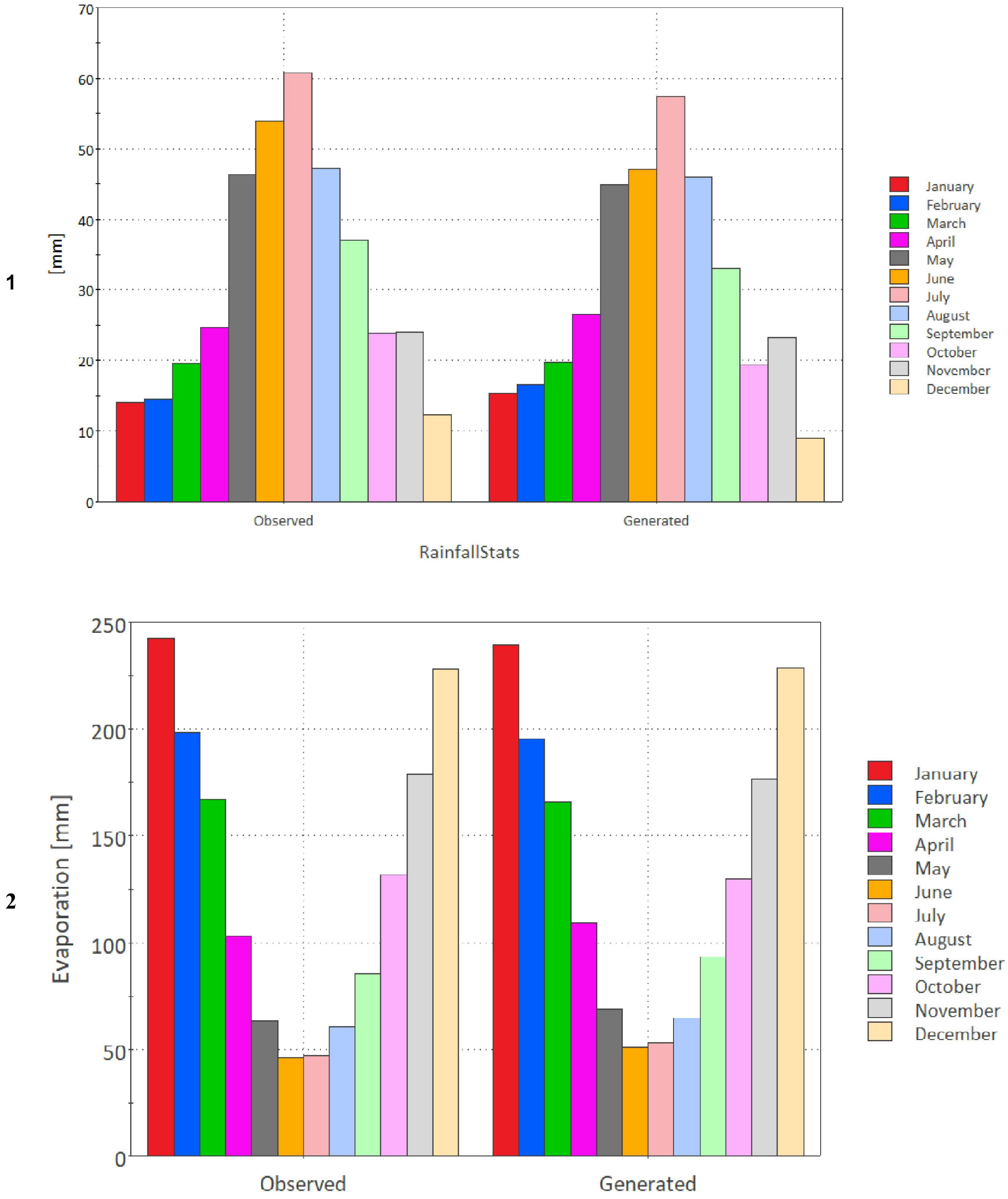

Figure 3.9 Comparison observed versus generated climate data (1) Rainfall (2) Evaporation

3.1.3.2 Adjustment of variance of annual rainfall and evaporation

Although the mean values (annual and monthly) for observed and generated data in the initial Boughton modelling approach were found to compare accurately, the annual standard deviations of the stochastically generated rainfall and evaporation were generally observed to be less than those of the actual rainfall and evaporation. This difference was subsequently reduced in the modelling approach by applying a factor to the standard deviation of the annual totals, referred to as the Boughton Correction Factor (BCF).

The difference between the generated annual total (GAT) and the mean of recorded annual totals ($\bar{x}_{Rain}$) is factored by the BCF in the stochastic climate generator adopted for this assessment, based on the following relationship to give an adjusted annual total (AAT):

$$AAT = \bar{x}_{Rain} + BCF(GAT - \bar{x}_{Rain})$$

$$Ratio = \frac{AAT}{GAT}$$

The ratio of AAT/GAT for each year is then used to multiply the associated generated daily rainfall, resulting in an improved estimate of the overall generated annual variance (when compared to the observed) whilst preserving the annual mean.

The Boughton model applied in the analyse incorporates this adjustment.

3.2 Pits

3.2.1 Mine development plan

Ausgold provided the mining plan for the pits (Pers comm, 2025a). The plan outlined the development of several stages for the four key pits, along with the pit designs for each stage as shown in Figure 3.10 over a 10 year plan. The direct pit areas and associated catchment areas were delineated based on the available survey data and the pit designs and are summarised in Table 3.7 and Table 3.8. Conceptual dates starting on 1 September 2025 were used to model the change of the catchments and pits over time. Area estimates were linearly interpolated between the data points in the tables, reflecting the progression of each pit stage according to the mine development schedule. Once a pit stage is mined, it is excluded from the model and its direct and catchment areas are set to zero. Similarly, after mining ceases, groundwater inflows are no longer considered in the model, even though inflows may still occur, since dewatering activities will not continue post-mining.

Forecasts of total annual groundwater inflows were provided by Ausgold, based on Rockwater's estimates (Sep 2025). These total inflow values were then distributed across each pit using the same proportional breakdown as in Rockwater's April estimates (Pers comm., 2025b) (Pers comm., 2025c). A summary of the groundwater inflow is presented in Table 3.9.

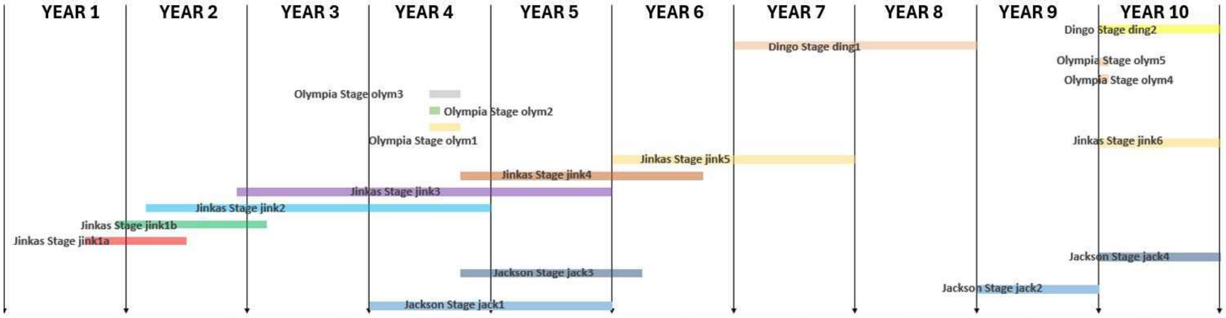

Figure 3.10 KGP Mine development plan

Table 3.7 Pit catchment areas

Date	Jinkas	Jackson	Olympia	Dingo
1/09/2025	719,004	0	0	0
1/12/2025	845,309	0	0	0
1/03/2026	909,558	0	0	0

Date	Jinkas	Jackson	Olympia	Dingo
1/07/2026	927,968	0	0	0
1/12/2026	951,056	0	0	0
1/03/2027	951,056	0	0	0
1/01/2028	951,056	270,598	0	0
30/06/2028	951,056	270,598	127,835	0
1/07/2028	951,056	270,598	127,835	0
1/10/2028	1,759,271	446,607	127,835	0
2/10/2028	1,759,368	446,607	0	0
1/01/2029	1,768,135	446,607	0	0
1/01/2030	1,803,299	446,607	0	0
1/04/2030	1,803,299	446,607	0	0
2/04/2030	1,803,299	0	0	0
1/10/2030	1,803,299	0	0	0
1/01/2031	1,803,299	0	0	440,620
1/01/2032	1,803,299	0	0	440,620
1/01/2033	1,836,498	795,802	0	440,620
2/01/2033	1,836,588	795,802	0	0
1/01/2034	1,869,605	795,802	63,625	252,012
2/01/2034	1,869,605	176,388	63,625	252,012
31/01/2034	1,869,605	176,388	63,625	252,012
1/02/2034	1,869,605	176,388	0	252,012
1/01/2035	1,869,605	176,388	0	252,012
2/01/2035	0	0	0	0
2/01/2035	0	0	0	0
1/01/2036	0	0	0	0

Table 3.8 Pit direct areas

Date	Jinkas	Jackson	Olympia	Dingo
1/09/2025	0	0	0	0
1/12/2025	69,793	0	0	0
1/03/2026	154,536	0	0	0
1/07/2026	269,410	0	0	0
1/12/2026	296,129	0	0	0
1/03/2027	344,362	0	0	0

Date	Jinkas	Jackson	Olympia	Dingo
1/01/2028	404,395	0	0	0
30/06/2028	439,905	41,820	0	0
1/07/2028	440,101	42,051	10,233	0
1/10/2028	458,150	63,307	48,541	0
2/10/2028	458,957	63,707	0	0
1/01/2029	532,349	100,037	0	0
1/01/2030	807,005	245,759	0	0
1/04/2030	885,236	260,897	0	0
2/04/2030	886,105	0	0	0
1/10/2030	1,044,305	0	0	0
1/01/2031	1,068,124	0	0	0
1/01/2032	1,162,624	0	0	125,178
1/01/2033	1,162,624	0	0	250,699
2/01/2033	1,162,624	534	0	0
1/01/2034	1,162,624	194,750	0	0
2/01/2034	1,162,903	0	1,285	361
31/01/2034	1,171,000	8,485	38,554	10,822
1/02/2034	1,171,279	8,777	0	11,183
1/01/2035	1,264,524	106,500	0	131,671
2/01/2035	0	0	0	0
2/01/2035	0	0	0	0
1/01/2036	0	0	0	0

Table 3.9 Total annual groundwater inflows and pit distribution

Mining Year	Total Annual kL/d	Jinkas	Jackson	Olympia	Dingo
		kL/d	kL/d	kL/d	kL/d
1	**931.5**	0	931.5 (100%)	0	0
2	**720.5**	0	720.5 (100%)	0	0
3	**3509.6**	0	3509.6 (100%)	0	0
4	**882.2**	0	882.2 (100%)	0	0
5	**1175.3**	441.8 (38%)	733.6 (62%)	0	0
6	**1676.7**	1422.9 (85%)	253.8 (15%)	0	0
7	**2315.1**	0.0	2315.1 (100%)	0	0
8	**2487.7**	984.3 (40%)	0	1503.3 (60%)	0

Mining Year	Total Annual kL/d	Jinkas	Jackson	Olympia	Dingo
		kL/d	kL/d	kL/d	kL/d
9	**1063.0**	746.1 (70%)	0	316.9 (30%)	0
10	**484.9**	0	484.9 (100%)	0.00	0

3.3 Sediment ponds

Sediment ponds were modelled in accordance with the SWMP for the KGP site (WSP, 2025a). All WRD ponds feature a side slope of 1:2 (V:H), while for the stormwater pond a side slope of 1:1 (V:H) was adopted. The sediment pond dimensions and year to come online are detailed in Table 3.10.

Table 3.10 Sediment pond dimensions

Pond Name	Catchment Area (ha)	Top Width (m)	Top Length (m)	Depth (m)	Year to come online
Main SRP POND 1	3.31	10	30	2	Year 3
Main SRP POND 2	19.627	20	60	2	Year 3
Main SRP POND 3	106.55	45	135	2	Year 1
Main SRP POND 4	10.02	15	45	2	Year 1
Main SRP POND 5	19.65	20	60	2	Year 1
Main SRP POND 6	40.47	30	90	2	Year 1
Main SRP POND 7	0.943	8	24	1.5	Year 1
Main SRP POND 8	1.44	8	24	1.5	Year 1
SRP N 1B POND 1	35.55	30	90	1.5	Year 3
SRP N 1A POND 1	11.119	18	54	1.5	Year 3
SRP N 1A POND 2	19.793	20	60	2	Year 3
SRP N 2 POND 1	10.321	15	45	2	Year 3
SRP N 2 POND 2	19.706	20	60	2	Year 3
SRP S 2 POND 1	22.108	22	66	2	Year 7
SRP S 2 POND 2	16.73	18	54	2	Year 7
SRP S 1 POND 1	15.72	20	60	1.5	Year 7
Stormwater Pond	19.42	20	80	5	Year 1

3.4 TSF Design data

3.4.1 *Staged development*

The TSF was designed to be developed over six construction phases excluding contingency storage (5 Mt) and closure. These are set out in Table 3.11. It is noted that the start date for tailings deposition into the facility is a generic year (e.g., Year 0), consistent with the operation year considered in Ausgold's tailings production schedule. The Raise 2 – Northern Cell will be constructed immediately after Raise 2 – Southern Cell (i.e., under the same construction contract). This WB excludes the contingency storage as it has not been assigned a date in the mining plan.

Note: Ausgold is considering an alternative development of the Starter -Southern Cell, which involves staging the development of the Starter Southern Cell in two phases (Starter A and Starter B) each with 12-month storage capacity (WSP, 2025d). After these phases, the plan will follow the original staged development as outlined in Table 3.11. This change is not expected to impact the water balance and therefore was not modelled.

Table 3.11 TSF construction phase and tailings deposition staging plan

Construction Phase	**Embankment Crest Elevation**	**Deposition Tonnage**	**Tailings Deposition**	
			Estimated Commencement	**Estimated Completion**
Starter – Southern Cell	RL 383.4 m	~7.0 Mt	Q1 Year 1	Q4 Year 2
Starter – Northern Cell	RL 390.7 m	~7.5 Mt	Q1 Year 3	Q4 Year 4
Raise 1 – Southern Cell	RL 394.3 m	~7.4 Mt	Q1 Year 5	Q4 Year 6
Raise 1 – Northern Cell	RL 400.9 m	~7.3 Mt	Q1 Year 7	Q4 Year 8
Raise 2 – Southern Cell	RL 402.6 m	~5.3 Mt	Q1 Year 9	Q2 Year 10
Raise 2 – Northern Cell	RL 402.6 m	~1.3 Mt	Q2 Year 10	Q4 Year 10
Contingency storage				
Southern Cell	RL 405.7 m	~2.5 Mt	-	-
Northern Cell	RL 405.7 m	~2.5 Mt	-	-

3.4.2 *Tailings properties*

The following tailings parameters have been adopted based on the TSF design report:

- Slurry density (w/w): 45%
- Tailings specific gravity (SG): 2.97
- In situ tailings bulk density: Long-term settled tailings dry density of 1.5 t/m^3, which is used in defining the retained interstitial water volumes (WSP, 2025e).

3.4.3 *Stage-storage curves*

Stage-storage curves were derived based on the TSF designs for the facility and are shown in Figure 3.11 and Figure 3.12.

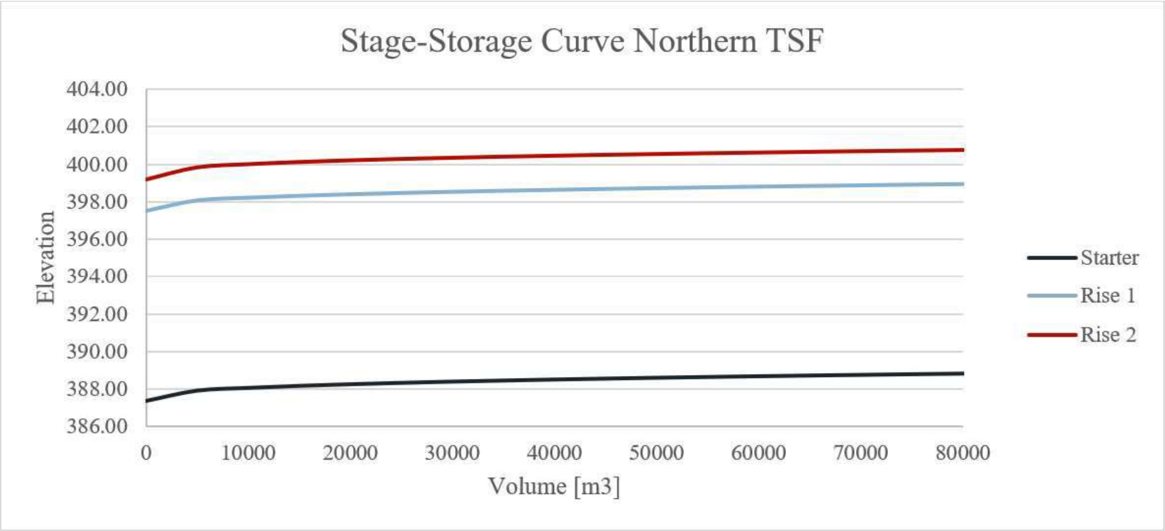

Figure 3.11 Stage storage curve Northern Cell of TSF

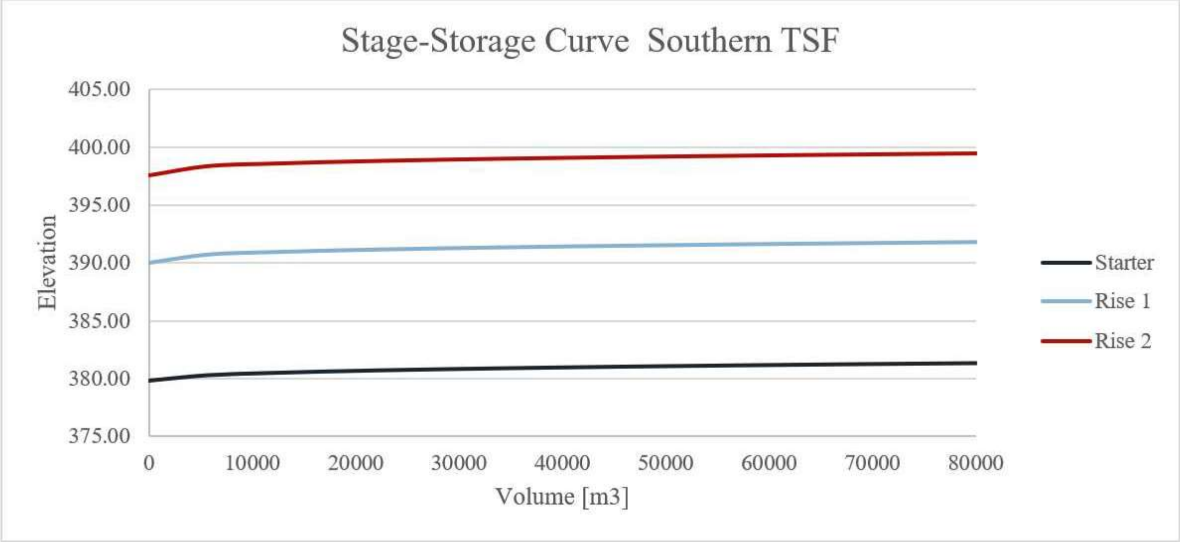

Figure 3.12 Stage storage curve Southern Cell of TSF

3.5 Process plant pond

The process plant pond has a footprint of 90 m x 40 m with an assumed maximum capacity of 12 ML using a rectangular geometry. The pond collects and store water from various sources, including dewatering from the pits, runoff from sediment ponds, and decant water from the TSF cells.

4 Model results

This section provides a summary of the model results for each modelled facility under the different climate scenarios. The general outcome of the model regarding mechanical losses required is provided in Section 4.1, and the detailed results per facility in Section 4.2.

In general, contact water comes from three main sources:

- Pits: Dewatering of surplus groundwater inflow in the pits (~670 ML/year).
- Sediment Ponds: Runoff and seepage from the Waste Rock Dumps (WRDs) (~460 ML/year).
- Tailings Storage Facility (TSF): Return water from the TSF (~2,960 ML/year), which constitutes about ~70% of the total water the TSF receives resulting from slurry water release, incident rainfall and surface runoff.

Based on the average results under baseline climate, the Plant demand is approximately 3,700 ML/year, resulting in an annual surplus of water required to be processed via a mechanical loss system (i.e., mechanical evaporator or MAR) of approximately 390 ML/year. However, as there is no capacity to retain the water surplus during the wet period and the system has a lack of water during the dry period, Borefield make up is therefore required of approximately 270 ML/yr.

4.1 General results – required mechanical losses

4.1.1 *Required mechanical losses – Baseline climate*

As mentioned above, the system will require a mechanical loss system to achieve a water balance, given there is no onsite storage availability (i.e., no evaporation pond). Table 4.1 summarises the average total volume (ML/month) required to be removed based on the mean of the 100 climate realisations. Peak mechanical evaporation is required from May to August, consistent with the dry season being from September to April. Figure 4.1 and Table 4.2 present the probabilistic results, indicating the required maximum annual peak mechanical losses will occur in Year 3, with a daily mean of 3.2 ML/d and a 95% probability of exceedance of 6.6 ML/d.

Note: The results for the first three months consider a delay of 3 months in the commencement of TSF dewatering returns; this is a modelling assumption in the absence of detailed deposition modelling with dewatering starting in the fourth month.

Table 4.1 Average monthly total loss required though mechanical means – Baseline climate [ML/month]

Year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
Y1	4	0	1	24	9	5	9	7	25	24	42	22	**172**
Y2	14	11	7	2	5	4	10	10	30	34	54	26	**207**
Y3	113	82	76	49	53	52	69	84	126	154	174	139	**1169**
Y4	34	12	12	4	14	16	12	16	57	60	75	50	**362**
Y5	24	13	18	8	11	13	17	21	49	76	84	66	**399**
Y6	36	16	16	7	25	9	14	25	73	102	127	77	**527**
Y7	96	41	34	9	17	12	33	32	108	135	168	117	**803**
Y8	97	43	30	15	17	15	23	66	130	144	172	133	**886**
Y9	29	17	18	6	21	10	17	32	49	68	98	63	**429**
Y10	21	11	14	5	6	6	15	14	23	31	39	26	**211**

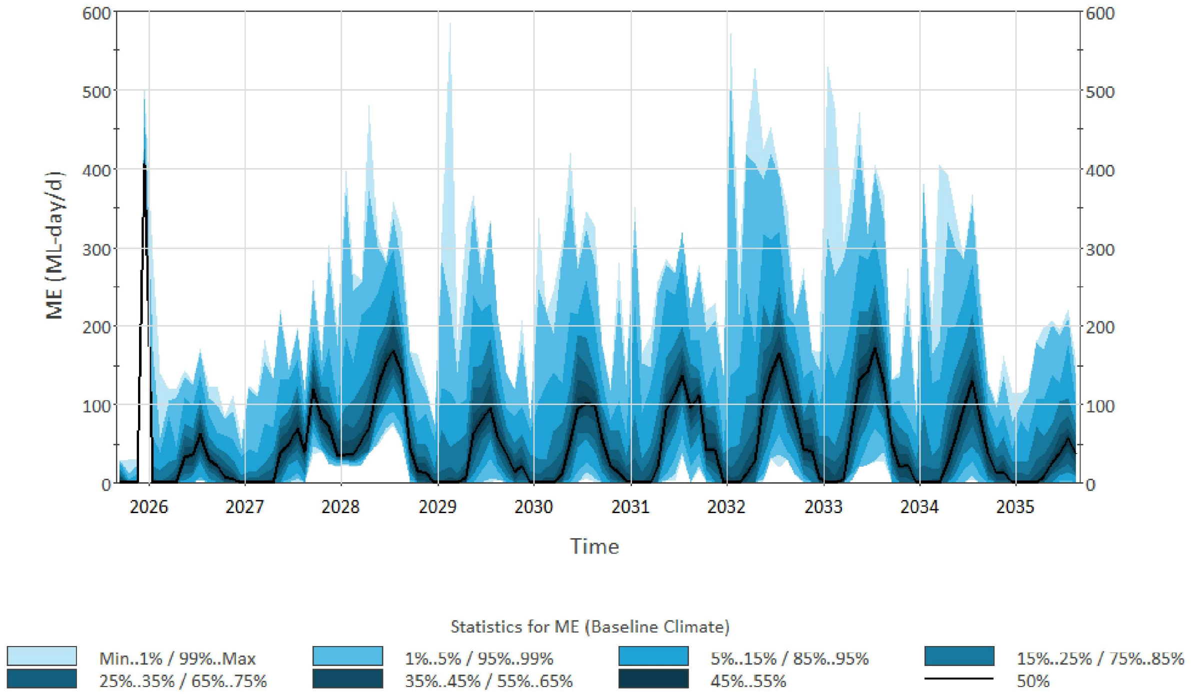

Figure 4.1 Probabilistic summary of required monthly total loss though mechanical means – Baseline climate

Table 4.2 Probabilistic summary of required yearly total loss though mechanical means – Baseline climate

Year	**Total Volume Mec Evaporator [ML/yr]**			**Average Daily Mec Evaporator (Total volume/365 days) [ML/d]**		
	Mean	**75%**	**95%**	**Mean**	**75%**	**95%**
Y1	172	716	1149	0.5	2.0	3.1
Y2	207	440	956	0.6	1.2	2.6
Y3	1169	1508	2398	3.2	4.1	6.6
Y4	362	706	1625	1.0	1.9	4.5
Y5	399	782	1730	1.1	2.1	4.7
Y6	527	917	1927	1.4	2.5	5.3
Y7	803	1225	2368	2.2	3.4	6.5
Y8	886	1309	2374	2.4	3.6	6.5
Y9	429	738	1755	1.2	2.0	4.8
Y10	211	626	1387	0.6	1.7	3.8

The required mechanical losses vary daily. When analysing the probability of exceedance, Table 4.3 summarises the average daily exceedance. Using 2 ML/day as the reference for the mechanical losses, the results indicate that over the 10-year simulation period, this capacity has a 9.4% probability of exceedance.

Table 4.3 Daily exceedance probability [ML/d] – Baseline climate

Percentile	**Average [ML/d]**
50.0%	0
70.0%	0
80.0%	0.7
90.0%	1.8
90.6%	2.0
95.0%	8.1
99.0%	28.4

4.1.2 Required mechanical losses – Climate change

In general, the mechanical losses required increase under a wetter climate scenario and reduce under a drier climate scenario. Table 4.4 presents a comparison of the climate change results presenting the average total loss volume (ML/yr) and average daily estimate (ML/d) based on the mean of 100 climate realisations for the four climate change scenarios modelled. Based on the model results, on average the peak required mechanical losses will occur in Year 3, ranging from 2.6 ML/d (Drier climate) to 3.3 ML/d (Wetter climate).

Table 4.4 Required average yearly and daily total losses though mechanical means – climate change comparison

Year	**Total Volume Mechanical Evaporator [ML/yr]**				**Average Daily Mechanical Evaporator (Total volume/365 days) [ML/d]**			
	Baseline	**Drier**	**Wetter**	**Max Con**	**Baseline**	**Drier**	**Wetter**	**Max Con**
Y1	172	96	185	142	0.5	0.3	0.5	0.4
Y2	207	114	220	175	0.6	0.3	0.6	0.5
Y3	1169	932	1196	1098	3.2	2.6	3.3	3.0
Y4	362	205	392	308	1.0	0.6	1.1	0.8
Y5	399	234	426	344	1.1	0.6	1.2	0.9
Y6	527	324	547	454	1.4	0.9	1.5	1.2
Y7	803	525	839	720	2.2	1.4	2.3	2.0
Y8	886	610	918	803	2.4	1.7	2.5	2.2
Y9	429	236	458	364	1.2	0.6	1.3	1.0
Y10	211	94	225	180	0.6	0.3	0.6	0.5

4.1.2.1 Drier climate

Table 4.5 summarises the required average total loss (ML/month) based on the mean of the 100 climate realisations. Peak mechanical evaporation is required from May to August, reflecting the occurrence of the dry season from September to April. Figure 4.2 and Table 4.6 present the probabilistic results indicating the required peak mechanical losses will occur in Year 3 and can range from a mean of 2.6 ML/d to 4.7 ML/d with a 95% probability of exceedance.

Table 4.5 Average monthly total loss required though mechanical means – Drier climate [ML/month]

Year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
Y1	0	0	0	15	4	2	3	2	8	17	31	14	**96**
Y2	3	3	1	1	2	2	3	3	10	25	39	20	**114**
Y3	69	63	57	41	47	44	49	62	89	137	153	123	**932**
Y4	13	3	4	1	8	9	4	5	18	45	59	36	**205**
Y5	5	4	4	3	5	5	6	6	18	62	65	52	**234**
Y6	14	6	6	3	14	5	5	8	28	77	101	58	**324**
Y7	43	21	13	3	10	7	13	12	54	113	141	95	**525**
Y8	53	24	13	7	10	7	9	31	76	122	147	111	**610**
Y9	6	4	4	2	10	4	6	10	18	50	73	48	**236**
Y10	5	1	3	1	3	3	3	4	7	21	27	16	**94**

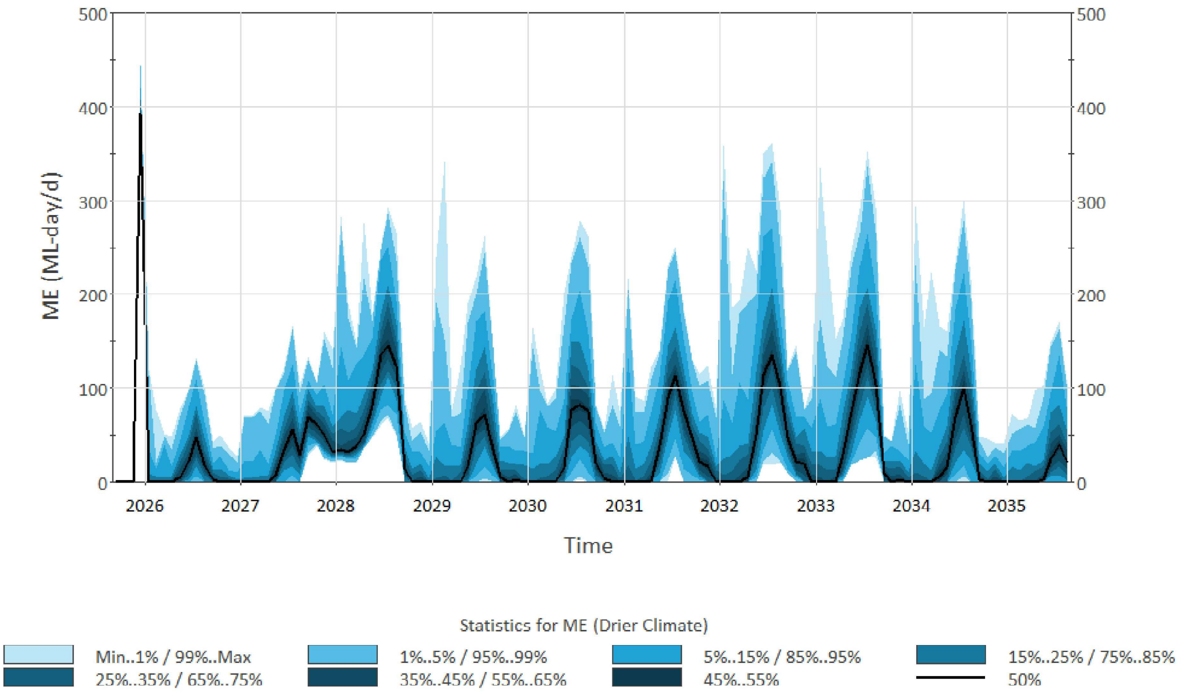

Figure 4.2 Probabilistic summary of required monthly total loss though mechanical means – Drier climate

Table 4.6 Probabilistic summary of required yearly total loss though mechanical means – Drier climate

Year	**Total Volume Mechanical Evaporator [ML/yr]**			**Average Daily Mechanical Evaporator (Total volume/365 days) [ML/d]**		
	Mean	**75%**	**95%**	**Mean**	**75%**	**95%**
Y1	96	575	825	0.3	1.6	2.3
Y2	114	232	519	0.3	0.6	1.4
Y3	932	1141	1722	2.6	3.1	4.7
Y4	205	401	900	0.6	1.1	2.5
Y5	234	451	985	0.6	1.2	2.7
Y6	324	558	1131	0.9	1.5	3.1
Y7	525	781	1477	1.4	2.1	4.0
Y8	610	868	1477	1.7	2.4	4.0
Y9	236	377	941	0.6	1.0	2.6
Y10	94	319	754	0.3	0.9	2.1

The required mechanical losses vary daily. When analysing the probability of exceedance, Table 4.7 summarises the average daily exceedance. Using 2 ML/day as the reference for the mechanical losses, the results indicate that over the 10-year simulation period, this capacity has a 7.3% probability of exceedance.

Table 4.7 Daily exceedance probability [ML/d]-Drier climate

Percentile	**Average [ML/d]**
50.0%	0
70.0%	0
80.0%	0.5
90.0%	1.6
92.7%	**2.0**
95.0%	4.2
99.0%	20.5

4.1.2.2 Wetter climate

Table 4.8 summarises the required average total loss (ML/month) based on the mean of 100 climate realisations. Peak mechanical evaporation is required from May to August, reflecting the occurrence of the dry season from September to April. Figure 4.3 and Table 4.8 present the probabilistic results indicating on average the required peak mechanical losses will occur in Year 3 and can range from a mean of 3.3 ML/d to 7.0 ML/d with a 95% probability of exceedance.

Table 4.8 Average monthly total loss required though mechanical means – Wetter climate [ML/month]

Year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
Y1	4	0	1	26	14	6	12	9	31	22	40	20	**185**
Y2	15	11	7	4	7	6	13	14	37	31	51	24	**220**
Y3	114	82	77	50	58	57	75	91	139	149	168	136	**1196**
Y4	35	14	13	7	17	22	16	21	71	58	72	46	**392**
Y5	25	14	18	10	15	16	21	29	64	74	79	61	**426**
Y6	38	17	17	10	31	11	19	31	88	97	120	70	**547**
Y7	98	42	35	12	26	16	42	40	125	131	161	111	**839**
Y8	98	43	32	19	24	17	26	76	150	140	166	127	**918**
Y9	32	18	19	9	31	14	22	42	62	65	87	60	**458**
Y10	24	12	14	7	8	7	18	19	30	27	37	23	**225**

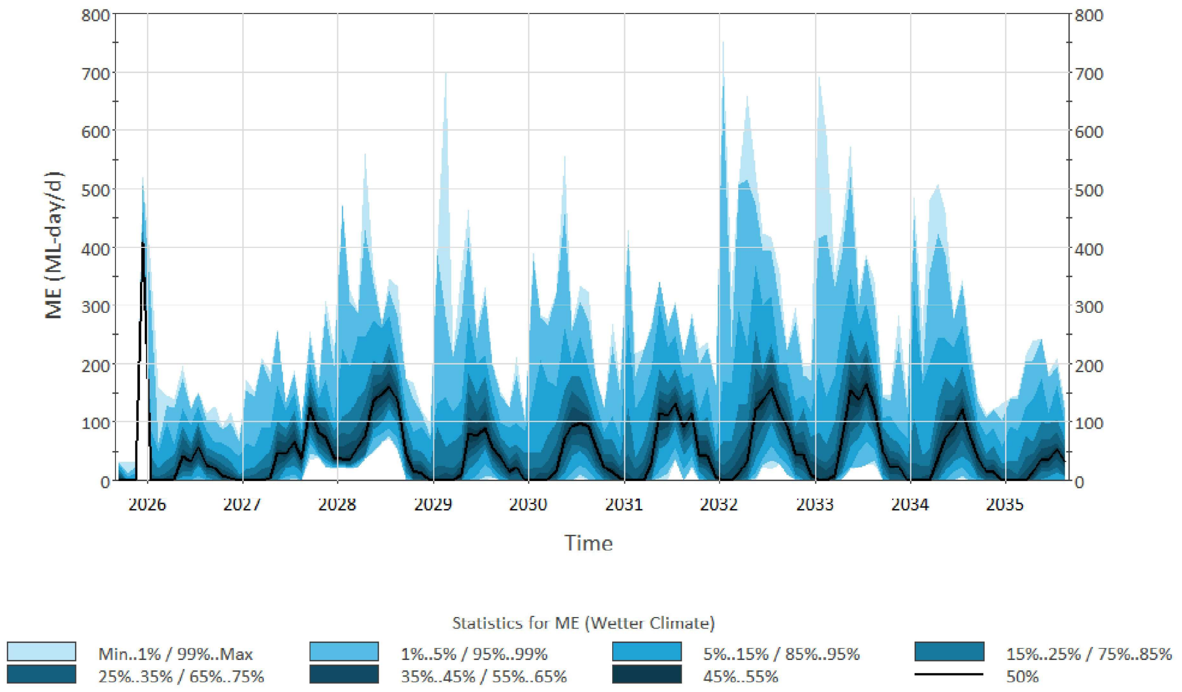

Figure 4.3 Probabilistic summary of required total loss though mechanical means – Wetter climate

Table 4.9 Probabilistic summary of required yearly total loss though mechanical means – Wetter climate

Year	**Total Volume Mechanical Evaporator [ML/yr]**			**Average daily Mechanical Evaporator (Total volume/365 days) [ML/d]**		
	Mean	**75%**	**95%**	**Mean**	**75%**	**95%**
Y1	185	743	1230	0.5	2.0	3.4
Y2	220	463	1044	0.6	1.3	2.9
Y3	1196	1570	2562	3.3	4.3	7.0
Y4	392	762	1742	1.1	2.1	4.8
Y5	426	825	1955	1.2	2.3	5.4
Y6	547	961	2079	1.5	2.6	5.7
Y7	839	1294	2568	2.3	3.5	7.0
Y8	918	1371	2546	2.5	3.8	7.0
Y9	458	810	2051	1.3	2.2	5.6
Y10	225	658	1496	0.6	1.8	4.1

The required mechanical losses vary daily. When analysing the probability of exceedance, Table 4.10 summarises the average daily exceedance. Using 2 ML/day as the reference for the mechanical losses, the results indicate that over the 10-year simulation period, this capacity has a 9.5% probability of exceedance.

Table 4.10 Daily exceedance probability [ML/d] – Wetter climate

Percentile	**Average [ML/d]**
50.0%	0
70.0%	0
80.0%	0.7
90.0%	1.8
90.5%	**2.0**
95.0%	8.5
99.0%	29.5

4.1.2.3 Max con climate

Table 4.11 summarises the required average total loss volume (ML/month) based on the mean of 100 climate realisations. Peak mechanical evaporation is required from May to August, reflecting the occurrence of the dry season from September to April. Figure 4.4 and Table 4.12 present the probabilistic results, indicating the required average peak mechanical losses occur in Year 3, and can range from a mean of 3.0 ML/d to 6.1 ML/d with a 95% probability of exceedance.

Table 4.11 Average monthly total loss required though mechanical means – Max Con climate [ML/month]

Year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
Y1	4	0	1	24	8	3	8	8	24	17	31	14	**142**
Y2	14	11	7	2	4	4	10	10	30	24	40	19	**175**
Y3	108	82	77	46	50	49	68	83	125	137	151	123	**1098**
Y4	35	13	13	4	12	13	12	15	55	44	58	36	**308**
Y5	24	15	18	6	10	8	17	20	49	62	65	51	**344**
Y6	37	17	17	7	21	8	13	25	70	80	100	58	**454**
Y7	92	42	35	7	16	11	33	31	105	114	140	95	**720**
Y8	98	43	32	12	15	13	23	63	128	122	146	111	**803**
Y9	29	18	19	5	18	8	18	31	49	52	71	47	**364**
Y10	23	12	13	4	6	5	15	15	23	21	28	17	**180**

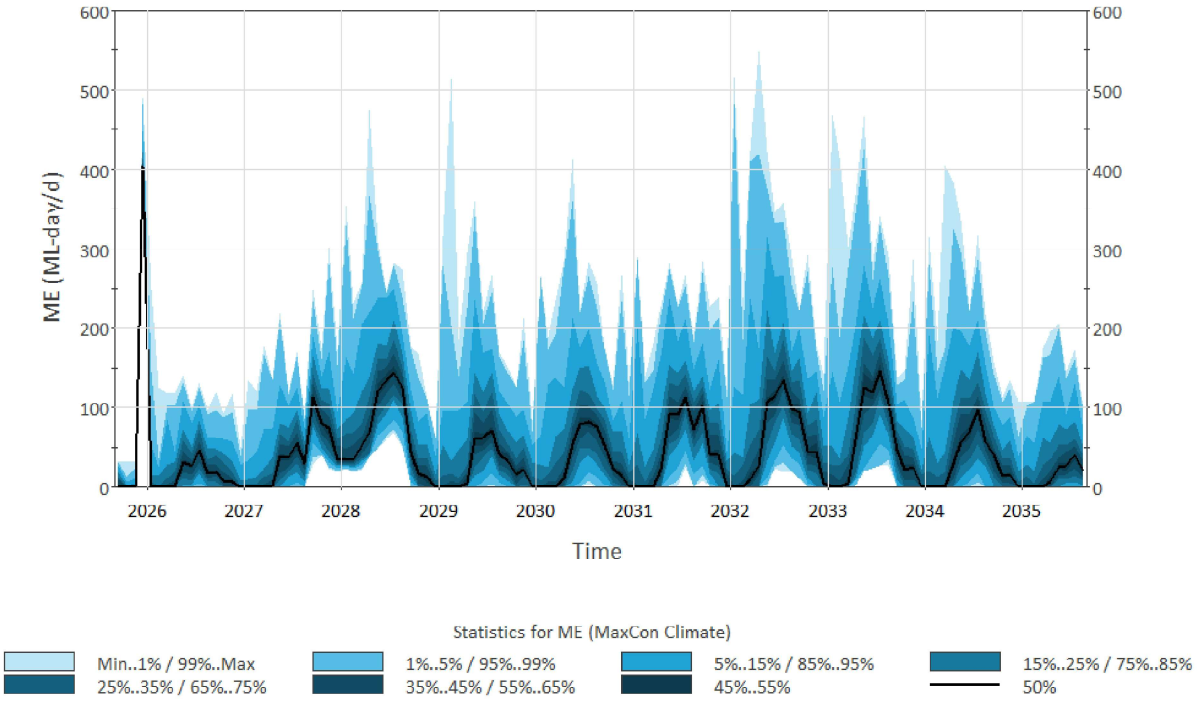

Figure 4.4 Probabilistic summary of monthly loss volume required though mechanical means – Max Con climate

Table 4.12 Probabilistic summary of results of yearly and daily losses required though mechanical means – Max Con climate

Year	**Total Volume Mechanical Evaporator [ML/yr]**			**Average Daily Mechanical Evaporator [ML/d]**		
	Mean	**75%**	**95%**	**Mean**	**75%**	**95%**
Y1	142	668	1050	0.4	1.8	2.9
Y2	175	382	855	0.5	1.0	2.3
Y3	1098	1403	2241	3.0	3.8	6.1
Y4	308	625	1430	0.8	1.7	3.9
Y5	344	674	1543	0.9	1.8	4.2
Y6	454	814	1737	1.2	2.2	4.8
Y7	720	1104	2178	2.0	3.0	6.0
Y8	803	1202	2141	2.2	3.3	5.9
Y9	364	661	1588	1.0	1.8	4.4
Y10	180	523	1227	0.5	1.4	3.4

The required mechanical losses vary daily. When analysing the probability of exceedance, Table 4.13 summarises the average daily exceedance. Using 2 ML/day as the reference for the mechanical losses, the results indicate that over the 10-year simulation period, this capacity has a 8.8% probability of exceedance.

Table 4.13 Daily exceedance probability [ML/d] – Max Con climate

Percentile	**Average [ML/d]**
50.0%	0
70.0%	0
80.0%	0.6
90.0%	1.7
91.2%	**2.0**
95.0%	6.7
99.0%	26.3

4.2 Detailed results

A yearly WB summary for each facility is provided in this section under the baseline climate scenario, Climate change results are presented in the respective Appendix.

4.2.1 TSF

4.2.1.1 TSF Northern Cell

Water balance – baseline climate trends

A summary of the yearly WB results is presented in Table 4.14 and Figure 4.5 for the baseline climate conditions. As expected, Tailings Slurry (TS) is the main inflow driver of the system and the dewatering to the plant (T_P) represents the larger outflow from the system.

Table 4.14 TSF Northern Cell – yearly water balance

Year	Inflows [ML/yr]			Outflows [ML/yr]						WB Totals	
	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total In	Total Out
Y1	20.0	106.0	0.0	24.4	40.9	0.0	0.0	1.1	0.0	126.0	65.3
Y2	28.9	96.8	0.0	68.3	49.6	0.0	0.0	1.3	0.0	125.6	118.0
Y3	40.0	95.5	4476.2	108.2	160.3	3137.1	1208.5	1.4	0.0	4611.7	3405.6
Y4	38.5	91.4	4588.1	109.6	161.8	3197.5	1238.8	1.4	0.0	4718.0	3469.0
Y5	27.1	99.3	0.0	57.6	48.9	0.0	0.0	1.3	0.0	126.4	106.5
Y6	30.4	100.0	0.0	70.1	49.5	0.0	0.0	1.3	0.0	130.5	119.6
Y7	102.2	50.9	4512.8	315.0	77.2	3054.7	1218.0	1.4	0.0	4665.9	3446.9
Y8	41.4	103.0	4376.3	157.0	161.1	3005.0	1181.5	1.4	0.0	4520.7	3323.2
Y9	25.7	118.2	0.0	58.5	59.8	0.0	0.0	1.3	0.0	143.8	118.2
Y10	46.5	104.7	1755.2	101.1	101.7	1234.5	473.8	1.4	0.0	1906.4	1437.3

Notes: DP (Direct precipitation), TR (Tailings RO), TS (Tailings Water), PE (Evaporation), TE (Tailings evap), T_P (To Plant), EN (Entrained water), SP (Seepage), OV (Overtopping)

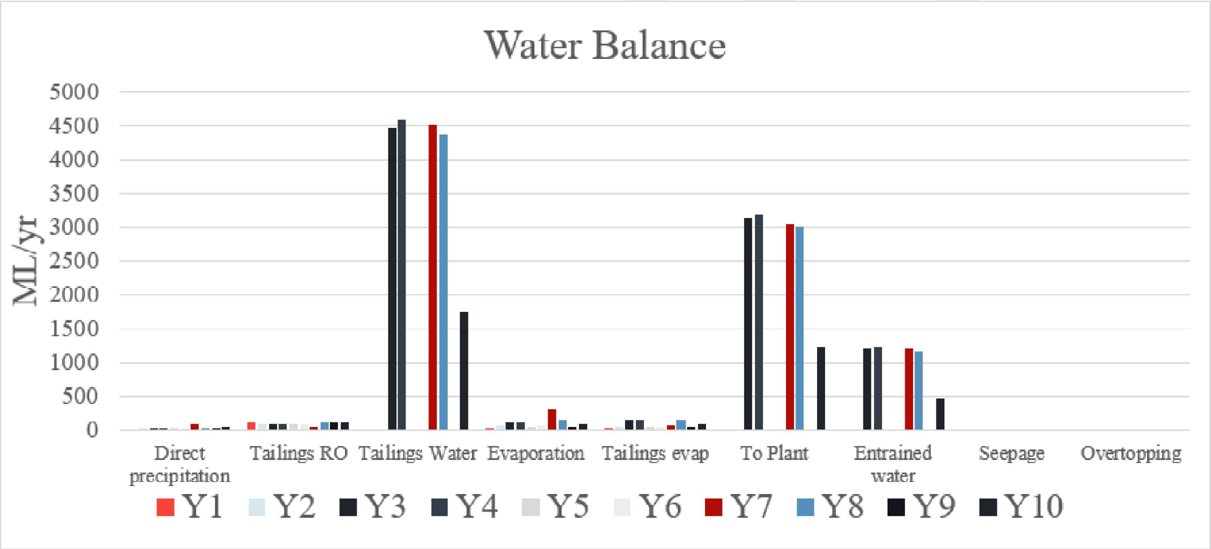

Figure 4.5 TSF Northern Cell – summary of yearly water balance

Climate change impact

Table 4.15 summarises the average TSF Northern Cell fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the water balance ranging from -2.1% for a drier climate to +0.3% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix A.

Table 4.15 TSF Northern Cell – average water balance [ML/year]

	ID	Flow	Baseline Climate	Climate Change – Drier Climates	Climate Change – Wetter Climate	Climate Change – Max Con
Inflows	DP	Direct precipitation	40.1	24.4	42.5	35.6
	TR	Tailings RO	96.6	68.3	101.0	89.7
	TS	Tailings Water	1970.9	1970.9	1970.9	1970.9
	Total		**2107.5**	**2063.5**	**2114.4**	**2096.1**
Outflows	PE	Evaporation	107.0	95.3	110.9	105.9
	TE	Tailings evap	91.1	89.3	93.5	92.9
	T_P	To Plant	1362.8	1338.2	1362.4	1352.3
	EN	Entrained water	532.1	532.1	532.1	532.1
	SP	Seepage	1.3	1.3	1.3	1.3
	OV	Overtopping	0.0	0.0	0.0	0.0
	Total		**2094.4**	**2056.1**	**2100.3**	**2084.5**

4.2.1.2 TSF Southern Cell

Water balance- baseline climate trends

A summary of the yearly WB results is presented in Table 4.16 and Figure 4.6 for the baseline climate conditions. As expected, Tailings Slurry (TS) is the main inflow driver of the system and the dewatering to the plant (T_P) is the major outflow from the system.

Table 4.16 TSF Southern Cell – yearly water balance

Year	Inflows [ML/yr]			Outflows [ML/yr]						WB Totals [ML/yr]	
	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total In	Total Out
Y1	57.6	67.8	3979.1	177.6	110.4	2659.6	1074.2	1.4	0.0	4104.4	2947.6
Y2	53.1	68.6	4474.9	154.8	122.3	3100.8	1207.8	1.4	0.0	4596.6	3377.9
Y3	35.4	88.0	0.0	98.8	46.6	0.0	0.0	1.4	0.0	123.4	145.4
Y4	25.9	90.3	0.0	68.3	48.0	0.0	0.0	1.3	0.0	116.2	116.3
Y5	96.3	43.3	4613.6	305.0	61.2	3086.9	1245.4	1.4	0.0	4753.3	3453.2
Y6	44.5	93.9	4412.9	148.5	146.7	3046.3	1191.7	1.4	0.0	4551.3	3341.5
Y7	35.5	102.2	0.0	103.1	57.0	0.0	0.0	1.4	0.0	137.7	160.1
Y8	28.1	105.5	0.0	77.5	57.6	0.0	0.0	1.4	0.0	133.7	135.1
Y9	84.5	72.0	4544.2	294.6	100.5	3016.6	1226.8	1.4	0.0	4700.8	3411.6
Y10	52.9	106.8	1726.6	137.1	150.6	1089.2	466.1	1.4	0.0	1886.3	1376.8

Notes: DP (Direct precipitation), TR (Tailings RO), TS (Tailings Water), PE (Evaporation), TE (Tailings evap), T_P (To Plant), EN (Entrained water), SP (Seepage), OV (Overtopping)

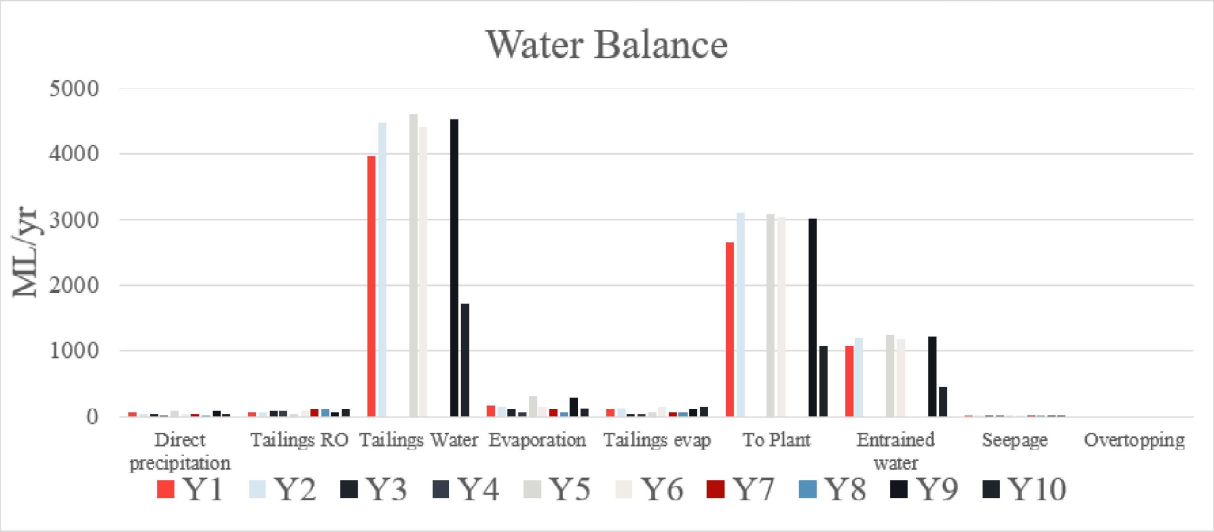

Figure 4.6 TSF Southern Cell – yearly water balance

Climate change impact

Table 4.17 summarises the average TSF Southern Cell fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the balance ranging from -1.7% for a drier climate to +0.3% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix A.

Table 4.17 TSF Southern Cell – average water balance [ML/year]

	ID	Flow	Baseline Climate	Climate Change – Drier Climate	Climate Change – Wetter Climate	Climate Change – Max Con
Inflows	DP	Direct precipitation	51.4	32.0	54.5	46.3
	TR	Tailings RO	83.8	59.7	87.6	77.7
	TS	Tailings Water	2375.1	2375.1	2375.1	2375.1
	Total		**2510.4**	**2466.8**	**2517.2**	**2499.1**
Outflows	PE	Evaporation	156.5	147.6	161.3	157.4
	TE	Tailings evap	90.1	90.7	92.3	92.3
	T_P	To Plant	1599.9	1573.5	1598.6	1588.4
	EN	Entrained water	641.2	641.2	641.2	641.2
	SP	Seepage	1.4	1.3	1.4	1.4
	OV	Overtopping	0.0	0.0	0.0	0.0
	Total		**2489.1**	**2454.2**	**2494.7**	**2480.7**

4.2.2 Pits

4.2.2.1 Jinkas

Water balance – baseline climate trends

A summary of the results of the yearly WB is presented in Table 4.18 and Figure 4.7 for the baseline climate conditions. As expected, Groundwater inflow (GW) is the main inflow driver of the system and the dewatering to the plant (T_P) is the major outflow of the system.

Table 4.18 Pit Jinkas – yearly water balance

Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals [ML/yr]	
	DP	CR	PWR	GW	PE	T_P	OV	Total In	Total Out
Y1	0.9	36.2	18.7	340.0	2.4	387.2	0.0	395.7	389.6
Y2	0.8	31.1	34.3	263.0	2.4	322.2	0.0	329.2	324.7
Y3	0.9	29.8	45.5	1284.7	2.4	1347.7	0.0	1360.9	1350.1
Y4	0.8	58.1	61.0	322.0	2.4	431.2	0.0	442.0	433.6
Y5	0.8	47.7	90.1	267.8	2.4	392.0	0.0	406.4	394.4
Y6	0.9	38.8	114.4	92.6	2.4	229.9	0.0	246.6	232.3
Y7	0.9	34.9	118.7	847.3	2.4	983.6	0.0	1001.7	986.1
Y8	0.8	35.2	115.6	0.0	0.2	141.1	0.0	151.7	141.3
Y9	0.8	34.9	118.7	0.0	0.2	139.7	0.0	154.4	140.0
Y10	0.8	6.9	27.2	177.0	2.4	207.4	0.0	212.0	209.8

Notes DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping)

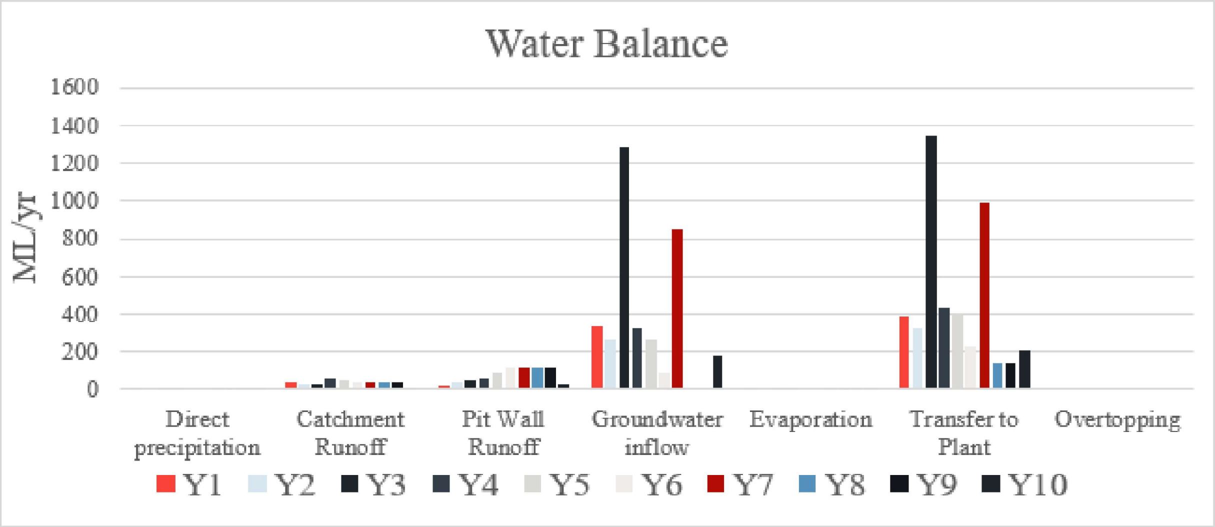

Figure 4.7 Pit Jinkas – yearly water balance

Climate change impact

Table 4.19 summarises the average Pit Jinka fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the balance ranging from -11.6% for a drier climate to +2.3% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix B.

Table 4.19 Pit Jinkas – average water balance [ML/year]

	ID	Flow	Baseline Climate	Climate Change – Drier Climate	Climate Change – Wetter Climate	Climate Change – Max Con
Inflows	**DP**	**Direct precipitation**	0.8	0.6	0.9	0.8
	CR	**Catchment Runoff**	35.4	17.5	39.2	30.7
	PWR	**Pit Wall Runoff**	74.4	38.0	81.4	64.4
	GW	**Groundwater inflow**	359.4	359.4	359.4	359.4
	Total		**470.1**	**415.5**	**481.0**	**455.3**
Outflows	**PE**	**Evaporation**	2.0	2.0	2.0	2.0
	T_P	**Transfer to Plant**	458.2	410.2	467.4	444.8
	OV	**Overtopping**	0.0	0.0	0.0	0.0
	Total		**460.2**	**412.3**	**469.4**	**446.8**

4.2.2.2 Jackson

Water balance – baseline climate trends

A summary of the results of the yearly WB is presented in Table 4.20 and Figure 4.8 for the baseline climate conditions. As expected, Groundwater inflow (GW) is the major inflow driver of the system and the dewatering to the plant (T_P) is the major outflow of the system.

Table 4.20 Pit Jackson – yearly water balance

Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals [ML/yr]	
	DP	CR	PWR	GW	PE	T_P	OV	Total In	Total Out
Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5
Y3	0.9	10.6	2.6	0.0	0.2	12.3	0.0	14.1	12.5
Y4	0.8	15.4	14.0	0.0	0.2	27.3	0.0	30.3	27.5
Y5	0.8	4.5	9.2	161.3	2.4	171.1	0.0	175.8	173.5
Y6	0.9	0.0	0.0	519.4	2.4	516.7	0.0	520.3	519.2
Y7	0.9	0.0	0.0	0.0	0.2	2.1	0.0	0.9	2.3
Y8	0.8	29.1	5.9	359.3	2.4	388.4	0.0	395.0	390.8
Y9	0.8	12.4	6.5	272.3	2.4	288.6	0.0	292.0	291.1
Y10	0.8	1.0	1.9	0.0	0.2	4.1	0.0	3.7	4.3

Notes DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping)

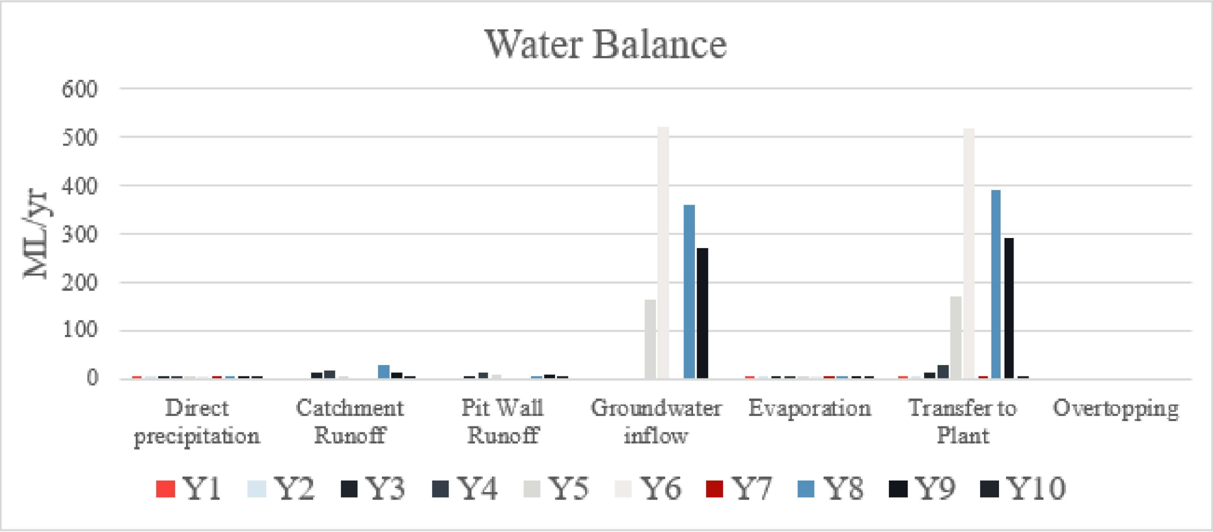

Figure 4.8 Pit Jackson – yearly water balance

Climate change impact

Table 4.21 summarises the averages Pit Jackson fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the balance ranging from -4.1% for a drier climate to +0.9% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix B.

Table 4.21 Pit Jackson – average water balance [ML/year]

	ID	Flow	Baseline Climate	Climate Change – Drier Climate	Climate Change – Wetter Climate	Climate Change – Max Con
Inflows	**DP**	**Direct precipitation**	0.8	0.6	0.9	0.8
	CR	**Catchment Runoff**	7.3	3.6	8.2	6.3
	PWR	**Pit Wall Runoff**	4.0	2.0	4.3	3.5
	GW	**Groundwater inflow**	131.2	131.2	131.2	131.2
	Total		**143.4**	**137.4**	**144.6**	**141.8**
Outflows	**PE**	**Evaporation**	1.1	1.1	1.1	1.1
	T_P	**Transfer to Plant**	141.1	135.9	142.2	139.7
	OV	**Overtopping**	0.0	0.0	0.0	0.0
	Total		**142.2**	**137.0**	**143.2**	**140.8**

4.2.2.3 Olympia

Water balance – baseline climate trends

The results of the yearly WB are presented in Table 4.23 and Figure 4.9 for the baseline climate conditions. As Olympia does not receive inflow from groundwater, the balance is smaller relative to the other pits.

Table 4.22 Pit Olympia – yearly water balance

Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Total [ML/yr]s	
	DP	CR	PWR	GW	PE	T_P	OV	Total In	Total Out
Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5
Y3	0.9	1.5	0.6	0.0	0.2	2.6	0.0	2.9	2.8
Y4	0.8	0.3	0.3	0.0	0.2	1.3	0.0	1.5	1.5
Y5	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8
Y6	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8
Y7	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8
Y8	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8
Y9	0.8	0.2	0.1	0.0	0.2	0.8	0.0	1.2	1.0
Y10	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8

Notes DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping)

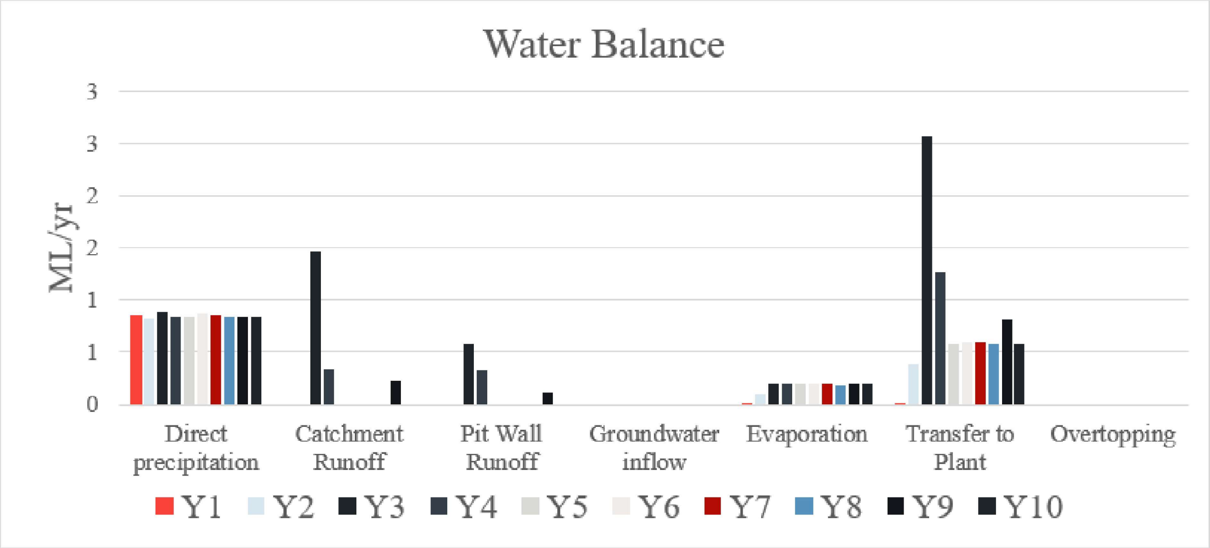

Figure 4.9 Pit Olympia – yearly water balance

Climate change impact

Table 4.23 summarises the average Olympia fluxes under the four climate change scenarios. Climate change has a moderate impact on the total fluxes of the balance ranging from -33.8% for a drier climate to +3.6% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix B.

Table 4.23 Pit Olympia – average water balance [ML/year]

	ID	Flow	Baseline Climate	Climate change – Drier Climate	Climate change – Wetter Climate	Climate change – Max Con
Inflows	**DP**	**Direct precipitation**	0.8	0.6	0.9	0.8
	CR	**Catchment Runoff**	0.2	0.1	0.2	0.2
	PWR	**Pit Wall Runoff**	0.1	0.1	0.1	0.1
	GW	**Groundwater inflow**	0.0	0.0	0.0	0.0
	Total		**1.2**	**0.8**	**1.2**	**1.0**
Outflows	**PE**	**Evaporation**	0.2	0.1	0.2	0.2
	T_P	**Transfer to Plant**	0.8	0.5	0.8	0.7
	OV	**Overtopping**	0.0	0.0	0.0	0.0
	Total		**1.0**	**0.6**	**1.0**	**0.8**

4.2.2.4 Dingo

Water balance – baseline climate trends

The results of the yearly WB are presented in Table 4.24 and Figure 4.10 for the baseline climate conditions. As expected, Groundwater inflow (GW) is the major inflow driver of the system and the dewatering to the plant (T_P) is the largest outflow of the system.

Table 4.24 Pit Dingo – yearly water balance

Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals [ML/yr]	
	DP	CR	PWR	GW	PE	T_P	OV	Total In	Total Out
Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5
Y3	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8
Y4	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8
Y5	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8
Y6	0.9	17.3	4.1	0.0	0.2	19.7	0.0	22.2	19.9
Y7	0.9	15.1	16.1	0.0	0.2	29.1	0.0	32.1	29.3
Y8	0.8	2.5	5.3	548.6	2.4	552.9	0.0	557.2	555.3
Y9	0.8	8.3	4.0	115.7	2.4	126.2	0.0	128.8	128.6
Y10	0.8	1.6	2.3	0.0	0.2	4.6	0.0	4.8	4.8

Notes DP (Direct precipitation), CR (Catchment runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping)

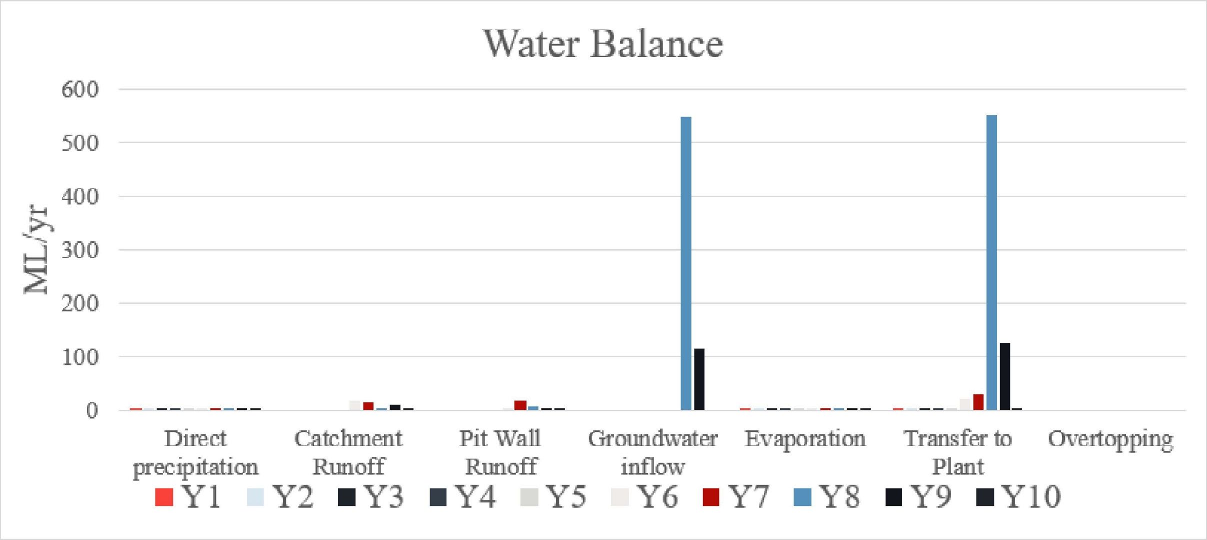

Figure 4.10 Pit Dingo – yearly water balance

Climate change impact

Table 4.25 summarises the average Dingo fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the balance ranging from -5.4% for a drier climate to +1.1% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix B.

Table 4.25 Pit Dingo – average water balance

	ID	Flow	Baseline Climate	Climate change – Drier Climate	Climate change – Wetter Climate	Climate change – Max Con
Inflows	**DP**	**Direct precipitation**	0.8	0.6	0.9	0.8
	CR	**Catchment Runoff**	4.5	2.2	5.1	3.9
	PWR	**Pit Wall Runoff**	3.2	1.6	3.4	2.8
	GW	**Groundwater inflow**	66.4	66.4	66.4	66.4
	Total		**74.9**	**70.9**	**75.8**	**73.8**
Outflows	**PE**	**Evaporation**	0.6	0.6	0.6	0.6
	T_P	**Transfer to Plant**	73.5	69.9	74.2	72.5
	OV	**Overtopping**	0.0	0.0	0.0	0.0
	Total		**74.1**	**70.5**	**74.8**	**73.1**

4.2.3 Sediment Ponds

The 16 sediment ponds and the stormwater pond follow similar seasonal trends based on the results of the respective WBs, as the inflows and outflows are driven by rainfall-runoff and seepage. The results for the Main SRP POND 1 are presented below as an example of the results. Detailed water balance results for each climate scenario and sediment pond are presented in Appendix C.

Water balance – baseline climate trends

The results of the yearly WB for Main SRP POND 1 are presented in Table 4.26 and Figure 4.11 for the baseline climate conditions. As expected, rainfall dependant fluxes drive the inflows of the system and the dewatering to the plant (T_P) is the larger outflow of the system.

Table 4.26 Sediment Pond CT01 – yearly water balance

Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals [ML/yr]	
	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total In	Total Out
Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y3	0.1	1.3	4.6	0.1	5.1	0.4	0.0	6.0	5.6
Y4	0.1	1.2	4.4	0.1	5.1	0.4	0.0	5.7	5.5
Y5	0.1	1.2	4.3	0.1	5.1	0.4	0.0	5.7	5.5
Y6	0.1	1.3	4.5	0.1	5.2	0.3	0.0	5.9	5.6
Y7	0.1	1.3	4.4	0.1	5.0	0.4	0.0	5.8	5.5
Y8	0.1	1.2	4.3	0.1	5.0	0.4	0.0	5.7	5.4
Y9	0.1	1.2	4.3	0.1	5.0	0.3	0.0	5.7	5.5
Y10	0.1	1.2	4.4	0.1	5.1	0.4	0.0	5.7	5.5

Notes: DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

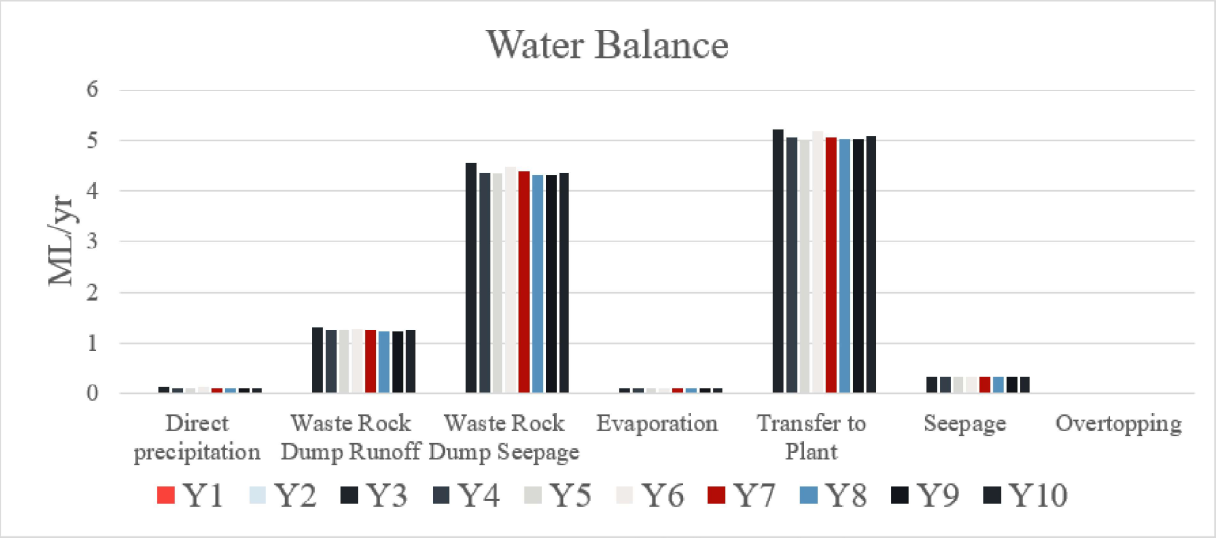

Figure 4.11 Main SRP POND 1 – yearly water balance

Climate change impact

Table 4.27 summarises the average Main SRP POND 1 fluxes under the four climate change scenarios. Climate change has a moderate impact on the total fluxes in the balance ranging from -31.7% for a drier climate to +5.0% for a wetter climate.

Table 4.27 Main SRP POND 1– average water balance

	ID	Flow	Baseline Climate	Climate change – Drier Climate	Climate change – Wetter Climate	Climate change – Max Con
Inflows	DP	Direct precipitation	0.1	0.1	0.1	0.1
	WRD_RO	Waste Rock Dump Runoff	1.0	0.7	1.1	0.9
	WRD_SP	Waste Rock Dump Seepage	3.5	2.4	3.7	3.2
	Total		**4.6**	**3.1**	**4.8**	**4.2**
Outflows	PE	Evaporation	0.1	0.1	0.1	0.1
	T_P	Transfer to Plant	4.1	2.8	4.2	3.7
	SP	Seepage	0.3	0.3	0.3	0.3
	OV	Overtopping	0.0	0.0	0.0	0.0
	Total		**4.4**	**3.1**	**4.6**	**4.1**

4.2.4 Process plant

Water balance – baseline climate trends

The results of the yearly WB is presented in Table 4.28 and Figure 4.12 for the baseline climate conditions. As expected, pumping from the TSF, Sediment ponds and Pits drives the inflows to the Process Plant and the Plant demand (PD) is the larger outflow.

Note: This estimated demand assumes that pit water from non-active pits is not utilised. However, it is likely that water will be available in the pits during at least the last two years, reducing or potentially eliminating the need for borefield makeup water.

Table 4.28 Process Plant – yearly water balance

Year	Inflows [ML/yr]					Outflows [ML/yr]			WB Totals [ML/yr]	
	DP	TP_TSF	TP_Pits	TP_SedPon	BO	PE	PD	ME	Total In	Total Out
Y1	1.4	2659.6	387.2	305.0	552.4	3.9	3263.4	172.5	3905.5	3439.8
Y2	1.3	3100.8	323.4	300.9	236.2	3.9	3652.2	207.3	3962.5	3863.4
Y3	1.4	3137.1	1363.2	468.8	0.2	3.9	3779.1	1172.2	4970.8	4955.2
Y4	1.4	3197.5	460.3	472.4	214.7	3.9	3823.7	359.1	4346.2	4186.7
Y5	1.4	3086.9	564.2	458.4	262.7	3.9	3811.3	399.6	4373.6	4214.8
Y6	1.4	3046.3	766.9	465.6	96.2	3.9	3704.9	526.5	4376.3	4235.3
Y7	1.4	3054.7	1015.4	532.6	63.1	3.9	3766.1	805.0	4667.1	4575.1
Y8	1.3	3005.0	1082.9	522.4	12.3	3.9	3679.2	885.6	4624.0	4568.7
Y9	1.3	3016.6	555.4	532.6	341.7	3.9	3839.8	427.5	4447.6	4271.2
Y10	1.4	2323.6	216.6	551.4	915.5	3.9	3686.5	208.1	4008.4	3898.5

Notes DP (Direct precipitation), TP_TSF (Pumping from TSF), TP_Pits (Pumping from Pits), TP_SedPon (Pumping from Sed Ponds), BO (Borefield make-up), PE (Evaporation), PD (Plant demand), ME (Mechanical Loss)

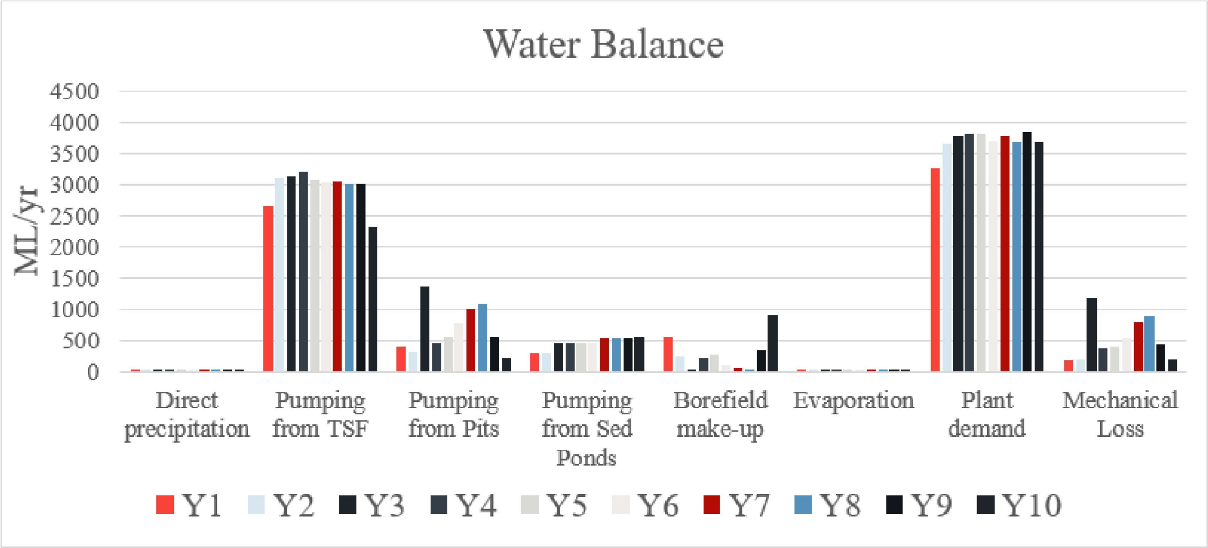

Figure 4.12 Process Plant – yearly water balance

Climate change impact

Table 4.29 summarises the average Process Plant fluxes under the four climate change scenarios. Climate change has a small impact on the total fluxes of the water balance ranging from -6.2% for a drier climate to +0.7% for a wetter climate. Detailed water balance results for each climate scenario are presented in Appendix D.

Table 4.29 Process Plant – average water balance

	ID	Flow	Baseline Climate	Climate change – Drier Climate	Climate change – Wetter Climate	Climate change – Max Con
Inflows	DP	Direct precipitation	1.4	0.9	1.4	1.3
	TP_TSF	Pumping from TSF	2962.8	2911.7	2961.1	2940.6
	TP_Pits	Pumping from Pits	673.5	616.6	684.5	657.6
	TP_SedPon	Pumping from Sed Ponds	461.0	315.3	480.2	424.5
	BO	Borefield make-up	269.5	305.8	270.4	278.9
	Total		**4098.7**	**3844.5**	**4127.3**	**4023.9**
Outflows	PE	Evaporation	3.9	4.0	4.0	4.0
	PD	Plant demand	3700.6	3700.4	3700.6	3700.6
	ME	Mechanical Loss	516.3	337.1	540.7	458.9
	Total		**4220.9**	**4041.5**	**4245.3**	**4163.6**

5 Assumptions and limitations

5.1 Model assumptions

The following assumptions were adopted in the model:

- Due to the variable nature of the WRDs, runoff coefficients for the WRD and seepage coefficient were assumed. these values can be further refined or calibrated when more information is available.
- For consistency, the pit voids were modelled as one individual pit for Jinkas, Jackson, Olympia, and Dingo, despite the pit stages, as the GW inflows were provided in this way. In further design stages, it is recommended that inflows are provided for each pit stage, so the tracking of volumes corresponds to the operations in a more detailed manner.

5.2 Model limitations

Water balance modelling as undertaken in the current assessment typically has the following known limitations:

- Since the water balance model can only approximate natural hydrological responses and dynamics, they inherently have limitations and are based on a range of assumptions.
- It is note, the groundwater inflow data used in this assessment corresponds to the revised version of the groundwater model conducted by a third party for Ausgold. The initial modelling, performed by SRK, predicted significantly larger groundwater inflows than those presented herein. Consequently, this introduces inherent modelling uncertainty that the water balance cannot quantify.

5.3 Exclusions

The water balance model excludes the balance of the non-operational pit voids.

6 Conclusions and recommendations

6.1 Results summary

A WB model was developed for the KGP site to inform water planning for the mine's operational phase.

Based on the stochastic generation of climate data assuming the baseline data and climate change projections, the water balance indicated:

- Sources of Contact Water:
  - Pits: Dewatering of surplus groundwater inflow in the pits contributes approximately 670 ML/year.
  - Sediment Ponds: Runoff and seepage from the Waste Rock Dumps (WRDs) add about 460 ML/year.
  - Tailings Storage Facility (TSF): Return water from the TSF is around 2,960 ML/year, making up about 70% of the total water received by the TSF.
- Water Demand and Surplus:
  - The Process Plant water demand ranges from 3,260 ML/year to 3,840 ML/year.
  - This results in an annual water surplus ranging from 170 ML/year to 1,170 ML/year, necessitating a mechanical loss system (e.g., mechanical evaporator and/or Managed Aquifer Recharge (MAR)).
- Seasonal Water Management:
  - Due to insufficient storage to retain surplus water during the wet period, the system experiences a water deficit during the dry period.
  - Consequently, borefield makeup water is estimated to be required typically in summer/autumn, ranging from 12 ML/year to 915 ML/year. This estimated demand assumes that pit water from non-active pits is not utilised. However, it is likely that water will be available in the pits during at least the last two years, reducing or potentially eliminating the need for borefield makeup water.

Figure 6.1 shows the key elements of the annual budget, namely borefield make up required and mechanical losses required per year.

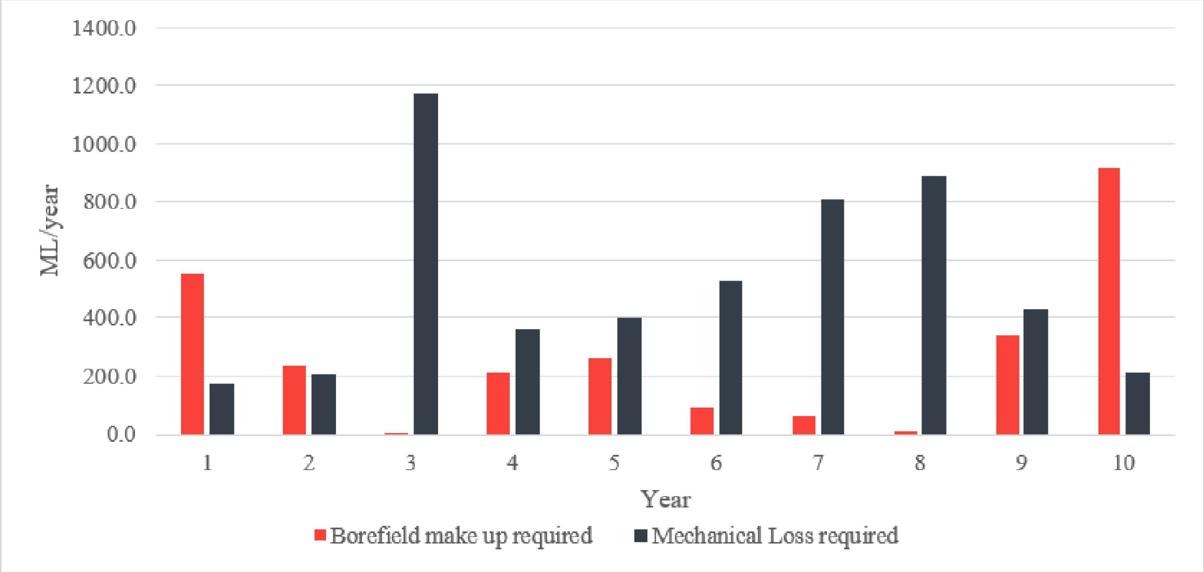

Figure 6.1 Mean Annual Bore field make up and Mechanical loss required

- Climate change:
  - A high-level climate change assessment was undertaken to provide likely variability in climate conditions and the impact on the range in WB model results. A more detailed assessment is recommended in further design stages to ensure resilience of the project under potential future climate change.
  - The selected ranged of climate change for the near future centred in 2030 is estimated to have minimal impact on the WB results for most of the facilities with the exception of the Sediment Ponds and Olympia Pit.

6.2 Recommendations

The model has been set up as directed by Ausgold to estimate the required mechanical losses for the system without using an evaporation pond on site. It is recommended that in future simulations the following options are considered, to improve the operational balance:

- Accumulation of Water in Non-Operational Pits: To improve the daily water management, investigate the accumulation of water in non-operational pits. An initial understanding of the pit balance of individual non-operational pit voids should be established in future simulations. This would manage seasonal changes in surplus water and potentially minimise the need for borefield makeup water. An increased maturity level for the groundwater assessment should be undertaken to understand how this would affect the GW inflows into the pits.
- To reduce reliance on borefield water and minimize mechanical losses, evaporation ponds can be used to store excess water during the wet season for use in the dry season. This approach can help improve water balance; however, some dependence on mechanical systems and the borefield will still be necessary. Without this support, the evaporation pond would need to exceed 1,600 ML in capacity, which may not be practical.
- Refinement of Current Modelling Approach: It is recommended to enhance the resolution of groundwater inflow data where a finer timeseries is provided than annual totals for each pit stage according to the mine schedule.
- Consideration of Mechanical Evaporator: If a mechanical evaporator is adopted, consider a risk-based approach for determining the required capacity. According to the current results, a mechanical loss system with a capacity of 2 ML/d can manage surplus water under baseline climate conditions with a 9.4% probability of exceedance. An increased capacity of 28.4 ML/d is estimated to have a 1% probability of exceedance, although this comes with a reduced cost-benefit ratio. To mitigate the need for the 28.4 ML/d capacity, consideration should be given to managing upstream flows in the storage units for longer periods with increased surveillance. This approach may result in short-term increases in pond volumes in the pits and tailings storage facilities (TSFs), although effective operational management through appropriate mechanical evaporation capacity could mitigate the associated impacts.

7 Limitations

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Appendix A

Water balance – TSFs

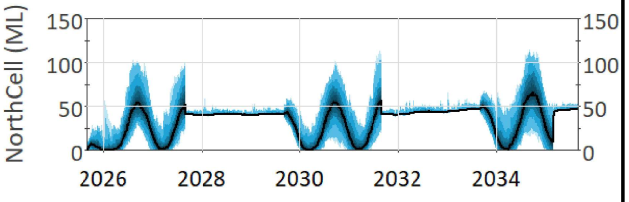
TSF - Northern Cell

	WATER BALANCE												Volume Results			
	Year	Inflows [ML/yr]			Outflows [ML/yr]						WB Totals		Maximum Volume [ML]			
		DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th
Baseline Climate	Y1	20.0	106.0	0.0	24.4	40.9	0.0	0.0	1.1	0.0	126.0	65.3	Y1	52.4	64.8	99.4
	Y2	28.9	96.8	0.0	68.3	49.6	0.0	0.0	1.3	0.0	125.6	118.0	Y2	54.3	67.5	102.1
	Y3	40.0	95.5	4476.2	108.2	160.3	3137.1	1208.5	1.4	0.0	4611.7	3405.6	Y3	52.8	66.6	94.9
	Y4	38.5	91.4	4588.1	109.6	161.8	3197.5	1238.8	1.4	0.0	4718.0	3469.0	Y4	41.0	42.7	65.7
	Y5	27.1	99.3	0.0	57.6	48.9	0.0	0.0	1.3	0.0	126.4	106.5	Y5	53.5	66.4	86.4
	Y6	30.4	100.0	0.0	70.1	49.5	0.0	0.0	1.3	0.0	130.5	119.6	Y6	56.6	68.3	103.1
	Y7	102.2	50.9	4512.8	315.0	77.2	3054.7	1218.0	1.4	0.0	4665.9	3446.9	Y7	56.8	68.0	102.9
	Y8	41.4	103.0	4376.3	157.0	161.1	3005.0	1181.5	1.4	0.0	4520.7	3323.2	Y8	46.8	48.1	63.6
	Y9	25.7	118.2	0.0	58.5	59.8	0.0	0.0	1.3	0.0	143.8	118.2	Y9	61.8	78.2	109.6
	Y10	46.5	104.7	1755.2	101.1	101.7	1234.5	473.8	1.4	0.0	1906.4	1437.3	Y10	65.9	84.1	111.8
Climate change - Drier Climate	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	10.2	75.2	0.0	12.6	33.5	0.0	0.0	0.9	0.0	85.4	46.1	Y1	35.8	43.7	69.7
	Y2	13.7	70.9	0.0	38.2	43.6	0.0	0.0	1.1	0.0	84.6	81.8	Y2	36.2	45.8	69.6
	Y3	27.0	64.9	4476.2	110.0	163.4	3077.8	1208.5	1.4	0.0	4568.1	3351.1	Y3	40.7	45.5	63.3
	Y4	26.4	62.9	4588.1	111.5	164.8	3158.6	1238.8	1.4	0.0	4677.3	3434.9	Y4	41.0	42.4	57.0
	Y5	14.1	71.4	0.0	41.7	44.9	0.0	0.0	1.2	0.0	85.5	86.6	Y5	40.9	44.8	61.7
	Y6	14.2	73.5	0.0	38.8	43.9	0.0	0.0	1.1	0.0	87.7	82.7	Y6	38.3	45.7	68.0
	Y7	69.7	34.7	4512.8	321.4	78.4	2987.3	1218.0	1.4	0.0	4617.2	3387.1	Y7	43.8	45.4	67.2
	Y8	25.9	72.0	4376.3	158.4	164.9	2961.4	1181.5	1.4	0.0	4474.2	3284.7	Y8	46.8	47.9	54.9
	Y9	13.1	84.1	0.0	42.6	55.2	0.0	0.0	1.2	0.0	97.3	97.8	Y9	46.8	50.8	79.1
	Y10	29.6	73.0	1755.2	77.6	100.6	1196.9	473.8	1.3	0.0	1857.8	1375.0	Y10	46.4	51.1	79.1
Climate change - Wetter Climate	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	21.4	110.9	0.0	27.6	42.7	0.0	0.0	1.1	0.0	132.3	70.3	Y1	53.1	64.5	101.1
	Y2	30.7	101.0	0.0	72.2	51.0	0.0	0.0	1.3	0.0	131.8	123.1	Y2	54.9	68.7	105.1
	Y3	42.2	100.4	4476.2	110.9	164.4	3137.2	1208.5	1.4	0.0	4618.8	3412.5	Y3	52.8	66.4	104.8
	Y4	40.5	95.9	4588.1	112.4	165.9	3195.7	1238.8	1.4	0.0	4724.5	3474.0	Y4	41.0	42.6	70.8
	Y5	28.9	103.7	0.0	60.8	50.4	0.0	0.0	1.3	0.0	132.5	111.2	Y5	53.8	66.8	90.3
	Y6	32.7	104.7	0.0	74.7	50.8	0.0	0.0	1.3	0.0	137.4	125.5	Y6	59.0	69.0	110.9
	Y7	108.7	52.6	4512.8	323.1	79.1	3052.5	1218.0	1.4	0.0	4674.1	3454.7	Y7	59.5	69.0	110.3
	Y8	44.1	107.7	4376.3	160.9	165.2	3003.0	1181.5	1.4	0.0	4528.2	3329.2	Y8	46.8	48.1	67.3
	Y9	27.5	123.5	0.0	61.8	61.3	0.0	0.0	1.3	0.0	151.0	123.1	Y9	63.6	79.1	113.8
	Y10	48.7	110.0	1755.2	104.9	104.0	1236.0	473.8	1.4	0.0	1913.9	1445.0	Y10	67.1	84.5	115.4
Climate change - Max Con	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	16.1	99.0	0.0	23.5	41.2	0.0	0.0	1.1	0.0	115.1	64.8	Y1	43.3	53.0	83.8
	Y2	23.4	91.1	0.0	58.9	49.4	0.0	0.0	1.3	0.0	114.5	108.3	Y2	45.6	56.9	86.6
	Y3	36.8	88.0	4476.2	110.9	164.6	3111.8	1208.5	1.4	0.0	4601.0	3387.3	Y3	43.6	55.2	85.5
	Y4	35.3	83.9	4588.1	112.5	166.1	3181.4	1238.8	1.4	0.0	4707.2	3460.0	Y4	41.0	42.4	63.1
	Y5	23.3	92.4	0.0	56.7	49.4	0.0	0.0	1.3	0.0	115.7	106.1	Y5	44.2	55.2	72.2
	Y6	24.5	94.3	0.0	60.4	49.4	0.0	0.0	1.3	0.0	118.8	109.8	Y6	46.1	57.4	90.8
	Y7	93.6	47.2	4512.8	323.3	79.2	3023.6	1218.0	1.4	0.0	4653.6	3426.2	Y7	46.4	55.8	89.9
	Y8	39.6	93.6	4376.3	161.0	165.5	2987.5	1181.5	1.4	0.0	4509.5	3314.0	Y8	46.8	47.9	61.7
	Y9	22.0	109.7	0.0	57.5	60.6	0.0	0.0	1.3	0.0	131.7	118.1	Y9	51.0	65.3	92.6
	Y10	41.1	97.6	1755.2	94.3	103.8	1218.3	473.8	1.4	0.0	1893.9	1416.4	Y10	55.9	70.5	94.5

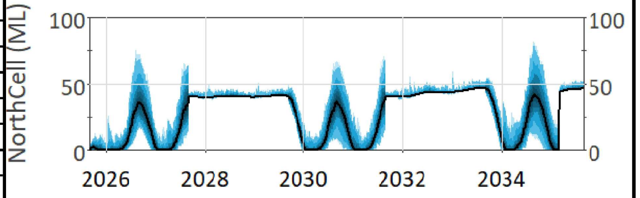
DP (Direct precipitation), TR (Tailings RO), TS (Tailings Water), PE (Evaporation), TE (Tailings evap), T_P (To Plant), EN (Entrained water), SP (Seepage), OV (Overtopping)

Probabilistic Volume result [ML]

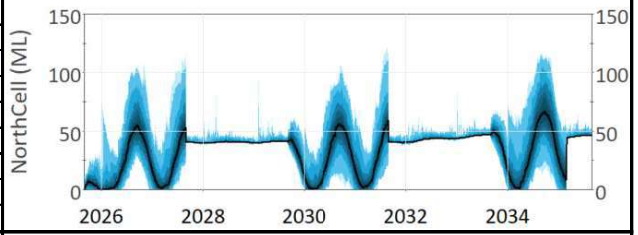
Baseline Climate



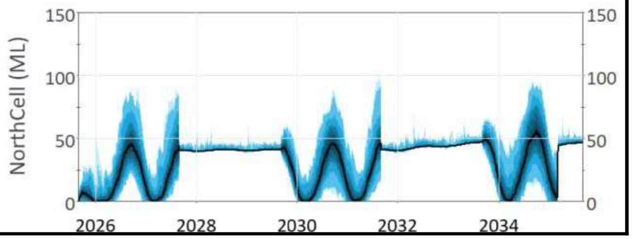
Climate change - Drier Climate



Climate change - Wetter Climate

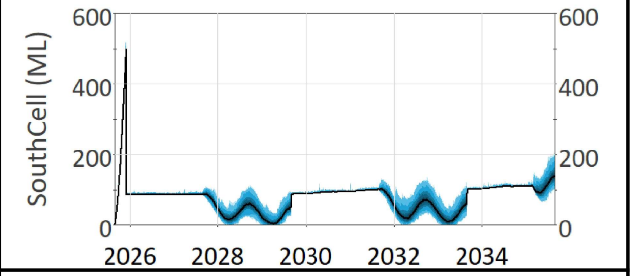
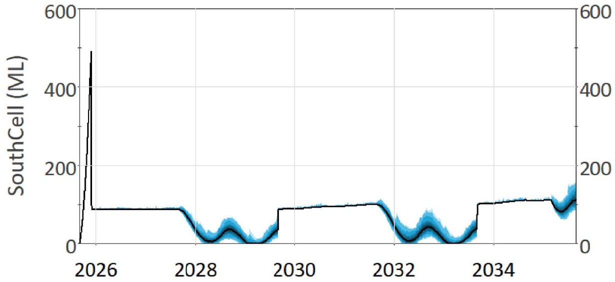
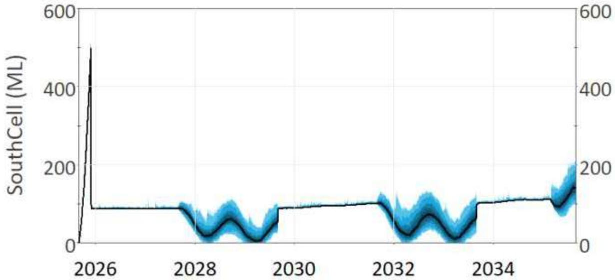
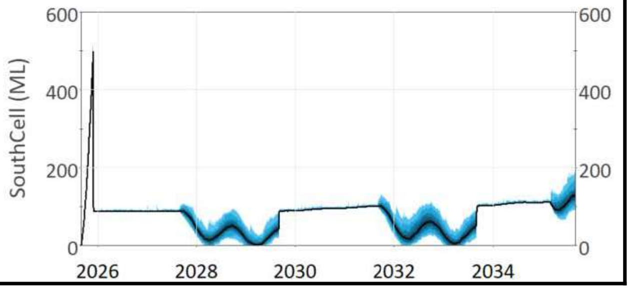


Climate change - Max Con



TSF - Southern Cell

WATER BALANCE | Volume Results

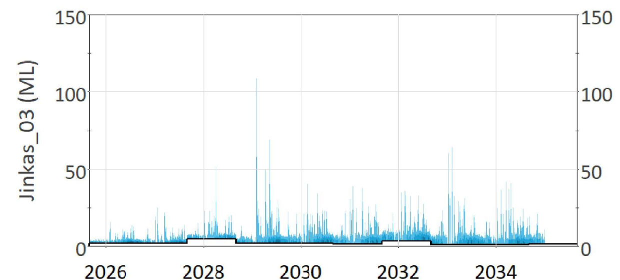
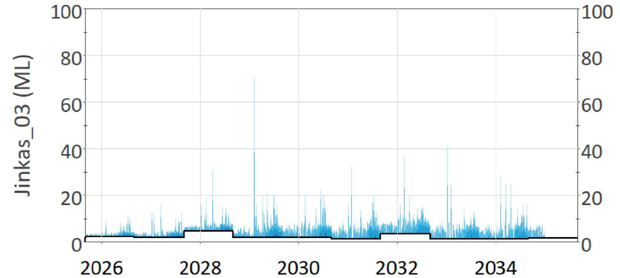
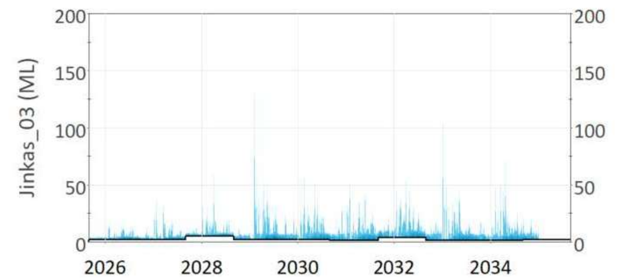
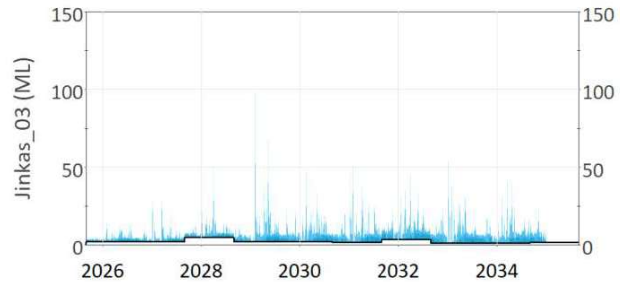
	Year	Inflows [ML/yr]			Outflows [ML/yr]						WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	57.6	67.8	3979.1	177.6	110.4	2659.6	1074.2	1.4	0.0	4104.4	2947.6	Y1	499.7	512.3	539.7	
	Y2	53.1	68.6	4474.9	154.8	122.3	3100.8	1207.8	1.4	0.0	4596.6	3377.9	Y2	87.4	88.9	101.4	
	Y3	35.4	88.0	0.0	98.8	46.6	0.0	0.0	1.4	0.0	123.4	145.4	Y3	88.0	93.5	107.1	
	Y4	25.9	90.3	0.0	68.3	48.0	0.0	0.0	1.3	0.0	116.2	116.3	Y4	60.7	73.1	108.1	
	Y5	96.3	43.3	4613.6	305.0	61.2	3086.9	1245.4	1.4	0.0	4753.3	3453.2	Y5	94.1	95.5	107.5	
	Y6	44.5	93.9	4412.9	148.5	146.7	3046.3	1191.7	1.4	0.0	4551.3	3341.5	Y6	100.2	101.4	115.2	
	Y7	35.5	102.2	0.0	103.1	57.0	0.0	0.0	1.4	0.0	137.7	160.1	Y7	102.0	105.3	128.1	
	Y8	28.1	105.5	0.0	77.5	57.6	0.0	0.0	1.4	0.0	133.7	135.1	Y8	72.2	87.2	128.0	
	Y9	84.5	72.0	4544.2	294.6	100.5	3016.6	1226.8	1.4	0.0	4700.8	3411.6	Y9	110.4	111.8	124.1	
	Y10	52.9	106.8	1726.6	137.1	150.6	1089.2	466.1	1.4	0.0	1886.3	1376.8	Y10	139.8	155.8	197.8	
Climate change - Drier Climate	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	38.8	46.9	3979.1	179.1	113.2	2623.0	1074.2	1.4	0.0	4064.8	2915.3	Y1	491.6	499.5	518.0	
	Y2	36.4	47.1	4474.9	157.6	124.5	3063.4	1207.8	1.4	0.0	4558.4	3345.6	Y2	87.3	88.7	96.2	
	Y3	17.8	64.3	0.0	81.7	49.0	0.0	0.0	1.4	0.0	82.1	130.7	Y3	87.3	88.7	95.9	
	Y4	11.6	66.5	0.0	35.5	41.6	0.0	0.0	1.1	0.0	78.2	77.1	Y4	36.0	45.5	65.7	
	Y5	65.8	30.2	4613.6	310.7	62.4	3025.2	1245.4	1.4	0.0	4709.6	3398.3	Y5	94.1	95.2	103.5	
	Y6	29.4	65.5	4412.9	150.0	150.0	3005.5	1191.7	1.4	0.0	4507.8	3305.5	Y6	100.1	101.1	108.1	
	Y7	17.8	74.1	0.0	86.0	59.6	0.0	0.0	1.4	0.0	91.9	145.6	Y7	100.2	101.1	112.8	
	Y8	11.6	77.3	0.0	39.2	51.8	0.0	0.0	1.2	0.0	88.9	91.0	Y8	43.1	53.1	81.4	
	Y9	56.4	50.9	4544.2	299.3	102.8	2944.9	1226.8	1.4	0.0	4651.5	3347.0	Y9	110.3	111.6	122.7	
	Y10	34.1	74.5	1726.6	136.6	151.8	1072.5	466.1	1.4	0.0	1835.1	1360.9	Y10	112.2	124.4	154.0	
Climate change - Wetter Climate	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	60.4	71.1	3979.1	181.9	113.3	2657.5	1074.2	1.4	0.0	4110.6	2952.7	Y1	498.4	511.3	539.4	
	Y2	55.7	71.8	4474.9	158.7	125.4	3098.1	1207.8	1.4	0.0	4602.4	3382.1	Y2	87.4	88.9	106.0	
	Y3	37.8	92.2	0.0	102.4	47.6	0.0	0.0	1.4	0.0	130.0	150.0	Y3	88.1	93.8	107.4	
	Y4	27.9	94.2	0.0	72.6	49.0	0.0	0.0	1.3	0.0	122.1	121.7	Y4	61.3	74.6	111.2	
	Y5	101.9	44.5	4613.6	312.8	62.7	3085.1	1245.4	1.4	0.0	4760.0	3460.6	Y5	94.1	95.4	112.6	
	Y6	46.8	98.6	4412.9	152.2	150.4	3044.2	1191.7	1.4	0.0	4558.3	3346.8	Y6	100.1	101.3	120.5	
	Y7	37.9	107.1	0.0	106.6	58.2	0.0	0.0	1.4	0.0	145.0	164.8	Y7	101.9	105.5	129.5	
	Y8	30.6	110.2	0.0	82.3	58.7	0.0	0.0	1.4	0.0	140.8	141.1	Y8	73.0	89.0	130.7	
	Y9	90.3	74.2	4544.2	302.1	103.0	3015.1	1226.8	1.4	0.0	4708.8	3420.2	Y9	110.3	111.7	130.1	
	Y10	55.7	112.0	1726.6	141.0	154.4	1086.3	466.1	1.4	0.0	1894.2	1381.6	Y10	141.6	156.6	206.2	
Climate change - Max Con	Year	DP	TR	TS	PE	TE	T_P	EN	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	53.2	62.0	3979.1	182.1	113.4	2644.0	1074.2	1.4	0.0	4094.3	2939.5	Y1	498.4	511.3	539.4	
	Y2	48.8	63.0	4474.9	158.8	125.5	3085.2	1207.8	1.4	0.0	4586.6	3369.6	Y2	87.3	88.7	101.9	
	Y3	31.3	82.1	0.0	98.3	48.1	0.0	0.0	1.4	0.0	113.4	146.4	Y3	88.0	93.7	107.5	
	Y4	20.8	84.9	0.0	58.5	47.9	0.0	0.0	1.3	0.0	105.8	106.4	Y4	50.6	61.1	93.5	
	Y5	88.2	39.8	4613.6	313.0	62.9	3058.5	1245.4	1.4	0.0	4741.6	3434.3	Y5	94.1	95.2	107.4	
	Y6	41.6	85.4	4412.9	152.3	150.6	3029.2	1191.7	1.4	0.0	4539.9	3332.1	Y6	100.1	101.1	112.7	
	Y7	31.3	95.3	0.0	102.6	58.8	0.0	0.0	1.4	0.0	126.6	161.4	Y7	101.6	105.5	128.8	
	Y8	22.5	99.8	0.0	66.8	58.4	0.0	0.0	1.3	0.0	122.2	125.3	Y8	60.9	73.5	111.0	
	Y9	78.1	65.6	4544.2	302.1	103.2	2983.2	1226.8	1.4	0.0	4687.9	3388.6	Y9	110.3	111.6	120.9	
	Y10	47.5	99.1	1726.6	139.9	154.6	1083.2	466.1	1.4	0.0	1873.1	1377.8	Y10	128.3	141.1	185.1	

DP (Direct precipitation), TR (Tailings RO), TS (Tailings Water), PE (Evaporation), TE (Tailings evap), T_P (To Plant), EN (Entrained water), SP (Seepage), OV (Overtopping)

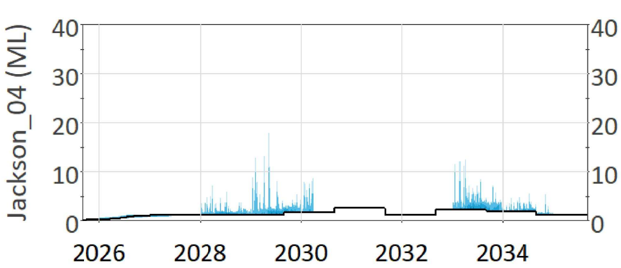
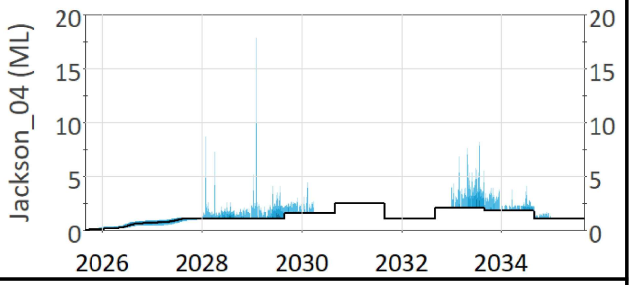
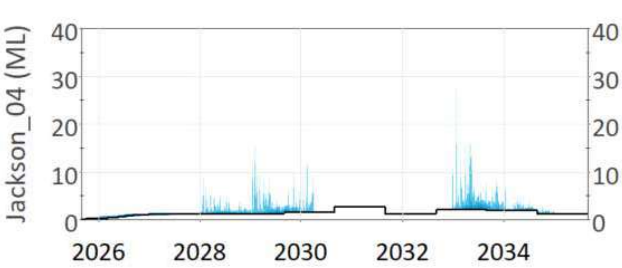
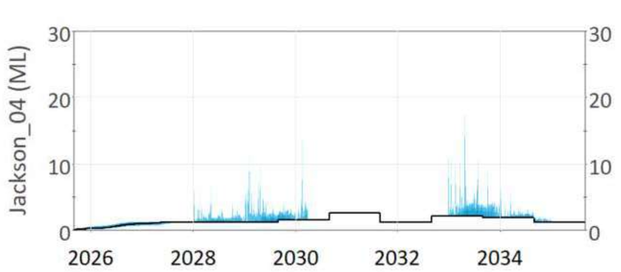
Appendix B

Water balance – Pits

Pit - Jinkas

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.9	36.2	18.7	340.0	2.4	387.2	0.0	395.7	389.6	Y1	2.0	2.9	26.0	
	Y2	0.8	31.1	34.3	263.0	2.4	322.2	0.0	329.2	324.7	Y2	2.0	2.7	21.7	
	Y3	0.9	29.8	45.5	1284.7	2.4	1347.7	0.0	1360.9	1350.1	Y3	4.6	4.6	32.5	
	Y4	0.8	58.1	61.0	322.0	2.4	431.2	0.0	442.0	433.6	Y4	4.6	4.6	58.2	
	Y5	0.8	47.7	90.1	267.8	2.4	392.0	0.0	406.4	394.4	Y5	2.0	2.3	41.1	
	Y6	0.9	38.8	114.4	92.6	2.4	229.9	0.0	246.6	232.3	Y6	1.9	1.9	54.5	
	Y7	0.9	34.9	118.7	847.3	2.4	983.6	0.0	1001.7	986.1	Y7	3.4	5.8	64.4	
	Y8	0.8	35.2	115.6	0.0	0.2	141.1	0.0	151.7	141.3	Y8	3.4	3.4	48.9	
	Y9	0.8	34.9	118.7	0.0	0.2	139.7	0.0	154.4	140.0	Y9	1.1	3.4	49.1	
	Y10	0.8	6.9	27.2	177.0	2.4	207.4	0.0	212.0	209.8	Y10	1.6	1.6	28.7	
Climate change - Drier Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.6	18.1	10.9	340.0	2.4	364.0	0.0	369.6	366.4	Y1	2.0	2.3	15.6	
	Y2	0.6	15.3	17.9	263.0	2.5	293.2	0.0	296.8	295.7	Y2	2.0	2.1	15.1	
	Y3	0.6	14.9	23.8	1284.7	2.5	1316.1	0.0	1323.9	1318.6	Y3	4.6	4.6	31.8	
	Y4	0.6	29.7	32.6	322.0	2.5	382.0	0.0	385.0	384.5	Y4	4.6	4.6	38.4	
	Y5	0.6	23.2	47.3	267.8	2.5	332.2	0.0	338.9	334.7	Y5	2.0	2.0	26.4	
	Y6	0.6	19.0	58.6	92.6	2.5	163.4	0.0	170.9	165.8	Y6	1.9	1.9	35.0	
	Y7	0.6	17.4	60.7	847.3	2.5	917.1	0.0	926.0	919.6	Y7	3.4	3.5	53.6	
	Y8	0.6	17.3	58.1	0.0	0.2	73.7	0.0	75.9	73.9	Y8	3.4	3.4	24.4	
	Y9	0.6	17.6	61.7	0.0	0.2	74.9	0.0	79.8	75.1	Y9	1.1	1.1	43.0	
	Y10	0.6	2.1	8.5	177.0	2.5	185.8	0.0	188.2	188.3	Y10	1.6	1.6	7.5	
Climate change - Wetter Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	40.3	19.8	340.0	2.5	391.5	0.0	401.1	393.9	Y1	2.0	2.5	30.8	
	Y2	0.9	34.9	37.7	263.0	2.5	327.5	0.0	336.5	330.0	Y2	2.0	2.5	28.6	
	Y3	0.9	33.0	49.6	1284.7	2.5	1354.2	0.0	1368.1	1356.6	Y3	4.6	4.6	47.8	
	Y4	0.9	64.6	66.3	322.0	2.5	441.4	0.0	453.7	443.9	Y4	4.6	4.6	73.8	
	Y5	0.9	51.8	96.1	267.8	2.5	402.4	0.0	416.6	404.9	Y5	2.0	2.3	54.3	
	Y6	0.9	43.3	125.8	92.6	2.5	242.8	0.0	262.6	245.3	Y6	1.9	1.9	69.3	
	Y7	0.9	38.9	131.1	847.3	2.5	997.8	0.0	1018.2	1000.4	Y7	3.4	4.6	108.9	
	Y8	0.9	39.0	127.0	0.0	0.2	153.3	0.0	166.8	153.6	Y8	3.4	3.4	59.6	
	Y9	0.9	39.3	131.4	0.0	0.3	153.8	0.0	171.6	154.1	Y9	1.1	2.7	64.8	
	Y10	0.9	7.4	29.2	177.0	2.5	209.2	0.0	214.5	211.7	Y10	1.6	1.6	21.1	
Climate change - Max Con	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.8	31.6	15.2	340.0	2.5	379.5	0.0	387.6	382.0	Y1	2.0	2.2	23.6	
	Y2	0.8	26.8	29.1	263.0	2.5	313.4	0.0	319.7	315.9	Y2	2.0	2.1	22.6	
	Y3	0.8	26.2	39.6	1284.7	2.5	1339.1	0.0	1351.2	1341.6	Y3	4.6	4.6	32.0	
	Y4	0.8	49.6	51.6	322.0	2.5	415.1	0.0	424.0	417.6	Y4	4.6	4.6	52.5	
	Y5	0.8	41.4	76.5	267.8	2.5	374.3	0.0	386.4	376.8	Y5	2.0	2.0	40.7	
	Y6	0.8	33.2	97.9	92.6	2.5	210.9	0.0	224.6	213.4	Y6	1.9	1.9	47.1	
	Y7	0.8	30.3	103.2	847.3	2.5	965.5	0.0	981.5	968.0	Y7	3.4	3.5	75.7	
	Y8	0.8	30.3	100.2	0.0	0.2	122.0	0.0	131.2	122.2	Y8	3.4	3.4	44.1	
	Y9	0.8	30.3	102.6	0.0	0.2	120.4	0.0	133.6	120.6	Y9	1.1	1.2	42.3	
	Y10	0.8	7.1	28.0	177.0	2.5	207.3	0.0	212.9	209.8	Y10	1.6	1.6	21.2	

DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping),

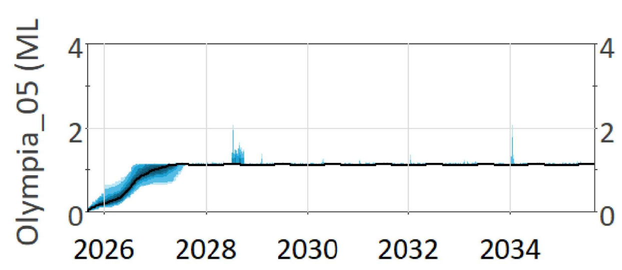
	Pit - Jackson														
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	0.9	1.1	
	Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5	Y2	1.1	1.1	1.2	
	Y3	0.9	10.6	2.6	0.0	0.2	12.3	0.0	14.1	12.5	Y3	1.1	1.1	7.5	
	Y4	0.8	15.4	14.0	0.0	0.2	27.3	0.0	30.3	27.5	Y4	1.1	1.3	15.0	
	Y5	0.8	4.5	9.2	161.3	2.4	171.1	0.0	175.8	173.5	Y5	1.6	1.6	10.2	
	Y6	0.9	0.0	0.0	519.4	2.4	516.7	0.0	520.3	519.2	Y6	2.5	2.6	2.7	
	Y7	0.9	0.0	0.0	0.0	0.2	2.1	0.0	0.9	2.3	Y7	2.5	2.5	2.6	
	Y8	0.8	29.1	5.9	359.3	2.4	388.4	0.0	395.0	390.8	Y8	2.1	2.1	17.3	
	Y9	0.8	12.4	6.5	272.3	2.4	288.6	0.0	292.0	291.1	Y9	2.1	2.1	6.9	
	Y10	0.8	1.0	1.9	0.0	0.2	4.1	0.0	3.7	4.3	Y10	1.9	1.9	3.5	
Climate change - Drier Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	Y1	0.6	0.6	0.8	
	Y2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	Y2	1.1	1.1	1.2	
	Y3	0.6	5.8	1.6	0.0	0.2	7.3	0.0	8.0	7.4	Y3	1.1	1.1	7.3	
	Y4	0.6	7.7	7.8	0.0	0.2	15.1	0.0	16.1	15.3	Y4	1.1	1.3	10.1	
	Y5	0.6	1.7	3.6	161.3	2.5	163.8	0.0	167.1	166.2	Y5	1.6	1.6	6.4	
	Y6	0.6	0.0	0.0	519.4	2.5	516.5	0.0	520.0	518.9	Y6	2.5	2.5	2.6	
	Y7	0.6	0.0	0.0	0.0	0.2	1.8	0.0	0.6	2.0	Y7	2.5	2.5	2.6	
	Y8	0.6	15.3	3.5	359.3	2.5	374.0	0.0	378.7	376.5	Y8	2.1	2.1	9.3	
	Y9	0.6	5.3	3.1	272.3	2.5	278.9	0.0	281.3	281.4	Y9	2.1	2.1	4.8	
	Y10	0.6	0.3	0.6	0.0	0.2	2.1	0.0	1.5	2.3	Y10	1.9	1.9	2.3	
Climate change - Wetter Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	1.0	1.1	
	Y2	0.9	0.0	0.0	0.0	0.1	0.4	0.0	0.9	0.5	Y2	1.1	1.1	1.2	
	Y3	0.9	11.8	2.7	0.0	0.2	13.6	0.0	15.5	13.8	Y3	1.1	1.1	11.0	
	Y4	0.9	17.2	15.1	0.0	0.3	29.8	0.0	33.2	30.0	Y4	1.1	1.3	18.8	
	Y5	0.9	5.1	10.6	161.3	2.5	173.1	0.0	177.8	175.6	Y5	1.6	1.6	15.3	
	Y6	0.9	0.0	0.0	519.4	2.5	516.7	0.0	520.3	519.2	Y6	2.5	2.6	2.7	
	Y7	0.9	0.0	0.0	0.0	0.2	2.1	0.0	0.9	2.3	Y7	2.5	2.5	2.6	
	Y8	0.9	32.5	6.0	359.3	2.5	391.3	0.0	398.7	393.8	Y8	2.1	2.1	20.8	
	Y9	0.9	13.9	7.0	272.3	2.5	290.3	0.0	294.1	292.8	Y9	2.1	2.1	9.8	
	Y10	0.9	1.1	2.0	0.0	0.2	4.2	0.0	4.0	4.5	Y10	1.9	1.9	2.9	
Climate change - Max Con	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	Y1	0.7	0.9	1.1	
	Y2	0.8	0.0	0.0	0.0	0.1	0.3	0.0	0.8	0.4	Y2	1.1	1.1	1.2	
	Y3	0.8	8.9	2.1	0.0	0.2	10.3	0.0	11.8	10.5	Y3	1.1	1.1	7.4	
	Y4	0.8	13.3	11.6	0.0	0.2	23.2	0.0	25.7	23.4	Y4	1.1	1.2	13.6	
	Y5	0.8	4.3	8.8	161.3	2.5	170.8	0.0	175.1	173.2	Y5	1.6	1.6	11.7	
	Y6	0.8	0.0	0.0	519.4	2.5	516.6	0.0	520.2	519.1	Y6	2.5	2.5	2.6	
	Y7	0.8	0.0	0.0	0.0	0.2	2.0	0.0	0.8	2.2	Y7	2.5	2.5	2.6	
	Y8	0.8	23.8	4.6	359.3	2.5	382.3	0.0	388.4	384.8	Y8	2.1	2.1	15.8	
	Y9	0.8	11.7	5.9	272.3	2.5	287.3	0.0	290.7	289.8	Y9	2.1	2.1	7.3	
	Y10	0.8	1.0	1.9	0.0	0.2	4.0	0.0	3.7	4.2	Y10	1.9	1.9	2.9	

DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping),

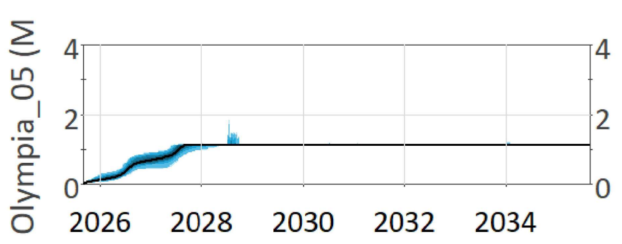
Pit - Olympia

	WATER BALANCE										Volume Results			
	Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals		Maximum Volume [ML]			
		DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th
Baseline Climate	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	0.9	1.1
	Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5	Y2	1.1	1.1	1.2
	Y3	0.9	1.5	0.6	0.0	0.2	2.6	0.0	2.9	2.8	Y3	1.1	1.1	2.8
	Y4	0.8	0.3	0.3	0.0	0.2	1.3	0.0	1.5	1.5	Y4	1.1	1.1	1.7
	Y5	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y5	1.1	1.1	1.2
	Y6	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y6	1.1	1.1	1.2
	Y7	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y7	1.1	1.1	1.3
	Y8	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y8	1.1	1.1	1.2
	Y9	0.8	0.2	0.1	0.0	0.2	0.8	0.0	1.2	1.0	Y9	1.1	1.1	2.6
	Y10	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y10	1.1	1.1	1.2

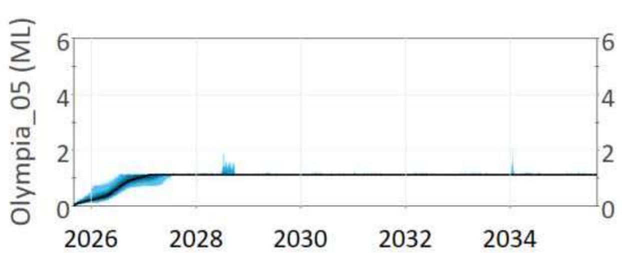
Probabilistic Volume result [ML]



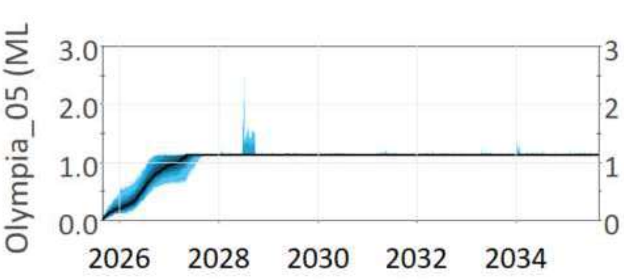
	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th
Climate change - Drier Climate	Y1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	Y1	0.6	0.6	0.8
	Y2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	Y2	1.1	1.1	1.2
	Y3	0.6	1.1	0.4	0.0	0.2	1.8	0.0	2.1	2.0	Y3	1.1	1.1	2.2
	Y4	0.6	0.1	0.1	0.0	0.2	0.6	0.0	0.8	0.8	Y4	1.1	1.1	1.5
	Y5	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y5	1.1	1.1	1.2
	Y6	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y6	1.1	1.1	1.2
	Y7	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y7	1.1	1.1	1.2
	Y8	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.5	Y8	1.1	1.1	1.2
	Y9	0.6	0.1	0.1	0.0	0.2	0.5	0.0	0.8	0.7	Y9	1.1	1.1	2.3
	Y10	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y10	1.1	1.1	1.2



	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th
Climate change - Wetter Climate	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	1.0	1.1
	Y2	0.9	0.0	0.0	0.0	0.1	0.4	0.0	0.9	0.5	Y2	1.1	1.1	1.2
	Y3	0.9	1.4	0.5	0.0	0.2	2.5	0.0	2.9	2.7	Y3	1.1	1.1	2.7
	Y4	0.9	0.4	0.3	0.0	0.2	1.3	0.0	1.6	1.5	Y4	1.1	1.1	1.7
	Y5	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y5	1.1	1.1	1.3
	Y6	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y6	1.1	1.1	1.3
	Y7	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y7	1.1	1.1	1.4
	Y8	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y8	1.1	1.1	1.2
	Y9	0.9	0.3	0.2	0.0	0.2	0.9	0.0	1.3	1.1	Y9	1.1	1.1	3.0
	Y10	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y10	1.1	1.1	1.2



	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th
Climate change - Max Con	Y1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	Y1	0.7	0.9	1.1
	Y2	0.8	0.0	0.0	0.0	0.1	0.3	0.0	0.8	0.4	Y2	1.1	1.1	1.2
	Y3	0.8	1.0	0.4	0.0	0.2	2.0	0.0	2.3	2.2	Y3	1.1	1.1	2.1
	Y4	0.8	0.4	0.4	0.0	0.2	1.2	0.0	1.5	1.4	Y4	1.1	1.1	2.2
	Y5	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y5	1.1	1.1	1.2
	Y6	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y6	1.1	1.1	1.2
	Y7	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y7	1.1	1.1	1.3
	Y8	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y8	1.1	1.1	1.2
	Y9	0.8	0.2	0.1	0.0	0.2	0.7	0.0	1.1	0.9	Y9	1.1	1.1	2.4
	Y10	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y10	1.1	1.1	1.2

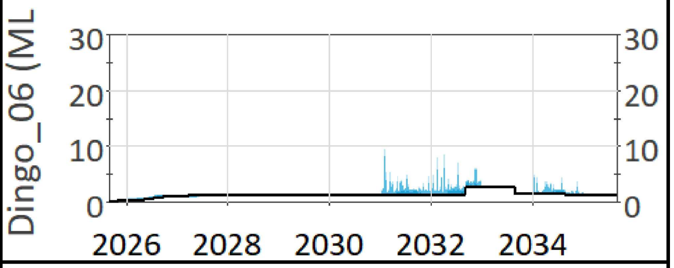
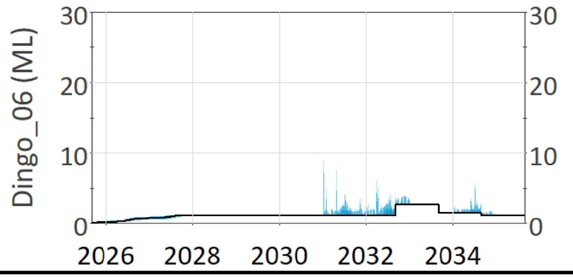
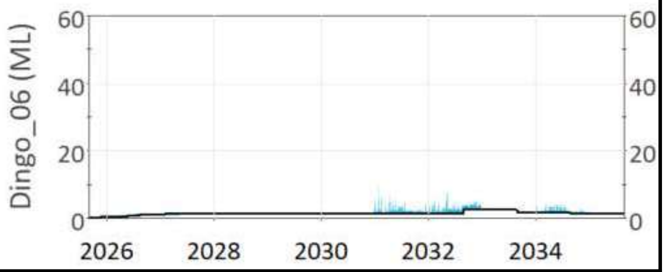
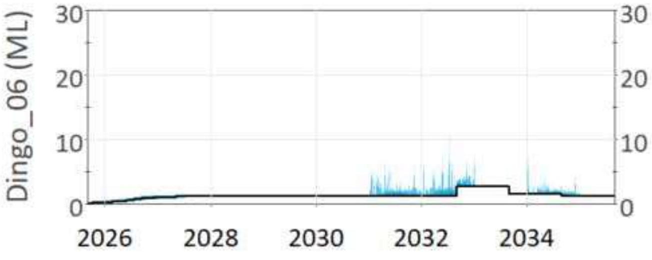


DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping),

Pit - Dingo

WATER BALANCE

Volume Results

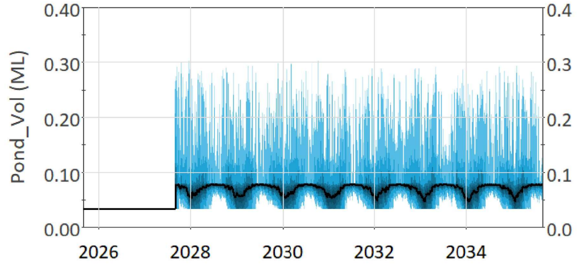
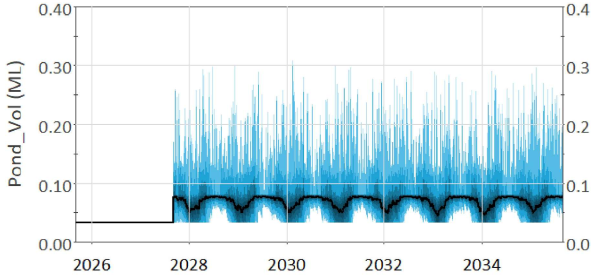
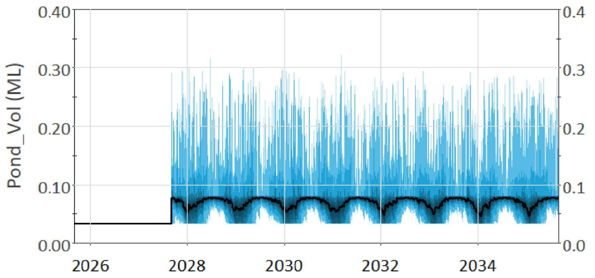
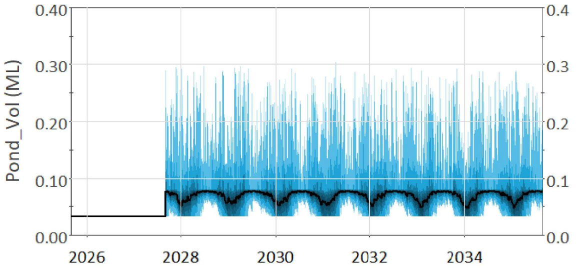
	Year	Inflows [ML/yr]				Outflows [ML/yr]			WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	0.9	1.1	
	Y2	0.8	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.5	Y2	1.1	1.1	1.2	
	Y3	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y3	1.1	1.1	1.2	
	Y4	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y4	1.1	1.1	1.3	
	Y5	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y5	1.1	1.1	1.2	
	Y6	0.9	17.3	4.1	0.0	0.2	19.7	0.0	22.2	19.9	Y6	1.1	1.2	10.7	
	Y7	0.9	15.1	16.1	0.0	0.2	29.1	0.0	32.1	29.3	Y7	1.1	1.6	13.8	
	Y8	0.8	2.5	5.3	548.6	2.4	552.9	0.0	557.2	555.3	Y8	2.6	2.6	6.6	
	Y9	0.8	8.3	4.0	115.7	2.4	126.2	0.0	128.8	128.6	Y9	2.6	2.6	6.2	
	Y10	0.8	1.6	2.3	0.0	0.2	4.6	0.0	4.8	4.8	Y10	1.4	1.4	4.4	
Climate change - Drier Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	Y1	0.6	0.6	0.8	
	Y2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	Y2	1.1	1.1	1.2	
	Y3	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.5	Y3	1.1	1.1	1.2	
	Y4	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y4	1.1	1.1	1.2	
	Y5	0.6	0.0	0.0	0.0	0.2	0.4	0.0	0.6	0.6	Y5	1.1	1.1	1.2	
	Y6	0.6	9.2	2.5	0.0	0.2	11.1	0.0	12.3	11.3	Y6	1.1	1.1	7.2	
	Y7	0.6	7.3	8.8	0.0	0.2	15.5	0.0	16.6	15.7	Y7	1.1	1.1	11.5	
	Y8	0.6	0.8	1.8	548.6	2.5	547.9	0.0	551.8	550.4	Y8	2.6	2.6	4.7	
	Y9	0.6	4.5	2.5	115.7	2.5	121.4	0.0	123.2	123.8	Y9	2.6	2.6	5.6	
	Y10	0.6	0.5	0.7	0.0	0.2	2.0	0.0	1.8	2.2	Y10	1.4	1.4	2.0	
Climate change - Wetter Climate	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	Y1	0.8	1.0	1.1	
	Y2	0.9	0.0	0.0	0.0	0.1	0.4	0.0	0.9	0.5	Y2	1.1	1.1	1.2	
	Y3	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y3	1.1	1.1	1.3	
	Y4	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y4	1.1	1.1	1.3	
	Y5	0.9	0.0	0.0	0.0	0.2	0.6	0.0	0.9	0.8	Y5	1.1	1.1	1.3	
	Y6	0.9	19.5	4.2	0.0	0.2	21.6	0.0	24.6	21.8	Y6	1.1	1.2	13.4	
	Y7	0.9	17.0	17.6	0.0	0.2	32.1	0.0	35.5	32.3	Y7	1.1	1.4	23.0	
	Y8	0.9	2.7	5.8	548.6	2.5	553.5	0.0	558.0	555.9	Y8	2.6	2.6	6.9	
	Y9	0.9	9.5	4.1	115.7	2.5	127.3	0.0	130.2	129.8	Y9	2.6	2.6	7.8	
	Y10	0.9	1.7	2.5	0.0	0.2	4.9	0.0	5.1	5.1	Y10	1.4	1.4	3.5	
Climate change - Max Con	Year	DP	CR	PWR	GW	PE	T_P	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	Y1	0.7	0.9	1.1	
	Y2	0.8	0.0	0.0	0.0	0.1	0.3	0.0	0.8	0.4	Y2	1.1	1.1	1.2	
	Y3	0.8	0.0	0.0	0.0	0.2	0.6	0.0	0.8	0.8	Y3	1.1	1.1	1.2	
	Y4	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y4	1.1	1.1	1.3	
	Y5	0.8	0.0	0.0	0.0	0.2	0.5	0.0	0.8	0.7	Y5	1.1	1.1	1.2	
	Y6	0.8	14.2	3.2	0.0	0.2	16.1	0.0	18.1	16.3	Y6	1.1	1.1	9.5	
	Y7	0.8	13.3	13.6	0.0	0.2	25.2	0.0	27.7	25.4	Y7	1.1	1.1	16.1	
	Y8	0.8	2.6	5.4	548.6	2.5	552.8	0.0	557.3	555.3	Y8	2.6	2.6	6.8	
	Y9	0.8	6.9	3.1	115.7	2.5	124.0	0.0	126.4	126.5	Y9	2.6	2.6	5.6	
	Y10	0.8	1.7	2.4	0.0	0.2	4.6	0.0	4.8	4.8	Y10	1.4	1.4	3.6	

DP (Direct precipitation), CR (Catchment Runoff), PWR (Pit Wall Runoff), GW (Groundwater inflow), PE (Evaporation), T_P (Transfer to Plant), OV (Overtopping),

Appendix C

Water balance – Sediment ponds

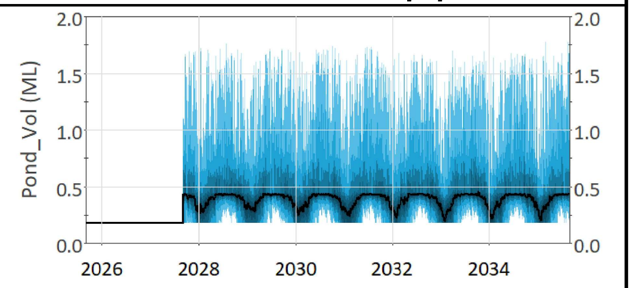
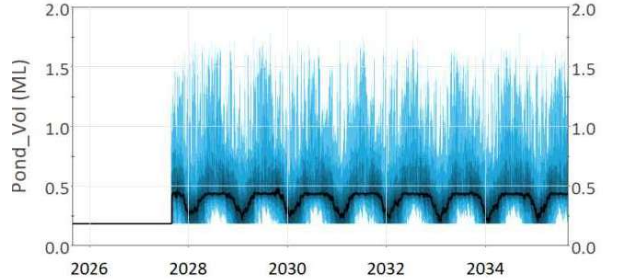
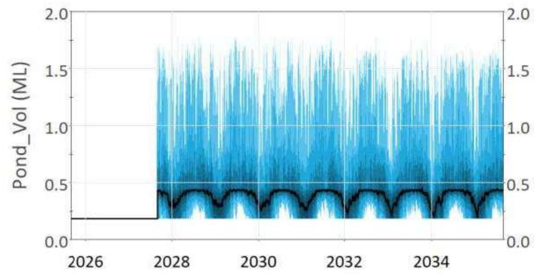
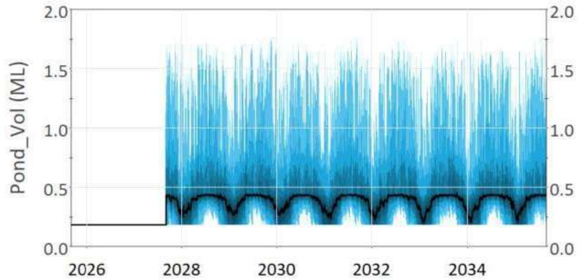
Sediment Ponds - Main SRP POND 1

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.0	0.0	0.0	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.0	0.0	0.0	
	Y3	0.1	1.3	4.6	0.1	5.1	0.4	0.0	6.0	5.6	Y3	0.1	0.1	0.3	
	Y4	0.1	1.2	4.4	0.1	5.1	0.4	0.0	5.7	5.5	Y4	0.1	0.1	0.3	
	Y5	0.1	1.2	4.3	0.1	5.1	0.4	0.0	5.7	5.5	Y5	0.1	0.1	0.3	
	Y6	0.1	1.3	4.5	0.1	5.2	0.3	0.0	5.9	5.6	Y6	0.1	0.1	0.3	
	Y7	0.1	1.3	4.4	0.1	5.0	0.4	0.0	5.8	5.5	Y7	0.1	0.1	0.3	
	Y8	0.1	1.2	4.3	0.1	5.0	0.4	0.0	5.7	5.4	Y8	0.1	0.1	0.3	
	Y9	0.1	1.2	4.3	0.1	5.0	0.3	0.0	5.7	5.5	Y9	0.1	0.1	0.3	
	Y10	0.1	1.2	4.4	0.1	5.1	0.4	0.0	5.7	5.5	Y10	0.1	0.1	0.3	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.0	0.0	0.0	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.0	0.0	0.0	
	Y3	0.1	0.9	3.1	0.1	3.5	0.4	0.0	4.1	3.9	Y3	0.1	0.1	0.3	
	Y4	0.1	0.9	3.0	0.1	3.5	0.4	0.0	3.9	3.9	Y4	0.1	0.1	0.3	
	Y5	0.1	0.9	3.0	0.1	3.4	0.4	0.0	3.9	3.9	Y5	0.1	0.1	0.3	
	Y6	0.1	0.9	3.1	0.1	3.5	0.3	0.0	4.0	4.0	Y6	0.1	0.1	0.3	
	Y7	0.1	0.9	3.0	0.1	3.4	0.4	0.0	3.9	3.8	Y7	0.1	0.1	0.3	
	Y8	0.1	0.8	2.9	0.1	3.3	0.3	0.0	3.9	3.8	Y8	0.1	0.1	0.3	
	Y9	0.1	0.8	3.0	0.1	3.4	0.3	0.0	3.9	3.9	Y9	0.1	0.1	0.3	
	Y10	0.1	0.9	3.0	0.1	3.4	0.4	0.0	3.9	3.9	Y10	0.1	0.1	0.3	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.0	0.0	0.0	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.0	0.0	0.0	
	Y3	0.1	1.4	4.8	0.1	5.4	0.4	0.0	6.3	5.8	Y3	0.1	0.1	0.3	
	Y4	0.1	1.3	4.6	0.1	5.3	0.4	0.0	6.0	5.7	Y4	0.1	0.1	0.3	
	Y5	0.1	1.3	4.6	0.1	5.3	0.4	0.0	6.0	5.7	Y5	0.1	0.1	0.3	
	Y6	0.1	1.3	4.7	0.1	5.4	0.3	0.0	6.2	5.8	Y6	0.1	0.1	0.3	
	Y7	0.1	1.3	4.6	0.1	5.3	0.4	0.0	6.1	5.7	Y7	0.1	0.1	0.3	
	Y8	0.1	1.3	4.5	0.1	5.2	0.4	0.0	6.0	5.7	Y8	0.1	0.1	0.3	
	Y9	0.1	1.3	4.5	0.1	5.3	0.3	0.0	5.9	5.7	Y9	0.1	0.1	0.3	
	Y10	0.1	1.3	4.6	0.1	5.3	0.4	0.0	6.0	5.7	Y10	0.1	0.1	0.3	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.0	0.0	0.0	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.0	0.0	0.0	
	Y3	0.1	1.2	4.2	0.1	4.7	0.4	0.0	5.5	5.2	Y3	0.1	0.1	0.3	
	Y4	0.1	1.1	4.0	0.1	4.6	0.4	0.0	5.3	5.1	Y4	0.1	0.1	0.3	
	Y5	0.1	1.1	4.0	0.1	4.6	0.4	0.0	5.2	5.1	Y5	0.1	0.1	0.3	
	Y6	0.1	1.2	4.1	0.1	4.7	0.3	0.0	5.4	5.2	Y6	0.1	0.1	0.3	
	Y7	0.1	1.2	4.1	0.1	4.6	0.4	0.0	5.3	5.0	Y7	0.1	0.1	0.3	
	Y8	0.1	1.1	4.0	0.1	4.5	0.4	0.0	5.2	5.0	Y8	0.1	0.1	0.3	
	Y9	0.1	1.1	4.0	0.1	4.6	0.3	0.0	5.2	5.1	Y9	0.1	0.1	0.3	
	Y10	0.1	1.1	4.0	0.1	4.6	0.4	0.0	5.3	5.1	Y10	0.1	0.1	0.3	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

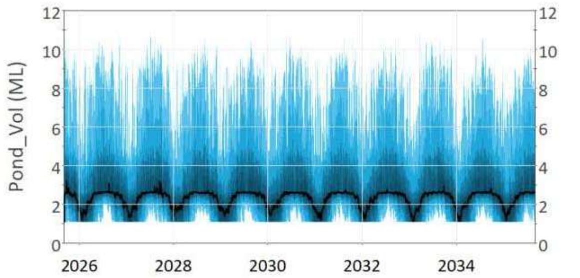
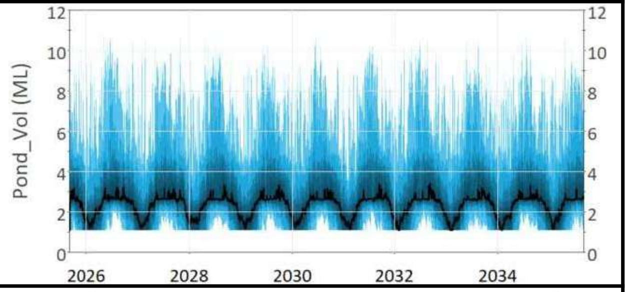
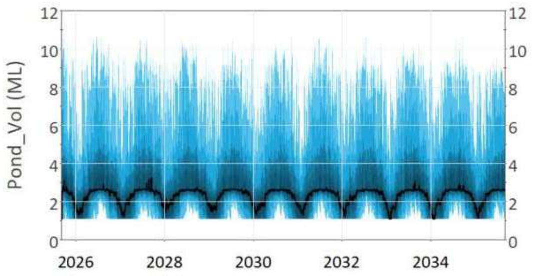
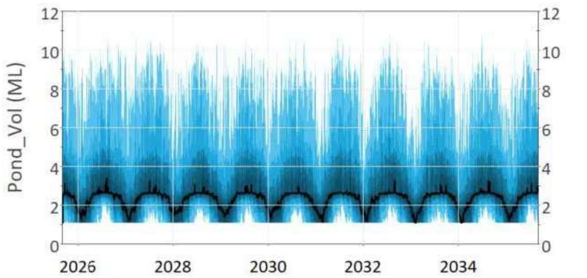
Sediment Ponds - Main SRP POND 2

WATER BALANCE / Volume Results

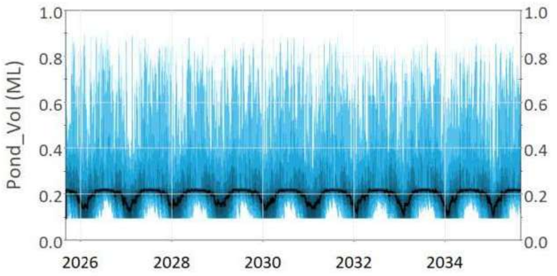
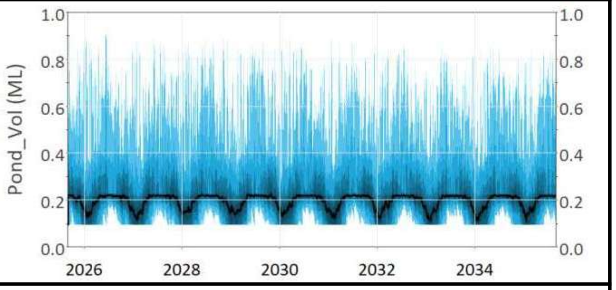
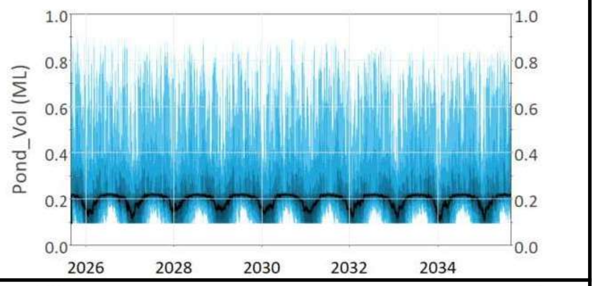
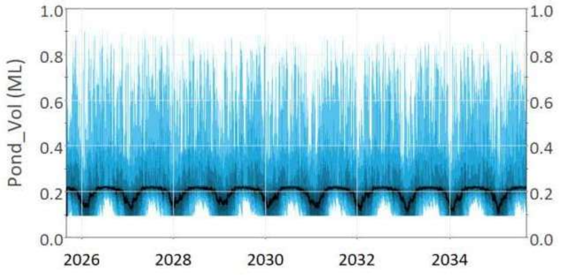
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.5	7.7	27.0	0.7	28.0	2.5	0.0	35.2	31.2	Y3	0.4	0.6	1.8	
	Y4	0.5	7.4	25.9	0.7	29.0	2.5	0.0	33.8	32.3	Y4	0.4	0.6	1.8	
	Y5	0.5	7.4	25.8	0.7	28.0	2.5	0.0	33.6	31.3	Y5	0.4	0.6	1.7	
	Y6	0.5	7.6	26.5	0.7	28.2	2.5	0.0	34.5	31.4	Y6	0.4	0.6	1.7	
	Y7	0.5	7.5	26.1	0.7	27.6	2.5	0.0	34.0	30.8	Y7	0.4	0.6	1.7	
	Y8	0.4	7.3	25.6	0.7	27.0	2.5	0.0	33.4	30.2	Y8	0.4	0.7	1.7	
	Y9	0.4	7.3	25.6	0.7	28.2	2.5	0.0	33.4	31.4	Y9	0.4	0.6	1.6	
	Y10	0.5	7.4	25.9	0.7	28.8	2.5	0.0	33.8	32.0	Y10	0.4	0.6	1.7	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.3	5.2	18.3	0.7	19.1	2.5	0.0	23.9	22.3	Y3	0.5	0.7	1.7	
	Y4	0.3	5.1	17.8	0.7	20.0	2.5	0.0	23.2	23.2	Y4	0.4	0.6	1.7	
	Y5	0.3	5.1	17.7	0.7	19.0	2.5	0.0	23.0	22.2	Y5	0.5	0.7	1.7	
	Y6	0.3	5.2	18.2	0.7	19.4	2.5	0.0	23.7	22.5	Y6	0.4	0.7	1.7	
	Y7	0.3	5.1	17.7	0.7	18.8	2.5	0.0	23.1	22.0	Y7	0.4	0.7	1.7	
	Y8	0.3	5.0	17.4	0.7	18.4	2.5	0.0	22.7	21.6	Y8	0.4	0.7	1.7	
	Y9	0.3	5.0	17.5	0.7	19.5	2.5	0.0	22.9	22.7	Y9	0.4	0.7	1.7	
	Y10	0.3	5.1	17.7	0.7	19.7	2.5	0.0	23.1	22.9	Y10	0.4	0.6	1.7	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.5	8.1	28.4	0.7	29.1	2.5	0.0	37.1	32.4	Y3	0.4	0.6	1.8	
	Y4	0.5	7.8	27.2	0.7	29.9	2.5	0.0	35.4	33.1	Y4	0.4	0.7	1.7	
	Y5	0.5	7.7	27.0	0.7	29.1	2.5	0.0	35.2	32.3	Y5	0.4	0.6	1.8	
	Y6	0.5	8.0	27.8	0.7	29.6	2.5	0.0	36.3	32.7	Y6	0.4	0.6	1.7	
	Y7	0.5	7.8	27.4	0.7	28.8	2.5	0.0	35.8	32.1	Y7	0.4	0.6	1.7	
	Y8	0.5	7.7	27.0	0.7	28.3	2.5	0.0	35.1	31.5	Y8	0.4	0.7	1.7	
	Y9	0.5	7.7	26.9	0.7	29.3	2.5	0.0	35.0	32.5	Y9	0.4	0.6	1.7	
	Y10	0.5	7.8	27.2	0.7	30.0	2.5	0.0	35.5	33.3	Y10	0.4	0.6	1.7	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.4	7.1	24.9	0.7	25.8	2.5	0.0	32.5	29.0	Y3	0.4	0.7	1.7	
	Y4	0.4	6.8	23.8	0.7	26.4	2.5	0.0	31.0	29.7	Y4	0.4	0.6	1.7	
	Y5	0.4	6.8	23.7	0.7	25.8	2.5	0.0	30.9	29.0	Y5	0.4	0.6	1.7	
	Y6	0.4	6.9	24.3	0.7	25.9	2.5	0.0	31.7	29.1	Y6	0.4	0.6	1.7	
	Y7	0.4	6.9	24.0	0.7	25.3	2.5	0.0	31.3	28.5	Y7	0.4	0.7	1.7	
	Y8	0.4	6.8	23.6	0.7	24.9	2.5	0.0	30.8	28.1	Y8	0.4	0.7	1.7	
	Y9	0.4	6.7	23.5	0.7	25.9	2.5	0.0	30.7	29.1	Y9	0.4	0.7	1.7	
	Y10	0.4	6.8	23.9	0.7	26.4	2.5	0.0	31.1	29.6	Y10	0.4	0.6	1.7	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - Main SRP POND 3

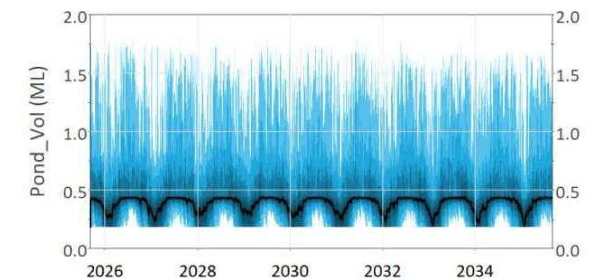
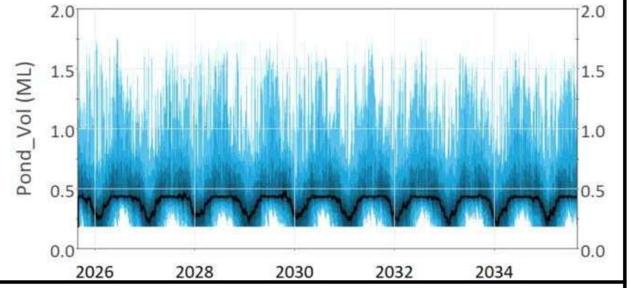
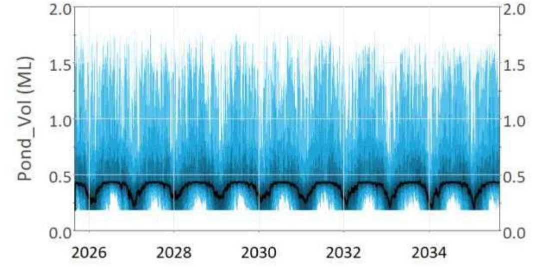
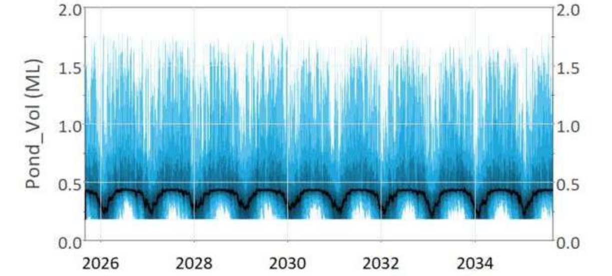
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	2.3	40.5	141.8	4.4	149.4	16.1	0.0	184.6	169.9	Y1	3.2	4.6	10.6	
	Y2	2.3	39.6	138.6	4.5	145.9	16.2	0.0	180.4	166.6	Y2	2.9	4.6	10.6	
	Y3	2.4	41.9	146.7	4.5	145.7	16.5	0.0	191.0	166.7	Y3	3.2	4.6	10.5	
	Y4	2.3	40.2	140.7	4.5	146.2	16.2	0.0	183.1	166.9	Y4	2.7	4.5	10.1	
	Y5	2.3	40.0	140.0	4.5	142.6	16.3	0.0	182.3	163.4	Y5	2.6	4.6	10.5	
	Y6	2.3	41.1	143.7	4.4	144.4	16.0	0.0	187.2	164.8	Y6	2.6	4.7	10.5	
	Y7	2.3	40.5	141.6	4.5	141.9	16.3	0.0	184.3	162.7	Y7	2.8	4.6	10.4	
	Y8	2.3	39.8	139.2	4.4	138.1	16.2	0.0	181.3	158.8	Y8	2.6	4.7	10.3	
	Y9	2.3	39.8	139.1	4.4	141.1	16.1	0.0	181.1	161.6	Y9	2.9	4.6	10.5	
	Y10	2.3	40.2	140.8	4.5	146.2	16.3	0.0	183.3	166.9	Y10	2.8	4.5	10.2	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	1.6	27.7	97.1	4.4	102.4	15.9	0.0	126.5	122.7	Y1	3.2	4.7	10.5	
	Y2	1.5	27.2	95.1	4.5	100.6	16.0	0.0	123.8	121.1	Y2	3.2	4.6	10.4	
	Y3	1.6	28.5	99.6	4.5	100.3	16.3	0.0	129.7	121.1	Y3	3.2	4.5	10.1	
	Y4	1.6	27.6	96.6	4.5	101.9	16.0	0.0	125.8	122.3	Y4	3.3	4.5	10.2	
	Y5	1.6	27.4	96.0	4.5	98.2	16.2	0.0	125.0	118.9	Y5	3.3	4.8	10.7	
	Y6	1.6	28.2	98.5	4.4	98.7	15.9	0.0	128.3	119.1	Y6	3.1	4.5	10.5	
	Y7	1.6	27.5	96.2	4.5	96.8	16.2	0.0	125.2	117.5	Y7	3.4	4.6	10.2	
	Y8	1.5	27.1	94.7	4.4	95.1	16.0	0.0	123.3	115.5	Y8	3.4	4.6	10.2	
	Y9	1.6	27.2	95.2	4.4	99.0	15.9	0.0	124.0	119.3	Y9	3.3	4.5	10.1	
	Y10	1.6	27.4	96.0	4.5	102.4	16.2	0.0	125.0	123.1	Y10	3.2	4.5	10.0	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	2.4	42.5	148.7	4.5	156.9	16.0	0.0	193.6	177.4	Y1	3.1	5.0	10.5	
	Y2	2.4	41.5	145.2	4.6	152.2	16.2	0.0	189.0	172.9	Y2	3.1	4.5	10.4	
	Y3	2.5	44.1	154.4	4.7	151.7	16.5	0.0	201.1	172.9	Y3	3.2	4.6	10.3	
	Y4	2.4	42.2	147.6	4.6	151.9	16.3	0.0	192.2	172.9	Y4	2.7	4.6	10.1	
	Y5	2.4	41.9	146.6	4.6	149.4	16.2	0.0	190.9	170.2	Y5	2.6	4.6	10.2	
	Y6	2.5	43.2	151.1	4.5	150.0	16.1	0.0	196.8	170.6	Y6	2.6	4.7	10.6	
	Y7	2.4	42.6	148.9	4.6	147.4	16.3	0.0	193.9	168.4	Y7	2.7	4.6	10.7	
	Y8	2.4	41.8	146.4	4.5	143.9	16.2	0.0	190.6	164.7	Y8	3.1	4.7	10.7	
	Y9	2.4	41.7	146.0	4.5	147.9	16.1	0.0	190.1	168.5	Y9	2.9	4.5	10.4	
	Y10	2.4	42.2	147.8	4.6	152.0	16.2	0.0	192.4	172.8	Y10	2.8	4.4	10.3	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	2.1	37.2	130.2	4.5	137.2	16.1	0.0	169.5	157.8	Y1	3.4	4.7	10.5	
	Y2	2.1	36.4	127.2	4.5	135.3	16.1	0.0	165.7	155.9	Y2	3.2	4.5	10.4	
	Y3	2.2	38.6	135.2	4.6	135.3	16.4	0.0	176.0	156.3	Y3	3.1	4.5	10.3	
	Y4	2.1	36.9	129.0	4.6	134.9	16.2	0.0	167.9	155.7	Y4	3.1	4.5	10.2	
	Y5	2.1	36.7	128.6	4.6	132.8	16.3	0.0	167.5	153.7	Y5	3.0	4.7	10.6	
	Y6	2.1	37.7	131.9	4.5	132.7	16.0	0.0	171.7	153.1	Y6	2.7	4.4	10.4	
	Y7	2.1	37.3	130.5	4.6	130.9	16.3	0.0	169.9	151.7	Y7	3.3	4.6	10.4	
	Y8	2.1	36.6	128.3	4.5	128.1	16.2	0.0	167.0	148.9	Y8	3.1	4.7	10.4	
	Y9	2.1	36.5	127.8	4.5	130.5	16.1	0.0	166.4	151.1	Y9	3.2	4.5	10.3	
	Y10	2.1	37.0	129.5	4.6	135.9	16.2	0.0	168.7	156.6	Y10	3.1	4.5	10.4	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

	Sediment Ponds - Main SRP POND 4														
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.3	3.8	13.3	0.3	15.0	1.2	0.0	17.4	16.6	Y1	0.2	0.3	0.9	
	Y2	0.3	3.7	13.0	0.3	14.9	1.2	0.0	17.0	16.4	Y2	0.2	0.3	0.9	
	Y3	0.3	3.9	13.8	0.3	14.8	1.2	0.0	18.0	16.4	Y3	0.2	0.3	0.9	
	Y4	0.3	3.8	13.2	0.3	15.1	1.2	0.0	17.3	16.6	Y4	0.2	0.3	0.9	
	Y5	0.3	3.8	13.2	0.3	14.8	1.2	0.0	17.2	16.4	Y5	0.2	0.3	0.9	
	Y6	0.3	3.9	13.5	0.3	15.0	1.2	0.0	17.6	16.5	Y6	0.2	0.3	0.9	
	Y7	0.3	3.8	13.3	0.3	14.4	1.2	0.0	17.4	15.9	Y7	0.2	0.3	0.9	
	Y8	0.3	3.7	13.1	0.3	14.1	1.2	0.0	17.1	15.6	Y8	0.2	0.3	0.9	
	Y9	0.3	3.7	13.1	0.3	14.8	1.2	0.0	17.1	16.3	Y9	0.2	0.3	0.8	
	Y10	0.3	3.8	13.2	0.3	14.9	1.2	0.0	17.3	16.4	Y10	0.2	0.3	0.9	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.2	2.6	9.1	0.3	10.1	1.2	0.0	11.9	11.7	Y1	0.2	0.3	0.9	
	Y2	0.2	2.6	8.9	0.3	10.1	1.2	0.0	11.7	11.6	Y2	0.2	0.3	0.9	
	Y3	0.2	2.7	9.4	0.3	10.1	1.2	0.0	12.2	11.7	Y3	0.2	0.3	0.9	
	Y4	0.2	2.6	9.1	0.3	10.3	1.2	0.0	11.9	11.9	Y4	0.2	0.3	0.9	
	Y5	0.2	2.6	9.0	0.3	10.0	1.2	0.0	11.8	11.6	Y5	0.2	0.3	0.9	
	Y6	0.2	2.6	9.3	0.3	10.3	1.2	0.0	12.1	11.8	Y6	0.2	0.3	0.9	
	Y7	0.2	2.6	9.0	0.3	9.8	1.2	0.0	11.8	11.3	Y7	0.2	0.3	0.8	
	Y8	0.2	2.5	8.9	0.3	9.6	1.2	0.0	11.6	11.2	Y8	0.2	0.3	0.8	
	Y9	0.2	2.6	9.0	0.3	10.1	1.2	0.0	11.7	11.6	Y9	0.2	0.3	0.9	
	Y10	0.2	2.6	9.0	0.3	10.2	1.2	0.0	11.8	11.7	Y10	0.2	0.3	0.8	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.3	4.0	14.0	0.3	15.6	1.2	0.0	18.2	17.1	Y1	0.2	0.3	0.9	
	Y2	0.3	3.9	13.7	0.3	15.5	1.2	0.0	17.8	17.0	Y2	0.2	0.3	0.9	
	Y3	0.3	4.1	14.5	0.3	15.5	1.2	0.0	19.0	17.0	Y3	0.2	0.3	0.9	
	Y4	0.3	4.0	13.9	0.3	15.6	1.2	0.0	18.1	17.1	Y4	0.2	0.3	0.9	
	Y5	0.3	3.9	13.8	0.3	15.4	1.2	0.0	18.0	17.0	Y5	0.2	0.3	0.9	
	Y6	0.3	4.1	14.2	0.3	15.7	1.2	0.0	18.5	17.2	Y6	0.2	0.3	0.9	
	Y7	0.3	4.0	14.0	0.3	15.1	1.2	0.0	18.3	16.6	Y7	0.2	0.3	0.9	
	Y8	0.3	3.9	13.8	0.3	14.8	1.2	0.0	18.0	16.3	Y8	0.2	0.3	0.9	
	Y9	0.3	3.9	13.7	0.3	15.4	1.2	0.0	17.9	16.9	Y9	0.2	0.3	0.8	
	Y10	0.3	4.0	13.9	0.3	15.5	1.2	0.0	18.1	17.0	Y10	0.2	0.3	0.9	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.2	3.5	12.2	0.3	13.7	1.2	0.0	16.0	15.2	Y1	0.2	0.3	0.9	
	Y2	0.2	3.4	12.0	0.3	13.6	1.2	0.0	15.6	15.1	Y2	0.2	0.3	0.9	
	Y3	0.2	3.6	12.7	0.3	13.7	1.2	0.0	16.6	15.2	Y3	0.2	0.3	0.9	
	Y4	0.2	3.5	12.1	0.3	13.8	1.2	0.0	15.8	15.3	Y4	0.2	0.3	0.9	
	Y5	0.2	3.5	12.1	0.3	13.6	1.2	0.0	15.8	15.1	Y5	0.2	0.3	0.9	
	Y6	0.2	3.5	12.4	0.3	13.7	1.2	0.0	16.2	15.2	Y6	0.2	0.3	0.9	
	Y7	0.2	3.5	12.3	0.3	13.2	1.2	0.0	16.0	14.7	Y7	0.2	0.3	0.9	
	Y8	0.2	3.4	12.1	0.3	13.0	1.2	0.0	15.7	14.5	Y8	0.2	0.3	0.8	
	Y9	0.2	3.4	12.0	0.3	13.5	1.2	0.0	15.7	15.0	Y9	0.2	0.3	0.8	
	Y10	0.2	3.5	12.2	0.3	13.7	1.2	0.0	15.9	15.2	Y10	0.2	0.3	0.9	

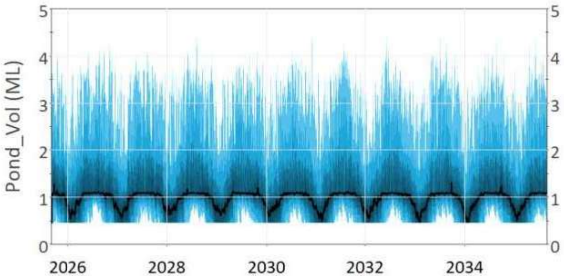
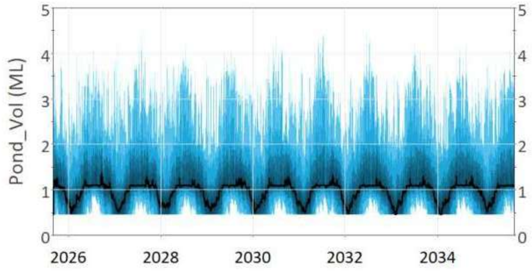
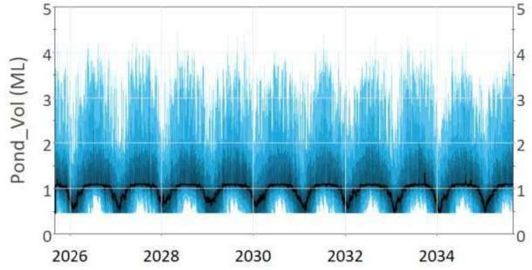
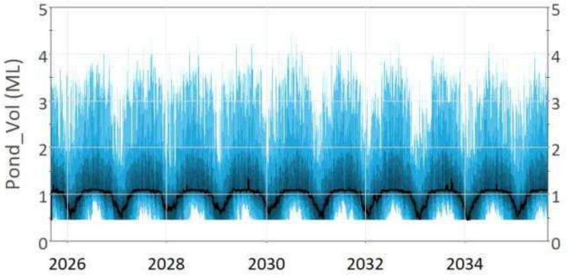
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - Main SRP POND 5

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.5	7.5	26.1	0.7	29.0	2.5	0.0	34.1	32.1	Y1	0.4	0.7	1.8	
	Y2	0.4	7.3	25.6	0.7	28.7	2.5	0.0	33.3	31.9	Y2	0.4	0.6	1.7	
	Y3	0.5	7.7	27.1	0.7	28.3	2.5	0.0	35.3	31.6	Y3	0.4	0.6	1.8	
	Y4	0.5	7.4	25.9	0.7	29.1	2.5	0.0	33.8	32.3	Y4	0.4	0.7	1.8	
	Y5	0.5	7.4	25.8	0.7	28.1	2.5	0.0	33.7	31.3	Y5	0.4	0.6	1.7	
	Y6	0.5	7.6	26.5	0.7	28.3	2.5	0.0	34.5	31.4	Y6	0.4	0.6	1.7	
	Y7	0.5	7.5	26.1	0.7	27.6	2.5	0.0	34.0	30.9	Y7	0.4	0.6	1.7	
	Y8	0.4	7.3	25.7	0.7	27.0	2.5	0.0	33.5	30.2	Y8	0.4	0.7	1.7	
	Y9	0.4	7.3	25.7	0.7	28.2	2.5	0.0	33.4	31.4	Y9	0.4	0.6	1.6	
	Y10	0.5	7.4	26.0	0.7	28.9	2.5	0.0	33.8	32.1	Y10	0.4	0.6	1.7	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.3	5.1	17.9	0.7	19.7	2.5	0.0	23.3	22.8	Y1	0.4	0.7	1.8	
	Y2	0.3	5.0	17.5	0.7	19.5	2.5	0.0	22.8	22.6	Y2	0.4	0.7	1.7	
	Y3	0.3	5.2	18.4	0.7	19.4	2.5	0.0	23.9	22.7	Y3	0.5	0.7	1.7	
	Y4	0.3	5.1	17.8	0.7	20.0	2.5	0.0	23.2	23.2	Y4	0.4	0.6	1.7	
	Y5	0.3	5.1	17.7	0.7	19.0	2.5	0.0	23.1	22.3	Y5	0.5	0.7	1.7	
	Y6	0.3	5.2	18.2	0.7	19.4	2.5	0.0	23.7	22.5	Y6	0.4	0.7	1.7	
	Y7	0.3	5.1	17.7	0.7	18.8	2.5	0.0	23.1	22.0	Y7	0.4	0.7	1.7	
	Y8	0.3	5.0	17.5	0.7	18.5	2.5	0.0	22.8	21.7	Y8	0.4	0.7	1.7	
	Y9	0.3	5.0	17.6	0.7	19.5	2.5	0.0	22.9	22.7	Y9	0.4	0.7	1.7	
	Y10	0.3	5.1	17.7	0.7	19.8	2.5	0.0	23.1	23.0	Y10	0.4	0.6	1.7	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.5	7.8	27.4	0.7	30.0	2.5	0.0	35.7	33.2	Y1	0.4	0.7	1.8	
	Y2	0.5	7.7	26.8	0.7	29.9	2.5	0.0	34.9	33.0	Y2	0.4	0.6	1.8	
	Y3	0.5	8.1	28.5	0.7	29.5	2.6	0.0	37.1	32.7	Y3	0.4	0.6	1.8	
	Y4	0.5	7.8	27.2	0.7	29.9	2.5	0.0	35.5	33.2	Y4	0.4	0.7	1.7	
	Y5	0.5	7.7	27.0	0.7	29.1	2.5	0.0	35.2	32.4	Y5	0.4	0.6	1.8	
	Y6	0.5	8.0	27.9	0.7	29.6	2.5	0.0	36.3	32.8	Y6	0.4	0.6	1.7	
	Y7	0.5	7.8	27.5	0.7	28.9	2.5	0.0	35.8	32.1	Y7	0.4	0.6	1.7	
	Y8	0.5	7.7	27.0	0.7	28.3	2.5	0.0	35.2	31.5	Y8	0.4	0.7	1.7	
	Y9	0.5	7.7	26.9	0.7	29.4	2.5	0.0	35.1	32.6	Y9	0.4	0.6	1.7	
	Y10	0.5	7.8	27.3	0.7	30.1	2.5	0.0	35.5	33.3	Y10	0.4	0.6	1.7	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.4	6.9	24.0	0.7	26.4	2.5	0.0	31.3	29.6	Y1	0.4	0.7	1.8	
	Y2	0.4	6.7	23.5	0.7	26.2	2.5	0.0	30.6	29.4	Y2	0.4	0.7	1.8	
	Y3	0.4	7.1	24.9	0.7	26.1	2.5	0.0	32.5	29.4	Y3	0.4	0.7	1.8	
	Y4	0.4	6.8	23.8	0.7	26.5	2.5	0.0	31.0	29.7	Y4	0.4	0.6	1.7	
	Y5	0.4	6.8	23.7	0.7	25.8	2.5	0.0	30.9	29.0	Y5	0.4	0.6	1.7	
	Y6	0.4	6.9	24.3	0.7	26.0	2.5	0.0	31.7	29.1	Y6	0.4	0.6	1.7	
	Y7	0.4	6.9	24.1	0.7	25.3	2.5	0.0	31.4	28.6	Y7	0.4	0.7	1.7	
	Y8	0.4	6.8	23.7	0.7	24.9	2.5	0.0	30.8	28.1	Y8	0.4	0.7	1.7	
	Y9	0.4	6.7	23.6	0.7	26.0	2.5	0.0	30.7	29.2	Y9	0.4	0.7	1.7	
	Y10	0.4	6.8	23.9	0.7	26.5	2.5	0.0	31.1	29.7	Y10	0.4	0.6	1.7	

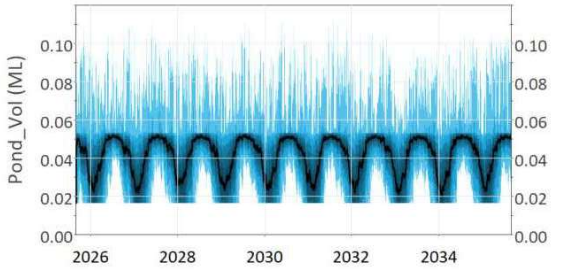
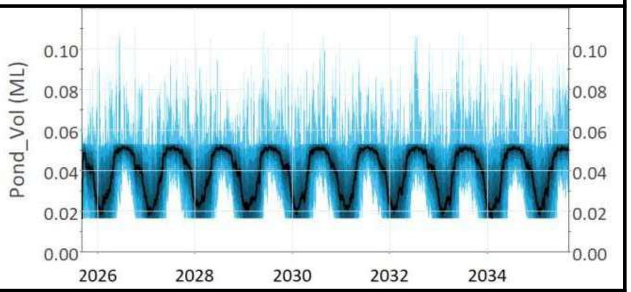
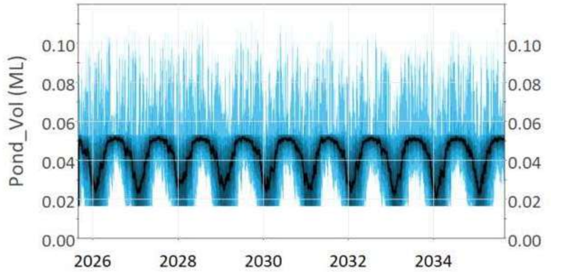
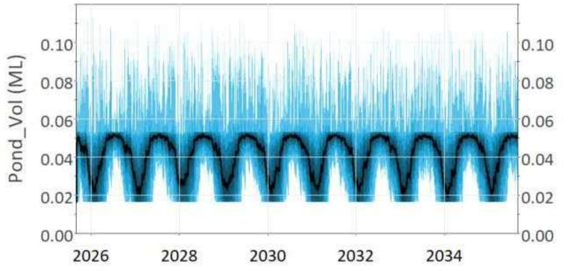
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - Main SRP POND 6

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	1.0	15.4	53.8	1.8	56.7	6.6	0.0	70.3	65.0	Y1	1.3	1.8	4.2	
	Y2	1.0	15.0	52.6	1.8	54.9	6.6	0.0	68.7	63.3	Y2	1.1	1.8	4.1	
	Y3	1.1	15.9	55.7	1.8	55.3	6.7	0.0	72.7	63.8	Y3	1.2	1.8	4.2	
	Y4	1.0	15.3	53.4	1.8	55.2	6.6	0.0	69.7	63.6	Y4	1.1	1.8	4.2	
	Y5	1.0	15.2	53.2	1.8	54.4	6.6	0.0	69.4	62.8	Y5	1.2	1.7	4.1	
	Y6	1.0	15.6	54.6	1.8	54.7	6.5	0.0	71.2	63.0	Y6	1.1	1.8	4.1	
	Y7	1.0	15.4	53.8	1.8	53.9	6.6	0.0	70.2	62.3	Y7	1.1	1.8	4.0	
	Y8	1.0	15.1	52.9	1.8	52.6	6.6	0.0	69.0	61.0	Y8	1.1	1.9	4.1	
	Y9	1.0	15.1	52.8	1.8	53.3	6.5	0.0	68.9	61.6	Y9	1.3	1.8	4.1	
	Y10	1.0	15.3	53.5	1.8	55.4	6.6	0.0	69.8	63.8	Y10	1.2	1.8	4.0	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.7	10.5	36.9	1.8	38.7	6.4	0.0	48.1	46.9	Y1	1.3	1.8	4.2	
	Y2	0.7	10.3	36.1	1.8	37.9	6.5	0.0	47.1	46.2	Y2	1.4	1.9	4.2	
	Y3	0.7	10.8	37.8	1.8	37.9	6.6	0.0	49.4	46.3	Y3	1.3	1.8	4.2	
	Y4	0.7	10.5	36.7	1.8	38.1	6.4	0.0	47.9	46.3	Y4	1.2	1.8	4.2	
	Y5	0.7	10.4	36.5	1.8	36.9	6.5	0.0	47.6	45.3	Y5	1.3	1.8	4.1	
	Y6	0.7	10.7	37.4	1.8	37.0	6.4	0.0	48.8	45.2	Y6	1.3	1.8	4.4	
	Y7	0.7	10.4	36.5	1.8	36.5	6.5	0.0	47.7	44.8	Y7	1.3	1.8	4.2	
	Y8	0.7	10.3	36.0	1.8	35.9	6.5	0.0	46.9	44.2	Y8	1.3	1.9	4.0	
	Y9	0.7	10.3	36.2	1.8	36.7	6.4	0.0	47.2	45.0	Y9	1.3	1.8	3.9	
	Y10	0.7	10.4	36.5	1.8	38.6	6.6	0.0	47.6	47.0	Y10	1.3	1.8	3.9	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	1.1	16.1	56.5	1.8	59.2	6.5	0.0	73.7	67.6	Y1	1.2	1.9	4.1	
	Y2	1.1	15.8	55.2	1.9	57.5	6.6	0.0	72.0	65.9	Y2	1.1	1.8	4.2	
	Y3	1.1	16.8	58.7	1.9	57.4	6.7	0.0	76.5	65.9	Y3	1.1	1.8	4.1	
	Y4	1.1	16.0	56.1	1.9	57.3	6.6	0.0	73.2	65.8	Y4	1.1	1.8	4.1	
	Y5	1.1	15.9	55.7	1.9	56.3	6.6	0.0	72.7	64.8	Y5	1.1	1.7	4.2	
	Y6	1.1	16.4	57.4	1.8	57.0	6.5	0.0	74.9	65.3	Y6	1.1	1.8	4.1	
	Y7	1.1	16.2	56.6	1.9	55.9	6.6	0.0	73.8	64.5	Y7	1.1	1.9	4.2	
	Y8	1.1	15.9	55.6	1.8	54.5	6.6	0.0	72.5	62.9	Y8	1.1	1.9	4.1	
	Y9	1.1	15.8	55.4	1.8	55.8	6.5	0.0	72.3	64.1	Y9	1.3	1.8	4.0	
	Y10	1.1	16.0	56.1	1.9	57.4	6.6	0.0	73.2	65.9	Y10	1.2	1.8	4.0	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	14.1	49.4	1.8	51.9	6.5	0.0	64.5	60.3	Y1	1.2	1.8	4.1	
	Y2	0.9	13.8	48.3	1.8	50.8	6.5	0.0	63.1	59.2	Y2	1.1	1.8	4.0	
	Y3	1.0	14.7	51.4	1.9	51.1	6.6	0.0	67.0	59.6	Y3	1.2	1.8	4.0	
	Y4	0.9	14.0	49.0	1.9	50.8	6.5	0.0	63.9	59.2	Y4	1.3	1.8	4.1	
	Y5	0.9	14.0	48.9	1.9	50.3	6.6	0.0	63.7	58.7	Y5	1.1	1.8	4.2	
	Y6	1.0	14.3	50.1	1.8	50.2	6.5	0.0	65.4	58.5	Y6	1.1	1.8	4.1	
	Y7	0.9	14.2	49.6	1.9	49.6	6.6	0.0	64.7	58.1	Y7	1.1	1.8	4.2	
	Y8	0.9	13.9	48.7	1.8	48.5	6.6	0.0	63.6	56.8	Y8	1.2	1.9	4.1	
	Y9	0.9	13.9	48.5	1.8	48.9	6.5	0.0	63.3	57.2	Y9	1.3	1.8	4.0	
	Y10	0.9	14.1	49.2	1.9	51.6	6.6	0.0	64.2	60.0	Y10	1.1	1.8	4.0	

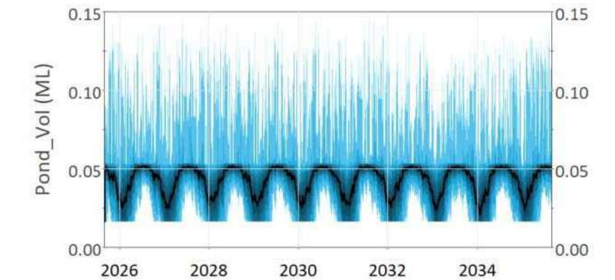
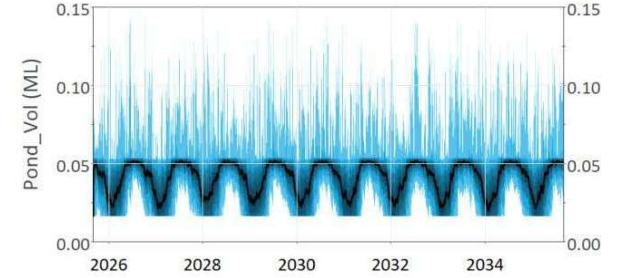
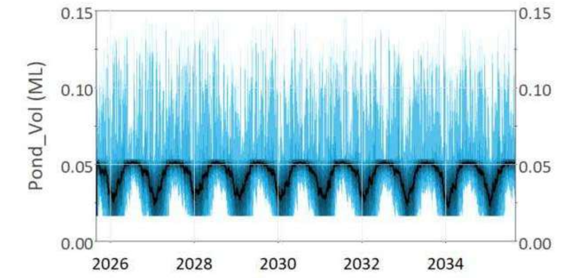
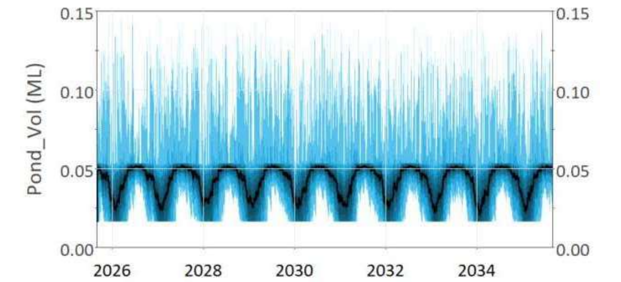
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - Main SRP POND 7

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.6	Y1	0.1	0.1	0.1	
	Y2	0.1	0.4	1.2	0.1	1.3	0.3	0.0	1.6	1.6	Y2	0.1	0.1	0.1	
	Y3	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.6	Y3	0.1	0.1	0.1	
	Y4	0.1	0.4	1.2	0.1	1.3	0.3	0.0	1.7	1.6	Y4	0.1	0.1	0.1	
	Y5	0.1	0.4	1.2	0.1	1.3	0.3	0.0	1.7	1.6	Y5	0.1	0.1	0.1	
	Y6	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.6	Y6	0.1	0.1	0.1	
	Y7	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.6	Y7	0.1	0.1	0.1	
	Y8	0.1	0.4	1.2	0.1	1.2	0.3	0.0	1.7	1.6	Y8	0.1	0.1	0.1	
	Y9	0.1	0.4	1.2	0.1	1.3	0.3	0.0	1.7	1.6	Y9	0.1	0.1	0.1	
	Y10	0.1	0.4	1.2	0.1	1.3	0.3	0.0	1.7	1.6	Y10	0.1	0.1	0.1	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.2	0.9	0.1	0.8	0.2	0.0	1.2	1.1	Y1	0.1	0.1	0.1	
	Y2	0.0	0.2	0.8	0.1	0.8	0.2	0.0	1.1	1.1	Y2	0.1	0.1	0.1	
	Y3	0.1	0.3	0.9	0.1	0.8	0.3	0.0	1.2	1.2	Y3	0.1	0.1	0.1	
	Y4	0.0	0.2	0.9	0.1	0.8	0.2	0.0	1.1	1.1	Y4	0.1	0.1	0.1	
	Y5	0.0	0.2	0.8	0.1	0.8	0.3	0.0	1.1	1.1	Y5	0.1	0.1	0.1	
	Y6	0.1	0.2	0.9	0.1	0.8	0.2	0.0	1.2	1.1	Y6	0.1	0.1	0.1	
	Y7	0.0	0.2	0.9	0.1	0.8	0.3	0.0	1.1	1.1	Y7	0.1	0.1	0.1	
	Y8	0.0	0.2	0.8	0.1	0.8	0.2	0.0	1.1	1.1	Y8	0.1	0.1	0.1	
	Y9	0.0	0.2	0.8	0.1	0.8	0.2	0.0	1.1	1.1	Y9	0.1	0.1	0.1	
	Y10	0.0	0.2	0.8	0.1	0.8	0.3	0.0	1.1	1.1	Y10	0.1	0.1	0.1	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.8	1.7	Y1	0.1	0.1	0.1	
	Y2	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.7	Y2	0.1	0.1	0.1	
	Y3	0.1	0.4	1.4	0.1	1.4	0.3	0.0	1.8	1.7	Y3	0.1	0.1	0.1	
	Y4	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.8	1.7	Y4	0.1	0.1	0.1	
	Y5	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.7	Y5	0.1	0.1	0.1	
	Y6	0.1	0.4	1.3	0.1	1.4	0.3	0.0	1.8	1.7	Y6	0.1	0.1	0.1	
	Y7	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.8	1.7	Y7	0.1	0.1	0.1	
	Y8	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.6	Y8	0.1	0.1	0.1	
	Y9	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.7	Y9	0.1	0.1	0.1	
	Y10	0.1	0.4	1.3	0.1	1.3	0.3	0.0	1.8	1.7	Y10	0.1	0.1	0.1	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.3	1.2	0.1	1.1	0.3	0.0	1.5	1.5	Y1	0.1	0.1	0.1	
	Y2	0.1	0.3	1.1	0.1	1.2	0.3	0.0	1.5	1.5	Y2	0.1	0.1	0.1	
	Y3	0.1	0.3	1.2	0.1	1.2	0.3	0.0	1.6	1.5	Y3	0.1	0.1	0.1	
	Y4	0.1	0.3	1.1	0.1	1.1	0.3	0.0	1.5	1.5	Y4	0.1	0.1	0.1	
	Y5	0.1	0.3	1.1	0.1	1.1	0.3	0.0	1.5	1.5	Y5	0.1	0.1	0.1	
	Y6	0.1	0.3	1.2	0.1	1.2	0.3	0.0	1.6	1.5	Y6	0.1	0.1	0.1	
	Y7	0.1	0.3	1.2	0.1	1.1	0.3	0.0	1.6	1.5	Y7	0.1	0.1	0.1	
	Y8	0.1	0.3	1.1	0.1	1.1	0.3	0.0	1.5	1.4	Y8	0.1	0.1	0.1	
	Y9	0.1	0.3	1.1	0.1	1.1	0.3	0.0	1.5	1.5	Y9	0.1	0.1	0.1	
	Y10	0.1	0.3	1.1	0.1	1.2	0.3	0.0	1.5	1.5	Y10	0.1	0.1	0.1	

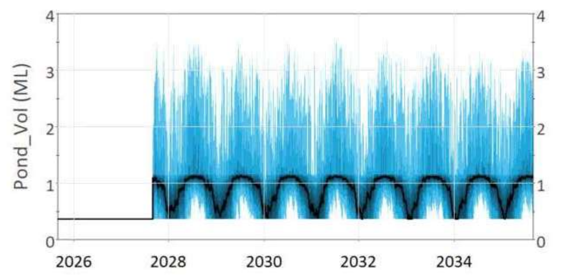
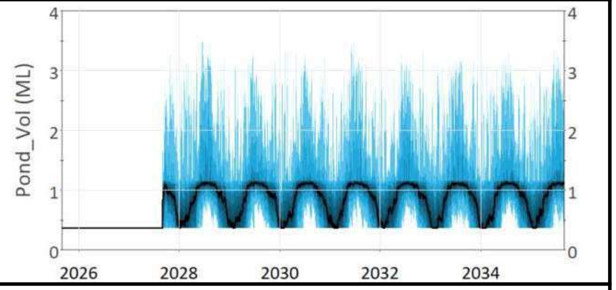
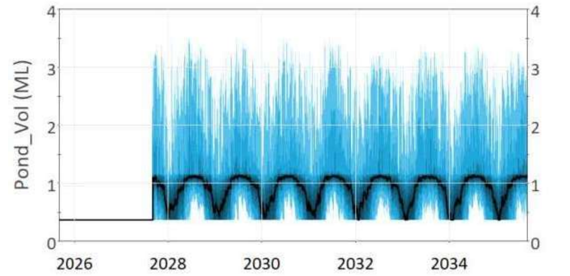
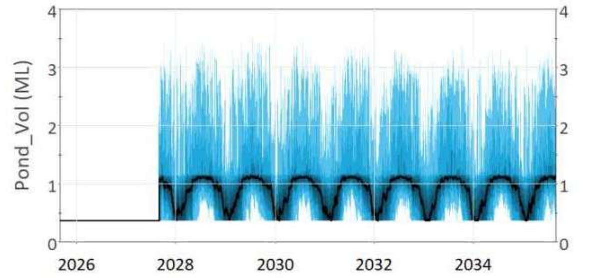
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - Main SRP POND 8

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y1	0.1	0.1	0.1	
	Y2	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y2	0.1	0.1	0.1	
	Y3	0.1	0.6	2.0	0.1	2.1	0.3	0.0	2.6	2.5	Y3	0.1	0.1	0.1	
	Y4	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y4	0.1	0.1	0.1	
	Y5	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y5	0.1	0.1	0.1	
	Y6	0.1	0.6	1.9	0.1	2.1	0.3	0.0	2.6	2.5	Y6	0.1	0.1	0.1	
	Y7	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y7	0.1	0.1	0.1	
	Y8	0.1	0.5	1.9	0.1	2.0	0.3	0.0	2.5	2.4	Y8	0.1	0.1	0.1	
	Y9	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y9	0.1	0.1	0.1	
	Y10	0.1	0.5	1.9	0.1	2.1	0.3	0.0	2.5	2.4	Y10	0.1	0.1	0.1	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y1	0.1	0.1	0.1	
	Y2	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y2	0.1	0.1	0.1	
	Y3	0.1	0.4	1.3	0.1	1.4	0.3	0.0	1.8	1.7	Y3	0.1	0.1	0.1	
	Y4	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y4	0.1	0.1	0.1	
	Y5	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y5	0.1	0.1	0.1	
	Y6	0.1	0.4	1.3	0.1	1.4	0.3	0.0	1.8	1.7	Y6	0.1	0.1	0.1	
	Y7	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y7	0.1	0.1	0.1	
	Y8	0.0	0.4	1.3	0.1	1.3	0.3	0.0	1.7	1.7	Y8	0.1	0.1	0.1	
	Y9	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y9	0.1	0.1	0.1	
	Y10	0.0	0.4	1.3	0.1	1.4	0.3	0.0	1.7	1.7	Y10	0.1	0.1	0.1	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.7	2.5	Y1	0.1	0.1	0.1	
	Y2	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.6	2.5	Y2	0.1	0.1	0.1	
	Y3	0.1	0.6	2.1	0.1	2.2	0.3	0.0	2.8	2.6	Y3	0.1	0.1	0.1	
	Y4	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.6	2.5	Y4	0.1	0.1	0.1	
	Y5	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.6	2.5	Y5	0.1	0.1	0.1	
	Y6	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.7	2.6	Y6	0.1	0.1	0.1	
	Y7	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.7	2.5	Y7	0.1	0.1	0.1	
	Y8	0.1	0.6	2.0	0.1	2.1	0.3	0.0	2.6	2.5	Y8	0.1	0.1	0.1	
	Y9	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.6	2.5	Y9	0.1	0.1	0.1	
	Y10	0.1	0.6	2.0	0.1	2.2	0.3	0.0	2.6	2.5	Y10	0.1	0.1	0.1	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.1	0.5	1.8	0.1	1.9	0.3	0.0	2.3	2.2	Y1	0.1	0.1	0.1	
	Y2	0.1	0.5	1.7	0.1	1.9	0.3	0.0	2.3	2.2	Y2	0.1	0.1	0.1	
	Y3	0.1	0.5	1.8	0.1	1.9	0.3	0.0	2.4	2.3	Y3	0.1	0.1	0.1	
	Y4	0.1	0.5	1.7	0.1	1.9	0.3	0.0	2.3	2.2	Y4	0.1	0.1	0.1	
	Y5	0.1	0.5	1.7	0.1	1.9	0.3	0.0	2.3	2.2	Y5	0.1	0.1	0.1	
	Y6	0.1	0.5	1.8	0.1	1.9	0.3	0.0	2.4	2.3	Y6	0.1	0.1	0.1	
	Y7	0.1	0.5	1.8	0.1	1.9	0.3	0.0	2.3	2.2	Y7	0.1	0.1	0.1	
	Y8	0.1	0.5	1.7	0.1	1.9	0.3	0.0	2.3	2.2	Y8	0.1	0.1	0.1	
	Y9	0.1	0.5	1.7	0.1	1.9	0.3	0.0	2.3	2.2	Y9	0.1	0.1	0.1	
	Y10	0.1	0.5	1.8	0.1	1.9	0.3	0.0	2.3	2.3	Y10	0.1	0.1	0.1	

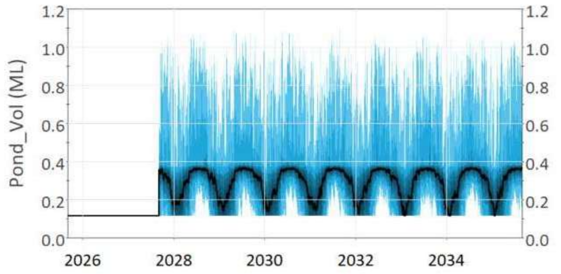
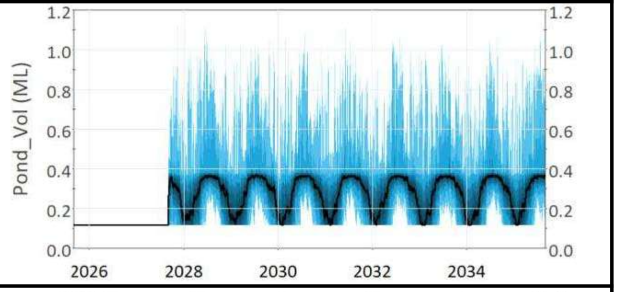
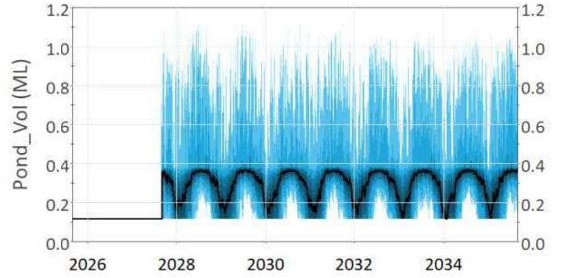
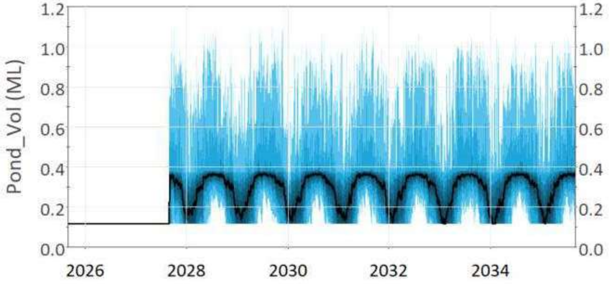
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - SRP N 1B POND 1

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.4	0.4	0.4	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.4	0.4	0.4	
	Y3	1.1	14.0	48.9	1.9	47.9	7.0	0.0	64.0	56.8	Y3	1.1	1.2	3.4	
	Y4	1.0	13.4	46.9	1.9	46.2	7.0	0.0	61.4	55.1	Y4	1.1	1.3	3.4	
	Y5	1.0	13.3	46.7	1.9	44.2	7.0	0.0	61.1	53.2	Y5	1.1	1.2	3.5	
	Y6	1.0	13.7	48.0	1.9	45.7	6.9	0.0	62.7	54.5	Y6	1.1	1.2	3.5	
	Y7	1.0	13.5	47.2	1.9	46.6	7.0	0.0	61.8	55.6	Y7	1.1	1.2	3.4	
	Y8	1.0	13.3	46.5	1.9	46.2	7.0	0.0	60.7	55.1	Y8	1.1	1.2	3.4	
	Y9	1.0	13.3	46.4	1.8	44.3	6.9	0.0	60.7	53.0	Y9	1.1	1.3	3.4	
	Y10	1.0	13.4	47.0	1.9	48.0	7.0	0.0	61.4	56.9	Y10	1.1	1.2	3.3	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.4	0.4	0.4	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.4	0.4	0.4	
	Y3	0.7	9.5	33.2	1.9	32.2	6.8	0.0	43.5	40.8	Y3	1.1	1.2	3.5	
	Y4	0.7	9.2	32.2	1.8	31.4	6.7	0.0	42.1	39.9	Y4	1.1	1.3	3.3	
	Y5	0.7	9.1	32.0	1.9	29.4	6.8	0.0	41.9	38.0	Y5	1.1	1.2	3.3	
	Y6	0.7	9.4	32.9	1.8	30.6	6.8	0.0	43.0	39.2	Y6	1.1	1.2	3.3	
	Y7	0.7	9.2	32.1	1.9	31.0	6.8	0.0	41.9	39.7	Y7	1.1	1.2	3.3	
	Y8	0.7	9.0	31.6	1.9	30.8	6.8	0.0	41.3	39.5	Y8	1.1	1.2	3.4	
	Y9	0.7	9.1	31.8	1.8	30.3	6.7	0.0	41.5	38.8	Y9	1.1	1.2	3.2	
	Y10	0.7	9.2	32.0	1.9	32.3	6.8	0.0	41.9	41.0	Y10	1.1	1.2	3.3	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.4	0.4	0.4	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.4	0.4	0.4	
	Y3	1.1	14.7	51.5	2.0	50.1	7.0	0.0	67.4	59.1	Y3	1.1	1.2	3.5	
	Y4	1.1	14.1	49.3	2.0	48.1	7.0	0.0	64.4	57.1	Y4	1.1	1.3	3.5	
	Y5	1.1	14.0	48.9	2.0	46.4	7.0	0.0	64.0	55.4	Y5	1.1	1.2	3.4	
	Y6	1.1	14.4	50.4	1.9	47.8	7.0	0.0	65.9	56.7	Y6	1.1	1.2	3.4	
	Y7	1.1	14.2	49.7	2.0	48.7	7.1	0.0	65.0	57.8	Y7	1.1	1.2	3.4	
	Y8	1.1	14.0	48.8	2.0	48.1	7.0	0.0	63.9	57.0	Y8	1.1	1.2	3.4	
	Y9	1.1	13.9	48.7	1.9	46.5	6.9	0.0	63.7	55.3	Y9	1.1	1.3	3.4	
	Y10	1.1	14.1	49.3	2.0	49.9	7.0	0.0	64.5	58.9	Y10	1.1	1.2	3.3	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.4	0.4	0.4	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.4	0.4	0.4	
	Y3	1.0	12.9	45.1	1.9	44.1	7.0	0.0	59.0	53.0	Y3	1.1	1.2	3.5	
	Y4	0.9	12.3	43.0	1.9	42.6	6.9	0.0	56.3	51.4	Y4	1.1	1.3	3.4	
	Y5	0.9	12.3	42.9	1.9	40.8	7.0	0.0	56.1	49.7	Y5	1.1	1.2	3.4	
	Y6	1.0	12.6	44.0	1.9	41.8	6.9	0.0	57.5	50.6	Y6	1.1	1.2	3.4	
	Y7	0.9	12.4	43.5	2.0	42.7	7.0	0.0	56.9	51.7	Y7	1.1	1.2	3.3	
	Y8	0.9	12.2	42.8	1.9	42.3	7.0	0.0	56.0	51.2	Y8	1.1	1.2	3.4	
	Y9	0.9	12.2	42.6	1.9	41.0	6.9	0.0	55.8	49.7	Y9	1.1	1.2	3.3	
	Y10	0.9	12.3	43.2	1.9	44.1	7.0	0.0	56.5	53.0	Y10	1.1	1.2	3.4	

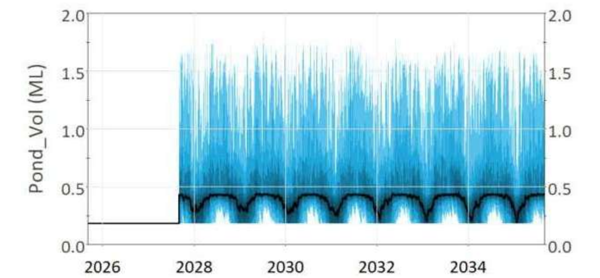
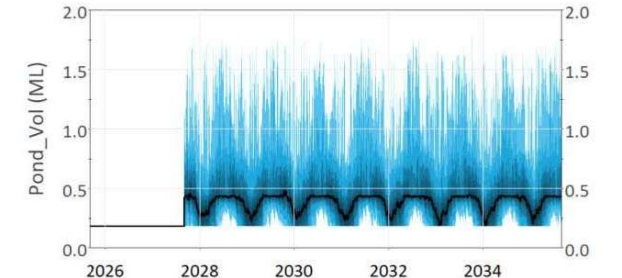
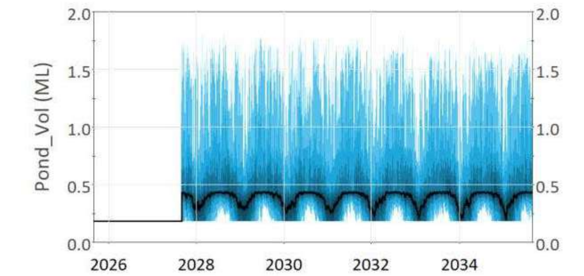
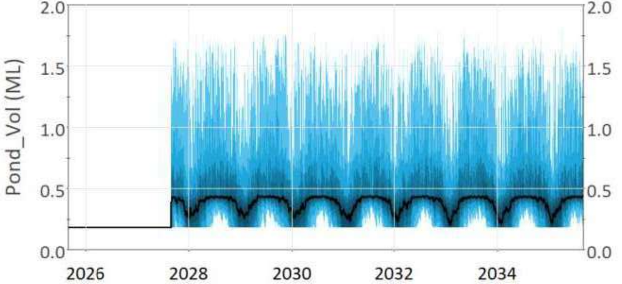
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - SRP N 1A POND 1

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.4	4.4	15.3	0.6	15.1	2.2	0.0	20.1	17.9	Y3	0.4	0.4	1.1	
	Y4	0.4	4.2	14.7	0.6	15.0	2.2	0.0	19.2	17.8	Y4	0.4	0.4	1.1	
	Y5	0.4	4.2	14.6	0.6	14.4	2.2	0.0	19.2	17.2	Y5	0.4	0.4	1.1	
	Y6	0.4	4.3	15.0	0.6	14.7	2.2	0.0	19.7	17.4	Y6	0.4	0.4	1.1	
	Y7	0.4	4.2	14.8	0.6	14.8	2.2	0.0	19.4	17.6	Y7	0.4	0.4	1.1	
	Y8	0.4	4.2	14.5	0.6	14.7	2.2	0.0	19.0	17.5	Y8	0.4	0.4	1.1	
	Y9	0.4	4.1	14.5	0.6	14.5	2.2	0.0	19.0	17.2	Y9	0.4	0.4	1.0	
	Y10	0.4	4.2	14.7	0.6	15.5	2.2	0.0	19.3	18.3	Y10	0.4	0.4	1.0	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.3	3.0	10.4	0.6	10.1	2.1	0.0	13.6	12.8	Y3	0.4	0.4	1.1	
	Y4	0.3	2.9	10.1	0.6	10.1	2.1	0.0	13.2	12.8	Y4	0.4	0.4	1.0	
	Y5	0.3	2.9	10.0	0.6	9.5	2.1	0.0	13.1	12.2	Y5	0.4	0.4	1.1	
	Y6	0.3	2.9	10.3	0.6	9.6	2.1	0.0	13.5	12.3	Y6	0.4	0.4	1.1	
	Y7	0.3	2.9	10.0	0.6	9.8	2.2	0.0	13.2	12.5	Y7	0.4	0.4	1.0	
	Y8	0.2	2.8	9.9	0.6	9.7	2.1	0.0	13.0	12.5	Y8	0.4	0.4	1.0	
	Y9	0.2	2.8	9.9	0.6	9.8	2.1	0.0	13.0	12.4	Y9	0.4	0.4	1.0	
	Y10	0.3	2.9	10.0	0.6	10.3	2.1	0.0	13.1	13.0	Y10	0.4	0.4	1.0	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.4	4.6	16.1	0.6	15.8	2.2	0.0	21.1	18.7	Y3	0.4	0.4	1.1	
	Y4	0.4	4.4	15.4	0.6	15.5	2.2	0.0	20.2	18.3	Y4	0.4	0.4	1.1	
	Y5	0.4	4.4	15.3	0.6	15.1	2.2	0.0	20.1	17.9	Y5	0.4	0.4	1.1	
	Y6	0.4	4.5	15.8	0.6	15.3	2.2	0.0	20.7	18.1	Y6	0.4	0.4	1.1	
	Y7	0.4	4.4	15.5	0.6	15.5	2.2	0.0	20.4	18.3	Y7	0.4	0.4	1.0	
	Y8	0.4	4.4	15.3	0.6	15.3	2.2	0.0	20.0	18.1	Y8	0.4	0.4	1.0	
	Y9	0.4	4.4	15.2	0.6	15.1	2.2	0.0	20.0	17.9	Y9	0.4	0.4	1.0	
	Y10	0.4	4.4	15.4	0.6	16.0	2.2	0.0	20.2	18.9	Y10	0.4	0.4	1.0	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.4	4.0	14.1	0.6	13.9	2.2	0.0	18.5	16.7	Y3	0.4	0.4	1.1	
	Y4	0.3	3.8	13.5	0.6	13.6	2.2	0.0	17.6	16.4	Y4	0.4	0.4	1.1	
	Y5	0.3	3.8	13.4	0.6	13.2	2.2	0.0	17.6	16.0	Y5	0.4	0.4	1.1	
	Y6	0.3	3.9	13.8	0.6	13.4	2.2	0.0	18.0	16.1	Y6	0.4	0.4	1.1	
	Y7	0.3	3.9	13.6	0.6	13.5	2.2	0.0	17.9	16.3	Y7	0.4	0.4	1.0	
	Y8	0.3	3.8	13.4	0.6	13.4	2.2	0.0	17.5	16.2	Y8	0.4	0.4	1.0	
	Y9	0.3	3.8	13.3	0.6	13.4	2.2	0.0	17.5	16.1	Y9	0.4	0.4	1.0	
	Y10	0.3	3.9	13.5	0.6	14.1	2.2	0.0	17.7	16.9	Y10	0.4	0.4	1.1	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - SRP N 1A POND 2

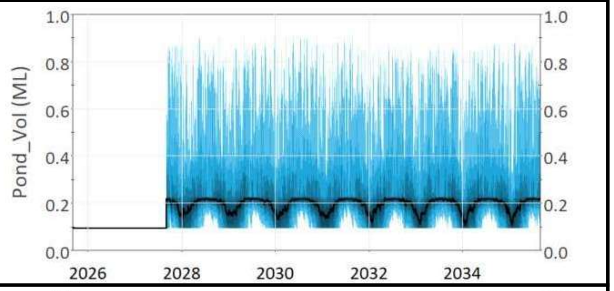
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.5	7.8	27.3	0.7	28.3	2.5	0.0	35.5	31.5	Y3	0.4	0.6	1.8	
	Y4	0.5	7.5	26.1	0.7	29.3	2.5	0.0	34.0	32.5	Y4	0.4	0.7	1.8	
	Y5	0.5	7.4	26.0	0.7	28.3	2.5	0.0	33.9	31.5	Y5	0.4	0.6	1.8	
	Y6	0.5	7.6	26.7	0.7	28.5	2.5	0.0	34.8	31.7	Y6	0.4	0.6	1.8	
	Y7	0.5	7.5	26.3	0.7	27.8	2.5	0.0	34.3	31.1	Y7	0.4	0.6	1.7	
	Y8	0.4	7.4	25.9	0.7	27.3	2.5	0.0	33.7	30.5	Y8	0.4	0.7	1.7	
	Y9	0.4	7.4	25.8	0.7	28.5	2.5	0.0	33.7	31.7	Y9	0.4	0.6	1.7	
	Y10	0.5	7.5	26.1	0.7	29.1	2.5	0.0	34.1	32.3	Y10	0.4	0.6	1.7	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.3	5.3	18.5	0.7	19.3	2.5	0.0	24.1	22.5	Y3	0.5	0.7	1.7	
	Y4	0.3	5.1	17.9	0.7	20.2	2.5	0.0	23.4	23.4	Y4	0.4	0.6	1.7	
	Y5	0.3	5.1	17.8	0.7	19.2	2.5	0.0	23.2	22.4	Y5	0.5	0.7	1.7	
	Y6	0.3	5.2	18.3	0.7	19.5	2.5	0.0	23.9	22.7	Y6	0.4	0.7	1.7	
	Y7	0.3	5.1	17.9	0.7	19.0	2.5	0.0	23.3	22.2	Y7	0.4	0.7	1.7	
	Y8	0.3	5.0	17.6	0.7	18.6	2.5	0.0	22.9	21.8	Y8	0.4	0.7	1.7	
	Y9	0.3	5.1	17.7	0.7	19.7	2.5	0.0	23.1	22.9	Y9	0.4	0.7	1.7	
	Y10	0.3	5.1	17.8	0.7	20.0	2.5	0.0	23.2	23.2	Y10	0.4	0.7	1.7	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.5	8.2	28.7	0.7	29.4	2.5	0.0	37.4	32.7	Y3	0.4	0.6	1.8	
	Y4	0.5	7.8	27.4	0.7	30.2	2.5	0.0	35.7	33.4	Y4	0.4	0.7	1.8	
	Y5	0.5	7.8	27.2	0.7	29.4	2.5	0.0	35.5	32.6	Y5	0.4	0.6	1.8	
	Y6	0.5	8.0	28.1	0.7	29.8	2.5	0.0	36.6	33.0	Y6	0.4	0.6	1.7	
	Y7	0.5	7.9	27.7	0.7	29.1	2.5	0.0	36.1	32.4	Y7	0.4	0.6	1.7	
	Y8	0.5	7.8	27.2	0.7	28.6	2.5	0.0	35.4	31.8	Y8	0.4	0.7	1.7	
	Y9	0.5	7.7	27.1	0.7	29.6	2.5	0.0	35.3	32.8	Y9	0.4	0.6	1.7	
	Y10	0.5	7.8	27.4	0.7	30.3	2.5	0.0	35.8	33.5	Y10	0.4	0.6	1.7	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.4	7.2	25.1	0.7	26.0	2.5	0.0	32.7	29.2	Y3	0.4	0.7	1.8	
	Y4	0.4	6.8	24.0	0.7	26.7	2.5	0.0	31.2	30.0	Y4	0.4	0.6	1.7	
	Y5	0.4	6.8	23.9	0.7	26.0	2.5	0.0	31.1	29.3	Y5	0.4	0.6	1.8	
	Y6	0.4	7.0	24.5	0.7	26.2	2.5	0.0	31.9	29.3	Y6	0.4	0.6	1.7	
	Y7	0.4	6.9	24.2	0.7	25.6	2.5	0.0	31.6	28.8	Y7	0.4	0.7	1.7	
	Y8	0.4	6.8	23.8	0.7	25.2	2.5	0.0	31.0	28.4	Y8	0.4	0.7	1.7	
	Y9	0.4	6.8	23.7	0.7	26.2	2.5	0.0	30.9	29.4	Y9	0.4	0.7	1.7	
	Y10	0.4	6.9	24.1	0.7	26.7	2.5	0.0	31.4	29.9	Y10	0.4	0.6	1.7	

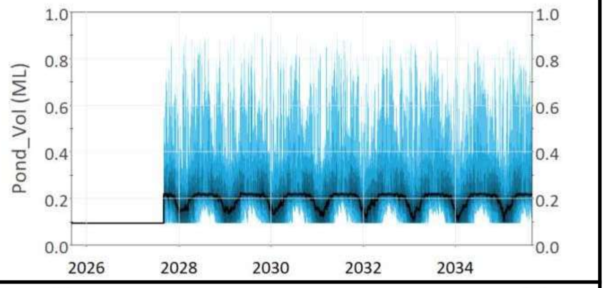
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

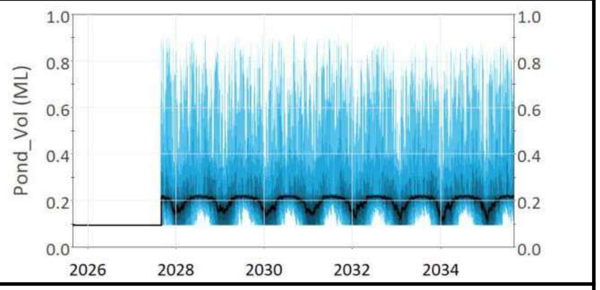
Sediment Ponds - SRP N 2 POND 1

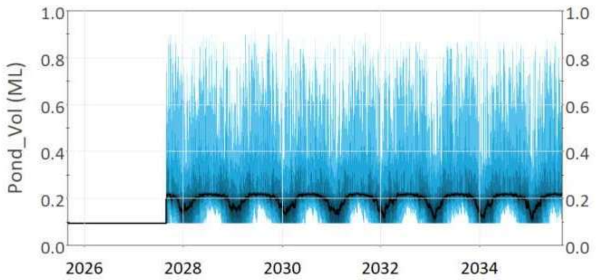
	WATER BALANCE										Volume Results			
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]			
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1
	Y3	0.3	4.1	14.2	0.3	15.2	1.2	0.0	18.5	16.8	Y3	0.2	0.3	0.9
	Y4	0.3	3.9	13.6	0.3	15.6	1.2	0.0	17.8	17.1	Y4	0.2	0.3	0.9
	Y5	0.3	3.9	13.6	0.3	15.3	1.2	0.0	17.7	16.9	Y5	0.2	0.3	0.9
	Y6	0.3	4.0	13.9	0.3	15.5	1.2	0.0	18.2	17.0	Y6	0.2	0.3	0.9
	Y7	0.3	3.9	13.7	0.3	14.9	1.2	0.0	17.9	16.5	Y7	0.2	0.3	0.9
	Y8	0.3	3.9	13.5	0.3	14.6	1.2	0.0	17.6	16.1	Y8	0.2	0.3	0.9
	Y9	0.3	3.9	13.5	0.3	15.3	1.2	0.0	17.6	16.8	Y9	0.2	0.3	0.9
	Y10	0.3	3.9	13.6	0.3	15.4	1.2	0.0	17.8	16.9	Y10	0.2	0.3	0.9
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1
	Y3	0.2	2.8	9.6	0.3	10.4	1.2	0.0	12.6	11.9	Y3	0.2	0.3	0.9
	Y4	0.2	2.7	9.4	0.3	10.7	1.2	0.0	12.2	12.2	Y4	0.2	0.3	0.9
	Y5	0.2	2.7	9.3	0.3	10.4	1.2	0.0	12.1	11.9	Y5	0.2	0.3	0.9
	Y6	0.2	2.7	9.5	0.3	10.6	1.2	0.0	12.4	12.1	Y6	0.2	0.3	0.9
	Y7	0.2	2.7	9.3	0.3	10.2	1.2	0.0	12.2	11.7	Y7	0.2	0.3	0.9
	Y8	0.2	2.6	9.2	0.3	10.0	1.2	0.0	12.0	11.5	Y8	0.2	0.3	0.9
	Y9	0.2	2.6	9.2	0.3	10.5	1.2	0.0	12.0	12.0	Y9	0.2	0.3	0.8
	Y10	0.2	2.7	9.3	0.3	10.5	1.2	0.0	12.1	12.1	Y10	0.2	0.3	0.9
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1
	Y3	0.3	4.3	15.0	0.3	15.9	1.2	0.0	19.5	17.4	Y3	0.2	0.3	0.9
	Y4	0.3	4.1	14.3	0.3	16.1	1.2	0.0	18.7	17.6	Y4	0.2	0.3	0.9
	Y5	0.3	4.1	14.2	0.3	16.0	1.2	0.0	18.5	17.5	Y5	0.2	0.3	0.9
	Y6	0.3	4.2	14.6	0.3	16.2	1.2	0.0	19.1	17.7	Y6	0.2	0.3	0.9
	Y7	0.3	4.1	14.4	0.3	15.7	1.2	0.0	18.8	17.2	Y7	0.2	0.3	0.9
	Y8	0.3	4.1	14.2	0.3	15.3	1.2	0.0	18.5	16.8	Y8	0.2	0.3	0.9
	Y9	0.3	4.0	14.1	0.3	15.9	1.2	0.0	18.4	17.4	Y9	0.2	0.3	0.9
	Y10	0.3	4.1	14.3	0.3	16.0	1.2	0.0	18.7	17.6	Y10	0.2	0.3	0.9
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1
	Y3	0.2	3.7	13.1	0.3	14.0	1.2	0.0	17.1	15.5	Y3	0.2	0.3	0.9
	Y4	0.2	3.6	12.5	0.3	14.2	1.2	0.0	16.3	15.7	Y4	0.2	0.3	0.9
	Y5	0.2	3.6	12.5	0.3	14.1	1.2	0.0	16.3	15.6	Y5	0.2	0.3	0.9
	Y6	0.2	3.6	12.8	0.3	14.2	1.2	0.0	16.7	15.7	Y6	0.2	0.3	0.9
	Y7	0.2	3.6	12.6	0.3	13.7	1.2	0.0	16.5	15.2	Y7	0.2	0.3	0.9
	Y8	0.2	3.6	12.4	0.3	13.4	1.2	0.0	16.2	15.0	Y8	0.2	0.3	0.9
	Y9	0.2	3.5	12.4	0.3	14.0	1.2	0.0	16.1	15.5	Y9	0.2	0.3	0.9
	Y10	0.2	3.6	12.5	0.3	14.1	1.2	0.0	16.4	15.7	Y10	0.2	0.3	0.9

Probabilistic Volume result [ML]



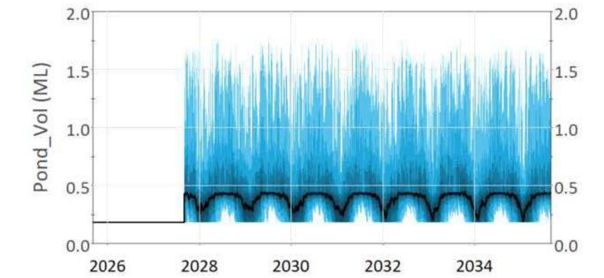
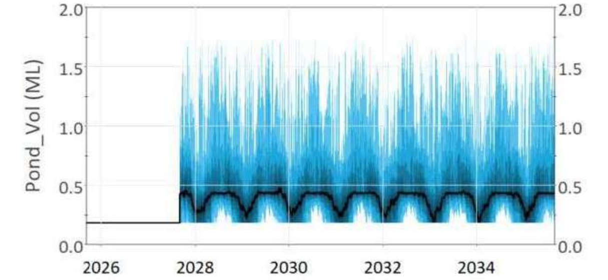
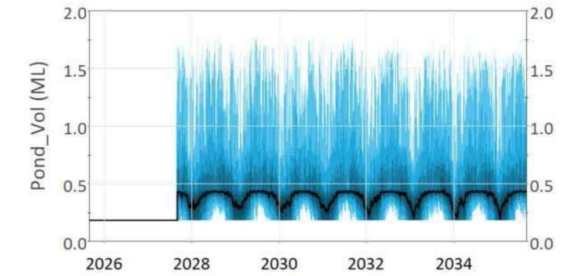
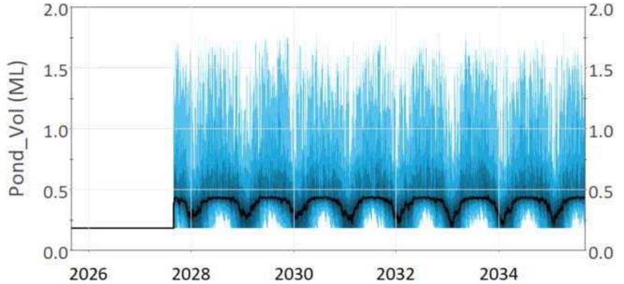






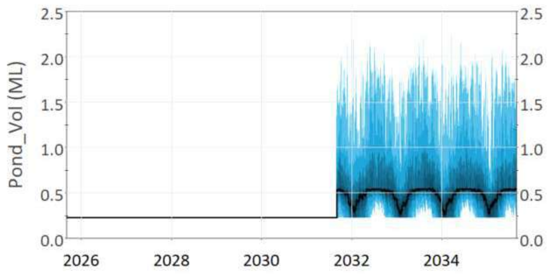
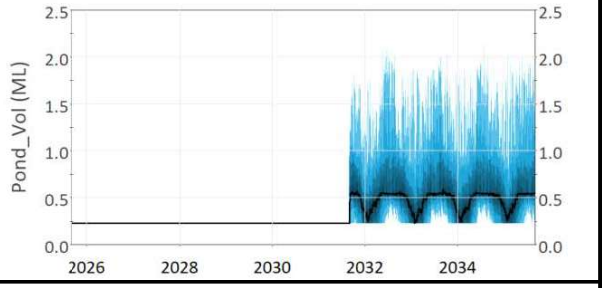
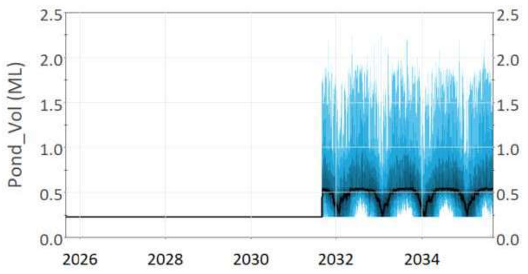
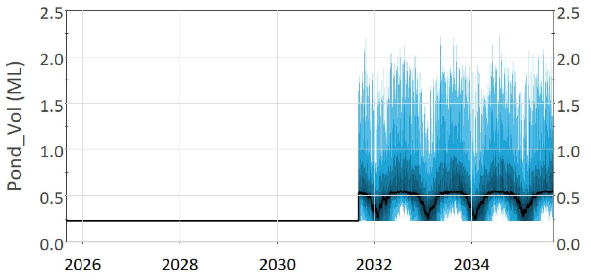
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - SRP N 2 POND 2

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.3	4.1	14.2	0.3	15.2	1.2	0.0	18.5	16.8	Y3	0.4	0.6	1.8	
	Y4	0.3	3.9	13.6	0.3	15.6	1.2	0.0	17.8	17.1	Y4	0.4	0.7	1.8	
	Y5	0.3	3.9	13.6	0.3	15.3	1.2	0.0	17.7	16.9	Y5	0.4	0.6	1.8	
	Y6	0.3	4.0	13.9	0.3	15.5	1.2	0.0	18.2	17.0	Y6	0.4	0.6	1.7	
	Y7	0.3	3.9	13.7	0.3	14.9	1.2	0.0	17.9	16.5	Y7	0.4	0.6	1.7	
	Y8	0.3	3.9	13.5	0.3	14.6	1.2	0.0	17.6	16.1	Y8	0.4	0.7	1.7	
	Y9	0.3	3.9	13.5	0.3	15.3	1.2	0.0	17.6	16.8	Y9	0.4	0.6	1.6	
	Y10	0.3	3.9	13.6	0.3	15.4	1.2	0.0	17.8	16.9	Y10	0.4	0.6	1.7	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.2	2.8	9.6	0.3	10.4	1.2	0.0	12.6	11.9	Y3	0.5	0.7	1.7	
	Y4	0.2	2.7	9.4	0.3	10.7	1.2	0.0	12.2	12.2	Y4	0.4	0.6	1.7	
	Y5	0.2	2.7	9.3	0.3	10.4	1.2	0.0	12.1	11.9	Y5	0.5	0.7	1.7	
	Y6	0.2	2.7	9.5	0.3	10.6	1.2	0.0	12.4	12.1	Y6	0.4	0.7	1.7	
	Y7	0.2	2.7	9.3	0.3	10.2	1.2	0.0	12.2	11.7	Y7	0.4	0.7	1.7	
	Y8	0.2	2.6	9.2	0.3	10.0	1.2	0.0	12.0	11.5	Y8	0.4	0.7	1.7	
	Y9	0.2	2.6	9.2	0.3	10.5	1.2	0.0	12.0	12.0	Y9	0.4	0.7	1.7	
	Y10	0.2	2.7	9.3	0.3	10.5	1.2	0.0	12.1	12.1	Y10	0.4	0.6	1.7	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.3	4.3	15.0	0.3	15.9	1.2	0.0	19.5	17.4	Y3	0.4	0.6	1.8	
	Y4	0.3	4.1	14.3	0.3	16.1	1.2	0.0	18.7	17.6	Y4	0.4	0.7	1.8	
	Y5	0.3	4.1	14.2	0.3	16.0	1.2	0.0	18.5	17.5	Y5	0.4	0.6	1.8	
	Y6	0.3	4.2	14.6	0.3	16.2	1.2	0.0	19.1	17.7	Y6	0.4	0.6	1.7	
	Y7	0.3	4.1	14.4	0.3	15.7	1.2	0.0	18.8	17.2	Y7	0.4	0.6	1.7	
	Y8	0.3	4.1	14.2	0.3	15.3	1.2	0.0	18.5	16.8	Y8	0.4	0.7	1.7	
	Y9	0.3	4.0	14.1	0.3	15.9	1.2	0.0	18.4	17.4	Y9	0.5	0.6	1.7	
	Y10	0.3	4.1	14.3	0.3	16.0	1.2	0.0	18.7	17.6	Y10	0.4	0.6	1.7	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.2	3.7	13.1	0.3	14.0	1.2	0.0	17.1	15.5	Y3	0.4	0.7	1.8	
	Y4	0.2	3.6	12.5	0.3	14.2	1.2	0.0	16.3	15.7	Y4	0.4	0.6	1.7	
	Y5	0.2	3.6	12.5	0.3	14.1	1.2	0.0	16.3	15.6	Y5	0.4	0.6	1.7	
	Y6	0.2	3.6	12.8	0.3	14.2	1.2	0.0	16.7	15.7	Y6	0.4	0.6	1.7	
	Y7	0.2	3.6	12.6	0.3	13.7	1.2	0.0	16.5	15.2	Y7	0.4	0.7	1.7	
	Y8	0.2	3.6	12.4	0.3	13.4	1.2	0.0	16.2	15.0	Y8	0.4	0.7	1.7	
	Y9	0.2	3.5	12.4	0.3	14.0	1.2	0.0	16.1	15.5	Y9	0.4	0.7	1.7	
	Y10	0.2	3.6	12.5	0.3	14.1	1.2	0.0	16.4	15.7	Y10	0.4	0.6	1.7	

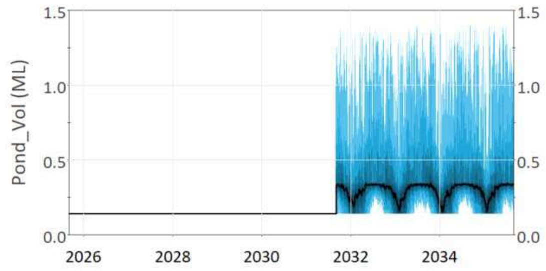
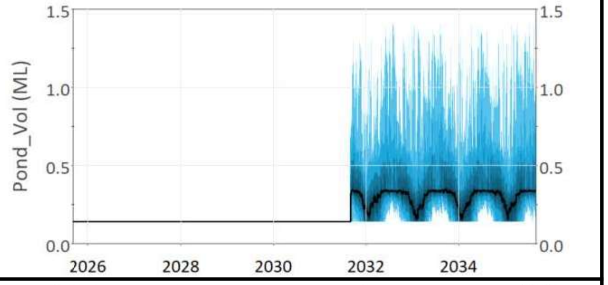
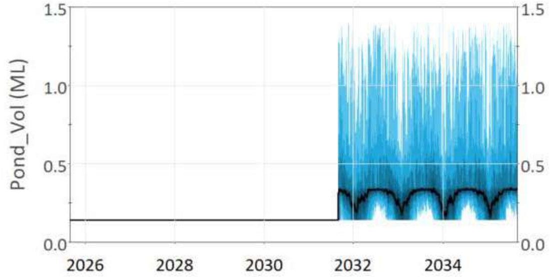
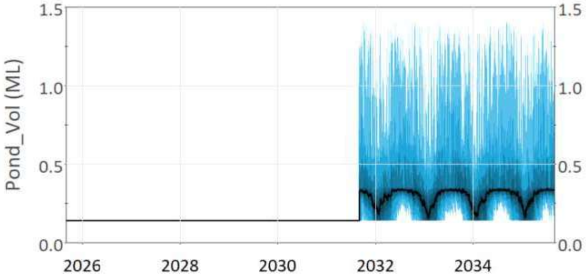
DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Sediment Ponds - SRP S 2 POND 1

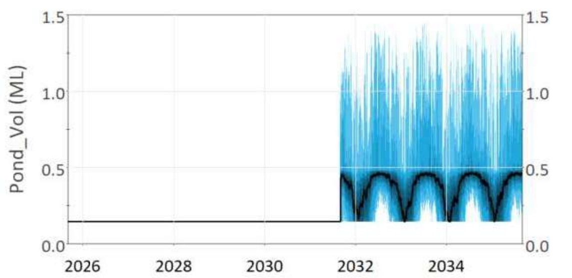
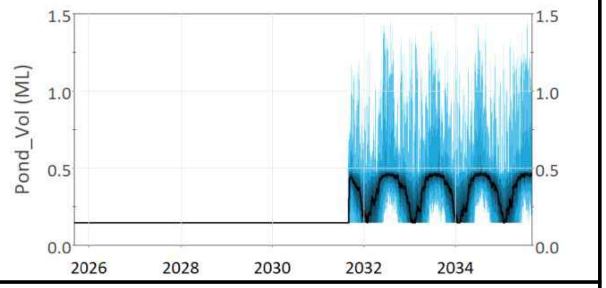
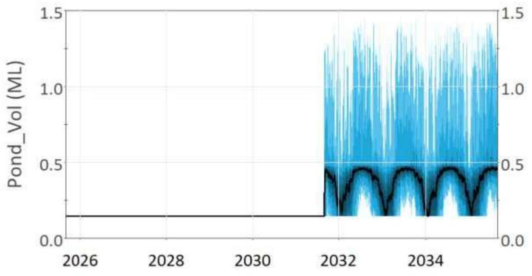
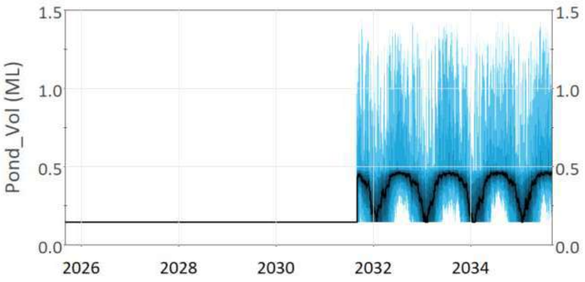
		WATER BALANCE									Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.2	0.2	0.2	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.2	0.2	0.2	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.2	0.2	0.2	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.2	0.2	0.2	
	Y7	0.6	8.4	29.4	0.9	29.9	3.1	0.0	38.3	34.0	Y7	0.5	0.9	2.1	
	Y8	0.5	8.3	28.9	0.9	29.8	3.2	0.0	37.7	33.8	Y8	0.5	0.9	2.2	
	Y9	0.5	8.2	28.9	0.9	30.5	3.2	0.0	37.7	34.6	Y9	0.6	0.9	2.0	
	Y10	0.5	8.3	29.2	0.9	31.8	3.2	0.0	38.1	35.8	Y10	0.5	0.8	2.1	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.2	0.2	0.2	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.2	0.2	0.2	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.2	0.2	0.2	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.2	0.2	0.2	
	Y7	0.4	5.7	20.0	0.9	20.2	3.1	0.0	26.0	24.2	Y7	0.6	0.9	2.0	
	Y8	0.4	5.6	19.6	0.9	20.2	3.1	0.0	25.6	24.2	Y8	0.6	0.9	2.1	
	Y9	0.4	5.6	19.8	0.9	21.1	3.1	0.0	25.8	25.1	Y9	0.6	0.9	2.1	
	Y10	0.4	5.7	19.9	0.9	21.7	3.2	0.0	26.0	25.8	Y10	0.6	0.8	2.0	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.2	0.2	0.2	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.2	0.2	0.2	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.2	0.2	0.2	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.2	0.2	0.2	
	Y7	0.6	8.8	30.9	0.9	31.2	3.1	0.0	40.3	35.2	Y7	0.5	0.9	2.1	
	Y8	0.6	8.7	30.4	0.9	31.1	3.2	0.0	39.6	35.1	Y8	0.5	0.9	2.2	
	Y9	0.6	8.7	30.3	0.9	32.0	3.1	0.0	39.5	36.0	Y9	0.6	0.9	2.0	
	Y10	0.6	8.8	30.7	0.9	32.9	3.2	0.0	40.0	36.9	Y10	0.5	0.9	2.1	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.2	0.2	0.2	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.2	0.2	0.2	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.2	0.2	0.2	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.2	0.2	0.2	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.2	0.2	0.2	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.2	0.2	0.2	
	Y7	0.5	7.7	27.1	0.9	27.5	3.1	0.0	35.3	31.6	Y7	0.6	0.9	2.1	
	Y8	0.5	7.6	26.6	0.9	27.3	3.2	0.0	34.7	31.4	Y8	0.6	0.9	2.1	
	Y9	0.5	7.6	26.5	0.9	28.2	3.1	0.0	34.6	32.2	Y9	0.6	0.9	2.1	
	Y10	0.5	7.7	26.9	0.9	29.2	3.2	0.0	35.1	33.3	Y10	0.6	0.8	2.1	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

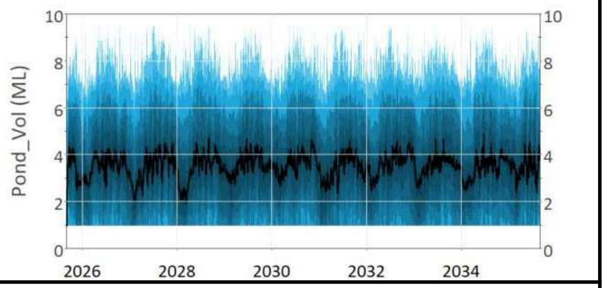
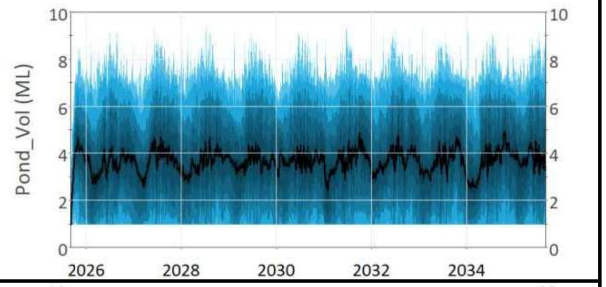
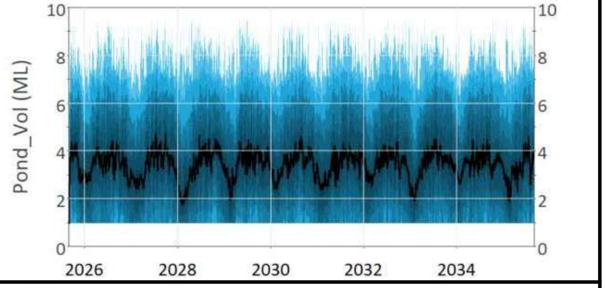
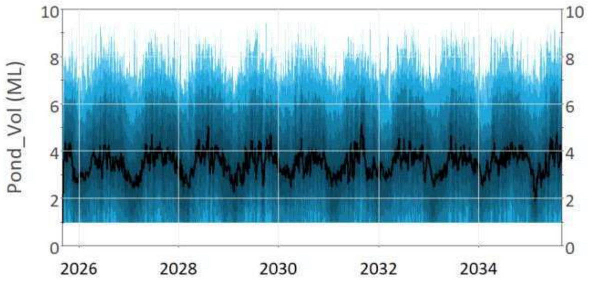
Sediment Ponds - SRP S 2 POND 2

	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.4	6.4	22.2	0.5	23.8	1.9	0.0	29.0	26.2	Y7	0.3	0.5	1.4	
	Y8	0.4	6.2	21.9	0.5	23.4	1.9	0.0	28.5	25.9	Y8	0.3	0.5	1.4	
	Y9	0.4	6.2	21.8	0.5	24.6	1.9	0.0	28.4	27.1	Y9	0.3	0.5	1.4	
	Y10	0.4	6.3	22.1	0.5	24.8	1.9	0.0	28.8	27.3	Y10	0.3	0.5	1.4	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.3	4.3	15.1	0.5	16.2	1.9	0.0	19.7	18.6	Y7	0.3	0.5	1.4	
	Y8	0.2	4.2	14.9	0.5	16.0	1.9	0.0	19.4	18.5	Y8	0.3	0.5	1.4	
	Y9	0.2	4.3	15.0	0.5	17.1	1.9	0.0	19.5	19.5	Y9	0.3	0.5	1.4	
	Y10	0.3	4.3	15.1	0.5	17.0	1.9	0.0	19.6	19.5	Y10	0.3	0.5	1.4	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.4	6.7	23.4	0.5	24.9	1.9	0.0	30.5	27.4	Y7	0.3	0.5	1.4	
	Y8	0.4	6.6	23.0	0.5	24.6	1.9	0.0	29.9	27.0	Y8	0.3	0.5	1.4	
	Y9	0.4	6.5	22.9	0.5	25.6	1.9	0.0	29.8	28.0	Y9	0.3	0.5	1.4	
	Y10	0.4	6.6	23.2	0.5	25.9	1.9	0.0	30.2	28.3	Y10	0.3	0.5	1.4	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.3	5.9	20.5	0.5	21.7	1.9	0.0	26.7	24.1	Y7	0.3	0.5	1.4	
	Y8	0.3	5.8	20.1	0.5	21.6	1.9	0.0	26.2	24.1	Y8	0.3	0.5	1.4	
	Y9	0.3	5.7	20.1	0.5	22.5	1.9	0.0	26.1	25.0	Y9	0.3	0.5	1.4	
	Y10	0.3	5.8	20.3	0.5	22.9	1.9	0.0	26.5	25.4	Y10	0.3	0.5	1.4	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

	Sediment Ponds - SRP S 1 POND 1														
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.5	6.0	20.9	0.8	20.9	2.8	0.0	27.3	24.5	Y7	0.5	0.5	1.4	
	Y8	0.4	5.9	20.5	0.8	21.0	2.8	0.0	26.9	24.6	Y8	0.5	0.5	1.4	
	Y9	0.4	5.9	20.5	0.7	20.7	2.8	0.0	26.8	24.2	Y9	0.5	0.5	1.4	
	Y10	0.5	5.9	20.8	0.8	22.2	2.8	0.0	27.2	25.8	Y10	0.5	0.5	1.4	
Climate change - Drier Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.3	4.1	14.2	0.8	13.8	2.7	0.0	18.6	17.3	Y7	0.5	0.5	1.4	
	Y8	0.3	4.0	14.0	0.8	14.0	2.8	0.0	18.3	17.5	Y8	0.5	0.5	1.4	
	Y9	0.3	4.0	14.1	0.7	14.1	2.7	0.0	18.4	17.5	Y9	0.5	0.5	1.4	
	Y10	0.3	4.0	14.2	0.8	14.8	2.8	0.0	18.5	18.4	Y10	0.5	0.5	1.4	
Climate change - Wetter Climate	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.5	6.3	22.0	0.8	21.8	2.8	0.0	28.7	25.4	Y7	0.5	0.5	1.4	
	Y8	0.5	6.2	21.6	0.8	21.9	2.8	0.0	28.2	25.5	Y8	0.5	0.5	1.4	
	Y9	0.5	6.2	21.5	0.8	21.7	2.8	0.0	28.2	25.3	Y9	0.5	0.5	1.4	
	Y10	0.5	6.2	21.8	0.8	23.0	2.8	0.0	28.5	26.7	Y10	0.5	0.5	1.4	
Climate change - Max Con	Year	DP	WRD_RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y1	0.1	0.1	0.1	
	Y2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y2	0.1	0.1	0.1	
	Y3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y3	0.1	0.1	0.1	
	Y4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y4	0.1	0.1	0.1	
	Y5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y5	0.1	0.1	0.1	
	Y6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Y6	0.1	0.1	0.1	
	Y7	0.4	5.5	19.3	0.8	19.1	2.8	0.0	25.2	22.7	Y7	0.5	0.5	1.4	
	Y8	0.4	5.4	18.9	0.8	19.2	2.8	0.0	24.7	22.8	Y8	0.5	0.5	1.4	
	Y9	0.4	5.4	18.9	0.8	19.2	2.8	0.0	24.7	22.7	Y9	0.5	0.5	1.4	
	Y10	0.4	5.5	19.1	0.8	20.3	2.8	0.0	25.0	23.9	Y10	0.5	0.5	1.4	

DP (Direct precipitation), WRD_RO (Waste Rock Dump Runoff), WRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

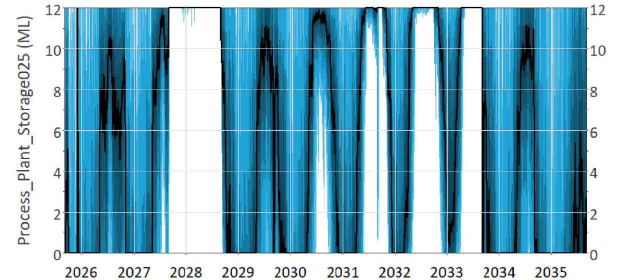
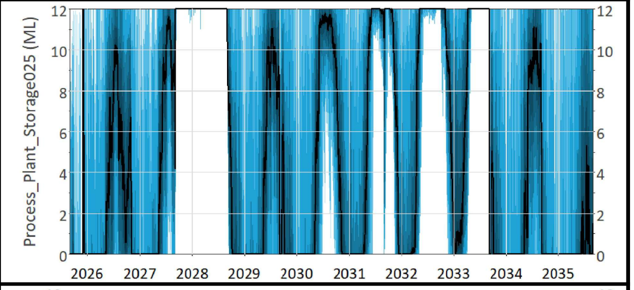
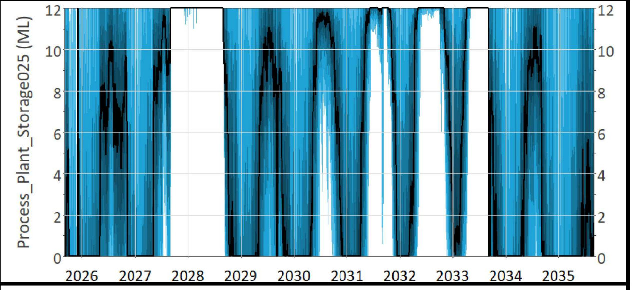
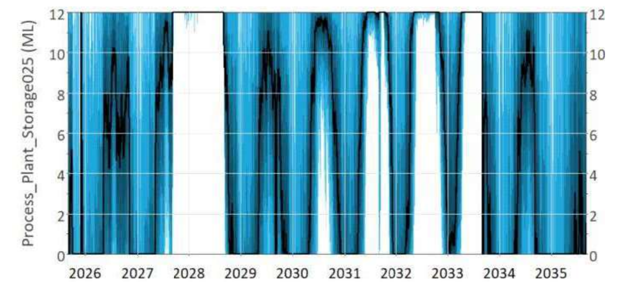
	Sediment Ponds - Stormwater Pond														
	WATER BALANCE										Volume Results				
	Year	Inflows [ML/yr]			Outflows [ML/yr]				WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	ROM RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	1.0	66.4	0.0	1.6	51.5	5.6	0.0	67.4	58.7	Y1	4.4	6.3	9.5	
	Y2	0.9	64.9	0.0	1.6	53.0	5.6	0.0	65.9	60.2	Y2	4.4	6.5	9.5	
	Y3	1.0	68.8	0.0	1.6	53.5	5.6	0.0	69.7	60.7	Y3	4.5	6.2	9.5	
	Y4	0.9	65.9	0.0	1.7	54.0	5.7	0.0	66.9	61.4	Y4	4.7	6.5	9.4	
	Y5	0.9	65.6	0.0	1.7	51.7	5.8	0.0	66.6	59.2	Y5	4.4	6.4	9.4	
	Y6	1.0	67.4	0.0	1.6	53.7	5.6	0.0	68.3	60.9	Y6	4.6	6.3	9.4	
	Y7	0.9	66.4	0.0	1.7	52.2	5.7	0.0	67.3	59.5	Y7	4.6	6.6	9.4	
	Y8	0.9	65.3	0.0	1.6	51.3	5.7	0.0	66.2	58.6	Y8	4.7	6.4	9.1	
	Y9	0.9	65.2	0.0	1.6	52.0	5.6	0.0	66.1	59.2	Y9	4.9	6.4	9.2	
	Y10	0.9	66.0	0.0	1.7	53.0	5.7	0.0	66.9	60.4	Y10	4.5	6.4	9.3	
Climate change - Drier Climate	Year	DP	ROM RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.7	45.5	0.0	1.7	34.7	5.8	0.0	46.2	42.3	Y1	4.7	6.2	9.3	
	Y2	0.6	44.6	0.0	1.8	36.0	6.0	0.0	45.2	43.8	Y2	4.7	6.4	9.3	
	Y3	0.7	46.7	0.0	1.7	37.4	5.9	0.0	47.4	45.0	Y3	4.7	6.3	9.2	
	Y4	0.6	45.3	0.0	1.8	36.0	6.0	0.0	45.9	43.8	Y4	4.4	6.4	9.2	
	Y5	0.6	45.0	0.0	1.8	35.8	5.9	0.0	45.6	43.5	Y5	4.4	6.4	9.3	
	Y6	0.7	46.2	0.0	1.7	36.2	5.9	0.0	46.8	43.8	Y6	4.6	6.2	9.3	
	Y7	0.6	45.1	0.0	1.8	36.0	6.1	0.0	45.7	44.0	Y7	4.8	6.6	9.3	
	Y8	0.6	44.4	0.0	1.7	35.0	5.9	0.0	45.0	42.5	Y8	4.5	6.4	9.2	
	Y9	0.6	44.6	0.0	1.7	35.2	5.9	0.0	45.3	42.8	Y9	4.7	6.6	9.2	
	Y10	0.6	45.0	0.0	1.8	37.5	6.1	0.0	45.7	45.4	Y10	4.9	6.3	8.9	
Climate change - Wetter Climate	Year	DP	ROM RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	1.0	69.7	0.0	1.6	54.0	5.6	0.0	70.7	61.2	Y1	4.4	6.4	9.4	
	Y2	1.0	68.1	0.0	1.6	54.4	5.6	0.0	69.0	61.6	Y2	4.7	6.5	9.3	
	Y3	1.0	72.4	0.0	1.6	57.0	5.5	0.0	73.4	64.1	Y3	4.7	6.2	9.3	
	Y4	1.0	69.2	0.0	1.7	55.4	5.7	0.0	70.2	62.8	Y4	4.5	6.3	9.4	
	Y5	1.0	68.7	0.0	1.7	53.2	5.7	0.0	69.7	60.6	Y5	4.6	6.6	9.4	
	Y6	1.0	70.8	0.0	1.6	55.7	5.6	0.0	71.8	62.9	Y6	4.4	6.6	9.2	
	Y7	1.0	69.8	0.0	1.7	55.1	5.6	0.0	70.8	62.4	Y7	4.2	6.2	9.3	
	Y8	1.0	68.6	0.0	1.6	53.7	5.5	0.0	69.6	60.9	Y8	4.5	6.6	9.3	
	Y9	1.0	68.4	0.0	1.7	52.4	5.7	0.0	69.4	59.7	Y9	4.5	6.6	9.2	
	Y10	1.0	69.3	0.0	1.6	54.9	5.5	0.0	70.2	62.0	Y10	4.6	6.5	9.3	
Climate change - Max Con	Year	DP	ROM RO	WRD_SP	PE	T_P	SP	OV	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	61.0	0.0	1.7	47.5	5.7	0.0	61.9	54.9	Y1	4.4	6.4	9.2	
	Y2	0.9	59.6	0.0	1.6	49.3	5.6	0.0	60.5	56.6	Y2	4.7	6.3	9.1	
	Y3	0.9	63.4	0.0	1.7	49.3	5.7	0.0	64.3	56.7	Y3	5.0	6.5	9.4	
	Y4	0.9	60.4	0.0	1.7	48.7	5.7	0.0	61.3	56.1	Y4	4.5	6.4	9.3	
	Y5	0.9	60.3	0.0	1.7	48.8	5.7	0.0	61.1	56.2	Y5	4.7	6.5	9.4	
	Y6	0.9	61.8	0.0	1.7	47.9	5.6	0.0	62.7	55.2	Y6	5.0	6.3	9.4	
	Y7	0.9	61.2	0.0	1.7	49.1	5.7	0.0	62.0	56.5	Y7	5.2	6.5	9.3	
	Y8	0.9	60.1	0.0	1.7	47.4	5.7	0.0	61.0	54.7	Y8	4.7	6.3	9.2	
	Y9	0.9	59.9	0.0	1.7	46.4	5.7	0.0	60.8	53.8	Y9	4.4	6.3	9.0	
	Y10	0.9	60.7	0.0	1.7	49.7	5.7	0.0	61.6	57.1	Y10	4.8	6.4	9.2	

DP (Direct precipitation), ROM Run offWRD_SP (Waste Rock Dump Seepage), PE (Evaporation), T_P (Transfer to Plant), SP (Seepage), OV (Overtopping)

Appendix D

Water balance – Process plant

Process Plant

	WATER BALANCE											Volume Results				
	Year	Inflows [ML/yr]					Outflows [ML/yr]			WB Totals		Maximum Volume [ML]				Probabilistic Volume result [ML]
		DP	TP_TSF	TP_Pits	P_SedPo	BO	PE	PD	ME	Total in	Total Out	Year	50th	75th	99th	
Baseline Climate	Y1	1.4	2659.6	387.2	305.0	552.4	3.9	3263.4	172.5	3905.5	3439.8	Y1	12.0	12.0	12.0	
	Y2	1.3	3100.8	323.4	300.9	236.2	3.9	3652.2	207.3	3962.5	3863.4	Y2	11.7	12.0	12.0	
	Y3	1.4	3137.1	1363.2	468.8	0.2	3.9	3779.1	1172.2	4970.8	4955.2	Y3	12.0	12.0	12.0	
	Y4	1.4	3197.5	460.3	472.4	214.7	3.9	3823.7	359.1	4346.2	4186.7	Y4	12.0	12.0	12.0	
	Y5	1.4	3086.9	564.2	458.4	262.7	3.9	3811.3	399.6	4373.6	4214.8	Y5	11.9	12.0	12.0	
	Y6	1.4	3046.3	766.9	465.6	96.2	3.9	3704.9	526.5	4376.3	4235.3	Y6	12.0	12.0	12.0	
	Y7	1.4	3054.7	1015.4	532.6	63.1	3.9	3766.1	805.0	4667.1	4575.1	Y7	12.0	12.0	12.0	
	Y8	1.3	3005.0	1082.9	522.4	12.3	3.9	3679.2	885.6	4624.0	4568.7	Y8	12.0	12.0	12.0	
	Y9	1.3	3016.6	555.4	532.6	341.7	3.9	3839.8	427.5	4447.6	4271.2	Y9	12.0	12.0	12.0	
	Y10	1.4	2323.6	216.6	551.4	915.5	3.9	3686.5	208.1	4008.4	3898.5	Y10	10.1	12.0	12.0	
Climate change - Drier Climate	Year	DP	TP_TSF	TP_Pits	P_SedPo	BO	PE	PD	ME	Total in	Total Out	Year	50th	75th	99th	
	Y1	0.9	2623.0	364.0	207.8	608.0	3.9	3261.5	96.0	3803.7	3361.4	Y1	12.0	12.0	12.0	
	Y2	0.9	3063.4	293.4	206.2	270.0	4.0	3652.2	113.9	3833.9	3770.2	Y2	11.6	12.0	12.0	
	Y3	1.0	3077.8	1325.6	321.0	1.7	4.0	3779.1	935.8	4727.0	4718.9	Y3	12.0	12.0	12.0	
	Y4	0.9	3158.6	398.0	324.4	250.0	4.0	3823.7	202.4	4132.0	4030.2	Y4	12.0	12.0	12.0	
	Y5	0.9	3025.2	496.8	312.1	317.2	4.0	3811.3	234.8	4152.2	4050.1	Y5	11.8	12.0	12.0	
	Y6	1.0	3005.5	691.3	316.4	112.6	4.0	3704.9	324.2	4126.9	4033.1	Y6	12.0	12.0	12.0	
	Y7	0.9	2987.3	934.8	361.1	71.9	4.0	3766.1	526.6	4356.1	4296.8	Y7	12.0	12.0	12.0	
	Y8	0.9	2961.4	996.0	356.0	14.3	4.0	3679.2	610.6	4328.6	4293.8	Y8	12.0	12.0	12.0	
	Y9	0.9	2944.9	475.6	368.0	405.6	4.0	3839.8	233.3	4195.0	4077.1	Y9	12.0	12.0	12.0	
	Y10	0.9	2269.4	190.2	380.3	1006.3	4.0	3686.5	92.9	3847.1	3783.3	Y10	9.6	12.0	12.0	
Climate change - Wetter Climate	Year	DP	TP_TSF	TP_Pits	P_SedPo	BO	PE	PD	ME	Total in	Total Out	Year	50th	75th	99th	
	Y1	1.4	2657.5	391.5	319.2	550.4	4.0	3263.4	185.9	3920.1	3453.3	Y1	12.0	12.0	12.0	
	Y2	1.4	3098.1	328.8	312.9	237.0	4.0	3652.2	219.4	3978.1	3875.7	Y2	11.7	12.0	12.0	
	Y3	1.5	3137.2	1370.8	489.7	0.2	4.0	3779.1	1199.8	4999.4	4982.9	Y3	12.0	12.0	12.0	
	Y4	1.4	3195.7	473.1	488.9	215.3	4.0	3823.7	389.5	4374.4	4217.3	Y4	12.0	12.0	12.0	
	Y5	1.4	3085.1	576.7	477.5	264.0	4.0	3811.3	426.1	4404.7	4241.4	Y5	11.8	12.0	12.0	
	Y6	1.5	3044.2	781.7	485.3	98.4	4.0	3704.9	547.1	4411.1	4256.0	Y6	12.0	12.0	12.0	
	Y7	1.4	3052.5	1032.6	555.9	66.9	4.0	3766.1	841.0	4709.4	4611.2	Y7	12.0	12.0	12.0	
	Y8	1.4	3003.0	1098.7	545.3	15.2	4.0	3679.2	918.7	4663.6	4601.9	Y8	12.0	12.0	12.0	
	Y9	1.4	3015.1	572.4	554.7	343.2	4.0	3839.8	456.7	4486.9	4300.5	Y9	12.0	12.0	12.0	
	Y10	1.4	2322.3	218.9	572.9	913.2	4.0	3686.5	222.8	4028.7	3913.3	Y10	9.9	12.0	12.0	
Climate change - Max Con	Year	DP	TP_TSF	TP_Pits	P_SedPo	BO	PE	PD	ME	Total in	Total Out	Year	50th	75th	99th	
	Y1	1.3	2644.0	379.5	279.7	559.4	4.0	3263.4	142.4	3863.9	3409.8	Y1	12.0	12.0	12.0	
	Y2	1.2	3085.2	314.3	278.2	243.6	4.0	3652.2	174.6	3922.5	3830.9	Y2	11.6	12.0	12.0	
	Y3	1.3	3111.8	1351.9	433.0	0.8	4.0	3779.1	1102.2	4898.7	4885.3	Y3	12.0	12.0	12.0	
	Y4	1.2	3181.4	440.1	432.6	222.1	4.0	3823.7	305.8	4277.4	4133.6	Y4	12.0	12.0	12.0	
	Y5	1.2	3058.5	546.1	424.6	278.2	4.0	3811.3	344.8	4308.6	4160.1	Y5	11.8	12.0	12.0	
	Y6	1.3	3029.2	744.1	425.9	102.3	4.0	3704.9	453.6	4302.7	4162.5	Y6	12.0	12.0	12.0	
	Y7	1.3	3023.6	993.3	490.3	69.9	4.0	3766.1	722.2	4578.4	4492.4	Y7	12.0	12.0	12.0	
	Y8	1.2	2987.5	1057.6	481.9	16.0	4.0	3679.2	803.5	4544.3	4486.7	Y8	12.0	12.0	12.0	
	Y9	1.2	2983.2	532.4	489.4	360.9	4.0	3839.8	361.5	4367.1	4205.3	Y9	12.0	12.0	12.0	
	Y10	1.3	2301.5	216.4	509.4	936.2	4.0	3686.5	178.9	3964.7	3869.4	Y10	9.8	12.0	12.0	

DP (Direct precipitation), TP_TSF (Pumping from TSF), TP_Pits (Pumping from Pits), TP_SedPon (Pumping from Sed Ponds), BO (Borefield make-up), PE (Evaporation), PD (Plant demand), ME (Mechanical Loss),

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Appendix 5: Surface Water Management Plan (WSP, 2025a)

Design
for a better
future /

Ausgold Limited

Katanning Gold Surface Water Management Plan

Katanning Gold Project

June 2025

Question today
Imagine tomorrow
Create for the future

Katanning Gold Surface Water Management Plan
Katanning Gold Project

Ausgold Limited

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Rev	Date	Details
A	13 June 2025	Draft report

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Approved by:	Nigel Moon	13 June 2025	

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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1 Project background

1.1 Introduction

Ausgold Limited (Ausgold) has engaged WSP Australia Pty Ltd (WSP) to support the development of a surface water management plan (SWMP) for the Katanning Gold Project (KGP).

The aim of the SWMP is to identify any potential flood risks to the project based on the latest mine layout and associated infrastructure during the operational phase during the Life of Mine (LoM) and provide design peak flows and volume estimates to design appropriate surface water control infrastructure for mitigation. The critical mine areas that require flood protection include:

- Tailings Storage Facility (TSF)
- Pits (Jinkas, Dino, Olympia, Jackson)
- Waste rock dumps (WRDs) across the mine area
- Process plant area
- Run of Mine (ROM) pad.
- This report provides an overview of the hydrologic and hydraulic modelling to facilitate the development of the SWMP, results of the analysis, as well as hydraulic sizing of surface water control structures. The scope of work undertaken by WSP is detailed further in Section 1.2 as well as in the subsequent sections.
- Appendix A provides a summary of the flood mapping undertaken as part of this design, Appendix B contains supporting design information for the surface water control structures (i.e., stage storage curves of the sediment retention ponds), Appendix C provides the design figures of SWMP developed, and Appendix D includes the bill of quantities for the surface water control structures.

1.2 Scope of work

The objective of the SWMP is to provide a management plan for the contact and non-contact surface water to be managed effectively throughout the LoM and to support the regulatory approvals process. In addition, the outcomes of the SWMP will inform any additional infrastructure required to store, convey or manage the surface water (i.e., water surplus storage, diversions, and/or sediment ponds). This work will also use the outcomes of the site-wide water balance that is being undertaken by WSP in parallel (WSP, 2025a).

WSP's scope of work for the SWMP includes the following:

- Assess the surface water flood impact for the ultimate mine layout and develop a SWMP to manage and minimise the risk of flooding of the mine pits and critical infrastructure within the project area for the operational phase only. Assessment of surface water management at various stages of the mine development was not part of the scope. In addition, ensure effective separation of contact and non-contact water thereby minimising volume of contact water requiring further management. The developed SWMP as part of this scope will facilitate regulatory approvals and planning for Ausgold.
- Develop feasibility level design for key infrastructure required for surface water management (i.e., storm event pond, sediment/seepage collection ponds for WRD's, drains and diversion bunds, etc.). The site will operate under a 'zero-discharge' regulatory requirement.

2 Site description

2.1 Site location

The KGP and the planned open-pit mining boundary is located 40 km northeast of the town of Katanning in the southwest region of Western Australia shown on Figure 2.1. The site is located within the Shire of Katanning.

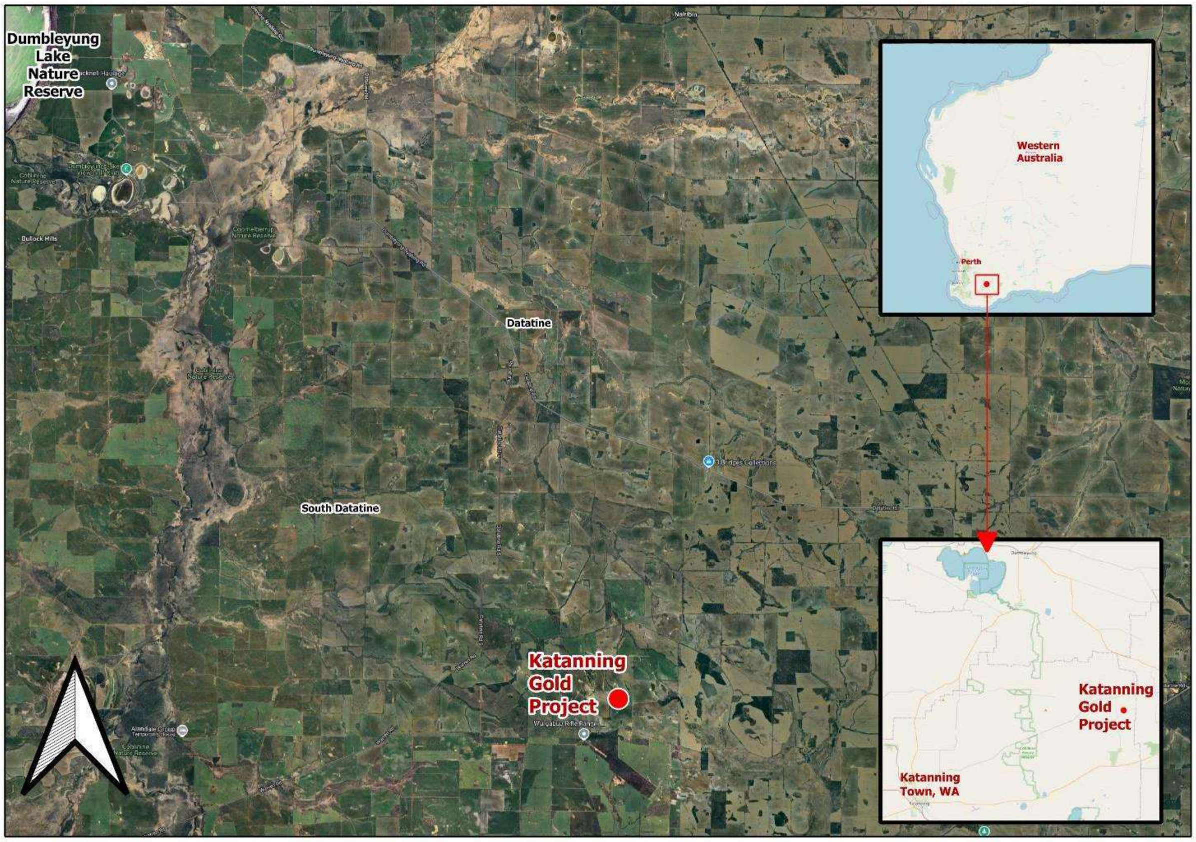


Figure 2.1 Site Location

2.2 Site layout and topography

The site is generally on top of the broader catchment with some low points to the northwest and southwest of the project area shown on Figure 2.2. The mine layout has also been illustrated on Figure 2.2. The critical mine areas such as Jinkas pit and WRD main are located at the peak of the topography at 393 m Australian height datum (mAHD) and 385 mAHD respectively. The site can be divided into distinct sub-catchments based on the direction of surface grading:

- The northern areas, including the Olympia Pit and WRD North 2, are graded towards the northeast.
- The Jackson Pit and WRD North 1 are located in areas that grade towards the northwest.
- The southern WRDs, Dingo Pit, ROM, and process plant area fall within the southwest-draining sub-catchment.
- The TSF area is graded towards the southeast.

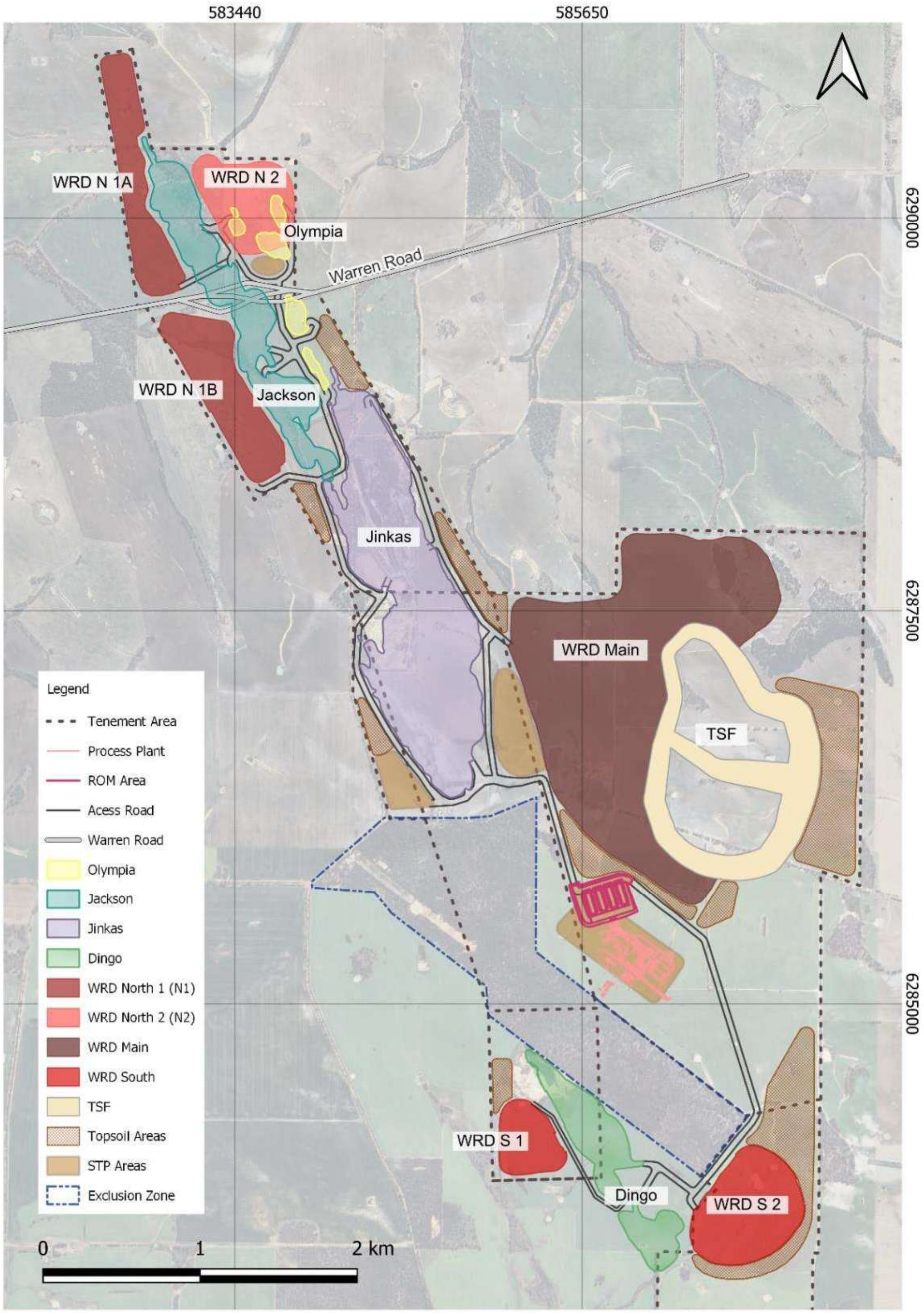


Figure 2.2 KGP site layout and topography

2.3 Existing watercourses

There are no existing natural major watercourses, or ponds located within the tenement boundary. Small farming dams are established variously across the site area, but do not impact the SWMP design.

An existing ore pit is located at the top of Dingo Pit and another existing pond/pit area across the Jackson Pit are observed. The site is primarily affected by overland runoff within the internal catchments and open pits.

3 Climate setting

3.1 Historical climate statistics

Monthly statistics associated with the daily rainfalls and evaporation were sourced from the enhanced climate database hosted by Department of Environment, Tourism, Science and Innovation’s SILO Data Drill (SILO). The SILO rainfall and evaporation datasets are based on interpolated gridded data (using an approximate 5 km × 5 km grid spacing) derived from records at over 6,000 weather stations in Australia (https://www.longpaddock.qld.gov.au/silo/).

The current climate condition for the project site was analysed based on five data sources (summarised below) including four Bureau of Meteorology (BoM) weather stations. The period 1973-2011 was selected for concurrent comparison as it includes the most consistent recorded climate data for all stations:

- Badgebup, located approximately 10 km south of the site (BoM ref: 010508; in operation since 1915),
- Dumbleyung, located 30 km north of the site (BoM ref: 010546; in operation since 1910),
- Kwobrup, located 10 km southeast of the site (BoM ref: 010589; in operation since 1915)
- Nairibin, located 20 km north of the site (BoM ref: 010657; in operation since 1915)
- The Department of Environment, Tourism, Science and Innovation’s SILO Data Drill (SILO) gridded data interpolated for the KGP site location (Lat: -33.55°; Long: 117.90°).

SILO accesses grids of data interpolated from point observations made by stations operated by the BoM providing long-term estimates of continuous daily rainfall and evapotranspiration records (from 1889 to present) for any location in Australia. A comparison of the average monthly and annual rainfalls for the five sources is discussed in the water balance report (WSP, 2025a). The comparison shows that the monthly SILO values follow a similar trend and are comparable to the BoM stations, although the two BoM stations recorded slightly lower values for July.

The comparison shows that the monthly SILO values follow a similar trend and are comparable to the BoM stations, although the two BoM stations recorded slightly lower values for July. The SILO KGP site data are summarised in Table 3.1 and shown graphically in Figure 3.1. It should be noted that these rainfall and evaporation data are based on records from 1970 to 2024 (to include a complete year at the time of writing this report).

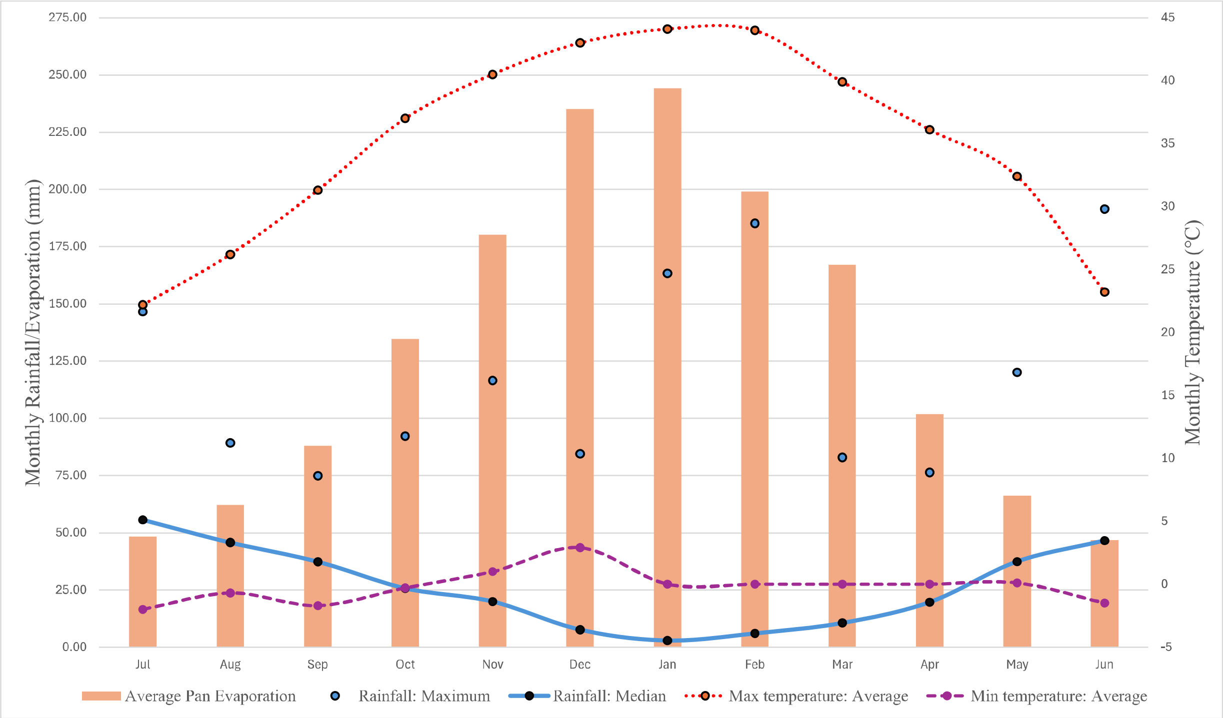
The climate data shows the Project location has cold winters with high rainfall expected. Monthly rainfall distributions show a distinct seasonal pattern with most of the rainfall occurring during the months of June through to August and more extreme monthly rainfall also occurring predominantly during this period. The highest recorded daily rainfall total in the SILO record within the defined period of record was 93.5 mm on 21 January 1982.

The average annual pan evaporation is around 1,587 mm. Median monthly pan evaporation exceeds median monthly rainfall in all months of the year except June and July (Figure 3.1).

Table 3.1 Monthly SILO climate statistics (mm) between years 1970 and 2024

Parameter	**July**	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**Annual**
Average rainfall	58.8	47.4	36.1	28.7	25.0	14.5	17.1	17.7	18.0	23.7	41.9	53.3	382.2
Median rainfall	55.6	45.7	37.3	25.7	19.9	7.6	2.9	6.0	10.6	19.7	37.4	46.6	377.7
Maximum rainfall	146.6	89.3	74.9	92.2	116.5	84.5	163.3	185.1	82.9	76.3	120.1	191.4	617.1
Minimum rainfall	23.2	10.6	10.2	1.1	0.5	0.0	0.0	0.0	0.0	0.0	3.5	13.5	243.6
90th Percentile	87.3	67.5	58.9	54.3	48.6	37.4	58.0	46.8	49.1	45.8	78.0	81.9	496.0
75th Percentile	75.2	58.1	47.4	33.9	36.1	18.3	20.3	24.5	25.4	35.2	49.1	64.4	438.0
25th Percentile	40.6	38.5	23.5	13.4	9.8	2.2	0.4	1.0	2.4	6.5	24.4	33.2	330.8
10th Percentile	29.8	25.8	15.7	9.2	5.8	0.3	0.0	0.0	0.7	3.8	14.4	24.9	281.9
Median evaporation	47.3	60.8	87.5	134.3	180.6	231.8	250.3	200.0	170.8	104.0	65.4	46.4	1572.9

Note: Rainfall and evaporation data in mm/month

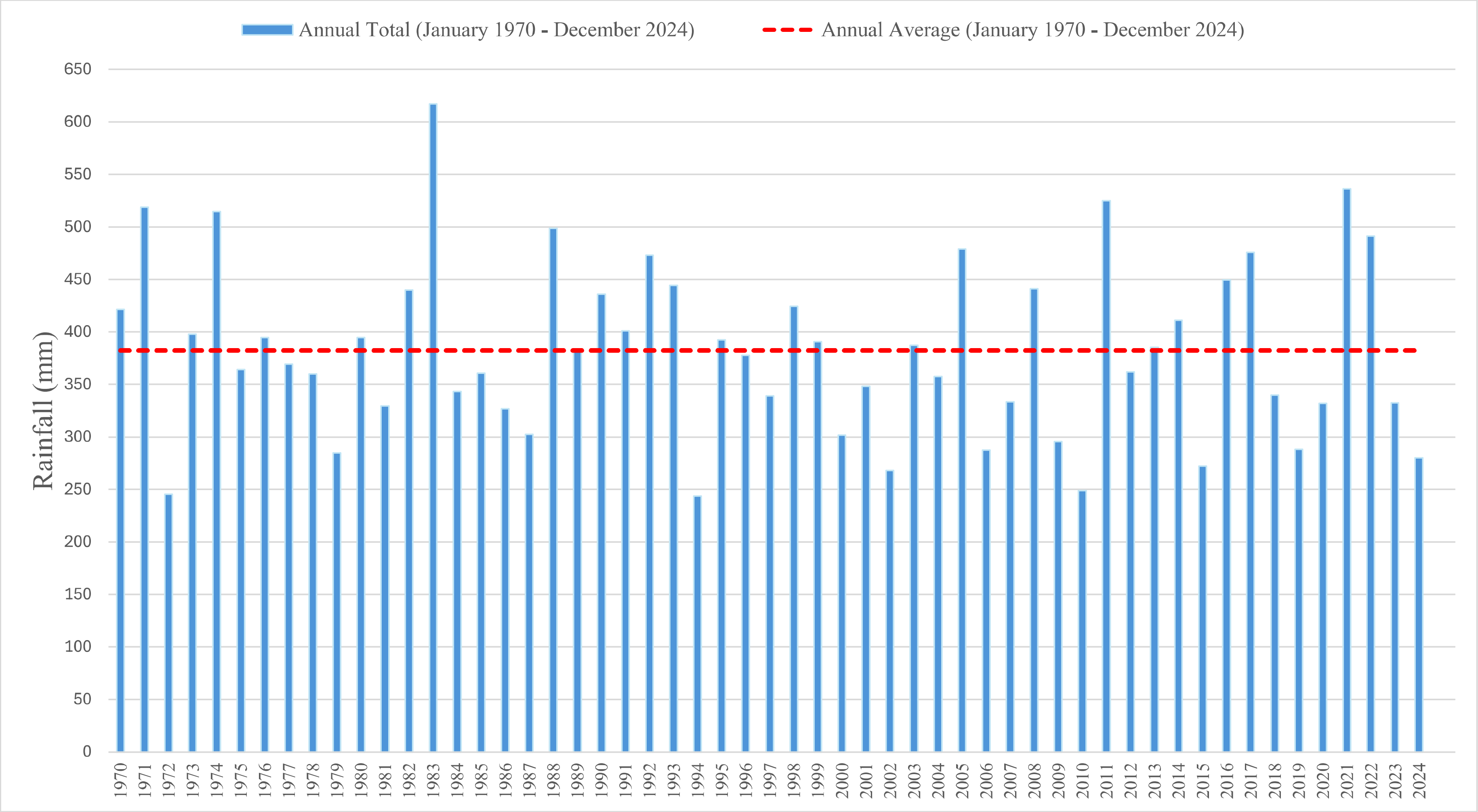


(1) All rainfall and temperature statistics derived from SILO data drill climate information (January 1970 to December 2024).

(2) Pan evaporation represents Class A pan evaporation equivalent (January 1970 to December 2024).

Figure 3.1 Monthly SILO rainfall and climate summary (January 1970 to December 2024)

Total annual rainfall for years 1970 to 2024 is presented in Figure 3.2. It also includes the mean annual rainfall over this period, which was around 382.2 mm.



Note: Annual rainfall data is derived from the water year (January 1970 to December 2024).

Figure 3.2 Annual Rainfall Summary (January 1970 to December 2024)

3.2 Baseline intensity-frequency-duration estimates

Baseline rainfall intensity-frequency-duration (IFD) estimates for the study area were derived using Australian Rainfall and Runoff (ARR) 2019 Datahub, which allows automatic estimation of a full set of IFD curves and associated data for any location in Australia. This approach is outlined in ARR 2019 guideline (ARR 2019).

Table 3.2 and Table 3.3 summarise rainfall intensities (mm/hr) associated with design storms with durations up to 72 hours' duration and Annual Exceedance Probability (AEP) up to 1 in 100 applied in the estimation of design flood discharges for a range of AEP events. Total rainfall depths are presented in Table 3.3.

Table 3.2 Baseline rainfall intensity (mm/hr) for standard durations and annual exceedance probability (AEPs)

Duration (mins)	Duration (Hrs)	Annual exceedance probability (AEP)						
		63.20% (1 in 1.58)	50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	2% (1 in 50)	1% (1 in 100)
5	0.083	49.8	56.8	81.0	99.5	119	149	173
10	0.167	35.7	40.7	58.4	72.1	87.1	110	129
15	0.25	28.5	32.5	46.6	57.6	69.6	87.6	103
30	0.5	18.7	21.3	30.4	37.5	45.2	56.6	66.4
60	1	12	13.6	19.3	23.7	28.4	35.3	41.1
120	2	7.6	8.64	12.2	14.9	17.8	22	25.6
180	3	5.83	6.61	9.33	11.4	13.6	16.9	19.7
360	6	3.68	4.18	5.91	7.25	8.72	10.9	12.8
720	12	2.3	2.6	3.7	4.58	5.57	7.1	8.48
1440	24	1.39	1.58	2.26	2.82	3.46	4.5	5.45
1800	30	1.18	1.33	1.91	2.39	2.94	3.84	4.66
2880	48	0.816	0.922	1.32	1.65	2.04	2.67	3.26
4320	72	0.589	0.664	0.944	1.18	1.45	1.89	2.31

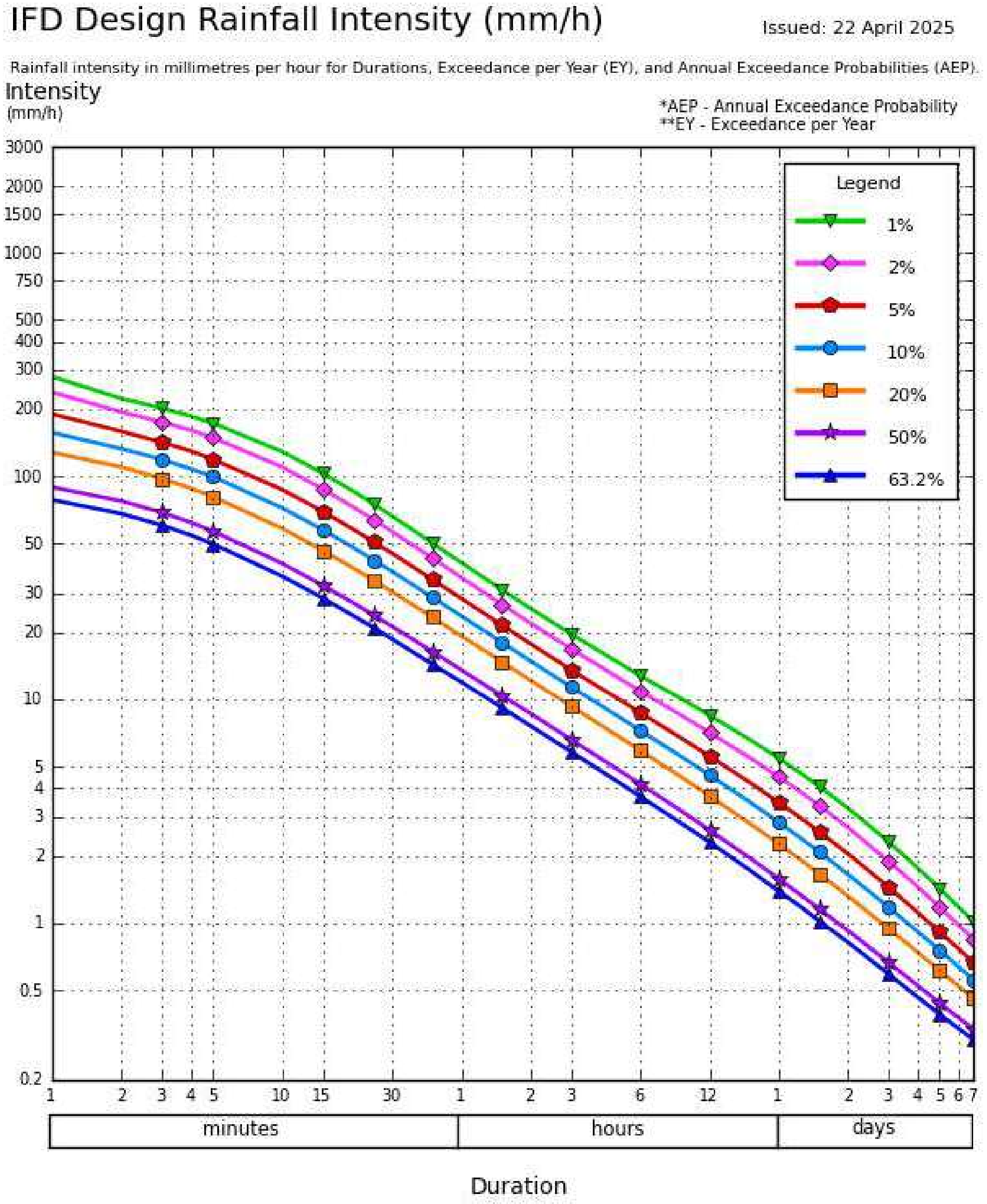


Figure 3.3 IFD curves for KGP area (BOM 2016)

Table 3.3 Total rainfall depth (mm) for standard durations and annual exceedance probability (AEPs)

Duration (mins)	Duration (Hrs)	Annual exceedance probability (AEP)						
		63.20% (1 in 1.58)	50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	2% (1 in 50)	1% (1 in 100)
5	0.083	4.15	4.74	6.75	8.29	9.95	12.4	14.4
10	0.167	5.95	6.79	9.73	12	14.5	18.3	21.5
15	0.25	7.13	8.13	11.6	14.4	17.4	21.9	25.8
30	0.5	9.35	10.7	15.2	18.7	22.6	28.3	33.2
60	1	12	13.6	19.3	23.7	28.4	35.3	41.1
120	2	15.2	17.3	24.4	29.8	35.6	44.1	51.2
180	3	17.5	19.8	28	34.2	40.9	50.7	59
360	6	22.1	25.1	35.4	43.5	52.3	65.5	77
720	12	27.6	31.2	44.4	55	66.8	85.2	102
1440	24	33.4	37.9	54.2	67.7	83.1	108	131
1800	30	35.3	40	57.3	71.7	88.2	115	140
2880	48	39.2	44.3	63.3	79.3	97.7	128	156
4320	72	42.4	47.8	67.9	84.7	104	136	166

4 Basis of design summary

The basis of design (BoD) summarising the adopted design criteria and design basis is provided in WSP technical memorandum document number PS222221-WSP-PER-MNG-MEM-001 RevA dated 01 April 2025 (WSP, 2025b), issued separately as part of this study. The key items from the summary include the following:

- **Design life:** the SWMP assumes a 10-year operational period considering mining operations commencing in year 2027. SWMP for closure and post-closure periods are not part of this assessment.
- **Site topography data:** The site topography data summarised in Table 4.1 was used for the assessment.

Table 4.1 Site topography data

Type	Extent	Source	Date	Comments
LiDAR and Photogrammetry	Site area only	Aerial Survey Imagery Source: Outline Imagery	31 October 2023	As an output 50 cm DSM, 50 cm DTM and 1 m interval contour and 10 cm resolution imagery data have been generated.

- **Surface water control structures protecting critical mine infrastructure:** Structures (including non-contact diversion channels) are sized to withstand the 1 in 100 AEP event which is typically selected for open drains/bunds to protect critical infrastructure on other mine sites. The selected AEP storm event is estimated to withstand an event with a probability of exceedance of 10% over the 10-year life of the current proposed operation. This means that the likelihood to experience at least one event exceeding the design event over a given Project life of ‘n = 10’ years is 10%. This is based on recommendations in Austroads (1994), and risk management approaches used widely in other mining operations in WA that are independent (or external) to tailings storage facilities noting the latter has more prescriptive requirements for extreme flood events.
- The probability (P) of a flood event being exceeded during the LoM can be calculated according to the following formula:

$$P = 1-\exp(-L/y)$$

  Where:
  - L = Life of operation (years)
  - Y = Flood AEP (years)
- A summary of the probabilities of exceedance for various AEPs and LoM (years) is presented in Table 4.2.

Table 4.2 Probability of exceedance for various AEP and Life of Mine

LoM	Probability of exceedance (%) for various AEPs					
Years	50% AEP (1 in 2)	20% AEP (1 in 5)	10% AEP (1 in 10)	5% AEP (1 in 20)	2% AEP (1 in 50)	1% AEP (1 in 100)
1	39%	18%	10%	5%	2%	1%
3	78%	45%	26%	14%	6%	3%
5	92%	63%	39%	22%	10%	5%
10	99%	86%	63%	39%	18%	10%
15	100%	95%	78%	53%	26%	14%
20	100%	98%	86%	63%	33%	18%
25	100%	99%	92%	71%	39%	22%
30	100%	100%	95%	78%	45%	26%

Based on Table 4.2, the 1 in 100 AEP event is selected as the design event for the sizing of the surface water control structures such as diversion channels protecting critical mine infrastructure, which has an 10% probability of exceedance for a design life of 10 years.

- Surface water control structures for local catchments are sized to the 1 in 20 AEP 24-hour event for storage, or critical duration for conveyance. The design intent of the structures is not to protect critical mine infrastructure, rather provide management of more frequent storm events. Freeboard for all structures has been adopted as 0.3 m.
- **Design peak flows:** Design peak flows used to design the surface water control structures is based on the hydrological and hydraulic (TUFLOW) model, further detailed in Section 5. Details on the estimation of design peak flows for local catchments is provided in Section 5.
- **Climate change considerations:** Climate change considerations have been applied to the baseline IFD (presented in Section 3.2) according to the 10-year operational period and follows the procedure developed by ARR (Ball, et al. 2019) found in Book 1 and Chapter 6. Table 4.3 provides the scaling factors that are applied to the IFDs shown in Table 3.3. Time horizon 2030, shared-socioeconomic (SSP) scenario SSP3-7.0 has been adopted by Ausgold to be applied to the BOM (2016) IFD to reflect the 'current and near-term' climate scenario (Ausgold Pers.Comm , 2025).

Table 4.3 ARR Data Hub Climate Change Factors

	Climate Change Factors									
	<1 hour	1.5 Hours	2 Hours	3 Hours	4.5 Hours	6 Hours	9 Hours	12 Hours	18 Hours	>24 Hours
2030 SSP2-4.5	1.18	1.17	1.16	1.14	1.13	1.12	1.12	1.11	1.10	1.10
2040 SSP2-4.5	1.22	1.20	1.19	1.17	1.16	1.15	1.14	1.13	1.12	1.12
2030 SSP3-7.0	**1.18**	**1.17**	**1.16**	**1.14**	**1.13**	**1.12**	**1.12**	**1.11**	**1.10**	**1.10**
2040 SSP3-7.0	1.23	1.21	1.20	1.18	1.17	1.16	1.15	1.14	1.13	1.12
2030 SSP5-8.5	1.20	1.18	1.17	1.16	1.14	1.13	1.13	1.12	1.11	1.11
2040 SSP5-8.5	1.26	1.24	1.22	1.20	1.18	1.17	1.16	1.15	1.14	1.14

- **Sediment retention ponds for the WRDs**: Minimum required volume, pond dimensions (i.e., length by width ratio 1:3) and sediment storage volume has been calculated using RUSLE equation (K.G. Renard, 1997) and detailed in Section 6.4.
- **Stormwater pond**: Minimum required volume to store the 1 in 20 AEP, 24-hour storm event runoff volume but to also provide settling capacity for sediment laden runoff from the adjacent ROM pad. Perimeter drains capturing runoff from the catchment is also recommended to be sized to the 1 in 20 AEP design peak flow.
- **Pond emergency spillways**: Sized to convey the peak flow resulting from the 1 in 50 AEP storm event with a minimum freeboard of 0.3 m.
- **Perimeter drains reporting to ponds**: Perimeters drains capturing runoff from the pond catchment areas are recommended to be sized to the 1 in 20 AEP design peak flow.

5 Hydrologic and hydraulic modelling

Flood estimation (including flood levels, depths, and velocities) was completed using the TUFLOW hydraulic modelling software version 2025.0.2. TUFLOW is a two-dimensional hydraulic modelling software whereby a rainfall depth is applied to every active cell within a digitised polygon based on an input rainfall hyetograph which provides simulated flood depths, flows, and velocities. The input rainfall hyetograph was developed in accordance with ARR (Ball, et al. 2019), in which web-based design rainfall information specific to the Project location has been retrieved (refer to Section 4).

A direct rainfall approach enables reliable representation of the physiographic characteristics of the mine site, and its upstream catchment. This is due to several factors including greater consideration of the storage effects of depressions, better representation of sheet flow conditions associated with surrounding topography, and the ability to vary coefficients of roughness with increasing flow depths.

The hydrologic and hydraulic modelling was completed adopting the three scenarios provided in Table 5.1.

Table 5.1 Summary of TUFLOW model scenarios

Scenario number		Description
1	Baseline	Pre-development condition to understand the local flooding without considering any mine and surface water control structure.
2	Ultimate site development – without mitigation	Post-development condition considering the proposed mine layout and without surface water control structures.
3	Ultimate site development – with mitigation	Post-development condition considering both the proposed mine layout and surface water control structures.

The sections below provide further detail on the model inputs and results.

5.1 Model basis

In conjunction with the BoD developed by WSP (2025b), the following items form part of the TUFLOW model development:

- **Model extent**: The model covers all the catchments contributing to the site and the mine layout.
- **Grid information**: Comprising 0.5 m LiDAR data simulated as a 4 m cell size with 0.5 m Sub Grid Samples (SGS).
- **Storm event durations simulated**: Several durations ranged from 30 min to 96 hours were assessed for the 1 in 100 AEP flood event.
- **Hydrological parameters**: Catchment loss parameters were extracted from the ARR datahub (ARR 2019) for the project location.
- **Manning's roughness**: Digitising the natural ground using the google satellite imagery the following roughness values has been adopted.
  - Floodplain/grass: 0.05
  - Medium vegetation: 0.08
  - Heavy vegetation: 0.12
  - Track: 0.025
- **Climate change**: The upscale factor 2030 SSP3-7.0 was selected for TUFLOW modelling and was applied to the rainfall data as part of the model inputs (refer to Section 4).
- **Surface water controls**: Open channel diversions have been proposed. Design figures including locations, invert levels and sizes of the drains have been provided in Appendix C.

5.2 Model results

Model results for all scenarios and runs are presented in figures in the subsequent sections. Flood mapping and results including the mine structures and the proposed surface water control structures are discussed in Section 6 and the high resolution maps are provided in Appendix A.

Note, a cut-off depth of 3 cm has been applied to model results meaning that any predicted flood depths less than this are not presented. Likewise, any predicted velocity less than 3 cm/s is not shown on the velocity results.

5.2.1 Scenario 1 – Baseline conditions

5.2.1.1 Scenario 1 – Baseline flood depths

Figure 5.1 represents the baseline condition flood depths around the site for the 1 in 100 AEP flood event. The existing site area is generally affected by runoff up to 0.5 m in depth. The site location being at the top of the topography, the only existing pond and drainage locations are flooded up to 1.0 m for the 1 in 100 AEP flood event.

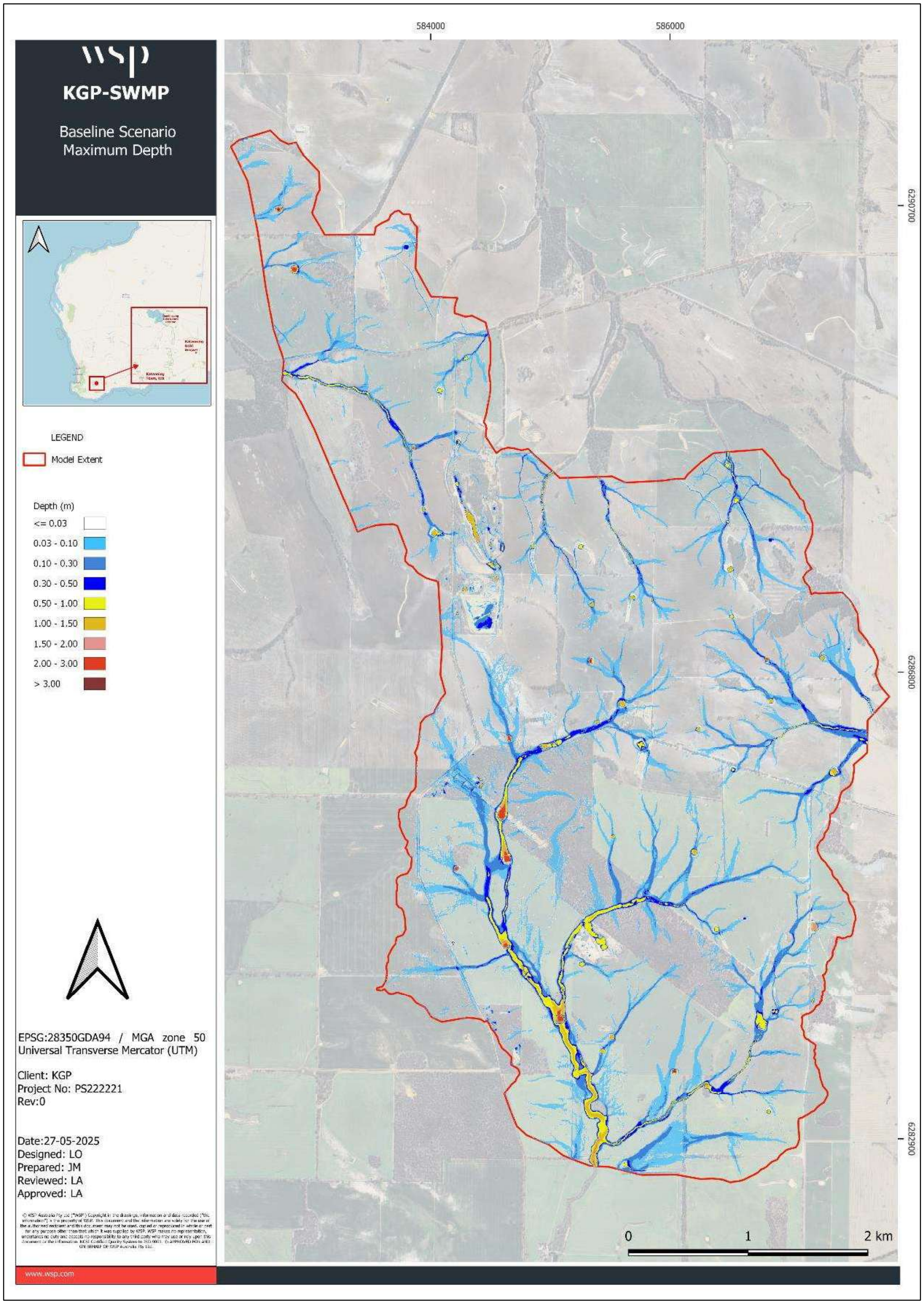


Figure 5.1 Baseline flood depths

5.2.1.2 Scenario 1 – Baseline flood velocity

Figure 5.2 presents the baseline condition flood velocity around the site for the 1 in 100 AEP flood event. The flow velocity is generally 0.5 m/s to 2 m/s site wide.

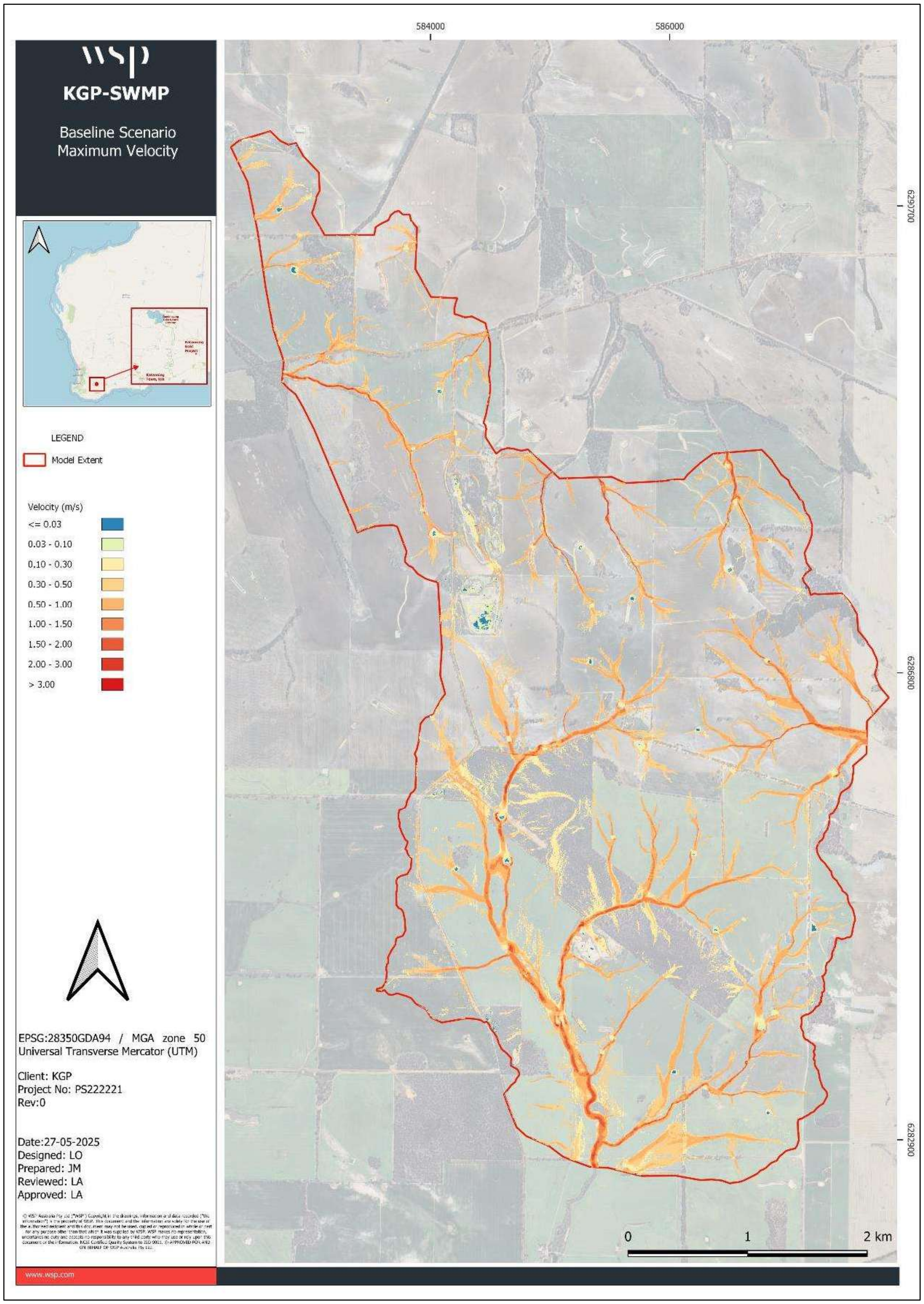


Figure 5.2 Baseline flood velocity

5.2.2 *Scenario 2 – Post-development without mitigations*

Outcomes of Scenario 2 TUFLOW modelling are used to size open channel diversions, further described in Section 6.2.

5.2.2.1 Scenario 2 – Flood depths

Figure 5.3 presents the flood depths across the site under post-development conditions for the 1 in 100 AEP flood event. Ponding areas were identified around site structures, with flow depths reaching up to 3 metres in some locations, highlighting the need for surface water control structures.

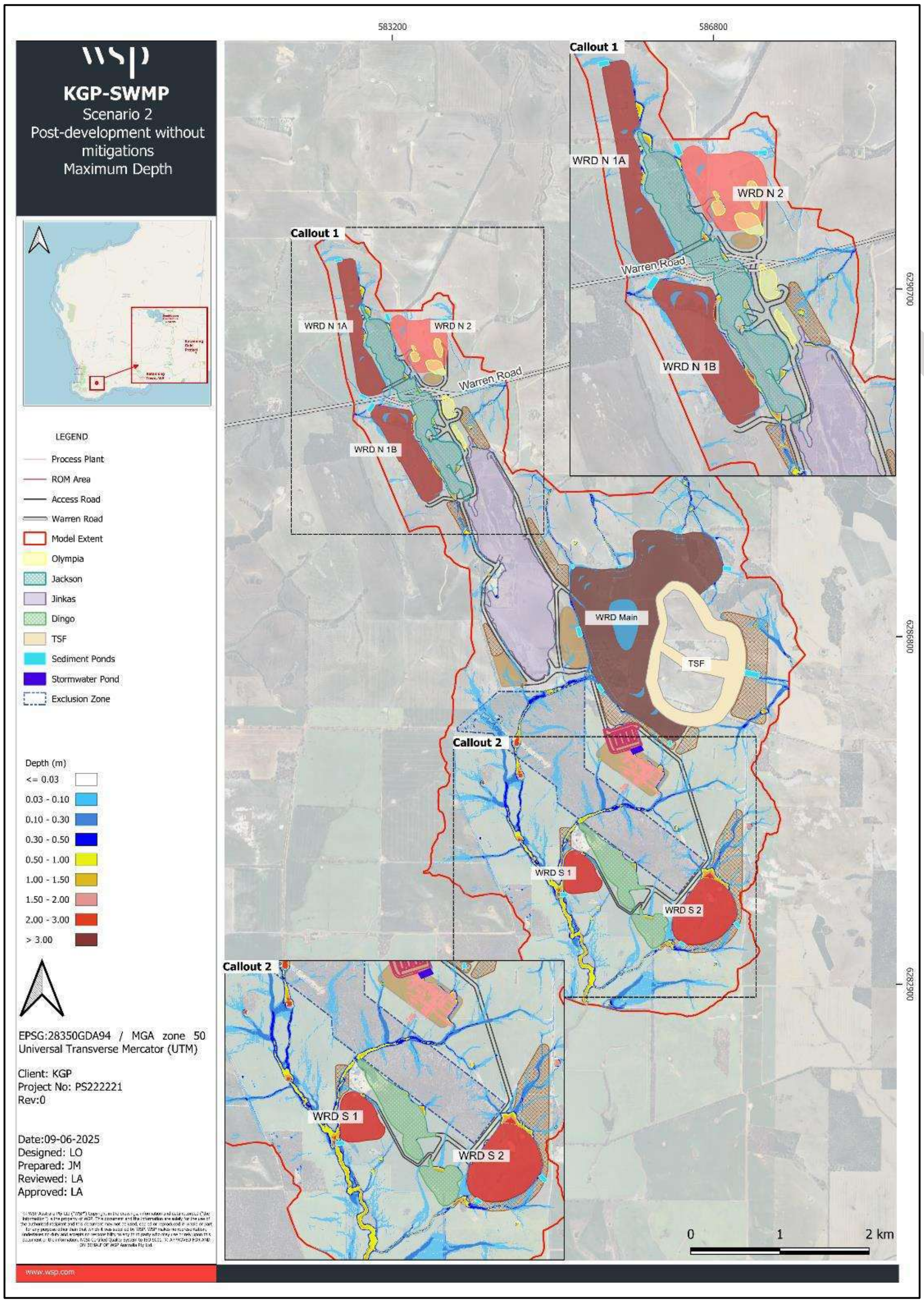


Figure 5.3 Scenario 2 flood depths

5.2.2.2 Scenario 2 – Flood velocity

Figure 5.4 presents the flow velocities results for the post-development scenario under the 1 in 100 AEP flood event. Overall, the velocity range remains similar to the baseline scenario, except in the ponding areas that occur under post-development conditions, where flow velocities are below 0.3 m/s.

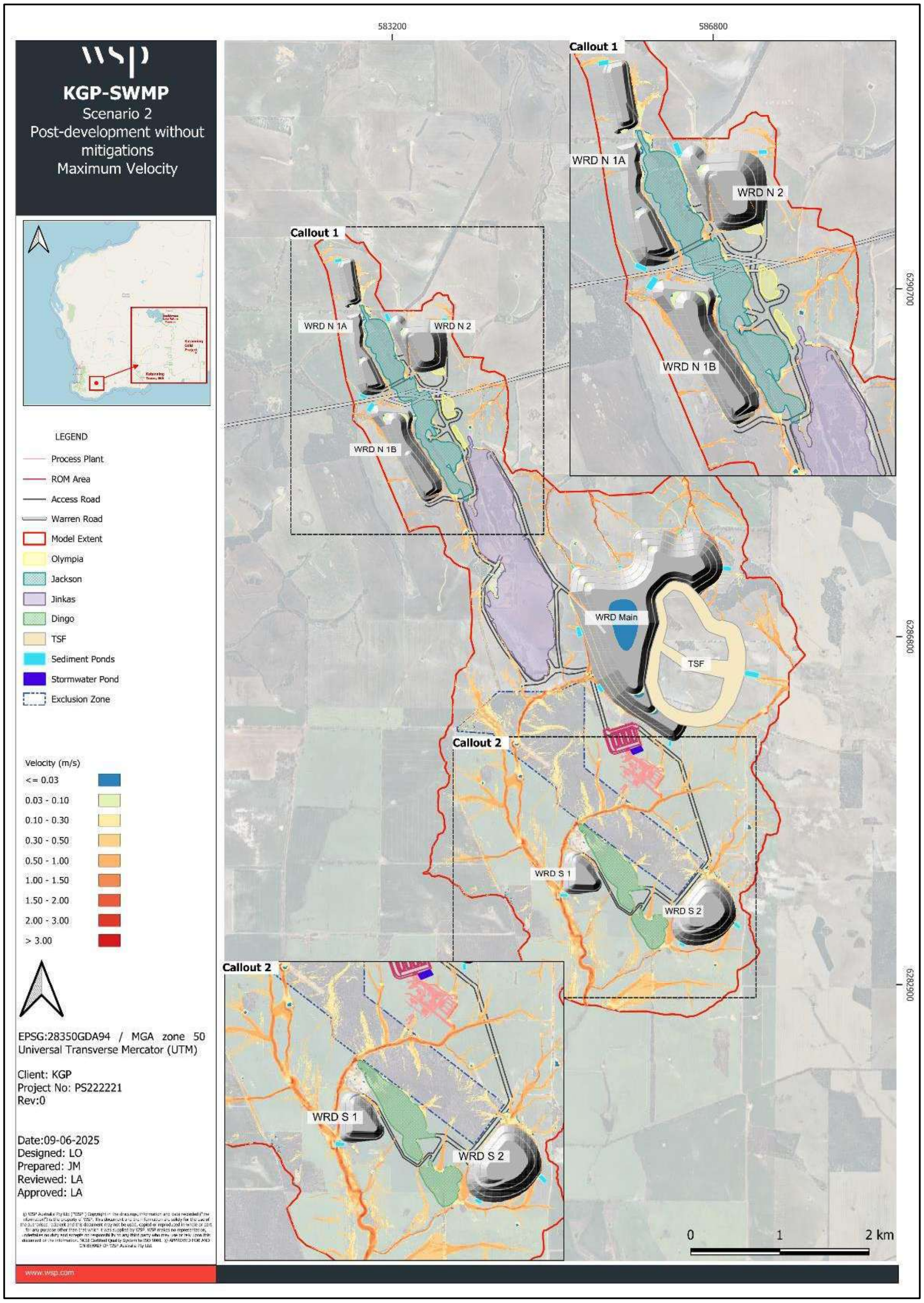


Figure 5.4 Scenario 2 flood velocities

5.2.3 *Scenario 3 – Post-development with mitigations*

Outcomes of the open channel diversion hydraulic sizing as described in Section 6.2 are reflected upon in the Scenario 3 TUFLOW model results.

5.2.3.1 Scenario 3 – Flood depths

Surface water controls were proposed based on the results of hydrologic modelling for the post-development scenario without mitigation measures and were incorporated into the hydraulic model. The open channel diversions were located at key ponding locations around the site infrastructures to manage surface runoff. Figure 5.5 presents the post-development condition with mitigation measures for the 1 in 100 AEP flood event. Flow depths within the channels are generally below 1.5 metres.

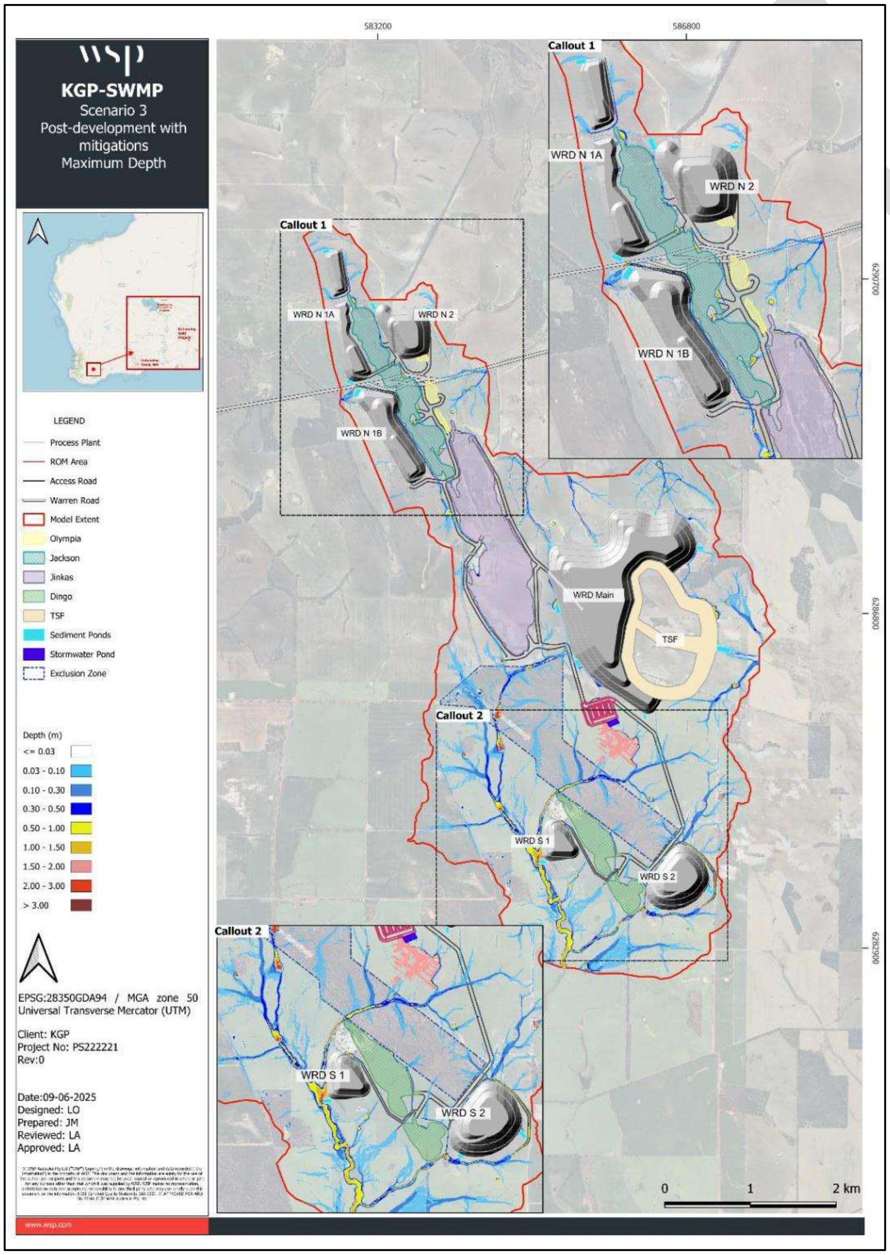


Figure 5.5 Scenario 3 flood depths

5.2.3.2 Scenario 3 – Flood velocity

Figure 5.6 presents the post-development flood velocity condition with mitigation structures around the site for the 1 in 100 AEP flood event. Flow velocities within the drains are generally around 0.5 and 2.0 m/s.

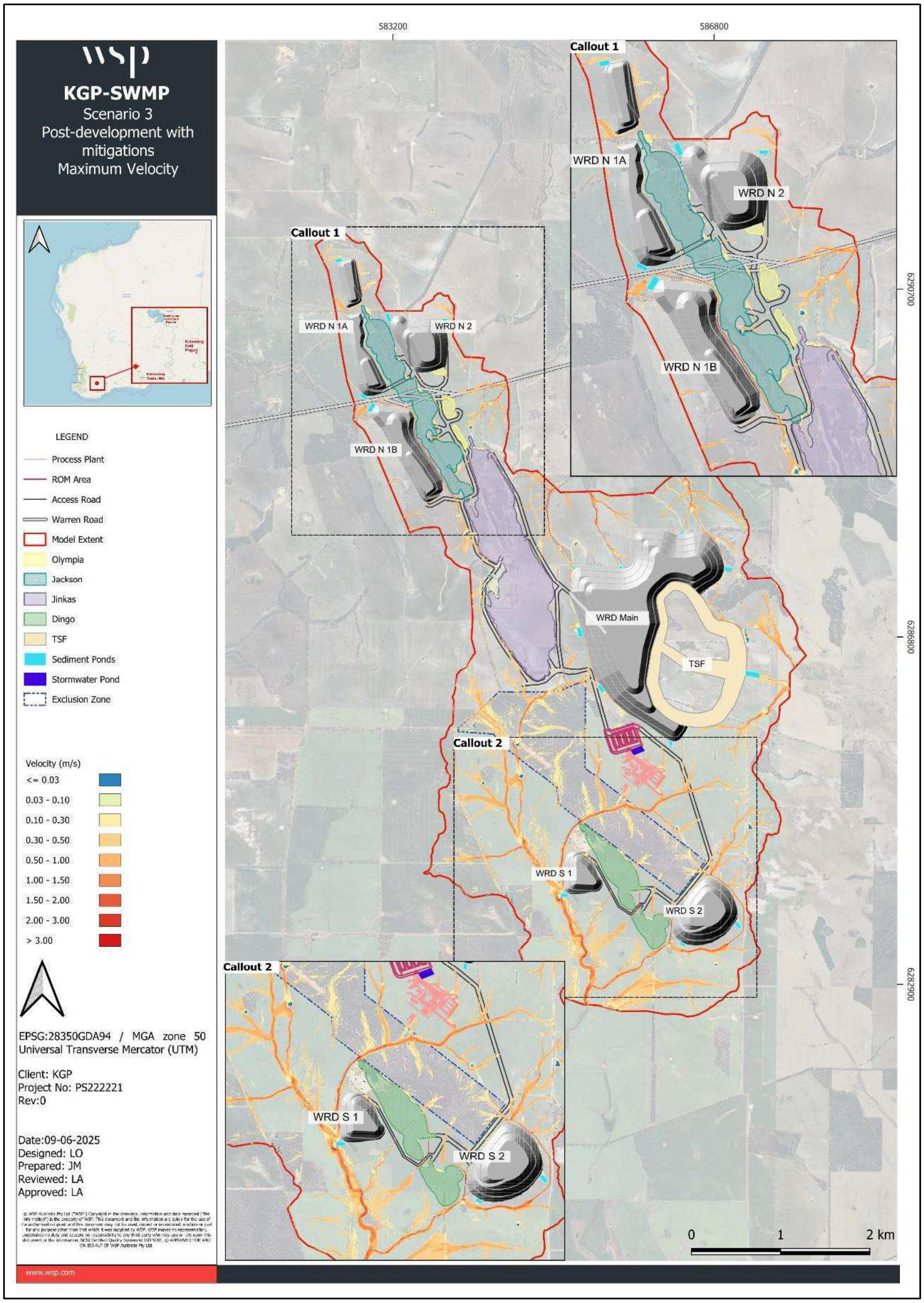


Figure 5.6 Scenario 3 flood velocities

6 Surface water management plan

During operations, the control and management of surface runoff and discharges in and immediately downstream of the mine area are essential to provide:

- Protection to mine personnel and infrastructure during larger storm events.
- Diversion of non-contact surface runoff around mine infrastructure to be discharged to the downstream environment following the existing hydrology.
- Retain sediment and clean out at a prescribed frequency generated from the WRDs and TSF embankments onsite to maintain zero discharge of the sediment material to the downstream environment.

In adopting appropriate design criteria for the sizing of the surface water control structures, several factors were considered:

- compliance criteria of regulatory authorities.
- separation of contact and non-contact water as reasonably practicable.
- zero discharge for frequent storm events.
- risk to infrastructure in the event of inundation during more extreme storm durations of the mining operation.
- magnitude of design discharges, flow velocities and associated critical durations of flows in the mine area locations of mine infrastructure in relation to the existing hydrology.

Ausgold therefore requested that the integrated SWMP be sized to meet the requirements of the current proposed mine plan and associated infrastructure for a 10-year operational period commencing in year 2027.

6.1 Proposed surface water control structures

A summary of the key surface water control structures and the intent as part of the SWMP is provided in Table 6.1. A site plan of the SWMP general layout is provided in Figure 6.1.

Table 6.1 Surface water control structures summary

Critical mine infrastructure	Surface water control structure	Design intent description
Pits (Jinkas, Dingo, Olympia, Jackson)	Based on the location of the ultimate pit layouts relative to the surrounding topography, minimal flood impacts from extreme storm are expected as the pits are not adjacent/downstream to major drainage lines, and do not have large reporting catchment areas.	Non-contact water upstream of the pits require a localised diversion system for the surrounding relatively small catchments to reduce water volumes needing further management.

Critical mine infrastructure	Surface water control structure	Design intent description
Waste rock dumps (WRDs)	Similar to the pits, minimal flood impacts from extreme storm are expected as the WRDs are not adjacent/downstream to major drainage lines, and do not have large reporting catchment areas. Control structures for the WRDs are anticipated to include the following: — Sediment laden runoff will need to be captured and contained for further management. — Seepage collection and storage.	— Perimeter drains around the footprint of the WRDs (where practicable) to capture sediment laden runoff from the landforms and conveyed to sediment retention ponds (SRPs) for containment and further management (settling of particles). — Seepage collection ponds downstream of the WRDs (potentially acid forming or low water quality) to store seepage volumes from the landform for containment and further management.
Tailings storage facility (TSF)	Similar to the pits, minimal flood impacts from extreme storm are expected as the TSF is not adjacent/downstream to major drainage lines, and do not have large reporting catchment areas. Control structures for the TSF are anticipated to include the following: — Sediment laden runoff from the TSF embankment dam may need capturing and containment for further management. — Seepage collection and storage.	— Perimeter drains around the footprint of the TSF (where practicable) to capture sediment laden runoff from the TSF embankment and conveyed to a sediment retention pond (SRP) for containment and further management (settling of particles). — Seepage collection pond downstream of the TSF to store seepage volumes from the landform for containment and further management (as part of the TSF design scope of work, excluded from this scope).
Site plant area	Local drainage system conveying pad runoff to a stormwater pond.	Localised runoff from the site plant area to be captured and conveyed to a storm water pond (developed by others, excluded from this scope).
Run of Mine (ROM) pad	Local drainage system conveying pad runoff to a stormwater pond.	ROM pad is located to the north (upslope) of the site plant layout. Impacted runoff from the pad is captured by perimeter drains which conveys potentially sediment laden runoff to the stormwater pond for settlement of coarser particles. Additionally, ponded water can be reused in the process plant (if required).

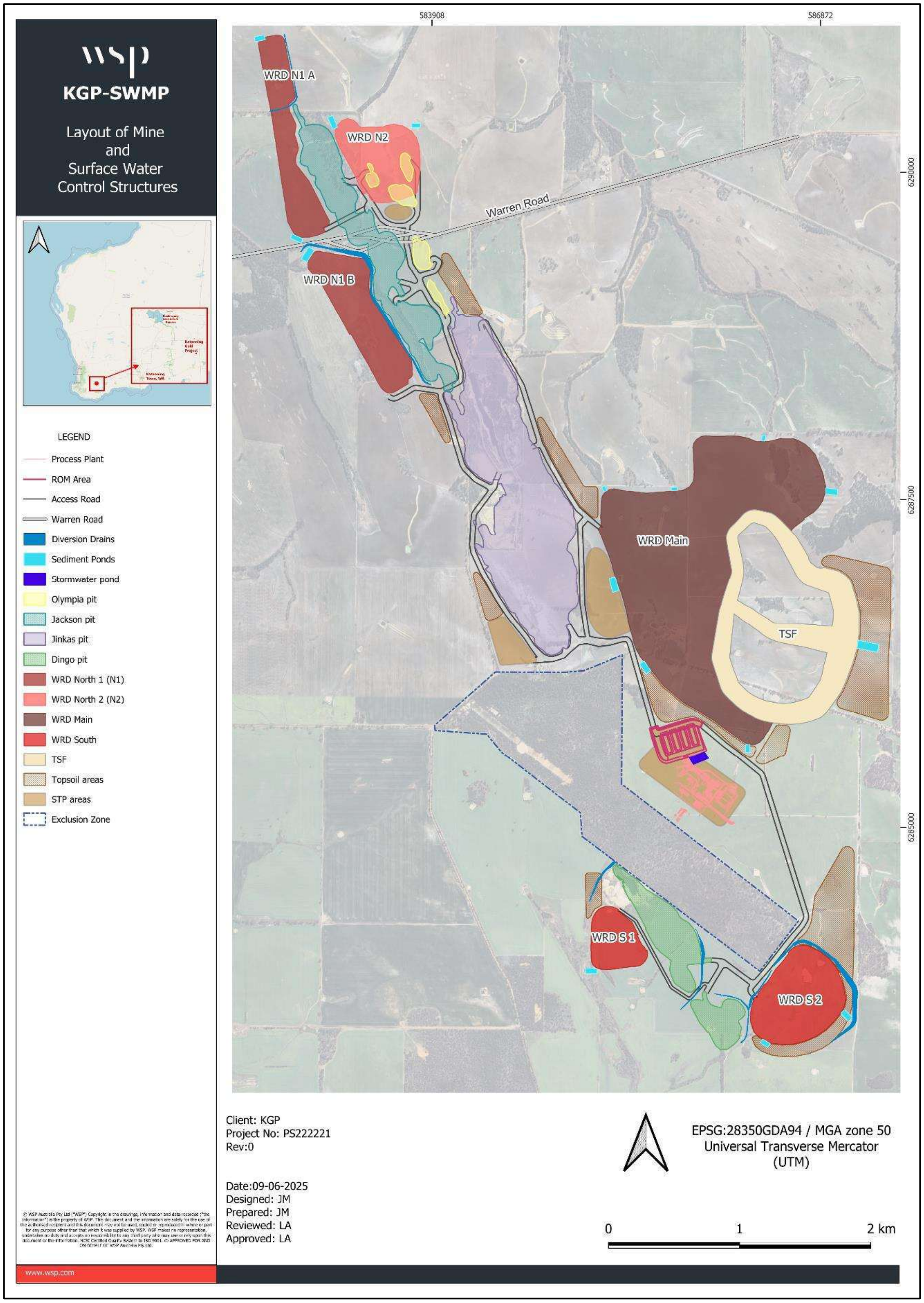


Figure 6.1 Layout of mine structures and surface water control structures

6.2 Open channel diversions

Hydraulic sizing of the proposed open channel diversions was undertaken based on the hydrologic and hydraulic modelling outputs of the contributing upslope catchments as discussed in Section 5. The design intent of the diversion channels is to capture non-contact overland drainage from undisturbed upslope catchments and convey it downstream away from the site. The 1 in 100 AEP peak discharges obtained from the Scenario 2 results (refer to Section 5.2.2) were used to hydraulically dimension the diversion channels. Once dimensioned, the channels were modelled in Civil 3D and the diversion design surfaces were incorporated into the TUFLOW hydrologic model to verify the commensurate hydraulic performance and ensure adequate conveyance under design conditions. The result of this exercise is presented in Scenario 3 (refer to Section 5.2.3).

The hydraulic sizing adopted the following approach:

- Using provided LiDAR survey, the diversion channels were vertically aligned to intersect existing drainage lines upslope of the mine structure. Along these alignments, channel sections were defined based on changes in longitudinal slope. A minimum longitudinal slope of 0.3% was adopted for the channels.
- Trapezoidal cross-section has been adopted with side slopes of 2H:1V.
- A recommended freeboard of 0.3 m above the peak flow depth was considered in the channel depth design.
- Peak flow depths within the channel were estimated using Manning’s equation using a Manning’s roughness coefficient of 0.035, which is considered to be appropriate for channels lined with riprap.
- Riprap D50 sizing was carried out for each channel section according to the respective longitudinal slope, following the methodology presented in HEC-15 (Kilgore & Cotton, 2005). This method considers hydraulic parameters such as shear stress, flow velocity, and channel slope to determine the median size required to ensure stability.

Table 6.2 summarises the channels design parameters for each identified slope section along the channel alignment, including the estimated peak flow rates, maximum flow velocities and recommended dimensions of the proposed diversion channels.

Table 6.2 Summary of Open Channel Design and Dimensions

Diversion channel ID	Section	Section length (m)	Minimum longitudinal slope	Design peak flow (m^3/s)[a]	Minimum base width (m)	Minimum channel depth (m)[b]	Riprap D50 (mm)
WRD N1 A	S1	172	2.3%	1.0	1.0	1.0	150
	S2	201	0.9%				100
	S3	370	0.3%				50
WRD N1 B	S1	386	0.7%	4.1	4.0	1.0	100
	S2	514	2.2%				150
	S3	477	0.6%				50
	S4	278	1.2%				100
Dingo North Channel 1	S1	28	4.1%	30.6	7.0	2.0	450
	S2	330	0.3%				100

Diversion channel ID	Section	Section length (m)	Minimum longitudinal slope	Design peak flow (m^3/s)[a]	Minimum base width (m)	Minimum channel depth (m)[b]	Riprap D50 (mm)
Dingo North Channel 2	S1	316	0.3%	0.4	1.0	1.0	50
	S2	317	3.7%				150
	S3	56	1.7%				100
WRD S 2 Channel 1	S1	72	0.3%	1.6	2.0	1.0	50
	S2	287	3.6%				200
WRD S 2 Channel 2	S1	331	1.8%	9.6	4.0	1.5	200
	S2	1028	0.3%				50
Dingo South	S1	125	0.4%	2.3	2.0	1.0	50
	S2	112	1.4%				150
	S3	65	4.2%				250
Dingo South & WRD S 2 Channel 1 Junction	S1	87	6.1%	2.3	2.0	1.0	250
	S2	176	3.9%				200

Notes:

a) Design peak flow as determined by TUFLOW modelling and presented in Scenario 2 results (refer to Section 5.2.2).

b) Minimum channel depth accounting for 0.3 m freeboard above peak flow depth estimated.

For certain diversion channels with steep longitudinal slopes resulting in high flow velocities, stilling basins were designed to dissipate hydraulic energy and mitigate erosion risks at the outlet. These basins were dimensioned to accommodate the full length and height of the hydraulic jump, based on the USBR Method (Basin Type I) (Peterka, 1984). Table 6.3 presents the channels for which stilling basins were incorporated, along with the corresponding height and length requirements defined for each structure.

Table 6.3 Summary of energy dissipation structures design

Structure	Minimum depth (m)	Minimum Length (m)
WRD N1 B	1.0	2.0
Dingo North Channel 2	1.0	1.5
Dingo South & WRD S 2 Channel 1 Junction	1.0	2.5

Design details of the open channel diversions and energy dissipation structures can be found in Appendix C, which presents the channel layout drawings and typical sections. Further design details will be developed during the next stage of the study.

6.3 ROM pad stormwater pond

The minimum required storage volume of 7,700 m^3 was estimated for a 1 in 20 AEP, 24-hour storm event for the ROM pad Stormwater Pond. This pond has been designed for the ROM Pad stormwater management assuming a runoff coefficient of 0.9 (assumed to be compacted, well trafficked and capped surface) and a catchment area of 10.2 ha (refer to Figure 6.2 for the reporting catchment area of the pond).

Figure 6.2 Stormwater Pond catchment area and layout

A summary of the dimensions of the ROM pad Stormwater Pond is presented in Table 6.4

Table 6.4 Stormwater Pond dimensions

Parameter	Value
Pond base width (m)	20
Pond base length (m)	80
Total pond depth (m)	5.0
Internal embankment slopes	1H:1V
Total volume to crest (m^3)	8,000

The stage storage curve for the Stormwater Pond is provided in Appendix B. A dead storage of 0.5 m depth at the base of the pond is provided as an allowance for sediment storage from the ROM pad area (i.e., sediment-laden surface runoff). The pond will be lined with a minimum thickness of 300 mm of clay to minimise seepage outflows from the pond.

The pond will be equipped with a pumping system to maintain the water levels within an optimal range to minimise uncontrolled spills during frequent events as per the zero-discharge license agreement, refer to Section 6.5 for further detail. In addition, the pond will include an emergency spillway designed to the 1 in 50 AEP storm event. Details on the spillway is included in Section 6.6.

Runoff from the ROM pad surface resulting from the 1 in 20 AEP storm event containing sediment laden contact water will report to a perimeter drain aligned on the downstream crest perimeter of the pad and conveyed to the Stormwater Pond. The perimeter drain will entail a trapezoidal cross-section with minimum hydraulic dimensions of 2 m base width, 0.8 m depth including freeboard with 2H:1V side slopes. A minimum longitudinal slope of 0.5% is recommended conveying accumulated runoff to the pond. It is recommended the perimeter drains be armoured with rock protection.

6.4 Sediment retention ponds

6.4.1 General

The intent of a sediment retention pond (SRP) is to collect and settle sediment-laden surface runoff expected from the WRDs and TSF. The intent is to also store volumes of seepage outflows from the WRD and TSF.

Similar to the Stormwater Pond, all SRPs are sized to contain the runoff volume from the 1 in 20 AEP storm event from the delineated upstream catchments. A dead storage of 10% of total pond volume for the SRPs is provided as an allowance for sediment storage from the WRD and TSF areas. The cleanout frequency of the accumulated sediment for each SRP is summarised in Section 7. All SRPs will be lined with clay placed to a minimum thickness of 300 mm to minimise seepage outflows.

The SRPs will be equipped with a pumping system to maintain the water levels within an optimal range to minimise uncontrolled spills during frequent events as per the zero-discharge license agreement. This was determined through a water balance assessment summarised in Section 6.5. In addition, the pond will include an emergency spillway designed to convey the peak flow resulting from the 1 in 50 AEP storm event. Details on the spillways are included in Section 6.6.

6.4.2 Design methodology

Estimating the composition of WRDs is inherently challenging due to the heterogeneous and often unpredictable nature of the materials involved. WRDs significantly vary in both the lateral and vertical direction of the landform and will comprise a mixture of mineralogy, grain size, moisture content, and degree of weathering. At this stage of design, there is limited data and information on what the KGP WRDs will be composed of without field tests and/or accurate site data. Therefore, an empirical approach has been adopted at this stage of design to estimate the volume of sediment yield that would be generated from the final landform of the WRDs. WSP is not the designer of record for the WRDs; therefore, the proposed methodology herein can be improved upon in future design stages when more site-specific information is available through laboratory testing (such as erodibility testing, suspended sediment yield testing, hydraulic wash testing, etc.).

Sediment management requirements, specifications and designs are based on the recommended Revised Universal Soil Loss Equation (RUSLE) method (K.G. Renard, 1997) approach and similar projects conducted by WSP. RUSLE is an empirically derived model based on extensive field data and statistical analysis to estimate average annual soil loss caused by sheet and rill erosion. For the approach herein, this annual soil loss represents the fines content present on the WRD landform surface that would be mobilised and conveyed downstream to the SRPs through rainfall-runoff. The RUSLE equation computes the average annual erosion expected on field slopes as:

$$A = R.\ K.\ L.\ S.\ C.\ P$$

Where:

- A = Average annual soil loss – *tons/ha/yr* or, $m^3/ha/yr$
- R = Rainfall-runoff erosivity factor – *MJ mm/(ha.h.yr)*
- K = Soil erodibility factor – *tons.h/(MJ.mm)* or, $m^3\ h/(MJ.mm)$
- L.S = Slope length and steepness factor – unitless

- C = Cover management factor – unitless
- P = Support practice factor – unitless

The units are empirical and for the KGP, metric units have been used for consistency. Further description of the coefficients includes the following:

- **Rainfall-runoff erosivity**: The R factor is a measure of raindrops and intensity, which is defined by the mean annual sum of all individual storm erosion kinetic energy and the rainfall intensity (Yu, 2002).

  The unit of R factor is MJ.mm/(ha.h.yr),

  where:

  - MJ: the energy imparted by rainfall, which contributes to soil particle detachment
  - mm: the depth of rainfall
  - ha: the catchment area
  - h: duration of the rainfall event
  - yr: the annual period
- **Soil erodibility factor**: The K factor presents the effect of soil properties and soil profile characteristics on soil loss (K.G. Renard, 1997). This is the parameter which represents how easily the soil can be eroded based on the site soil type. The unit of K factor is tons.ha.h/(MJ.ha.mm) or tons.h/(MJ.mm). For calculations, metric unit (i.e., m^3. h/(MJ.mm)) has been used.
- **Slope Length factor**: The L.S is a dimensionless factor derived from topographic data. The erosion potential increases with the longer and steeper slopes.
- **Cover factor**: The C factor reflects the impact of cropping and management practices on erosion rates. This is a dimensionless factor
- **Support practice factor**: The P factor is a ratio of soil loss with a support practice i.e., contouring, strip cropping or terracing to soil loss with straight row farming up and down the slope (K.G. Renard, 1997).
- The volume of sediment has been calculated using the specific density of 2.65 tonnes/m^3 of the soil material type (silt and clay) and the catchment area.

The RUSLE equation was applied to delineated catchment areas for each WRD and the TSF. Delineated catchments are presented in Figure 6.3 for WRD North 1A and WRD North 2, Figure 6.4 for WRD North 1B, Figure 6.5 for WRD Main and TSF, and Figure 6.6 for WRD South 1 and WRD South 2. Table 6.5 summarises the selected factors considered to be typical for the KGP WRDs based on the information available at this stage of design.

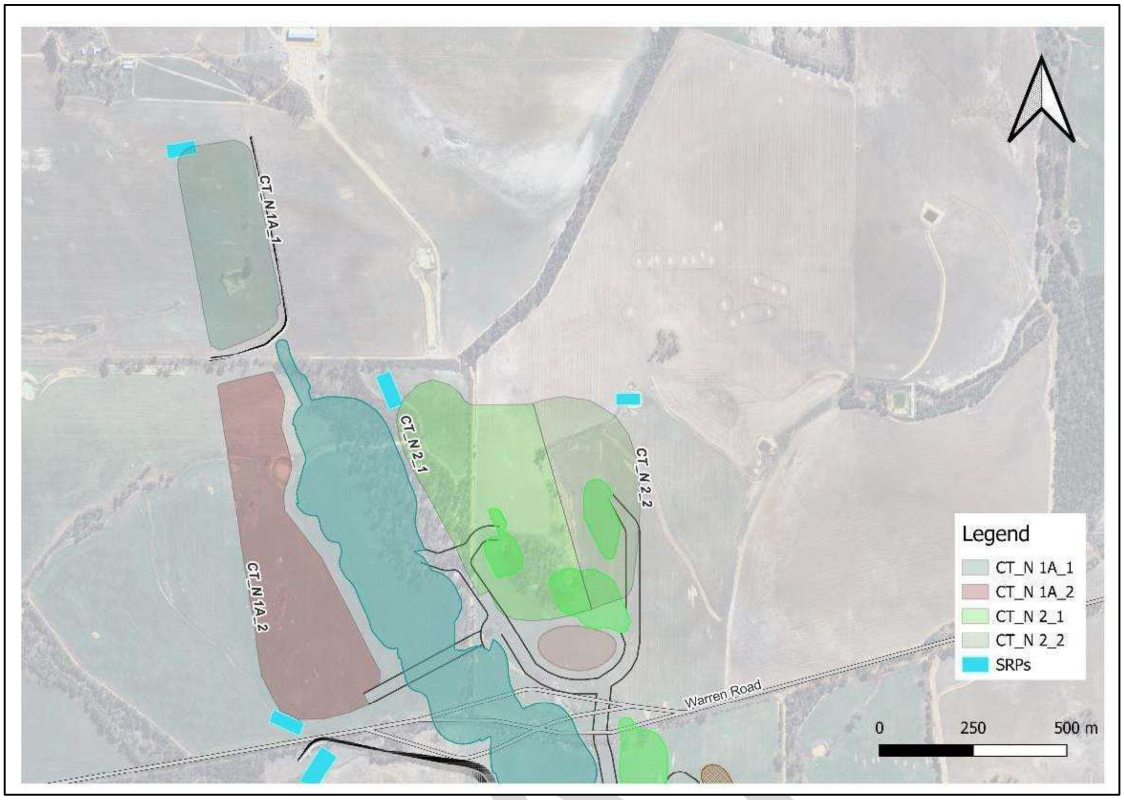


Figure 6.3 WRD N 1A and WRD N2 catchments

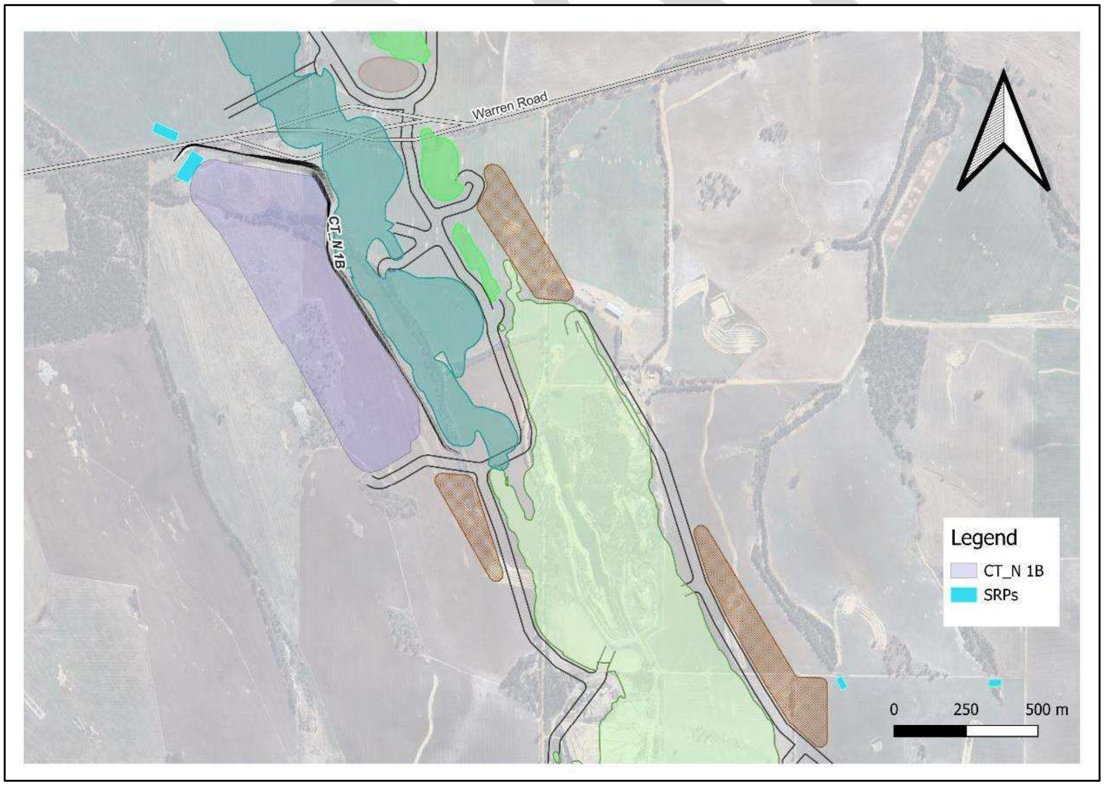


Figure 6.4 WRD N 1B catchment

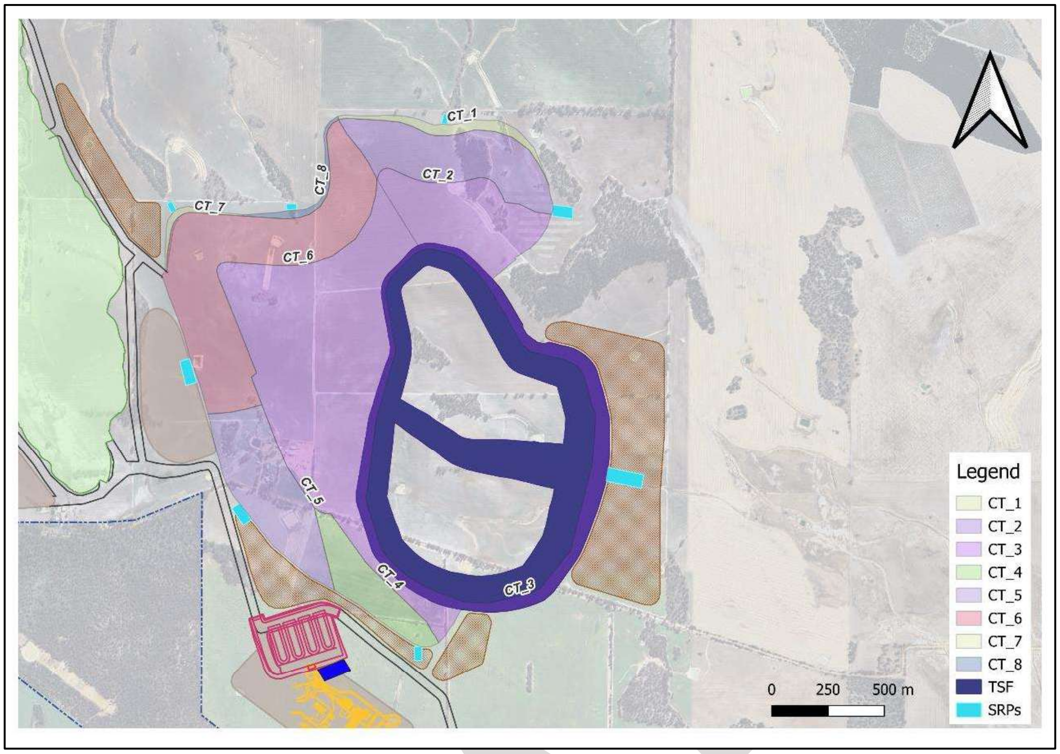


Figure 6.5 WRD Main catchments and TSF

Figure 6.6 WRD S 1 and WRD S 2 catchments

Table 6.5 Factors considered to be typical for the KGP WRDs

WRD Name	Catchment Name	Pond Name	R factor	K factor	LS factor	C factor	P factor
WRD Main	CT_1	Main SRP POND 1	696	0.035	6.18	0.05	1
	CT_2	Main SRP POND 2	696	0.035	7.2	0.05	1
	CT_3	Main SRP POND 3	696	0.035	4.23	0.05	1
	CT_4	Main SRP POND 4	696	0.035	2.93	0.05	1
	CT_5	Main SRP POND 5	696	0.035	14.04	0.05	1
	CT_6	Main SRP POND 6	696	0.035	9.65	0.05	1
	CT_7	Main SRP POND 7	696	0.035	5.06	0.05	1
	CT_8	Main SRP POND 8	696	0.035	5.03	0.05	1
WRD N 1B	CT_N 1B	SRP N 1B POND 1	696	0.035	10.91	0.05	1
WRD N 1A	CT_N 1A_1	SRP N 1A POND 1	696	0.035	5.74	0.05	1
	CT_N 1A_2	SRP N 1A POND 2	696	0.035	7.94	0.05	1
WRD N 2	CT_N 2_1	SRP N 2 POND 1	696	0.035	2.93	0.05	1
	CT_N 2_2	SRP N 2 POND 2	696	0.035	7.13	0.05	1
WRD S 2	CT_S 2_1	SRP S 2 POND 1	696	0.035	8.68	0.05	1
	CT_S 2_2	SRP S 2 POND 2	696	0.035	9.71	0.05	1
WRD S 1	CT_S 1	SRP S 1 POND 1	696	0.035	9.99	0.05	1

A SRP is designed for each reporting catchment area delineated for the WRD and TSF. Refer to Figure 6.1 for location of SRPs downstream of the WRDs and TSF (alternatively, refer to the design figures provided in Appendix C). SRPs are located at local topographic lows surrounding the WRD footprint to encourage passive drainage of runoff upstream. The stage-storage curves for the SRPs are provided in Appendix B.

Table 6.6 provides a summary of the WRD delineated catchment areas and the estimated average annual soil loss for reach SRP.

Table 6.6 WRD catchment area and estimated average annual soil loss

WRD ID	Catchment ID	Catchment Area (km^2)	SRP ID	Estimate average annual soil loss (m^3/ha/yr)	Estimated sediment volume per year (m^3)
WRD Main	CT_1	0.03	Main SRP POND 1	2.8	9
	CT_2	0.20	Main SRP POND 2	3.3	65
	CT_3	1.07	Main SRP POND 3	1.9	207
	CT_4	0.10	Main SRP POND 4	1.3	13
	CT_5	0.20	Main SRP POND 5	6.5	127
	CT_6	0.40	Main SRP POND 6	4.4	179
	CT_7	0.01	Main SRP POND 7	2.3	2
	CT_8	0.01	Main SRP POND 8	2.3	3

WRD ID	**Catchment ID**	**Catchment Area (km^2)**	**SRP ID**	**Estimate average annual soil loss (m^3/ha/yr)**	**Estimated sediment volume per year (m^3)**
WRD N 1B	CT_N 1B	0.15	SRP N 1B POND 1	5.0	77
WRD N 1A	CT_N 1A_1	0.20	SRP N 1A POND 1	2.6	53
	CT_N 1A_2	0.31	SRP N 1A POND 2	3.6	113
WRD N 2	CT_N 2_2	0.10	SRP N 2 POND 2	3.3	34
	CT_N 2_1	0.20	SRP N 2 POND 1	1.3	26
WRD S 2	CT_S 2_1	0.11	SRP S 2 POND 1	4.0	44
	CT_S 2_2	0.28	SRP S 2 POND 2	4.5	125
WRD S 1	CT_S 1	0.16	SRP S 1 POND 1	4.6	72

A WRD perimeter drain, and separation bund conveyance system will be established along the outer toe of the WRD footprint. Runoff from the WRD resulting from the 1 in 20 AEP storm event containing sediment laden contact water will report to the perimeter drain and conveyed to the SRPs. The perimeter drain will entail a trapezoidal cross-section with minimum hydraulic dimensions of 2 m base width, 0.8 m depth with 2H:1V side slopes. A minimum longitudinal slope of 0.5% is recommended conveying accumulated runoff to the SRPs. It is recommended the perimeter drains be armoured with rock protection.

A separation berm will be established downstream of the perimeter drain (between the perimeter drain and the outer natural catchments) and along the same perimeter drain alignment towards the SRPs. The intent of the separation berm is to prevent contact water from the WRD and non-contact water from the natural catchment (or from adjacent diversion channels) from crossing. The separation berm will be sized to contain the peak runoff flows generated from the WRD during the 1 in 100 AEP design storm event; the perimeter drain will be used as part of the hydraulic capacity for this event as well. The minimum dimensions of the separation bund include a trapezoidal cross-section with a minimum 1 m crest width, 1 m height, and 2H:1V side slopes.

The final rehabilitated WRD design surfaces in closure were provided by Ausgold for this assessment which include shallower batter slopes than that during operations. With that, more area is available for the SRPs, and the perimeter drain and separation bund conveyance systems than that shown in the design figures.

6.5 Pond operating water levels and pumping rates

To maintain all pond operating water levels to minimize uncontrolled spills as per the zero-discharge permit for frequent rainfall events, the pond will be equipped with a pumping system. To determine the optimum pump rate and operating range, and to determine the potential frequency of uncontrolled spills due to climatic variation accounting for large storm events, a water balance model was developed.

The water balance model was developed using the GoldSim software (version 15.0.0257), developed by GoldSim Technology Group LLC (www.goldsim.com). GoldSim is a probabilistic simulation and modelling software package and is well suited to the development of graphically oriented models and with developed logic for networks, such as water balances. The model operates as a daily timestep and predicts the water storage volume of the SRPs and its associated variabilities driven by the simulation of paired annual rainfall and evaporation data derived from long term historical records.

The SRPs water balance concept and associated water fluxes into and out of the pond are represented in Figure 6.7.

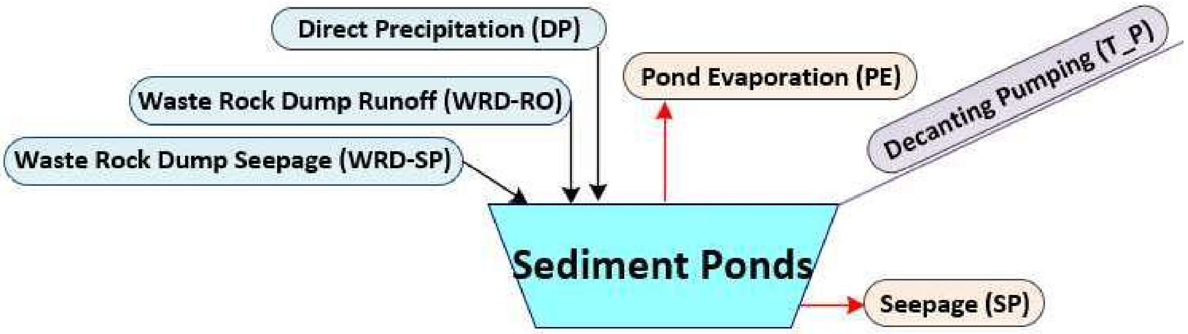


Figure 6.7 Pond water balance concept

The development of the stochastic climate generator that allows for probabilistic simulations for a range of outcomes based on climate variability is further described in the site-wide water balance model report (WSP, 2025a). The outcomes of the water balance herein have also been incorporated into the site-wide water balance model (WSP, 2025a).

The basis and criteria (WSP, 2025c) adopted to determine the optimal operating water levels within the KGP ponds include the following:

- A 10% of total pond volume allowance was assumed for sediment storage.
- A 10% runoff coefficient is applied to the WRDs and 90% to the ROM pad for daily rainfall.
- A 35% coefficient for daily rainfall is assumed to represent seepage from the WRDs.
- A pump capacity of 200 m^3/hour will be adopted with pumping assumed to be activated when the water level in the pond is within 1 metre of the crest (using the crest as a reference due to variable pond depths).
- A clay lined pond with a seepage rate of 10 mm/d over the ponded area.

Table 6.7 summarises general variations in pumping and uncontrolled spill behaviour of the SRPs and Stormwater Pond under different climatic scenarios (Baseline, Wetter, and Drier). In general, average pumping frequencies range from 15 to 36 events per year for all the ponds, with the highest activity in Main SRP Pond 3 (up to 36 per year). The Stormwater Pond is anticipated to have a pumping frequency of 362 days per year, signifying persistent pumping demands. Volumes pumped away from the ponds vary widely from as low as 1–2 ML/year in smaller or low-activity ponds (e.g., Main SRP Pond 7 and 8) to over 158 ML/year in the Main SRP Pond 3. In subsequent stages of the SWMP design, the fate details of pumped volumes from SRPs can be further assessed and managed by mechanical evaporators or an evaporation pond. Uncontrolled spills are more frequent in low to mid-capacity ponds (e.g., Main SRP Ponds 2, 3, 4, 5), occurring up to 4 times per year. In the higher range, an annual uncontrolled spill volume from the Main SRP Pond 3 in the Wetter scenario is estimated to be as much as approximately 21.3 ML/year.

Figure 6.8 and Figure 6.9 represents the volume and water level, respectively, of Main SRP Pond over a 10-year operational trend as an example of the probabilistic water balance modelling results. Overall, the data indicates that wetter conditions typically lead to slightly increased pumping and uncontrolled spill rates, while drier conditions reduce both frequency and volume.

Table 6.7 Summary of frequency of pumping, pumped volume, overtopping and overtopping volume under different climatic scenarios

Mine Structure	SRP Name	Average Frequency of Pumping (per year)			Average Pumped Outflow Volumes (ML/year)			Average Frequency of Uncontrolled Spills (per year)			Average Uncontrolled Spill Volumes (ML/year)		
		Baseline	**Wetter**	**Drier**	**Baseline**	**Wetter**	**Drier**	**Baseline**	**Wetter**	**Drier**	**Baseline**	**Wetter**	**Drier**
WRD Main	Main SRP POND 1	22	23	18	5	5	4	3	3	1	0.4	0.5	0.1
	Main SRP POND 2	22	22	17	29	31	20	3	4	2	2.7	3.4	0.9
	Main SRP POND 3	35	36	24	153	158	105	4	4	2	16.8	21.3	5.1
	Main SRP POND 4	22	23	17	15	16	10	4	4	2	1.4	1.7	0.5
	Main SRP POND 5	22	22	17	29	31	20	4	4	2	2.8	3.4	0.9
	Main SRP POND 6	20	21	15	61	63	41	2	3	1	4.5	5.7	1.3
	Main SRP POND 7	23	23	17	2	2	1	1	1	0	0.0	0.0	0.0
	Main SRP POND 8	28	29	23	2	2	2	2	2	1	0.1	0.1	0.0
WRD N 1B	SRP N 1B POND 1	27	28	21	55	57	37	2	3	1	3.8	4.9	1.1
WRD N 1A	SRP N 1A POND 1	27	28	21	17	18	12	2	2	1	1.0	1.3	0.3
	SRP N 1A POND 2	22	22	17	30	31	20	4	4	2	2.8	3.4	1.0
WRD N 2	SRP N 2 POND 1	23	23	18	16	16	11	4	4	2	1.5	1.8	0.5
	SRP N 2 POND 2	22	22	17	30	31	20	4	4	2	2.8	3.4	0.9
WRD S 2	SRP S 2 POND 1	21	21	16	33	35	23	3	3	1	2.7	3.3	0.9
	SRP S 2 POND 2	23	23	18	25	26	17	4	4	2	2.7	3.2	0.9
WRD S 1	SRP S 1 POND 1	28	29	22	24	25	17	3	3	1	1.8	2.2	0.5
Stormwater Pond	Stormwater Pond	362	362	358	52	54	36	0	0	0	0.2	0.4	0.0

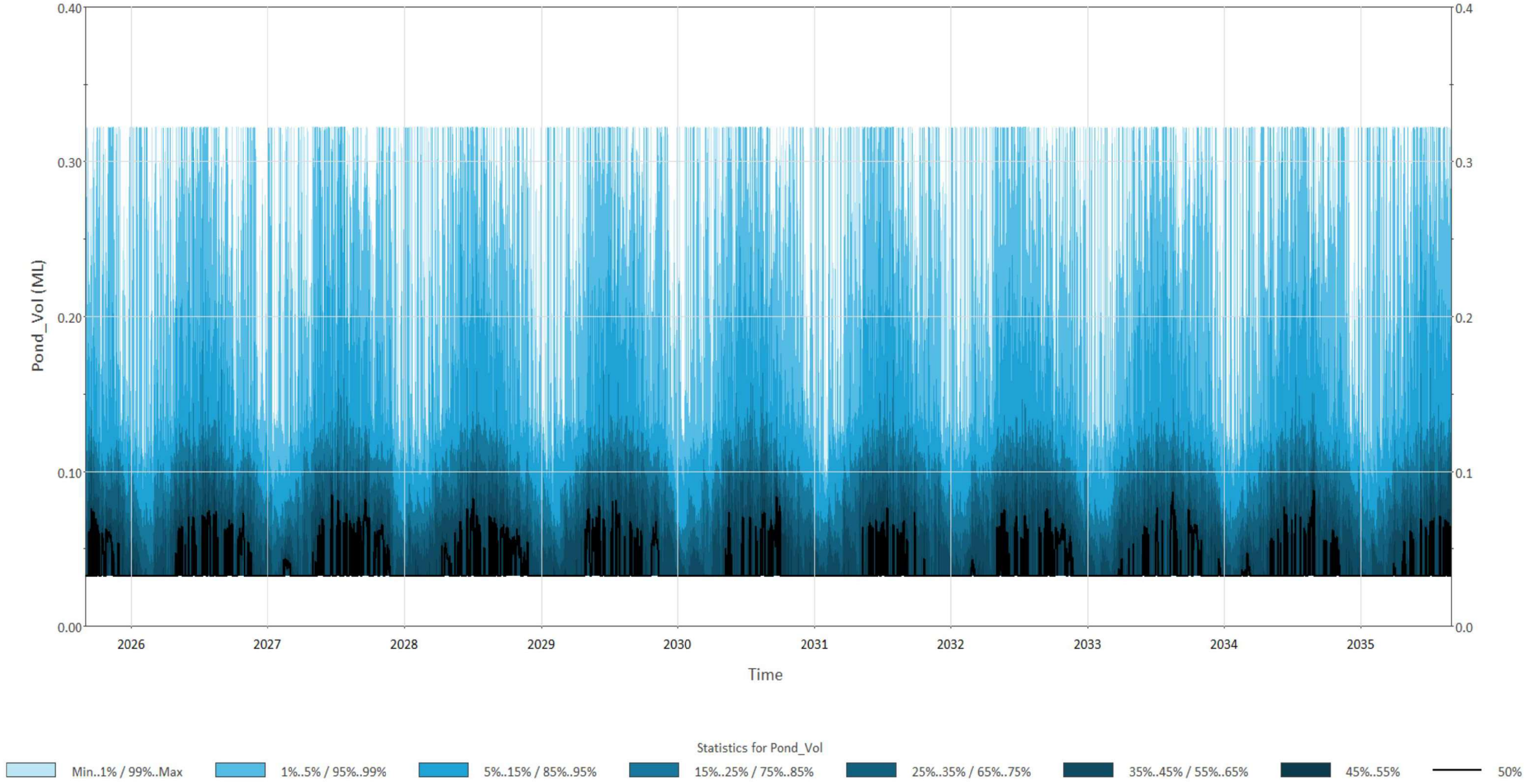


Figure 6.8 Main SRP Pond 1 volume statistics over 10-year operational period

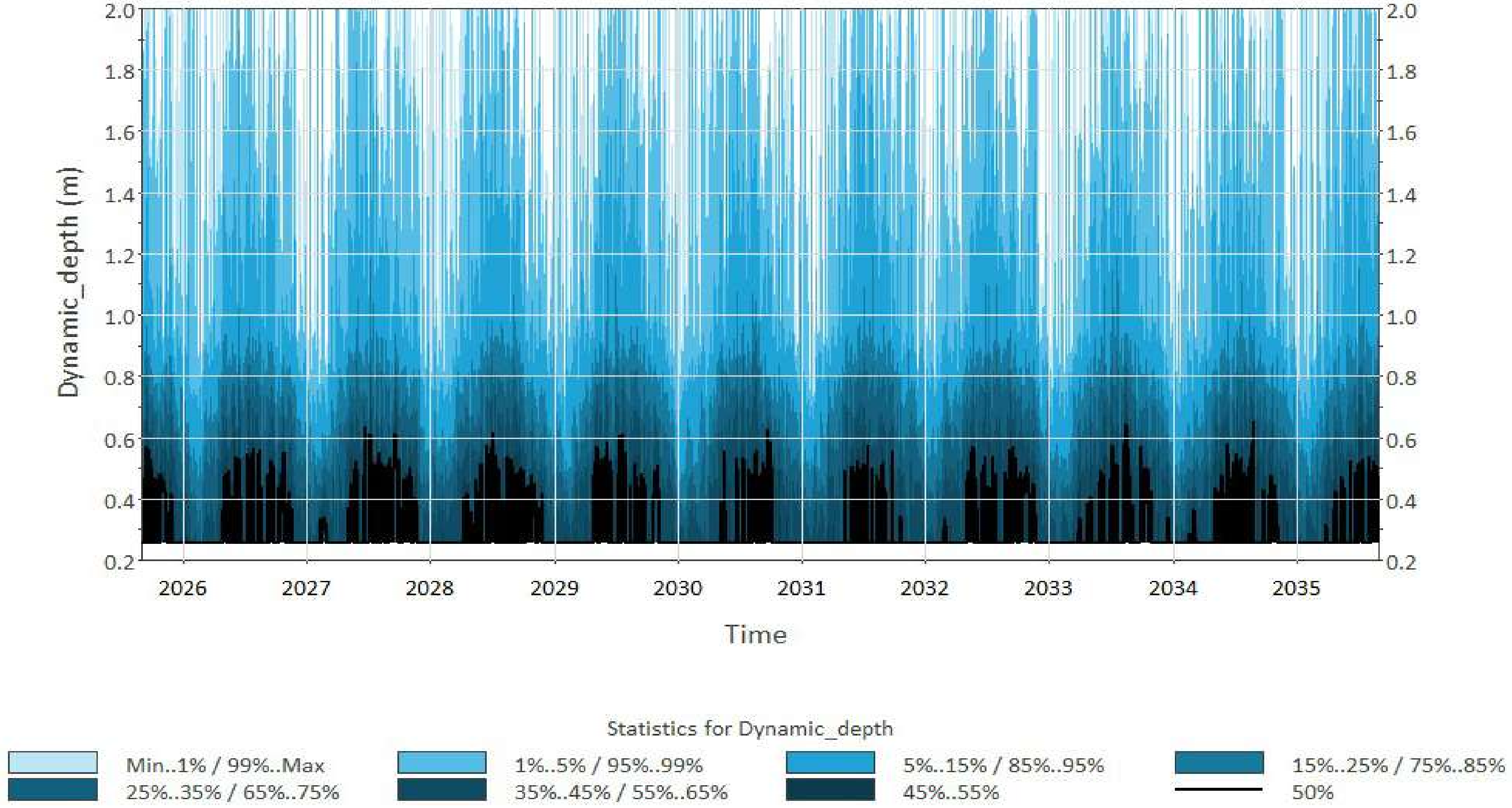


Figure 6.9 Main SRP Pond 1 water level statistics over 10-year operational period

6.6 Pond emergency spillways

All ponds must have emergency spillways to safely convey discharges associated with extreme storm events that exceed the design capacity of the ponds or multiple storms occurring within a short period. All pond spillways have been designed to convey the peak flow resulting from the 1 in 50 years AEP storm event.

The estimation of design peak flows for the upstream catchments of the ponds were based on application of the DRAINS runoff-routing model, Watercom Drains x64 (Version 2025.01) software package. This software is capable of simulating watershed systems and flood routing events using the Australian Rainfall and Runoff (ARR) recommended procedures (Ball J, 2019). A summary of the DRAINS model input parameters used to size the spillway crest width is presented in Table 6.8 and the dimensions are provided in Table 6.9 for each spillway.

Assuming a broad-crested weir with a discharge coefficient of 1.6, the required spillway crest widths and depths were estimated. Rock riprap will also be placed on the spillway and downstream of the embankment to provide protection against the higher flow velocities and increased risk of erosion during periods of spillway discharge.

Table 6.8 Summary of Spillway Hydraulic Modelling Parameters

Parameter	Value
Hydrologic model	Storage routing model (Runoff Analysis and Flow Training Simulation; RAFTS)
Initial and continuous losses (IL/CL)	See Table 6.9
Initial water level	At spillway crest invert elevation
Design storm event	1 in 50 AEP
Spillway geometry	Broad-crested trapezoidal weir with 2H:1V side slopes
Target spillway depth including 0.3 m freeboard	0.8 m
Spillway lining	Minimum D50 = 100 mm placed to a minimum thickness of 150 mm (1.5 x D50) following the methodology presented in HEC-15 (Kilgore & Cotton, 2005).

Table 6.9 Emergency spillway dimensions summary

Mine Structures	Pond Name	Critical Duration (hour)	Initial Losses (IL) (mm)	Continuing Losses (CL) (mm/hour)	Peak Spillway Outflow (m^3/s)	Spillway crest base width (m)
WRD Main	Main SRP POND 1	5 min	1	15	0.8	4
	Main SRP POND 2	25 min	2.9	35	1.1	6
	Main SRP POND 3	25 min	2.1	22.5	2.7	17
	Main SRP POND 4	10 min	2.9	33	1.1	6
	Main SRP POND 5	10 min	2.9	35	2.2	13
	Main SRP POND 6	20 min	2.5	28	1.2	6
	Main SRP POND 7	5 min	0.5	10	0.3	2
	Main SRP POND 8	5 min	0.6	11	0.4	2
WRD N 1B	SRP N 1B POND 1	15 min	2.8	31.5	1.3	7
WRD N 1A	SRP N 1A POND 1	15 min	2.9	32	0.6	2
	SRP N 1A POND 2	20 min	2.4	30	0.7	3
WRD N 2	SRP N 2 POND 2	20 min	2.5	30	0.5	2
	SRP N 2 POND 1	15 min	2.7	35	1.6	9
WRD S 2	SRP S 2 POND 1	10 min	2.8	35	2.3	14
	SRP S 2 POND 2	15 min	2.8	35	1.7	9
WRD S 1	SRP S 1 POND 1	10 min	2.7	33	1.8	10
ROM Pad	STORMWATER POND	10min	3	45	0.5	2

6.7 Considerations for future design stages

The following considerations can be further assessed in subsequent design stages of the SWMP:

- At this stage of design, there is limited data and information on what the KGP WRDs will be composed of without field tests and/or accurate site data. Therefore, the RUSLE equation (an empirical approach) has been adopted to estimate the volume of sediment yield that would be generated from the final landform of the WRDs to size the SRPs. WSP is not the designer of record for the WRDs; therefore, the proposed methodology herein can be improved upon in future design stages when more site-specific information is available through laboratory testing (such as erodibility testing, suspended sediment yield testing, hydraulic wash testing, etc.).
- The cross-sectional side slopes of the drains, diversion channels and ponds can be further assessed through geotechnical stability analyses using parameters obtained from a site investigation along the alignments and locations. Stability analyses were excluded from the assessment herein.
- Based on the flood mapping results for Scenario 3 (refer to Section 5.2.3), floodways sized to the 1 in 100 AEP storm event are recommended to be subsequently designed at certain locations along the site access roads. Sizing of floodways were excluded from the assessment herein. Figure 6.10 presents the access road locations for the recommended floodways. Should site access roads be amended in the next stage of design, floodway locations should be revisited.

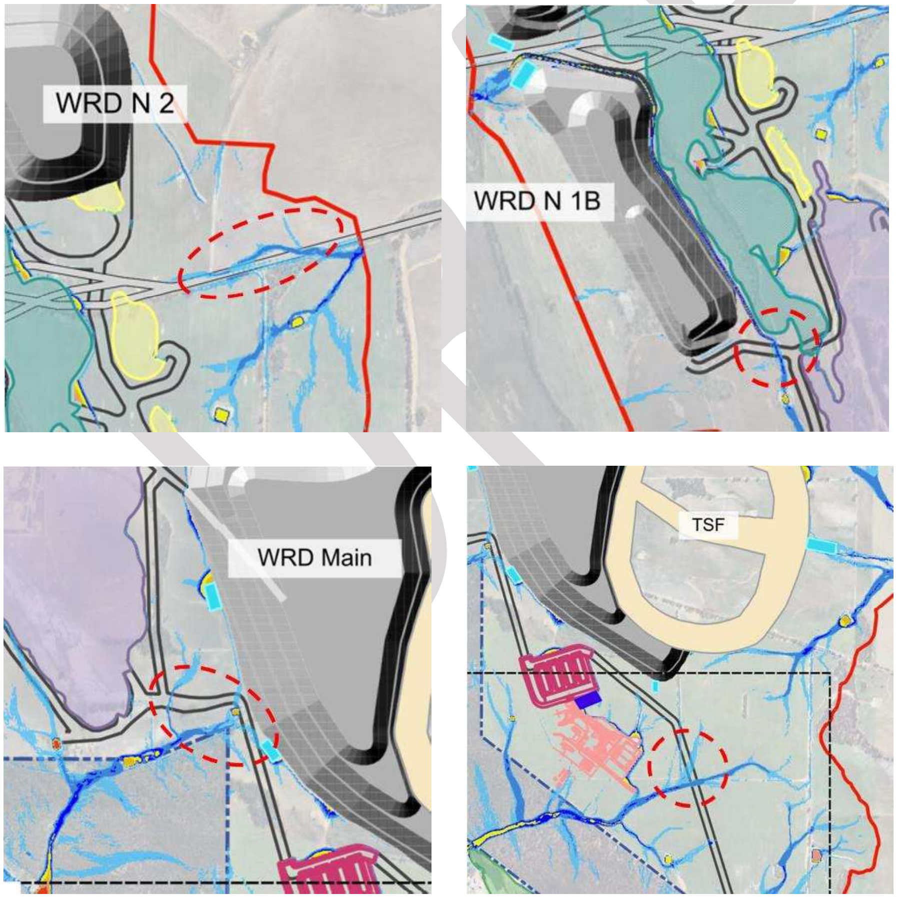


Figure 6.10 Proposed locations of recommended floodways on site access roads

- Topographic depressions near critical infrastructure have been identified. To reduce ponding in these areas, infilling the low-lying zones with inert waste rock or bulk fill, and grading away from the critical infrastructure is recommended over constructing large diversion channels. Examples of such areas are shown in Figure 6.11.

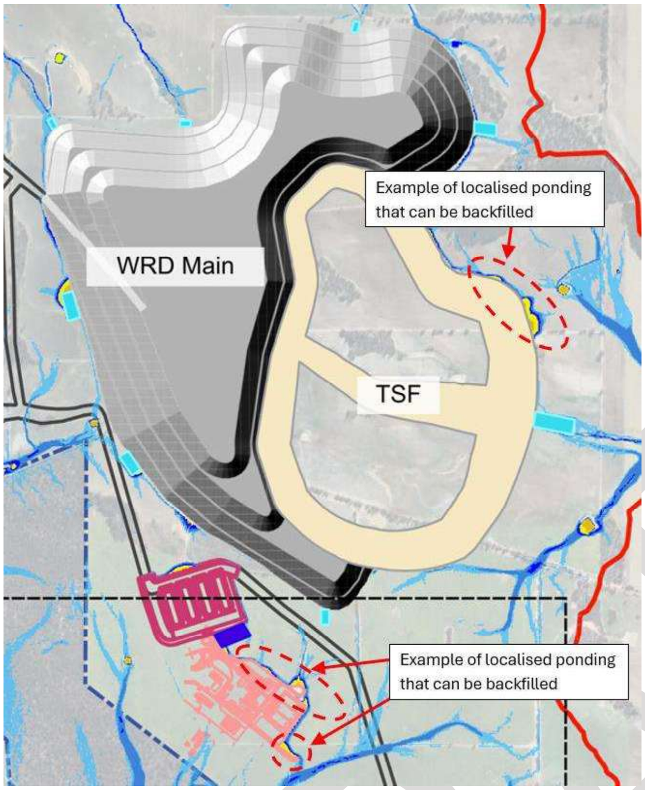


Figure 6.11 Example of locations where localised ponding occurs against critical infrastructure that can be managed through backfilling of topographic lows

- The fate of pumped volumes from ponds should be assessed in later design stages considering the site-wide water balance (WSP, 2025a). The next design phase should also evaluate the feasibility and efficiency of mechanical evaporators versus an evaporation pond. The efficiency use of mechanical evaporators declines during high rainfall events, which is when pumped volumes from ponds increase.
- Location of SRPs and alignments of non-contact water diversion channels should be confirmed using the operation landform of the WRDs, not the rehabilitated surface as used herein.

7 Monitoring and maintenance

A monitoring and maintenance plan should be developed and implemented for the site-wide SWMP considering the following as a minimum:

- All pond locations, localised drains, and diversion channels should be inspected on an annual basis, as a minimum, particularly prior to the onset of the wet season.
- The SWMP structure inspections should also be undertaken after large rainfall events to document signs of erosion and scour, or worsened erosion and scour, along critical components of the SWMP structures and downstream outlet areas due to the large rainfall event.
- Restoration of any failed areas to reinstate conveyance capacity of the design peak flow and containment of peak water depths should be undertaken immediately after a rainfall event.
- Monitoring of sediment accumulation along localised drains, diversion channels, spillway channels, and energy dissipation basins should also be undertaken on annual basis, as a minimum, to ensure the minimum depths are still achieved prior to the onset of any large rainfall event. Should sediment accumulation cause a reduction in available storage, removal of silt/sediment from the spillway structures may be required.
- Monitoring and regular clean-out of accumulated sediment in ponds should be undertaken at the minimum recommended frequency as per Table 7.1 estimated from the average sediment yield estimated in Section 6.4.

Table 7.1 Estimated frequency of sediment clean out for SRPs per year

Mine structure	**SRP Name**	**Maximum allowance for sediment storage (m^3)**	**Estimated sediment volume per year (m^3)**	**Minimum frequency of Clean out per year**
WRD Main	Main SRP POND 1	57	9	6
	Main SRP POND 2	234	65	4
	Main SRP POND 3	1201	207	6
	Main SRP POND 4	130	13	10
	Main SRP POND 5	234	127	2
	Main SRP POND 6	530	179	3
	Main SRP POND 7	18	2	8
	Main SRP POND 8	18	3	5
WRD N 1B	SRP N 1B POND 1	265	77	3
WRD N 1A	SRP N 1A POND 1	94	53	2
	SRP N 1A POND 2	234	113	2
WRD N 2	SRP N 2 POND 1	130	34	4
	SRP N 2 POND 2	234	26	9
WRD S 2	SRP S 2 POND 1	283	44	7
	SRP S 2 POND 2	189	125	2
WRD S 1	SRP S 1 POND 1	117	72	2

- Monitor the minimum thickness of clay liner in the ponds, notably during clean out activity and inspect whether surface desiccation occurs within the clay layer which prevents performing as intended.
- Removal of established vegetation that may impact conveyance capacity in drains and channels or displace operational volumes in storage ponds.
- Monitor for animal activity such as established nesting, or dead animals, within the SWMP structures that may potentially obstruct flow or displace volume. These should be removed immediately upon identification.
- Infrastructure downstream of any discharge locations should be monitored for progressive erosion or flooding. Erosion protection or localised surface water management should be implemented if erosion or flooding occurs during frequent rainfall events.
- KGP environmental monitoring regime should be combined, where relevant, with the monitoring and maintenance plan for the SWMP.
- Maintain logs of inspections, maintenance actions, sediment removal volumes, and any repair work done.
- Access for continued monitoring and maintenance of these structures per the above items should remain until final closure and rehabilitation of the facility. If inspections confirm unacceptable conditions, corrective repairs or modifications should be implemented, so the structure's performance becomes acceptable again.

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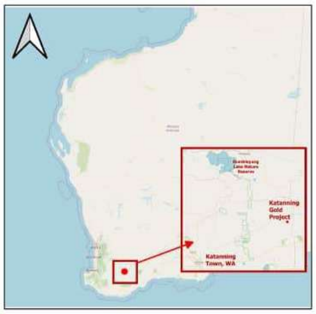
Appendix A

Flood maps

KGP-SWMP

Figure A1
Baseline Scenario
Maximum Depth



LEGEND

🟥 Model Extent

Depth (m)

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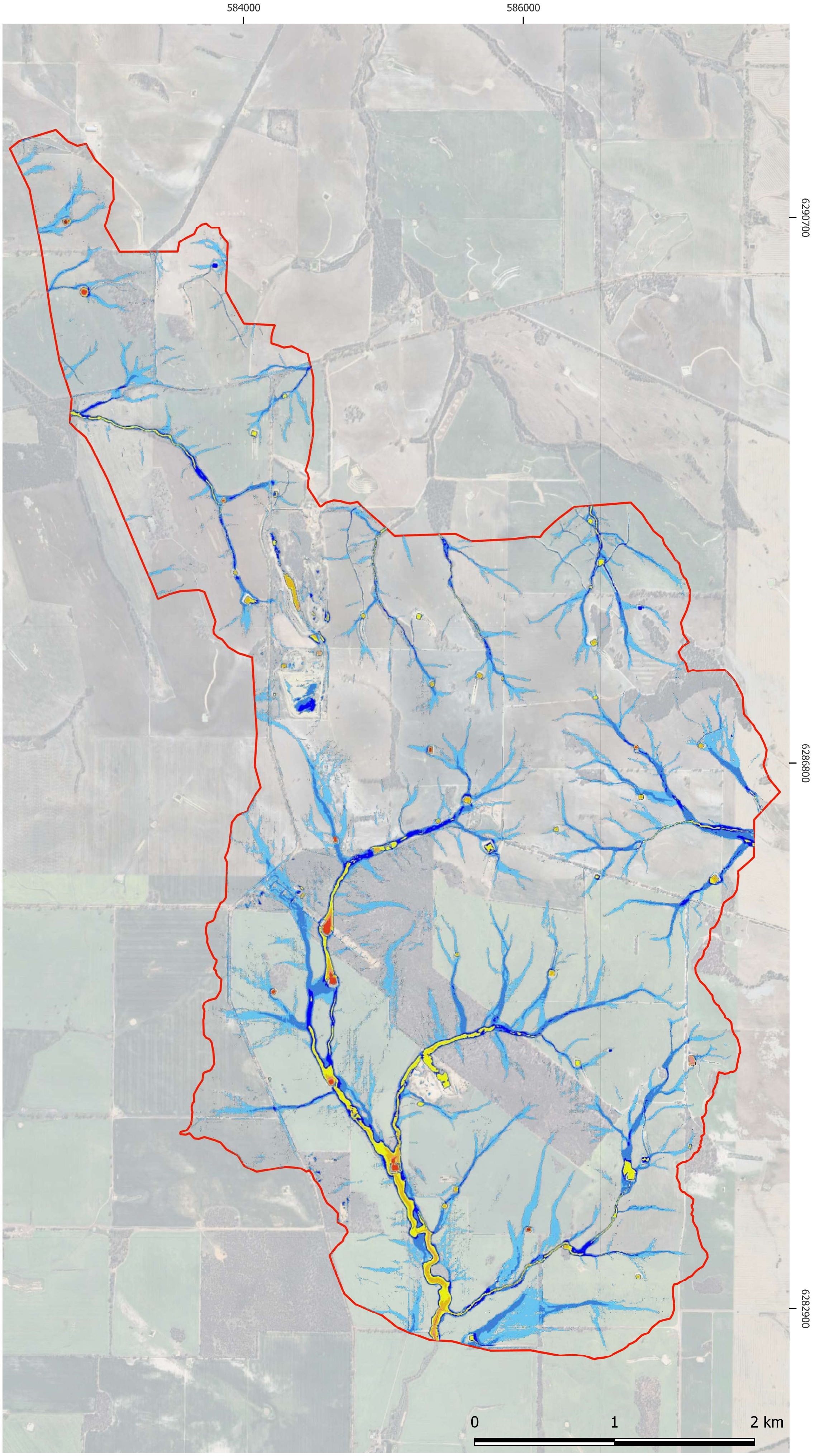
0.03 - 0.10	■
0.10 - 0.30	■
0.30 - 0.50	■
0.50 - 1.00	■
1.00 - 1.50	■
1.50 - 2.00	■
2.00 - 3.00	■
> 3.00	■



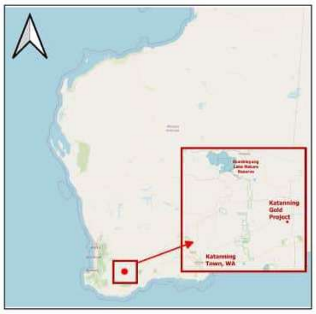
EPSG:28350GDA94 / MGA zone 50
Universal Transverse Mercator (UTM)

Client: KGP
Project No: PS222221
Rev:0

Date:27-05-2025
Designed: LO
Prepared: JM
Reviewed: LA
Approved: LA

KGP-SWMP

Figure A2
Baseline Scenario
Maximum Velocity



LEGEND

🟥 Model Extent

Velocity (m/s)

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0.03 - 0.10	🟩
0.10 - 0.30	🟨
0.30 - 0.50	🟧
0.50 - 1.00	🟧
1.00 - 1.50	🟧
1.50 - 2.00	🟥
2.00 - 3.00	🟥
> 3.00	🟥

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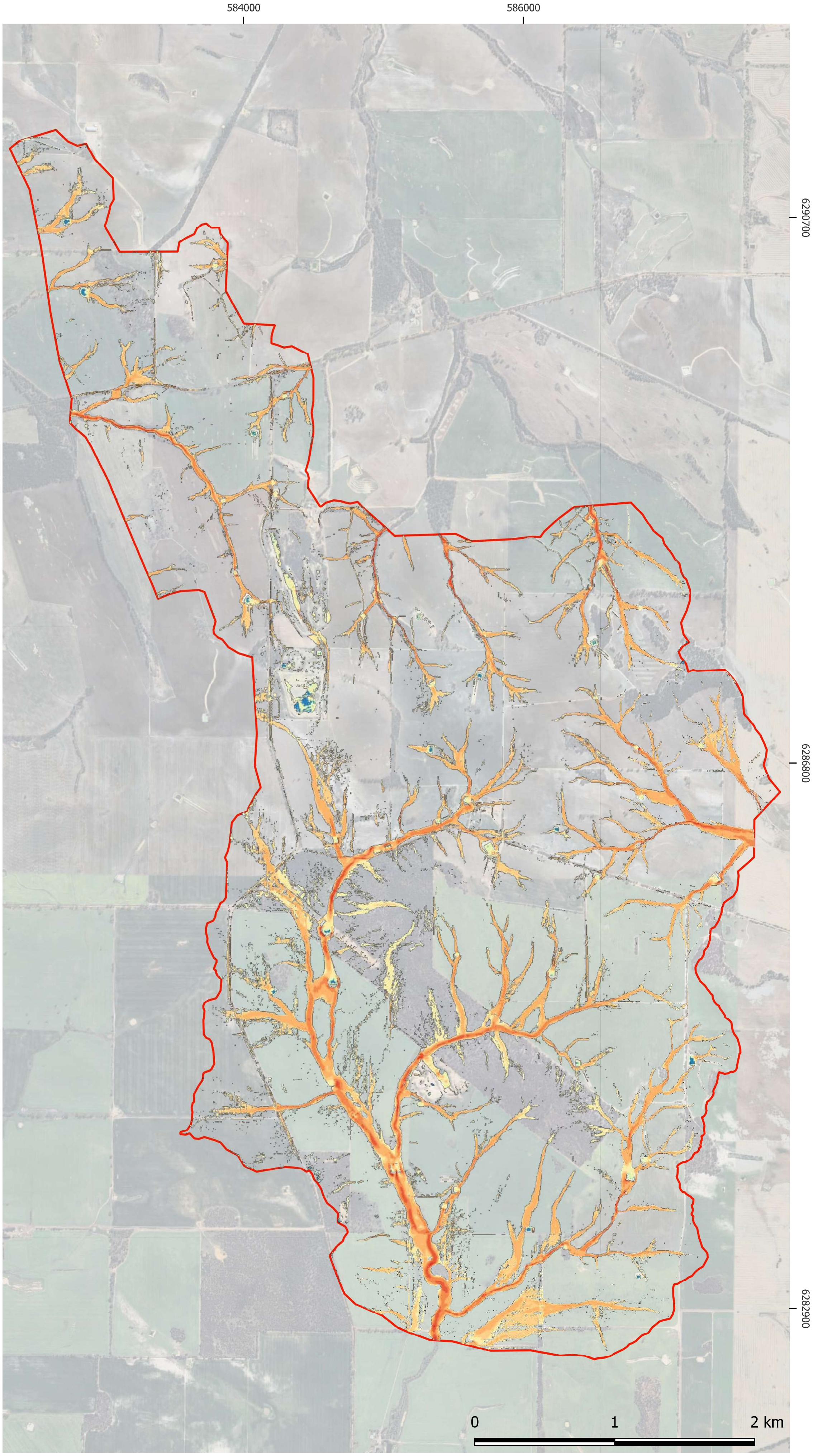
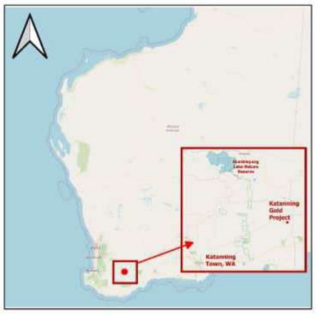


KGP-SWMP

Figure B1
Scenario 2
Post-development without mitigations
Maximum Depth



LEGEND

—	Process Plant
—	ROM Area
—	Access Road
═	Warren Road
☐	Model Extent
	Olympia
	Jackson
	Jinkas
	Dingo
▬	TSF
▬	Sediment Ponds
▬	Stormwater Pond
⬚	Exclusion Zone

Depth (m)	
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0.10 - 0.30	▬
0.30 - 0.50	▬
0.50 - 1.00	▬
1.00 - 1.50	▬
1.50 - 2.00	▬
2.00 - 3.00	▬
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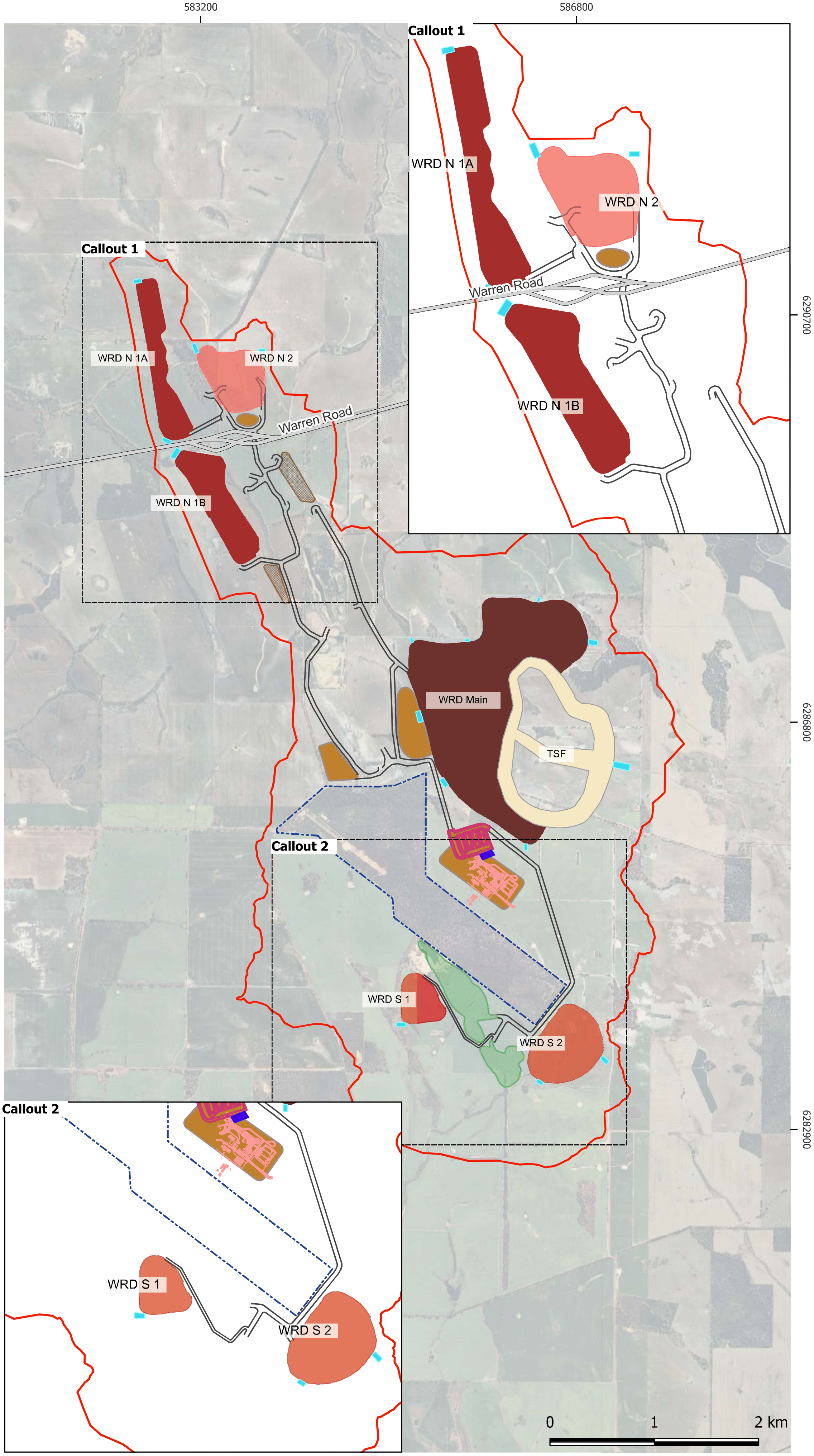

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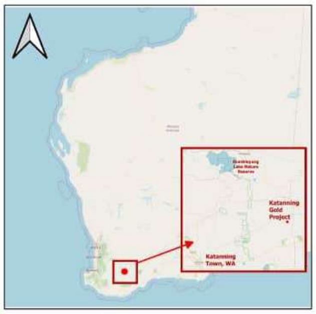
Reviewed: LA
Approved: LA

KGP-SWMP

Figure B2
Scenario 2
Post-development without mitigations
Maximum Velocity



LEGEND

- Process Plant
- ROM Area
- Access Road
- Warren Road
- Model Extent
- Olympia
- Jackson
- Jinkas
- Dingo
- TSF
- Sediment Ponds
- Stormwater Pond
- Exclusion Zone

Velocity (m/s)	
<= 0.03	🟦
0.03 - 0.10	🟩
0.10 - 0.30	🟨
0.30 - 0.50	🟧
0.50 - 1.00	🟧
1.00 - 1.50	🟧
1.50 - 2.00	🟥
2.00 - 3.00	🟥
> 3.00	🟥

EPSG:28350GDA94 / MGA zone 50 Universal Transverse Mercator (UTM)

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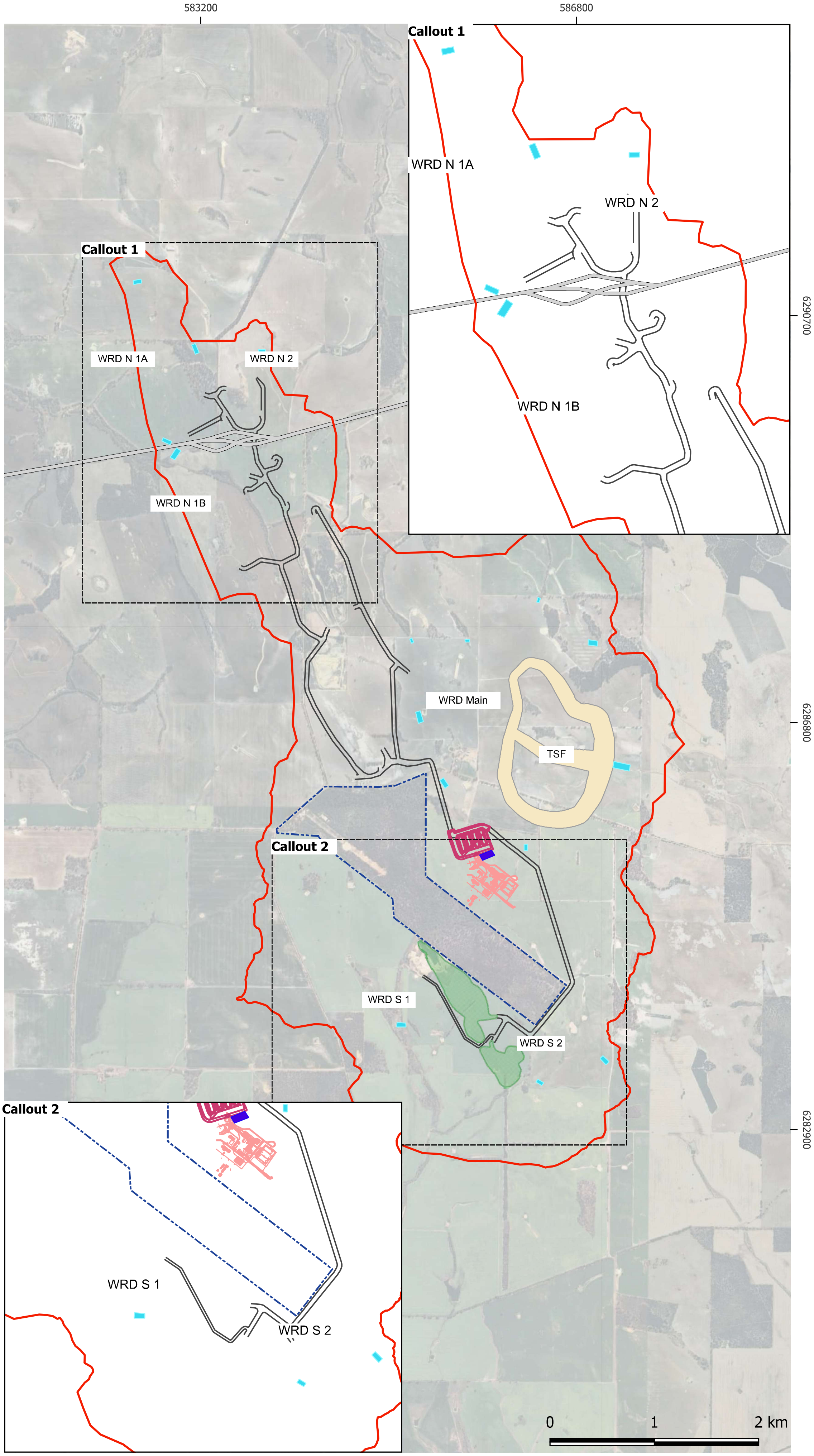
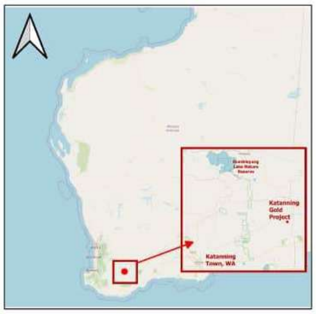
Project No: PS222221
Rev:0

Date:09-06-2025
Designed: LO
Prepared: JM
Reviewed: LA
Approved: LA



KGP-SWMP

Figure C1
Scenario 3
Post-development with mitigations
Maximum Depth



LEGEND

- Process Plant
- ROM Area
- Access Road
- Warren Road
- Model Extent
- Olympia
- Jackson
- Jinkas
- Dingo
- TSF
- Sediment Ponds
- Stormwater Pond
- Exclusion Zone

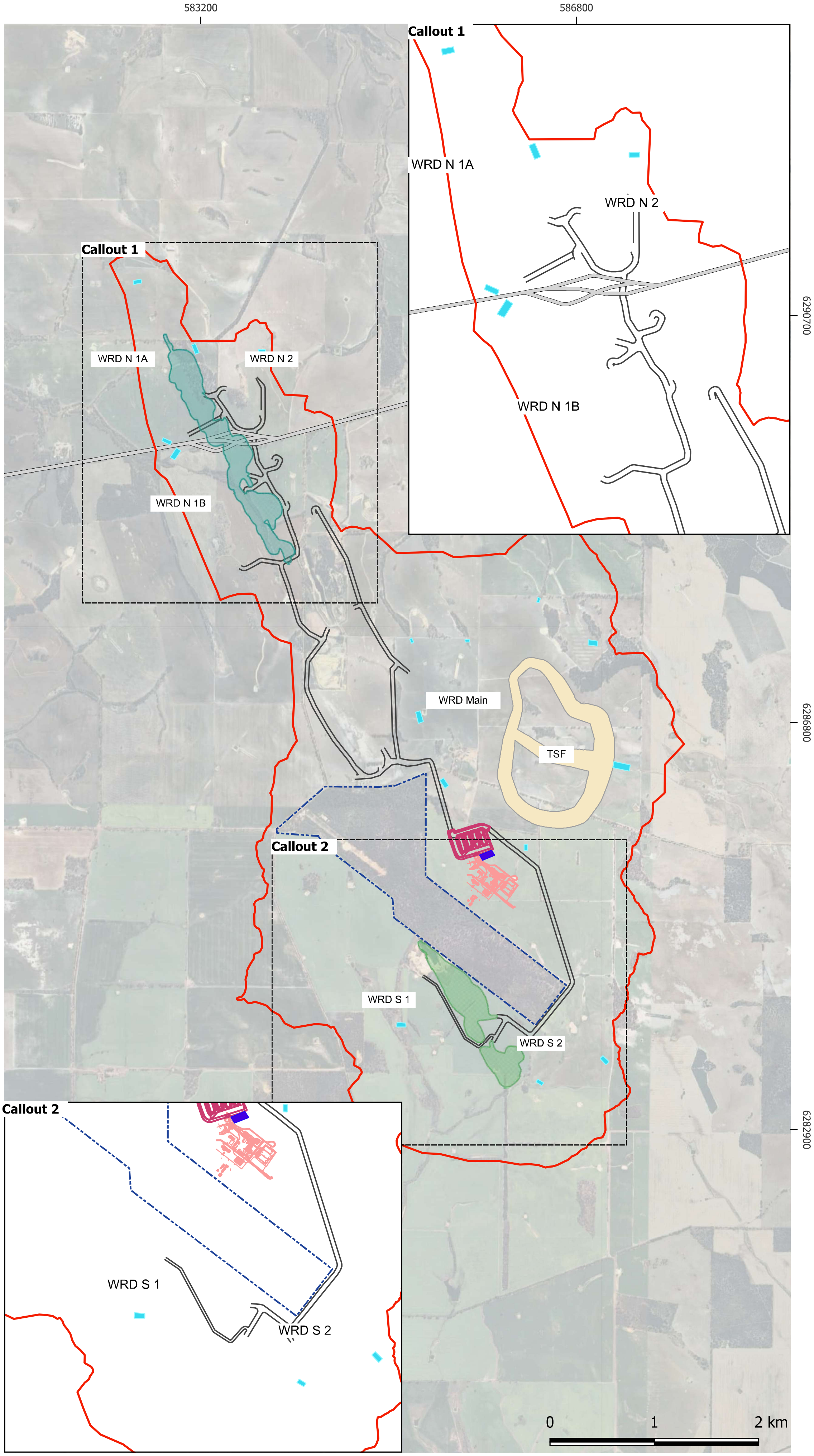
Depth (m)

<= 0.03	☐
0.03 - 0.10	■
0.10 - 0.30	■
0.30 - 0.50	■
0.50 - 1.00	■
1.00 - 1.50	■
1.50 - 2.00	■
2.00 - 3.00	■
> 3.00	■

EPSG:28350GDA94 / MGA zone 50
Universal Transverse Mercator (UTM)

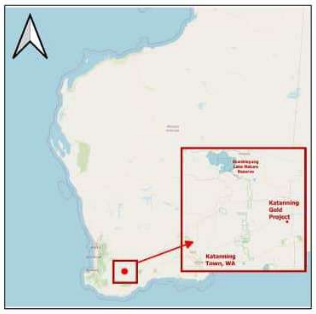
Client: KGP
Project No: PS222221
Rev:0

Date:09-06-2025
Designed: LO
Prepared: JM
Reviewed: LA
Approved: LA



KGP-SWMP

Figure C2
Scenario 3
Post-development with mitigations
Maximum Velocity



LEGEND

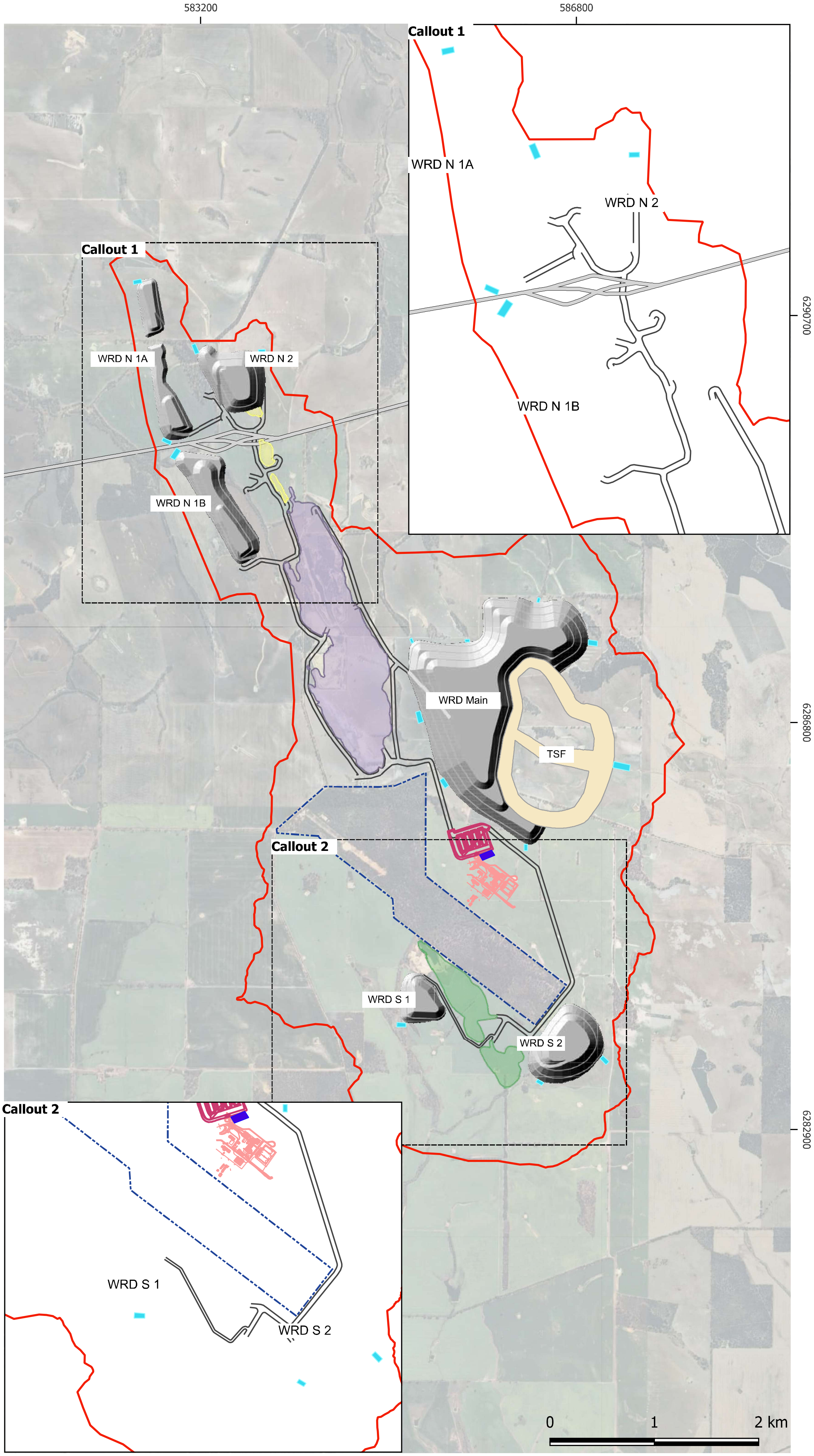
- ― Process Plant
- ― ROM Area
- ― Access Road
- ═ Warren Road
- ☐ Model Extent
- Olympia
- Jackson
- Jinkas
- Dingo
- ■ TSF
- ■ Sediment Ponds
- ■ Stormwater Pond
- ⬚ Exclusion Zone

Velocity (m/s)	
<= 0.03	■
0.03 - 0.10	■
0.10 - 0.30	■
0.30 - 0.50	■
0.50 - 1.00	■
1.00 - 1.50	■
1.50 - 2.00	■
2.00 - 3.00	■
> 3.00	■

EPSG:28350GDA94 / MGA zone 50 Universal Transverse Mercator (UTM)

Client: KGP
Project No: PS222221
Rev:0

Date:09-06-2025
Designed: LO
Prepared: JM
Reviewed: LA
Approved: LA



Appendix B

Sediment retention pond stage-storage curves

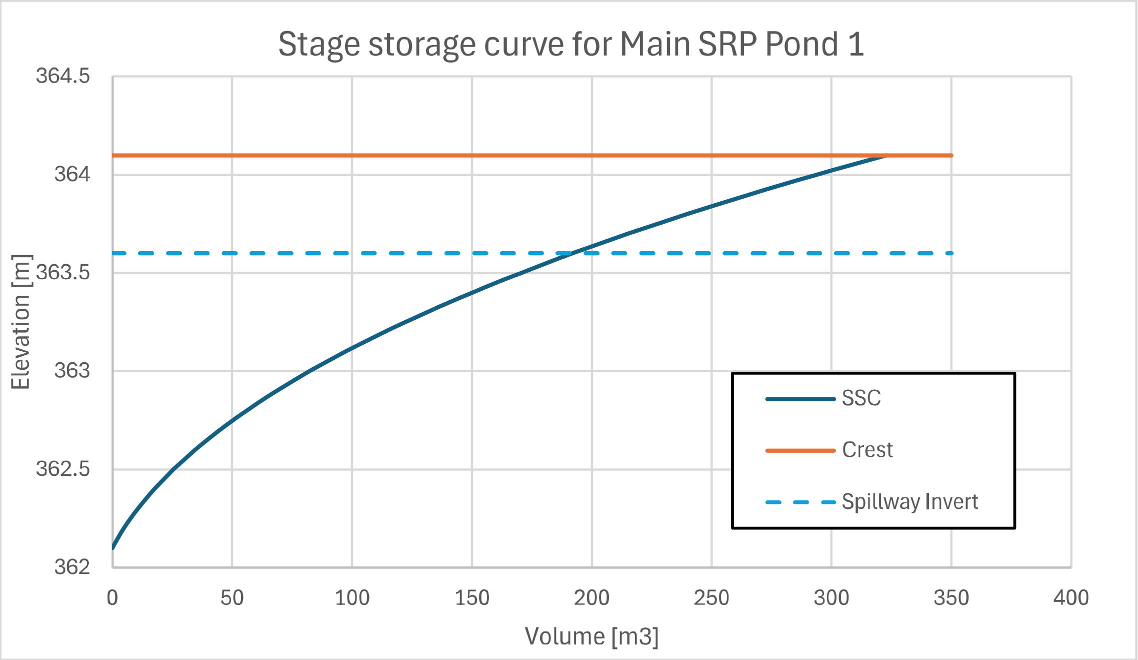


Figure 1   SSC for Main SRP Pond 1

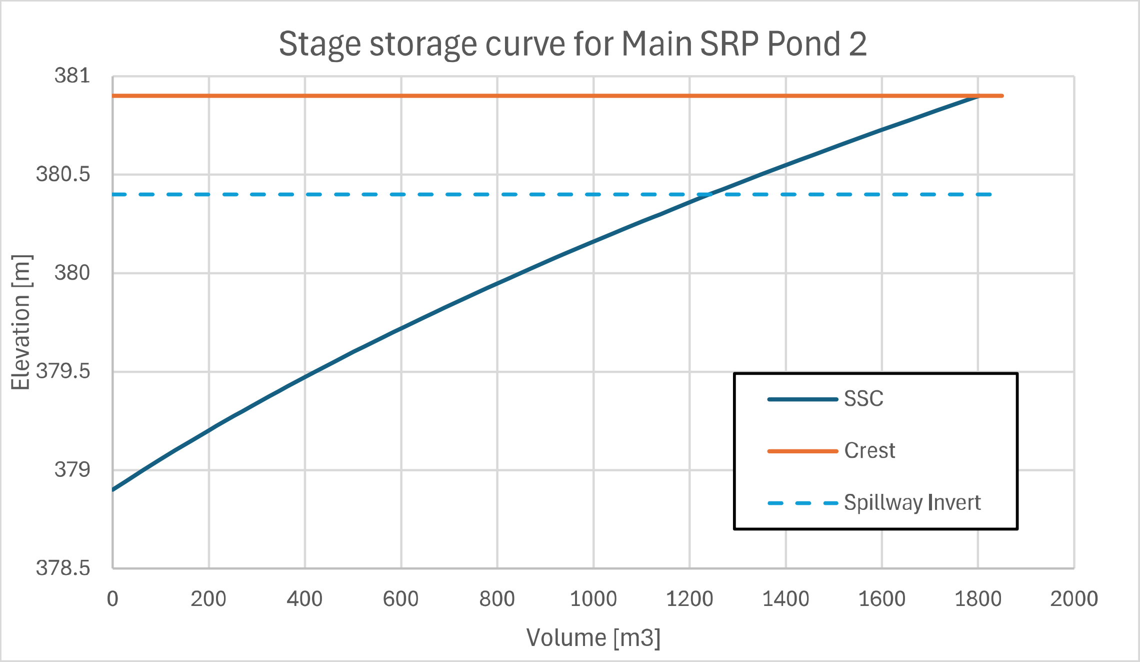


Figure 2   SSC for Main SRP Pond 2

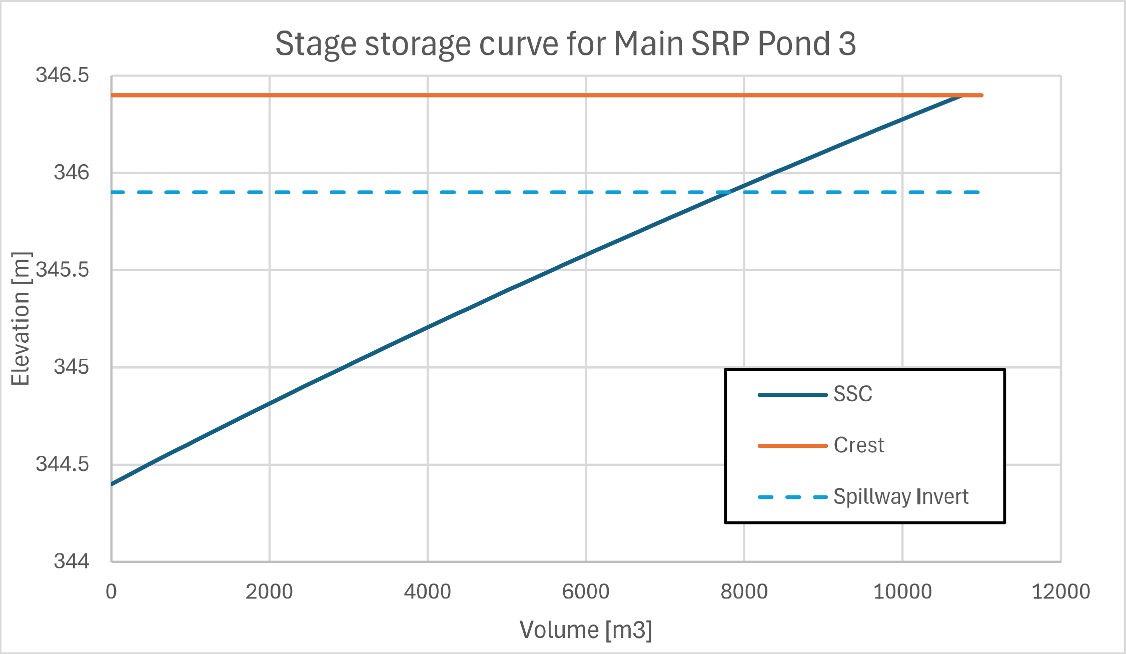


Figure 3 SSC for Main SRP Pond 3

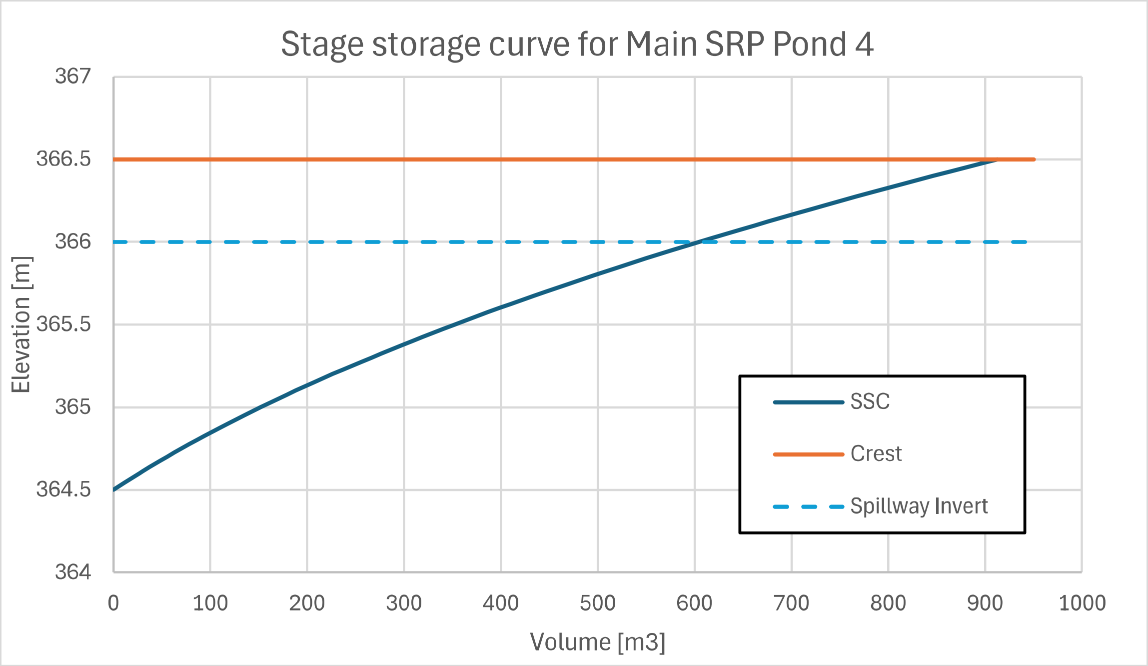


Figure 4 SSC for Main SRP Pond 4

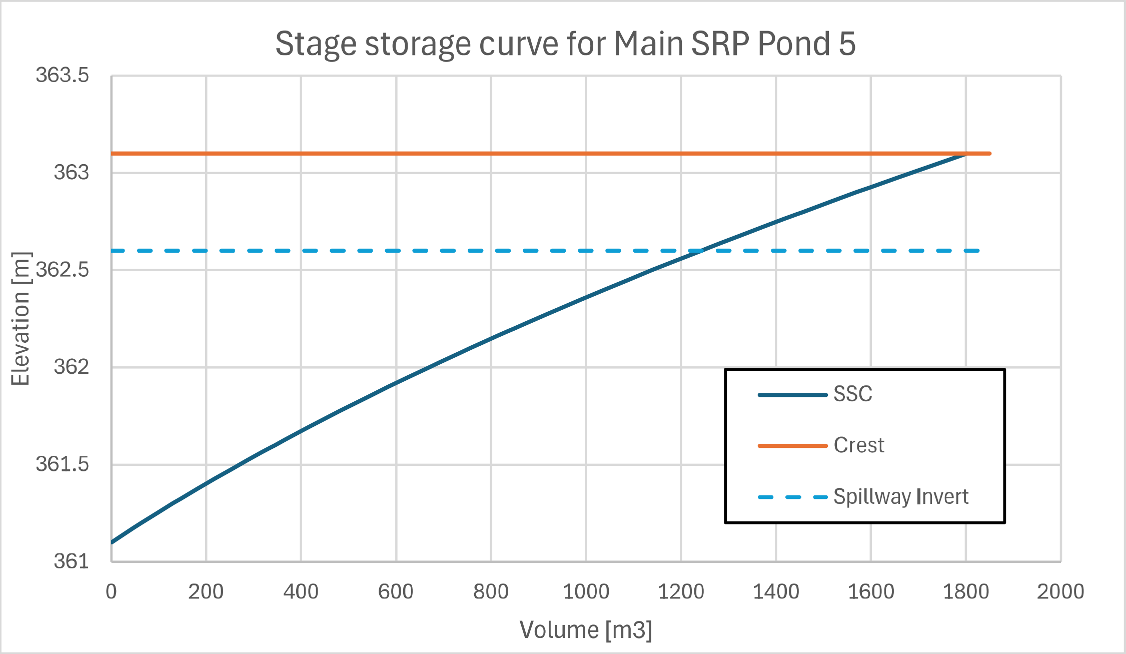


Figure 5 SSC for Main SRP Pond 5

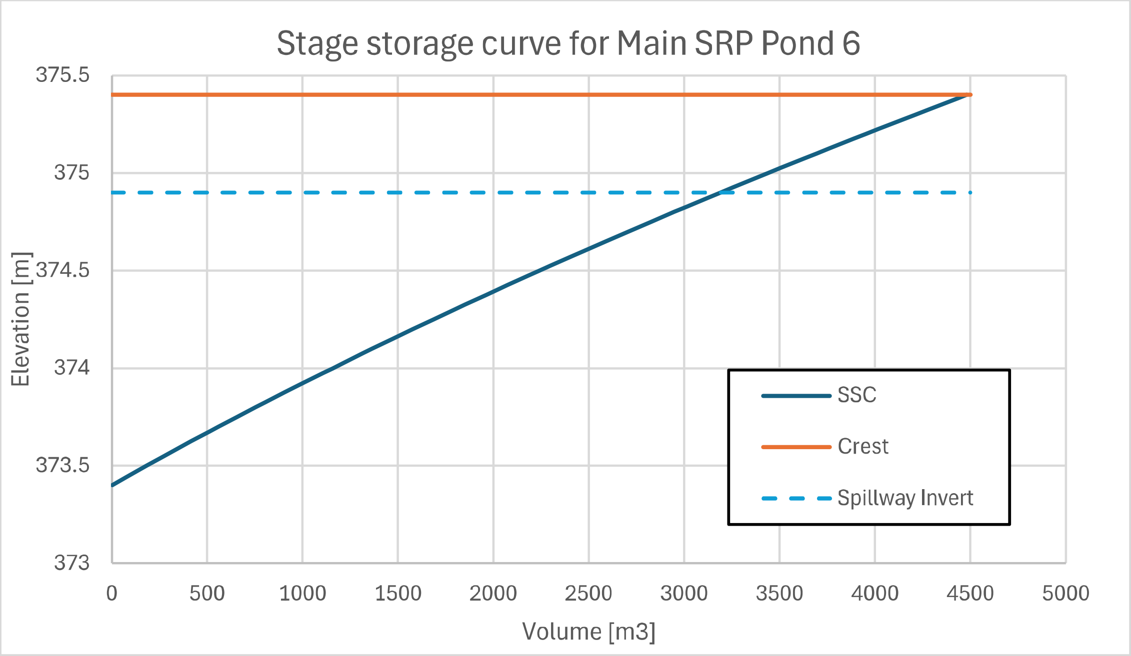


Figure 6 SSC for Main SRP Pond 6

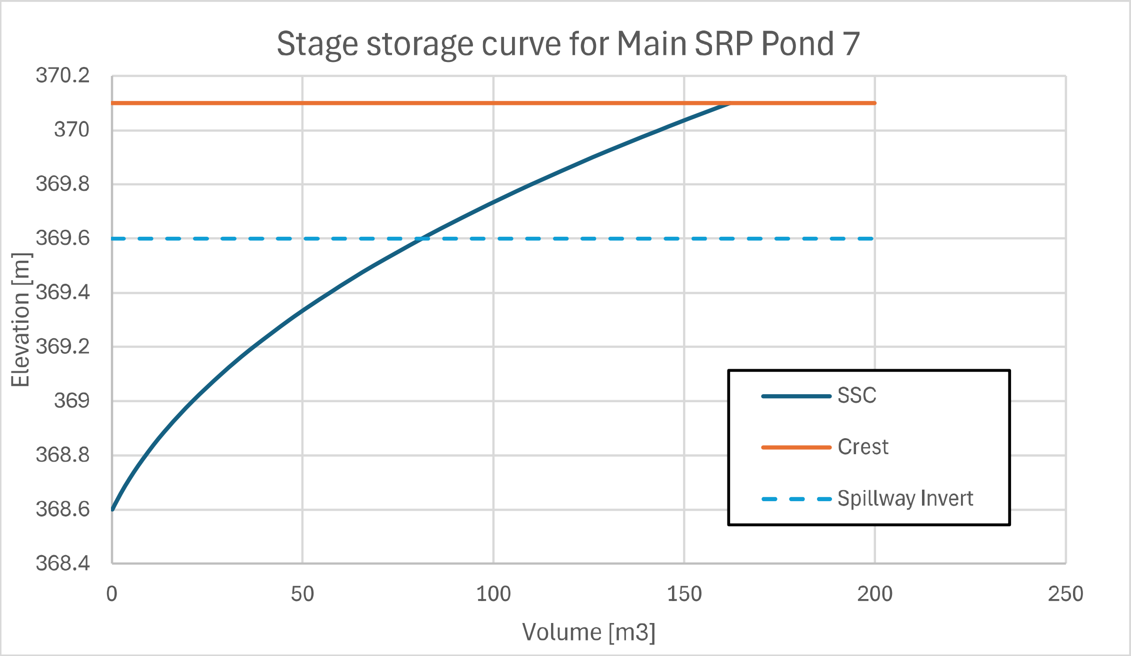


Figure 7 SSC for Main SRP Pond 7

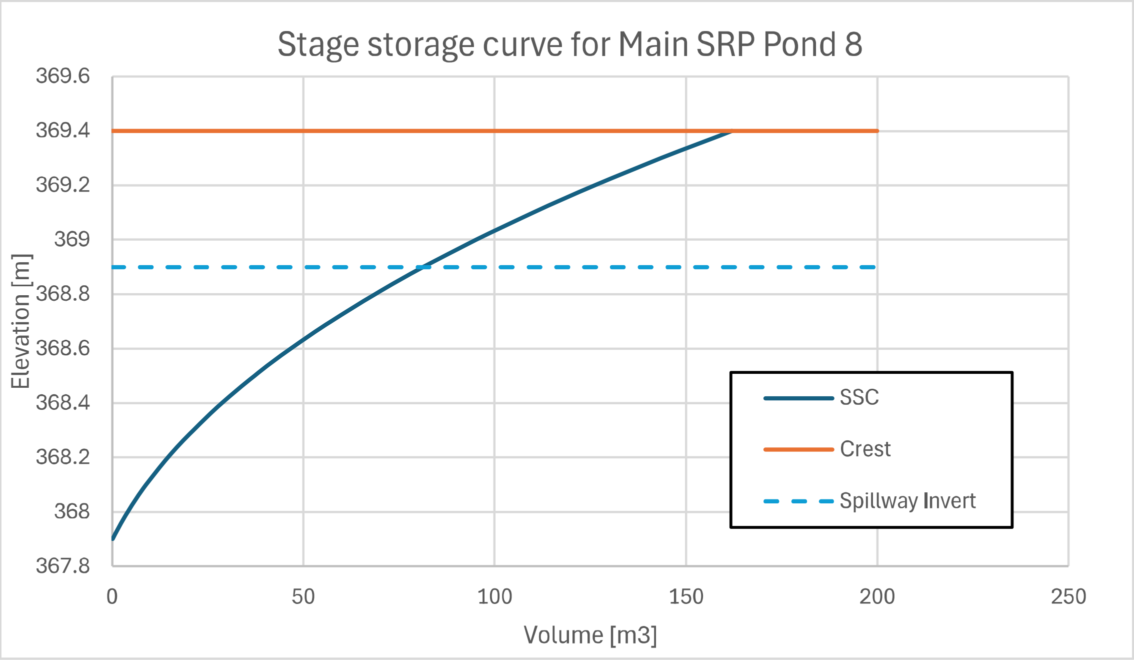


Figure 8 SSC for Main SRP Pond 8

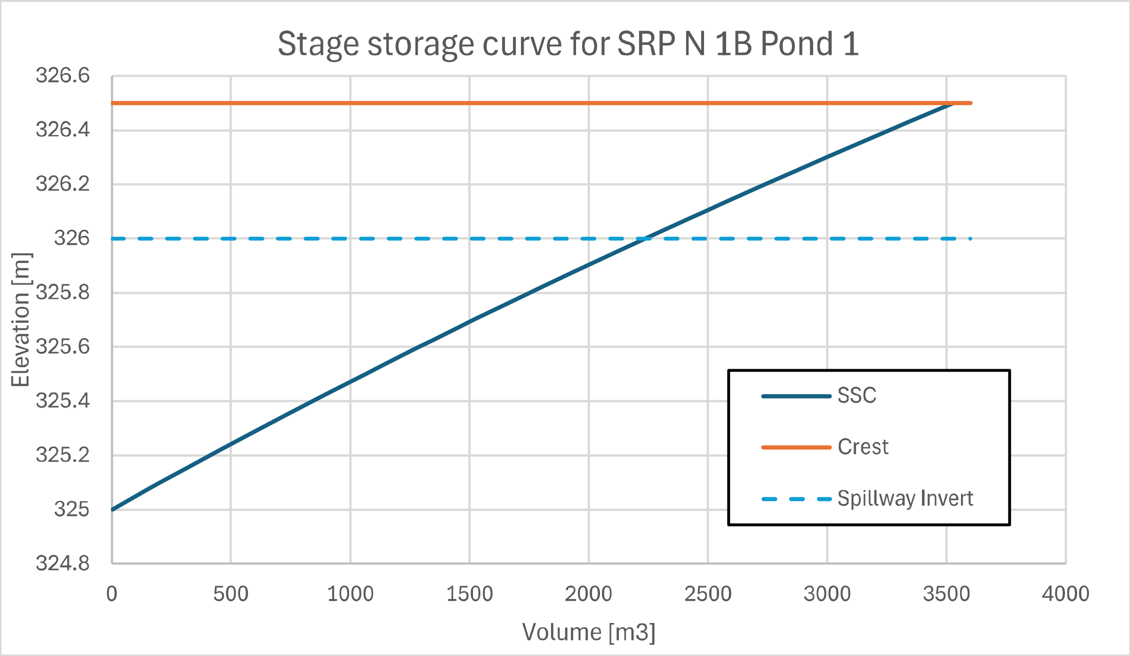


Figure 9 SSC for SRP N 1B Pond 1

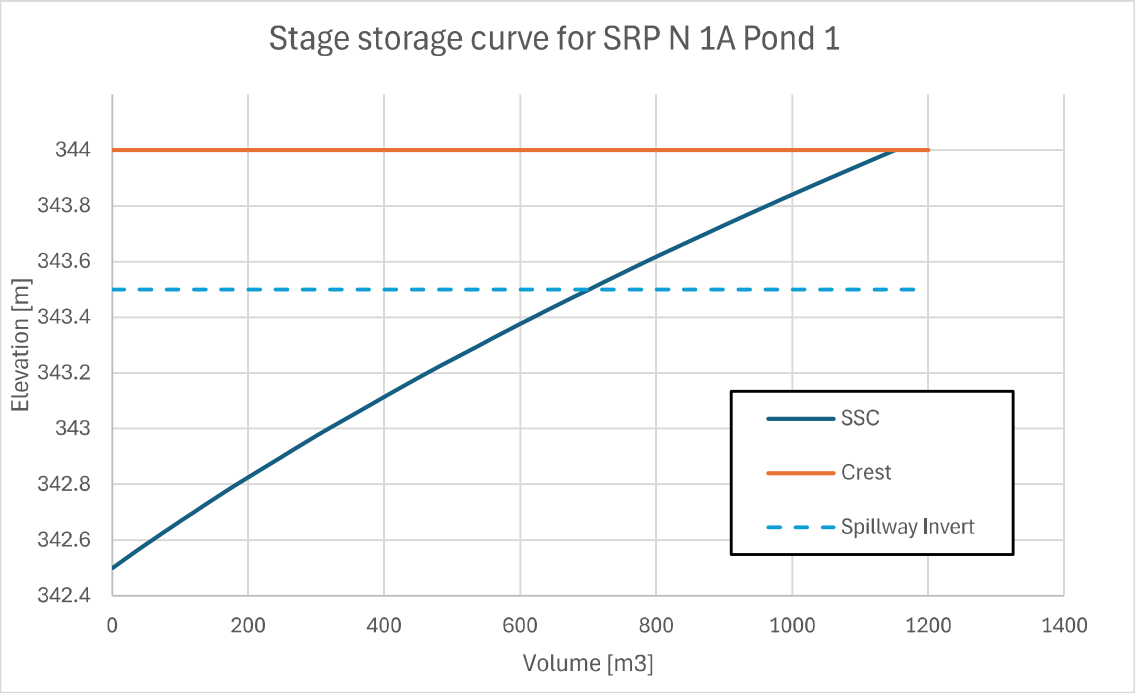


Figure 10 SSC for SRP N 1A Pond 1

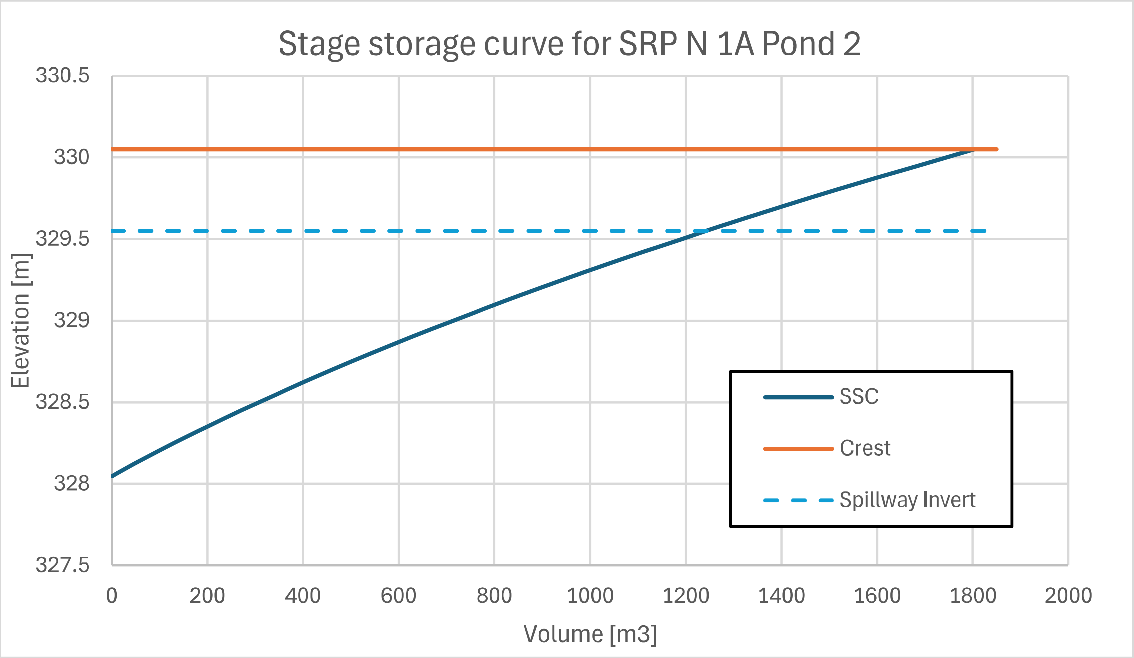


Figure 11 SSC for SRP N 1A Pond 2

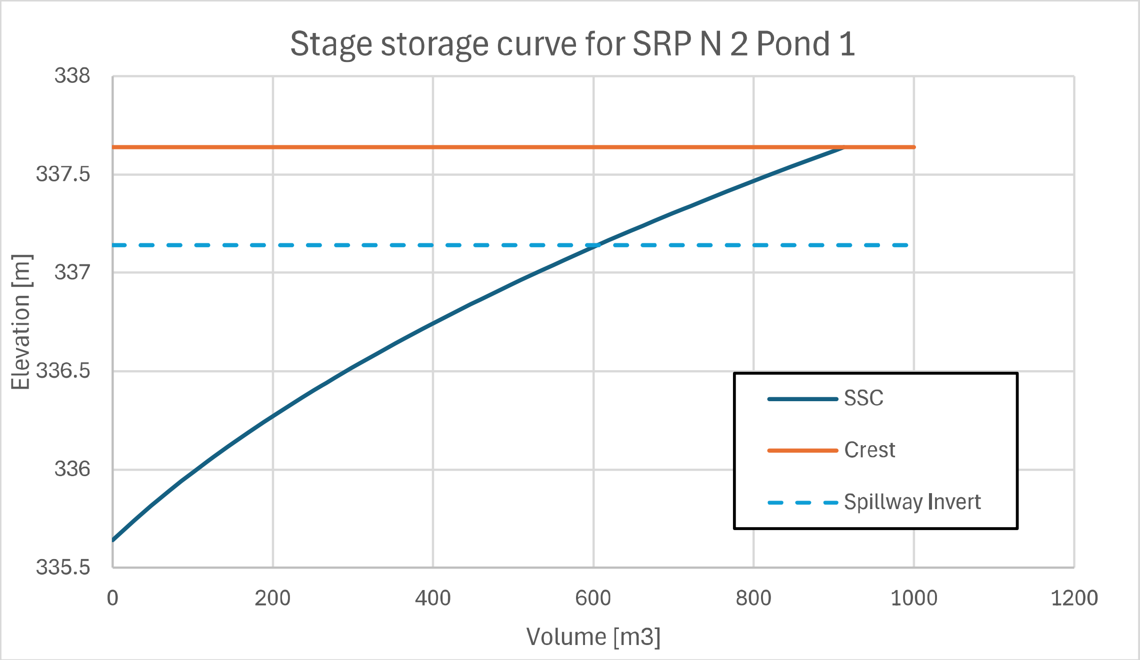


Figure 12 SSC for SRP N 2 Pond 1

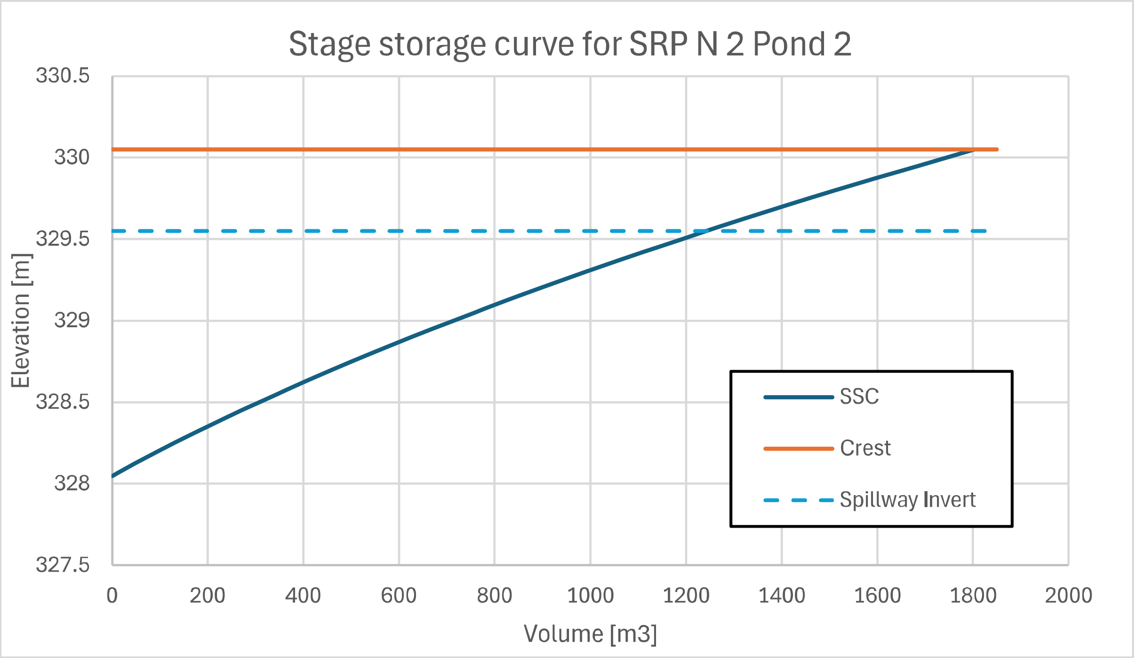


Figure 13 SSC for SRP N 2 Pond 2

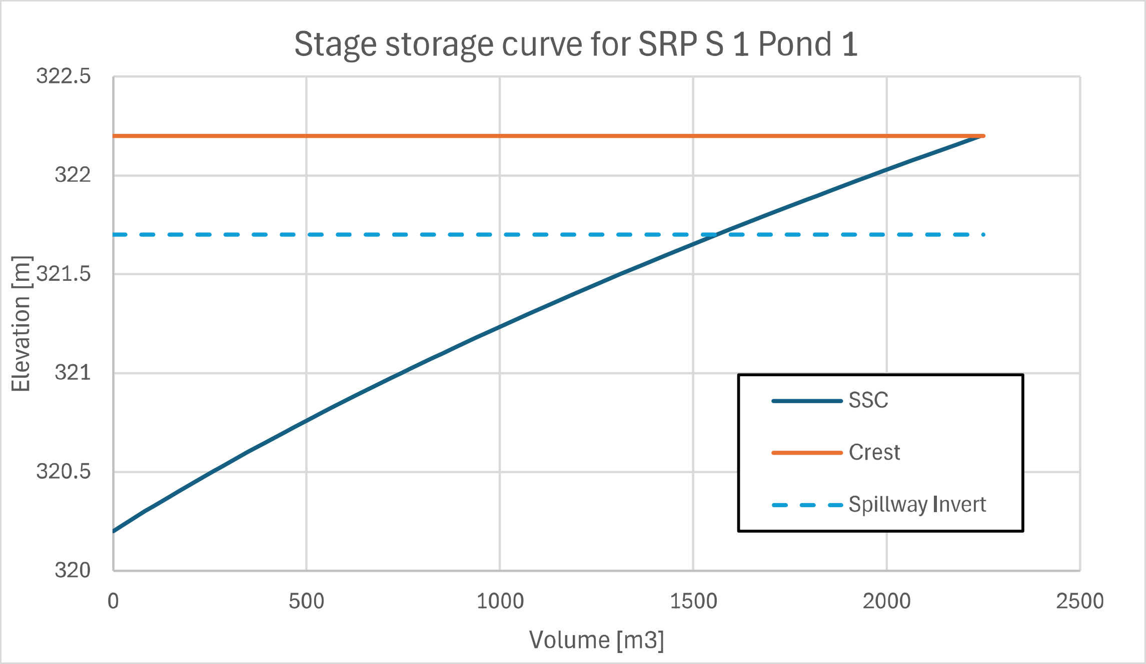


Figure 14 SSC for SRP S 1 Pond 1

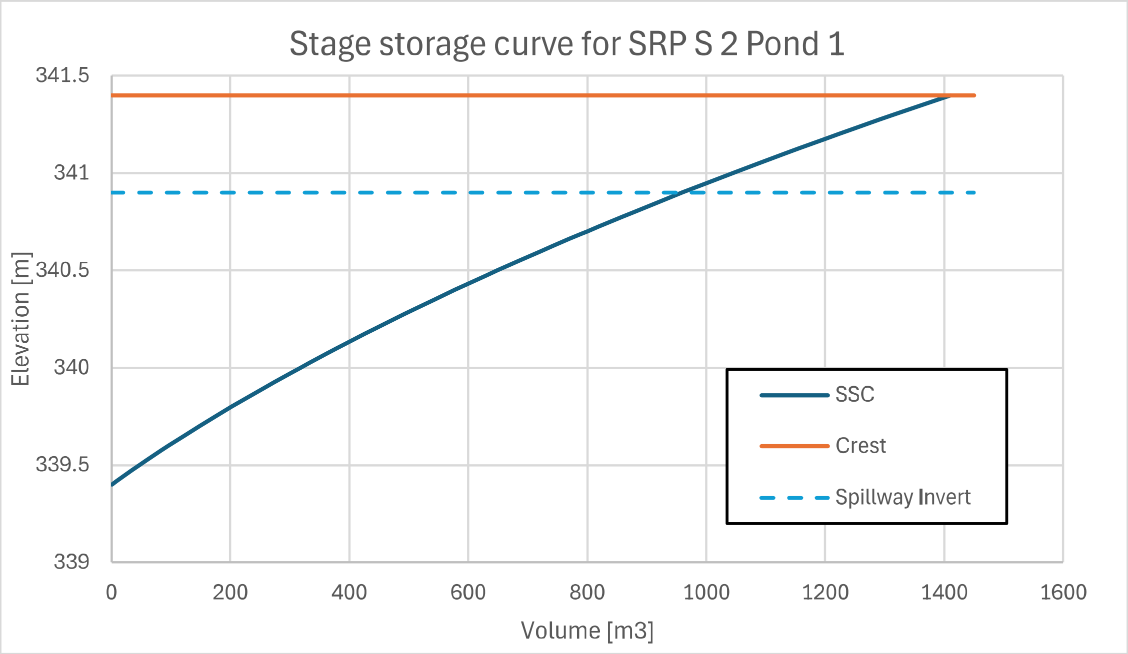


Figure 15 SSC for SRP S 2 Pond 1

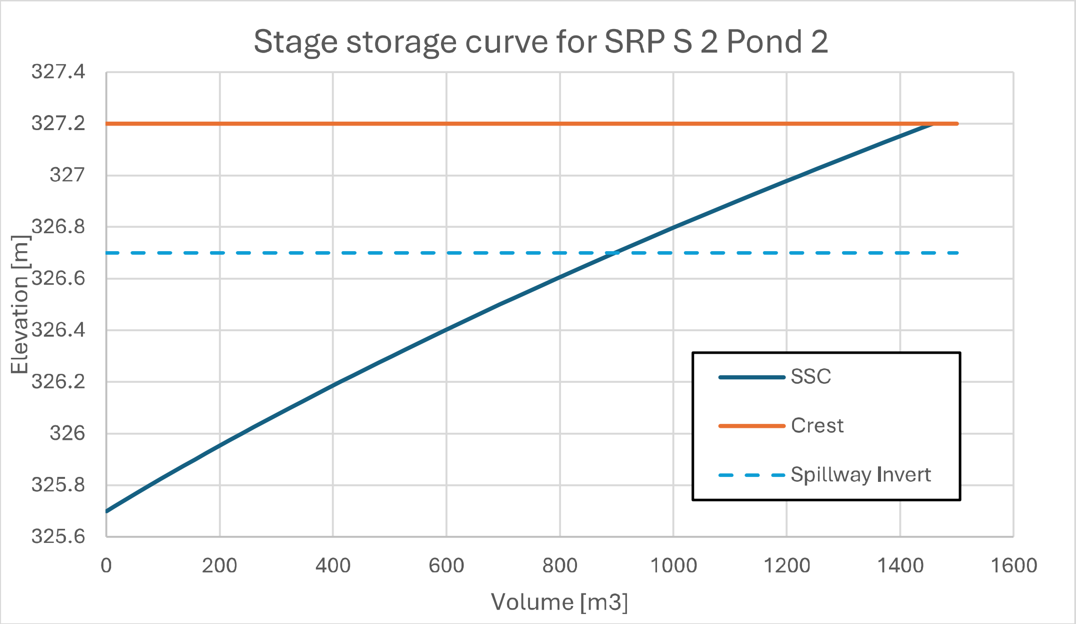


Figure 16 SSC for SRP S 2 Pond 2

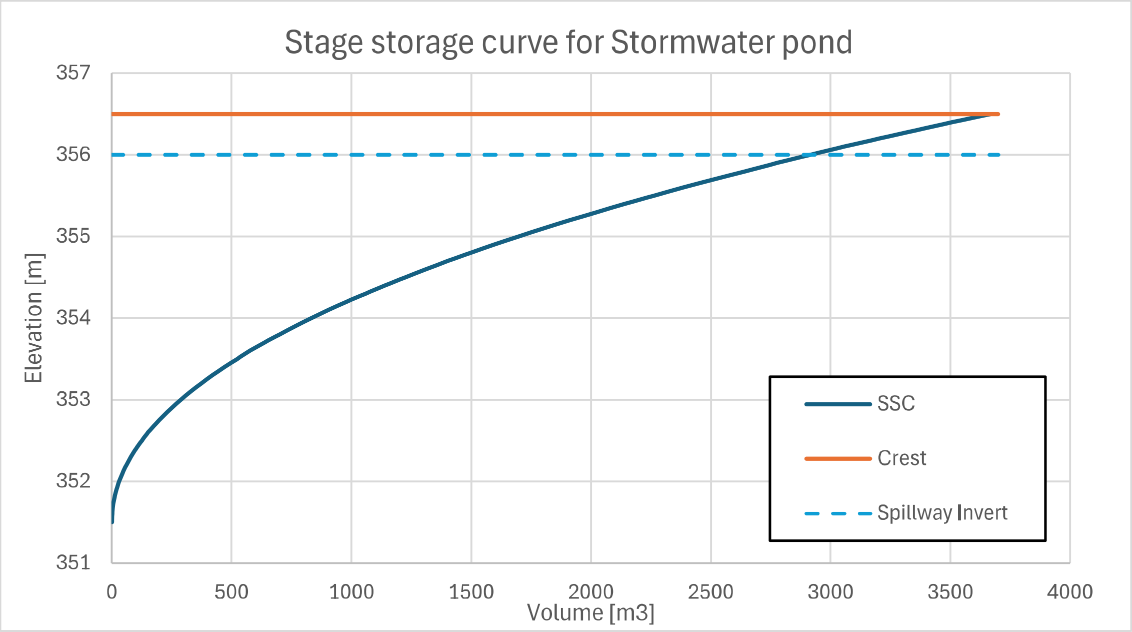
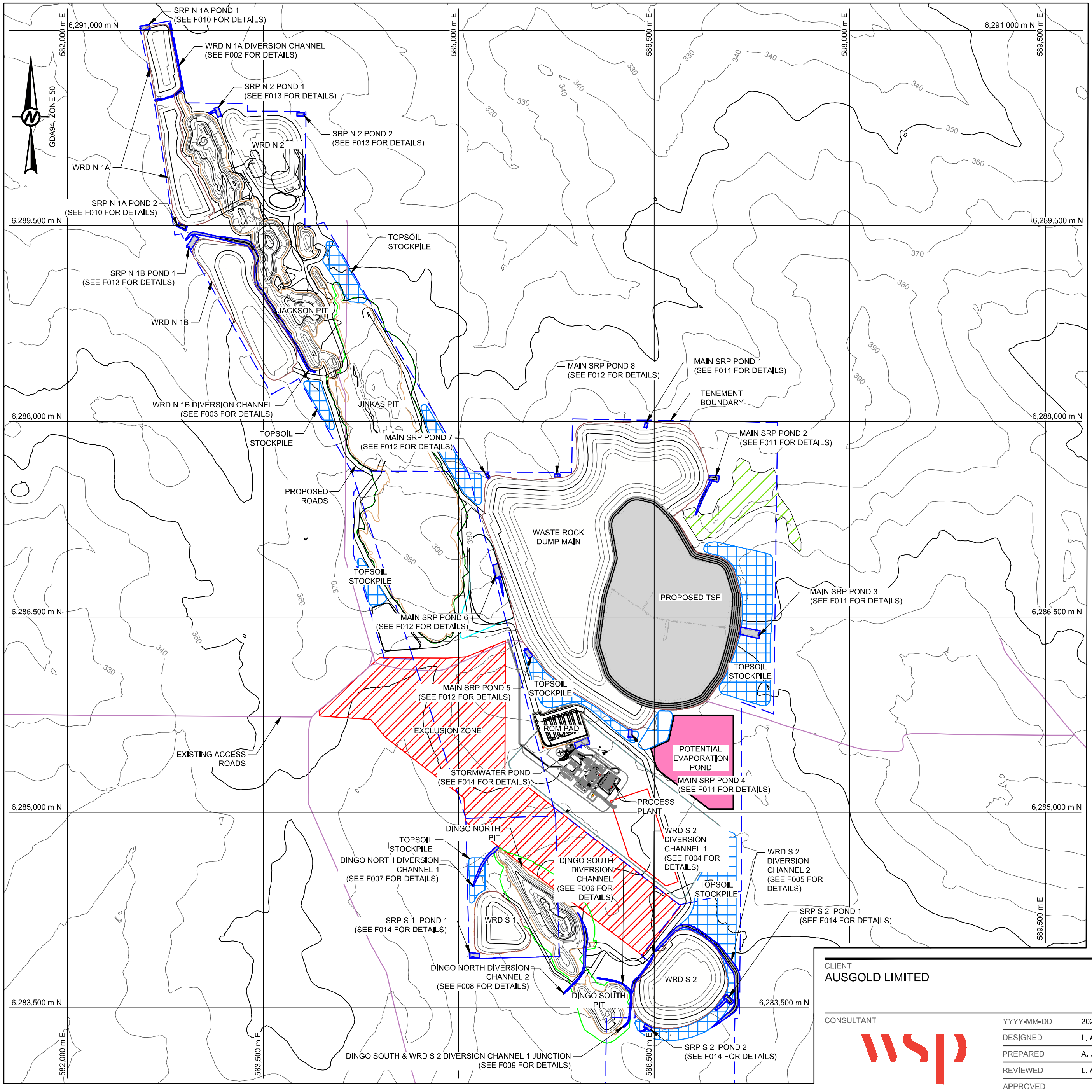


Figure 17SSC for Stormwater Pond

Appendix C

SWMP figures



LEGEND

— 500 —	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
— 500 —	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
▨	EXEMPTION WOODLAND ZONE
▦	TOPSOIL STOCKPILE (PROVIDED BY AUSGOLD)
▨	EXCLUSION ZONE
— — —	TENEMENT BOUNDARY
——	EXISTING ROADS
——	PROPOSED ROADS (PROVIDED BY AUSGOLD)

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOLD, DATED 05 MARCH 2025.
3. JACKSON PIT AND OLYMPIA PIT MODELS PROVIDED BY AUSGOLD, DATED 15 MARCH 2025.
4. DINGO NORTH PIT, DINGO SOUTH PIT AND WASTE ROCK NORTH 2 MODELS PROVIDED BY AUSGOLD, DATED 15 APRIL 2025.
5. WASTE ROCK DUMP NORTH 1A, WASTE ROCK DUMP SOUTH 2 AND WASTE ROCK DUMP MAIN MODELS PROVIDED BY AUSGOLD, DATED 14 MAY 2025.
6. SURFACE PROVIDED FOR WASTE ROCK DUMPS REPRESENT FINAL REHABILITATED SLOPES, ADDITIONAL AREA IS AVAILABLE TO ACCOMMODATE SURFACE WATER MANAGEMENT INFRASTRUCTURE DURING OPERATIONS. AS A RESULT, OVERLAP MAY BE PRESENT IN THESE FIGURES.
7. ACRONYMS INCLUDE: WASTE ROCK DUMP (WRD), SEDIMENT RETENTION POND (SRP) AND TAILINGS STORAGE FACILITY (TSF).

NOT FOR CONSTRUCTION

DRAFT

0 500 1,000

1:30,000 METRES

CLIENT
AUSGOLD LIMITED

CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
OVERALL SITE LAYOUT

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F001

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

0 25 mm

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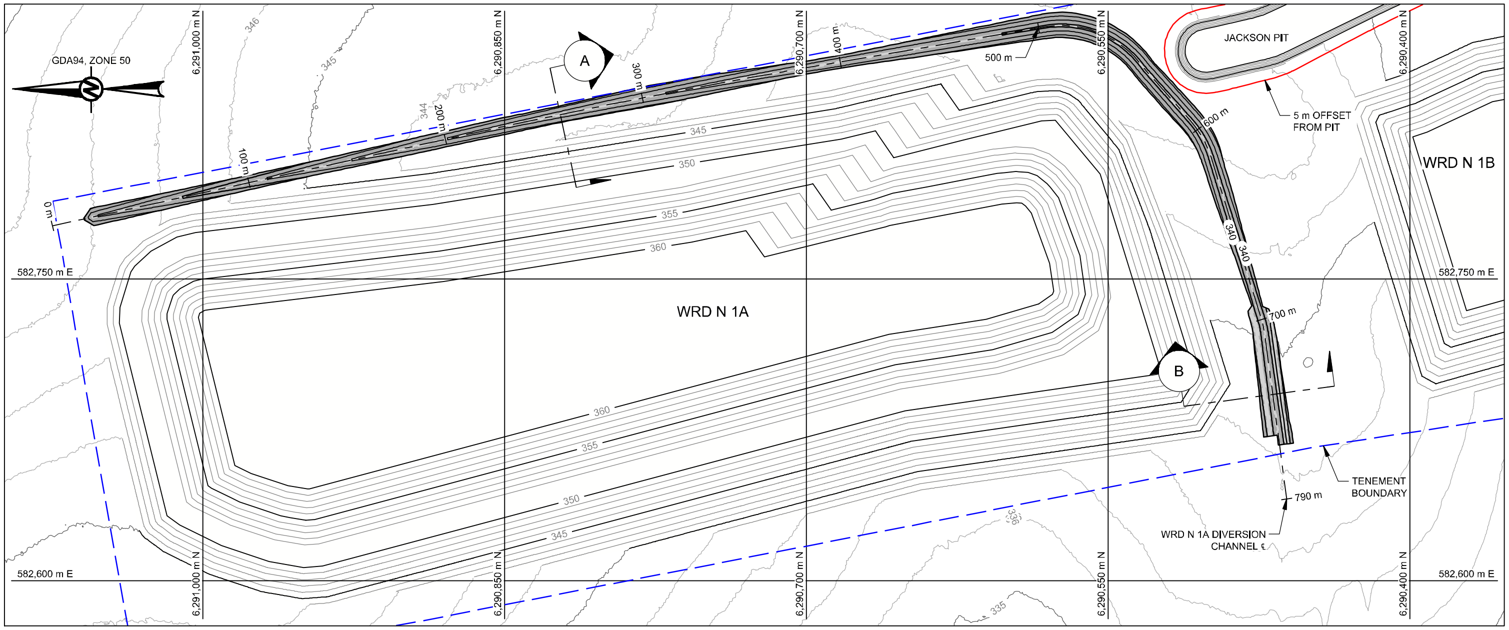

WRD N 1A DIVERSION CHANNEL - LAYOUT PLAN

SCALE 1:2,500

LEGEND

- ─ 500 ─ (grey) EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- ─ 500 ─ DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- – – – TENEMENT BOUNDARY
- ─── 5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
- ▨ ROCK RIPRAP
- ▨ EMBANKMENT FILL
- – · – NON-WOVEN GEOTEXTILE

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
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4. DINGO NORTH PIT, DINGO SOUTH PIT AND WASTE ROCK NORTH 2 MODELS PROVIDED BY AUSGOLD, DATED 15 APRIL 2025.
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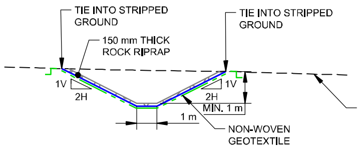
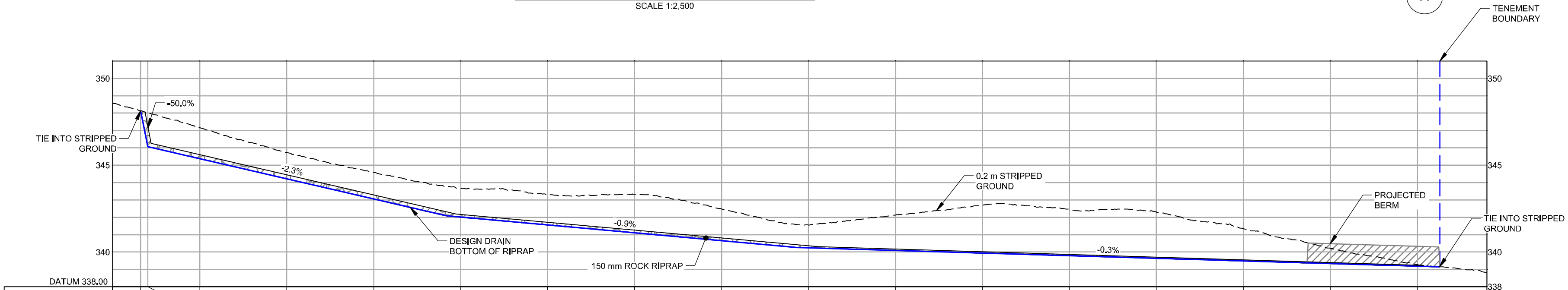


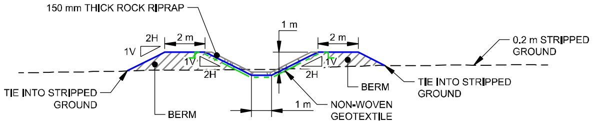
SCALE 1:250 (A) WRD N 1A DIVERSION CHANNEL - TYPICAL SECTION 1



DESIGN DRAIN BOTTOM OF RIPRAP	348.56	348.14	348.01	347.16	345.72	344.60	343.65	343.30	343.34	342.48	341.56	342.13	342.70	342.45	342.30	341.35	340.21	339.28	338.80
0.2m STRIPPED GROUND		348.14	346.07	345.38	344.22	343.05	342.01	341.56	341.11	340.66	340.25	340.10	339.94	339.79	339.64	339.49	339.34	339.18	
CUT AND FILL DEPTH (m)		0.00	1.94	-1.78	-1.51	-1.54	-1.64	-1.74	-2.23	-1.82	-1.31	-2.03	-2.75	-2.66	-2.66	-1.86	-0.88	-0.10	
CHAINAGE	0	16	20	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	790

WRD N 1A DIVERSION CHANNEL - LONGITUDINAL SECTION

HOR. SCALE 1:2,500
VER. SCALE 1:250



SCALE 1:250 (B) WRD N 1A DIVERSION CHANNEL - TYPICAL SECTION 2

NOT FOR CONSTRUCTION

DRAFT

0 5 10
1:250 METRES

0 50 100
1:2,500 METRES

CLIENT
AUSGOLD LIMITED

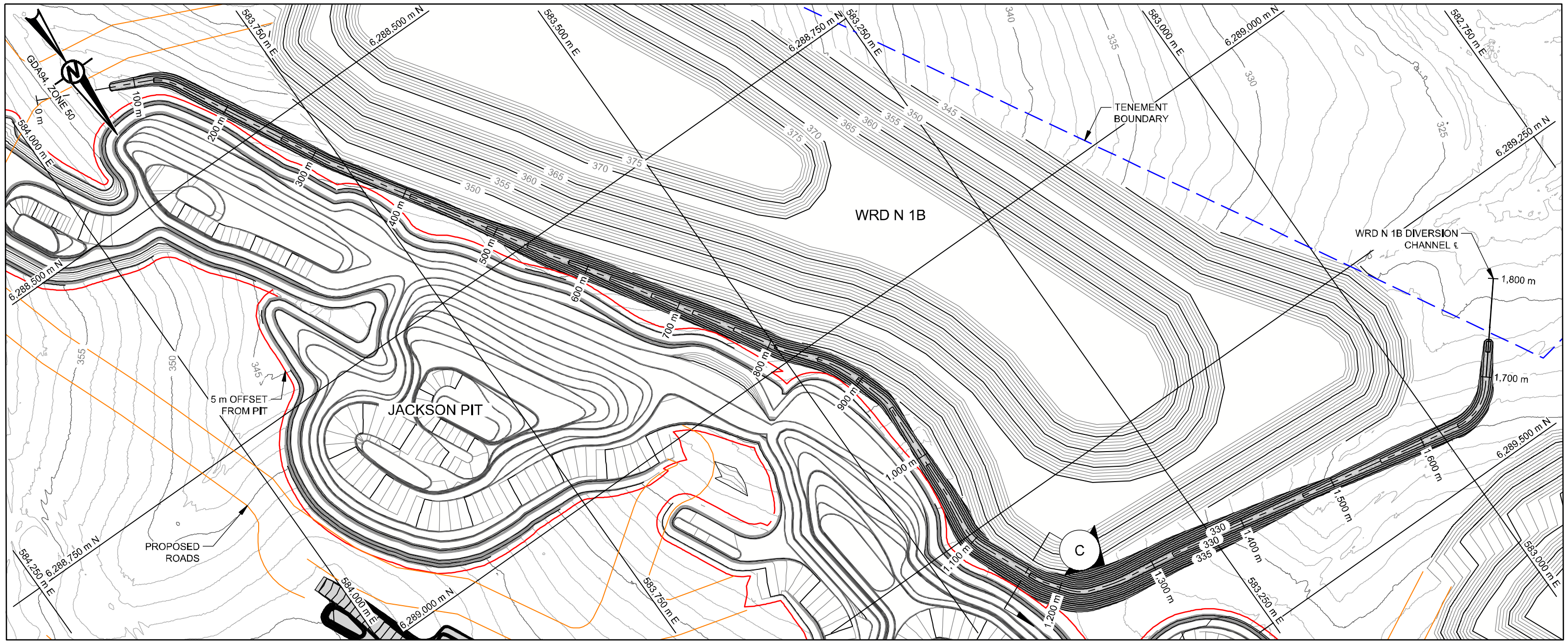
CONSULTANT
wsp

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
WRD N 1A DIVERSION CHANNEL
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F002



WRD N 1B DIVERSION CHANNEL - LAYOUT PLAN

SCALE 1:5,000

LEGEND

—— 500 ——	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
—— 500 ——	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
— — —	TENEMENT BOUNDARY
———	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
———	PROPOSED ROADS (PROVIDED BY AUSGOLD)
— · —	NON-WOVEN GEOTEXTILE

NOTE(S)

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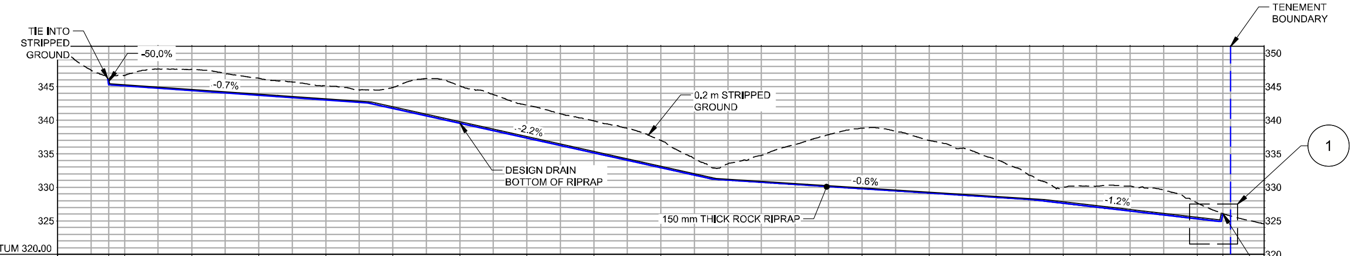
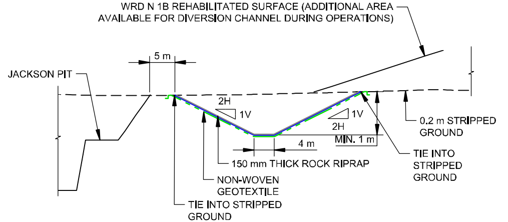


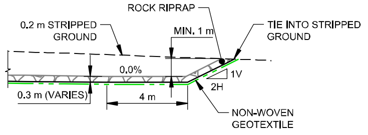
DESIGN DRAIN BOTTOM OF RIPRAP		345.40	345.14	344.44	343.74	343.04	341.78	339.57	337.35	335.14	332.92	331.07	330.42	329.78	329.14	328.50	327.62	326.46	325.30		
0.2m STRIPPED GROUND	350.91	346.16	346.67	347.58	346.26	345.12	344.88	345.12	342.25	339.90	336.98	333.48	336.40	338.81	336.98	334.16	329.99	330.18	327.69	326.08	324.51
CUT AND FILL DEPTH (m)		0.76	-1.53	-3.13	-2.51	-2.08	-3.09	-5.55	-4.90	-4.76	-4.06	-2.41	-5.98	-9.02	-7.84	-5.65	-2.37	-3.72	-2.39		
CHAINAGE	0	76	100	200	300	400	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,738	1,800

WRD N 1B DIVERSION CHANNEL - LONGITUDINAL SECTION

HOR. SCALE 1:7,500
VER. SCALE 1:750



SCALE 1:1,000 Ⓒ WRD N 1B DIVERSION CHANNEL - TYPICAL SECTION



SCALE 1:250 ① WRD N 1B DIVERSION CHANNEL ENERGY DISSIPATION STRUCTURE

NOT FOR CONSTRUCTION

DRAFT

1:250	0	5	10 METRES
1:750	0	12.5	25 METRES
1:1,000	0	25	50 METRES
1:5,000	0	100	200 METRES
1:7,500	0	125	250 METRES

CLIENT
AUSGOLD LIMITED

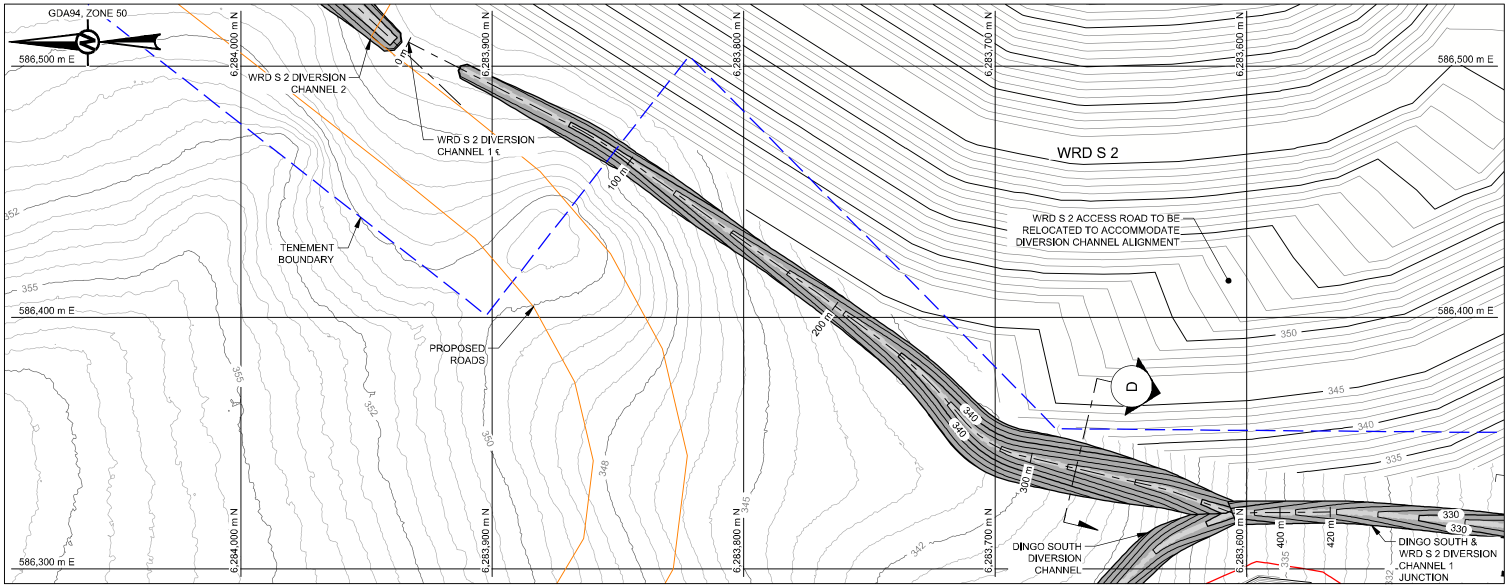
CONSULTANT
wsp

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

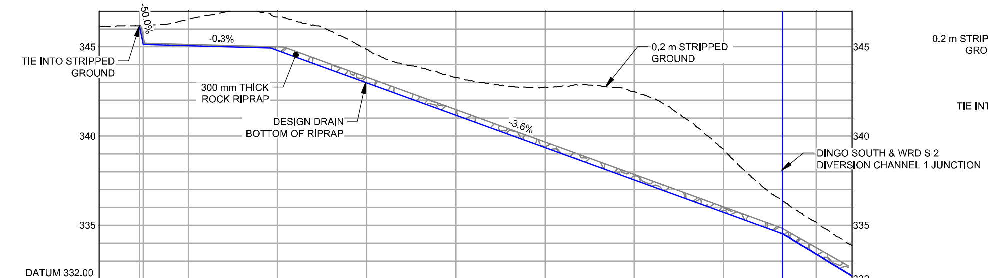
TITLE
WRD N 1B DIVERSION CHANNEL
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F003



WRD S 2 DIVERSION CHANNEL 1 - LAYOUT PLAN

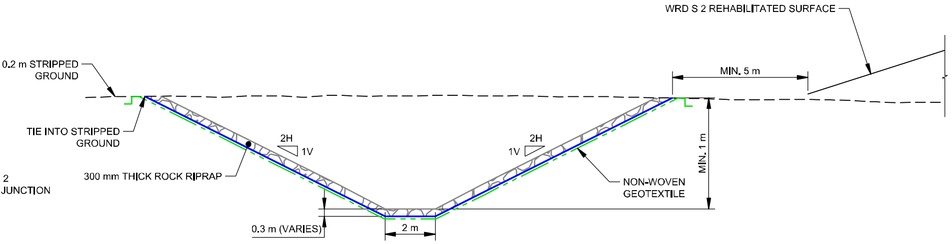
SCALE 1:2,000



DESIGN DRAIN BOTTOM OF RIPRAP		346.17	345.14	345.07	344.79	342.98	341.17	339.35	337.54	335.73	334.53	333.64	332.71
0.2m STRIPPED GROUND	346.17	346.17	346.20	346.54	346.67	344.86	343.29	342.74	342.48	339.25	336.35	335.16	333.86
CUT AND FILL DEPTH (m)		0.00	1.06	-1.47	-1.88	-1.88	-2.13	-3.39	-4.94	-3.52	1.83	-1.51	-1.16
CHAINAGE	0	23	25	50	100	150	200	250	300	350	381	402	420

WRD S 2 DIVERSION CHANNEL 1 - LONGITUDINAL SECTION

HOR. SCALE 1:2,000
VER. SCALE 1:200



SCALE 1:200 D

WRD S 2 DIVERSION CHANNEL 1 - TYPICAL SECTION

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- - -	TENEMENT BOUNDARY
—	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
—	PROPOSED ROADS (PROVIDED BY AUSGOLD)
- · -	NON-WOVEN GEOTEXTILE

NOTE(S)

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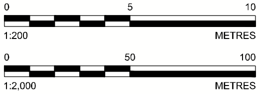
NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

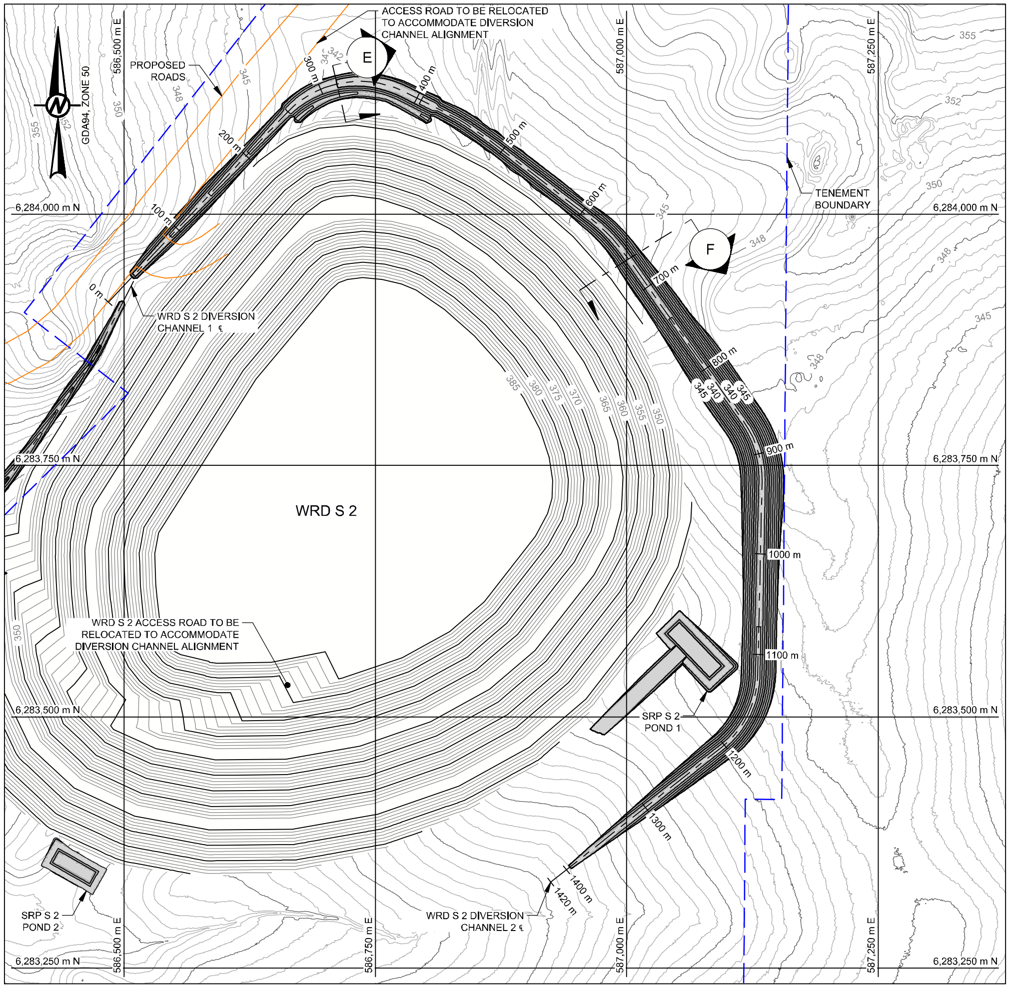
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
WRD S 2 DIVERSION CHANNEL 1
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F004

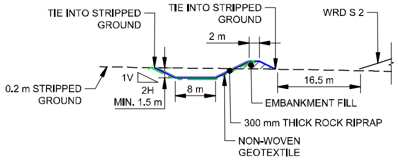
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

25 mm



WRD S 2 DIVERSION CHANNEL 2 - LAYOUT PLAN

SCALE 1:5,000



E WRD S 2 DIVERSION CHANNEL 2 - TYPICAL SECTION 1

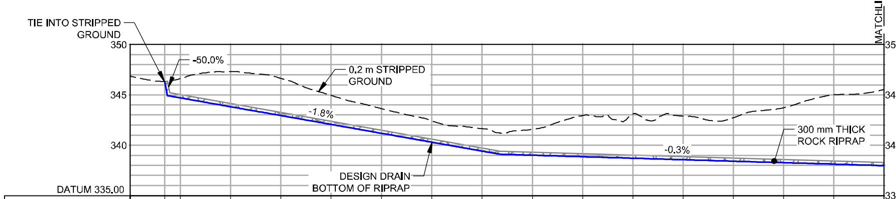
SCALE 1:1,000

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
— — —	TENEMENT BOUNDARY
──	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
▨	EMBANKMENT FILL
──	PROPOSED ROADS (PROVIDED BY AUSGOLD)
— · —	NON-WOVEN GEOTEXTILE

NOTE(S)

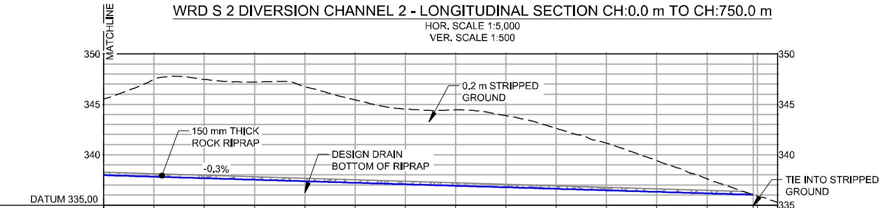
1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOLD, DATED 05 MARCH 2025.
3. JACKSON PIT AND OLYMPIA PIT MODELS PROVIDED BY AUSGOLD, DATED 15 MARCH 2025.
4. DINGO NORTH PIT, DINGO SOUTH PIT AND WASTE ROCK NORTH 2 MODELS PROVIDED BY AUSGOLD, DATED 15 APRIL 2025.
5. WASTE ROCK DUMP NORTH 1A, WASTE ROCK DUMP SOUTH 2 AND WASTE ROCK DUMP MAIN MODELS PROVIDED BY AUSGOLD, DATED 14 MAY 2025.
6. SURFACE PROVIDED FOR WASTE ROCK DUMPS REPRESENT FINAL REHABILITATED SLOPES. ADDITIONAL AREA IS AVAILABLE TO ACCOMMODATE SURFACE WATER MANAGEMENT INFRASTRUCTURE DURING OPERATIONS. AS A RESULT, OVERLAP MAY BE PRESENT IN THESE FIGURES.



DATUM 335.00																		
DESIGN DRAIN BOTTOM OF RIPRAP		346.30	344.71	343.83	342.95	342.07	341.18	340.30	339.42	339.01	338.86	338.71	338.56	338.42	338.27	338.12	337.97
0.2m STRIPPED GROUND	346.87	346.33	346.62	347.30	346.63	344.95	343.64	342.42	341.65	341.58	342.94	343.11	342.89	342.72	343.73	345.01	345.53
CUT AND FILL DEPTH (m)		0.03	-1.91	-3.48	-3.68	-2.88	-2.45	-2.12	-2.23	-2.56	-4.08	-4.39	-4.32	-4.30	-5.46	-6.90	-7.57
CHAINAGE	0	34	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750

WRD S 2 DIVERSION CHANNEL 2 - LONGITUDINAL SECTION CH:0.0 m TO CH:750.0 m

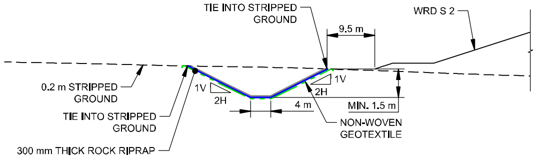
HOR. SCALE 1:5,000
VER. SCALE 1:500



DATUM 335.00																
DESIGN DRAIN BOTTOM OF RIPRAP	337.97	337.82	337.67	337.52	337.37	337.22	337.07	336.92	336.77	336.62	336.47	336.32	336.17	336.03		
0.2m STRIPPED GROUND	345.53	347.46	347.47	347.21	346.75	345.44	344.53	344.46	343.88	342.63	341.15	339.42	337.61	336.03	335.89	335.29
CUT AND FILL DEPTH (m)	-7.57	-9.65	-9.80	-9.70	-9.38	-8.22	-7.47	-7.54	-7.11	-6.01	-4.68	-3.10	-1.44	0.00		
CHAINAGE	750	800	850	900	950	1,000	1,050	1,100	1,150	1,200	1,250	1,300	1,350	1,396	1,400	1,420

WRD S 2 DIVERSION CHANNEL 2 - LONGITUDINAL SECTION CH:750.0 m TO CH:1,420.0 m

HOR. SCALE 1:5,000
VER. SCALE 1:500

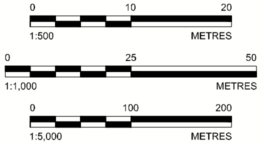


F WRD S 2 DIVERSION CHANNEL 2 - TYPICAL SECTION 2

SCALE 1:1,000

NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

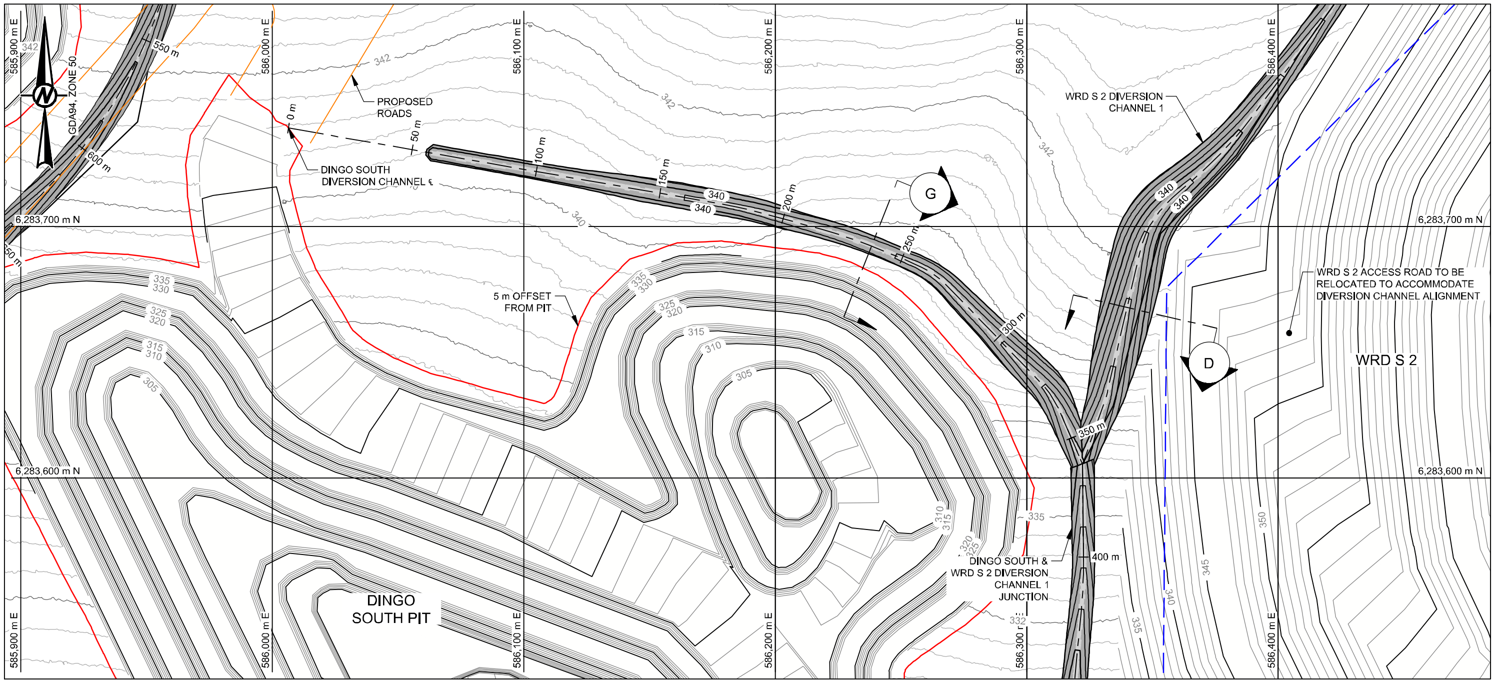
CONSULTANT
wsp

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
WRD S 2 DIVERSION CHANNEL 2
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F005



DINGO SOUTH DIVERSION CHANNEL - LAYOUT PLAN

SCALE 1:2,000

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
― ―	TENEMENT BOUNDARY
―	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
―	PROPOSED ROADS (PROVIDED BY AUSGOLD)
―·―	NON-WOVEN GEOTEXTILE

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
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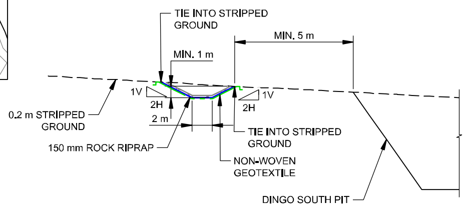
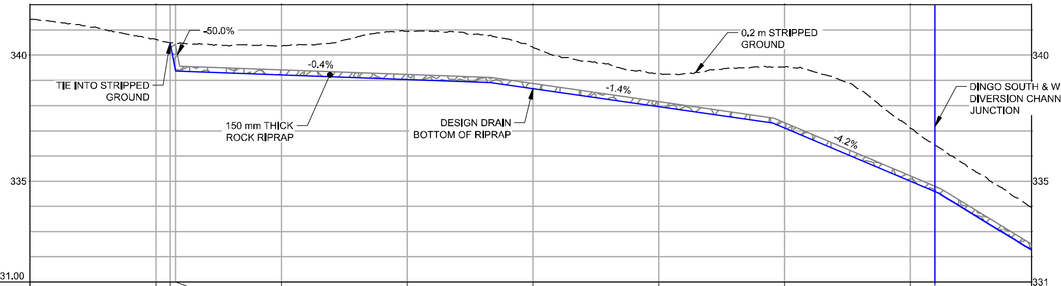
6. SURFACE PROVIDED FOR WASTE ROCK DUMPS REPRESENT FINAL REHABILITATED SLOPES. ADDITIONAL AREA IS AVAILABLE TO ACCOMMODATE SURFACE WATER MANAGEMENT INFRASTRUCTURE DURING OPERATIONS. AS A RESULT, OVERLAP MAY BE PRESENT IN THESE FIGURES.



SCALE 1:500 G DINGO SOUTH DIVERSION CHANNEL - TYPICAL SECTION



DATUM 331.00

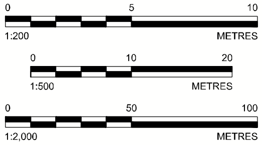
DESIGN DRAIN BOTTOM OF RIPRAP			340.48	339.37	339.22	339.04	338.67	337.96	337.11	335.00	334.58	
0.2m STRIPPED GROUND	341.42	340.62	340.48	340.47	340.37	340.95	340.31	339.27	339.54	337.11	336.43	333.96
CUT AND FILL DEPTH (m)			0.00	1.10	-1.15	-1.91	-1.63	-1.31	-2.42	-2.11	1.85	
CHAINAGE	0	50	56	58	100	150	200	250	300	350	361	400

DINGO SOUTH DIVERSION CHANNEL - LONGITUDINAL SECTION

HOR. SCALE 1:2,000
VER. SCALE 1:200

NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

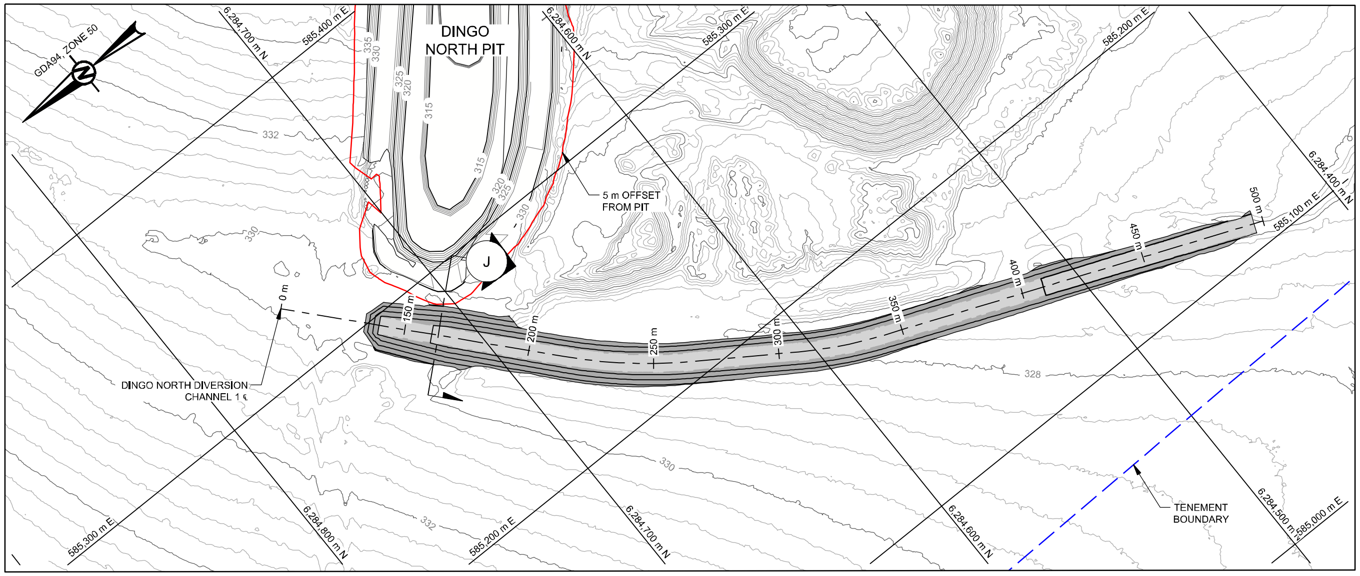
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
DINGO SOUTH DIVERSION CHANNEL
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F006



DINGO NORTH DIVERSION CHANNEL 1 - LAYOUT PLAN

SCALE 1:2,000

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- - -	TENEMENT BOUNDARY
—	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
-·-	NON-WOVEN GEOTEXTILE

NOTE(S)

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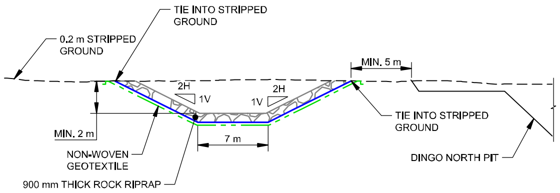
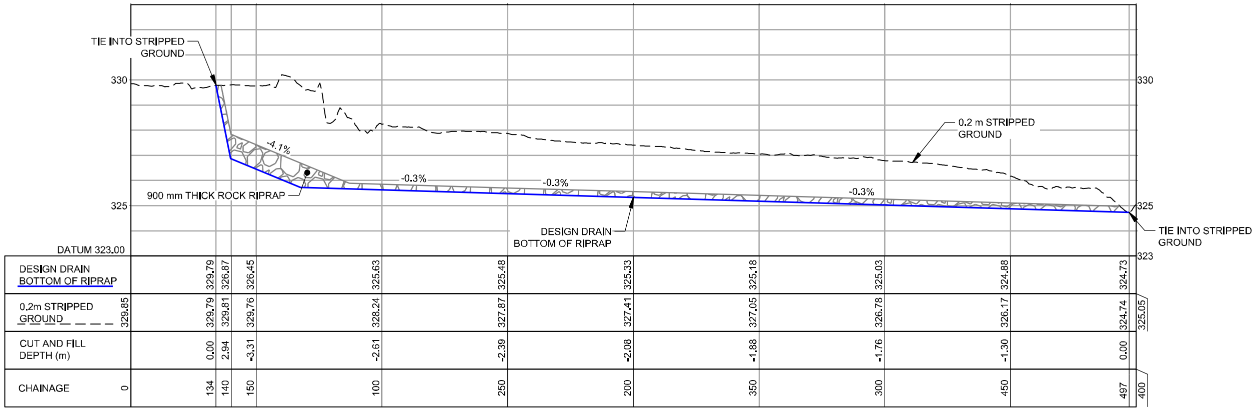


J DINGO NORTH DIVERSION CHANNEL 1 - TYPICAL SECTION

SCALE 1:500



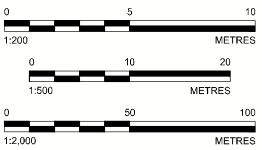
DESIGN DRAIN BOTTOM OF RIPRAP		329.79	326.87	326.45	325.63	325.48	325.33	325.18	325.03	324.88	324.73	
0.2m STRIPPED GROUND	329.85	329.79	329.81	329.76	328.24	327.87	327.41	327.05	326.78	326.17	324.74	325.05
CUT AND FILL DEPTH (m)		0.00	2.94	-3.31	-2.61	-2.39	-2.08	-1.88	-1.76	-1.30	0.00	
CHAINAGE	0	134	140	150	100	250	200	350	300	450	497	400

DINGO NORTH DIVERSION CHANNEL 1 - LONGITUDINAL SECTION

HOR. SCALE 1:2,000
VER. SCALE 1:200

NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

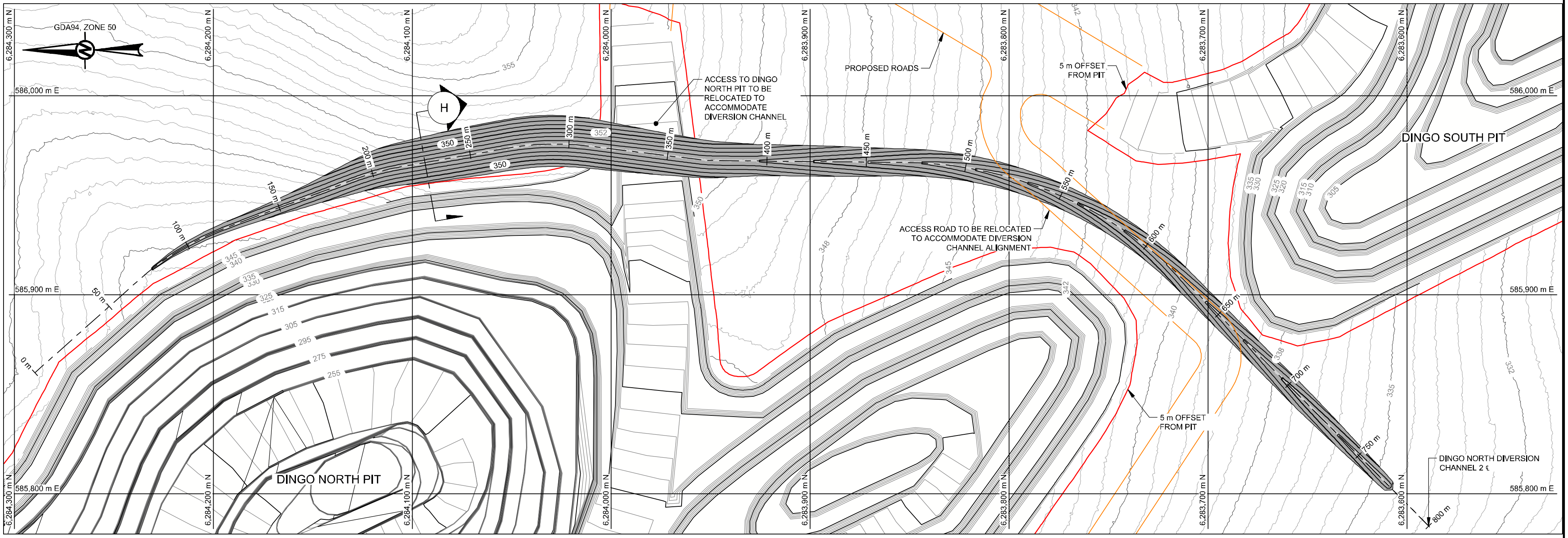
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

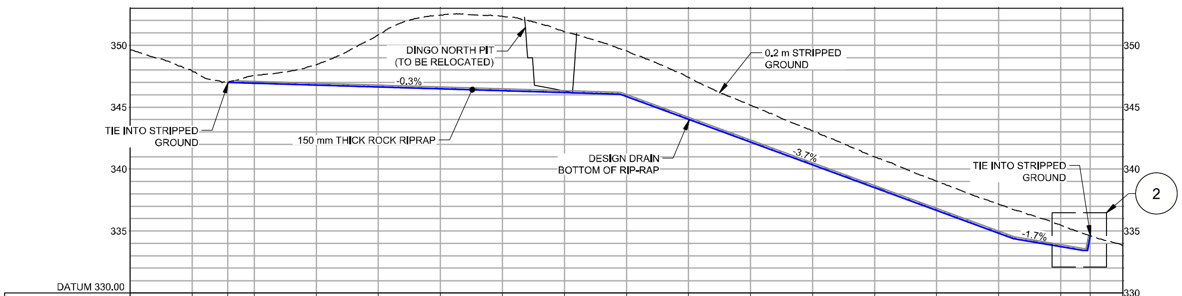
TITLE
DINGO NORTH DIVERSION CHANNEL 1
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F007



DINGO NORTH DIVERSION CHANNEL 2 - LAYOUT PLAN

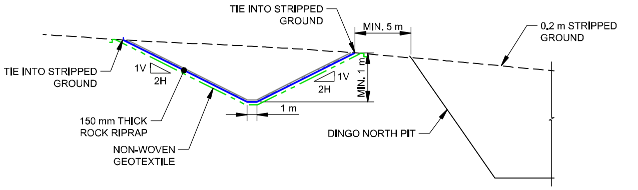
SCALE 1:2,000



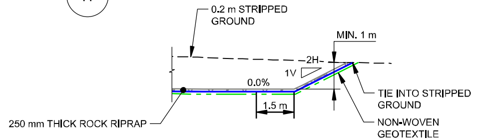
DESIGN DRAIN BOTTOM OF RIPRAP			347.00	346.94	346.79	346.64	346.49	346.34	346.19	345.87	344.03	342.19	340.35	338.51	336.67	334.83	333.75	334.60	
0.2m STRIPPED GROUND	349.64	347.91	347.00	347.55	348.43	350.85	352.44	352.35	351.09	349.55	347.41	345.15	343.09	340.97	339.03	337.18	335.48	334.60	333.86
CUT AND FILL DEPTH (m)			0.00	-0.62	-1.64	-4.22	-5.95	-6.01	-4.90	-3.69	-3.39	-2.96	-2.74	-2.46	-2.36	-2.35	-1.73	0.00	
CHAINAGE	0	50	79	100	150	200	250	300	350	400	450	500	550	600	650	700	750	774	800

DINGO NORTH DIVERSION CHANNEL 2 - LONGITUDINAL SECTION

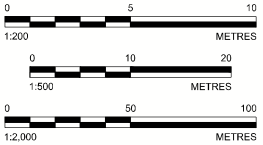
HOR. SCALE 1:2,000
VER. SCALE 1:200



SCALE 1:500 (H) DINGO NORTH DIVERSION CHANNEL 2 - TYPICAL SECTION



SCALE 1:200 (2) DINGO NORTH DIVERSION CHANNEL 2 DISSIPATION STRUCTURE



NOT FOR CONSTRUCTION

DRAFT

NOTE(S)

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2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOL, DATED 05 MARCH 2025.
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CLIENT
AUSGOLD LIMITED

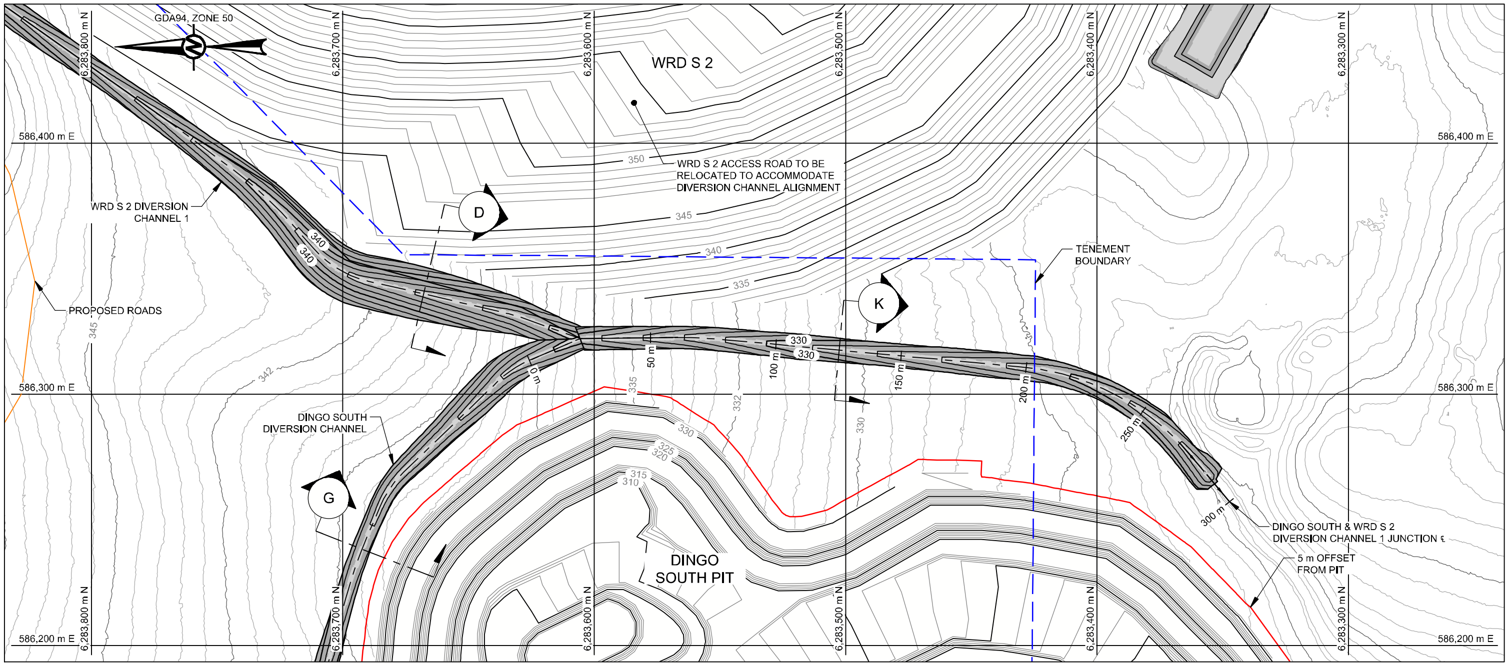
CONSULTANT
wsp

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
DINGO NORTH DIVERSION CHANNEL 2
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F008



DINGO SOUTH & WRD S 2 DIVERSION CHANNEL 1 JUNCTION - LAYOUT PLAN

SCALE 1:2,000

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
— —	TENEMENT BOUNDARY
—	5 m OFFSET FROM PIT (TO ACCOMMODATE PIT BUND)
▨	ROCK RIPRAP
— · —	NON-WOVEN GEOTEXTILE

NOTE(S)

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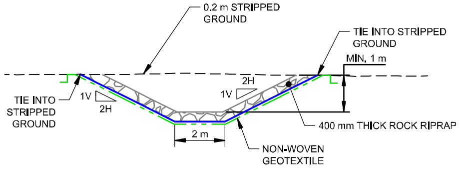
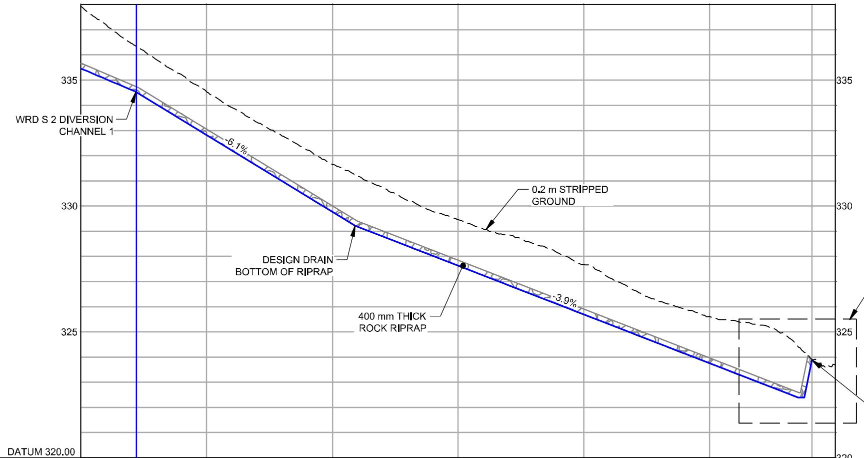


DINGO SOUTH & WRD S 2 DIVERSION CHANNEL 1 JUNCTION - TYPICAL SECTION

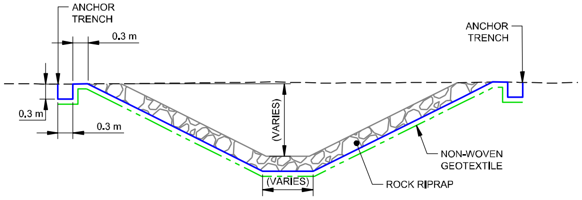
SCALE 1:200 K



DESIGN DRAIN BOTTOM OF RIPRAP		334.52	332.82	329.77	327.63	325.69	323.75	323.89	
0.2m STRIPPED GROUND	337.93	336.35	334.55	331.66	329.46	327.67	325.61	323.89	323.69
CUT AND FILL DEPTH (m)		1.82	-1.73	-1.89	-1.83	-1.98	-1.85	0.00	
CHAINAGE	0	22	50	100	150	200	250	291	300

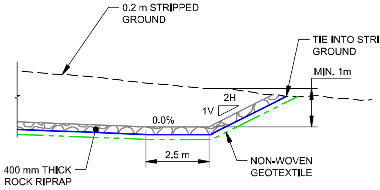
DINGO SOUTH & WRD S 2 DIVERSION CHANNEL 1 JUNCTION - LONGITUDINAL SECTION

HOR. SCALE 1:2,000
VER. SCALE 1:200



DIVERSION CHANNEL - TYPICAL DETAIL

SCALE 1:100

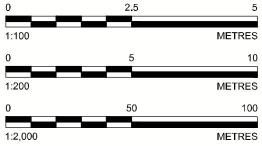


DINGO SOUTH & WRD S 2 DIVERSION CHANNEL 1 JUNCTION DISSIPATION STRUCTURE - TYPICAL DETAIL

SCALE 1:200 3

NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

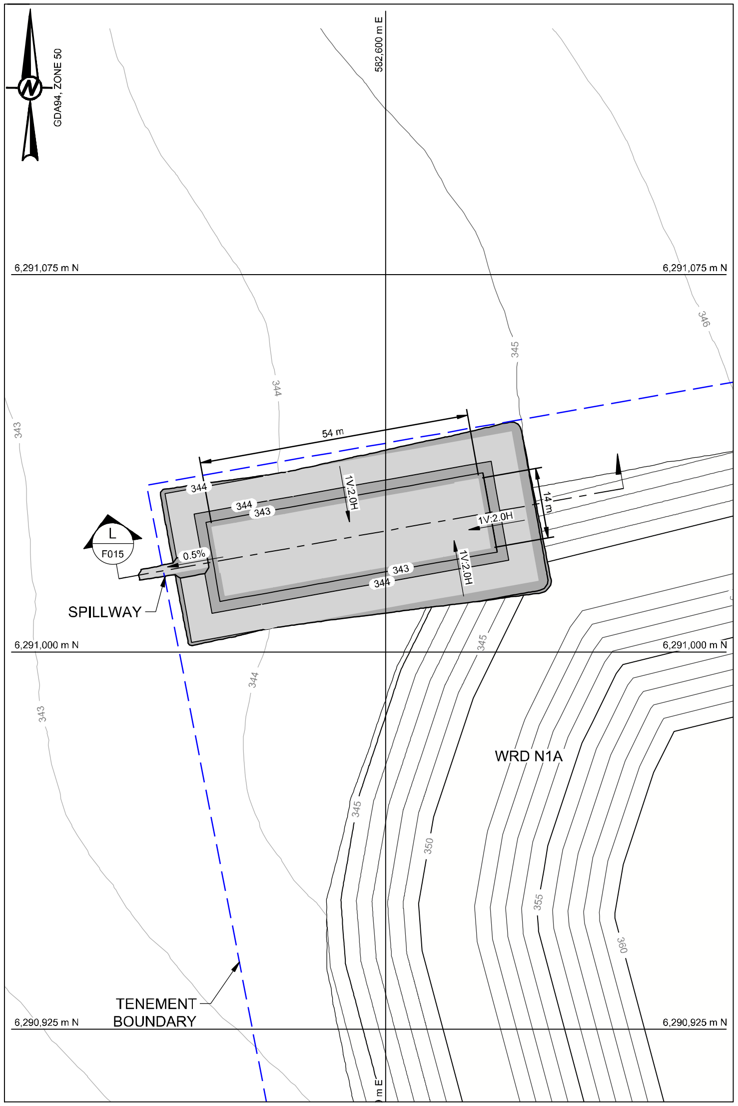
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

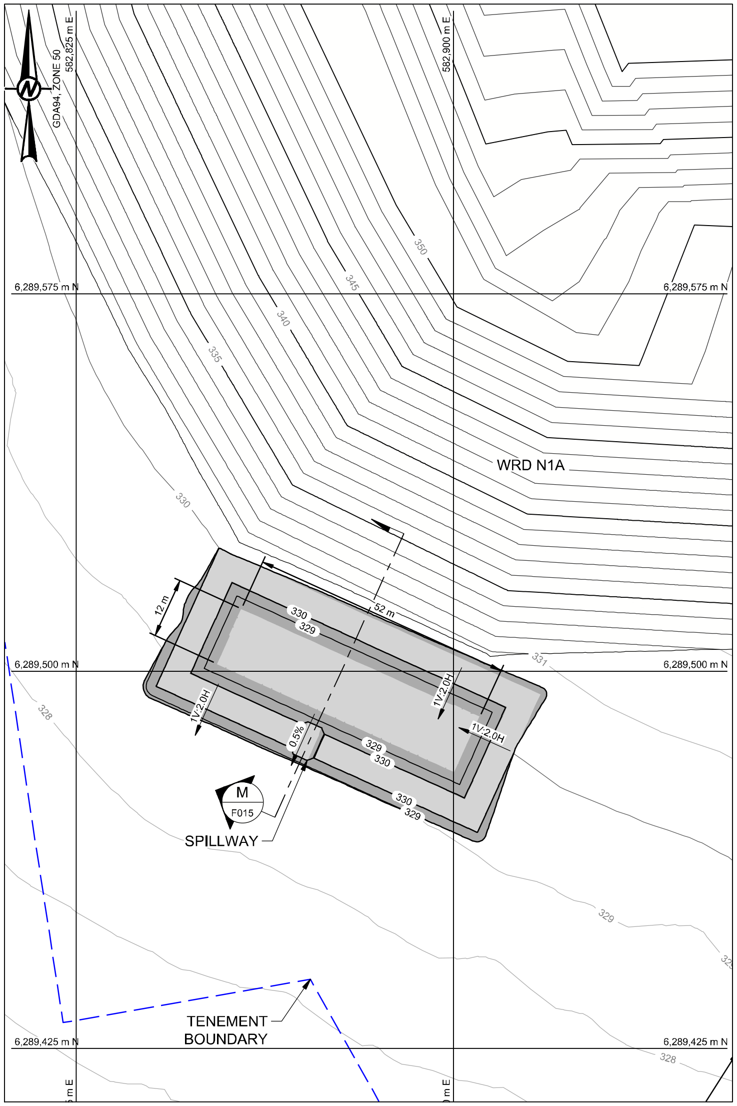
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
DINGO SOUTH & WRD 2 DIVERSION CHANNEL 1 JUNCTION
LAYOUT PLAN AND SECTIONS

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F009



SRP N 1A POND 1 - LAYOUT PLAN
SCALE 1:1,000



SRP N 1A POND 2 - LAYOUT PLAN
SCALE 1:1,000

LEGEND

—— 500 ——	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
—— 500 ——	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
– – – –	TENEMENT BOUNDARY

NOTE(S)

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7. CONTACT RUNOFF FROM WASTE ROCK DUMPS REPORT TO SEDIMENT RETENTION PONDS VIA PERIMETER DRAIN AND SEPARATION BERMS (NOT SHOWN) ALONG WASTE ROCK DUMP TOES.

NOT FOR CONSTRUCTION

DRAFT

0 25 50
1:1,000 METRES

CLIENT
AUSGOLD LIMITED

CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

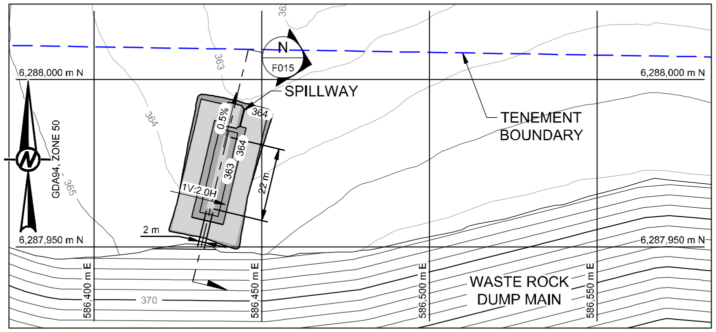
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
SEDIMENT RETENTION POND N 1A POND 1 AND POND 2 LAYOUT PLAN

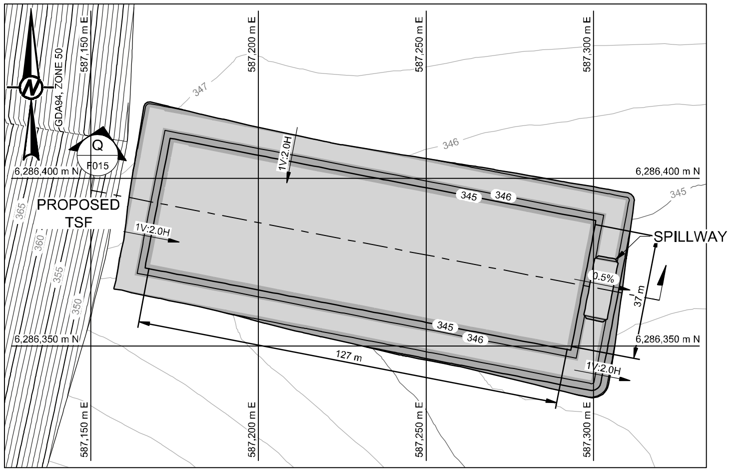
PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F010

25 mm
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

Path: C:\Users\AUJd511111\DC\ACCDocs\WSP (AUS)\AU-AusGold_Katanning\Project Files\99_PROJECTS\PS222221_Sufarce_Water_Management\xxxx_Feasibility Study Figures\02_PRODUCTION\DWG\ | File Name: F010-F017 - Sediment Ponds.dwg | Last Edited By: aujd511111 Date: 2025-05-20 Time:4:14:41 PM | Printed By: AUJd511111 Date: 2025-05-20 Time:4:49:05 PM



MAIN SRP POND 1 - LAYOUT PLAN
SCALE 1:1,500



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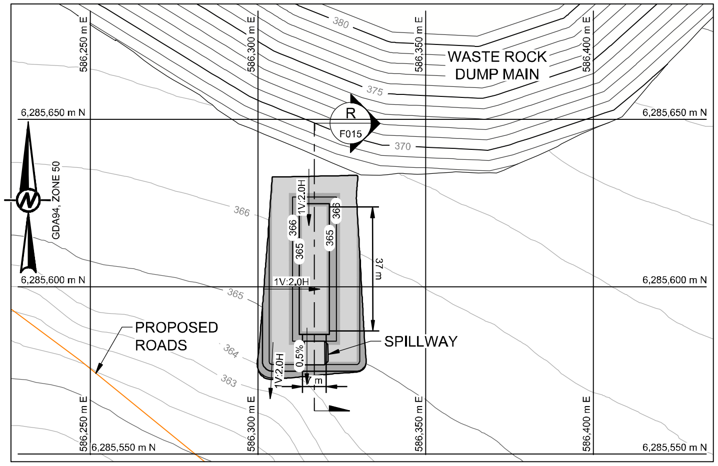
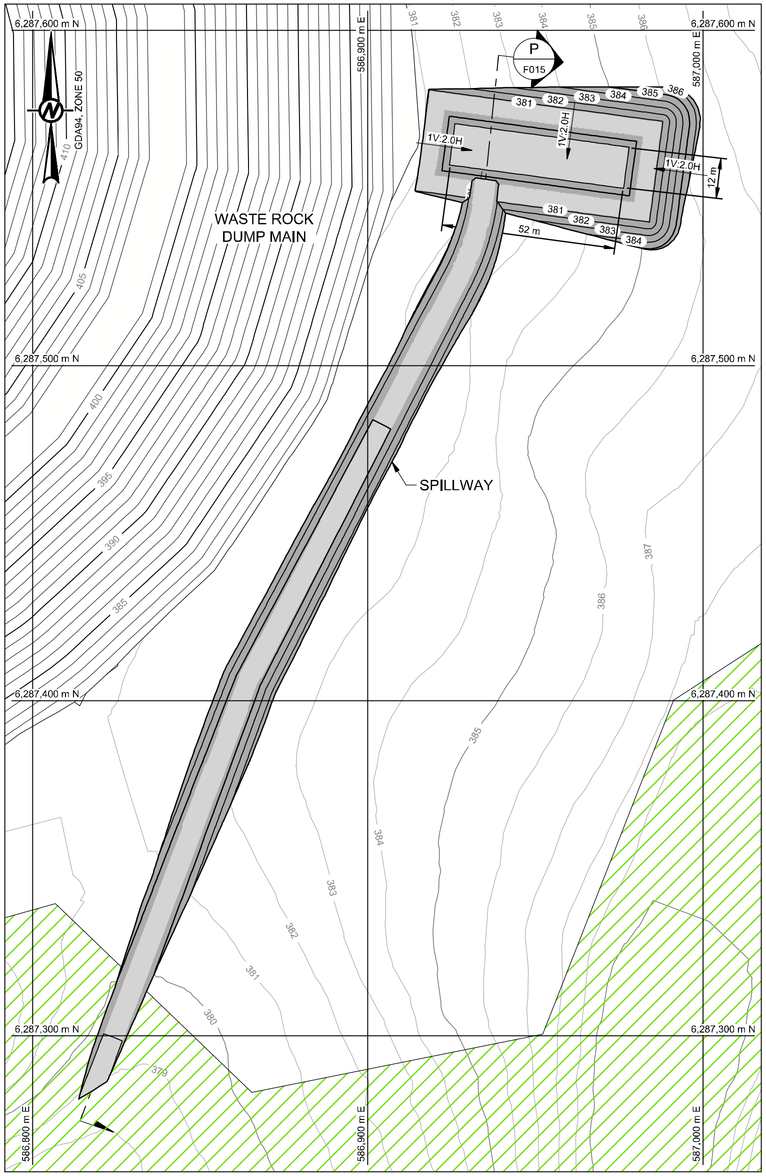
SCALE 1:1,500



MAIN SRP POND 4 - LAYOUT PLAN
SCALE 1:1,500



MAIN SRP POND 2 - LAYOUT PLAN
SCALE 1:1,500

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
– – –	TENEMENT BOUNDARY
──	PROPOSED ROADS (PROVIDED BY AUSGOLD)
🟩	EXEMPTION WOODLAND ZONE

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOLD, DATED 05 MARCH 2025.
3. JACKSON PIT AND OLYMPIA PIT MODELS PROVIDED BY AUSGOLD, DATED 15 MARCH 2025.
4. DINGO NORTH PIT, DINGO SOUTH PIT AND WASTE ROCK NORTH 2 MODELS PROVIDED BY AUSGOLD, DATED 15 APRIL 2025.
5. WASTE ROCK DUMP NORTH 1A, WASTE ROCK DUMP SOUTH 2 AND WASTE ROCK DUMP MAIN MODELS PROVIDED BY AUSGOLD, 14 MAY 2025.
6. SURFACE PROVIDED FOR WASTE ROCK DUMPS REPRESENT FINAL REHABILITATED SLOPES. ADDITIONAL AREA IS AVAILABLE TO ACCOMMODATE SURFACE WATER MANAGEMENT INFRASTRUCTURE DURING OPERATIONS. AS A RESULT, OVERLAP MAY BE PRESENT IN THESE FIGURES.
7. CONTACT RUNOFF FROM WASTE ROCK DUMPS REPORT TO SEDIMENT RETENTION PONDS VIA PERIMETER DRAIN AND SEPARATION BERMS (NOT SHOWN) ALONG WASTE ROCK DUMP TOES.

NOT FOR CONSTRUCTION

DRAFT

0 25 50
1:1,500 METRES

CLIENT
AUSGOLD LIMITED

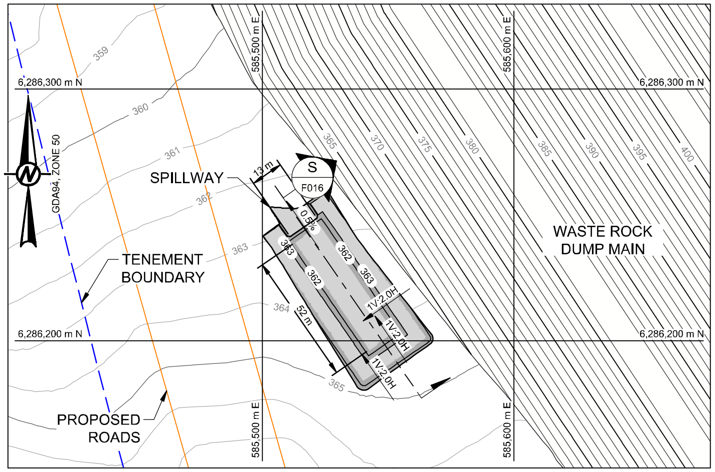
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

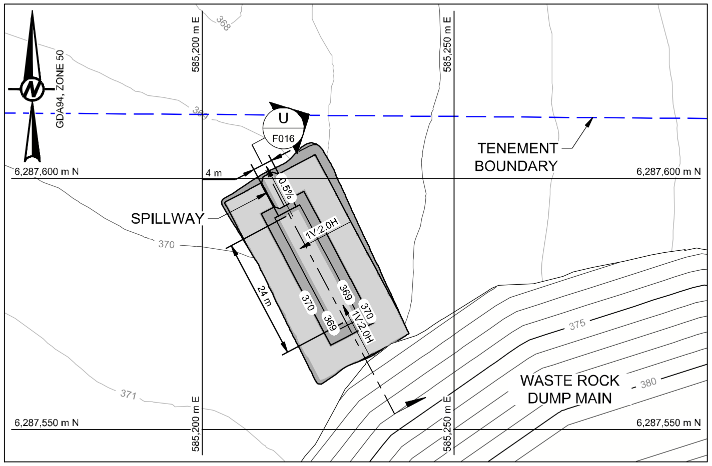
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
MAIN SEDIMENT RETENTION PONDS 1 TO 4 LAYOUT PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F011



MAIN SRP POND 5 - LAYOUT PLAN
SCALE 1:1,000



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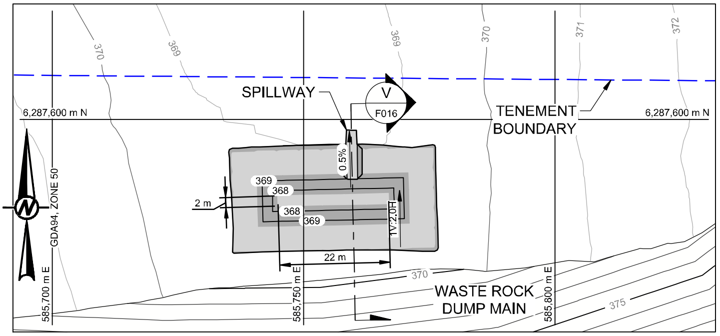
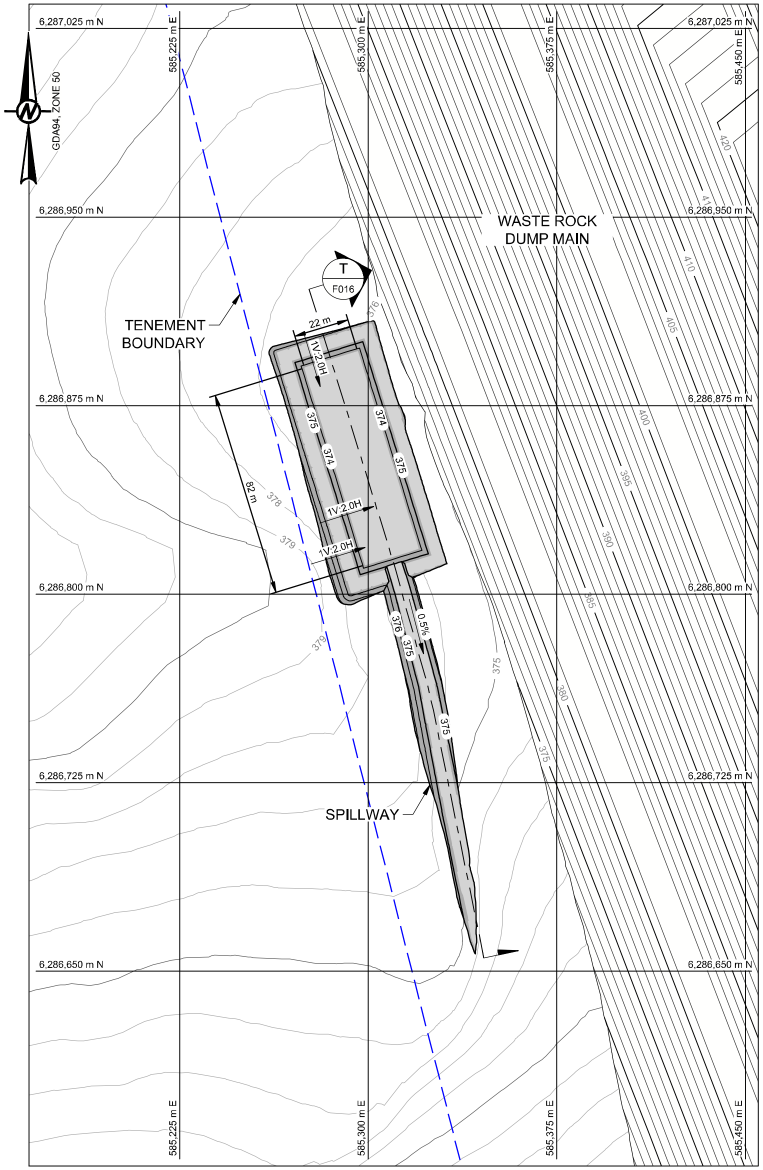
SCALE 1:1,000



MAIN SRP POND 8 - LAYOUT PLAN
SCALE 1:1,000



MAIN SRP POND 6 - LAYOUT PLAN
SCALE 1:2,000

LEGEND

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
	TENEMENT BOUNDARY
	PROPOSED ROADS (PROVIDED BY AUSGOLD)

NOTE(S)

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7. CONTACT RUNOFF FROM WASTE ROCK DUMPS REPORT TO SEDIMENT RETENTION PONDS VIA PERIMETER DRAIN AND SEPARATION BERMS (NOT SHOWN) ALONG WASTE ROCK DUMP TOES.

NOT FOR CONSTRUCTION

DRAFT

0 25 50
1:1,000 METRES

0 50 100
1:2,000 METRES

CLIENT
AUSGOLD LIMITED

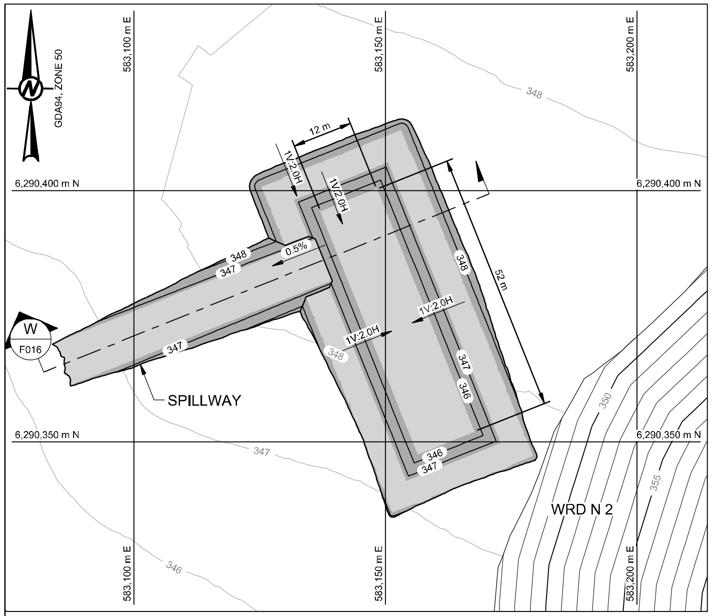
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

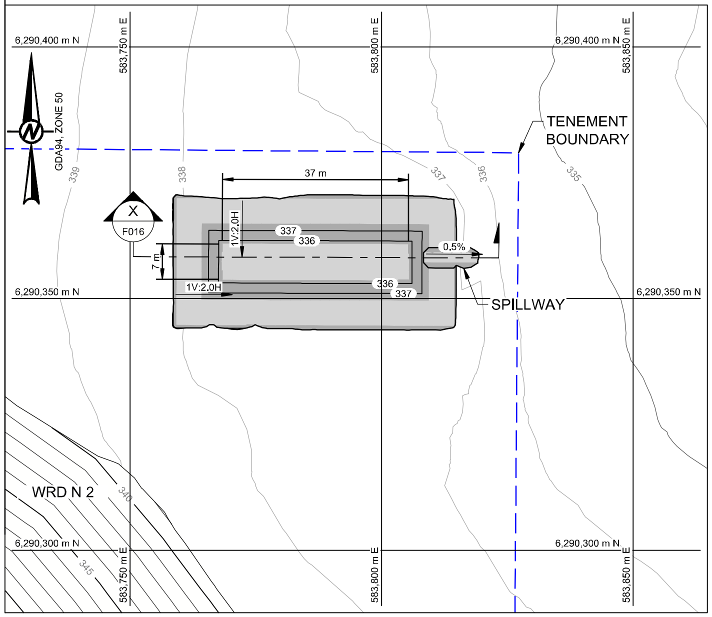
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
MAIN SEDIMENT RETENTION PONDS 5 TO 8
LAYOUT PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F012



SRP N 2 POND 1 - LAYOUT PLAN
SCALE 1:1,000



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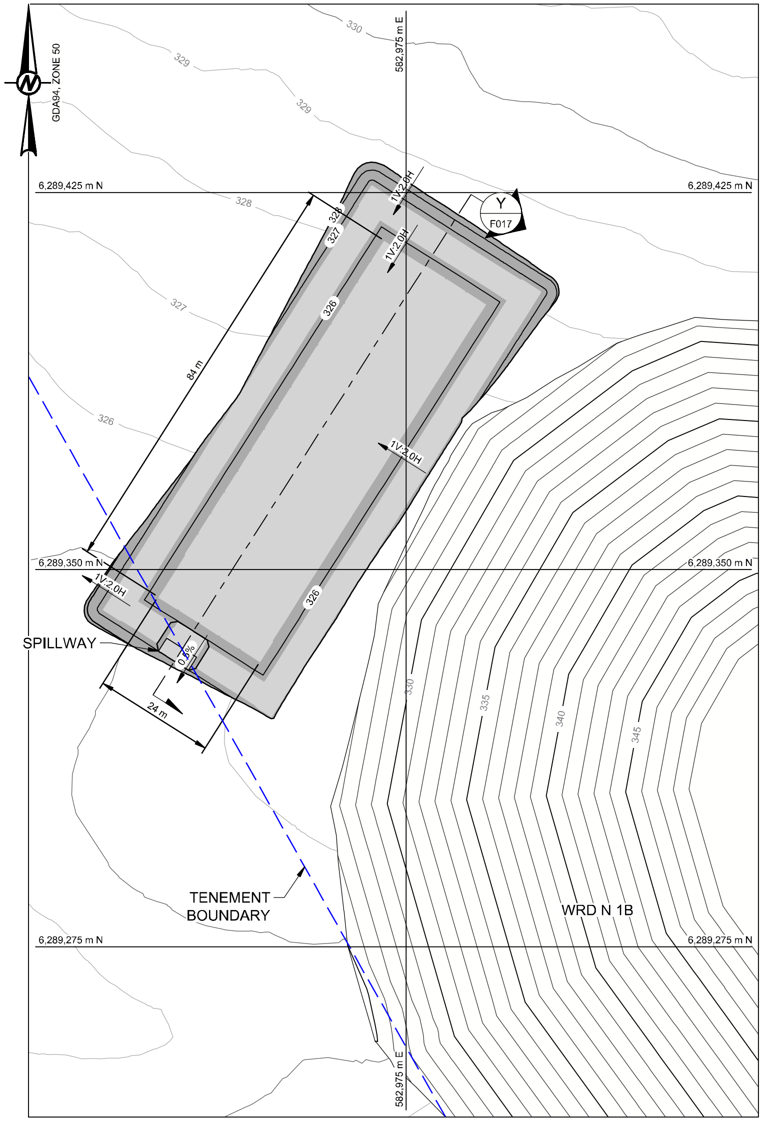
SCALE 1:1,000



SRP N 1B POND 1 - LAYOUT PLAN
SCALE 1:1,000

LEGEND

- 500 EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- 500 DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
- TENEMENT BOUNDARY

NOTE(S)

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7. CONTACT RUNOFF FROM WASTE ROCK DUMPS REPORT TO SEDIMENT RETENTION PONDS VIA PERIMETER DRAIN AND SEPARATION BERMS (NOT SHOWN) ALONG WASTE ROCK DUMP TOES.

NOT FOR CONSTRUCTION

DRAFT

0 25 50
1:1,000 METRES

CLIENT
AUSGOLD LIMITED

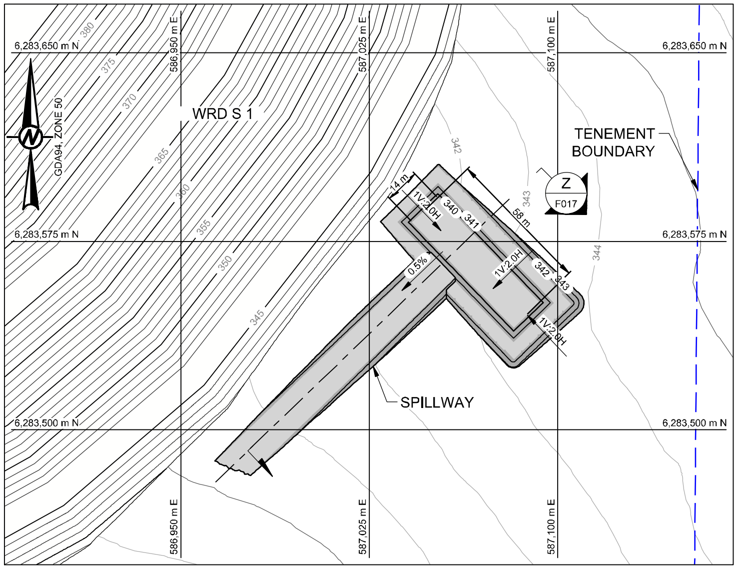
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

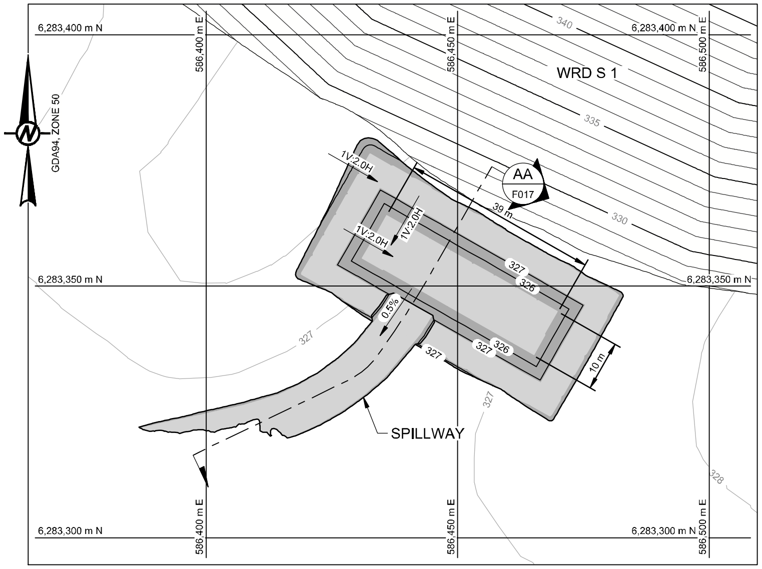
PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
SEDIMENT RETENTION POND N2 POND 1, N2 POND 2 AND N 1B POND 1
LAYOUT PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F013



SRP S 2 POND 1 - LAYOUT PLAN
SCALE 1:2,000



SRP S 2 POND 2 - LAYOUT PLAN
SCALE 1:1,000

500	EXISTING TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
500	DESIGN TOPOGRAPHICAL CONTOUR AND ELEVATION (mAHD)
	TENEMENT BOUNDARY

LEGEND

NOTE(S)

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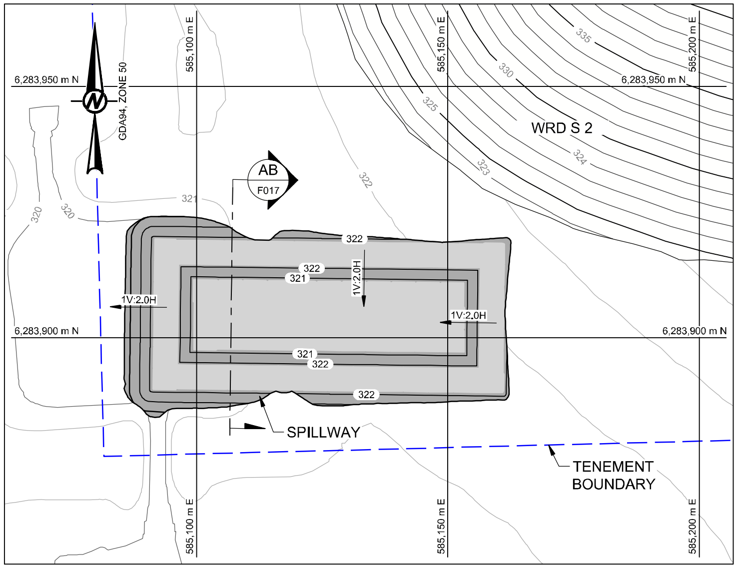
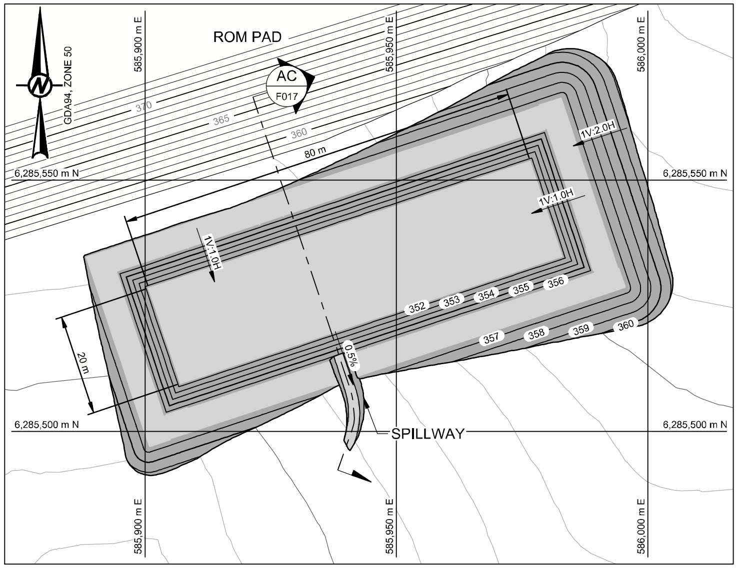


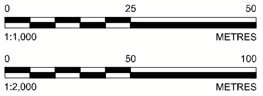
SRP S 1 POND 1 - LAYOUT PLAN
SCALE 1:1,000



STORMWATER POND - LAYOUT PLAN
SCALE 1:1,000

NOT FOR CONSTRUCTION

DRAFT



CLIENT
AUSGOLD LIMITED

CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
SEDIMENT RETENTION POND S 2 POND 1, S 2 POND 2, S 1 POND 1, AND STORMWATER POND LAYOUT PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F014

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

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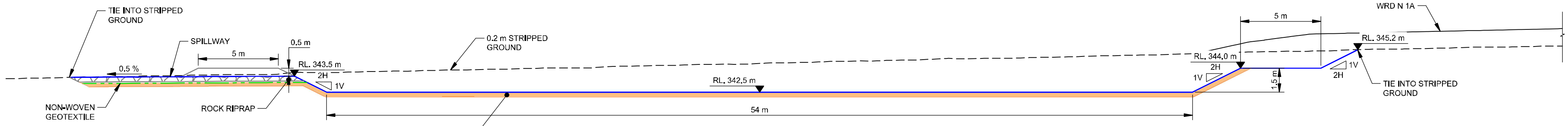

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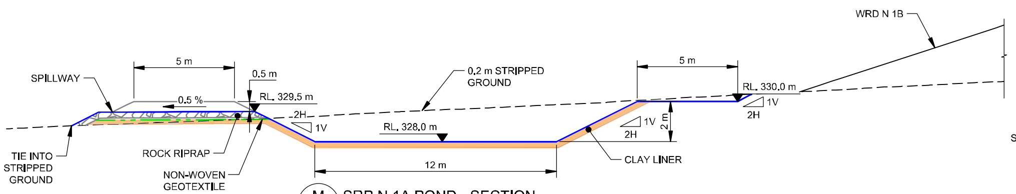

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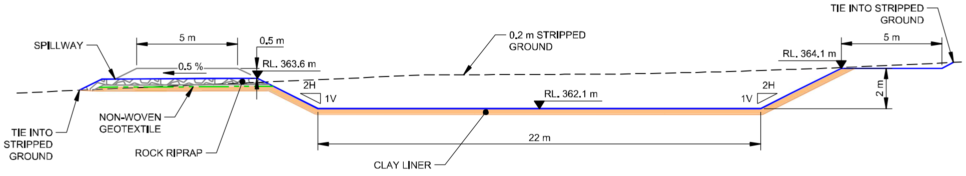
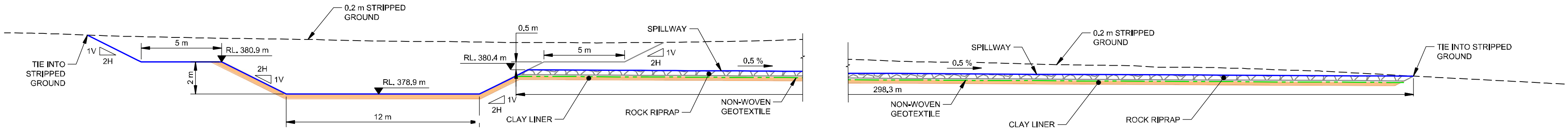


SCALE 1:250 N F011 MAIN SRP POND 1 - SECTION



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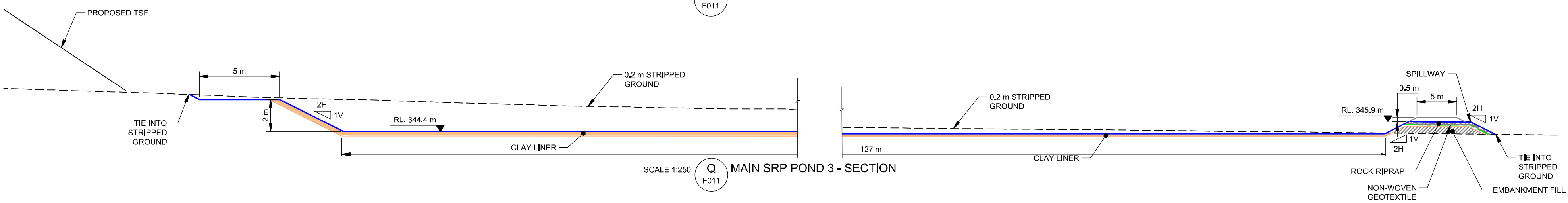

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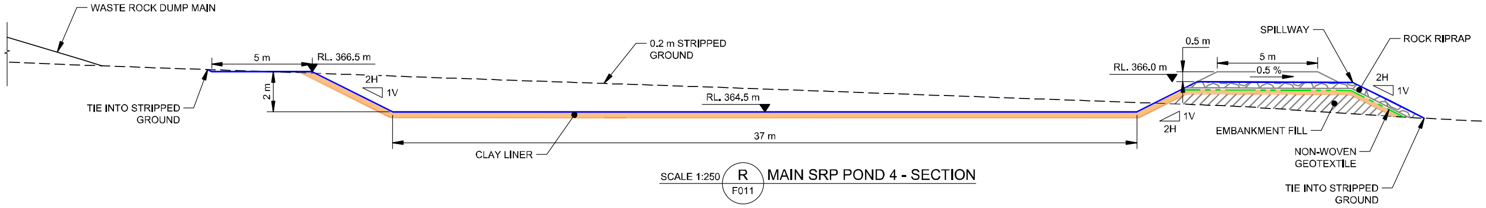

SCALE 1:250 R F011 MAIN SRP POND 4 - SECTION

NOT FOR CONSTRUCTION

DRAFT

0 5 10
1:250 METRES

LEGEND

▨	ROCK RIPRAP
▨	EMBANKMENT FILL
🟧	CLAY LINER
— - —	NON-WOVEN GEOTEXTILE

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOLD, DATED 05 MARCH 2025.
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CLIENT
AUSGOLD LIMITED

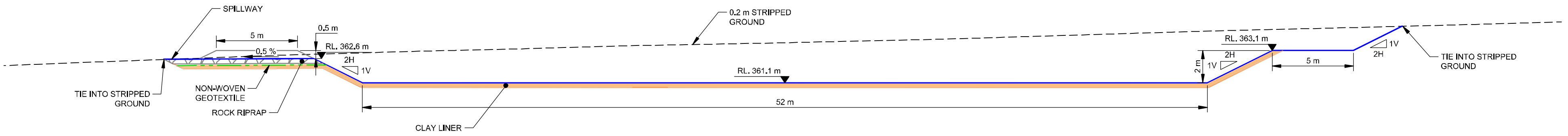
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
POND TYPICAL SECTIONS AND DETAILS
(1 OF 3)

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F015



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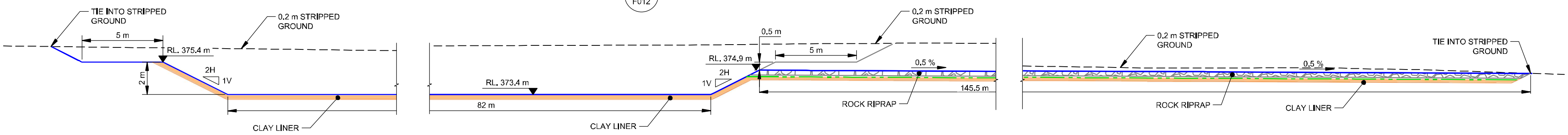

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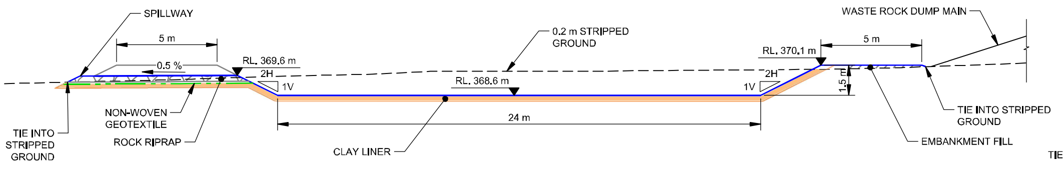

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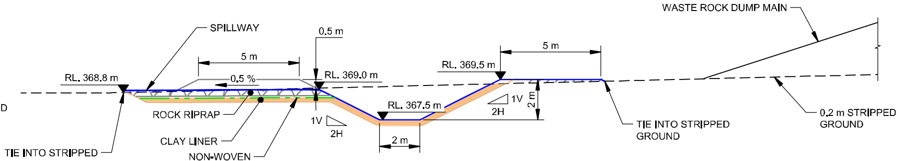

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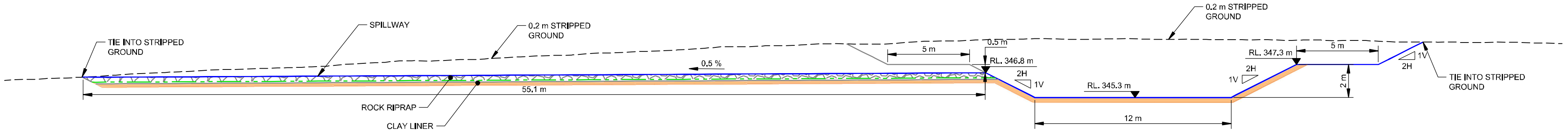

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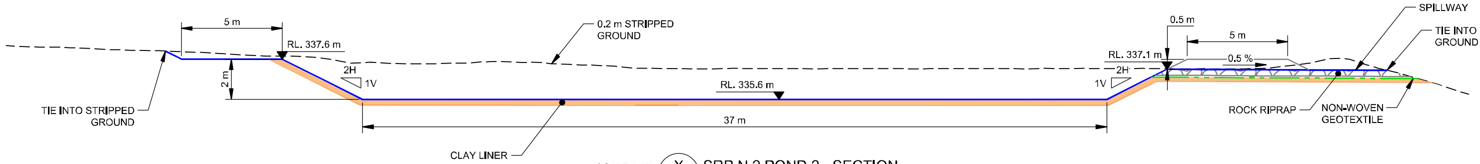

SCALE 1:250 X F013 SRP N 2 POND 2 - SECTION

NOT FOR CONSTRUCTION

DRAFT

0 5 10
1:250 METRES

LEGEND

▨	ROCK RIPRAP
▨	EMBANKMENT FILL
🟧	CLAY LINER
— · —	NON-WOVEN GEOTEXTILE

NOTE(S)

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CLIENT
AUSGOLD LIMITED

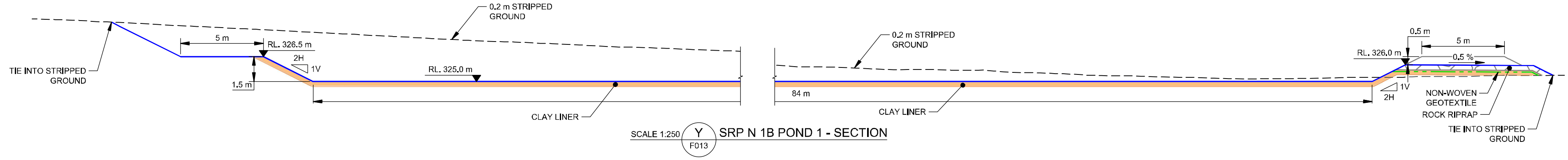
CONSULTANT

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
POND TYPICAL SECTIONS AND DETAILS (2 OF 3)

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F016



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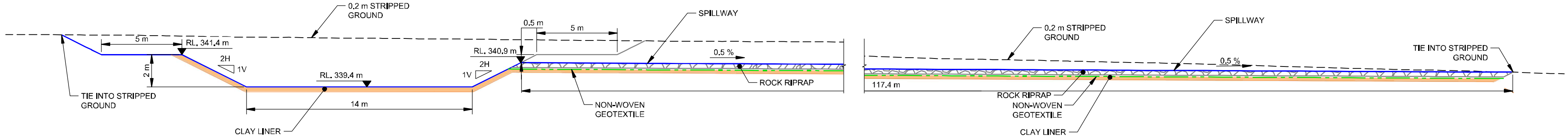

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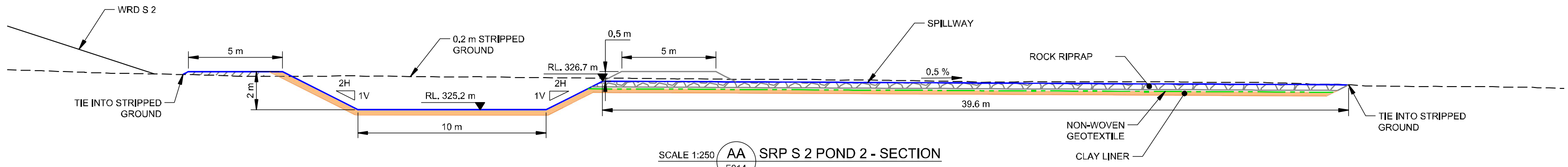

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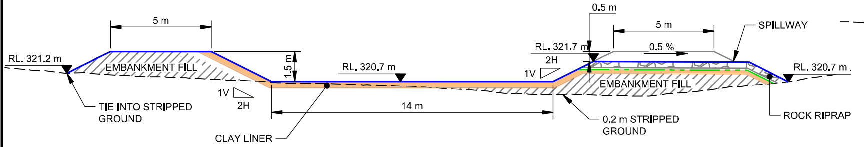
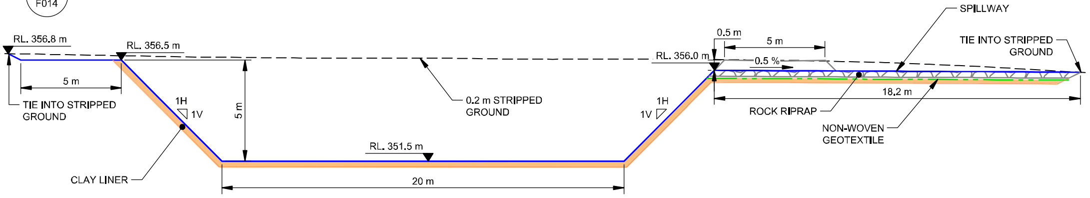
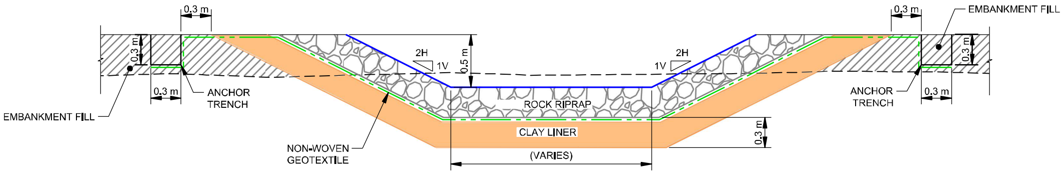


SCALE 1:250 AB F014 SRP S 1 POND 1 - SECTION



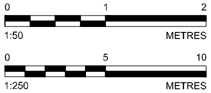
SCALE 1:250 AC F014 STORM WATER POND - SECTION



SPILLWAY - TYPICAL SECTION
SCALE 1:50

NOT FOR CONSTRUCTION

DRAFT



LEGEND

▨	ROCK RIPRAP
▨	EMBANKMENT FILL
🟧	CLAY LINER
— · —	NON-WOVEN GEOTEXTILE

NOTE(S)

1. SURVEY DATA PROVIDED BY AUSGOLD, DATED 31 OCTOBER 2023.
2. WASTE ROCK DUMP NORTH 1B AND ROM PAD MODELS PROVIDED BY AUSGOLD, DATED 05 MARCH 2025.
3. JACKSON PIT AND OLYMPIA PIT MODELS PROVIDED BY AUSGOLD, DATED 15 MARCH 2025.
4. DINGO NORTH PIT, DINGO SOUTH PIT AND WASTE ROCK NORTH 2 MODELS PROVIDED BY AUSGOLD, DATED 15 APRIL 2025.
5. WASTE ROCK DUMP NORTH 1A, WASTE ROCK DUMP SOUTH 2 AND WASTE ROCK DUMP MAIN MODELS PROVIDED BY AUSGOLD, DATED 14 MAY 2025.
6. SURFACE PROVIDED FOR WASTE ROCK DUMPS REPRESENT FINAL REHABILITATED SLOPES. ADDITIONAL AREA IS AVAILABLE TO ACCOMMODATE SURFACE WATER MANAGEMENT INFRASTRUCTURE DURING OPERATIONS. AS A RESULT, OVERLAP MAY BE PRESENT IN THESE FIGURES.

CLIENT
AUSGOLD LIMITED

CONSULTANT
wsp

YYYY-MM-DD	2025-05-16
DESIGNED	L. ANG
PREPARED	A. JUSTINICO
REVIEWED	L. ANG
APPROVED	

PROJECT
KATANNING GOLD PROJECT
SURFACE WATER MANAGEMENT PLAN
FEASIBILITY STUDY

TITLE
POND TYPICAL SECTIONS AND DETAILS
(3 OF 3)

PROJECT NO.	CONTROL	REV.	FIGURE
PS222221	001	A	F017

Appendix D

SWMP Bill of Quantities

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WRD N 1A Diversion Channel

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	6,780		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	6,780		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	6,790		$ -
3.2	Placement of fill for diversion channel berms in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from diversion channel alignment.	m	330		
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	2,250		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	6,990		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	1.5 x D50 = 150 mm riprap	m^3	330		
	1.5 x D50 = 100 mm riprap	m^3	280		
	1.5 x D50 = 50 mm riprap	m^3	280		
				Subtotal	$ -

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WRD N 1B Diversion Channel

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	35,540		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	35,540		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	103,960		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	3,340		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	38,880		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 200 mm riprap	m^3	1,770		
	D50 = 150 mm riprap	m^3	2,780		
	D50 = 100 mm riprap	m^3	890		
				Subtotal	$ -

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WRD South Main Diversion Channel 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	4,640		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	4,640		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	8,250		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	710		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	5,090		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 200 mm riprap	m^3	1,320		
	D50 = 50 mm riprap	m^3	60		
				Subtotal	$ -

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WRD South Main Diversion Channel 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	ha	4		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	ha	4		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	123,560		$ -
3.2	Placement of fill for diversion channel berms in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from diversion channel alignment.	m	1,250		
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	2,730		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	38,380		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 200 mm riprap	m^3	2,100		
	D50 = 50 mm riprap	m^3	2,360		
				Subtotal	$ -

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Dingo South Diversion Channel

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	2,740		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	2,740		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	3,080		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	600		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	2,990		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 250 mm riprap	m^3	320		
	D50 = 150 mm riprap	m^3	240		
	D50 = 50 mm riprap	m^3	340		
				Subtotal	$ -

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WRD South Main Diversion Channel 1 and Dingo South Diversion Channel Junction

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	2,590		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	2,590		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	2,940		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	550		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	2,820		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 250 mm riprap	m^3	750		
	D50 = 200 mm riprap	m^3	250		
				Subtotal	$ -

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Dingo North - Southern Diversion Channel

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	m^2	5,730		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	m^2	5,730		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	8,970		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	740		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	6,120		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 600 mm riprap	m^3	670		
	D50 = 250 mm riprap	m^3	310		
	D50 = 150 mm riprap	m^3	1,230		
	D50 = 100 mm riprap	m^3	120		
				Subtotal	$ -

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Dingo North - Diversion Channel 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from diversion channel footprint	ha	9,760		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from diversion channel footprint.	ha	9,760		
				Subtotal	$ -
3	**Divesion Channel Earthworks**				
3.1	Excavate to form diversion channel subgrade (base of geotextile) including load and dispose or re-use for diversion channel berm construction.	m^3	20,280		$ -
3.3	Excavate diversion channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from diversion channel crest.	m	1,400		
3.4	Prepare diversion channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	10,820		$ -
3.5	Placement of riprap material to minimum thickness shown in drawings				$ -
	D50 = 150 mm riprap	m^3	1,840		
	D50 = 50 mm riprap	m^3	1,780		
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

MAIN SRP POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	960		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway footprint.	m^2	960		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction	m^3	270		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	240		
3.3	Excavate spillway subgrade (base of riprap)	m^3	20		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	50		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	50		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	330		$ -
				Subtotal	$ -

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MAIN SRP POND 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	6,440		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	6,440		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	8,750		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	0		
3.3	Excavate spillway subgrade (base of riprap)	m^3	5,840		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	600		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	4,340		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	4,340		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,270		$ -
				Subtotal	$ -

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MAIN SRP POND 3

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	8,890		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	8,890		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	5,540		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	2,630		
3.3	Excavate spillway subgrade (base of riprap)	m^3	60		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	140		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	140		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	6,240		$ -
				Subtotal	$ -

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MAIN SRP POND 4

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	1,770		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway footprint	m^2	1,770		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	460		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	940		
3.3	Excavate spillway subgrade (base of riprap)	m^3	30		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	30		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	60		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	60		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	730		$ -
				Subtotal	$ -

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MAIN SRP POND 5

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	2,570		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	2,570		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	3,070		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	80		
3.3	Excavate spillway subgrade (base of riprap)	m^3	50		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	30		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	150		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	150		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,270		$ -
				Subtotal	$ -

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MAIN SRP POND 6

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	6,240		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	6,240		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	8,380		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.3	Excavate spillway subgrade (base of riprap)	m^3	1,590		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.		320		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	1,720		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	1,720		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	2,810		$ -
				Subtotal	$ -

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MAIN SRP POND 7

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	940		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	940		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	220		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	240		
3.3	Excavate spillway subgrade (base of riprap)	m^3	10		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.		20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	30		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	30		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	330		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

MAIN SRP POND 8

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	**$ -**
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	900		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	900		
				Subtotal	**$ -**
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	300		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	90		
3.3	Excavate spillway subgrade (base of riprap)	m^3	10		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.		10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	30		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	40		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	40		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	330		$ -
				Subtotal	**$ -**

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD N 1B - SRP N 1B POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	4,620		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	4,620		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	4,210		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	680		
3.3	Excavate spillway subgrade (base of riprap)	m^3	30		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.		20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	70		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	70		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	2,780		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD N 1A - SRP N 1A POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	2,390		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	2,390		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	2,290		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	100		
3.3	Excavate spillway subgrade (base of riprap)	m^3	10		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.		10		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	50		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	50		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,260		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD N 1A - SRP N 1A POND 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	2,440		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	2,440		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	1,440		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	620		
3.3	Excavate spillway subgrade (base of riprap)	m^3	20		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.		20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	40		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	40		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,270		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD N 2 - SRP N 2 POND 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	1,530		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway footprint	m^2	1,530		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	790		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	240		
3.3	Excavate spillway subgrade (base of riprap)	m^3	10		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.		10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	30		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	50		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	50		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	730		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD N 2 - SRP N 2 POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	3,160		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	3,160		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	3,990		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	20		
3.3	Excavate spillway subgrade (base of riprap)	m^3	560		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	120		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	730		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	730		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,270		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD S 2 - SRP S 2 POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	5,050		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	5,050		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	5,760		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.3	Excavate spillway subgrade (base of riprap)	m^3	1,710		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	240		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	2,100		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	2,100		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,530		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD S 2 - SRP S 2 POND 2

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	2,200		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway footprint	m^2	2,200		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	1,360		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	80		
3.3	Excavate spillway subgrade (base of riprap)	m^3	120		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.		10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	100		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	460		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	460		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	910		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD S 1 - SRP S 1 POND 1

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	2,690		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway footprint	m^2	2,690		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	640		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	1,930		
3.3	Excavate spillway subgrade (base of riprap)	m^3	40		
3.4	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	20		
3.5	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	90		$ -
3.6	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	90		$ -
3.7	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	1,260		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

Stormwater Pond

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
2	**Preparation**				
2.1	Clear and grub all trees and tree stumps regardless of girth from sediment retention pond and spillway footprint	m^2	5,410		
2.2	Strip, remove and stockpile topsoil to designated area, to a nominal depth of 200 mm including root bearing materials (excluding downstream zone to be constructed with mine fleet) from sediment retention pond and spillway	m^2	5,410		
				Subtotal	$ -
3	**Sediment Retention Pond Earthworks**				
3.1	Excavate to form sediment retention pond footprint subgrade (base of clay liner) including load and dispose or re-use for sediment retention pond footprint embankment construction.	m^3	17,690		$ -
3.2	Placement of fill for sediment retention pond embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	820		
3.3	Excavate spillway subgrade (base of riprap)	m^3	20		
3.4	Placement of fill for spillway embankments in 300 mm thick layers including moisture condition and compact to 95% SMDD and ±2% OMC of excavated material from sediment retention pond.	m^3	10		
3.5	Excavate spillway channel anchor trenches (0.3 m length x 0.3 m width x 0.3 m depth) with 0.3 m horizontal offest from spillway channel crest.	m	40		
3.6	Prepare spillway channel subgrade (base of riprap) and placement of Bidim A84 non-woven geotextile.	m^2	70		$ -
3.7	Placement of riprap material in spillway channel (D50 = 100 mm)	m^2	70		$ -
3.8	Placement of sediment retention pond clay liner (thickness of x 0.3 m)	m^2	3,160		$ -
				Subtotal	$ -

Ausgold - Katanning Gold Project Surface Water Management Plan

WRD PERIMETER SEPARATION BERMS

Item	Description	Unit	Quantity	Rate	Total
1	**Preliminaries and general**				
1.1	Mobilisation and demobilisation of all plant, equipment and personnel from site	Lump Sum	1		$-
				Subtotal	$ -
3	**WRD Perimeter Separation Berm Earthworks**				
3.1	**WRD N 1B -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	2,880		$ -
3.2	**WRD MAIN -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	8,190		
3.3	**WRD S 1 -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	1,610		
3.4	**WRD S 2 -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	2,360		
3.5	**WRD N 2 -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	2,250		
3.6	**WRD N 1A -** Placement of fill for separation berm (contact water from non-contact water) along waste rock dump perimeter (1 m crest width x 1 m (min) depth at 2H:1V side slopes)	m	3,670		$ -
				Subtotal	$ -

Appendix 6: Katanning Gold Project – Review of Model-derived Pit Dewatering Estimates (EMM, 2025)

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Memorandum

6 August 2025

To: Troy Collie
General Manager - Planning, Environment & Approvals
Ausgold Limited

From: Tomas Opazo

Subject: Katanning Gold Project - Review of model-derived pit dewatering estimates

Dear Troy,

This technical memorandum presents EMM Consulting Pty Limited's (EMM) evaluation of the reasonableness of pit dewatering estimates produced using the two existing numerical groundwater models developed for Ausgold Limited's Katanning Gold Project.

1 Summary

EMM have reviewed reports on groundwater models from SRK (2025) and Rockwater (2025), and compared their pit dewatering estimates with dewatering data from other gold mining operations, the main findings are the following:

1. SRK (2025) reported model-derived dewatering estimates yield an average of 4.8 Gigalitres per year (GL/yr) and a maximum of 8.4 GL/yr for a 11 year mine life. EMM considers this to be an overestimate and unlikely when benchmarked against dewatering data from existing mine operations located in similar hydrogeological settings in Western Australia. It was found that the fractured rock long-term drainable capacity (specific yield) assumed in the SRK (2025) model is excessively high (10%) leading to the large dewatering rates simulated by the model. In general, and without site-specific data, it is expected that 1 cubic metre (m^3) of rock produces about 1 litres (L) of water (specific yield of 0.1%).

2. Rockwater (2025) dewatering estimates provide an average of 0.4 GL/yr with a maximum of 0.5 GL/yr for a 10 year mine life, which are reasonable in comparison to the range of measured values gathered from existing projects. A sensitivity analysis of increased permeability resulted in maximum dewatering rates of near 1.0 GL/yr, which can be thought of as feasible flows.

3. By reducing the long-term drainable capacity of the SRK (2025) model to 0.1% (exercise performed by EMM using the SRK (2025) model), the modelled dewatering estimates significantly decrease with an average of 1.5 GL/yr and a maximum value of 2.3 GL/yr, which are more reasonable values compared to benchmarked data and to the maximum values reported by Rockwater (2025).

4. There is an identified risk from relying on pit dewatering volumes as a primary water supply source for the Katanning Project. Without site-specific data it is recommended that a conservative approach on pit dewatering volume is taken, unless there is clear evidence of the existence of high-yield water bearing zones connected to the pits.

2 Introduction

Ausgold Limited (Ausgold) owns the Katanning Gold Project (the Project), located approximately 275 kilometres (km) southeast of Perth and 40 km northeast of the town of Katanning, in the Great Southern Region of Western Australia. Ausgold has estimated a total of 3 GL/year of water will be required for the Project, to be sourced primarily from dewatering of the four future pits and the remainder from water supply borefields.

Ausgold previously commissioned SRK to provide hydrogeological services for the Project, including field investigations, aquifer testing and the development a numerical groundwater model. One of the objectives of numerical modelling was to estimate pit dewatering requirements during operations. Rockwater (2025) provided a review of SRK (2025) dewatering estimates and updated values from a new numerical groundwater model, which resulted in significantly lower flows than the SRK estimates. As a result, Ausgold has requested to EMM to provide a technical opinion on the contrasting pit dewatering estimates derived from the two existing groundwater models.

EMM's scope of works comprised a review of five documents provided by Ausgold and the SRK (2025) model files (as listed in Appendix A), a synthesis of the conceptual model and the two numerical models, and a gap analysis.

3 Synthesis of conceptual and numerical groundwater model

A schematic hydrogeological column for the project is presented in Figure 3.1 (SRK, 2024b). The column starts at the bottom with 300 metres (m) thick bedrock of heterogeneous Archaean gneiss complexes and less intensely deformed Archaean granitoid rocks (De Silva et al., 2000), compartmentalised by numerous crosscutting faults and dykes that SRK (2025) interpret as groundwater flow pathways based on slug testing, drillhole water cut exploration data, and the artesian condition of several bores.

SRK (2025) adopted reasonable hydraulic conductivity (K) values for the bedrock unit that reduce over depth from 5 x 10^{-2} metres per day (m/d) to 5 x 10^{-5} m/d, similar to the range 5 x 10^{-2} m/d – 5 x 10^{-3} m/d used by Rockwater (2025). However, SRK (2025) used unreasonable specific yield (S_y) values of 10%[1] to simulate the long-term drainable water hosted in bedrock. To put this number in context, S_y values (i.e. long-term drainable capacity of an aquifer) in the 10–20% range are typical of unconsolidated materials such as sands and gravels but very uncommon in fractured rocks. In general, and without site-specific data, it is expected that 1 m^3 of rock produces about 1 L of water (S_y = 0.1%). Regionally discrete crosscutting faults/dykes were assumed by both SRK (2025) and Rockwater (2025) as permeable and continuous features from top of bedrock to the bottom of the model, with K values of 2 m/d and 0.5 m/d, respectively. Although the presence of faults will likely impact the groundwater drawdown spatial propagation due to pit excavation, this does not necessarily translate into a significant groundwater inflows to the pits[2]. Specific yield values used by SRK (2025) for faults/dykes are reasonable (2.5%). Rockwater (2025) did not report S_y values.

Both SRK (2025) and Rockwater (2025) models were calibrated to measured heads to a reasonable level sufficient to perform predictions. However, SRK (2025) demonstrates that the model is not able to replicate the observed drawdowns from the existing pumping tests.

It is not clear what the faults/dykes configuration is in the Rockwater (2025) model, making it difficult to completely compare both models.

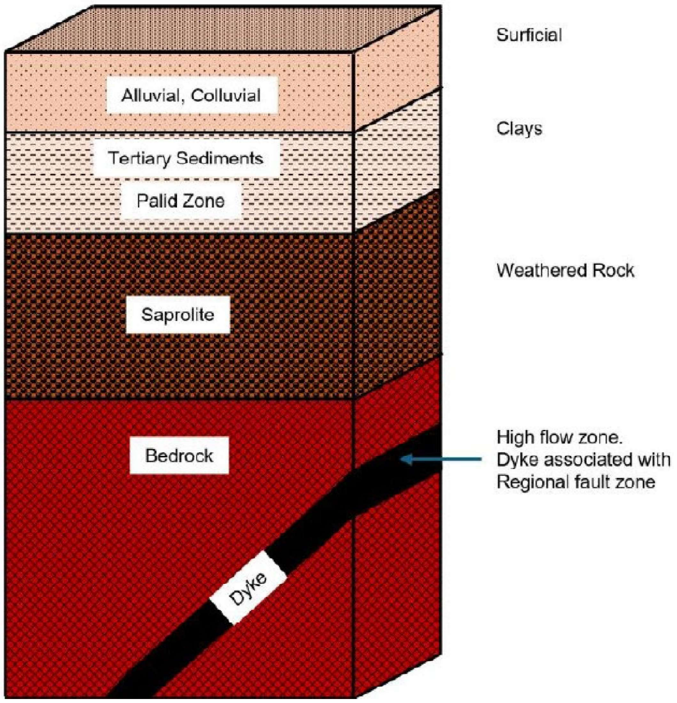

Figure 3.1 **Hydrogeological column for the project (SRK, 2024b)**

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[1] It appears that SRK used the specific yield values derived from pumping test analysis of bore BSMB003 and BSMB010, reported as 0.11 and 0.15, respectively. Although it is beyond the scope of this work to review the pumping test analysis, it is very likely that the reported specific yield values are highly uncertain, as to obtain precise specific yield estimates from pumping tests in semiconfined systems such as fractured rock is uncommon.

[2] Although this is not always the case, from a water supply perspective it is a more conservative approach.

As the model files from the SRK (2025) model were available, the model was run for historical transient and predictive simulations for a Base Case (original hydraulic parameters) and for a case with reduced S_y value of 0.1% for the bedrock (country rock), called EMM Case[3]. The transient hydrographs with measured and modelled data are presented in Appendix B, and they show the following:

- Although there are a significant number of bores with hydraulic head data, each individual bore has a limited number of datapoints.

- Changing the S_y value of the bedrock from 10% to 0.1% does not significantly change the historical and predictive response of the model. Simply, the model with reduced S_y can be deemed as a valid model if the Base Case model is assumed to be valid.

The predictive pit inflows (dewatering) for the Base Case and EMM Case are presented in Figure 3.2. It is evident that the Base Case produce significantly higher flow rates than the EMM Case, with correspondingly higher peak values that dissipate slowly during each mine year. This is an indication of the excessively high S_y values used in the Base Case. Hence, SRK (2025) reported model-derived dewatering estimates with an average of 4.8 GL/yr and a maximum of 8.4 GL/yr for an 11 year mine life are unrealistic. In contrast, the EMM Case with reduced S_y values results in average of 1.5 GL/yr and a maximum value of 2.3 GL/yr, which are more reasonable values, when compared to average of 0.4 GL/yr with a maximum of 0.5 GL/yr for a 10 year mine life reported by Rockwater (2025).

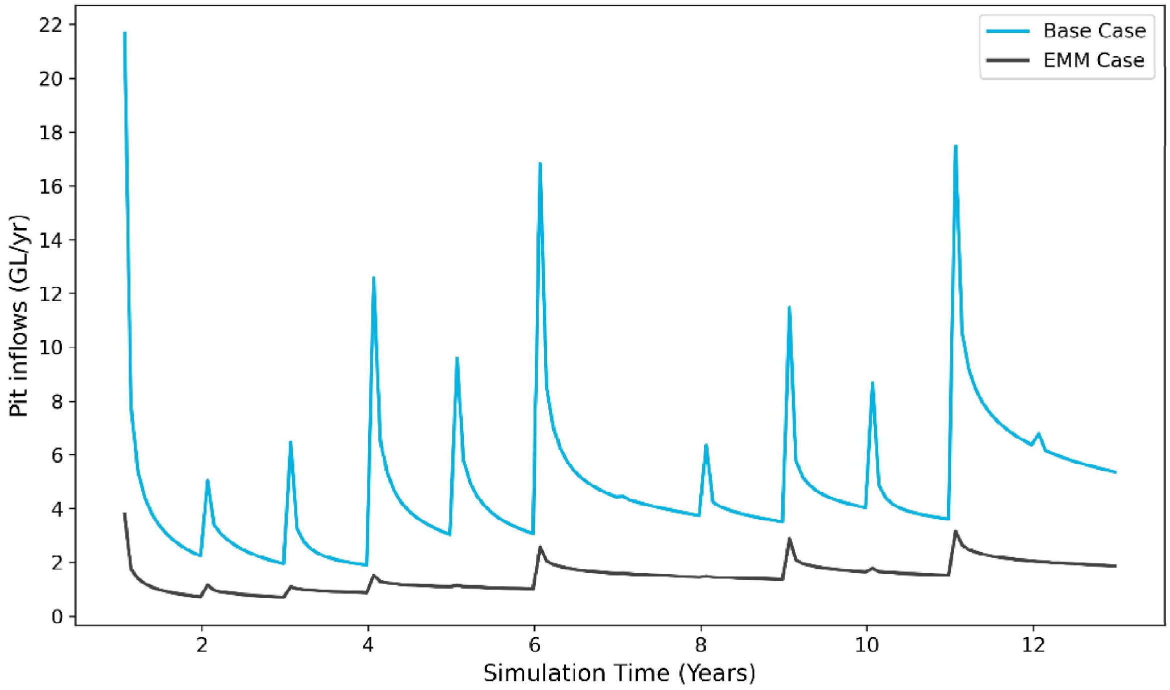

Figure 3.2 **Modelled pit inflows (passive dewatering) obtained from SRK (2015) model for: a) Base Case (Bedrock S_y = 10%) and b) EMM Case (Bedrock S_y = 0.1%)**

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[3] It is important to clarify that the SRK (2025) model is used as is, and its use does not imply validation or endorsement by EMM.

4 Benchmarking

A comparison between the modelled dewatering flow rates (in GL/yr) and measured data from existing projects of similar type within Western Australia is presented in Figure 4.1. From the figure it is evident that the SRK (2025) model-derived dewatering estimates are significantly higher than the measured data, and that the Rockwater (2025) estimates along with the EMM Case of the SRK (2025) model (reduced S_y) are within the range of measured data, and therefore it is concluded that they are reasonable values.

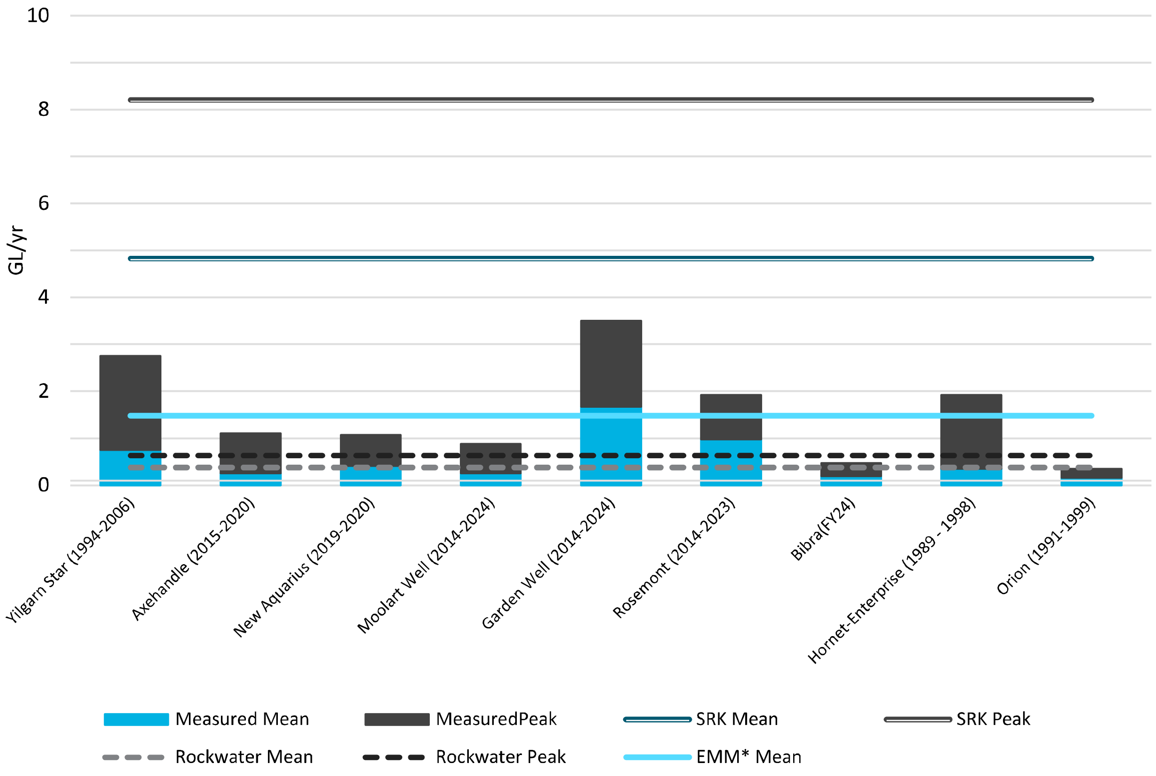


Figure 4.1 Benchmarking of pit dewatering rates (pit inflows) against existing projects

5 Risk analysis

A list of risks identified during the review process and sorted by importance are presented in Table 5.1.

Table 5.1 Risk analysis and proposed mitigation measures

Risk ID Number	Category	Description	Risk	Mitigation
1	Water supply sources	Groundwater inflows to pits are highly uncertain.	Heavy reliance on pit dewatering as a water source for the Project, within a low permeability area.	Secure water supply source through water supply borefield as a major source, with only 10–30% of the total required volumes sourced from the pits.
2	Pit dewatering	SRK (2025) mine plan numerical implementation is coarse assuming all pits advance at same rate, therefore annual sequence of dewatering estimates is not accurate.	Inaccurate water availability derived from the numerical model at the mine year scale may lead to misleading conclusions.	Re-implementation of mine plan and check sensitivity to results.
3	Hydrogeological data	There is limited groundwater level data or SRK used a limited dataset.	There is an incomplete understanding of the site hydrogeology, uncertain hydraulic parameters, and therefore uncertain pit dewatering and drawdown predictions.	Continue monitoring existing bores, and once sufficient data is available update conceptual model, recalibrate numerical model, and update predictions.
4	Hydrogeological data	There is no pumping test data at the centre of future pits.	If pit dewatering rates are required to ensure Project water supply, there high uncertainty in dewatering capacity.	Develop long-term (> 7 days of duration) and higher capacity pumping tests at the locations of the future pits.
5	Groundwater model	There is limited information on the Rockwater (2025) groundwater model design.	Not providing details on the model design make difficult to compare results with the SRK (2025) model and adds another source of uncertainty regarding pit dewatering estimates.	Update the SRK (2025) model and model report using more reasonable hydraulic parameter estimates, to further support the Project water supply strategy and investment decision.

6 Closing

There is a significant amount of uncertainty in the hydrogeological regime at the Project which has led to a large range in groundwater inflow estimates. To address this uncertainty, this memo has recommended the following:

- Begin development of a borefield with the capability to supply up to 90% of the Project water demand.
- Continue to monitor bores that have been constructed to provide data in a future updated conceptual and numerical groundwater model.
- Undertake pumping tests on existing bores at increased pumping rates and longer durations and at new locations within the proposed dewatering areas.

If you have any further questions on this work or how best to implement these recommendations, please feel free to contact EMM.

Yours sincerely

Signature:

Email: topazo@emmconsulting.com.au

Tomas Opazo
Senior Associate Hydrogeologist
topazo@emmconsulting.com.au

Appendix A

References and information reviewed

A.1 References

De Silva, J, Smith, R A, Rutherford, J L and Ye, L, 2000. Hydrogeology of the Blackwood River Catchment, Western Australia, Water and Rivers Commission, Hydrogeological Record Series, Report HG 6, 58p.

Rockwater 2025. DEWATERING MODEL SUMMARY, KATANNING GOLD PROJECT.

SRK, 2024a. Technical memorandum; Katanning drilling operations strategy.

SRK, 2024b. AusGold project – Conceptual hydrogeological model development

SRK, 2025. H3 Hydrogeological Assessment; Katanning Gold Project.

A.2 Information reviewed

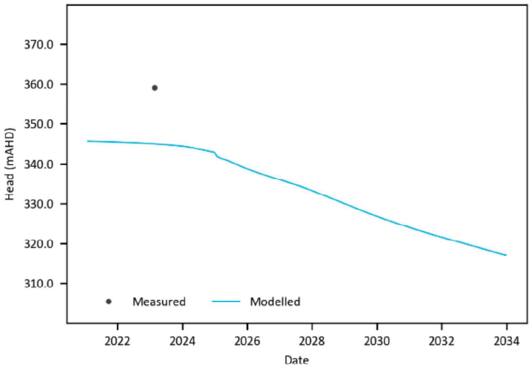
Table A.1 Information reviewed

Item	Description
AUG034_LogsCombined_RevA.pdf	SRK – monitoring borelogs 2022
Draft Logs - AUG035HydroDrilling.pdf	SRK – monitoring borelogs 2023
SteadyState_BaseCase.gwv	SRK(2025) Steady state groundwater model
Transient_BaseCase.gwv	SRK(2025) transient groundwater model
Pred_update_BaseCase.gwv	SRK(2025) predictive groundwater model

Appendix B

SRK (2025) Model hydrographs

B.1 Hydraulic head hydrographs from SRK predictive model – base case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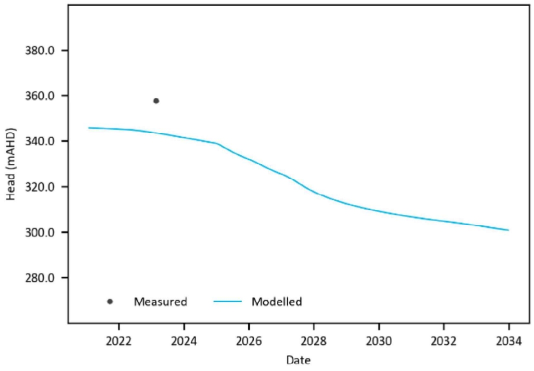
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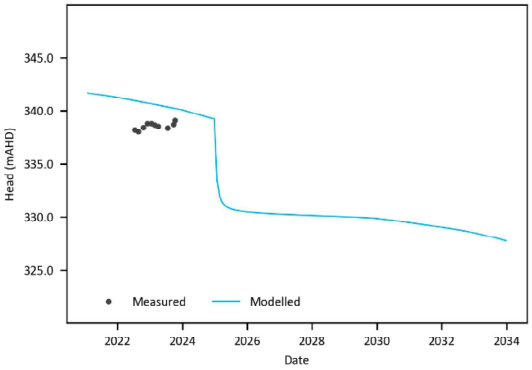
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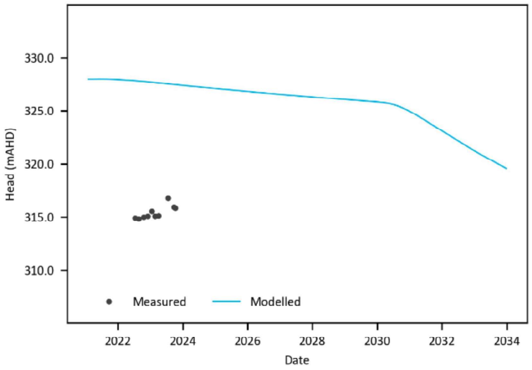
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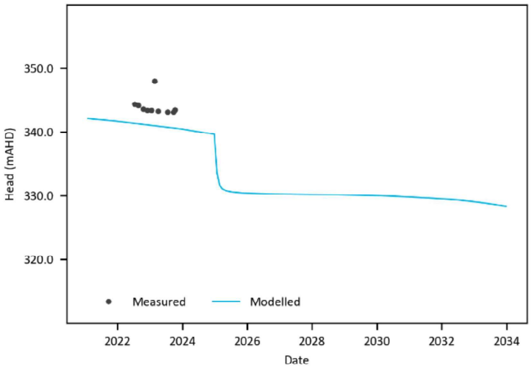
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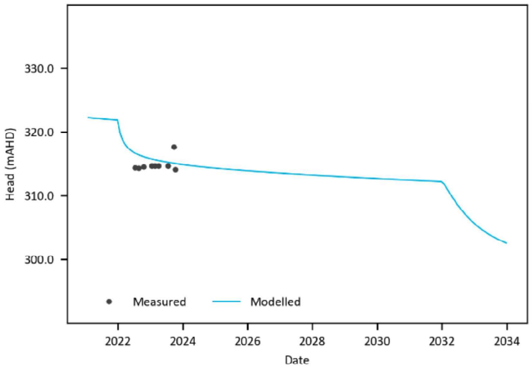
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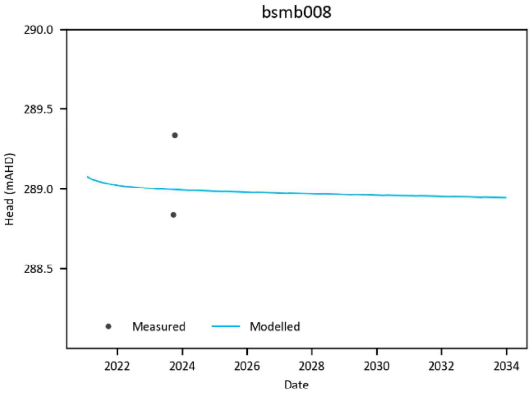
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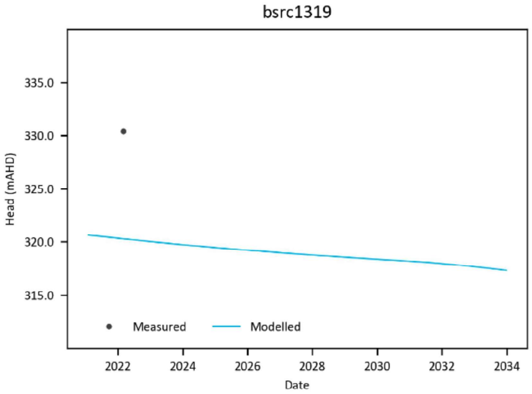
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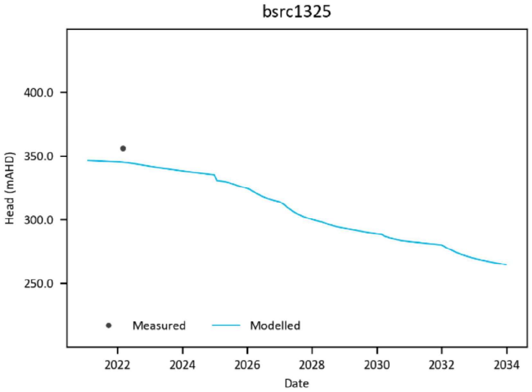
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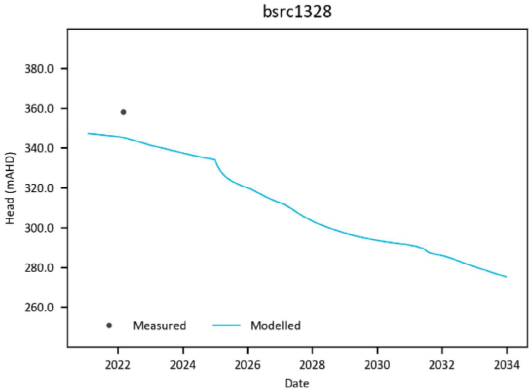
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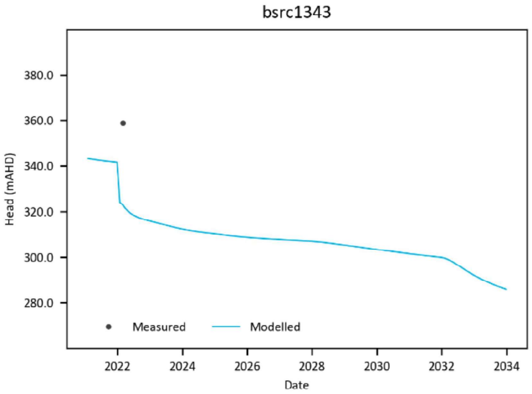
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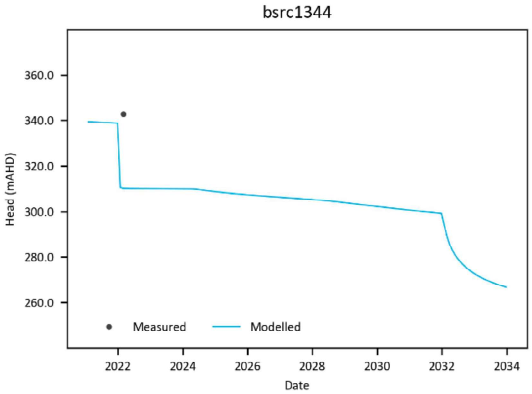
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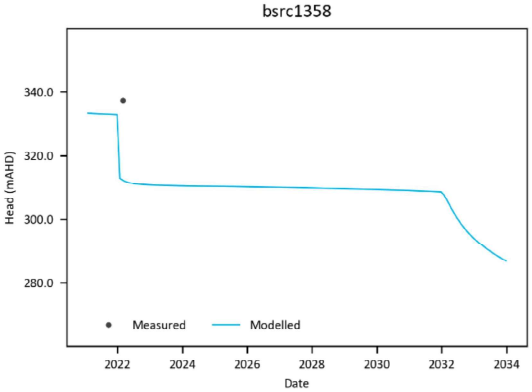
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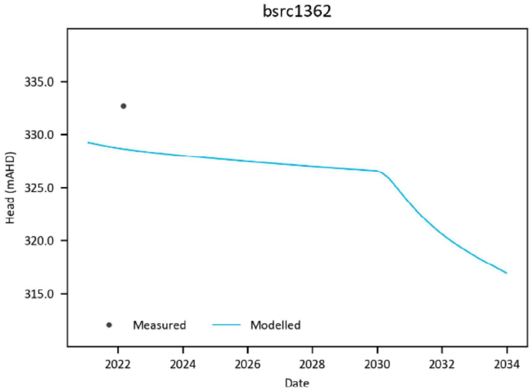
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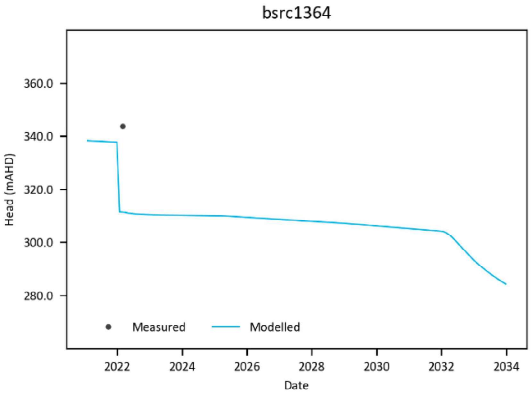
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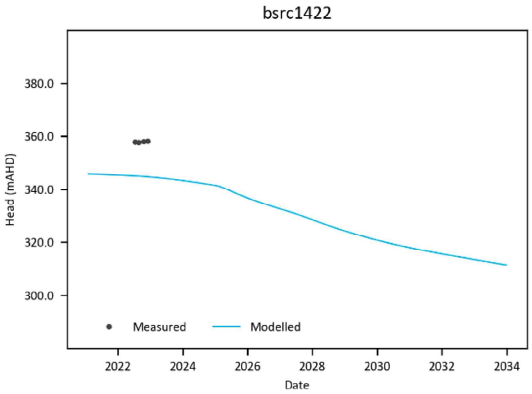
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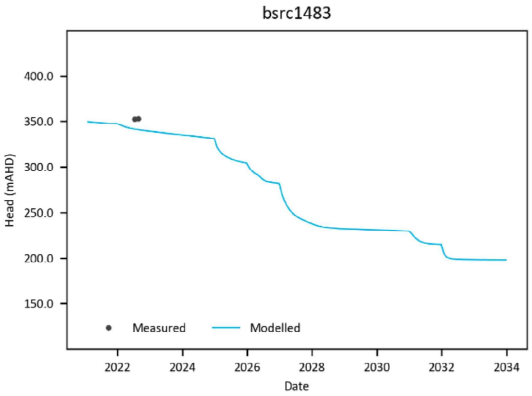
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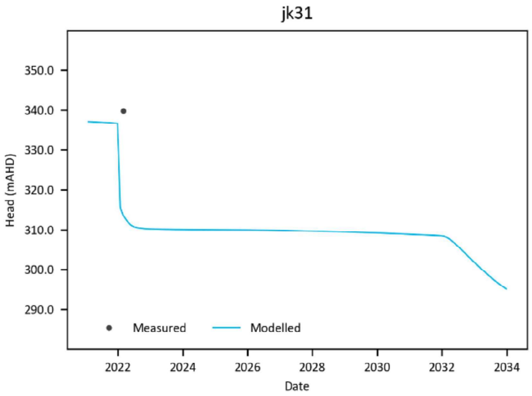
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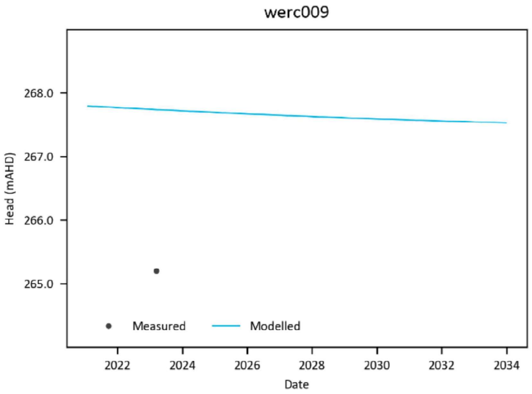
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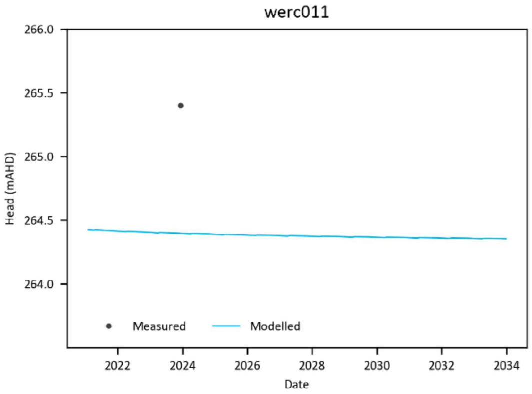
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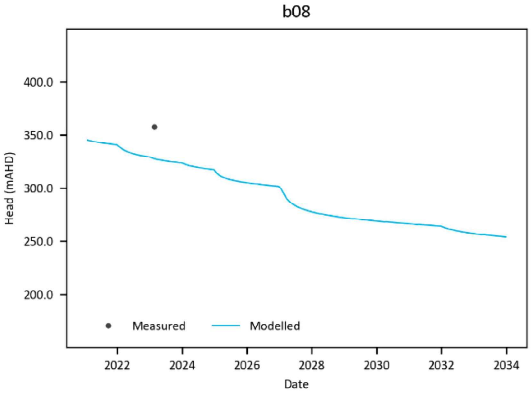
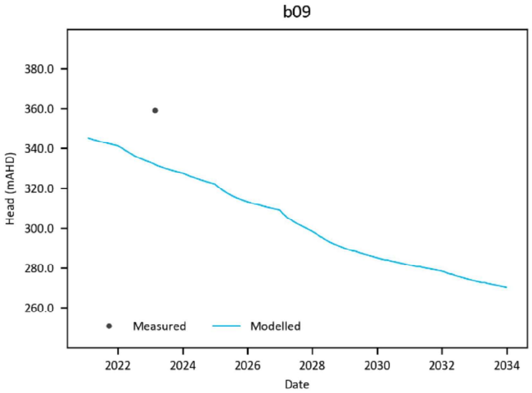
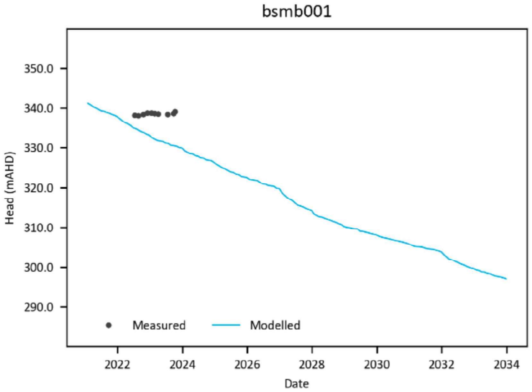
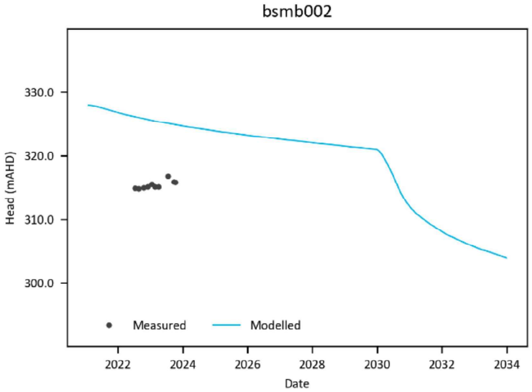
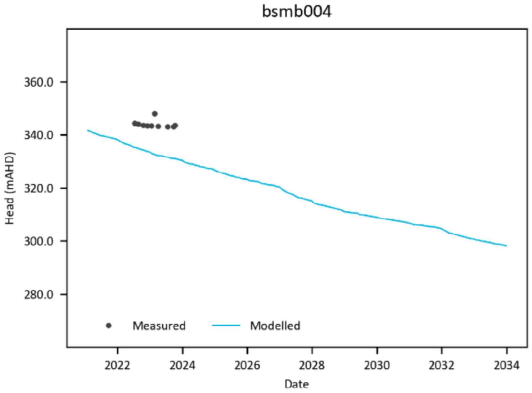
B.2 Hydraulic head hydrographs from SRK predictive model – low Sy sensitivity case

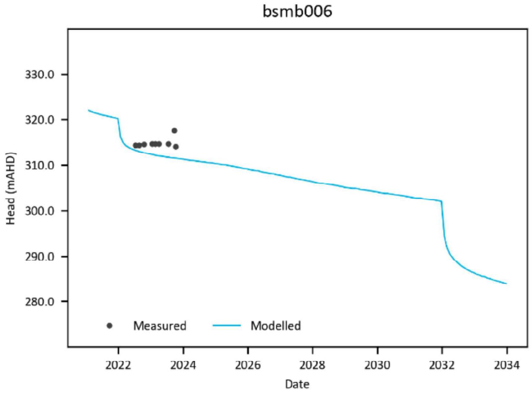


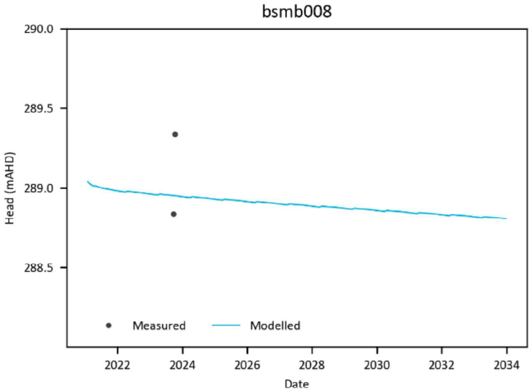


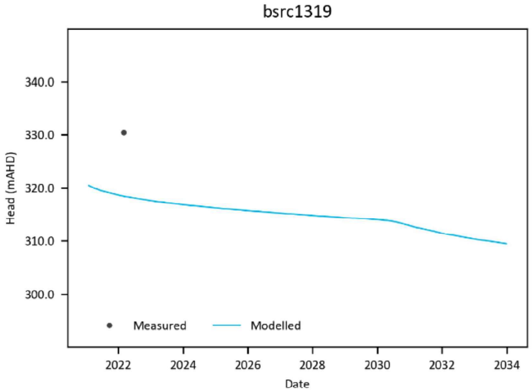












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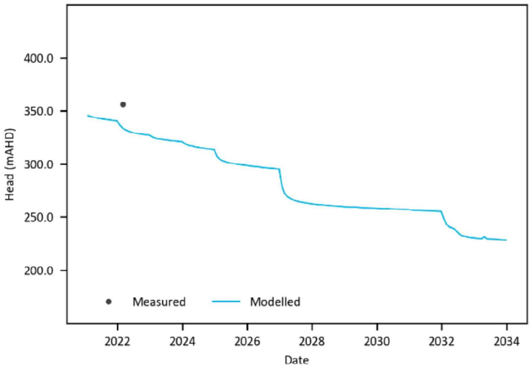

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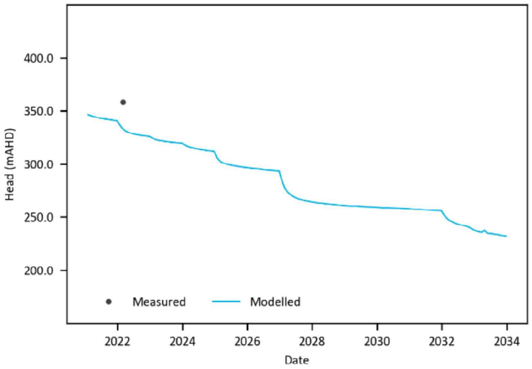

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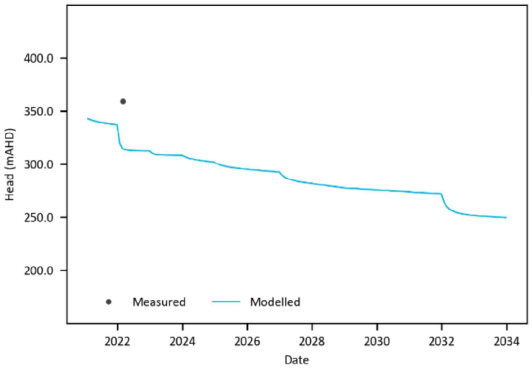

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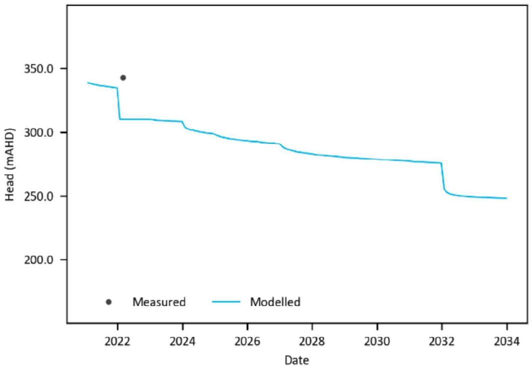

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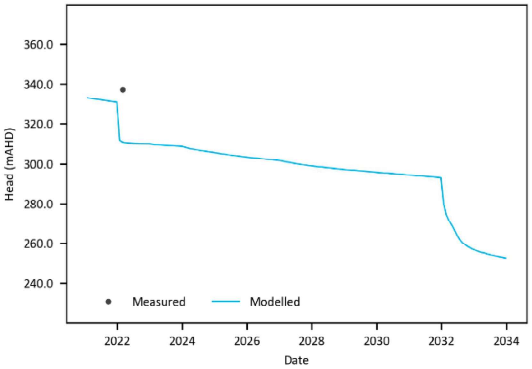

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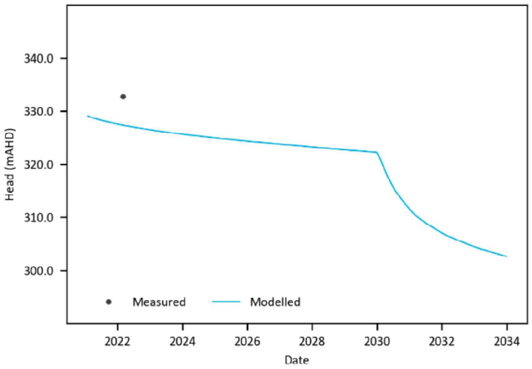

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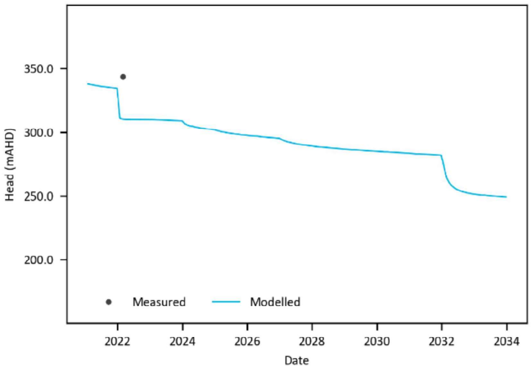

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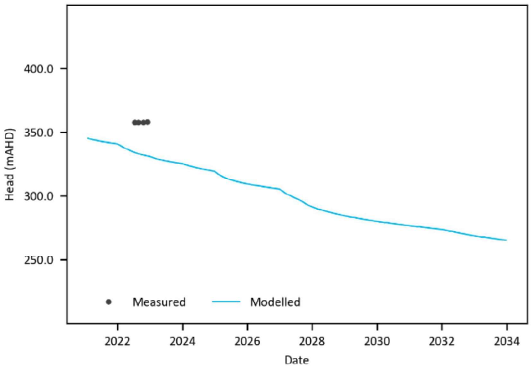

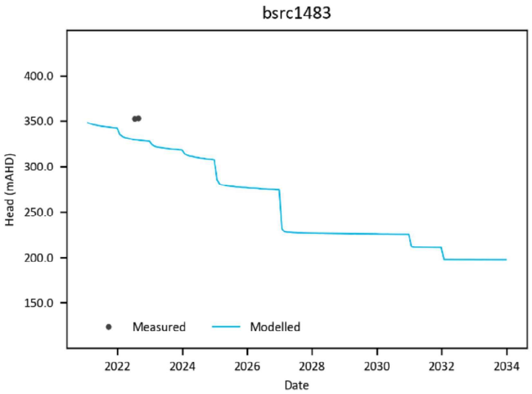
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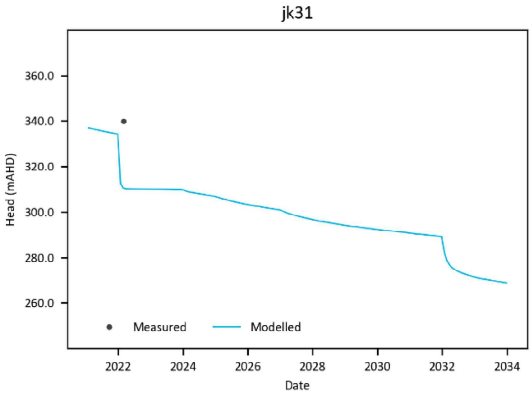
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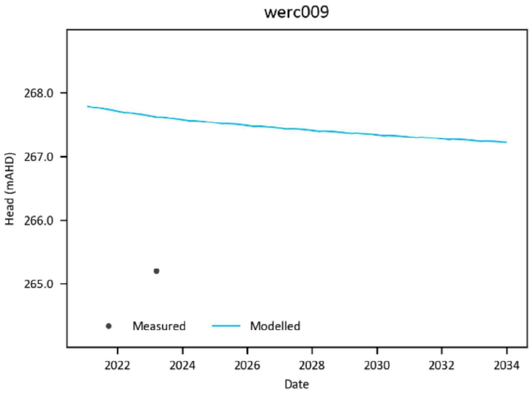
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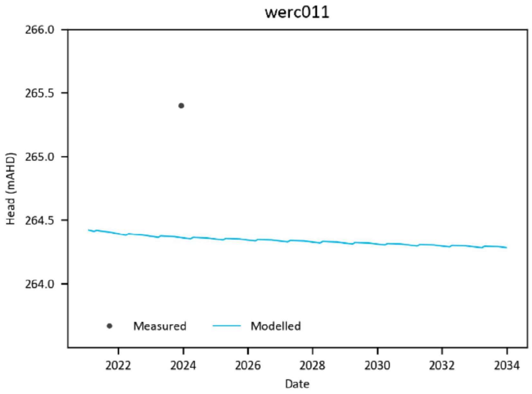
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