Groundwater Dependent Ecosystem Management Plan

Finniss Lithium Project – BP33 Underground Mine V2

March 2024

PREPARED FOR LITHIUM DEVELOPMENTS (GRANTS NT) PTY LTD

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Contents

List of Tables

List of Figures

Glossary

Aquifer - a geologic formation(s) that is water bearing. The term is usually restricted to those water-bearing formations capable of yielding water in sufficient quantity to constitute a usable supply.

Aquitard - groundwater-filled body of poorly permeable formations, through which still significant volumes of groundwater may move, although at low flow rates.

Confined aquifer - an aquifer below the land surface that is saturated with water. Layers of impermeable material are both above and below the aquifer, causing it to be under pressure so that when the aquifer is penetrated by a well, the water will rise above the top of the aquifer.

Drawdown - Lowering of the groundwater level or piezometric surface caused by abstraction of groundwater (including not only pumping, but also outflow from an artesian well or discharge from a spring).

Ecohydrogeology - a unifying, synthetic field of study integrating the approaches from the ecological and hydrogeological sciences in the study of groundwater dependent ecosystems, habitats, and organisms.

Evaporation - the process of liquid water becoming water vapor, including vaporization from water surfaces, land surfaces, and snow fields, but not from leaf surfaces.

Evapotranspiration (ET) - the quantity of water transpired (given off), retained in plant tissues, and evaporated from plant tissues and surrounding soil surfaces.

Groundwater - water that occurs beneath the land surface and fills the pore spaces of the alluvium, soil, or rock formation in which it is situated. It excludes soil moisture, which refers to water held by capillary action in the upper unsaturated zones of soil or rock.

Groundwater Dependent Ecosystem (GDE) – Natural ecosystems which require access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain their communities of plants and animals, ecological processes and ecosystem services

Groundwater discharge - Movement of groundwater from the subsurface to the surface. Natural discharge occurs into lakes, streams and springs as well as discharge induced by human activities (e.g. pumping).

Hydraulic conductivity - capacity of a porous medium to transmit water. Units m/day.

Hydraulic gradient - change in water level (piezometric level) per unit of distance.

Obligate GDE - Ecosystems with a continuous or entire dependence on groundwater

Potentiometric surface - surface defined by the piezometric levels corresponding to a predefined layer or topographic level inside an aquifer.

Recharge - water added to an aquifer or the process of adding water to an aquifer. Ground water recharge occurs either naturally as the net gain from precipitation, or artificially as the result of human influence.

Specific yield - the ratio indicating the volumetric fraction of the bulk aquifer volume that a given aquifer will yield when all the water is allowed to drain out of it under the forces of gravity.

Storativity (also storage coefficient) - the volume of water released from storage per unit decline in hydraulic head in the aquifer, per unit area of the aquifer. Storativity is a dimensionless quantity.

Terrestrial GDE - Ecosystems that rely on the subsurface presence of groundwater–this includes all vegetation ecosystems.

Transmissivity -the ability of the aquifer to transmit groundwater throughout its entire saturated thickness. Transmissivity is measured as the rate at which groundwater can flow through an aquifer section of unit width under a unit hydraulic gradient. Unit m^2/day.

Unconfined aquifer - a groundwater aquifer is said to be unconfined when its upper surface (water table) is open to the atmosphere through permeable material.

1 Introduction

Lithium Developments (Grants NT) Pty Ltd (Lithium Developments) is developing the Finniss Lithium Project on the Cox Peninsula, Northern Territory, approximately 20 km west of Berry Springs. The Finniss Lithium Project comprises the Grants Lithium Project (Grants) located on Mineral Lease ML31726 and the BP33 underground mine on ML32346 and MNL16, approximately 4.5 km southeast of Grants.

A groundwater model developed to meet the environmental approval process predicted groundwater levels beneath potential Groundwater Dependent Ecosystems (GDEs) are likely to decline as a result of mine dewatering at the BP33 deposit (CloudGMS, 2021). GDEs are defined as *Natural ecosystems which require access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain their communities of plants and animals, ecological processes and ecosystem services* (Richardson et al 2011).

The Finniss Lithium Project – BP33 underground mine was granted draft environmental approval by the Northern Territory Environmental Protection Authority (NTEPA). The assessment report (EP2020/001-001) contains a number of approval conditions including specific conditions concerning GDEs. Table 1 documents the approval conditions that relate to managing potential impacts on GDEs around the BP33 mine. In 2022 a Groundwater Dependant Ecosystem Management Plan (GDEMP) was developed to meet condition 6-2(1) (GE, 2022).

In September 2023, the groundwater model was revised to accommodate a greater excavation depth and an extended life of mine for BP33. Model parameters were refined using pit inflow data from the excavation of the Grant’s pit with revised drawdown contours documented in CloudGMS (2023). This document provides a revision of the 2022 GDEMP to accommodate changes to the mine life and predicted groundwater impacts.

Table 1 GDE management conditions proscribed by EP2020/001-001

Condition Number		Condition
6-1		The approval holder must implement the action to meet the following environmental outcomes:
	(1)	identify the presence and extent of, and monitor the impacts of the action on, GDE vegetation within the predicted cone of groundwater drawdown; and
	(2)	avoid the loss of no more than 3.6 ha of identified GDE vegetation in 6-1(1).
6-2		A GDE Management Plan must:
	(1)	be developed by a qualified person and submitted to the CEO for review and approval at least three months before substantial disturbance, and within every 12 months thereafter for the life of the action unless otherwise directed by the CEO in writing, to ensure it is consistent with achievement of the environmental outcomes in conditions 6-1(1) and 6-1(2); and
	(2)	provide for the collection of baseline data to assess the baseline condition of GDEs that could be affected by the action; and
	(3)	provide for monitoring and management of the impacts of the action on water availability for GDE vegetation within the area of drawdown; and
	(4)	define how the presence and extent of GDEs, and impacts of the action on GDEs, would be identified, monitored and measured including;
		(a) determine the locations and methods for monitoring, measurement, analysis and evaluation to ensure valid results; and
		(b) define when monitoring must be performed, when the results from monitoring must be analysed and evaluated, how monitoring results will be communicated and reported and to whom; and

Condition Number		Condition
	(5)	include quantitative triggers and limits which would be used to initiate investigative and/or adaptive management actions when:
		(a) groundwater levels deviate significantly from the predictions outlined in the Finniss Lithium Project BP33 Groundwater Modelling Report, Final Version 3.0, October 2021, prepared by CloudGMS (Appendix B to the SER); and/or
		(b) GDE vegetation monitoring identifies that the extent of impacts to GDE health exceeds 3.6 ha, which is the extent of potential GDE that occurs within the modelled extent of the groundwater drawdown cone as a result of the action;
	(6)	detail how monitoring exceedances and the outcomes of investigative and/or adaptive management actions would be notified to the CEO.
	(7)	be implemented for the life of the action.
6-3		The approval holder must continue to implement the last approved version of the GDE Management Plan required by condition 6-2 until the CEO provides written confirmation that a revised version is approved.
6-4		The approval holder must provide notice in writing to the CEO if GDE monitoring identifies that the total area of GDE loss attributable to the action exceeds 3.6 ha, within seven days of the identification of the exceedance.

2 Conceptual Ecohydrogeological Model

This section summarises relevant parts of EcOz (2019), CloudGMS (2021) and CloudGMS (2023). The conceptualisation has been updated where monitoring data collected subsequent to EIS submission has improved hydrogeological understanding. Figure 1 provides a schematic diagram of the conceptual ecohydrogeological model.

The BP33 underground mine will target spodumene, the lithium-bearing mineral, hosted within pegmatite intrusions in the Burrell Creek Formation (BCF). The BCF comprises heavily weathered shale, siltstone and strongly foliated phyllite with lenses of quartz pebble conglomerate. Groundwater flow around the BP33 site occurs in a fractured and weathered aquifer within the BCF. Thin (2 – 4.5 m) and discontinuous Quaternary-aged alluvial sediments overlie the weathered BCF. These are associated with drainage lines and comprise silty sands with minor laterite horizons. The Quaternary sediments are typically unsaturated during the late dry season.

Groundwater flow in the BCF aquifer is away from slightly elevated areas in the north-west and toward lower lying areas along the drainage line in the east and south of the site. The regional groundwater gradient is toward the south and the groundwater flow direction generally mimics the topography. A groundwater flow divide is inferred along the topographic divide located in the north of the BP33 site. Measured groundwater levels are less than 10 m below ground during the dry season, and may become artesian during the wet season, thus showing a high degree of seasonality.

Topographic highs and surface water ponds, including the existing BP33 pit-lake and proposed dams/water storages, act as primary recharge areas. The lower electrical conductivity of the shallow groundwater (Core, 2021) suggests that distributed diffuse recharge also occurs across the site. Recharge may also be concentrated around the watercourses at the start of the wet season when water levels are deeper. Groundwater recharging in the vicinity of the BP33 mine and its infrastructure is expected to migrate offsite, either as discharge to surface water features or through evapotranspiration. The groundwater model predictions are relatively sensitive to numerical parameterisation of evapotranspiration (CloudGMS, 2018).

The operational life of the BP33 mine is projected to run for 189 months (approximately 16 years) commencing with the excavation of the box cut and running to the end of underground mining. The revised life of mine is 134 months (11 years) longer than the life of mine proposed in the original assessment report (EP2020/001-001). Groundwater levels will decline progressively as the mine is dewatered. The modelling indicates that for the life of the BP33 mine there will be some impact to groundwater levels and availability within a 1 km zone of influence around the mine site. At the peak of mine dewatering the drawdown cone is projected to extend beyond the mine lease (ML32346) below ephemeral drainage lines to the south (Figure 3), and could potentially impact riparian vegetation in these areas.

EcOz (2019) identified that, based on the community structure, the riparian vegetation associated with the ephemeral drainage line to the east of the BP33 underground mine and downstream of the Observation Hill Dam (OHD) is likely to constitute a terrestrial GDE. The vegetation included:

- Mid woodland - *Xanthostemon eucalyptoides, Syzygium armstrongii* and *Erythrophleum chlorostachys*
- Mid shrubland - *Pandanus spiralis, Helicia australasica* and *Carallia brachiata*
- Mid tussock grassland - *Eriachne triseta*

While the groundwater dependence of this community has not been verified through field studies, it is assumed that, based on the shallow groundwater depths, the vegetation uses groundwater at least on *intermittent basis to meet all or some of their water requirements* and therefore meets the definition of a GDE. This riparian vegetation occupied an area of 3.62 hectares (ha) (EcOZ, 2019). Canadell et al. (1996) in Eamus et al. (2006) identify that vegetation in tropical evergreen forest and tropical savannah have maximum root depths of 8 m and 15 m respectively.

The potential impact of groundwater level drawdown from mine dewatering on the GDE community is outlined in Figure 2 (Eamus, 2009). This figure identifies that the changes will first occur on an individual plant basis, but over time will manifest on a community level, resulting in the conversion of a diverse habitat into simplified system of less ecological value (Doody et al, 2009), and ultimately the transition to a new ecosystem where plant species establish that are more suited to the lower water availability. It is noted that this simplified model best fits an obligate GDE community and does not consider the seasonal increase in water availability due to wet season rainfall that communities around BP33 underground mine are likely to receive.

In summary, the ecohydrogeological model of the GDE community near the BP33 underground mine is as follows:

- Riparian vegetation associated with an ephemeral drainage line is likely to be a GDE based on its community of species;
- Groundwater levels are highly seasonal, and in the wet season may be close to or at ground level;
- The GDE community utilises shallow groundwater to meet some or all of its water needs;
- Mine dewatering will lower the water levels, potentially reducing the availability of groundwater to the GDEs
- Seasonal diffuse recharge and surface water flows are likely a source of water to the GDE communities during the wet season.

Figure 1 Conceptual ecohydrogeological model

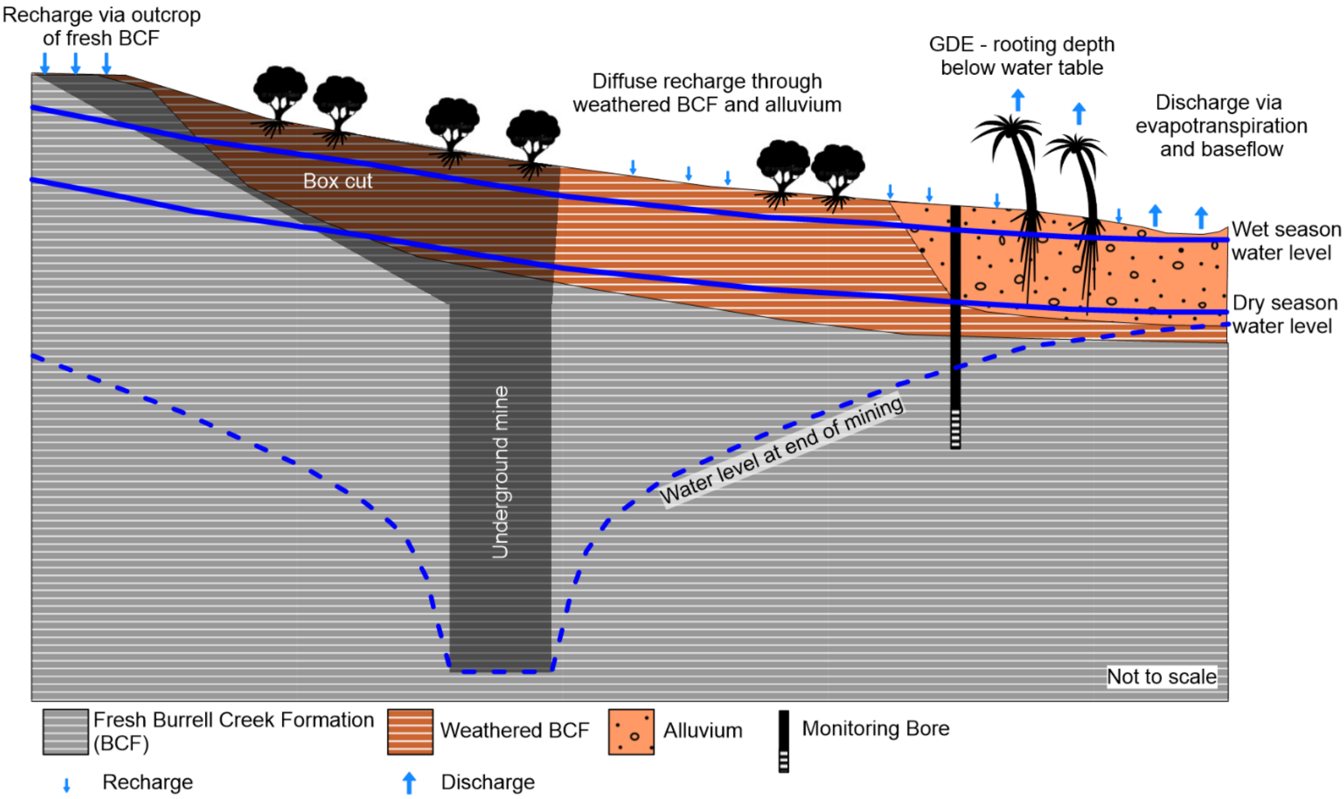


Figure 2 Response of plants and communities of plants to reduced groundwater availability (Eamus, 2009)

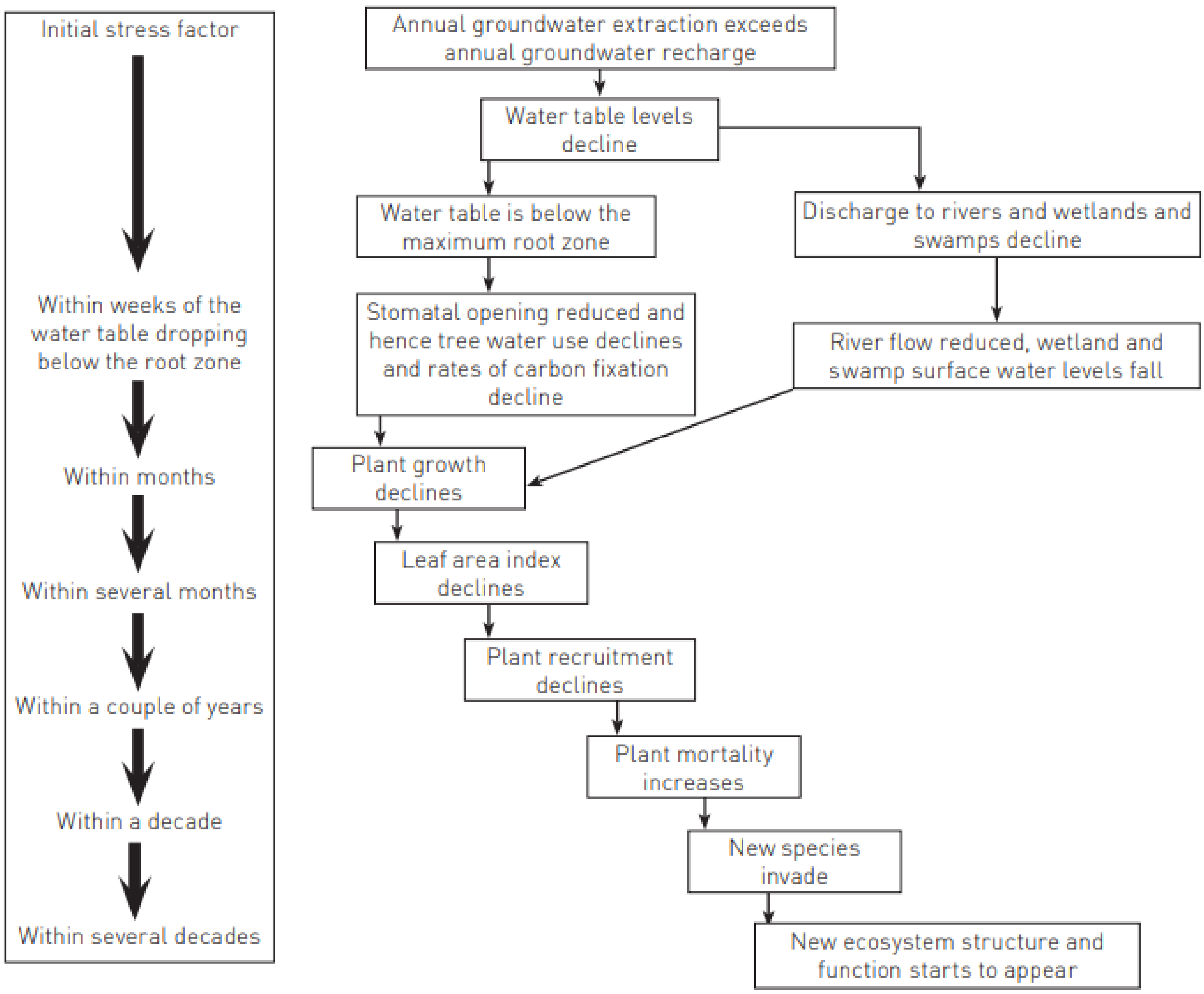
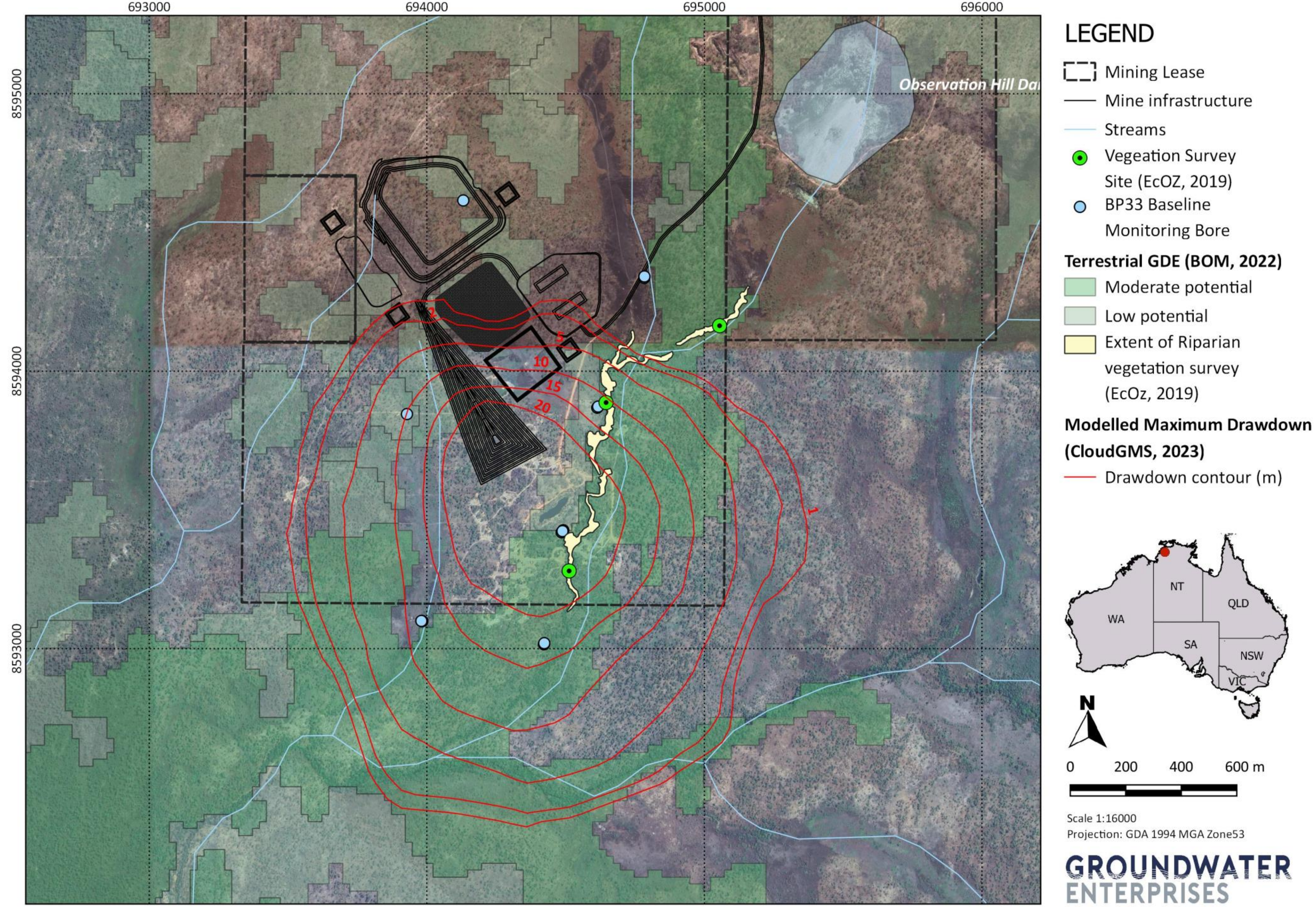


Figure 3 Mapped drawdown contours, potential GDEs and surveyed riparian vegetation



3 Monitoring activities

The GDE monitoring program comprises groundwater monitoring, surface water monitoring and vegetation monitoring. Much of the monitoring information is contextual, in that it will provide data on the baseline conditions and the effects of the imparted stress (water level drawdown due to mine dewatering) on the hydrogeological and ecological environments. This information will allow improved understanding of the ecosystem function of the GDEs. Using the process of adaptive management, this will enable targeted management measures - should they be required – to mitigate potential impacts to GDEs.

The location of mine infrastructure, potential GDEs and mapped riparian vegetation, monitoring locations and the predicted water level drawdown are shown on Figure 4.

3.1 Groundwater Monitoring

All established groundwater bores at the BP33 underground mine will be monitored (Table 2). Those monitoring bores in the immediate proximity of the mapped GDEs will be used for compliance with Condition 6-2(5) (Table 1), with the remainder used for contextual purposes.

Groundwater bores will be monitored in accordance with the BP33 Underground Mine Water Management Plan (Core, 2021), and will include:

- Continuous (daily) water level monitoring with a water level sensor and data logger. The data loggers will be downloaded quarterly;
- Quarterly manual water level measurement with an electronic water level meter for quality assurance purposes; and
- Quarterly water quality sampling of the bores. This data will be used for contextual purposes only in connection with GDE monitoring and management.

Groundwater monitoring will continue until the water levels in the compliance bores (Table 2) have recovered to the pre-mining water level condition, allowing a buffer for uncertainty and seasonal variability (max-min of the baseline range).

Table 2 Groundwater Monitoring Bores

Purpose	Bore ID	Screen Depth (mbgl)	Screened Lithology
Compliance	BPG2i	22.3–- 28.3	Weathered BCF (Fractured)
	BPG2s	2.5–- 3.5	Alluvial sediments
	BPG3i	41.75–- 47.75	Fresh BCF
	BPG3s	3.5–- 4.5	Alluvial sediments
	BPG4i	28.4–- 34.4	Weathered BCF
	BPG4s	5–- 8	Weathered BCF
	BPG5i	49.3–- 56.3	Fresh BCF (fractured)
	BPG5s	5–- 8	Weathered BCF
Context	BPG1	29–- 35	Fractured/weathered BCF with pegmatite
	BPG4d	47–- 109	Fresh BCF (fractured)
	BPG6	66–- 72	Fresh BCF (fractured)
	BPG7i	46.2–- 52.2	Fresh BCF (fractured)
	BPG7s	4–- 7	Weathered BCF

3.1.1 Baseline data

Groundwater monitoring at the BP33 site commenced in November 2020. Currently available water level monitoring data is included in Appendix A.

Baseline data will comprise all groundwater monitoring data collected prior to the commencement of mining at BP33.

3.1.2 Data assessment

Water level monitoring data will be compared with model hydrographs generated from the groundwater model predictions (CloudGMS, 2023) in accordance with Condition 6-2(5)(a). Comparisons will be made within seven business days of the quarterly data download.

Predicted water levels from the CloudGMS (2023) model are provided in Appendix B. Some monitoring bores, particularly the shallow bores, are predicted to dewater in response to mining activities. Continued monitoring of these bores will provide valuable insight into the contribution of seasonal recharge to water availability.

As the drawdown cone will propagate from below, the intermediate bores will provide the key monitoring points for assessing modelled versus actual drawdown. Where water levels at a compliance monitoring site are deeper than *both* the intermediate and shallow bores by more than the seasonal water level range (max-min of the baseline range) for more than six months (to account for natural variability and model uncertainty), the follow up response will be triggered (Section 4).

3.2 Vegetation Monitoring

Vegetation monitoring, specifically the spatial extent of the riparian vegetation, is the primary metric used to measure compliance with the GDE conditions under the draft environmental approval. Vegetation health monitoring will indicate whether the GDE is water stressed and therefore at risk of community decline.

Vegetation monitoring will be undertaken in accordance with the Riparian Vegetation Monitoring Plan, Finniss Lithium Project (EcOz, 2022). Relevant components of that plan are summarised in the following sections.

3.2.1 GDE Extent

The extent of the riparian vegetation (GDE) will be assessed using drone-based remote sensing techniques.

Due to the rapidity of the predicted water level drawdown, the relatively short duration of the operations, and the potential for plant mortality to increase "*within a couple of years*" (Figure 2), the drone-surveys will be undertaken annually, having commenced in the calendar year 2022 end of dry season.

The methodology for the drone surveys include:

- Surveys to be flown during the similar weather conditions to previous surveys and during the middle of the day to minimise the potential for atmospheric influences on the results;
- Using the Visible Atmospherically Resistant Index (VARI) to measure the reflectance of vegetation versus bare soil and to assign a numerical value for each acquired pixel;
- The VARI values will be categorised and the boundary of the riparian vegetation will be delineated; and
- GIS software will be used to calculate the current extent of the riparian vegetation and relative changes from previous monitoring surveys.

3.2.2 GDE Health

Vegetation health monitoring will be undertaken at:

- Two established vegetation monitoring sites (RVS4 and RVS5) within the area of predicted drawdown;
- Three new sites (RV1, RVS2, RVS3) located to the south and south-west of the existing vegetation monitoring sites within the area of predicted drawdown;

- One new vegetation monitoring site (BP33 Control) outside the area of predicted drawdown along Charlotte Creek. This site will be used as control monitoring site to assess whether potential changes to the GDE extent are related to groundwater level drawdown or other stressors.

At each site a 20 m x 20 m plot will be permanently marked (with star pickets or similar) to ensure repeat assessments of the same area. On each monitoring occasion and within each plot the following will be recorded:

- The number of seedlings, saplings and trees (dominant layer) and their species. This will include both native plants and invasive species. For each individual, the height and vital status (alive or dead) will be recorded.
- The percentage of groundcover comprising:
    - Herbs/vines/grasses/ferns and sedges
    - Soil
    - Rock
    - Litter
- The derived vegetation description for characterisation will be recorded to a standard that is equivalent to Level 5 in the National Vegetation Information System (NVIS), and in line with the NT guidelines and field methodology for vegetation survey and mapping (Brocklehurst et al. 2007).

The continuity of the riparian vegetation community will be monitored via a 100 m transect traverse from where the canopy cover is estimated. The transect will be marked to ensure repeat assessments.

3.2.3 Baseline Data

Baseline data will comprise all vegetation survey data collected prior to the commencement of mining at BP33, including the commencement of excavation of the box cut.

The new site on Charlotte River (BP33 Control) will be the control site used to assess non-drawdown related changes to GDE health.

An additional baseline vegetation survey should be undertaken to confirm that there are no additional stands of similar riparian or other groundwater dependent vegetation downstream of the baseline survey (EcOz, 2019) within the predicted drawdown zone of influence (1 m contour). This survey should be:

- Undertaken within the spatial extent of the modelled 1 m drawdown contour (CloudGMS, 2023) along the drainage line downstream of Observation Hill Dam; and
- Comprise a combination of desktop and field assessments;

3.2.4 Data assessment

The drone surveys will be used to determine the baseline extent of riparian vegetation. Any changes in vegetation biomass will be identified in subsequent drone surveys using VARI analysis. This will be directly compared with the authorised area that can be impacted (3.6 hectares – Condition 6-1(-2), Table 1).

Vegetation health will be assessed against the baseline data collected at the vegetation health monitoring sites and will include a comparison of:

- Vegetation structure and composition.
- Groundcover area and type.
- Tree mortality.
- General vegetation description using NVIS level 5 aligns with the representative reference site descriptions.
- Tree canopy continuity.

Vegetation health data will be compared using the Before After/Control Impact (BACI) approach. BACI will be applied by performing statistical analysis to test whether there is a significant difference between:

- the baseline vegetation health and the current vegetation health at the five GDE health monitoring sites; and
- the current vegetation health at the five GDE health monitoring sites and the control site.

3.3 Surface Water Monitoring

Monitoring of surface water will provide important contextual information regarding the availability of water during and after the wet season. Surface water monitoring will comprise:

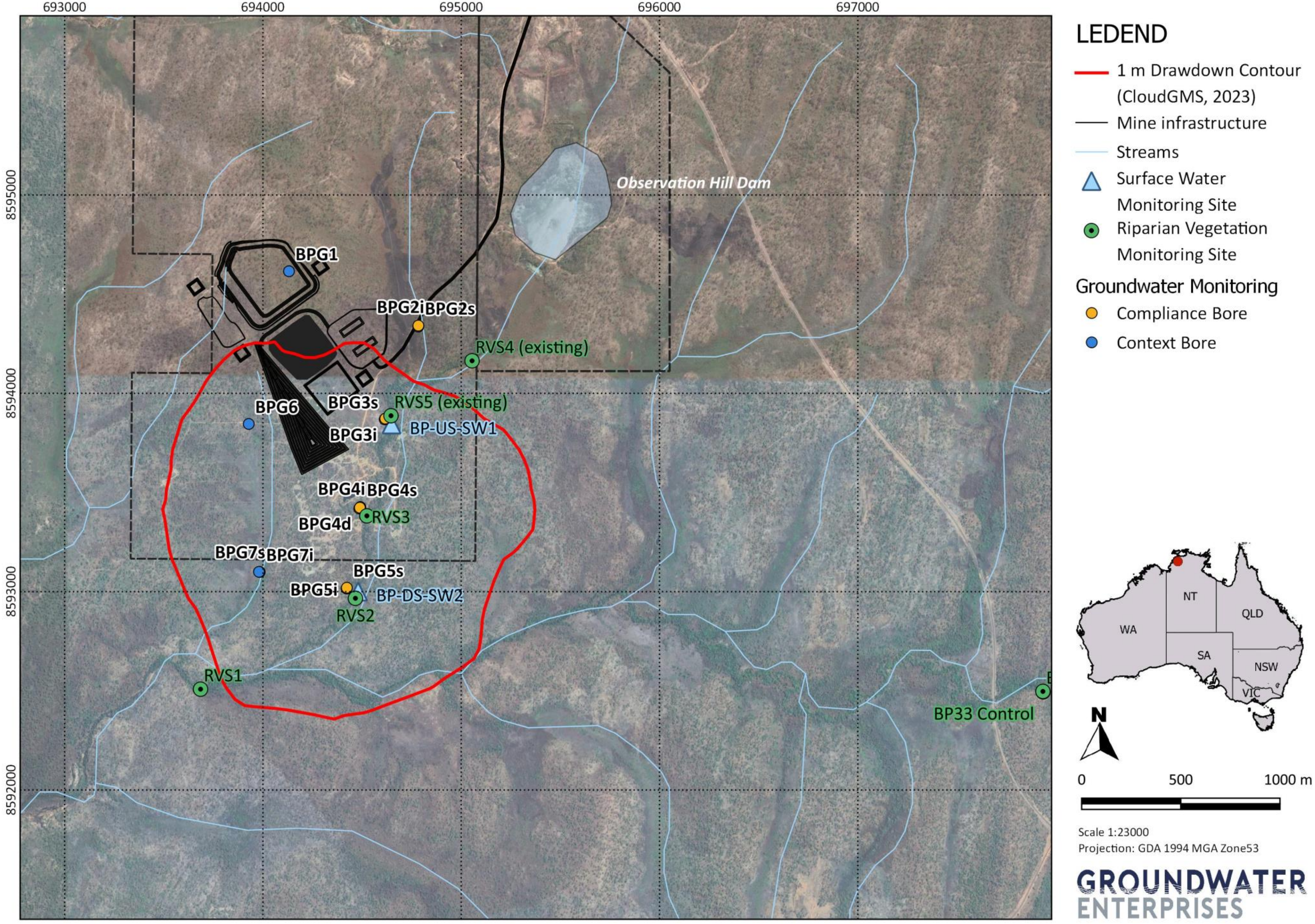
- Water quality sampling in accordance with the Water Management Plan (Core, 2021), specifically sampling at BP-US-SW1 and BP-DS-SW2;
- The installation of water level sensor/dataloggers in the thalweg of the drainage line at BP-DS-SW2 to assess the variability and continuity of surface water availability to the GDEs. The datalogger will record at a minimum daily frequency and will be downloaded quarterly. Contextual data on surface water flows will also be collected immediately downstream of Observation Hill Dam in accordance with WRM (2022).

3.3.1 Baseline Data

Baseline data will comprise all stream flow data collected prior to the commencement of:

- Altered surface water flow regimes through the use of water from the Observation Hill Dam; and
- Observed water level drawdown in the compliance monitoring bores identified in Table 2.

Figure 4 GDE monitoring locations



4 Triggers and Response Actions

A trigger action response plan (TARP) is outlined in Figure 5 with the aim of ensuring any loss of GDE vegetation from mine activities is less than 3.6 ha (Condition 6-1(-2), Table 1).

Key components of the TARP include:

- Groundwater level monitoring to validate the numerical groundwater flow model. If current water level drawdown predictions are exceeded by more than the seasonal water level range (for more than six months continuously), the administering authority CEO will be notified and the model will be transiently calibrated/recalibrated. The transiently calibrated model will be used to inform the duration and effectiveness of proposed management actions (where necessary). Once water levels fall below 15 m (maximum expected rooting depth of vegetation across the site) deviations between measured/predicted water levels will no longer activate this trigger action.
- Vegetation health will be used as a leading indicator of potential impacts to the GDEs and will provide early warning of loss potential loss of habitat. A BACI approach (Section 3.2.4) will be used to determine whether changes to vegetation health is likely to be associated with groundwater level drawdown;
- Loss of 10% of the GDE area[1] triggers response actions under the RVMP (EcOz, 2022) Level 2.
- Loss of 25% of the GDE area triggers response actions under RVMP level 3a in addition to further investigations and the development of a detailed management plan. Potential management actions are outlined in Section 4.1. The detailed management plan will include a schedule for its implementation;
- Loss of 50% of the GDE area triggers response actions under RVPM level 3b and the implementation of the selected management actions.
- Trigger points for notifying the administering authority CEO are identified in red within TARP.
- While this plan may be revised (with approval by the administering authority CEO), prescribed monitoring activities will continue throughout any revision process.

4.1 Management Actions

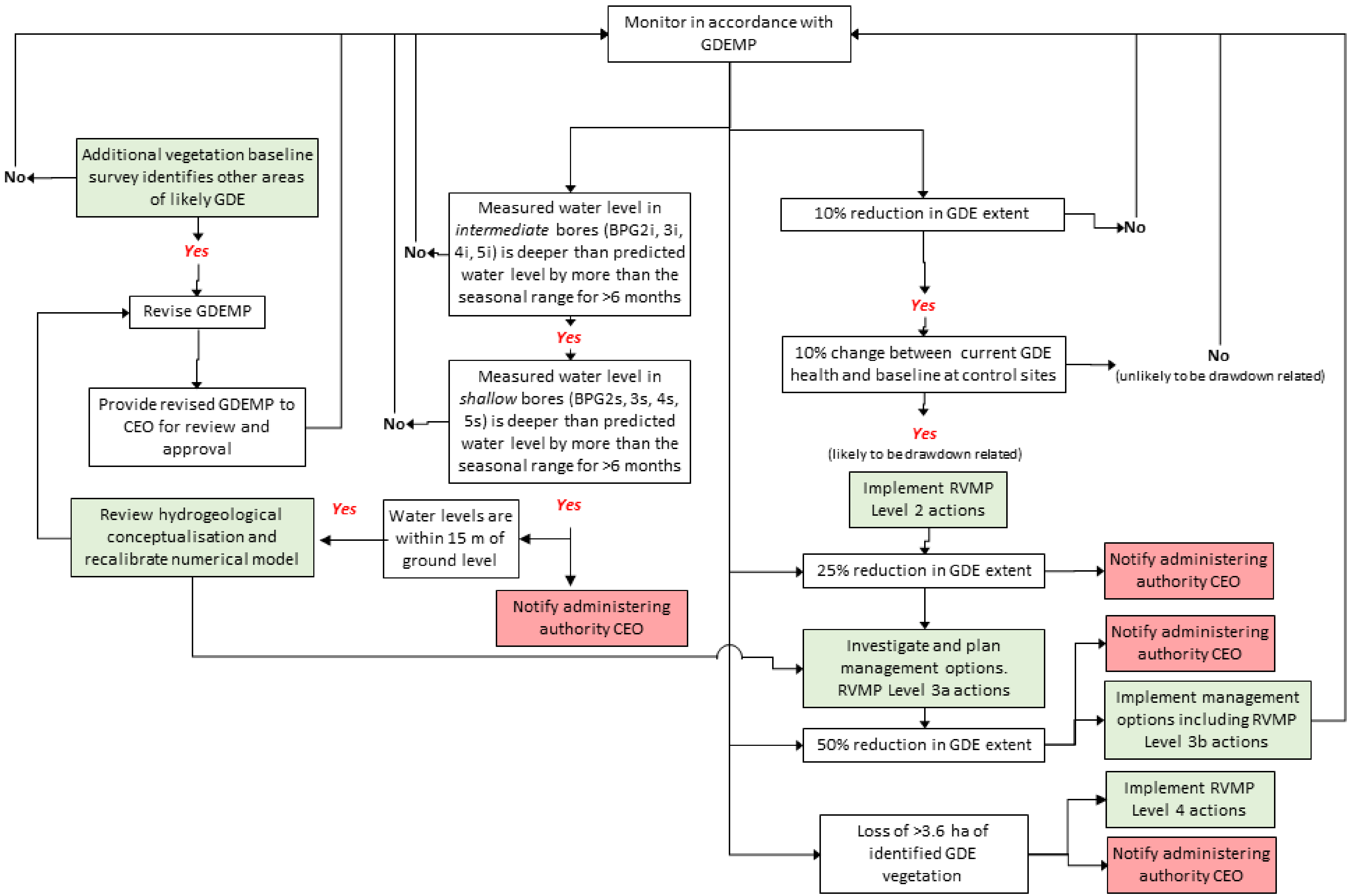
Measures to manage potential impacts to terrestrial GDEs are not well documented in literature. The primary means of minimising impacts to vegetation health, and hence maintain the spatial extent of the GDE community, is to ensure that sufficient water is available to the meet the vegetations' functional needs.

Under natural conditions, the watercourse with which the GDE is associated, is conceptualised to be a discharge feature. Water level drawdown associated with mining will reverse vertical hydraulic gradients and will therefore provide potential for enhanced recharge along the drainage lines. The salinity of the shallow groundwater, relative the groundwater deeper in the profile, suggests that this may already occur (under natural conditions). Wet season flow down the creek may be sufficient to sustain vegetation health and distribution despite groundwater level drawdown, however if flow decreases below natural variability, it may be necessary to augment water availability to the vegetation through:

- Discharge of water of suitable quality from mine water storages to the drainage lines;
- Enhancement of infiltration of surface water through the installation of:
  - Temporary or semi-permanent bunding or weirs to slow surface water flow and increase pooling and hence driving head; or
  - Infiltration galleries of trenches, shallow boreholes or a combination of the thereof, or
- Direct injection of water to the root zone of key tree specimens. There are few examples of this being undertaken, however Behrens et al (2009) did investigate the direct injection of fresh water into the root zone to improve the condition of river red gum.

[1] The GDE area is defined as the 3.6 ha identified as riparian vegetation in EcOz (2019)

Figure 5 Trigger Action Response Plan (TARP)



5 Reporting and Reviews

Results of the GDE monitoring program will be compiled in an annual report, which will be provided to the regulatory authorities upon request.

Following the completion of the annual report, and in accordance with Condition 6-2(1), the appropriateness of this plan to meet the approval conditions in EP2020/001-0001 will be reviewed and where necessary revised.

In accordance with Condition 6-4 (Table 1), the NT EPA CEO will be notified in writing if GDE monitoring identifies that the total area of GDE loss attributable to the action exceeds 3.6 ha, within seven days of identification of the exceedance.

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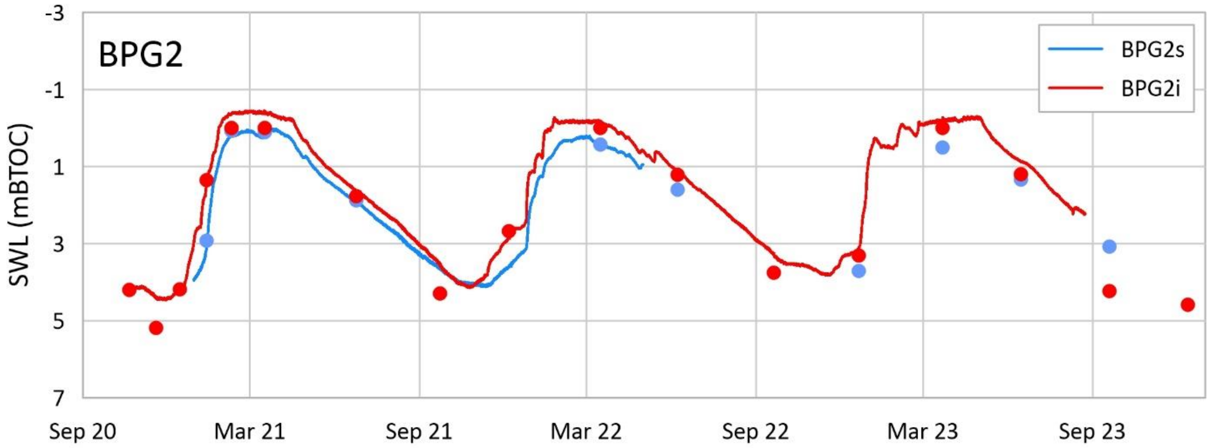
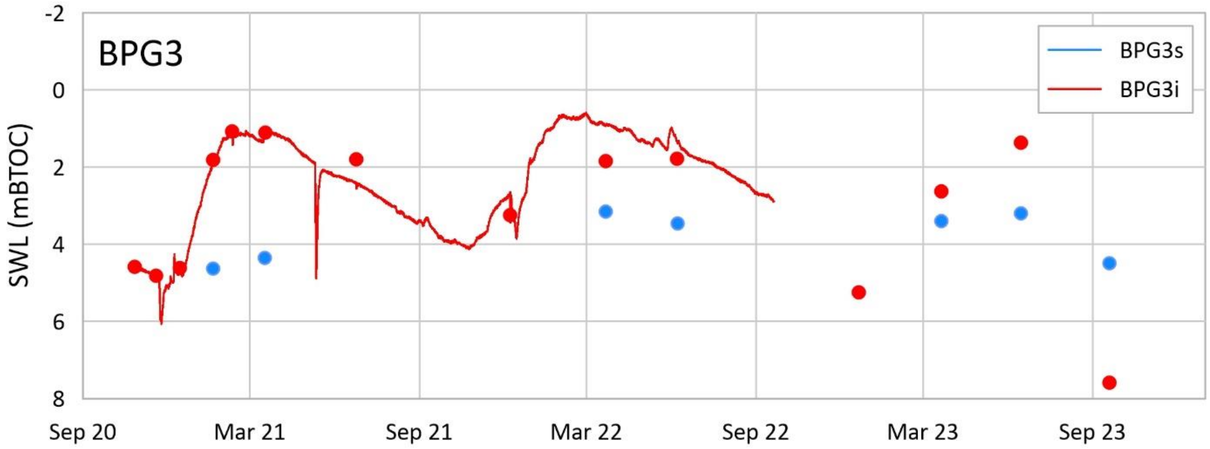
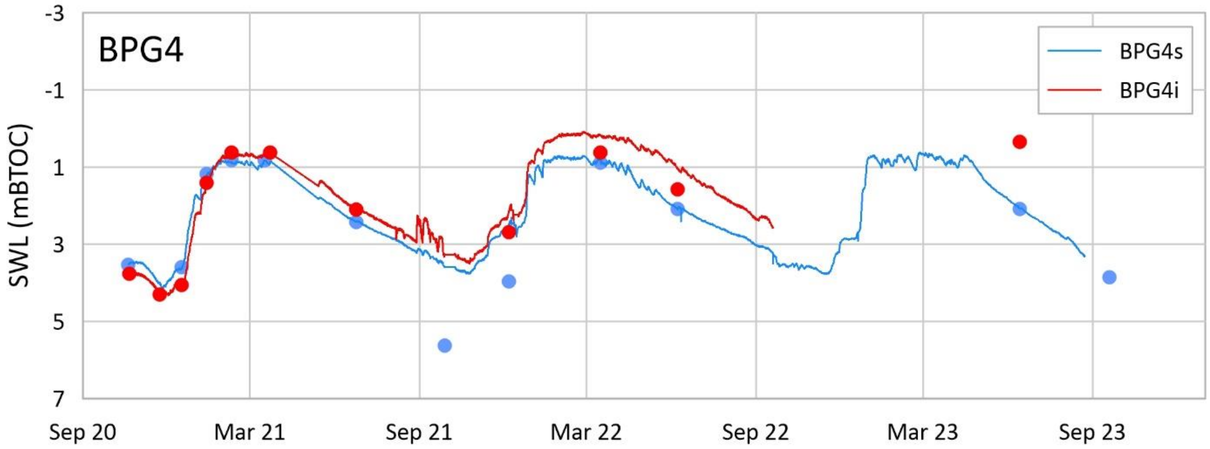
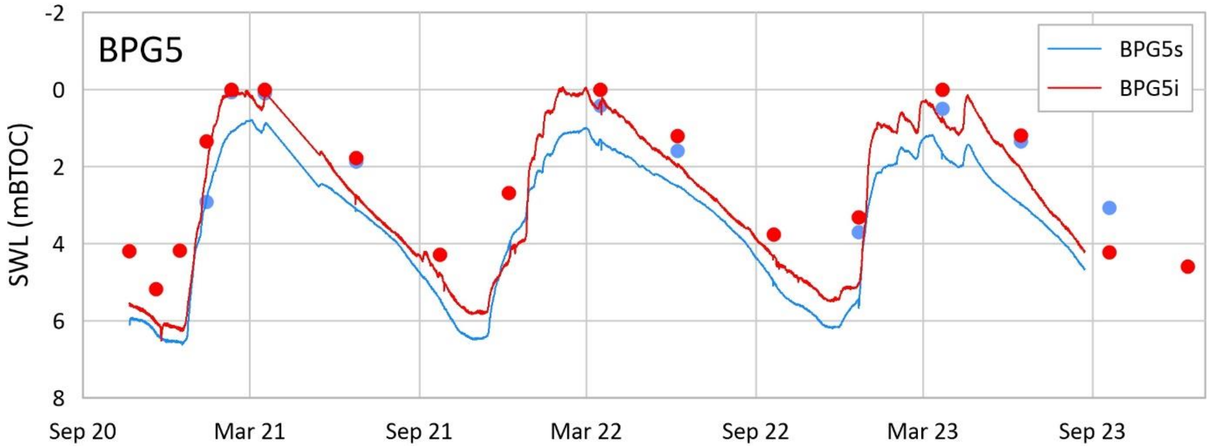
WRM (2022). Finniss Lithium Project, Observation Hill Dam Surface Water Monitoring Program. Prepared for Core Lithium by WRN Water & Environment Pty Ltd.

Appendix A – Groundwater level hydrographs (April 2024)

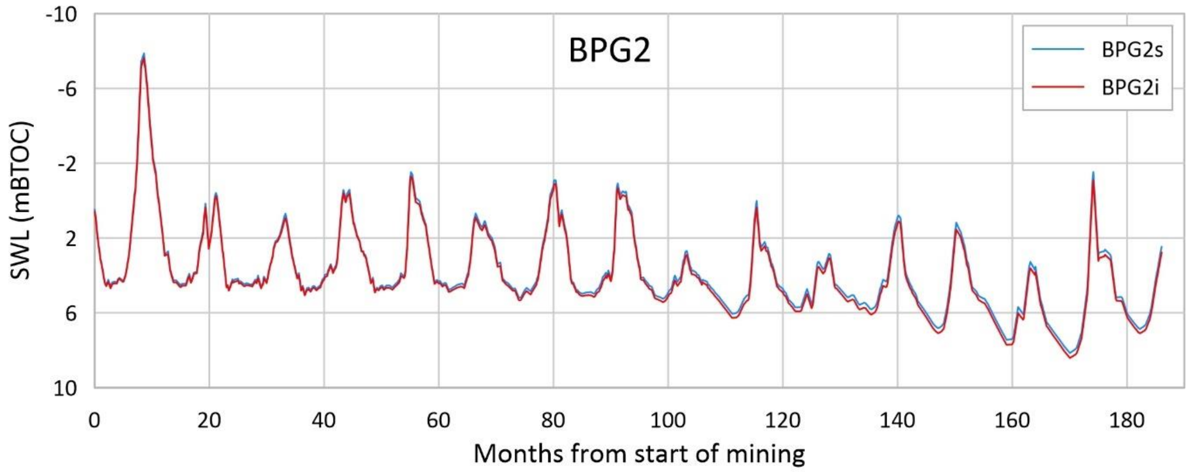

BPG2
BPG2s
BPG2i
SWL (mBTOC)
-3
-1
1
3
5
7
Sep 20
Mar 21
Sep 21
Mar 22
Sep 22
Mar 23
Sep 23

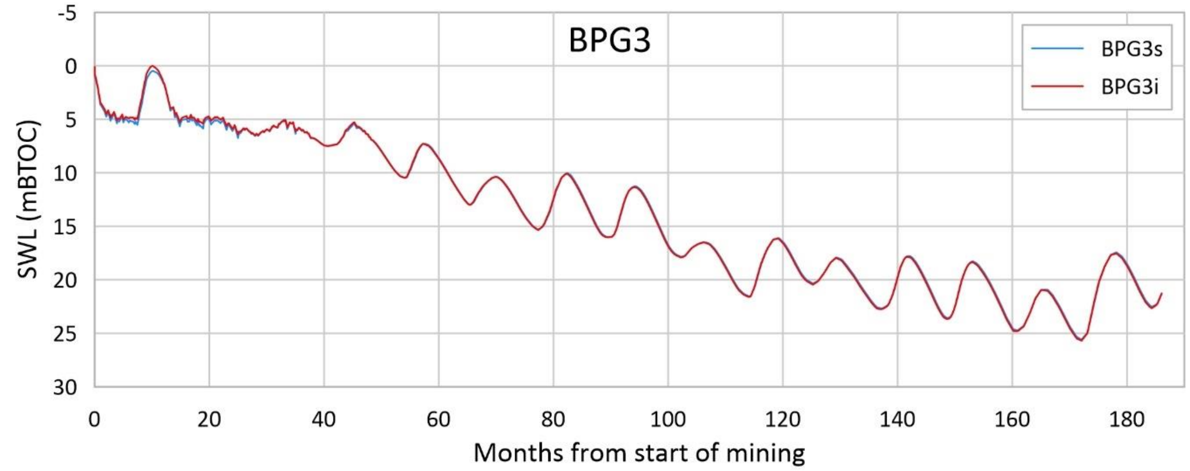

BPG3
BPG3s
BPG3i
SWL (mBTOC)
-2
0
2
4
6
8
Sep 20
Mar 21
Sep 21
Mar 22
Sep 22
Mar 23
Sep 23

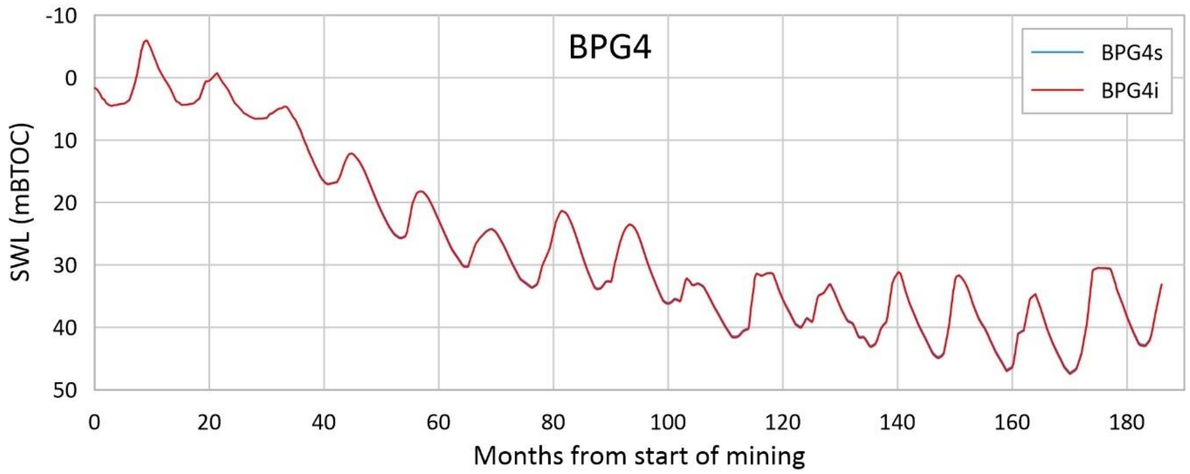

BPG4
BPG4s
BPG4i
SWL (mBTOC)
-3
-1
1
3
5
7
Sep 20
Mar 21
Sep 21
Mar 22
Sep 22
Mar 23
Sep 23

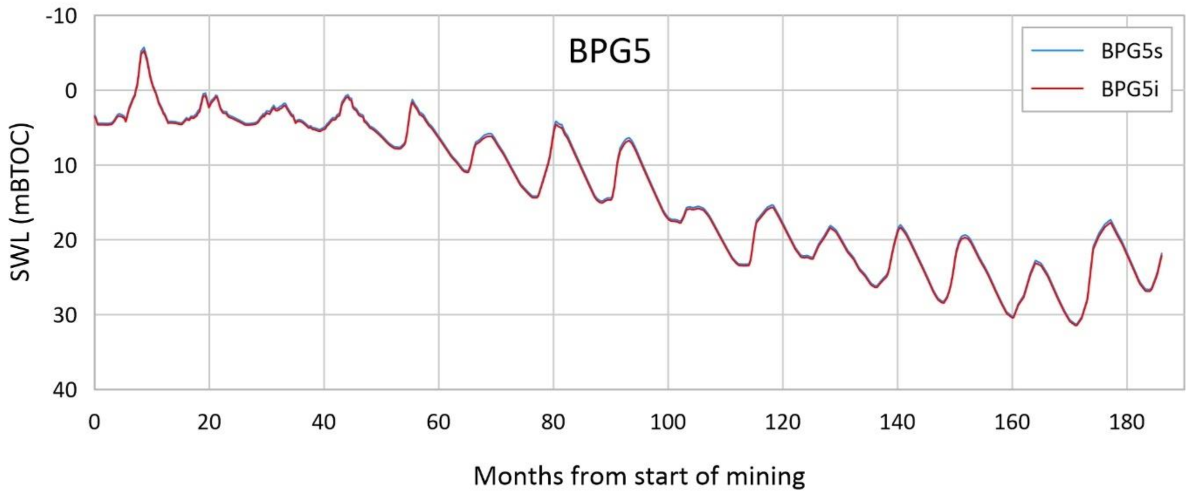

BPG5
BPG5s
BPG5i
SWL (mBTOC)
-2
0
2
4
6
8
Sep 20
Mar 21
Sep 21
Mar 22
Sep 22
Mar 23
Sep 23

Appendix B – Predicted groundwater levels (CloudGMS, 2023)


BPG2
BPG2s
BPG2i
SWL (mBTOC)
Months from start of mining


BPG3
BPG3s
BPG3i
SWL (mBTOC)
Months from start of mining


BPG4
BPG4s
BPG4i
SWL (mBTOC)
Months from start of mining


BPG5
BPG5s
BPG5i
SWL (mBTOC)
Months from start of mining