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TSF4 Work Plan Variation
 Work Plan Variation - Whitehorse Gully Tailings Storage Facility (TSF4) –
 Ballarat Gold Mine - MIN4847 & MIN5396

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4.11 Other Infrastructure

SUMMARY

The associated infrastructure area at TSF4 will include the following:

- Site hut and carpark;
- Laydown area for storage of equipment;
- Power;
- Diesel storage tank;
- Lighting;
- Access roads.

A project office, parking bay and laydown area will be established in the area shown on **Figure F6- App. A** for construction phases.

Three phase power is being extended by Powercorp from both Whitehorse Road and Tinworth Avenue to the site in order to provide power for the pumps from the sedimentation pond, tailings delivery and the decant/leachate system (see **Figure F5- App. A** for location of powerpole and lines) which will be in use during operation.

A fuel (diesel) storage will be stored on-site within the site laydown area for refuelling mobile plant during construction phases and will comprise of an above ground tank, which will be self- bunded and designed to meet AS 1940 *The storage and handling of flammable and combustible liquids*.

To restrict the amount of traffic crossing the CHW pipe, CHW has requested that permanent fencing be erected on both the northern and southern edge of the pipeline corridor, at a 5m off-set from each side of the pipeline (as shown on **Figure F5** and **Figure F6- App. A**) . Designated crossings will be established and these will need to be designed for in order to protect the pipe (to be designed as part of detailed design). The location of the planned crossing point is shown on **Figure F5- App. A**.

Hazardous material: Risk Management Measures

- Fuel tank to be self-bunded and designed to meet AS 1940 *The storage and handling of flammable and combustible liquids*.
- Designated crossing point established over the CHW pipeline.

4.12 Site access

Access around the TSF4 site will be based on operational requirements. For the concept design, the access requirements from the Terrible Gully TSF have been adopted, with a 6 m wide access tracks around the TSF4 embankment. This final design of the access track (required for light vehicle access for inspections, and maintenance as required) will be finalised in the detailed drawings.

Waste rock from the mine operations will be utilised in TSF4 construction. Haulage between the mine operations and TSF4 will be short term, during the construction phase, with an internal haul road constructed from TSF3 to the TSF4 site, as shown on **Figure F5- App. A** which shows the alignment of access to the Terrible Gully TSF and CGT site office (and designated crossing point over the CHW pipeline).

Having an internal haul route will remove all truck haulage on public roads, however off-site access is still required for mobilisation and demobilisation and some haulage where the route through TSF3 is not possible. Therefore, an access route is also required from Whitehorse Road to allow plant during the construction phases to access the site.

Access through this road for trucks greater than 10t will be limited to the construction hours for the site and will be in accordance with Planning Permit for the development.

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Whitehorse Road is a VicRoads managed road and CGT have been in discussions with VicRoads as to their requirements, including signage requirements. For safe access, a new left-hand turning lane is planned in consultation with VicRoads. The conceptual design of the road is presented in **Appendix F**.

4.13 Hours of Operation

Hours will be in accordance with the Planning Permit for the use and development.

Delivery of tailings to the TSF will take place 24 hours a day, 7 days a week consistent with the 24-hour operations at the mine.

Construction and rehabilitation phases will be limited to construction hours of 7am- 6pm Monday to Friday and 7am- 1pm Saturdays (except where emergency repair works are required to be undertaken to maintain the on-site operation), unless varied in the Planning Permit for the construction road access off Whitehorse Road as discussed above.

Hours: Inherent Risk Management Measures

Construction and operational hours will be in accordance with Planning Permit. .

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5.0 Site Rehabilitation and Closure

This section describes the preliminary closure plan for the TSF4 site, including future use of the land, closure cap design, long-term management of surface water, and post-closure surveillance and monitoring.

A Conceptual Rehabilitation Plan providing further details on site rehabilitation and closure is provided in Conceptual Design (AECOM, 2019). A drawing representing the closure plan is provided as **Figure F10- Appendix A**.

The Rehabilitation Plan will be reviewed and updated as the project develops through design, construction, and operation.

5.1 End Use

At the end of the project, the areas affected by the site will be left in a safe, stable and sustainable state and returned to the pre-mining land use of commercial forestry consistent with existing use and land classification. This also is sympathetic to the surrounding land use.

This end use was modelled as part of the VIA (Hansen, 2019) and based on the photomontages were pines were modelled at being replanted, the visual impact was assessed as being limited or negligible at the worst-case views.

No approvals for this land use are understood to be required, as Balmaine Gold Pty Ltd is the current holder of the Plantation Licence for the site, and as explained in Section 3.3, DELWP is not managing the site as Crown Land Manager.

5.2 Rehabilitation

The proposed land use is forestry and will be replanted with commercial forestry species, such as softwood pines, following capping of the TSF.

The following will be carried out as part of the capping of TSF4:

- Draining of the decant pond, with water pumped back to the process water tank.
- Drainage of the tailings such that post-capping settlements do not impact the caps functionality.
- Reshaping of the tailings surface using earthmoving plant to provide controlled drainage (nominal 3% grade).
- Capping with a low permeability layer (nominally 0.6 m thick).
- Covering with a free draining material.
- Covering with a growth medium (nominally 1.0 m). The thickness of the growth medium will be increased if required according to recommendations from the plantation contractors as part of consultation at detailed design.
- Revegetation of the site, including spreading of growth medium or topsoil which has been stockpiled during earlier construction work.

5.3 Land Reshaping and Cap Design

The landform of the completed TSF will be reshaped to complement the proposed operating diversion drain and prevent against ponding of water on the surface. The proposed landform shaping will direct surface water flow into drains (proposed operational drains and new drains) and into the spillway channel.

The rehabilitated site will have an engineered cap over the mine tailings. The engineered cap thickness will need to be sufficient so that puncturing of the low permeability layer of the cap does not occur. From past observations (Ballarat Goldfields N.L. 1993), the typical root depth of pine trees is less than 1 m.

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It is proposed that consultation is held with plantation personnel prior to finalising a detailed closure design. This would include input in the depth of ripping that would be performed etc. The thickness of the cap will then be finalised to ensure that the low permeability layer remains undisturbed from planting activities.

The cap design will provide for free drainage of the surface and limit oxygen ingress water infiltration to prevent long term leaching of arsenic or other contaminants.

It has been assumed that the approved cap design adopted for the Terrible Gully TSF will be suitable, since the future land use proposed is the same (softwood production).

The conceptual capping design from AECOM (2019) is shown in Figure 6. Cross sections of the indicative final design and cap profile have been prepared and are included as part of the Conceptual Design (AECOM, 2019). Detailed design will also determine whether plantation can be planted on the embankment of other surface treatment is required for long-term stability of the embankment.

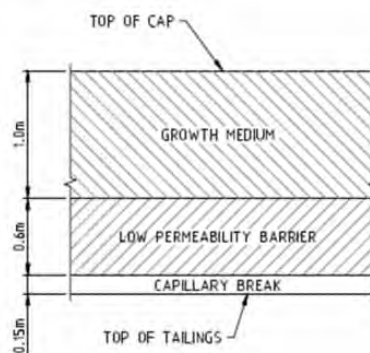


Figure 6 Indicative cap design for TSF4, based on the approved cap profile for Terrible Gully TSF

Soils used in the cap construction will be sourced from site where suitable materials exist, including application of a suitable growth medium (such as mixture of suitable free draining soils, waste rock and mulch) to support the establishment of the pine plantation. It is estimated that the volume of material needed will be in the order of ~ 160,000 m³ for which sufficient material will be available at the mining operations.

It is not the intent to import any materials for rehabilitation.

5.3.1 Long-Term Settlement

The settlement of the tailings with time is a key consideration in the design and construction of the cap. Post-closure settlement will affect the caps long-term ability to shed water freely. The settlement behaviour of the tailings is dependent on its characteristics, which at this stage, is not known.

Detailed metallurgical testing will need to be undertaken to determine the optimum grind size of the re-grinded tailings. This will provide information on the tailings particle size distribution, permeability and shear strength. This information will be required to assess the amount of long-term settlement due to primary and secondary consolidation.

ERR (2017) and ANCOLD (2012) indicate a nominal design life of 1,000 years. In reality virtually all long-term settlement will have occurred within 100 years. Ongoing creep settlement beyond this should be relatively minor.

The current tailings being deposited into TSF3 gains strength very quickly. This is due to the coarseness of the particles (sand to fine gravel in size). If in the future, the coarse tailings are reprocessed using a ball mill, it is anticipated that the tailings deposited into TSF4 will be relatively fine (dominated by silt-sized particles). It may take some months to years before the top of tailings has gained sufficient strength for rehabilitation to occur.

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Therefore timing of rehabilitation post cessation of tailings disposal will be dependent on the final material deposited. It is proposed that the capping process would only begin once earthmoving equipment is able to safely traffic the tailings surface with minimal heaving.

5.4 Progressive Rehabilitation

Given, it may take some months to years before the top of tailings has gained sufficient strength for rehabilitation to occur, progressive rehabilitation may be difficult as the whole TSF will be capped at one time. However progressive rehabilitation will include removal of infrastructure (where not needed during tailings settlement). Land surrounding the TSF4 footprint will also be prepared for plantation where practicable during this time.

5.5 Infrastructure

All infrastructure, including power to the site, pumps and pipes will be removed as part of the site rehabilitation program. No infrastructure, unless deemed necessary for closure, such as monitoring infrastructure (e.g. groundwater wells) will remain on site. It is envisaged that for a period of time following rehabilitation, pumps to extract leachate may be required, however this would be in the short term only, with the pumps removed once no longer required. Power will be disconnected to site as soon as it is no longer required however the power poles will remain.

Site security and fencing will remain around the site for as long as needed before land is considered safe and stable, and suitable for public access.

5.6 Post-Closure

5.6.1 Post-Closure Seepage

The cover design will limit the infiltration through provision of a low permeability layer and grading of the surface. It is expected that the seepage collected by the under-drainage system will reduce over time and eventually reach insignificant levels as the tailings body dries out. Seepage will be returned to the mill and treated until seepage volumes and/or water quality not pose any environmental impact or the volumes of leachate is minimal and does not need to be extracted as part of ongoing TSF4 management.

Monitoring of seepage and groundwater bores will continue for at least 5 years after closure or until the mine demonstrates that conditions are stable and environmental risks are minimal.

5.6.2 Post Closure Stability

The post closure TSF will be a dry storage. Monitoring will confirm the drainage condition and low phreatic surface. Consequently, the embankment stability will be similar to the well-drained conditions analysed for the operating conditions. As such there will be no "TSF break" risk and embankment stability will be conservative.

5.6.3 Post-Closure Monitoring

A post-closure surveillance program has not been developed at this stage, however will be prepared as part of the detailed closure plan and design, with an updated Rehabilitation Plan provided to ERR once the final design of all stages has been complete and site TSF is in operation. This section summaries the general requirements of a post-closure surveillance program that will be considered in preparation as described in ERR (2017) and ANCOLD (2012a).

The post-closure surveillance program needs to demonstrate that completion criteria have been met and that the site is safe and stable. Broadly, and within the land-use objectives set for closure, monitoring of a decommissioned TSF should continue to demonstrate the proposed closure performance until formal closure and resumption of management by the landowner.

A post-closure monitoring program should be designed to demonstrate that (MCMR & MCA 2003):

- structures are geotechnically stable;
- the closure water balance has been established and it demonstrates the expected performance including cover design and drainage;

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- covers are performing their intended role;
- required plant growth has been successful and that a self-sustaining community has developed;
- there is a low risk of an uncontrolled release of tailings or contaminants; and
- should an uncontrolled release occur, the release of contaminants or tailings will not result in recognisable detrimental effects on the water, soil and air surrounding the closed facility.

Post-closure monitoring should consider:

- revegetation performance;
- performance of flood mitigation and drainage control measures;
- surface drainage and seepage;
- erosion control;
- groundwater level and quality;
- embankment stability/deformation; and
- monitoring of equipment and pipework.

***Mineral Resources (Sustainable Development) Act
1990***

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Plan Number: PLN-001406

Work

Signed: 

Delegate of the Department Head

Date: 10/08/2020

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6.0 Stakeholder and Community Engagement

CGT has endeavoured to inform and keep informed its key stakeholders on its intention to build the TSF, with preliminary discussions held with ERR regarding the intent to build a new TSF in August 2017.

In May 2019 Central Highlands Water, the City of Ballarat, DELWP (DELWP planning and native vegetation team representatives), ERR (compliance, approvals and technical service team representatives), Environment Protection Agency and the Corangamite Catchment Management Authority were invited to a site kick-off meeting to discuss the company's intention to construct the TSF at Whitehorse Gully. Participants were asked to raise any issues or concerns they would like to have addressed as part of the detailed design process.

CGT have discussed TSF4 construction with ERR on several subsequent occasions, including holding a meeting on 8 October 2019 with Technical Services to discuss the TSF4 conceptual design. The meeting also included the attendance of Golder as the ITR to discuss their review of the concept design.

Additional discussions have been held with CHW to discuss any concerns throughout the design process and all issues, such as pipe protection have been addressed.

CGT have discussed the TSF construction with the City of Ballarat officers directly on separate occasions and received advice that a Planning Permit will be required.

Construction of the TSF has been included in the agenda and discussed at several ERC's in 2018/19, the notes and minutes of these meetings are distributed to community representatives and regulators including ERR and EPA.

Due to the nature of the TSF, a separate Community Engagement Plan has been prepared to detail the community communication and engagement that has/ will occur as part of the construction and operation of TSF4. The CEP is provided as a separate document to this WPV.

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7.0 References

AECOM, 2019. *Groundwater Impact Assessment TSF4*, prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd

AECOM, 2020. *TSF4 Vegetation Condition Assessment*, prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd.

AECOM, 2020a. *Whitehorse Gully TSF4- Air Quality Assessment*, prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd.

AECOM, 2020b. *Whitehorse Gully TSF Concept Design Report*, prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd. This document also includes Independent Technical Review of the conceptual design completed by Golder Associates Pty Ltd (Golder) which is included in Appendix I of the document;

Broner Consulting, 2019. *Whitehorse Gully TSF4- Noise Impact Assessment*. Prepared by Broner Consulting for Balmaine Gold Pty Ltd.

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Finlay, I.S. and Douglas, P.M. (1992) Ballarat 1:100,000 mines and deep leads map geological report. Geological Survey of Victoria Report 94.

Hansen, 2019. *Ballarat Gold Mine Tailings Storage Facility- Visual Impact Assessment*. Prepared by Hansen Partnership Pty Ltd for AECOM.

Mineral Resources (Sustainable Development) Act 1990 (MRSDA)

Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (MRSD(MI)R)

Appendix A

Figures

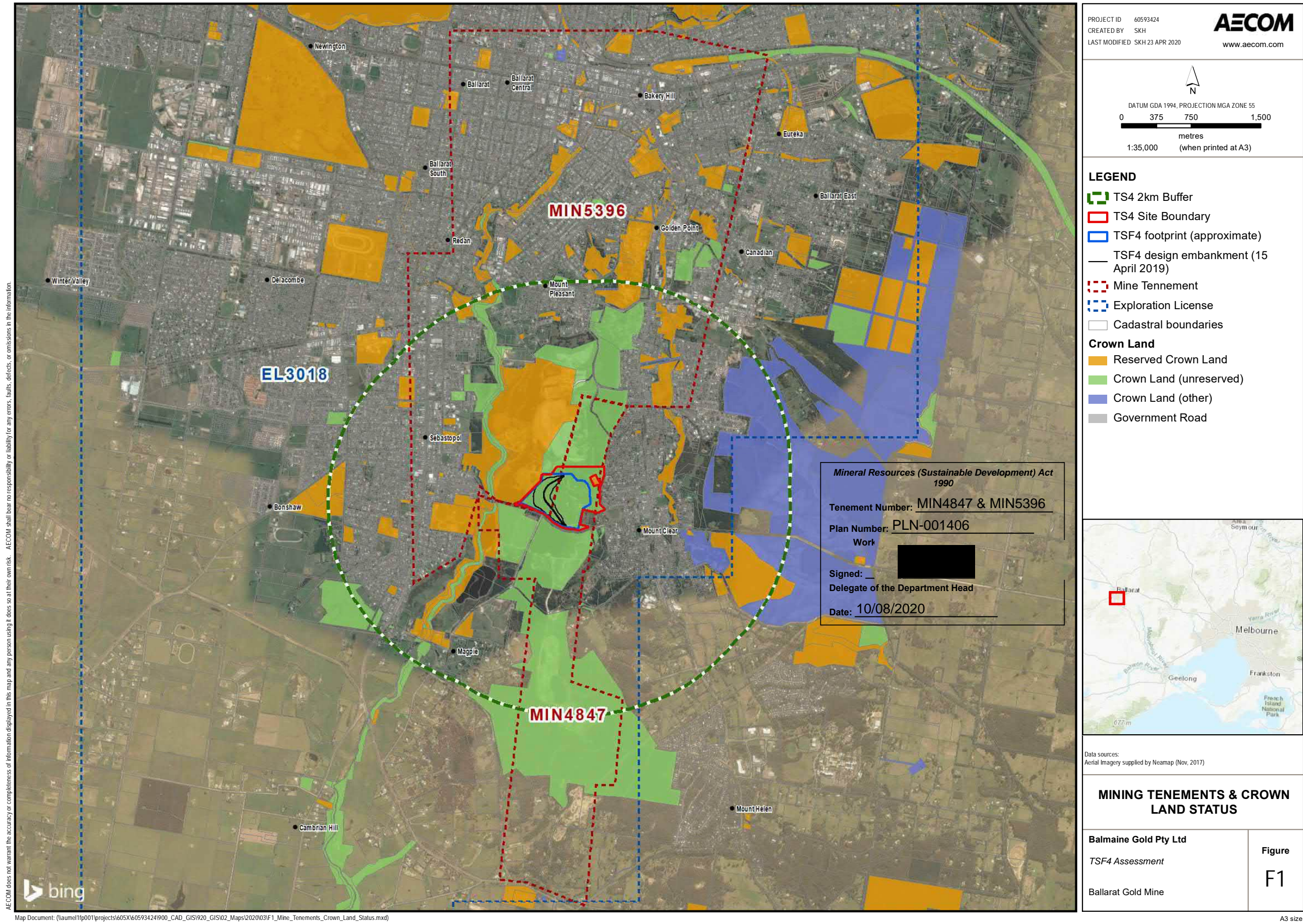
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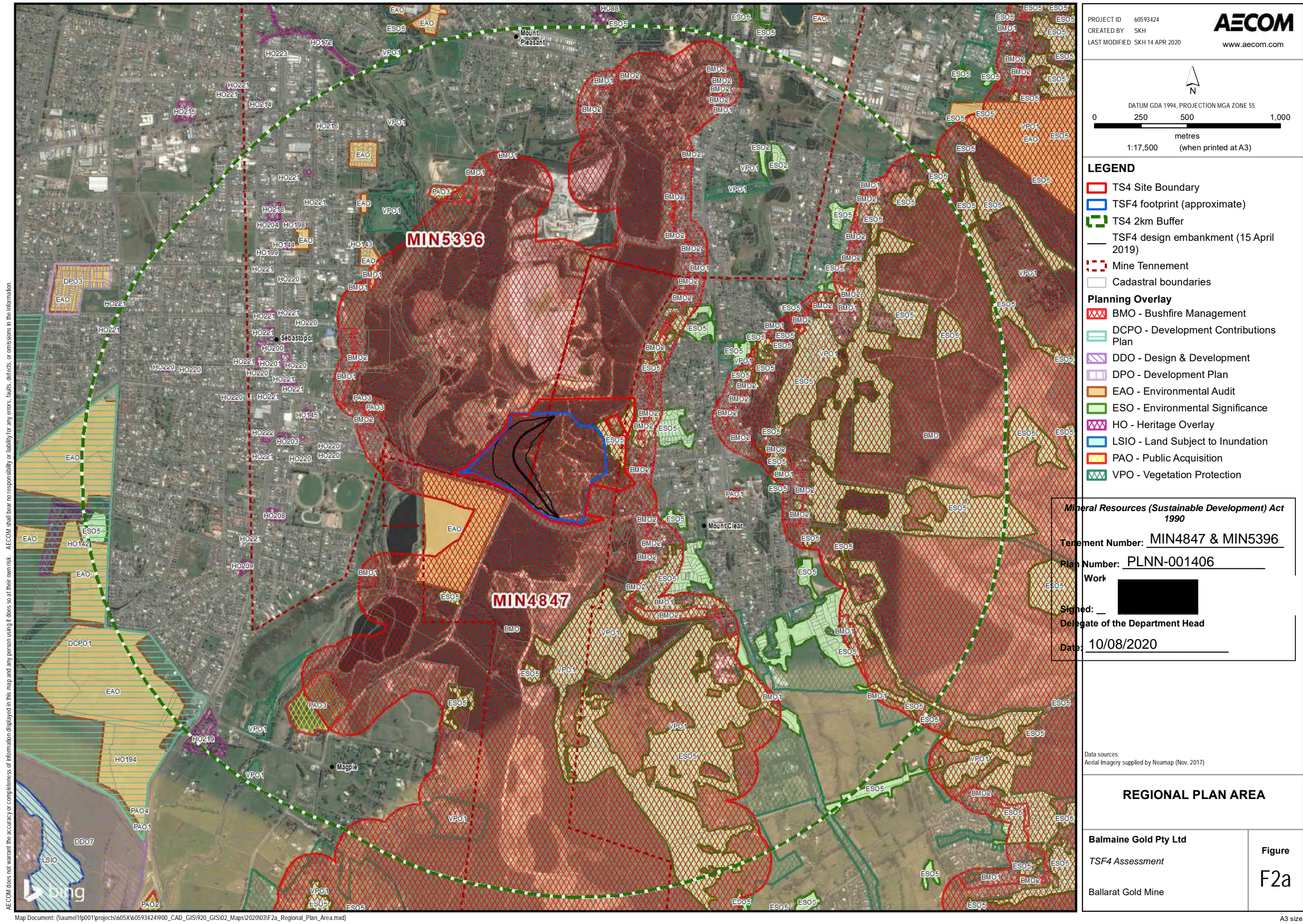
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Ballarat Gold Mine - MIN4847 & MIN5396

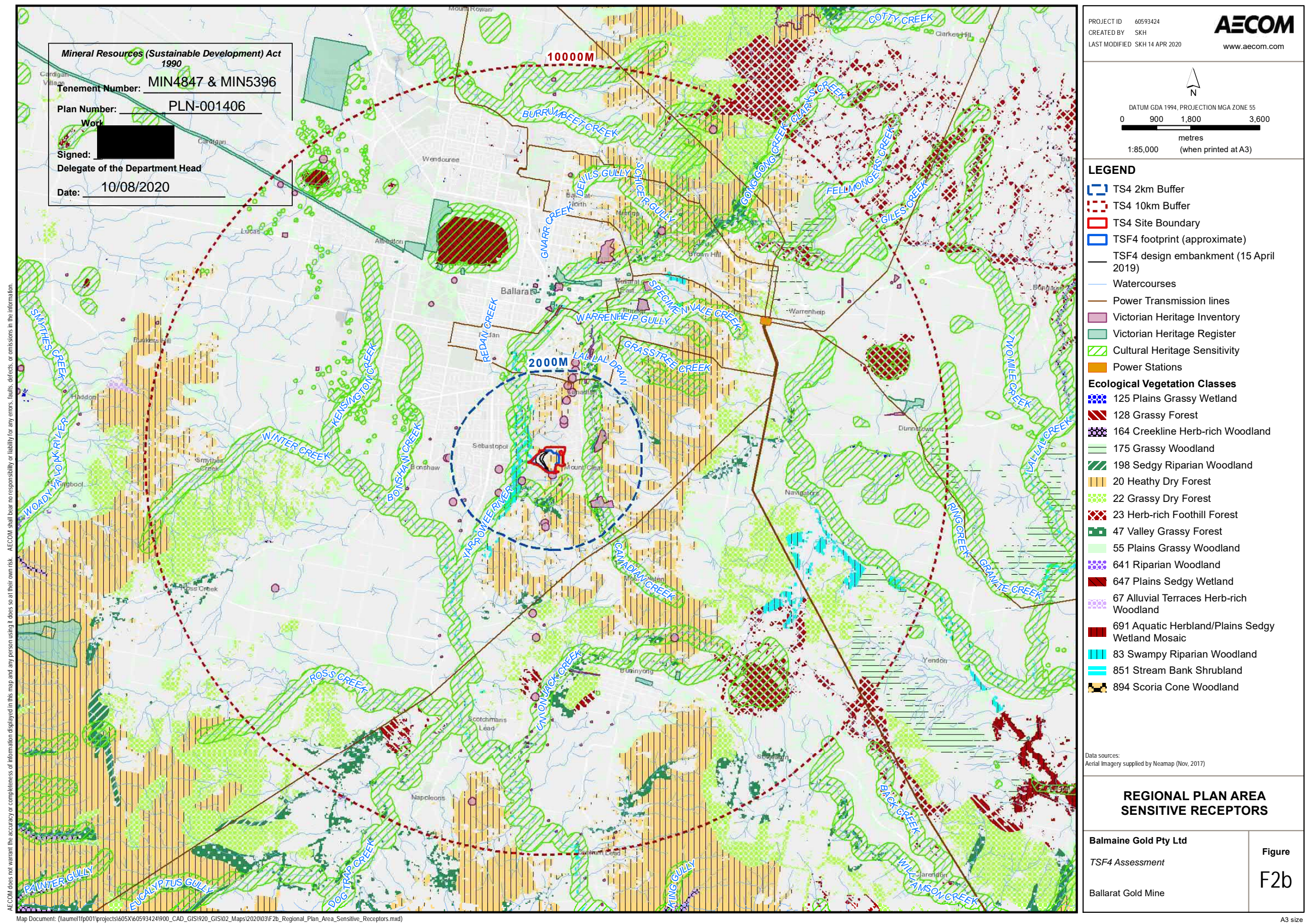
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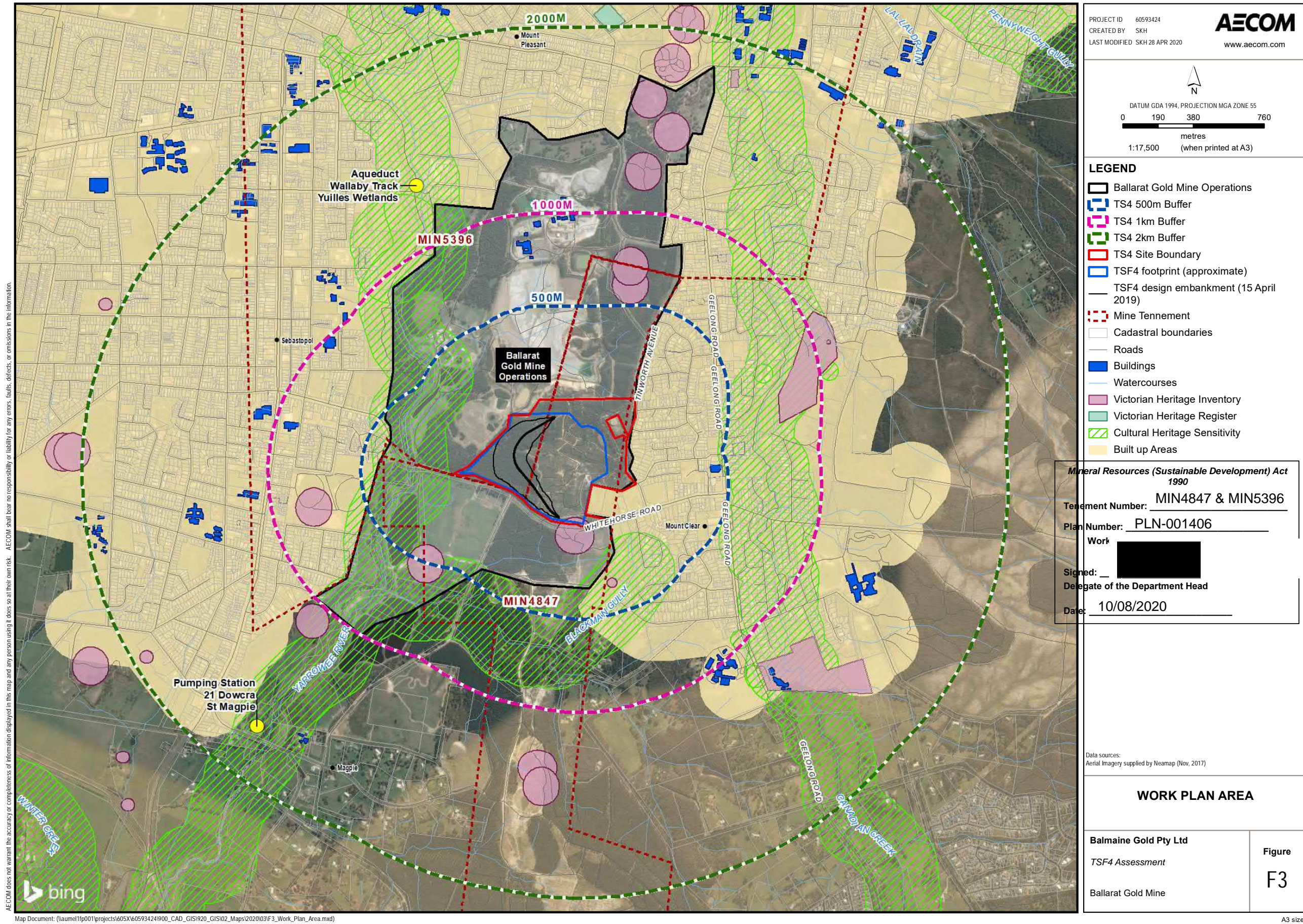
Appendix A Figure Set

Figure 1	Mining Tenements and Crown Land Status
Figure 2a	Regional Plan Area
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Figure 3	Work Plan Area
Figure 4-	Surrounding Features and Groundwater Monitoring Bores
Figure 5	TSF4 Site Layout
Figure 6-	Stockpile Locations Stage 1
Figure 7	TSF4- Surface water management- Stage 1
Figure 8	TSF4- Surface water management Stage 2
Figure 9a,b,c	Sheet 1, Sheet 2, Sheet 3- Cross sections
Figure 10	Closure Plan

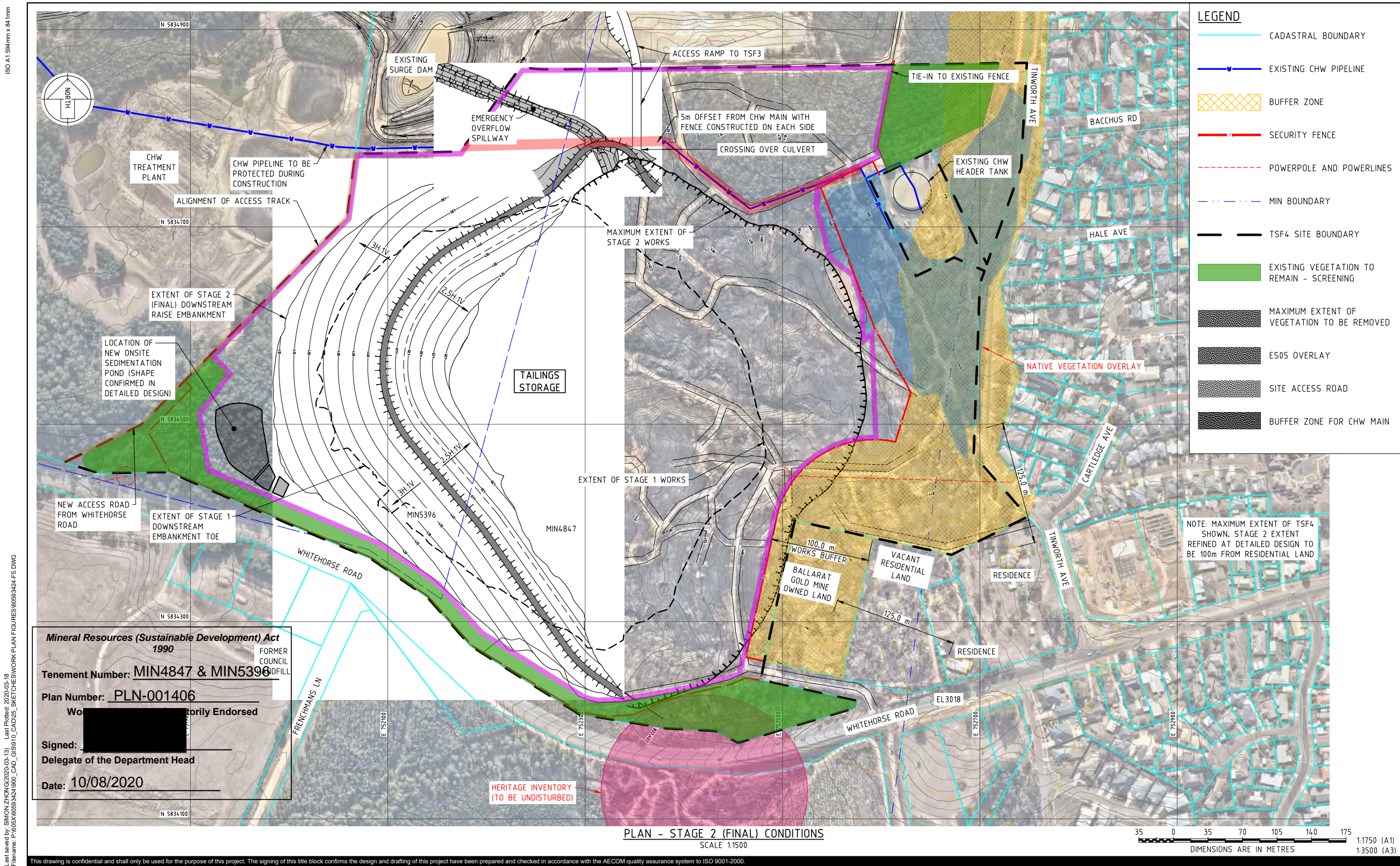














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BALLARAT GOLD MINE
TSF4 - WORK PLAN
VARIATION

CLIENT
BALMAINE GOLD PTY LTD

PROJECT MANAGEMENT INITIALS		
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DRAFTER	DESIGNER	APPROVED

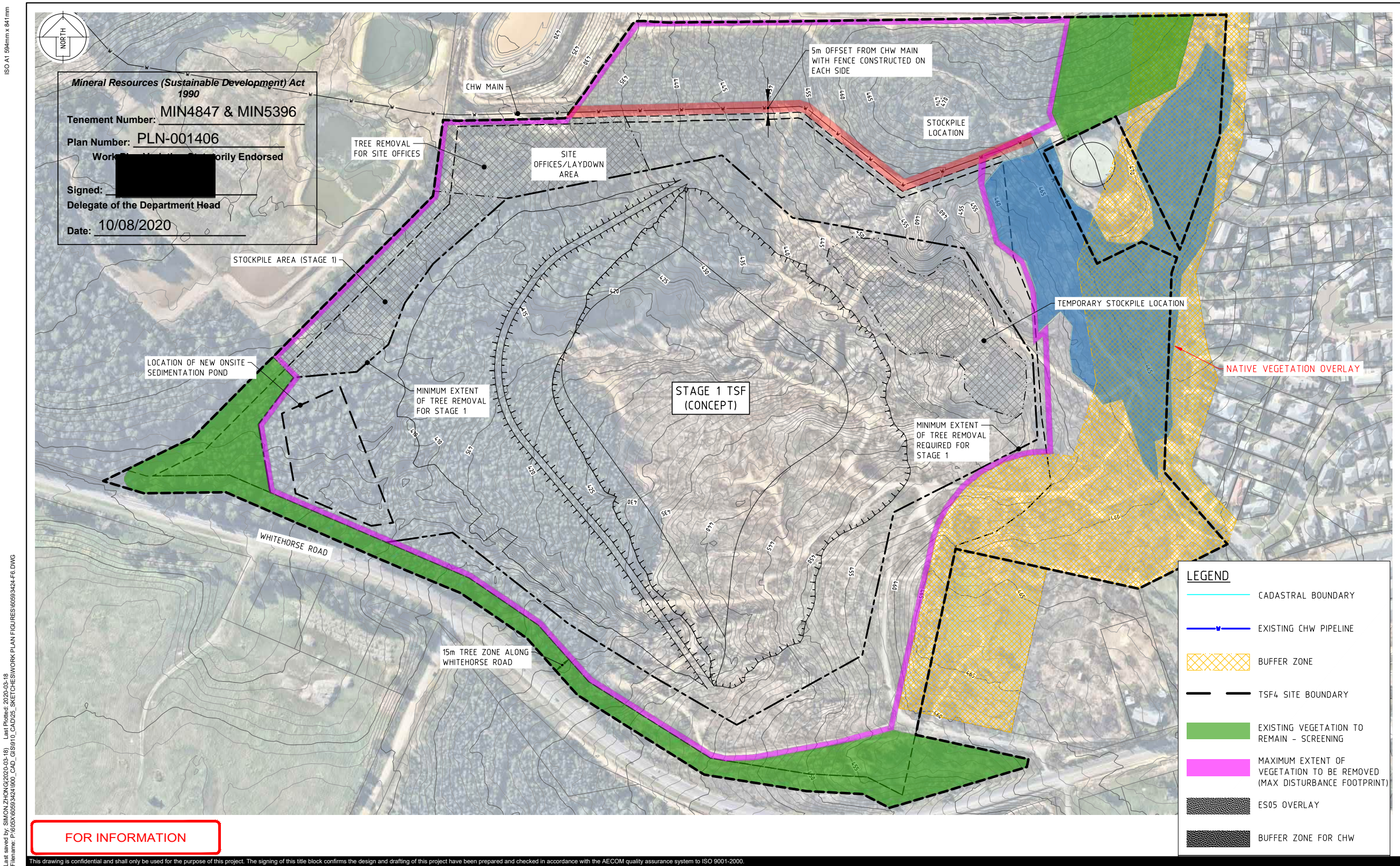
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PROJECT NUMBER
60593424

SHEET TITLE
STOCKPILE LOCATIONS
STAGE 1

SHEET NUMBER
60593424-F5

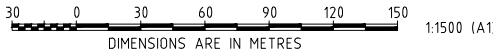
FIGURE
F5



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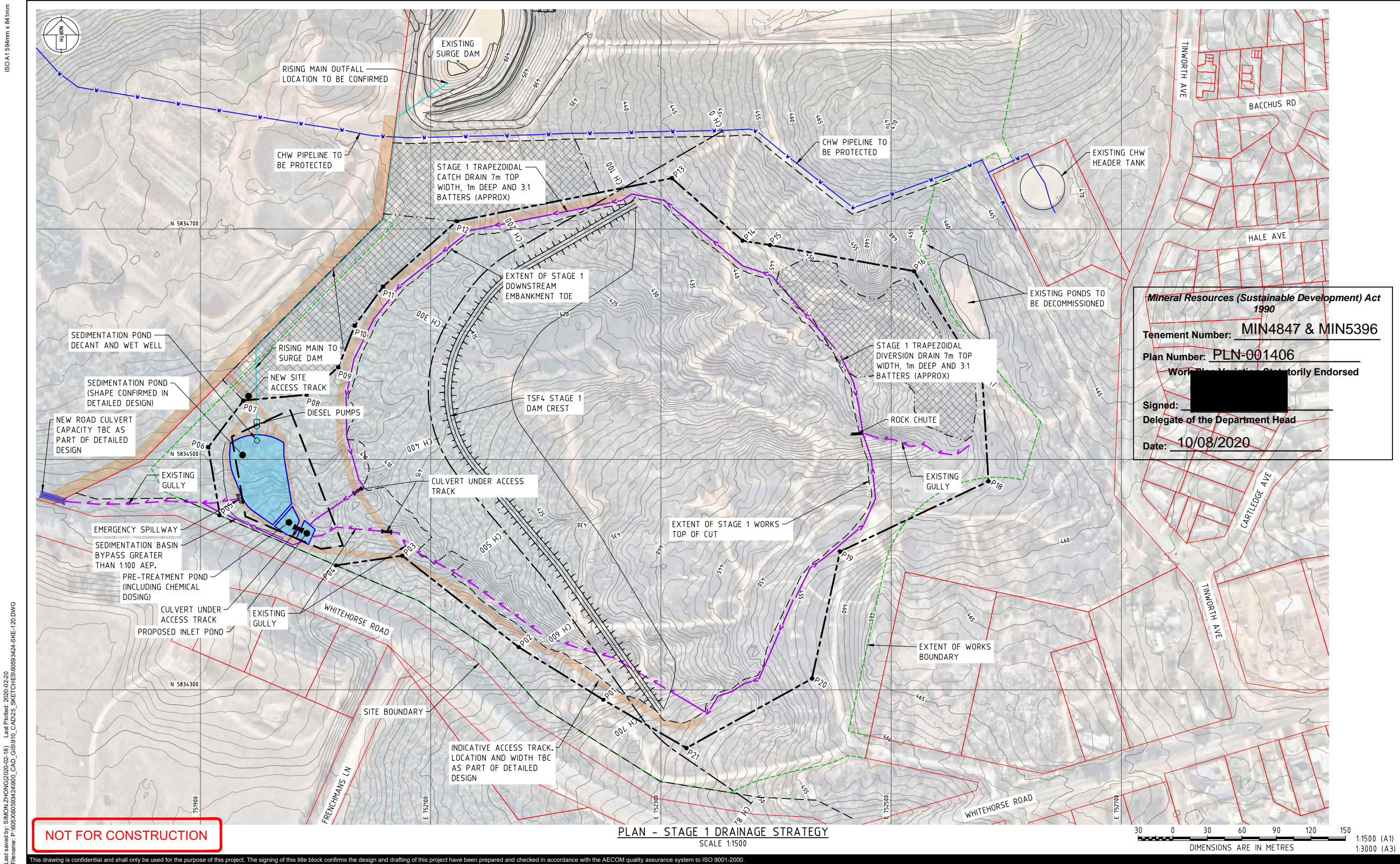
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FIGURE	
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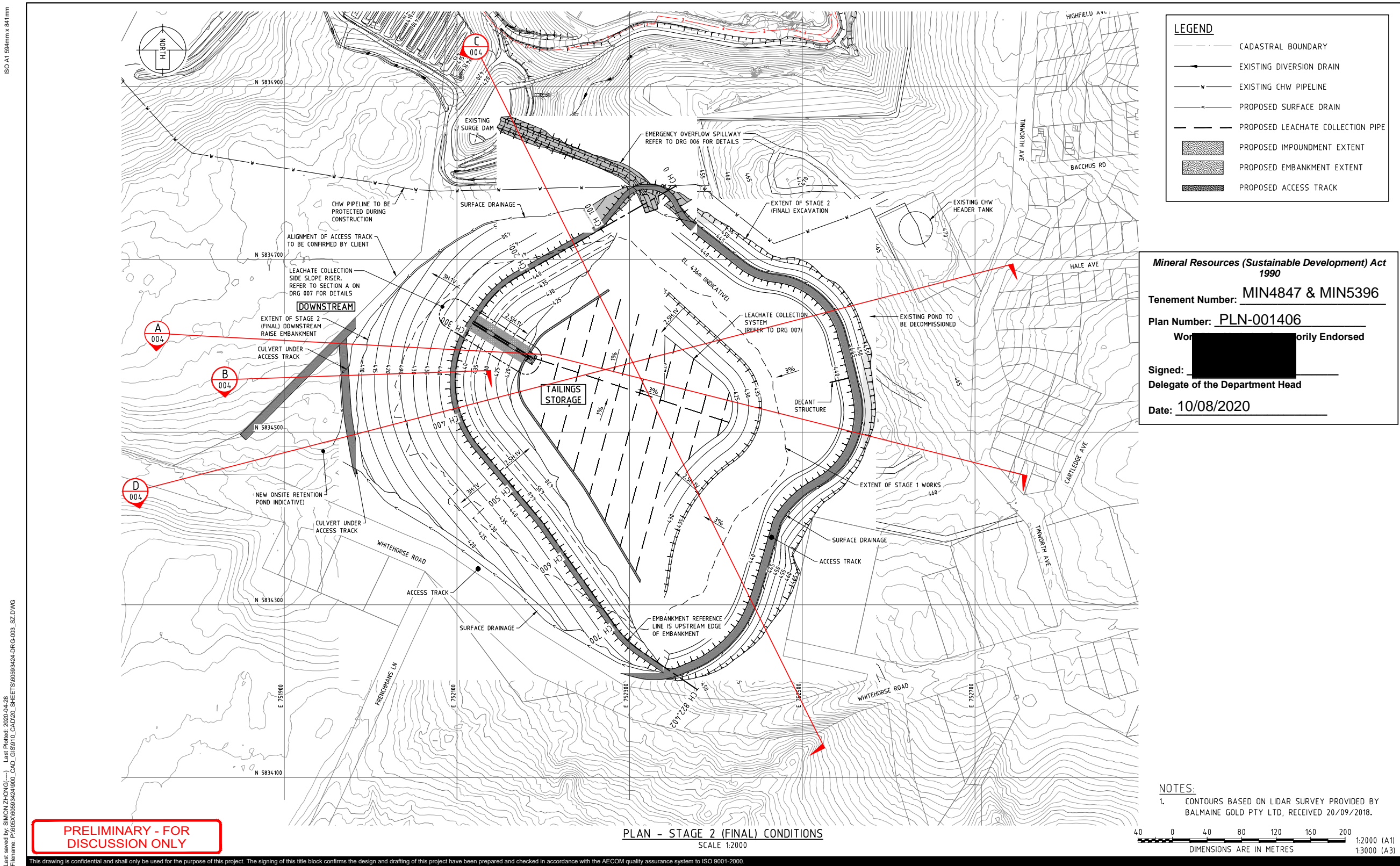
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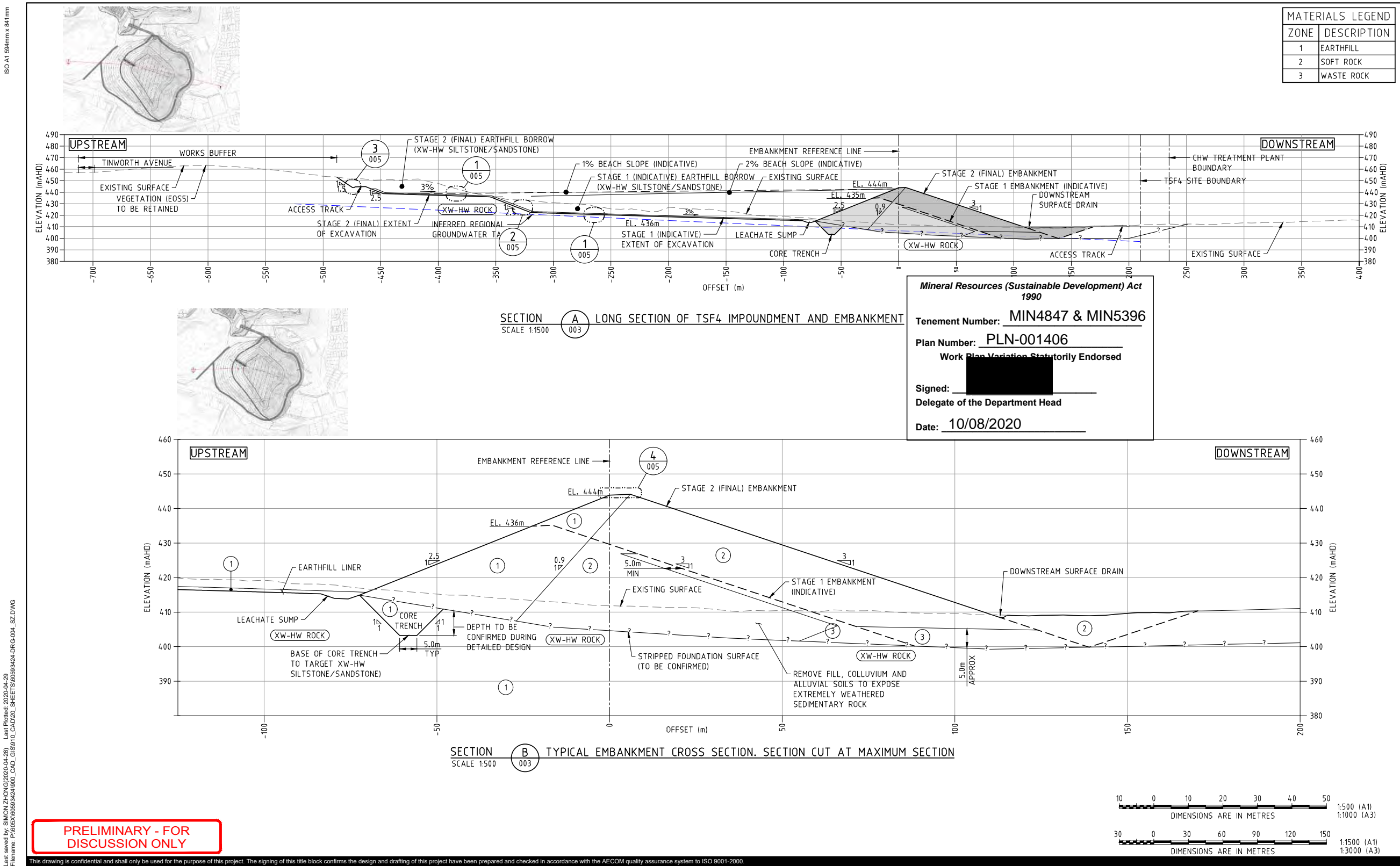
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PLAN- OVERVIEW OF SECTIONS
SHEET NUMBER
60593424-DRG-003
FIGURE
F9a



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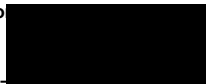
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SHEET TITLE	
TYPICAL SECTIONS	
SHEET 2 OF 2	
SHEET NUMBER	FIGURE
60593424-DRG-004	F9c


- Notes:
- 1. Power poles to be retained with power to be disconnected when no longer needed for leachate management.
 - 2. Access road from Whitehorse Road to be retained.
 - 3. Drainage and on-site retention pond to be retained.
 - 4. Site to be returned to timber plantation and re-vegetated following capping.

Mineral Resources (Sustainable Development) Act 1990

Tenement Number: **MIN4847 & MIN5396**

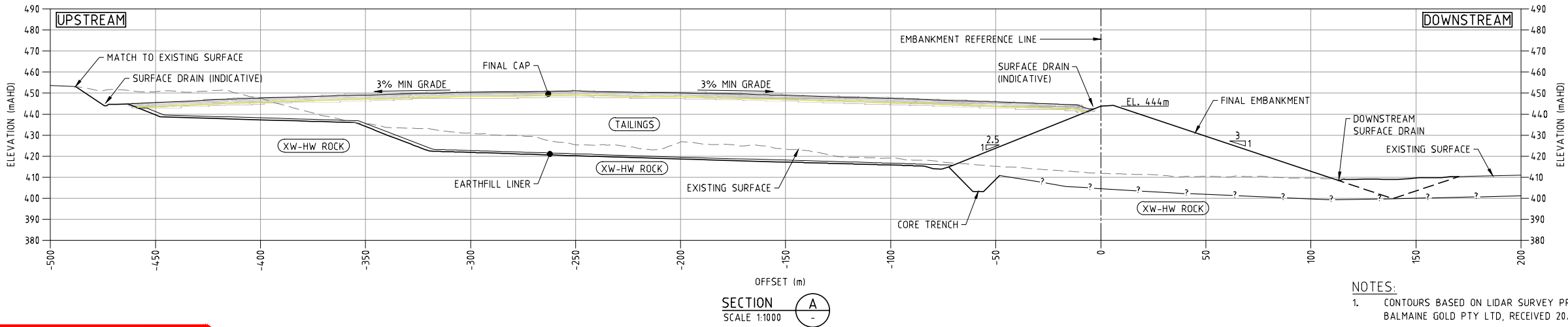
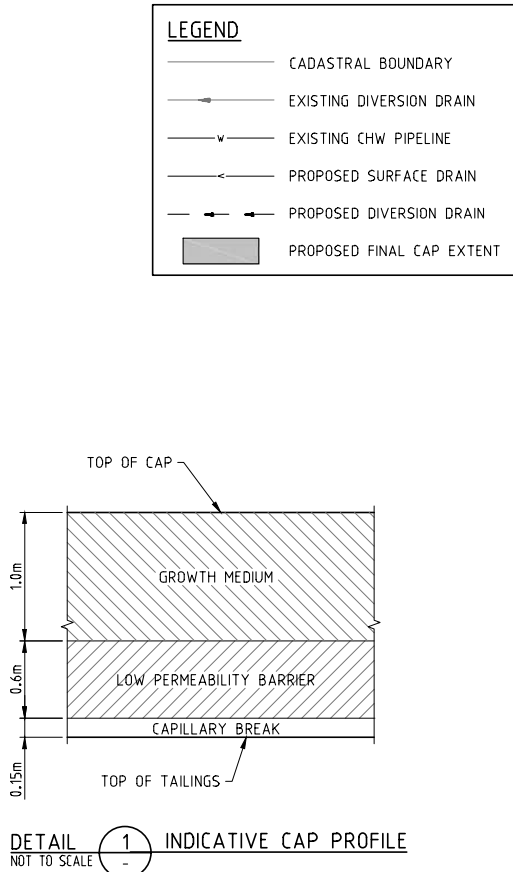
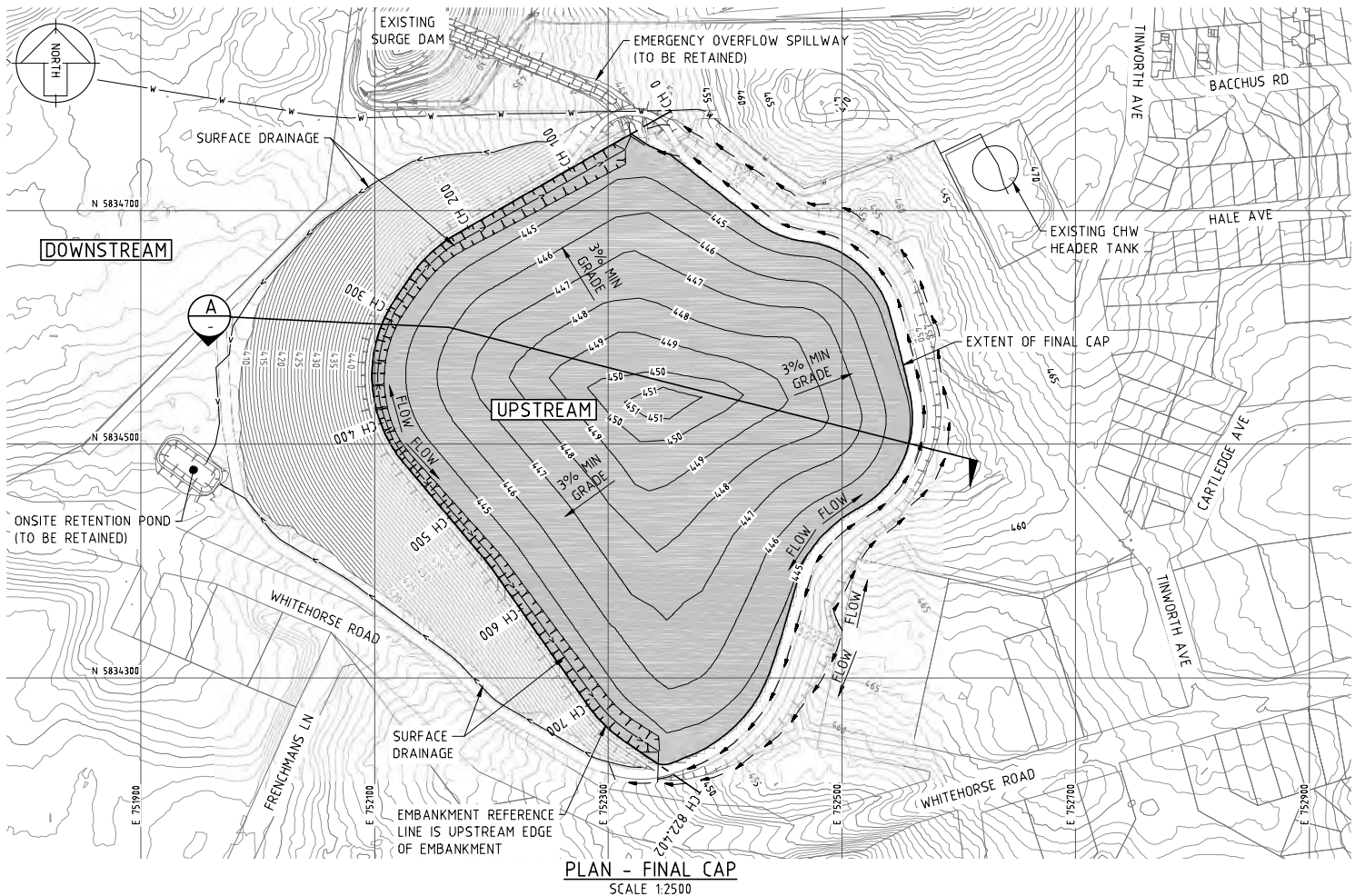
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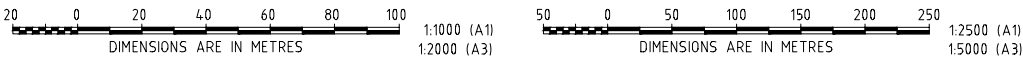
Delegate of the Department Head

Date: **10/08/2020**



PRELIMINARY - FOR DISCUSSION ONLY

- NOTES:
- 1. CONTOURS BASED ON LIDAR SURVEY PROVIDED BY BALMAINE GOLD PTY LTD, RECEIVED 20/09/2018.



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SHEET TITLE
CLOSURE PLAN

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60593424-DRG-008

Appendix B

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CROWN FOLIO

LAND DESCRIPTION

Crown Allotment 10K Section 12 Parish of Ballarat.
Created by instrument MI037333G 06/08/2016

CROWN LAND ADMINISTRATOR

SECRETARY TO THE DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING of 8
NICHOLSON STREET EAST MELBOURNE VIC 3002
MI255809P 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

PLANTATION LICENCE Y009602G 03/12/1998
BALMAINE GOLD PTY LTD
ASSIGNMENT OF PLANATATION LICENCE Y009614V 12/09/2006
ASSIGNMENT OF PLANATATION LICENCE Y009652K 27/05/2010

DIAGRAM LOCATION

SEE CD017696W FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF CROWN FOLIO STATEMENT-----

Additional information: (not part of the Crown Folio Statement)

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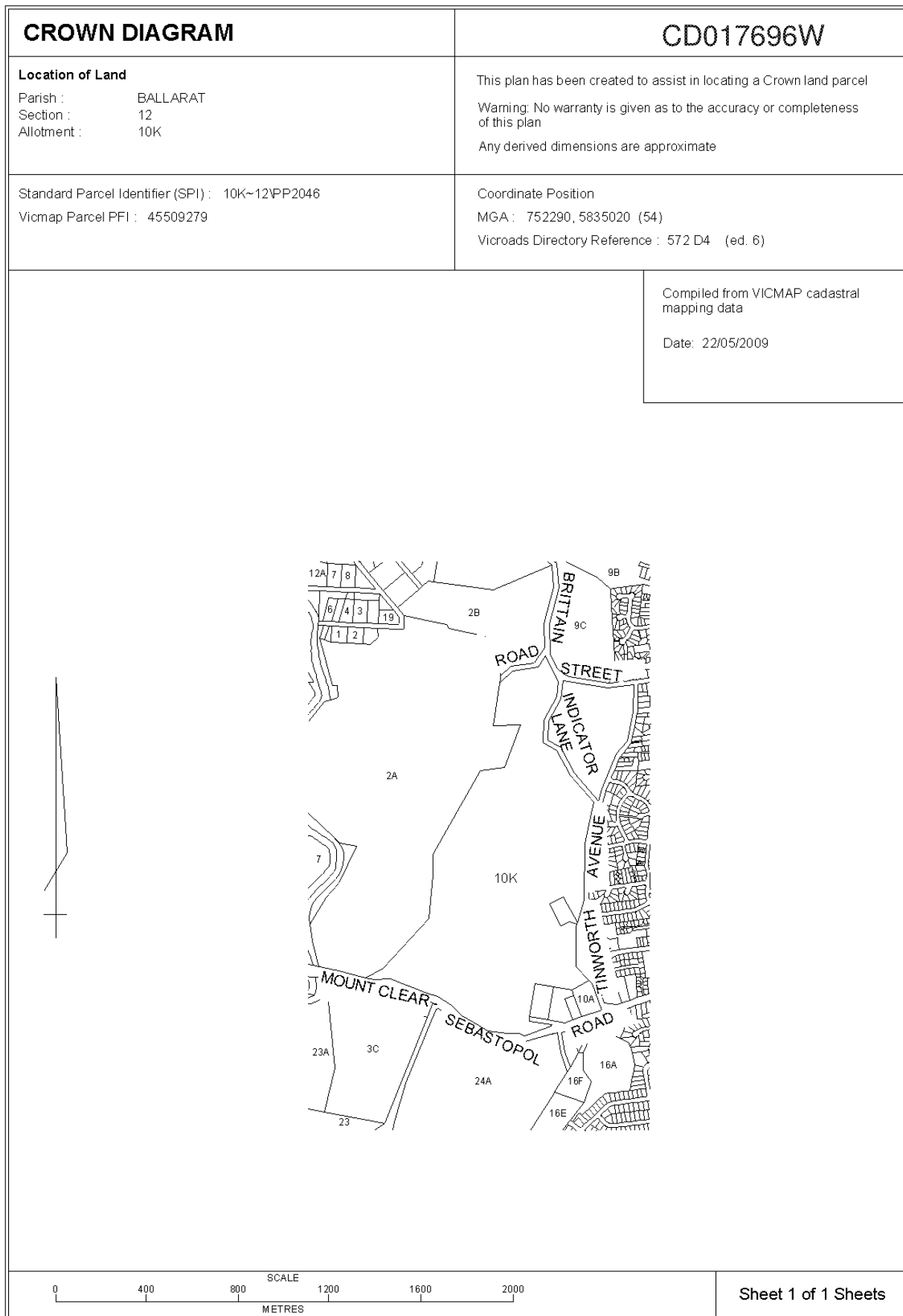
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NICHOLSON STREET EAST MELBOURNE VIC 3002
MI255809P 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

PLANTATION LICENCE Y009602G 03/12/1998
BALMAINE GOLD PTY LTD
ASSIGNMENT OF PLANATATION LICENCE Y009614V 12/09/2006
ASSIGNMENT OF PLANATATION LICENCE Y009652K 27/05/2010

DIAGRAM LOCATION

SEE CD017696W FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF CROWN FOLIO STATEMENT-----

Additional information: (not part of the Crown Folio Statement)

Street Address: 10 WOOLSHED GULLY DRIVE MOUNT CLEAR VIC 3350

DOCUMENT END

Appendix C

Planning Property Report

PLANNING PROPERTY REPORT



From www.planning.vic.gov.au on 18 October 2019 08:24 AM

PROPERTY DETAILS

Crown Description: **Allot. 10K Sec. 12 BALLARAT**
 Address: **10 WOOLSHED GULLY DRIVE MOUNT CLEAR 3350**
 Standard Parcel Identifier (SPI): **10K-12\PP2046**
 Local Government Area (Council): **BALLARAT** www.ballarat.vic.gov.au
 Council Property Number: **2041861 (Part)**
 Planning Scheme: **Ballarat** planning-schemes.delwp.vic.gov.au/schemes/ballarat
 Directory Reference: **VicRoads 572 D4**
 This parcel is one of 4 parcels comprising the property. For full parcel details get the free Basic Property report at [Property Reports](#)

UTILITIES

Rural Water Corporation: **Southern Rural Water**
 Urban Water Corporation: **Central Highlands Water**
 Melbourne Water: **outside drainage boundary**
 Power Distributor: **POWERCOR**

STATE ELECTORATES

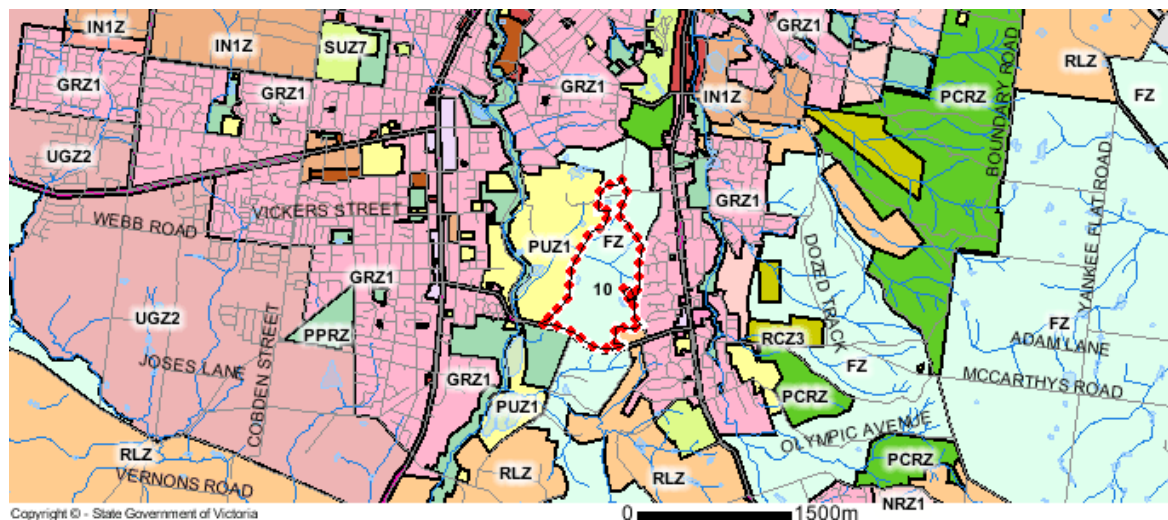
Legislative Council: **WESTERN VICTORIA**
 Legislative Assembly: **BUNINYONG**

Planning Zones

[FARMING ZONE \(FZ\)](#)

[SCHEDULE TO THE FARMING ZONE \(FZ\)](#)

[ROAD ZONE - CATEGORY 1 \(RDZ1\)](#)



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C1Z - Commercial 1	FZ - Farming	GRZ - General Residential
IN1Z - Industrial 1	IN3Z - Industrial 3	LDRZ - Low Density Residential
MUZ - Mixed Use	NRZ - Neighbourhood Residential	PCRZ - Public Conservation & Resource
PPRZ - Public Park & Recreation	PUZ1 - Public Use - Service & Utility	PUZ2 - Public Use - Education
PUZ4 - Public Use - Transport	PUZ6 - Public Use - Local Government	PUZ7 - Public Use - Other Public Use
RCZ - Rural Conservation	RDZ1 - Road - Category 1	RDZ2 - Road - Category 2
RGZ - Residential Growth	RLZ - Rural Living	SUZ - Special Use
UGZ - Urban Growth		

Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

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PLANNING PROPERTY REPORT: Allot. 10K Sec. 12 BALLARAT

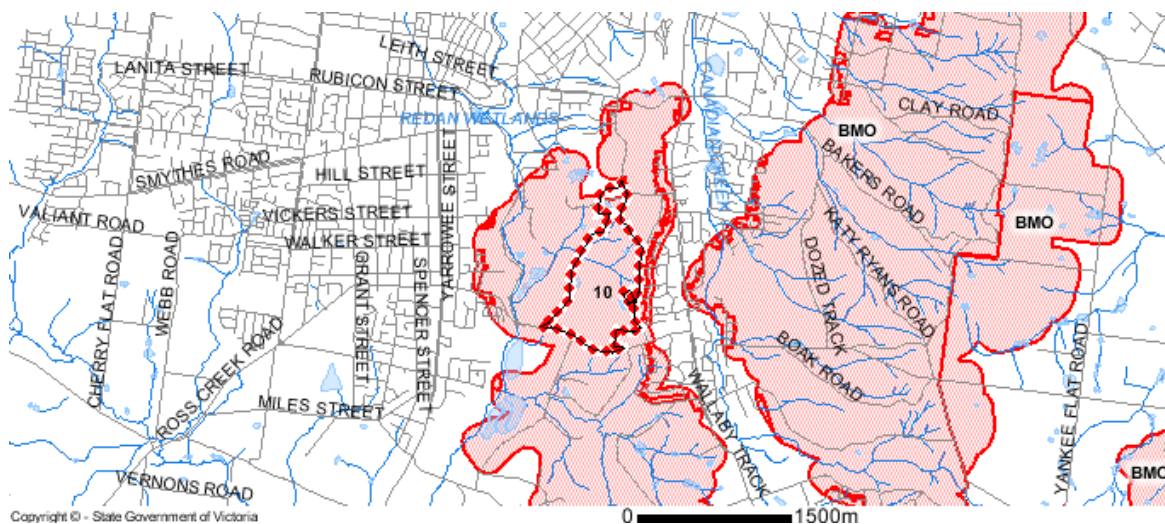
Page 1 of 5

PLANNING PROPERTY REPORT



Planning Overlays

BUSHFIRE MANAGEMENT OVERLAY (BMO)

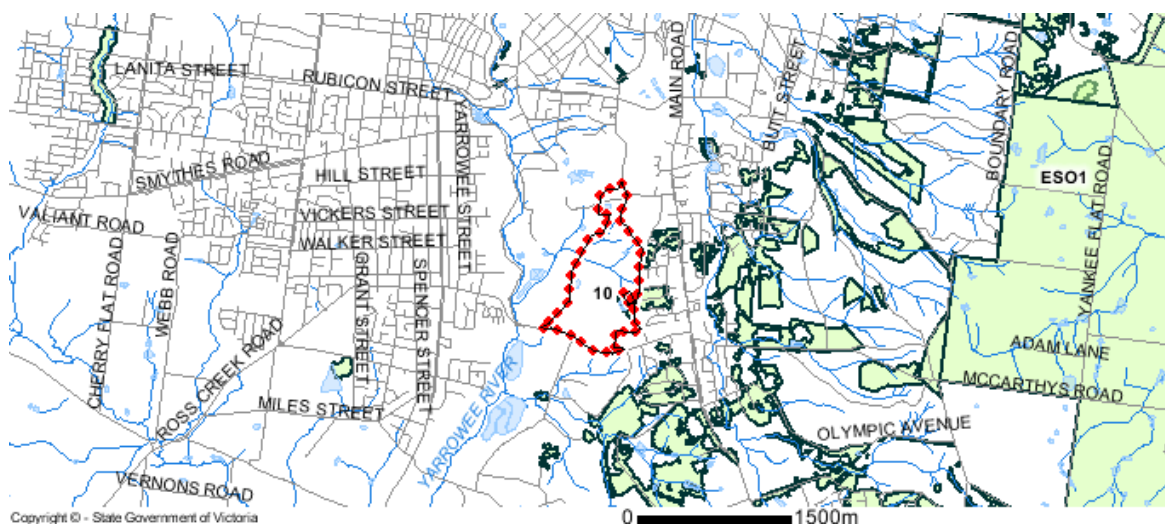


BMO - Bushfire Management

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend.

ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO)

ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5 (ESO5)



ESO - Environmental Significance

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend.

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PLANNING PROPERTY REPORT: Allot. 10K Sec. 12 BALLARAT

Page 2 of 5

PLANNING PROPERTY REPORT



Planning Overlays

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

[DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY \(DCPO\)](#)

[DESIGN AND DEVELOPMENT OVERLAY \(DDO\)](#)

[DEVELOPMENT PLAN OVERLAY \(DPO\)](#)

[ENVIRONMENTAL AUDIT OVERLAY \(EAO\)](#)

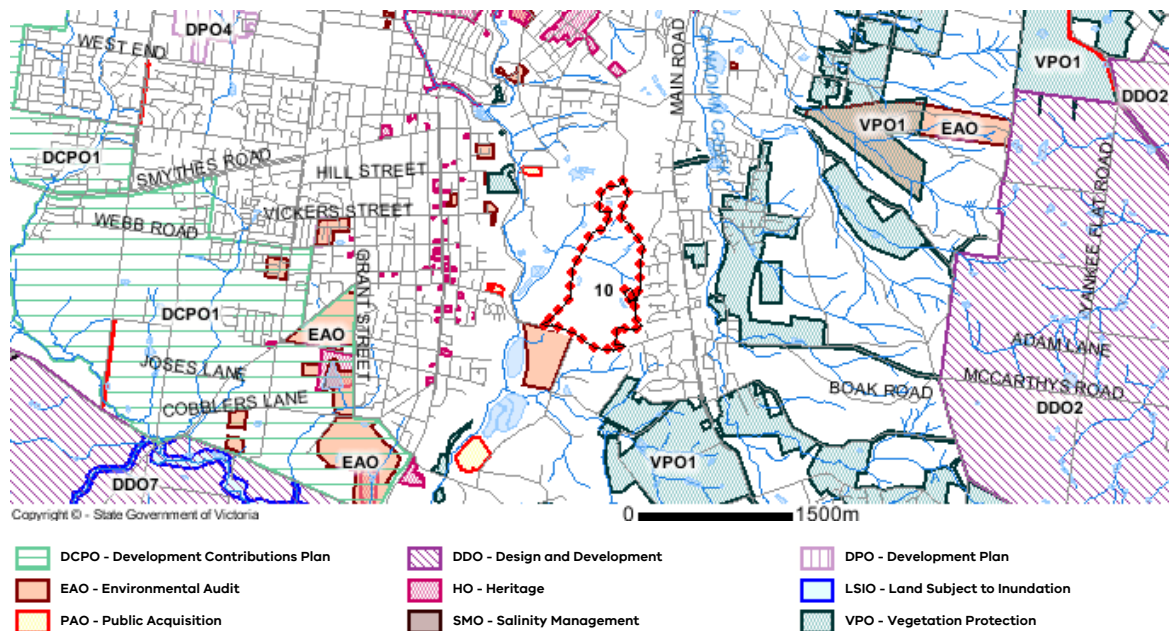
[HERITAGE OVERLAY \(HO\)](#)

[LAND SUBJECT TO INUNDATION OVERLAY \(LSIO\)](#)

[PUBLIC ACQUISITION OVERLAY \(PAO\)](#)

[SALINITY MANAGEMENT OVERLAY \(SMO\)](#)

[VEGETATION PROTECTION OVERLAY \(VPO\)](#)



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PLANNING PROPERTY REPORT: Allot. 10K Sec. 12 BALLARAT

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PLANNING PROPERTY REPORT



Further Planning Information

Planning scheme data last updated on 16 October 2019.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting <https://www.planning.vic.gov.au>

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the *Planning and Environment Act 1987*. It does not include information about exhibited planning scheme amendments, or zonings that may affect the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - <https://www.landata.vic.gov.au>

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit <http://mapshare.maps.vic.gov.au/vicplan>

For other information about planning in Victoria visit <https://www.planning.vic.gov.au>

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PLANNING PROPERTY REPORT: Allot. 10K Sec. 12 BALLARAT

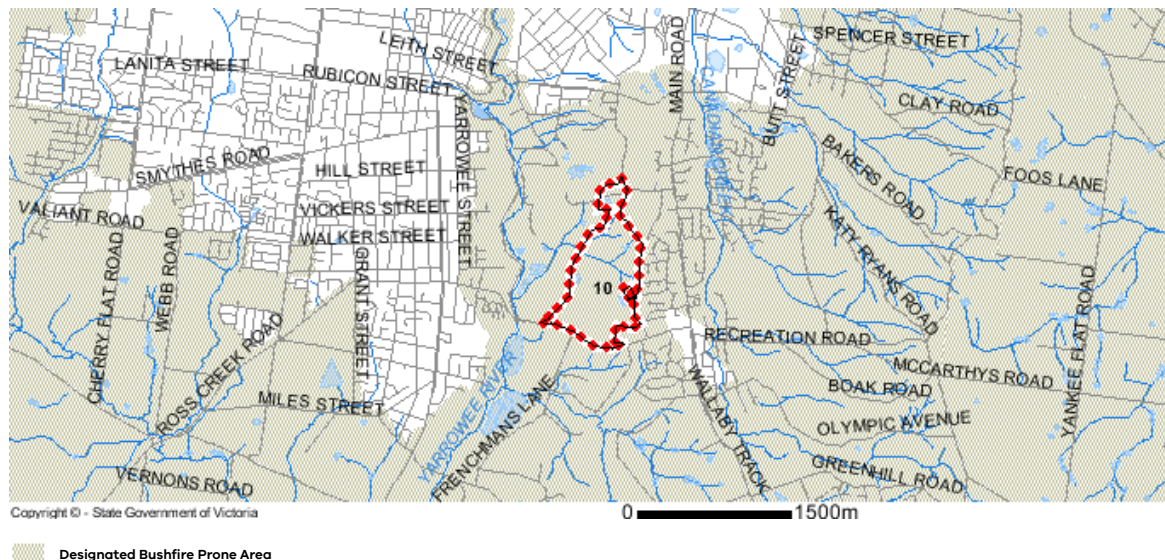
Page 4 of 5

PLANNING PROPERTY REPORT



Designated Bushfire Prone Area

This parcel is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.



Designated bushfire prone areas as determined by the Minister for Planning are in effect from 8 September 2011 and amended from time to time.

The Building Regulations 2018 through application of the Building Code of Australia, apply bushfire protection standards for building works in designated bushfire prone areas.

Designated bushfire prone areas maps can be viewed on VicPlan at <http://mapshare.maps.vic.gov.au/vicplan> or at the relevant local council.

Note: prior to 8 September 2011, the whole of Victoria was designated as bushfire prone area for the purposes of the building control system.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website www.vba.vic.gov.au

Copies of the Building Act and Building Regulations are available from www.legislation.vic.gov.au

For Planning Scheme Provisions in bushfire areas visit <https://www.planning.vic.gov.au>

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PLANNING PROPERTY REPORT: Allot. 10K Sec. 12 BALLARAT

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Appendix D

Relevant Licences



Department of Sustainability and Environment

570 Bourke Street Melbourne 3000
PO Box 500 East Melbourne
Victoria 3002 Australia
Telephone: (03) 8636 2935
Facsimile: (03) 8636 2900
ABN 90719052204
DX 250639



██████████ (LGL – Ballarat Goldfields)
10 Woolshed Gully Drive
Mt Clear
Victoria 3350

Dear Sir

Re: Registration of Instrument of Assignment of a Plantation Licence

Please find enclosed a copy of registered Instrument of Assignment of a Plantation Licence which was received by me by express post as of this date.

If you have any questions regarding this matter, please contact me.

Yours faithfully

████████████████████
██████████

Manager – Bulk Registration Unit
Land Registration Services
Land Victoria

██████████
██████████

May 27th 2010

REGISTERED
Registrar of Plantation Licences
27.5.10

PLANTATION LICENCES REGISTER
SYSTEM
27/05/2010 ~~01-50-00~~
10135 V

**INSTRUMENT OF ASSIGNMENT OF A PLANTATION LICENCE OR AN INTEREST IN A
PLANTATION LICENCE**

Section 27L(3)(c) Victorian Plantations Corporation Act 1993

LODGED BY

Name [REDACTED] (LGL - Ballarat Goldfields)

Address: 10 Woolshed Gully Dve, Mt Clear, Victoria 3350

Phone: 03 5327 2555

Fax: 03 5327 2556

Ref: 10001R

The Assignor assigns to the Assignee the plantation licence or an interest in the plantation licence with respect to the land described.

Land: Crown Allotment 10K Section 12 Parish of Ballarat
Crown Allotment 10L Section 12 Parish of Ballarat
Crown Allotment 9C Section 14 Parish of Ballarat
Crown Allotment 2B Section 16 Parish of Ballarat.

Licence registration number: Forestry Licence 10001 R

Registration number of interest: *(complete in case of assignment of an interest only)*

Assignor: LGL Ballarat Operations Pty Ltd (formerly Ballarat Goldfields NL) ACN 006 245 441
Level 32, 400 George Street, Brisbane, Queensland 4000.
Plantation Licences Register System 10019J on the 12/09/2006.

Assignee: Balmaine Gold Pty Ltd ACN 142 297 685
113 Adelaide Street, Chewton, Victoria 3451

Share assigned: whole of assignors interest

Other information *(optional)*:

Date:

Execution and attestation:

PLANTATION LICENCE REGISTER
SYSTEM

21/05/2016

10135 v

EXECUTED by LGL Ballarat Operations Pty Ltd
ACN 006 245 441:

[Redacted signature area]

[Redacted signature area]

Signature of director/secretary

[Redacted name area]

Name

EXECUTED by Balmaine Gold Pty Ltd ACN 67 142
297 685:

[Redacted signature area]

Signature of director

[Redacted name area]

Name

[Redacted signature area]

Signature of director/secretary

[Redacted name area]

Name

Entitlement ID:

BEE022093

Printed on: 04 Jun 2010 1:45:34 pm

COPY OF RECORD IN THE VICTORIAN WATER REGISTER TAKE AND USE LICENCE

under Section 51 of the Water Act 1989

The information in this copy of record is as recorded at the time of printing. Current information should be obtained by a search of the register. The State of Victoria does not warrant the accuracy or completeness of this information and accepts no responsibility for any subsequent release, publication or reproduction of this information.

This licence does not remove the need to apply for any authorisation or permission necessary under any other Act of Parliament with respect to anything authorised by the take and use licence.

Water used under this entitlement is not fit for any use that may involve human consumption, directly or indirectly, without first being properly treated.

The Authority does not guarantee, by the granting of the licence, that the licensee will obtain any specific quantity or quality of water. The Authority is not liable for any loss or damage suffered by the licensee as a result of the quantity of water being insufficient or the quality of the water being unsuitable for use by the licensee at any particular time or for any particular purpose.

This take and use licence entitles its holders to take and use water as set out under the licence description, subject to the conditions that are specified.

Licence Holders

Balmaine Gold Pty Ltd

Licence Contact Details

Balmaine Gold Pty Ltd

PO BOX 98

MOUNT CLEAR VIC 3350

Licence Description

Expiry date	30 Jun 2021
Status	Active
Authority	Southern Rural Water
Name of waterway, aquifer or works	UNC-Unincorporated
Water system type	Groundwater
River basin or groundwater unit	Unincorporated (GMU)
Licence volume	2920.0 megalitres
Licence volume adjusted for temporary trade	2920.0 megalitres
Method of taking	Direct extraction from Groundwater
Period during which water can be taken	01 Jul - 30 Jun inclusive
Use of water	Dewatering
Trading zone	Unincorporated

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Printed on: 04 Jun 2010 1:45:34 pm

Entitlement ID: BEE022093

Page 1 of 4

Licence Volume Details

Licence volume	2920.0 megalitres
Licence volume adjusted for temporary trade	2920.0 megalitres

Temporary volume transaction details

<i>Approval date</i>	<i>Volume traded (ML)</i>	<i>Expiry date</i>
Nil		

Extraction Point Details

<i>Easting</i>	<i>Northing</i>	<i>Zone MGA</i>	<i>Location description</i>
Nil			

Land on which the Water is to be Used**Crown allotment description**

<i>Allotment</i>	<i>Portion</i>	<i>Section</i>	<i>Township</i>	<i>Parish</i>
10K		12		Ballarat

Property address

10 WOOLSHED GULLY ROAD MOUNT CLEAR

This entitlement may be transferred to another parcel of land, if application is approved by the Authority.

Related Instruments

Related entitlements	Nil
Related works licence	WLE043758
Other related entities	Nil

Application History

<i>Reference</i>	<i>Type</i>	<i>Status</i>	<i>Lodged date</i>	<i>Approved date</i>	<i>Recorded date</i>
PTA003601	Address amendment	Recorded			18 Mar 2010
PTA003598	Address amendment	Recorded			18 Mar 2010
BET000682	Transfer	Approved	28 May 2010	04 Jun 2010	
BER002181	Modify	Approved	25 May 2010	25 May 2010	
BEI472116	Issue	Approved	29 Aug 2009	29 Aug 2009	

Conditions

This take and use licence is subject to the following conditions:

Method of taking

- 1 Water may only be taken under this licence if it is taken by the methods expressly approved by this licence.
- 2 The licence holder must at all times provide the Authority with safe access to inspect all works and appliances used to take water under this licence.

Take location

- 3 Water may only be taken under this licence if it is taken at the location described as follows: the land parcels identified on this licence.

Take volume and rate

- 4 The volume of water taken under this licence in any twelve-month period from 1 July to 30 June must not exceed the licence volume, less any volume that has been temporarily transferred to another person or location.
- 5 The maximum volume that may be taken under this licence in any one day is 8.0 megalitres per day shared between 3 bores.

Temporary transfers to the licence holder

- 6 If there has been a temporary transfer of another licence to take water at the location, and use water on the land, specified in this licence: a) the extra volume of water taken must not exceed the volume transferred, and b) all the conditions of this licence apply to the taking and using of water consequential to the transfer.

Rosters and restrictions

- 7 When directed by the Authority, water must be taken in accordance with the rosters and restrictions determined by the Authority, and advised to the licence holder.

Metering of water taken and used

- 8 Water may only be taken under this licence if it is taken through a meter approved by the Authority.
- 9 Meters must be installed, in accordance with the specifications set by the Authority, at the licence holder's expense.
- 10 Meters used for the purpose of this licence are deemed to be the property of the Authority.
- 11 The licence holder must at all times provide the Authority with safe access to meters for the purpose of reading, calibration or maintenance.
- 12 The licence holder must notify the Authority within one business day if the meter ceases to function or operate properly.
- 13 The licence holder must, if required by the Authority, keep an accurate record of the quantity of water taken under this licence and allow the Authority to inspect this record at all reasonable times, and provide a copy of the record when requested.
- 14 The licence holder must not, without the consent of the Authority, interfere with, disconnect or remove any meter used for the purposes of the licence.
- 15 The Authority may, if it deems necessary, make an estimate of the total volume of water taken under this licence.

Use of water

- 16 Water taken under this licence may only be used on the land, and for the purposes, specified in the licence.
- 17 The licence holder must at all times provide the Authority with safe access to inspect the land on which water is licensed to be used.

Operation and maintenance

- 18 The licence holder must keep all works, appliances and dams associated with this licence,

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Printed on: 04 Jun 2010 1:45:34 pm

Entitlement ID:BEE022093

Page 3 of 4

including outlet pipes and valves, in a safe and operable condition, and free from obstacles and vegetation that might hinder access to works.

Preventing pollution

- 19 The licence holder must, construct and maintain bund walls around any hydrocarbon-fuel-driven engine, motor, fuel storage, or chemical storage used in connection with this licence, in accordance with the timeframe, specifications, guidelines and standards prescribed by the Authority.

Managing groundwater infiltration

- 20 The maximum volume of water that may be applied to the land referred to in the licence in any 12-month period from 1 July to 30 June is the annual use limit which is equal to the licence volume, or if the annual use limit is adjusted by the Authority on account of seasonal conditions this adjusted annual use limit.

Managing drainage disposal

- 21 Where water use results in drainage from the land specified in the licence, that drainage water must be disposed in ways that meet the standards, terms and conditions adopted from time to time by the Authority.

Discharge

- 22 When directed by the Authority, the licence holder must take the Salt Disposal Volume approved by the Authority and must dispose it to the discharge point approved in writing by the Authority.
- 23 Where the discharge point approved in writing by the Authority is an evaporation basin, the licence holder must at all times operate and maintain the basin in accordance with the original specifications approved by the Authority; the basin must at all times be properly sealed to prevent leakage and no water may be permitted to drain from the basin.
- 24 When directed by the Authority, the licence holder must reduce the quantity of water discharged during any period; or entirely cease discharge of water during any period.

Fees and charges

- 25 The licence holder must, when requested by the Authority, pay all fees, costs and other charges under the Water Act 1989 in respect of this licence.

END OF COPY OF RECORD

Works Licence ID:

WLE043758

Printed on: 04 Jun 2010 1:45:38 pm

COPY OF RECORD IN THE VICTORIAN WATER REGISTER LICENCE TO OPERATE WORKS

under Section 67 of the Water Act 1989

The information in this copy of record is as recorded at the time of printing. Current information should be obtained by a search of the register. The State of Victoria does not warrant the accuracy or completeness of this information and accepts no responsibility for any subsequent release, publication or reproduction of this information.

This licence does not remove the need to apply for any authorisation or permission necessary under any other Act of Parliament with respect to anything authorised by the works licence.

Water used under this licence is not fit for any use that may involve human consumption, directly or indirectly, without first being properly treated.

This licence is not to be interpreted as an endorsement of the design and/or construction of any works (including dams). The Authority does not accept any responsibility or liability for any suits or actions arising from injury, loss, damage or death to person or property which may arise from the maintenance, existence or use of the works.

This licence authorises its holders to operate the described works, subject to the conditions.

Licence Holders

Balmaine Gold Pty Ltd

Licence Contact Details

Balmaine Gold Pty Ltd

PO BOX 98
MOUNT CLEAR VIC 3350

Licence Details

Expiry date	30 Jun 2021
Status	Active
Authority	Southern Rural Water
Name of waterway or aquifer	UNC-Unincorporated
Water system	Unincorporated (GMU)

Summary of Licensed Works

The details in this section are a summary only. They are subject to the conditions specified in this licence.

<i>Works ID</i>	<i>Works type</i>	<i>Maximum extraction rate (ML/Day)</i>	<i>Maximum daily volume (ML)</i>	<i>Maximum annual volume (ML)</i>	<i>Use of water</i>
WRK041050	Bore	3.800	3.800	2920.000	Dewatering
WRK041051	Bore	1.200	1.200	2920.000	Dewatering
WRK041052	Bore	3.000	3.000	2920.000	Dewatering

Description of Licensed Works

Description of Works ID WRK041050

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Works Licence ID: WLE043758

Page 1 of 5

Works type Bore
 Works subtype Drilled bore
 Constructed depth 409.000 metres

Extraction Details

Service point/s SP087281 GMS-2049
 Maximum extraction rate 3.800 megalitres per day
 Maximum daily volume 3.800 megalitres
 Maximum annual volume 2920.000 megalitres
 Use of water Dewatering

Works location

<i>Easting</i>	<i>Northing</i>	<i>Zone MGA</i>
753308.9	5838060.5	Zone 54

Land on which the works are located:**Crown allotment description**

<i>Allotment</i>	<i>Portion</i>	<i>Section</i>	<i>Township</i>	<i>Parish</i>
10K		12		Ballarat

Property address

10 WOOLSHED GULLY ROAD MOUNT CLEAR

Description of Works ID WRK041051

Works type Bore
 Works subtype Drilled bore
 Constructed depth 442.000 metres

Extraction Details

Service point/s SP087282 GMS-2050
 Maximum extraction rate 1.200 megalitres per day
 Maximum daily volume 1.200 megalitres
 Maximum annual volume 2920.000 megalitres
 Use of water Dewatering

Works location

<i>Easting</i>	<i>Northing</i>	<i>Zone MGA</i>
752943.6	5836590.5	Zone 54

Land on which the works are located:**Crown allotment description**

<i>Allotment</i>	<i>Portion</i>	<i>Section</i>	<i>Township</i>	<i>Parish</i>
10K		12		Ballarat

Property address

10 WOOLSHED GULLY ROAD MOUNT CLEAR

Description of Works ID WRK041052

Works type	Bore
Works subtype	Drilled bore
Constructed depth	430.000 metres

Extraction Details

Service point/s	SP087283 GMS-2051
Maximum extraction rate	3.000 megalitres per day
Maximum daily volume	3.000 megalitres
Maximum annual volume	2920.000 megalitres
Use of water	Dewatering

Works location

<i>Easting</i>	<i>Northing</i>	<i>Zone MGA</i>
752793.6	5836495.1	Zone 54

Land on which the works are located:**Crown allotment description**

<i>Allotment</i>	<i>Portion</i>	<i>Section</i>	<i>Township</i>	<i>Parish</i>
10K		12		Ballarat

Property address

10 WOOLSHED GULLY ROAD MOUNT CLEAR

Related Instruments

Related entitlements BEE022093

Related water-use entities Nil

Application History

<i>Reference</i>	<i>Type</i>	<i>Status</i>	<i>Lodged date</i>	<i>Approved date</i>	<i>Recorded date</i>
PTA003601	Address amendment	Recorded			18 Mar 2010
PTA003598	Address amendment	Recorded			18 Mar 2010
WLV511058	Modify	Approved	25 May 2010	25 May 2010	
WLI562167	Issue	Approved	29 Aug 2009	29 Aug 2009	

Conditions

Licence WLE043758 is subject to the following conditions:

Preventing pollution

- 1 Water must not be taken through the works if the Authority reasonably believes fuel, or lubricant, or any other matter used in connection with works and appliances associated with this licence, is at risk of contaminating a waterway, or aquifer, or the riparian or riverine environment.
- 2 The licence holder must, construct and maintain bund walls around any hydrocarbon fuel driven engine, motor, fuel storage, or chemical storage used in connection with works and appliances associated with this licence, in accordance with the timeframe, specifications, guidelines or standards set down by the Authority.

Method of taking

- 3 The licence holder must at all times provide the Authority with safe access to inspect all works and appliances used to take water under this licence.

Take volume and rate

- 4 The maximum volume that may be taken under this licence in any one day is 8.0 megalitres per day shared between 3 bores.

Rosters and restrictions

- 5 When directed by the Authority, water must be taken in accordance with the rosters and restrictions determined by the Authority, and advised to the licence holder.

Metering of water taken and used

- 6 Water may only be taken under this licence if it is taken through a meter approved by the Authority.
- 7 Meters must be installed, in accordance with the specifications set by the Authority, at the licence holder's expense.
- 8 Meters used for the purpose of this licence are deemed to be the property of the Authority.
- 9 The licence holder must at all times provide the Authority with safe access to meters for the purpose of reading, calibration or maintenance.
- 10 The licence holder must notify the Authority within one business day if the meter ceases to function or operate properly.
- 11 The licence holder must, if required by the Authority, keep an accurate record of the quantity of water taken under this licence and allow the Authority to inspect this record at all reasonable times, and provide a copy of the record when requested.
- 12 The licence holder must not, without the consent of the Authority, interfere with, disconnect or remove any meter used for the purposes of the licence.
- 13 The Authority may, if it deems necessary, make an estimate of the total volume of water taken under this licence.

Protecting other water users

- 14 The licence holder must, if required by the Authority, monitor and record water levels in the bore(s) before and after pumping; the licence holder must also provide this information in writing as directed by the Authority.
- 15 The licence holder must, at the licence-holder's expense, if required by the Authority, conduct a pumping test and obtain a hydrogeological report, to the Authority's specification, on the potential for bore operation to interfere with any bore, aquifer, groundwater dependent ecosystem or waterway.
- 16 The licence holder must, if required by the Authority, provide the Authority with the results of water quality tests on samples of water pumped from the bore.
- 17 The licence holder must provide the Authority with safe access to the licensed bore and works for the purposes of obtaining water level measurements, water samples and any other

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Printed on: 04 Jun 2010 1:45:38 pm

Works Licence ID: WLE043758

Page 4 of 5

information or data pertaining to the operation of the bore, the works and the aquifer.

- 18 The licence holder must, if required by the Authority, cease taking water entirely, or cease taking water for a given period, or reduce the quantity of water taken during any period if, the Authority reasonably believes, or in accordance with the assessment in a Groundwater Management Plan, the use or disposal of water under this licence may injure or adversely affect any other person or an aquifer or the environment.
- 19 The licence holder must, if required by the Authority, enter into a formal agreement to supply water to any party affected by interference from bore operation.
- 20 The bore(s) must not be altered or decommissioned without a works licence that authorises alteration, or decommissioning.

Operation and maintenance

- 21 Water may only be taken through the works if the works are located at the location specified in the licence under "works location" .
- 22 The licence holder must keep all works, appliances and dams associated with this licence, including outlet pipes and valves, in a safe and operable condition, and free from obstacles and vegetation that might hinder access to works.
- 23 Water may only be taken through the works if the works are sited, constructed, operated and maintained to the satisfaction of the Authority.

Protecting biodiversity

- 24 Water must not be taken through the works if the Authority reasonably believes that the taking of water, through the works and appliances associated with this licence, is at risk of causing damage to the environment.
- 25 The licence holder must, if required by the Authority, remedy any damage to the environment that in the opinion of the Authority is a result of the installation, operation or maintenance of the works.

Fees and charges

- 26 The licence holder must, when requested by the Authority, pay all fees, costs and other charges under the Water Act 1989 in respect of this licence.

END OF COPY OF RECORD

Appendix E

CHMP Declaration Form

Aboriginal Victoria

AWP- CHS Layer

 Areas of Cultural Heritage Sensitivity

Produced by
Aboriginal Victoria
for
CGT



Date: 29 August 2019

1:25,000
Metres 500 1,000



This document contains culturally sensitive information concerning the heritage of Victoria's Aboriginal communities, and cannot be included in any reports resulting from research associated with this document. This information is accurate at the date of production. However, the State of Victoria and its employees do not guarantee that the information in this document is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on this information.



Department of
Premier and Cabinet

Process List

Project Name: AWP- MIN4847

Project Location: Ballarat Gold Mine, Whitehorse Gully

Date: 29-Aug-2019

	QUESTION	ANSWER
Question 1	Is the proposed activity , or all the proposed activities, exempt?	No
Question 2	Are you undertaking a High Impact Activity as listed in the Aboriginal Heritage Regulations?	Yes
Question 3	Does your activity include significant ground disturbance?	Yes
Question 4	Does your activity area include areas of a registered cultural heritage place (regardless of significant ground disturbance) or cultural heritage sensitivity that have not previously been subject to significant ground disturbance?	No
Answer:	<p><u>ON THE BASIS OF THE ANSWERS YOU HAVE ENTERED</u></p> <p>YOU ARE NOT REQUIRED BY THE REGULATIONS TO PREPARE A CULTURAL HERITAGE MANAGEMENT PLAN</p> <p><u>FOR THIS PROJECT</u></p>	



Department of Jobs, Precincts and Regions

DECLARATION OF CULTURAL HERITAGE MANAGEMENT PLAN REQUIREMENT

It is the responsibility of the applicant, as the proponent of the activity requiring approval, to determine if a Cultural Heritage Management Plan is required under the *Aboriginal Heritage Act 2006*.

For further information please contact Aboriginal Victoria on 1800 762 003 or at Aboriginalaffairs@dpc.vic.gov.au

This form, including the printable process list from the self-assessment conducted in Step1 must be completed, signed and submitted with the work plan.

Step 1

Complete a self-assessment using the Aboriginal Heritage Planning Tool available from the Aboriginal Victoria website.

<https://w.www.vic.gov.au/aboriginalvictoria/heritage/planning-and-heritage-management-processes/cultural-heritage-management-plans.html>

Step 2

Please advise which is applicable to your proposed work plan and include the:

A Cultural Heritage Management Plan is **NOT** required:

☒

An **approved** Cultural Heritage Management Plan is attached:

☐

An approved Cultural Heritage Management Plan **will be provided with the work plan** for approval:

☐

Step 3

Sign* this form and submit it with the work plan.

I declare that the above information is true and correct and the tenement holder / applicant (if not myself) has been advised.

Name (print)

I am the:

Tenement Holder

☒

Tenement Applicant

☐

Agent

☐

Signature

Date

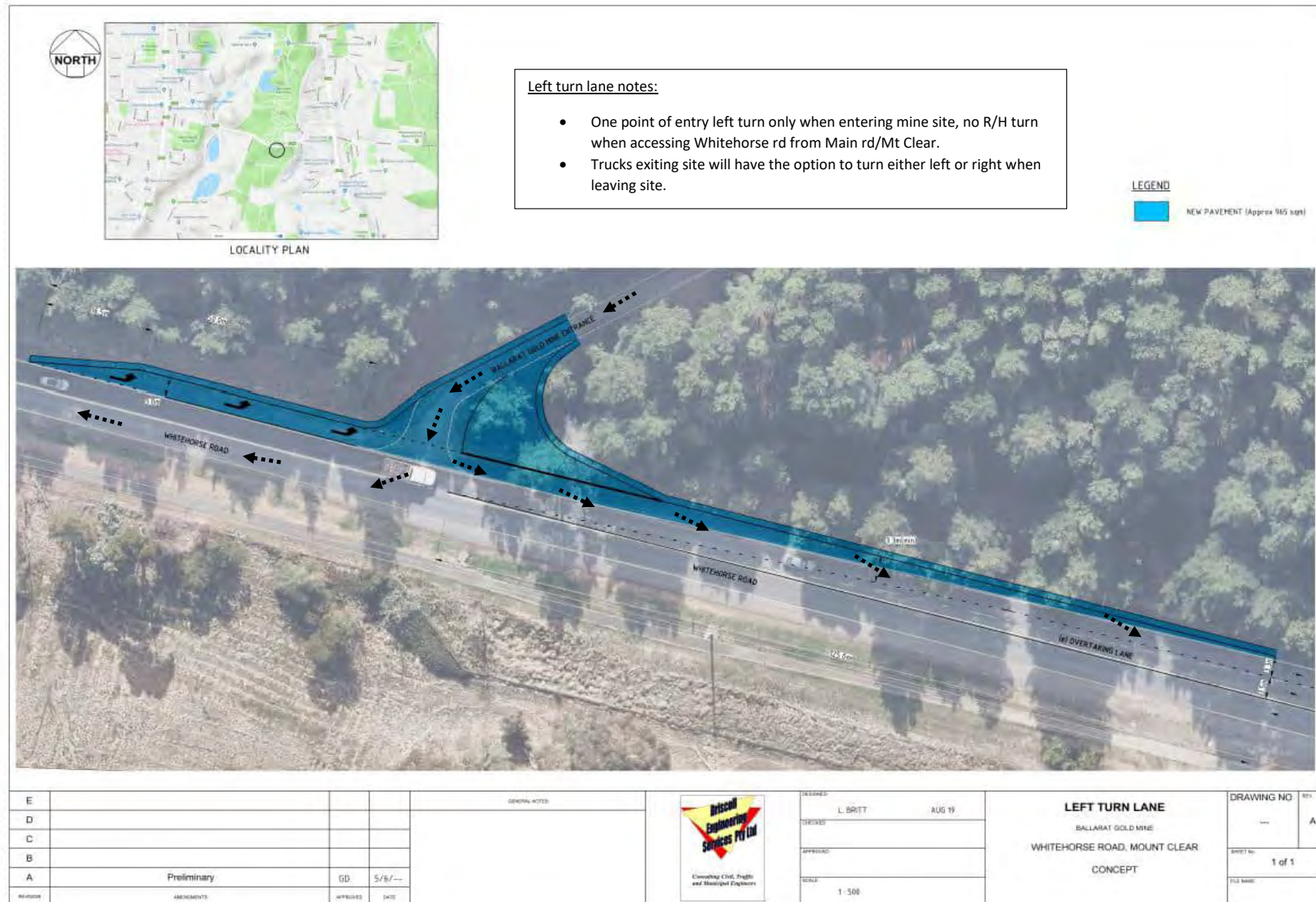
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* Please be advised that it is against the law to provide false or misleading information.



Appendix F

Conceptual Road Design





Communications and Community Engagement Plan Tailings Storage Facility TSF4 Project, Whitehorse Gully

Date: Version February 6, 2020

1. Introduction

Castlemaine Goldfields Pty Ltd (CGT or Ballarat Gold Mine) own and operate an underground gold mining operation located in Woolshed Gully, Ballarat, in Central Victoria (MIN5396 and MIN4847).

CGT purchased the Ballarat Gold Mine project in May 2010 and has continued to preserve and enhance the high community engagement standards set to date. This commitment to community engagement is an integral component of our management and is demonstrated in the company policies and engagement framework.

Ore from the underground mine is hauled to the mill site where it is processed. Tailings are currently pumped, as slurry, from the processing plant to a Tailings Storage Facility (TSF) at Terribly Gully (TSF3), located 600 m south of the processing plant.

The existing TSF3 has been expanded a number of times and will reach its approved capacity by end 2020. Ballarat Gold Mine has selected a preferred site in Whitehorse Gully, south of TSF3, for a new TSF (TSF4). This is located to the south of the City of Ballarat in the suburb of Mount Clear, approximately 3 kilometres (km) south of the city centre. The location of TSF4 is shown in Figures 1 and 2.



Figure 1 – Ballarat Gold Mine TSF4 location

To support the design, a number of technical assessments have been undertaken to assess and manage the impacts of the TSF4, including design, groundwater assessments, visual impact assessment, air quality and noise modelling.

Design must satisfy Australian National Committee on Large Dams (ANCOLD) and Earth Resources Regulation (ERR) guidelines. The Whitehorse Gully site is a “two-gully” system, similar to Terrible Gully (TFS3) and as close as possible to operations. The geology is similar to Terrible Gully and on this basis a similar embankment configuration and zoning to Terrible Gully would be appropriate. As part of the longer-term strategy it is planned that an upgraded ball mill will be commissioned that will produce a finer-grind tailings compared to that currently being discharged into TSF3. Dam construction will be possible by conventional downstream construction methods only. The existing Surge Dam and Wetlands can be used for passing flood events. The design is to withstand a 1:100,000 Annual Exceedence Probability (AEP) flood event.

It is envisaged that the construction of TSF4 will be staged, with a smaller starter embankment to be constructed first to manage capital costs.

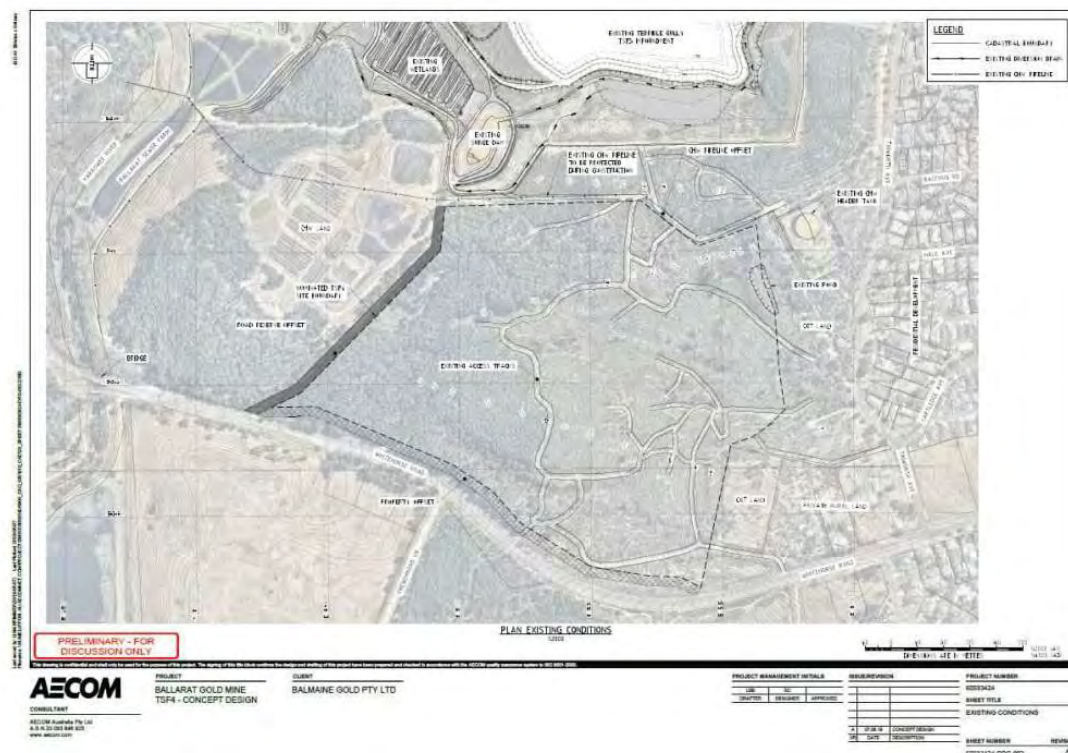


Figure 2 – Ballarat Gold Mine TSF4 location

Given the importance, location and complexity of the TSF4 construction and operation, a standalone Community Engagement Plan for the TSF4 has been developed. This document is designed to guide our communications and community engagement for the Tailings Storage Facility (TSF4) Project and is in line with the overarching Ballarat Gold Mine Community Engagement Plan (CE Plan).

2. CE Plan Requirements

Under section 39A of the Mineral Resources (Sustainable Development) Act 1990 (MRSDA), CGT have a duty to consult, with the following information required to be provided in a plan under Regulation 46 of the Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (MRSD(MI)R), that:

- 1) identifies the community likely to be affected by the work under the licence; and
- 2) sets out how the licensee will share information with the community; and
- 3) sets out how the licensee will receive feedback from the community; and
- 4) sets out how the licensee will manage complaints and other communications from members of the community; and
- 5) in the case of a work plan for a mining licence that covers an area of more than 5 hectares, sets out how the licensee will—
 - a) identify community attitudes and expectations; and
 - b) analyse community feedback, taking into account community concerns or expectations; and
 - c) register, document and respond to complaints and other communications from members of the community in relation to the mine operations.

3. Communications and Community Engagement Objectives

- To provide clear, consistent, open and honest information in an accessible form.
- To provide clear objectives and areas of responsibility for the Ballarat Gold Mine staff and subsequent organisations.
- To keep the community informed about the Ballarat Gold Mine and the processes of the TSF4 Tailings Storage Facility development.
- To guide the community's expectations on how long this process will take and any implications.
- To inform and allow consultation with the community on the progress and development of the project.
- To inform and allow consultation/feedback with the community/stakeholders on key strategic documents including the Concept Plan and the Work Plan Variation.
- To publicise the efforts of the Ballarat Gold Mine, community and other agencies on key milestones of the development process.

4. Key Messages

Key messages are essential to ensure consistency across information that is being delivered. It provides the positive platform for reaching our audience and it helps mitigate risks from uncertainty and misinterpretation leading to negative media.

Key Messages are:

- Concise: avoid jargon and acronyms
- Active: make every sentence active
- Positive: talk about what one can do, not what you cannot
- Short: one memorable sentence, 10-15 seconds to say
- Specific: address a particular challenge and audience

The key messages will remain in draft form and be updated as required - see [Appendix 1](#)

5. Stakeholders

Our community and key stakeholders are persons or groups who may be directly or indirectly affected by our operations, including those interested in related company projects and those who possess the ability to influence operational outcomes, either positively or negatively. The following stakeholders identified in Table 1 are particularly relevant to this project, have been identified from Section 4.3 Community/Key stakeholders of the overarching Ballarat Gold Mine CE Plan and will be specifically targeted in this communications plan.

Table 1 Key stakeholders - TSF4 Tailings Storage Facility

Internal Stakeholders	
Group	Name
Ballarat Gold Mine	Senior Management, Environment and Community Team, General Staff
Consultants	AECOM and other specialists

External Stakeholders	
Group (as in Section 4.3 Community/Key stakeholders of Ballarat Gold Mine CE Plan)	Name/Organisation
Government Agencies/Regulators	Dept. Jobs, Precincts & Regions - (Earth Resources Regulation), Department of Environment, Land, Water and Planning, EPA Vic, Southern Rural Water, Corangamite CMA, City of Ballarat, Parks Vic, Central Highlands Water
Utility	
Industry partners	Minerals Council of Australia, AusIMM, Australian Institute of Geoscientists, Geological Society Australia Hancock Victoria Plantations, Local businesses
Neighbours	Residents and Immediate neighbours in Mt Clear, Sebastopol, Magpie Broader Ballarat community
Community groups and Schools	Ballarat Aboriginal Co-operative, Wadawurrung/Wathaurong Aboriginal Corporation
	Mt Clear Secondary College, Damascus College, Ballarat Christian College Mt Clear Primary School, Emmaus Catholic Primary School, Sebastopol Primary School, Magpie Primary School
	Environmental Review Committee Ballarat Environment Network, Leigh Catchment Group Friends of Yarrowee River, U3A Walking Group
Local, State and Federal Government Representatives	Local Member for Ballarat, Local Member for Buninyong, Minister for Resources, Minister for Energy, Environment and Climate Change, Minister for Industrial Relations, Ballarat Councillors for Central and South Wards
Media	Ballarat Courier, Ballarat Times, Buninyong News
	ABC Ballarat, 3BA, Power FM, Voice FM
	WIN TV, Prime7, ABC

Level of Community Impact Spectrum

The following spectrum is used to determine the level of impact the Ballarat Gold Mine operation has on our identified community. The spectrum has been developed to capture both positive and negative impacts the operation can have on the community and how this has been used for each of the stakeholders can be seen in [Table 2](#).

Positive Impacts are where our operations have or may have a beneficial outcome for the community - for example employment or business opportunities and income for families. Impact Levels +3 = High, +2 = Medium, +1 = Low.

Negative Impacts are where our operations have or may have an undesirable outcome for the community - for example high noise levels or increased traffic, reduced amenity. Impact Levels -3 = High, -2 = Medium, -1 = Low.

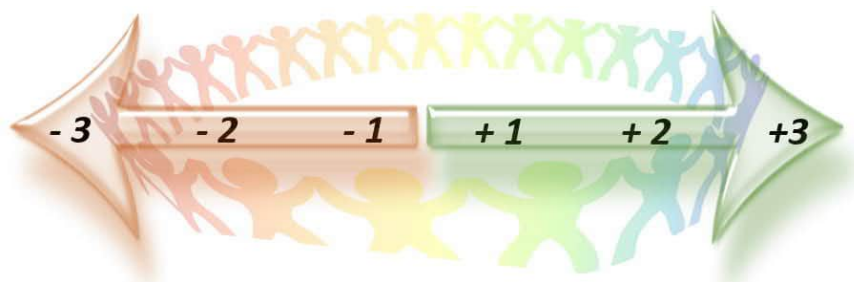


Figure 3 – Ballarat Gold Mine Community Engagement Impact Spectrum

Analysing Community Feedback

Community feedback/concerns are constantly reviewed with a formal review process occurring on a monthly basis. Generic information gathered from this review such as the total number of community concerns, number of concerns about a particular aspect of the operation etc. is provided to the operations management team to ensure these areas are adequately addressed. In addition to this, community feedback is analysed on a quarterly basis and provided to the ERC for their review



Table 2 Key stakeholders - TSF4 Tailings Storage Facility

Group	Level of Impact Positive or Negative	Affected Community Category (Place, Interest, Standing)	Stakeholder	Interest/How stakeholder is affected by Ballarat Gold Mine	Potential Influence on Project	IAP2 Level of Engagement (Inform, Consult, Involve, Collaborate, Empower)	Methods of Engagement
The Company	+3	Interest	Employees & Families	Employment, sustainability, welfare, health (physical and mental well-being), education	Efficient operation, positive culture, high performance, good safety record etc.	Empower	Meetings, Newsletters, Notice boards, Toolbox, Emails
	+2	Interest	Senior Management	Finance, technical support, business integration, reporting etc.	Sustainable business, high performance, competitive	Collaborate/Empower	Monthly Report, Meetings, various other
Government, Agencies and Regulators	+1	Standing Practice/Interest	Dept. Jobs, Precincts & Regions - (Earth Resources)	Primary regulatory authority, industry performance	Sustainable business, safe workplace, licence to operate	Involve	Meetings as required, ERC, Reporting
	+1	Standing Interest	Department of Environment, Land, Water and Planning	Regulatory authority, licence to operate, Crown Land Manager, Forestry Licence, biodiversity planning	Sustainable business, licence to operate	Involve	Meetings as required
	+1	Standing Interest	Environmental Protection Authority Victoria	Regulatory authority, licence to operate (treated water discharge)	Sustainable business, licence to operate, Ability to respond to an emergency	Involve	Meetings as required, ERC, Reporting
	+1	Standing Interest	Southern Rural Water	Licensing authority for dewatering, water regulation & re-use	Sustainable business	Involve	Meetings as required
	+1	Standing Interest	Corangamite Catchment	Catchment management, water discharge to streams, land management, biodiversity	Sustainable business, dewatering licence	Involve	Meetings as required, ERC

Group	Level of Impact Positive or Negative	Affected Community Category (Place, Interest, Standing)	Stakeholder	Interest/How stakeholder is affected by Ballarat Gold Mine	Potential Influence on Project	IAP2 Level of Engagement (Inform, Consult, Involve, Collaborate, Empower)	Methods of Engagement
			Management Authority	planning, regulator for work on waterways			
	+1	Standing Interest	City of Ballarat	Regulator authority for planning approvals, training opportunity	Sustainable business, licence to operate, Ability to respond to an emergency	Involve	Meetings as required, ERC
Utility/Service Providers	+1	Interest	Central Highlands Water	Primary utility provider	Sustainable business	Consult	ERC, Meetings as required
Industry partners	+2	Interest	Minerals Council of Australia	Industry performance and regulation	Provide support, assistance and guidance (business & technical)	Collaborate	Meetings (State Council, Safety, E&C, Exploration Working groups)
	+1	Interest	AusIMM, Australian Institute of Geoscientists, Geological Society Australia	Industry performance and regulation	Provide support, assistance and guidance (business & technical)	Collaborate	Meetings as required, membership
	+2	Interest	Hancock Victoria Plantations	Plantation manager Ballarat South	Land management, land access for mining, buffer retention, public perception	Involve	Meetings as required, ERC
Neighbours	-3	Place	Adjoining neighbours to mining and exploration activities.	Lifestyle, potential disruption, potential health concerns, visual amenity, local traffic etc.	Licence to operate, influence operating conditions, public perception, business sustainability	Involve/Collaborate	Newsletter, meetings, door knock, letter drop, open day,

Group	Level of Impact Positive or Negative	Affected Community Category (Place, Interest, Standing)	Stakeholder	Interest/How stakeholder is affected by Ballarat Gold Mine	Potential Influence on Project	IAP2 Level of Engagement (Inform, Consult, Involve, Collaborate, Empower)	Methods of Engagement
							observation area, media
	-2	Place	Mt. Clear, Golden Point, Mt Pleasant, East Sebastopol community members	Lifestyle, potential disruption, potential health concerns, visual amenity, local traffic etc.	Licence to operate, influence operating conditions, perception, business sustainability	Consult/Involve	Newsletter, meetings, door knock, letter drop, open day, observation area, media
	+2	Standing Interest	Environmental Review Committee	Environmental and social performance	Licence to operate, public perception, business sustainability, operating conditions	Collaborate	ERC meetings
	+1	Standing	Ballarat Aboriginal Co-operative, Wadawurrung Aboriginal Corporation	Environmental and social performance	Licence to operate, public perception, business sustainability, operating conditions	Involve/Collaborate	Meetings and site inspections as required
	+1	Interest	Ballarat Secondary Schools - Mt Clear Secondary College, Damascus College, Ballarat	Career opportunities, education curricula	Attracting local labour, improved technical understanding of industry, skills retention, improved social perception of business	Consult	Careers Expos, in-school presentations

Group	Level of Impact Positive or Negative	Affected Community Category (Place, Interest, Standing)	Stakeholder	Interest/How stakeholder is affected by Ballarat Gold Mine	Potential Influence on Project	IAP2 Level of Engagement (Inform, Consult, Involve, Collaborate, Empower)	Methods of Engagement
			Christian College				
	+1	Interest	Ballarat Primary Schools - Mt Clear Primary School, Emmaus Catholic Primary School, Sebastopol Primary School, Magpie Primary School	Education curricula	Improved industry understanding, social perception of business	Consult	In-school presentations
Local, State and Federal Government Representatives	+1	Interest	Local Member for Ballarat	Growth and sustainability within their electorate	Public perception, licence to operate, project support	Inform/Consult	Newsletter, meetings as required
	+1	Interest	Local Member for Buninyong	Growth and sustainability within their electorate	Public perception, licence to operate, project support	Inform/Consult	Newsletter, meetings as required
	+1	Interest	Minister for Resources	Business sustainability within their portfolio, educated decision making	Public perception, licence to operate, operating conditions, business sustainability, funding opportunities (R&D)	Consult	Meetings as required

Group	Level of Impact Positive or Negative	Affected Community Category (Place, Interest, Standing)	Stakeholder	Interest/How stakeholder is affected by Ballarat Gold Mine	Potential Influence on Project	IAP2 Level of Engagement (Inform, Consult, Involve, Collaborate, Empower)	Methods of Engagement
	+1	Interest	Minister for Energy, Environment and Climate Change	Business sustainability within their portfolio, educated decision making	Public perception, licence to operate, operating conditions, business sustainability, funding opportunities (R&D)	Consult	Meetings as required
	+1	Interest	Minister for Industrial Relations	Business sustainability within their portfolio, educated decision making	Public perception, licence to operate, operating conditions, business sustainability, funding opportunities (R&D)	Consult	Meetings as required
	+1	Interest	Ballarat Councillors – Central and South Wards	Growth and sustainability within their electorate	Public perception, licence to operate, project support	Inform/Consult	Newsletter, meetings as required
Media	+1	Interest	Television- WIN TV, Prime7 & ABC	Viewing ratings	Public perception, licence to operate, operating conditions, business sustainability	Inform	Meetings as required
	+1	Interest	Newspaper- Ballarat Courier, Ballarat Times, Buninyong News	Reader ratings	Public perception, licence to operate, operating conditions, business sustainability	Inform	Meetings as required
	+1	Interest	Radio- ABC Ballarat, 3BA, Power FM, Voice FM	Listener ratings	Public perception, licence to operate, operating conditions, business sustainability	Inform	Meetings



6. Risk Management

Ballarat Gold Mine has developed Risk Management Plans (RMP) for its Work Plan and any Work Plan Variations. The RMP aims to ensure that all mining hazards associated with project operations and closure are identified and assessed, and that associated controls are implemented to reduce the risk of harm or damage to the environment, any member of the public, to land, property or infrastructure in the vicinity of project works. The RMP also outlines arrangements for monitoring and reporting on the effectiveness of controls.

Community Engagement is based on the sensitive receptors and the associated controls for each identified mining hazard or risk identified in the risk register of the RMP. The key risks identified include:

- Altered Visual Amenity
- Dewatering
- Dust/Air Emissions
- Dust, Silt and Clay on Roads
- Erosion and Sedimentation
- Fire
- Flood
- Fuel, Lubricants and Hazardous Materials
- Ground Disturbance
- Ground Instability
- Ground Vibration
- Imported Materials
- Noise Pollution
- Rehabilitation Failure
- Security Breach
- Surface Water
- Traffic
- Waste and Rubbish
- Wastewater
- Weeds, Pests and Disease

7. Communication and Community Engagement Methods

This Communication and Community Engagement plan uses a range of different methods to deliver the Ballarat Gold Mine messages to ensure the information is as accessible as possible and can reach the intended audience through a range of methods. It is imperative to reinforce and repeat messages through each method to reach as many stakeholders as possible.

Communication and marketing channels will predominately be 'below the line' utilising existing links to local media, partner organisation communications and community. They may include:

- Development of Fact Sheets and visual display materials
- Dedicated webpage to provide ease of access to background information, draft plans and updates – www.ballaratgoldmine.com.au
- Stakeholder meetings, Site meetings, Community feedback – including Listening Posts / displays
- Online survey and hard copy of planning documents for stakeholder feedback
- E-news – Ballarat Gold Mine
- Community Newsletter – Ballarat Gold Mine
- Regulatory Advertising and Media Releases to print newspapers and community newsletters including: Ballarat Courier, Ballarat Times, Buninyong News
- 3BA Radio, ABC Radio, Voice FM
- WIN TV, Prime7, ABC

8. Community Engagement

The extent of consultation will be reviewed by the Senior Management Team and the Environment and Community Team throughout the TSF4 project. There are several milestones required to ensure stakeholders are involved in each stage of the TSF4 project. Milestones 1 – 9 are according to the ERR recommended pre-submission steps as shown in [Appendix 2](#). Any additional community consultation that is considered necessary for the finalisation and implementation of the Concept Plan and Work Plan Variation will be determined based on perceived need.

Milestones

1. Environmental Review Committee_Ongoing
 - Quarterly meetings with updates.
2. TSF3 Kick Off Meeting_Regulators/Agencies_August 2017 Complete
 - Consultation with ERR, AECOM, City of Ballarat, Corangamite CMA, EPA Vic, DELWP, HVP, SRW
3. Technical Services Meeting_March 2019 Complete
 - Consultation with ERR Technical Services staff
4. Communications and Community Engagement Plan
 - Consultation with ERR Community Engagement staff
5. TSF4 Kick Off Site Meeting_Regulators/Agencies
 - Consultation with ERR, AECOM, City of Ballarat, Corangamite CMA, EPA Vic, DELWP, HVP, SRW
6. Development of draft Concept Plan
 - Presentation to Environmental Review Committee
 - Consultation with ERR, AECOM, City of Ballarat, Corangamite CMA, EPA Vic, DELWP
 - Site meeting
 - Pre-submission briefing
7. Development of Work Plan Variation and Planning Permit
 - Consultation with ERR, AECOM, City of Ballarat, Corangamite CMA, EPA Vic, DELWP
 - Site meeting
 - Pre-submission briefing to ERR and City of Ballarat
8. Community Consultation and Feedback on Planning Application
 - Presentation to Environmental Review Committee
 - Local letter drop and doorknocking
 - Online survey and hardcopy
 - Public display of Concept Plan at City of Ballarat
 - Presentation to Environmental Review Committee
9. Release of Work Plan Variation Approval and Planning Permit Approval
 - Community Newsletter
 - Webpage
 - Media release – print, radio, TV

10. Preconstruction Phase

- Consultation/tender processes with suppliers/construction companies
- Construction Management plans – timelines, dust, noise, traffic, amenity
- Consultation with Environmental Review Committee
- Webpage updates
- Media release of any perceived community interest or risk activity
- Local letter drops

11. Construction Phase

- Construction Management plans – timelines, dust, noise, traffic, amenity
- Consultation with Environment Review Committee
- Webpage updates
- Media release of any perceived community interest or risk activity
- Local letter drops

12. Operations Phase

- Consultation with Environment Review Committee
- Webpage updates
- Media release of any perceived community interest or risk activity
- Local letter drops

13. Closure and Post Closure Phase

- Consultation with Environment Review Committee
- Webpage updates
- Media release of any perceived community interest or risk activity
- Local letter drops

9. Communications Protocols

- Use of Media releases, updated newsletters, advertising and other communications to be approved in consultation with the Manager Environment and Community and Senior Management before distribution. Approval is to be sought from relevant organisations/persons for content whereby they are quoted in the output.
- Media interviews are to be conducted by the spokespeople outlined:

Table 3 Key Communications spokespersons

Topics	Spokesperson
Key project and funding announcements	General Manager
Key highlighted activities	General Manager Manager Environment and Community
Response to any project issues	General Manager Manager Environment and Community Processing Manager Project supervisor
General project enquiries and updates	General Manager Manager Environment and Community Processing Manager Project Supervisor
Project complaints	General Manager Manager Environment and Community Processing Manager Project Supervisor
Information provided by Environment and Community Team for public release only	Ballarat Gold Mine staff and contractors

10. Registering, Documentation and Records of Community Feedback

Ballarat Gold Mine acknowledges the importance of community feedback and has a management system in place for registering, documenting and responding to community feedback and concerns. Information from this process is used to gain a greater understanding of the community's needs and feeds into the continuous improvement model for the operation; refer to Figure 4 - Continuous Improvement Model.



Figure 4 - Continuous Improvement Model

All complaints and enquiries received from the community regarding the construction and operation of the Ballarat Gold Mine, will be taken seriously. Ballarat Gold Mine is committed to:

- Acknowledging the importance and value of feedback (including enquiries and complaints);
- Providing an accessible avenue for people to provide feedback or raise concerns; and
- Ensuring all feedback is managed fairly, promptly, sensitively and efficiently.

This process has four key steps:

1. Receive and Register
2. Acknowledge and Inform
3. Investigate, Respond and Resolve
4. Close and Review

The Ballarat Gold Mine Manager Environment and Community Manager (ECM) is responsible for ensuring all complaints are processed in accordance with this process and will be assisted by other nominated personnel as required.

Community feedback is encouraged and promoted from all members of the public through the community newsletter, on the company's website and in correspondence either written or verbal. All community concerns/feedback are handled professionally and remain confidential to ensure trusting relationships are built and maintained.

Enquiries and complaints can be directed to Ballarat Gold Mine through:



[Redacted phone number]



[Redacted email address]



10 Woolshed Gully Drive, Mt Clear, VIC 3350 (business hours Mon - Fri)



ballaratgoldmine.com.au

The phone number operates 24 hours per day and is manned by Ballarat Gold Mine security staff or an On Call Duty Manager. All concerns are logged and recorded then submitted to the Environment and Community team. The complaint is processed in accordance with the Ballarat Gold Mine Complaint and Evaluation Process. See Appendix 1

If possible immediate actions are taken to rectify the problem. If the issue cannot be resolved immediately, a mutually agreeable plan between both parties is implemented to resolve the issue. The complainant is informed of corrective actions that occurs as a result of their feedback. All community correspondence is recorded in the Correspondence Register.

An example of the form used to record community concerns and feedback is provided in Error! Reference source not found..

11. Communications Contacts

Ballarat Gold Mine, info@ballaratgoldmine.com.au, 5327 2555

Name	Position	Email	Contact

12. TSF4 Communications Timeline

		2019				2020				2021				2022-2027	2027-
Milestones	Duration	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec		
1. ERC Consultation_from August 2016	Quarterly														
2. TSF3 Kick Off Meeting _Regulators/Agencies August 2017	Once & completed														
3. Technical Services Meeting March 2019	Once														
4. Communications and Community Engagement Plan	Ongoing														
5. TSF4 Kick Off Site Meeting Regulators/Agencies May 2019	Once & completed														
6. Development of draft Concept Plan	6 months														
7. Development of Work Plan Variation and Planning Permit	3 months														
8. Community Consultation and Feedback on Planning Application	9 months														
9. Release of Work Plan Variation Approval and Planning Permit Approval	Once														
10. Preconstruction Phase	9 months														
11. Construction Phase	2 years														
12. Operations Phase	6 years														
13. Closure and Post Closure Phase	Ongoing														

Communication and Community Engagement Methods

This table will remain in draft as needs, and so methods are constantly changing:

Version:

Communications Method	Audience	Communications Aim	Responsible Officer	Frequency
External Communications				
Media releases	The media, local newsletters, impacted community, general public	Provide information and updates to the media; educate the community about newsworthy happenings.	General Manager, Manager Environment and Community Team	Draft Concept Plan launch announcement As needed/ in line with milestones
Media approaches	The media, local newsletters, specific journalists/media outlets	Target media organisations to disseminate timely information to specific audiences.	Manager Environment and Community	As needed/ in line with milestones
Ballarat Gold Mine E-news	Ballarat Gold Mine registered email list	Keep the community informed about development and progress reports	Environment and Community Team	As needed/ in line with milestones
Community announcements (TV, news, radio)	Community, general public	Inform the community of upcoming community engagement opportunities and meetings.	General Manager, Manager Environment and Community Team	As needed/ in line with milestones
Letter drop and door knock	Immediate neighbours	To provide targeted information to the community in a more personalised approach.	Environment and Community Team	As needed/ in line with milestones
Ballarat Gold Mine web page	Community, general public, media, government agencies	Provide a comprehensive information portal for the Tailings Storage Facility Project development, practical resources, useful links	Environment and Community Team	Updated as needed
Internal Communications				
Ballarat Gold Mine Environmental Review Committee Reports, meeting and meeting notes	ERC members	Ensure all ERC members are kept up-to-date on what's happening with the project.	General Manager, Environment and Community Team, Senior Management	Quarterly

Communications Method	Audience	Communications Aim	Responsible Officer	Frequency
Ballarat Gold Mine Staff Meetings	All staff	Ensure all Ballarat Gold Mine staff members are kept up-to-date on what's happening with the project. Remind staff of Code of Conduct and Social Media Policy	Environment and Community Team	Monthly, As needed/ in line with milestones

Engagement Method	Audience	Engagement Aim	Responsible Officer	Timing
Draft Concept Plan Community launch	Community, general public, government agencies, stakeholders, staff	Launch draft Concept Plan for community feedback	General Manager, Manager Environment and Community Team	
Draft Concept Plan Community feedback survey	Community, general public, government agencies, stakeholders	Gather and analyse feedback from stakeholders regarding the Concept Plan and Planning Permit	Environment and Community Team	
Draft Concept Plan Community feedback public information sessions	Community, general public, government agencies, stakeholders	Provide platform for community to interact directly with staff and to allow for community feedback.	General Manager, Manager Environment and Community Team, Processing Manager	
Ballarat Gold Mine webpage	Community, general public	Deliver information directly to the public on specific issues. Materials from Ballarat Gold Mine, CCMA, government agencies and others	Environment and Community Team	

Engagement Tool	Audience	Aim	Responsible Officer	Timing
Draft Concept Plan Workshops/meetings	Government Agencies/Regulators	Shared communications and feedback to develop Concept Plan	Manager Environment and Community, Senior Management	
Business meetings	Business partners	Encourage business support and develop project deliverables	Manager Environment and Community, Senior Management, AECOM	Ongoing
Community group meetings	Local community groups	Shared communications and feedback to develop Concept Plan	Environment and Community Team	
Schools education	Local school groups	Engage with potential education and student development programs	Environment and Community Team	Ongoing
Work Plan Variation Workshops/Site meetings	Government Agencies/Regulators	Shared communications and feedback to develop Work Plan Variation	Manager Environment and Community, Senior Management	
Presentations to other groups/conferences	Wider public with an interest in mining or this project	Opportunity to showcase our learnings to a broader audience.	Manager Environment and Community	As required.

13. Communications and Risk Mitigation

Clear, consistent and proactive communication that is open and honest is one of the keys to guiding community expectations and reducing community fears and frustrations. While communication alone cannot solve all issues, it goes some way in reducing the strength of negative feelings. People generally prefer to be kept in the loop and receive responses in a timely manner. Being open and up front, reiterating our key messages and answering questions and enquiries quickly and honestly are the key to managing community perceptions of the project.

The development of the Ballarat Gold Mine new TSF4 Project has a number of risks where mitigation through communications will be important to reduce negative community responses. The draft Concept Plan and subsequent TSF4 Work Plan Variation are critical to the successful development of the Tailings Storage Facility. Project risks that require communications intervention will be identified according to the TSF4 Work Plan Variation Risk Management Plan.

Identification of these early in the project will identify communications resources that will be required and allow enough time for these to be developed. Examples would include media releases, fact sheets, website information, surveys, maps and visual aids.

Appendix 1. Key Messages ongoing draft

Key Messages	Status/Date
Enquiries and complaints can be directed to Ballarat Gold Mine through: 61 3 5327 2555 (24 hours a day), info@ballaratgoldmine.com.au , 10 Woolshed Gully Drive, Mt Clear, VIC 3350 (business hours Mon - Fri), ballaratgoldmine.com.au	Mar 19
<p>It is anticipated that the Terrible Gully TSF will be full in 2022 and Ballarat Gold Mine is currently looking at the adjoining Whitehorse Gully for a new tailings dam.</p> <p>The concept design is for a facility about the same size and with similar construction methods as the existing facility.</p> <p>Ballarat Gold Mine is currently undertaking site investigations, environmental assessments and preparing engineering designs for this proposal. Ballarat Gold Mine will undertake community engagement regarding this project with the various stakeholders including our neighbours.</p>	Nov 19
<p>Ballarat Gold Mine is required to follow the Earth Resources Regulation (ERR) Guideline for the Design and Management of Tailings Storage Facilities to ensure that the management of its Tailings Storage Facilities and associated tailings and slimes from the mine is undertaken in a manner that is safe and protects the environment.</p> <p>The guideline provides us with relevant information and requirements for preparing a mining work plan under section 40 of the Mineral Resources (Sustainable Development) Act 1990 (MRSDA).</p> <p>The guideline seeks to ensure that a TSF throughout its operational life and after closure is:</p> <ul style="list-style-type: none"> • designed, constructed, operated, monitored and closed in accordance with the Australian National Committee on Large Dams' Guidelines on Tailings Dams – Planning, Design, Construction, Operation and Closure (ANCOLD 2012a), other ANCOLD guidelines and State Environment Protection Policies (SEPPs) where relevant; • safe and structurally stable; • managed to minimise impact on public safety, public infrastructure and the environment; and • rehabilitated to minimise social impact, adverse visual amenity and long-term risks to the environment. <p>The Australian National Committee on Large Dams Incorporated (ANCOLD Inc.) is an incorporated voluntary association of organisations and individual professionals with an interest in dams in Australia. ANCOLD's mission is to be the industry body, representing its Members and Associates, disseminating knowledge, developing capability and providing guidance in achieving excellence for all aspects of dam engineering, management and associated issues.</p>	Nov 19
TSF4 Information flier	Nov 19
About Tailings Fact Sheet	Nov 19
About Tailings Storage Facilities Fact Sheet	Nov 19
Traffic Management Fact Sheet draft	Nov 19

Appendix 2. Recommended pre-submission steps

Taken from Earth Resources_Preparation-of-Work-Plans-and-Work-Plan-Variations-Guideline-for-Mining-Projects.



Balmaine Gold Pty Ltd
14-Apr-2020



Risk Management Plan

TSF4 Work Plan Variation- MIN4847 and MIN5396

**Mineral Resources (Sustainable Development) Act
1990**

Tenement Number: MIN4847 & MIN5396

Plan Number: PLN-001406

Work

Signed: 
Delegate of the Department Head

Date: 10/08/2020

C:\Users\lamie.cullum\Desktop\Project Folders\Ballarat CGT\Ballarat tsf4 V 2\Delivered\MIN4847- TSF4 WPV - Risk Management Plan -
Final_1_14April_2020.docx
Revision 1 – 14-Apr-2020
Prepared for – Balmaine Gold Pty Ltd – ARN: 67 142 297 685

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Risk Management Plan – TSF4 Work Plan Variation- MIN4847 and MIN5396

Risk Management Plan

TSF4 Work Plan Variation- MIN4847 and MIN5396

Client: Balmaine Gold Pty Ltd

ABN: 67 142 297 685

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14-Apr-2020

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Risk Management Plan – TSF4 Work Plan Variation- MIN4847 and MIN5396

Quality Information

Document Risk Management Plan

Ref 60593424

Date 14-Apr-2020

Prepared by [REDACTED]

Reviewed by [REDACTED]

Revision History

Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
A	9December 2019	Draft for client review	[REDACTED] Technical Director	
0	17-Dec-2019	Final	[REDACTED] Technical Director	
1	14-Apr-2020	Final, revised following ERR review	[REDACTED] Technical Director	[REDACTED]

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Risk Management Plan – TSF4 Work Plan Variation- MIN4847 and MIN5396

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1.0 Introduction

This Risk Management Plan (RMP) has been prepared for the Ballarat Gold Mine TSF4 project (MIN4847, MIN5396) for Balmaine Gold Pty Ltd, a wholly owned subsidiary company of Castlemaine Goldfields Pty Ltd (CGT).

The RMP aims to ensure that all hazards associated with project construction, operations and closure are identified and assessed and that associated controls are implemented to reduce the risk of harm or damage to the environment, any member of the public, to land, property or infrastructure in the vicinity of project works. The RMP also outlines arrangements for monitoring and reporting on the effectiveness of the proposed controls.

2.0 Risk Assessment

2.1 Methodology

The methodology used in the risk assessment is consistent with the methodology described in the *Preparation of Work Plans and Work Plan Variations Guideline for Mining Projects* (Department of Jobs, Precincts and Regions (DJPR), 2019), including the likelihood and consequence descriptors and ratings.

The risk assessment process included the following steps:

- Identify all assumptions and sensitive receptors associated with the WPV;
- List all possible quarrying hazards associated with the proposed changes, with definition of *risk events* associated with those hazards (generation of risk register);
- In conjunction with relevant site personnel and relevant specialists, assign a likelihood and consequence rating for each *risk event* based on the project description to determine an inherent risk rating;
- identification of controls to eliminate or reduce each risk event; and
- For each risk event with additional controls, re-assign the likelihood and consequence rating to determine the residual risk rating.

2.2 Risk Rating

The likelihood and consequence ratings for each risk event are used to determine the inherent and residual ratings. The risk matrix used (based on the DJPR, 2019 work plan guidelines) to determine risk ratings is shown in Table 1.

Table 1 Risk Rating Matrix

Likelihood	Almost Certain	Medium	High	Very High	Very High	Very High
	Likely	Medium	Medium	High	Very High	Very High
	Possible	Low	Medium	Medium	High	Very High
	Unlikely	Low	Low	Medium	High	High
	Rare	Low	Low	Medium	Medium	High
		Insignificant	Minor	Moderate	Major	Critical
Consequence						

2.3 Risk Register

A risk register has been prepared to assess the potential impact of the risk events identified for the construction, operation and rehabilitation phases of TSF4.

As required by the *Preparation of Work Plans and Work Plan Variations Guideline for Mining Projects* (DJPR), 2019, risk treatment plans have then been subsequently prepared for each identified hazard (refer to Section 3.0).

RISK REGISTER FOR MINING LICENCE NUMBER: WPV TSF4- MIN4847, MIN5396														
Hazard	Risk No	Risk Event	Causes/Background	Project Design, existing controls and site context.	Receptors	Phase of Project			Risk Assessment prior to additional risk controls - project inherent risk			Risk Assessment after including risk controls - project residual risk		
						Construction	Operation	Closure	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Altered amenity	1	TSF4 causes an impact on public amenity due to reduced accessibility to walking tracks.	Lack accessibility to previous areas used for public recreation	The walking tracks and vegetation on the eastern portion of the site (outside of the security fence) will remain. Public access walking tracks are in place on the south side of Whitehorse Road. Post- closure and rehabilitation it is envisaged that the site will return to plantation and may be accessible to the public.	Public amenity	Yes	Yes	Yes	Likely	Insignificant	Medium	Possible	Insignificant	Low
Altered visual amenity	2	TSF4 causes an impact on visual amenity.	Lack or failure of visual screening	Site is within existing Plantation, which was partially burnt in April 2019. A visual buffer along Whitehorse Road and on the eastern side of the site will remain as per the intent of the visual buffer from 1994 EES. A visual impact assessment has been completed based on the project design of retaining the buffer and height of the TSF4, and has come out as "limited" or "negligible" impact. No risk mitigation was recommended.	Public amenity	Yes	Yes	Yes	Unlikely	Minor	Low	Unlikely	Minor	Low
Altered visual amenity	3	Intrusion of security or operational lighting emitting light at TFS4 into adjoining residences	Night operation, unshielded lighting	Construction hours limited to 7am- 6pm. Operational hours of tailings disposal will be 24 hours.	Public amenity	No	Yes	No	Unlikely	Moderate	Medium	Unlikely	Minor	Low
Dust / Air emission	4	Generation of dust from excavation area, mobile plant and equipment during TSF4 construction, causes a loss of amenity and/or exceedance above health criteria at the receptors.	Dry / windy conditions and inappropriate controls at plant/ construction area, excessive plant movements	An air quality model has been completed as part of the WPV. Based on the model, under the most conservative construction scenario, the modelling shows that results at the receptors will be under the PEM.	Air quality, Public amenity, Public health	Yes	No	Yes	Almost Certain	Moderate	Very High	Unlikely	Insignificant	Low
Dust / Air emission	5	Generation of dust from stockpiles of excavated material causes a loss of amenity and/ or exceedance above criteria at the receptors.	Dry / windy conditions and inappropriate controls to stabilise stockpiles.	An air quality model has been completed as part of the WPV. Based on the model, under the most conservative construction scenario, the modelling shows that results at the receptors will be under the PEM.	Air quality, Public amenity, Public health	Yes	Yes	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Dust / Air emission	6	Dust/ air emissions from TSF4 that causes a loss of amenity and/or exceedance above criteria.	Dry / windy conditions	An air quality model has been completed as part of the WPV. Based on the model, under the TSF4 operation scenario, the modelling shows that results at the receptors will be under the PEM.	Air quality, Public amenity, Public health	No	Yes	No	Likely	Moderate	High	Possible	Minor	Medium
Dust / Air emission	7	Generation of dust from capped TSF where vegetation has not established impacting on amenity	Dry / windy conditions and insufficient vegetation over cap	Growth medium to be applied and vegetation to be established over cap as part of project design.	public amenity	No	No	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Dust, silt and clay on roads	8	Transfer of mud, soil and debris onto Whitehorse Road from plant and equipment causing amenity issues and public safety should material make road conditions slippery.	Wet conditions	Whitehorse Road only.	Public amenity, Public safety	Yes	No	Yes	Possible	Major	High	Rare	Moderate	Medium
Erosion and Sedimentation	9	Destabilising surface. Surface water run-off (including stormwater) impacted (turbidity) by soils/weathered rock generated during construction discharging off-site and leading to impacts beneficial uses of the local water environment. Including stockpiles.	Erosion / sedimentation occurs during rain events	Surface water receptors are not within the immediate vicinity of the site. Drainage system and sedimentation pond around the TSF4 forms part of the design. The closest surface water receptor is the Yarrowee River 270m west of the site. Due to site layout and TSF4 footprint, stockpiles will not be placed on land adjacent to Whitehorse Road.	Surface water, Ecosystem / Biodiversity	Yes	Yes	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Erosion and Sedimentation	10	Erosion of the final (or near final) landform shape for TSF4 area before topsoiling and a vegetation cover is established, or should vegetation cover not be established through species choice or insufficient growth medium.	Erosion occurs during rain events	Drainage network will remain in place during closure activities.	Crown land, Surface water Biodiversity / Ecosystem	No	No	Yes	Likely	Minor	Medium	Unlikely	Minor	Low
Fire	11	Plant/ hot work starting uncontrolled fire and potentially spreading off-site and causes property damage and/ or injury or death.	poor fire preparedness, faulty equipment, operating in extreme weather	A fire partially burnt the area in April 2019. As part of the mining operations, an Emergency Management Plan, including fire response procedures are already established. CGT has a close working relationship with the local fire authorities. An agreement has been negotiated to ensure that services will be available to support CGT and the specific needs that it may have in the event of a fire.	Biodiversity,Ecosystem,Air quality, Crown land, Public safety, Private property, Public infrastructure, Community facility, Amenity	Yes	Yes	Yes	Possible	Critical	Very High	Rare	Major	Medium
Flood	12	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream, with it modelled that one resident, a number of public roads and the bike path would be impacted.	PMF rainfall event (major flood event) and pipe failure	The TSF4 has been designed in accordance with ANCOLD and ERR TSF guidelines. The TSF is designed with capacity to store the 1:100 AEP 72-hour storm event and maintain a minimum freeboard of 0.2m. Dambreak modelling completed as part of conceptual design.	Public safety, private property, crown land.	No	Yes	Yes	Unlikely	Critical	High	Unlikely	Critical	High

Hazard	Risk No	Risk Event	Causes/Background	Project Design, existing controls and site context.	Receptors	Phase of Project			Risk Assessment prior to additional risk controls - project inherent risk			Risk Assessment after including risk controls - project residual risk		
						Construction	Operation	Closure	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Flood	13	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream, with public infrastructure modelled to be within the flood zone including Docwra Steet pumping station and CHW aqueduct along Yarrowee River.	PMF rainfall event (major flood event) and pipe failure	The TSF4 has been designed in accordance with ANCOLD and ERR TSF guidelines. The TSF is designed with capacity to store the 1:100 AEP 72-hour storm event and maintain a minimum freeboard of 0.2m. Dambreak modelling completed as part of conceptual design. Given the increase in depth and extent of the flood, the change is not likely to impact on the bridge over Whitehorse Sreet, transmission line pylons, CHW treatment ponds or pumping station, all of which, if in the flood zone have been modelled to be within a 100,000 year flood irrespective of a dam breach.	Public infrastructure	No	Yes	Yes	Unlikely	Moderate	Medium	Unlikely	Moderate	Medium
Flood	14	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream surface water quality.	PMF rainfall event (major flood event) and pipe failure	The TSF4 has been designed in accordance with ANCOLD and ERR TSF guidelines. The TSF is designed with capacity to store the 1:100 AEP 72-hour storm event and maintain a minimum freeboard of 0.2m. Dambreak modelling completed as part of conceptual design. Given the increase in depth and extent of the flood, there are no sensitive receptors (European, cultural or vegetation) that would be inundated by coincident flooding from the TSF- i.e. these, where present would be inundated by a PMF without a TSF breach. Given this risk event occurs as a result of a PMF, the additional water added by the TSF would be subject to significant dilution.	<ul style="list-style-type: none"> Biodiversity Ecosystem Surface water 	No	Yes	Yes	Unlikely	Minor	Low	Unlikely	Minor	Low
Flood	15	TSF4 is at partial capacity and failure of embankment occurs sometime post (and as a result of) a PMF rainfall event, resulting in tailings release (no flooding of Yarrowee River).	PMF rainfall event (major flood event)	The TSF4 has been designed in accordance with ANCOLD and ERR TSF guidelines. The TSF is designed with capacity to store the 1:100 AEP 72-hour storm event and maintain a minimum freeboard of 0.2m. Dambreak modelling completed as part of conceptual design.	Public safety, private property, crown land.	No	Yes	Yes	Unlikely	Major	High	Unlikely	Critical	High
Ground Disturbance	16	Unauthorised clearance of vegetation resulting in loss of native vegetation and habitat not permitted to be removed.	Unauthorised clearing without permits in place.	A detailed vegetation survey has been undertaken to assess native vegetation as part of project planning. The project has been designed to largely avoid vegetation within the ESO5 layer. The land is classified as Plantation and based on the vegetation assessment, native vegetation approvals are considered to be exempt under 2.24 DELWP Native Vegetation Exemption, Dec 2017 for a large part of the site. Where this native vegetation is not exempt from a permit to remove, planning permits and off-sets will be obtained, including for any native vegetation to be removed in the ESO5 layer for the security fence.	Biodiversity , ecosystem	Yes	No	No	Likely	Moderate	High	Unlikely	Minor	Low
Ground Disturbance	17	Damaging Heritage items (European)	poor spatial control, insufficient review prior to work	Heritage Inventory (HI) area is present within an area adjacent to Whitehorse Road. However, this HI site (HI7622-0005) is within the nominated exclusion zone for no ground disturbance works and will be outside the site fence to prevent disturbance.	Historic heritage	Yes	Yes	Yes	Unlikely	Major	High	Rare	Major	Medium
Ground disturbance	18	Works and maintenance on TSF4 (and associated infrastructure), including via heavy vehicle traffic, damages CHW assets (e.g. Supply Pipeline & Header Tank)	Ground disturbance	Known CHW pipeline on-site. TSF4 footprint avoided pipeline as part of inherent project design. Pipeline to be surveyed and clearly marked prior to main earthworks, including off-set and protection (fence) in place. As part of the TSF4 construction works, to restrict the amount of traffic crossing the pipe, designated crossings are to be established, with pipeline protection for the crossing designed.	Public infrastructure, public amenity	Yes	Yes	Yes	Possible	Major	High	Rare	Major	Medium
Ground instability- Interaction with Existing Workings	19	Striking voids or unknown adits or geotechnical anomalies causes unexpected collapse or future instability of TSF leading to impacts on public safety if dam embankment fails as a result.	uncertainty around location and extent of historic mining- surface disturbance breaching, collapsing or overloading unstable ground	Historic mine voids generally known and mapped. Consistent with TSF3 construction, a plan will be in place to identify and remove during construction any shallow anomalies that may impact stability identified through geophysical surveys.	Public safety	Yes	Yes	Yes	Possible	Critical	Very High	Unlikely	Critical	High
Ground instability- Interaction with Existing Workings	20	Striking voids or unknown adits causes unexpected collapse or future instability of TSF leading to impacts on underlying groundwater and impacting on beneficial uses of groundwater.	uncertainty around location and extent of historic mining- surface disturbance breaching, collapsing or overloading unstable ground	Historic mine voids generally known and mapped. Consistent with TSF3 construction, a plan will be in place to identify and remove during construction any shallow anomalies that may impact stability identified through geophysical surveys. Of the surrounding registered groundwater bores, only one is screened within the base depth of the TSF4 (WRK972479- total depth of 9m), located approximately 240m northwest of TSF4, and therefore impact to registered groundwater users is expected to be minimal.	Groundwater users, ecosystem	Yes	Yes	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Ground instability	21	TSF4 embankment failure from internal erosion leading to release of tailings which reach Whitehorse Road and impact on public safety (sunny day failure model).	Earthquake, piping, erosion	The TSF4 has been designed in accordance with ANCOLD and ERR TSF guidelines. TSF to be constructed on bedrock. Dambreak modelling completed to inform the design. Based on this scenario (Sunny Day), the failure would only displace a short distance downstream and there is a low probability that the landslide would encroach on Whitehorse Road.	Public infrastructure, public safety	No	Yes	Yes	Unlikely	Critical	High	Rare	Critical	High
Ground instability	22	Differential settlement of tailings such that there is a loss in shape of the final TSF landform so that it does not meet the closure criteria.	Insufficient allowance for consolidation during closure	Tailings will be dewatered and will settle prior to capping providing a stable landform.	Crown land, Surface water	No	No	Yes	Possible	Moderate	Medium	Unlikely	Minor	Low
Hazardous Material- Fuel and lubricants	23	Spills or leaks of diesel from fuel tank to be stored on site, and spills and leaks of hydrocarbons or lubricants from plant and equipment used on site.	inappropriate procedures, control and response, inappropriate equipment maintenance	A diesel tank (25,000L) will be required for mobile plant refuelling during the construction phase. The tank will be above ground and self-bunded. During operation, pumps will have a power supply, rather than be powered by generators. Drainage network will be in place prior to main earthworks program, which can capture and manage stormwater run-off.	Ground water, Surface water, land	Yes	No	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Hazardous Materials- Encountering unknown material/ hazardous waste	24	Encountering historic illegally placed waste, potentially hazardous material during works, or contaminated materials from historic mining, which may impact on beneficial uses of land or surface water if not managed correctly.	Illegal dumping and Unknown historical material from historical mining activities, including historic tailings	A site investigation is to be conducted prior to construction phase in order to assess the nature and extent of the material in the old gullies prior to the commencement of construction works. A number of management strategies have been identified for excavated material, however If needed, any material that cannot be used/ remain on-site will be transported to an appropriate facility under EPA transport/ disposal requirements.	surface water, land, public safety	Yes	No	No	Likely	Moderate	High	Likely	Minor	Medium

Hazard	Risk No	Risk Event	Causes/Background	Project Design, existing controls and site context.	Receptors	Phase of Project			Risk Assessment prior to additional risk controls - project inherent risk			Risk Assessment after including risk controls - project residual risk		
						Construction	Operation	Closure	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Noise pollution	25	Noise from on-site vehicles (mobile plant) during TSF4 construction, resulting in loss of amenity for neighbouring receptors.	Noise from mobile plant, unfavourable wind direction	Construction hours to be maintained from 7am- 6pm (Monday to Friday) and Saturday 7am-1pm as per existing MIN5396 operations. Any trucks (larger than 10t) accessing the site through the new Whitehorse Road access road will be limited to these construction period times. Acoustic modelling has prediction compliance with noise limits at closest receptors. A strip of mature pines along Whitehorse Road will remain as part of the buffer, and vegetation on eastern part of site along Tinworth Avenue will remain which may provide for some acoustic buffering.	Public amenity	Yes	No	Yes	Possible	Minor	Medium	Unlikely	Minor	Low
Noise pollution	26	Noise from pumps and pipework associated with the tailings delivery system, decant and leachate system, and pumps associated with sedimentation pond.	Noise from on-site plant with an unfavourable wind direction	Hours of operation will be 24-hours are per existing mine operations. During operation, all pumps will be on mains power supply (rather than generators) and all delivery pipes will be housed within a concrete box culvert. Acoustic modelling has prediction compliance with noise limits at closest receptors. A strip of mature pines along Whitehorse Road will remain as part of the buffer, and vegetation on eastern part of site along Tinworth Avenue will remain which may provide for some acoustic buffering	Public amenity	No	Yes	No	Unlikely	Minor	Low	Unlikely	Minor	Low
Security breach	27	Unauthorised access results in injury/ harm to the public.	Inadequate site security	A security fence and signage will be in place around the TSF4 site prior to the commencement of the construction activities.	Public safety	Yes	Yes	Yes	Possible	Critical	Very High	Rare	Critical	High
Security breach	28	Vandalism/malicious damage of plant/machinery by member of the public leading to e.g., pump failure, broken tailings discharge line, return water line.	Inadequate site security	A security fence and signage will be in place around the TSF4 site prior to the commencement of the main construction.	Public safety, surface water, groundwater	No	Yes	Yes	Unlikely	Major	High	Rare	Major	Medium
Wastewater	29	Uncontrolled release of tailings slurry, pipeline failure, causing release of tailings and impacting on surface water and/ or groundwater.	Vandalism, joint failure, mechanical damage		Surface water, Groundwater, land	No	Yes	No	Likely	Moderate	High	Unlikely	Minor	Low
Wastewater	30	Decant water and leachate release from pipeline (back to processing plant) to ground impacting on surface water/ groundwater.	Vandalism, joint failure, mechanical damage		Surface water, Groundwater	No	Yes	Yes	Unlikely	Moderate	Medium	Rare	Moderate	Medium
Water- surface water	31	Inappropriate diversion and/or return of diverted surface water detracts from beneficial uses of surface water.	Inadequate surface water control on site.	Drainage system and sedimentation pond around the TSF4 forms part of the design. The closest surface water receptor is the Yarowee River 270m west of the site.	Surface water	Yes	Yes	Yes	Possible	Moderate	Medium	Unlikely	Minor	Low
Hazardous Materials - tailings	32	Seepage of pore water (arsenic and cyanide) within saturated tailings migrates into underlying Basement Aquifer and impacts on the beneficial uses down hydraulic gradient.	Inadequate TSF liner and leachate system design and/ or construction.	The bulk hydraulic conductivity of this basement aquifer is low, further the inherent design of the TSF liner includes a low permeability clay liner which incorporates an underdrain thus reducing the potential for a hydraulic head to develop and seepage to occur. The conceptual and detailed design subject to ITR. Construction hold points for inspection and signoff by Design Representative is also a requirement of the design. A comparable design at TSF3 in the same hydrogeological setting has shown no observable impacts to groundwater over the 13 years of operation.	Groundwater	No	Yes	No	Possible	Minor	Medium	Unlikely	Minor	Low
Hazardous Materials - tailings	33	Infiltration of water through TSF cap, that saturates the tailings sufficiently to seep to groundwater and then impact on the beneficial uses down hydraulic gradient of site.	Inadequate engineered cap design/ placement, or dewatering of tailing pre-closure.	Once the TSF is closed the tailings will be largely de-saturated, thus the likelihood for enough water infiltration to migrate through cap, saturate the tailings, and then seep in sufficient volume to impact groundwater is considered to be very low.	Groundwater	No	No	Yes	Unlikely	Minor	Low	Unlikely	Minor	Low
Water- Groundwater dewatering	34	Removal and dewatering of perched aquifer during construction results in volumes of water/ saturated materials that cannot be contained and/ or managed with the existing water management system. Resulting in an uncontrolled water flow potentially impacting surface water.	Dewatering activities/ removal of saturated materials during construction which cannot be managed.	Extraction of water is permitted under existing SRW Take and Use Licence. Volumes for dewatering and / or saturated material will be quantified during site investigation phase which will allow for further management measures if needed. Any extracted water is intended to be placed within the surge dam and transferred to the mine circuit on MIN5396 for treatment in the approved water treatment plant.	Surface water	Yes	No	No	Unlikely	Minor	Low	Unlikely	Minor	Low
Water- Groundwater dewatering	35	Dewatering of groundwater during TSF4 construction resulting in drawdown and impact to local groundwater users.	Dewatering activities/ removal of saturated materials during construction.	Interaction and dewatering of groundwater is predicted to be minimal, with the regional groundwater table, in general, below the base of the TSF, however where the basement is deeper, there is potential for some interaction with regional groundwater during the construction phase, which may require management during the construction phase. Extraction of water is permitted under existing SRW Take and Use Licence. Volumes for dewatering and / or saturated material will be quantified during site investigation phase which will allow for further management measures if needed. Of the surrounding registered groundwater bores, only one is screened within the base depth of the TSF4 (WRK972479- total depth of 9m), located approximately 240m northwest of TSF4, and therefore impact to registered groundwater users is expected to be minimal.	Groundwater	Yes	No	No	Possible	Insignificant	Low	Possible	Insignificant	Low

Hazard	Risk No	Risk Event	Causes/Background	Project Design, existing controls and site context.	Receptors	Phase of Project			Risk Assessment prior to additional risk controls - project inherent risk			Risk Assessment after including risk controls - project residual risk		
						Construction	Operation	Closure	Likelihood	Consequence	Risk Rating	Likelihood	Consequence	Risk Rating
Weeds, pests and diseases	36	Introduction or spread of weeds onsite through movement of soil resulting in infestation of noxious weeds during construction or rehabilitation through ground disturbance inhibiting revegetation.	Inappropriate soil management, imported material	No material is planned to be bought in for construction or rehabilitation. The only material that may be imported is rock for road base for access road construction.	Biodiversity / Ecosystem, Public property	Yes	No	Yes	Likely	Minor	Medium	Possible	Insignificant	Low
Weeds, pests and diseases	37	Increase in pest animals (rabbits, foxes, pigs, dogs and cats) impacting on native species populations, causing nuisance and inhibiting revegetation..	Inadequate pest animal control.	Program of pest and weed control in place for the mine.	Biodiversity / Ecosystem, Public property	Yes	Yes	Yes	Unlikely	Minor	Low	Unlikely	Minor	Low

3.0 Risk Treatment Plans

For each hazard, a risk treatment plan (RTP) has been prepared to outline applicable controls in order to reduce (or eliminate) the inherent risk. The RTP also includes monitoring and reporting for each hazard. As required, any **reportable events** will be reported by the licence holder above and beyond what is documented in the RTP.

3.1 Altered Amenity

3.1.1 Scope and Background

This risk treatment plan is for control of impacts on amenity caused by development of TSF4.

Amenity can be adversely affected if constructed landforms or infrastructure are in conflict with the surrounding landforms and topography.

The TSF4 site is centred around Whitehorse Gully and takes advantage of surrounding ridgelines to shield the surrounding views. A western proportion of TSF4 is also surrounded by softwood plantation, which provides a visual buffer. However, in some areas, residential properties and public roads are located adjacent to the TSF4 site.

Subsequently, there are a number of potential visual impacts that may result from TSF4 development, however these have been assessed as part of a visual impact assessment (Hansen, 2019).

Based on the project design which includes retention of pines as a visual buffer, height of the TSF4 and final end land use of return to plantation, the VIA of the development has concluded "limited" or "negligible" visual impact. No risk mitigation was recommended from the VIA.

3.1.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 2.

Table 2 Key sensitive receptors for altered amenity

#	Details of the Sensitive Receptor	Location and proximity to site
1	Residence and public views of TSF4	<ul style="list-style-type: none"> 8 locations were identified as having viewpoints from residential properties or public viewpoints as part of the VIA.

3.1.3 Risk events

The risk events associated with altered amenity are listed in Table 3.

Table 3 Risk events for altered amenity

#	Details of the Risk Event	Phase	Consequence	Likelihood	Inherent Risk Rating
1	TSF4 causes an impact on visual amenity	Construction, Operation, Closure	Unlikely	Minor	Low
2	TSF4 causes an impact on public amenity due to reduced accessibility to walking tracks	Construction, Operation, Closure	Likely	Insignificant	Medium
3	Intrusion of security or operational lighting emitting light at TSF4 into adjoining residences	Construction, Operation, Closure	Unlikely	Moderate	Medium

3.1.4 Objectives

The key objectives of this risk treatment plan are to:

- Minimise visual impact of TSF infrastructure and operations.

- Minimise emission of light to adjoining residences.

3.1.5 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Visual impacts of the TSF on sensitive receptors are minimised
- Offsite light emissions are minimised
- Minimal complaints received regarding visual impacts and light emission

3.1.6 Controls to address hazard

The controls for this risk treatment plan are listed in Table 4.

Table 4 Controls to address altered amenity

#	Details of controls being used	Risk Events being managed	Performance measures
1	Undertake progressive rehabilitation of disturbed areas, where practicable, to reduce visual impacts	1, 2	Progressive rehabilitation is completed where practicable
2	Minimise illumination of the site to the extent practicable, consistent with operational, safety and security requirements.	3	Site illumination is minimised to the extent practicable
3	General and security lighting within the site will be carefully located and directed to minimise emission of light beyond the site.	3	Site lighting is located and directed to minimise offsite light spill
4	Security lighting will be suitably baffled so as to prevent emission of direct light beyond the site. No high beam lighting to be used during night TSF patrols.	3	Security lighting is suitably baffled
5	Establishment of a 100m buffer from residential properties from which all works are excluded. Buffer to be surveyed and marked clearly on site.	1, 2	Buffer to be surveyed prior to any works. No works encroachment into the buffer.

3.1.7 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 5.

Table 5 Residual risk ratings – altered amenity

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	TSF4 causes an impact on visual amenity	Operation, Closure	Unlikely	Minor	Low
2	TSF4 causes an impact on public amenity due to reduced accessibility to walking tracks	Construction, Operation, Closure	Possible	Insignificant	Low
3	Intrusion of security or operational lighting emitting light at TSF4 into adjoining residences	Construction, Operation, Closure	Unlikely	Minor	Low
4	Encroachment and undertaking works without Consent from landowner within 100m at surface to and 100m vertically	Construction, Operation, Closure	Possible	Moderate	Medium

3.1.8 Monitoring

Monitoring arrangements for amenity are summarised in Table 6.

Table 6 Monitoring arrangements for amenity

#	Aspect to be monitored	Details of monitoring
1	Effectiveness of visual screening	Annual visual inspection of operations from adjoining residence boundaries and public infrastructure such as roads to determine effectiveness of visual screening.
2	Feedback from community and regulators	Monitor the number of community complaints specific to amenity impacts via complaints register.

3.1.9 Reporting

Reporting arrangements for amenity are summarised in Table 7.

Table 7 Reporting arrangements for amenity

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Effectiveness of visual screening	Annual internal reporting	To assess effectiveness of visual screening
2	Feedback from community and regulators	Quarterly Environmental Review Committee (ERC) meeting	To assess improvement or maintenance requirements

3.1.10 Relevant industry publications

Relevant industry publications for management and monitoring of amenity are listed in Table 8.

Table 8 Relevant industry publications for amenity

#	Document	Source
1	Rehabilitation Plans & Other Environmental Aspects of Work Plan – Guidelines for Environmental Management in Exploration and Mining (DEDJTR 2004)	http://earthresources.vic.gov.au/earth-resources-regulation/licensing-and-approvals/minerals/guidelines-and-codes-of-practice/rehabilitation-and-environmental-aspects-of-mining-and-extractive-work-plans

3.1.11 Operator's reference documents

Relevant CGT reference documents are listed in Table 9.

Table 9 CGT reference documents –amenity

#	Document	Location
1	Site Layout Plan	Work Plan Variation-Appendix A
2	Visual Impact Assessment, Hansen, 2019.	Submitted to support WPV.

3.2 Dust / Air Emissions

3.2.1 Scope and Background

This risk treatment plan is for control of dust and air emissions from mining activities.

Air emissions from mine activity primarily consist of dust and associated particulates (PM₁₀ and Total Suspended Particles). These emissions may result in contaminants affecting air quality and/or public amenity.

An air quality assessment, including model, has been prepared for the cumulative effects of TSF4 construction and operation. The outcomes demonstrated compliance with the PEM, however best practice dust controls were recommended for implementation.

3.2.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 10.

Table 10 Key sensitive receptors for dust and air emissions

#	Details of the Sensitive Receptor	Location and proximity to site
1	Residences and properties in the near vicinity of the TSF site	<ul style="list-style-type: none"> Closest residences located ~100 m east of the TSF4 site on Whitehorse Road and Tinworth Avenue.
2	Public	<ul style="list-style-type: none"> Public moving along Whitehorse Road or Tinworth Avenue.

3.2.3 Risk events

Risk events associated with dust and air emissions are listed in Table 11.

Table 11 Risk events for dust and air emissions

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Generation of dust from mobile plant and equipment during TSF4 construction, causes a loss of amenity and/or exceedance above health-based criteria.	Construction, Closure	Almost certain	Moderate	Very High
2	Generation of dust from stockpiles of excavated material causes a loss of amenity and/or exceedance above health-based criteria.	Construction, operation, closure	Possible	Minor	Medium
3	Dust emissions from TSF4 tailings surface that causes a loss of amenity and/or exceedance above health-based criteria.	Operation, Closure	Likely	Moderate	High
4	Generation of dust from capped TSF where vegetation has not established impacting on amenity	Construction	Possible	Minor	Medium

3.2.4 Objectives

The key objectives of this risk treatment plan are to:

- Reduce or prevent dust generation from onsite activities and materials haulage, to the extent practicable.
- Minimise offsite dust impacts on nearby sensitive receptors, including members of the public, residential land uses, and other sensitive land uses or environments.
- Protect the beneficial uses of the air environment as defined in the State Environment Protection Policy (SEPP) Air Quality Management (AQM).

3.2.5 Compliance standards

The compliance standards for this risk treatment plan are:

- SEPP (AQM)
- EPA Publication 1191 - Protocol for Environmental Management (PEM) – Mining and Extractive Industries
- EPA Publication 480 - Environmental Guidelines for Major Construction Sites

3.2.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- No nuisance dust issues experienced by pre-existing, nearby sensitive receptors.
- Dust and air emissions do not exceed applicable EPA standards defined in the PEM.

3.2.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 12.

Table 12 Controls to address dust and air emissions

#	Details of controls being used	Risk Events being managed (number from above)	Performance measures
1	Modify dust generating activities (e.g. topsoil handling) during very windy conditions.	1,2	Reduce operations during dry windy conditions, such as when visible dust lift off is present.
2	Water trucks and/or sprinklers are to be used on unsealed surfaces (including excavations, stockpiles, waste dumps, cleared areas), with a focus on heavily trafficked areas such as haul roads and light vehicle roads. A water truck should be available for use at all times.	1,2	Water trucks and sprinklers are used on unsealed surfaces.
3	Stabilise soil and overburden stockpiles (e.g. seeded / roughened / mulched) if they will not be disturbed for an extended period. Water or use other dust suppressant agents to prevent dust generation prior to stabilisation.	1,2	Soil and overburden stockpiles stabilised if not used for 3 months.
4	Stockpiles are to be placed, where practicable, at a suitable distance from sensitive receptors (e.g. nearby residents) and profiled to avoid steep gradients.	1,2	
5	CGT will ensure that all contracts include air emission minimisation and abatement conditions where contracted work has been assessed to have the potential to cause air emissions.	1,2	All contracts include air emission minimisation and abatement conditions where required.
6	Internal site roadways are to be constructed from graded and screened crushed rock (at a minimum) to minimise dust.	1,2	Onsite roads are surfaced with crushed rock (at a minimum).
7	Diesel emissions will be minimised by regular maintenance of machinery and the installation of emission reduction technology where required.	1,2	Machinery maintained regularly, and emission reduction equipment is installed where required
8	Retain as much existing vegetation as practicable to act as wind breaks	1,2	Existing vegetation is retained where practicable.
9	All employees and contractors will be required to participate in site-specific environmental induction. The environmental induction will include material addressing air quality limits and	1,2	Employees and site contractors receive site-specific environmental induction addressing air quality management requirements.

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Prepared for – Balmaine Gold Pty Ltd – ABN: 67 142 297 685

#	Details of controls being used	Risk Events being managed (number from above)	Performance measures
	management practices to be implemented to minimise potential air quality impacts.		
10	Progressive rehabilitation will be undertaken to revegetate disturbed areas where practicable.	3,4	Progressive rehabilitation is completed where practicable.
11	Use of routine spigot cycling to maintain moist tailings.	3	Routine spigot cycling is used.
12	Use of TSF sprinkler system using recycled water.	3	A sprinkler system is used to control dust from the TSF.
13	Allow surface crust to form on TSF. A surface crusting agent may be added to the TSF spray water if required.	3	Surface crust is allowed to form on TSF.
14	Detoxify any tails exposed to cyanide prior to disposal in the TSF.	3	All tails exposed to cyanide are detoxified prior to disposal.
15	Establishment of a 100 m buffer from residential properties	1,2,3	No works encroachment into the buffer.
13	Final landforms will be shaped and prepared (e.g. ripping of hardstand areas) appropriately to facilitate drainage and vegetation growth where required.	4	Landforms are shaped and prepared to facilitate growth of vegetation where practicable.
14	Where practicable, revegetation plantings or seeding will be timed for the optimal time of year for survival.	4	Plantings / seeding is timed to take advantage of seasonal rainfall where practicable.
15	Appropriate protective fencing will be installed and maintained around revegetated areas where required.	4	Protective fencing is installed and maintained where required.
16	Rehabilitation plantings will be monitored and supplemented or replaced where required to provide adequate vegetation cover	4	Plantings are supplemented or replaced where required to meet rehabilitation objectives.

3.2.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 13.

Table 13 Residual risk ratings – dust / air emissions

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Generation of dust from mobile plant and equipment during TSF4 construction, causes a loss of amenity and/or exceedance above criteria.	Construction, Closure	Unlikely	Minor	Low
2	Generation of dust from stockpiles of excavated material causes a loss of amenity and/or exceedance above criteria.	Construction, operation, closure	Unlikely	Minor	Low
3	Dust emissions from TSF4 that causes a loss of amenity and/or exceedance above criteria.	Operation, Closure	Possible	Minor	Medium

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#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
4	Generation of dust from capped TSF where vegetation has not established impacting on amenity	Construction	Unlikely	Minor	Low

3.2.9 Monitoring

Monitoring arrangements for dust and air emissions are summarised in Table 14.

Table 14 Monitoring arrangements for dust / air emissions

#	Aspect to be monitored	Details of monitoring
1	Excessive visible dust being generated on site	Undertake daily visual assessment of wind-borne dust.
2	Dust deposition at key locations	Two dust monitoring stations to be established in strategic locations along the site boundary in proximity to the closes receptors. Monitoring stations to be sampled quarterly, in accordance with the Australian Standard AS3580.10.1 clause 7.3 - period of exposure will (in general) be 30 ± 2 days. The samples collected are sent to a NATA accredited laboratory for Deposition Dust Analysis.
3	Community complaints and feedback	Community complaints related to air quality will be monitored via a complaint register.
4	Status and success of revegetation during site closure	Monitoring of initial establishment of vegetation and long-term monitoring to evaluate progress of rehabilitation towards end use objectives

3.2.10 Reporting

Reporting arrangements for dust and air emissions are summarised in Table 15.

Table 15 Reporting arrangements for dust / air emissions

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Excessive visible dust being generated on site.	Report dust issues to supervisor as needed. Report to Environment Manager as needed.	To manage dust generation activities and implement additional controls as needed.
2	Dust deposition at key locations	Report to site management as required and to ERC quarterly.	Use data to confirm presence of dust issue and identify and manage key dust generation activities.
3	Community complaints and feedback	Report to site management as required and to ERC quarterly.	Community complaints relating to air quality issues will be managed as part of the CGT incident reporting procedure. CGT will endeavour to implement management measures as soon as possible upon receipt of the complaint.
5	Status and success of revegetation during site closure	Site management as required. Quarterly to ERC.	To track progress towards closure criteria

3.2.11 Relevant industry publications

Relevant industry publications for management and monitoring of dust and air emissions are listed in Table 16.

Table 16 Relevant industry publications for dust / air emissions

#	Document	Source
1	EPA Protocol for Environmental Management – Mining and Extractive Industries.	
2	Mine Rehabilitation – Leading Practice Sustainable Development for the Mining Industry (Commonwealth of Australia 2016)	https://www.industry.gov.au/sites/default/files/2019-04/lpsdp-mine-rehabilitation-handbook-english.pdf
3	Integrated Mine Closure: Good Practice Guide (ICMM 2019)	http://www.icmm.com/website/publications/pdfs/closure/190107_good_practice_guide_web.pdf

3.2.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 17.

Table 17 CGT reference documents – dust / air emissions

#	Document	Location
1	Site layout plan with stockpile locations	Work Plan Variation Figure 5.
2	Air Quality Management Plan	Internal CGT document
3	AECOM, 2019a. <i>Whitehorse Gully TSF4- Air Quality Assessment</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd.	Prepared to support WPV for TSF4.
4	AECOM, 2019. <i>Whitehorse Gully TSF Concept Design Report</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd.	Prepared to support WPV

3.3 Dust, silt and clay on roads

3.3.1 Scope and Background

This risk treatment plan is for control of dust, silt and clay on the Whitehorse Road access road for construction- see also Section 3.2.

3.3.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 18.

Table 18 Key sensitive receptors for dust, silt and clay on roads

#	Details of the Sensitive Receptor	Location and proximity to site
1	Members of the public, particularly those using or residing near roads used by traffic exiting the TSF4 site (Whitehorse Road).	Access for TSF4 is via Whitehorse Road.

3.3.3 Risk events

Risk events associated with dust, silt and clay on roads are listed in Table 19.

Table 19 Risk events for dust, silt and clay on roads

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Transfer of mud, soil and debris onto public roads from earth moving equipment causing amenity issues and public safety should material make road conditions slippery.	Construction, Operation, Closure	Possible	Major	High

3.3.4 Objectives

The key objectives of this risk treatment plan are to:

- Minimise carriage of dust, silt and clay (mud) by vehicles leaving the licence area
- Prevent road safety issues from hazards associated with the deposition of dust, silt and clay (mud) onto external roads by traffic from the licence area

3.3.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Planning and Environment Act 1979*
- EPA Protocol for Environmental Management – Mining and Extractive Industries.

3.3.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Minimise dust, silt and clay (mud) carried by vehicles beyond the boundary of the licence area.

3.3.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 20.

Table 20 Controls to address dust, silt and clay on roads

#	Details of controls being used	Risk Events being managed	Performance measures
1	Surface all site roads with crushed rock or other suitable material to prevent road vehicles becoming excessively dirty and depositing mud on to public roads.	6	Suitable road surface material is installed and maintained.
2	Remove dirt on truck wheels and/or rumble grids for use by trucks at their main exit point to TSF4 site.	6	Ability to wash down wheels or rumble grids installed at the main TSF4 site exits.

3.3.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 21.

Table 21 Residual risk ratings – dust, silt and clay on roads

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
3	Transfer of mud, soil and debris onto public roads from earth moving equipment causing amenity issues and public safety should material make road conditions slippery.	Construction, Operation, Closure	Rare	Moderate	

3.3.9 Monitoring

Monitoring arrangements for dust, silt and clay on roads are summarised in Table 22.

Table 22 Monitoring arrangements for dust, silt and clay on roads

#	Aspect to be monitored	Details of monitoring
1	Mud deposition on surrounding roads	Daily observation.
2	Visible dust emissions on roads	Daily observation.

3.3.10 Reporting

Reporting arrangements for dust, silt and clay on roads are summarised in Table 23.

Table 23 Reporting arrangements for dust, silt and clay on roads

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Mud deposition on surrounding roads	Weekly internal reporting increased to daily during wet weather.	Adaptive management during wet weather.
2	Visible dust emissions on roads	Report to ERC quarterly.	To assess improvement or maintenance requirements.

3.3.11 Relevant industry publications

Relevant industry publications for management and monitoring of dust, silt and clay on roads are listed in Table 24.

Table 24 Relevant industry publications for dust, silt and clay on roads

#	Document	Source

3.3.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 25.

Table 25 CGT reference documents – dust, silt and clay on roads

#	Document	Location
1	CEMP	

3.4 Erosion and Sedimentation**3.4.1 Scope and Background**

This risk treatment plan is for control of erosion and sedimentation.

There is an external catchment upstream of the TSF4. The concept design is for interception and diversion of surface run-off from the external catchment away from the TSF4 impoundment via perimeter surface drains. Runoff is directed north and south around the TSF4 via existing gullies and or constructed diversion/catch drains during Stage 1 construction and primarily via new diversion and catch drains on during Stage 2 construction and during operation of the TSF4.

It is proposed that all surface runoff is directed via drains around the TSF4 to a new sedimentation basin located immediately downstream of the final TSF4 embankment. Treated surface run-off from the TSF4 sedimentation basin will be directed to the surge dam to then enter the approved mine water circuit management system.

Once completed, TSF4 will be capped and vegetated (in accordance with detail design). Surface drainage is part of the part of the closure plan.

3.4.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 26.

Table 26 Key sensitive receptors for erosion and sedimentation

#	Details of the Sensitive Receptor	Location and proximity to site
1	Surface waterways in the vicinity of the activity areas and associated aquatic habitat, flora and fauna	Yarrowee River located 270 m west of TSF4 site boundary (about 300 m west of the TSF4 embankment). Small tributaries located on the southern side of Whitehorse Road
2	Public road	Whitehorse Road on southern edge of site

3.4.3 Risk events

Risk events associated with erosion and sedimentation are listed in Table 27.

Table 27 Risk events for erosion and sedimentation

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Destabilising surface. Surface water run-off (including stormwater) impacted (turbidity) by soils/weathered rock generated during construction discharging off-site and leading to impacts beneficial uses of the local water environment. Including stockpiles.	Construction, Operation, Closure	Possible	Minor	Medium
2	Erosion of the final (or near final) landform shape for TSF4 area before topsoiling and a vegetation cover is established, or should vegetation cover not be established through species choice or insufficient growth medium.	Operation, Closure	Likely	Minor	Medium

3.4.4 Objectives

The key objectives of this risk treatment plan are to:

- Prevent erosion and sediment runoff from onsite activities
- Minimise offsite impacts of erosion and sediment run-off on the surrounding environment
- Protect the beneficial uses of water environments as defined in the SEPP (Waters)
- To leave the site in a safe, stable and sustainable state.

3.4.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Water Act (1989)*
- *Catchment and Land Protection Act (1994)*
- SEPP (Waters)
- EPA Publication 480 - Environmental Guidelines for Major Construction Sites

3.4.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- No delivery of sediment to land or waterways outside the licence area beyond what is permitted by the SEPP (Waters).
- No unmanaged areas of active soil erosion within the licence area or adjacent areas from site discharges.

3.4.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 28.

Table 28 Controls to address erosion and sedimentation

#	Details of controls being used	Risk Events being managed	Performance measures
1	Maintain interception drains upstream and downstream of areas of disturbed ground, including the TSF, stockpiles and unsealed roads to minimise surface water flow onto such areas.	1,2	Interception drains maintained and operating effectively.
2	Runoff water generated at the TSF4 site is to be directed to the new Sedimentation Pond and existing Surge Dam.	1,2	All site runoff directed to siltation dams.
3	Maintain sediment control structures to retain water until sediment from the design storm event has fallen out of suspension.	1,2	Silt in sediment control structures removed as appropriate to allow for ongoing effective use.
5	Stabilise soil stockpiles (e.g. seeded / roughened / mulched) and other disturbed areas as soon as practicable.	1	Stockpiles and other disturbed areas stabilised if not used for 28 days.
6	Maintain the slope and height of exposed stockpiles to minimise erosion and sediment generation to the extent practicable.	1	Topsoil stockpiled in battered heaps no more than 2 m in height.
7	Install and maintain effective velocity check and/or silt control structures in drainage lines to minimise scouring and sediment generation.	1,2	Appropriate silt control structures installed and maintained
8	Plan and construct the final landform to minimise erosion and sediment run-off.	1,2	Rehabilitated slopes graded. Stabilisation measures applied (e.g. mulch, seedlings, geotextiles, etc.).
9	Control erosion through progressive rehabilitation where practicable	1,2	Progressive rehabilitation is completed where practicable
10	Where appropriate, silt fencing will be installed around the perimeter of exposed soil stockpiles and at the toe of exposed batters	1,2	Silt fencing is installed where appropriate
11	Interception drains, diversion drains and silt fencing will be maintained free of accumulated sediments and obstructions.	1,2	Drains and silt fencing maintained free of accumulated sediments and obstructions.
12	Drains will be stabilised (e.g. with rock/geotextile/shotcrete/other) where required to control erosion.	1,2	Drains stabilised where required in accordance with detailed design.
13	Final landforms will be shaped and prepared (e.g. ripping of hardstand areas) appropriately to facilitate drainage and vegetation growth where required.	2	Landforms are shaped and prepared to facilitate growth of vegetation where practicable.
14	Where practicable, revegetation plantings or seeding will be timed for the optimal time of year for survival.	2	Plantings / seeding is timed to take advantage of seasonal rainfall where practicable.
15	Appropriate protective fencing will be installed and maintained around revegetated areas where required.	2	Protective fencing is installed and maintained where required.

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#	Details of controls being used	Risk Events being managed	Performance measures
16	Rehabilitation plantings will be monitored and supplemented or replaced where required to provide adequate vegetation cover	2	Plantings are supplemented or replaced where required to meet rehabilitation objectives.

3.4.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 29.

Table 29 Residual risk ratings – erosion and sedimentation

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Surface water run-off (including stormwater) impacted (turbidity) by site activities discharging off-site outside of discharge criteria impacts beneficial uses of the local water environment. Including stockpiles.	All	Unlikely	Minor	Low
2	Erosion of the final (or near final) landform shape for TSF4 area before topsoiling and a vegetation cover is established, or should vegetation cover not be established through species choice or insufficient growth medium.	Operation, closure	Unlikely	Minor	Low

3.4.9 Monitoring

Monitoring arrangements for erosion and sedimentation are summarised in Table 30.

Table 30 Monitoring arrangements for erosion and sedimentation

#	Aspect to be monitored	Details of monitoring
1	Condition and effectiveness of sediment control structures	Erosion and sediment control measures will be checked daily and after each significant rainfall. The following items will be checked in particular: <ul style="list-style-type: none"> • Vegetated areas will be checked regularly to ensure that a good standard is maintained. Areas should be fertilised and reseeded as needed. • Interception drains, diversion drains and silt fencing to ensure that they are maintained free of accumulated sediments and obstructions • Hard erosion control features are in good condition and are repaired as necessary • The level of water stored and the need for drainage • The level of sediment build-up and the need for removal • The water inlets and outlets will be checked regularly to prevent the initiation of rill or gully erosion.
2	Status and success of revegetation during site closure	Monitoring of initial establishment of vegetation and long-term monitoring to evaluate progress of rehabilitation towards end use objectives

3.4.10 Reporting

Reporting arrangements for erosion and sedimentation are summarised in Table 31.

Table 31 Reporting arrangements for erosion and sedimentation

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Condition and effectiveness of sediment control structures	Site management as required. Quarterly report to the ERC.	Use data to plan maintenance or upgrade of drainage sediment control features.
2	Status and success of revegetation during site closure	Site management as required. Quarterly to ERC.	To track progress towards closure criteria

3.4.11 Relevant industry publications

Relevant industry publications for management and monitoring of erosion and sedimentation are listed in Table 32.

Table 32 Relevant industry publications for erosion and sedimentation

#	Document	Source
1	EPA Publication 480 - Environmental Guidelines for Major Construction Sites	EPA

3.4.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 33.

Table 33 CGT reference documents – erosion and sedimentation

#	Document	Location
1	CGT Stormwater and Erosion Management Plan	Internal CGT document
4	AECOM, 2019. <i>Whitehorse Gully TSF Concept Design Report</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd.	Prepared to support WPV

3.5 Fire

3.5.1 Scope and Background

This risk treatment plan is for control of and response to bushfire.

Due to the location of the mining operations and the general proximity to residential areas and surrounding softwood plantations, the potential for fire (both within and adjacent to operations) is of concern. The mine site is covered by a Bushfire Management Overlay and is within a Designated Bushfire Prone Area.

CGT has a close working relationship with the local fire authorities. An agreement has been negotiated to ensure that services will be available to support CGT and the specific needs that it may have in the event of a fire.

An Emergency Response Management Plan has been prepared for the overall Ballarat Gold Mine operation that addresses fire management in detail.

3.5.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 34.

Table 34 Key sensitive receptors for fire

#	Details of the Sensitive Receptor	Location and proximity to site
1	Crown land	The site is located on Crown land and is adjacent to other Crown land managed by CGT, Central Highlands Water (CHW) and Hancock Victoria Plantations (HVP) for forestry purposes.
2	Residences and property in the vicinity of the site	Residential areas are located to the east of the area, with the highest density of residential properties in proximity to the site along Tinworth Avenue.
3	Central Highlands Water tank and storage	Located on the east of the area site, immediately adjacent to the works area.
4	ESO5 planning overlay for koala habitat protection (native vegetation)	ESO5 overlay to the immediate east of the TSF4 impoundment area.

3.5.3 Risk events

Risk events associated with fire are listed in Table 35.

Table 35 Risk events for fire

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Plant/ hot work starting uncontrolled fire and potentially spreading off-site and causes property damage and/ or injury or death.	All	Possible	Critical	Very High

3.5.4 Objectives

The key objectives of this risk treatment plan are to:

- Control potential sources of fire ignition and activities that could lead to fire ignition and escape on days of elevated fire danger
- Minimise environmental and human safety risks associated with fires burning onto a licence area.

3.5.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *County Fire Authority Act (1958)*
- Country Fire Authority Regulations (2015)
- *Planning and Environment Act (1987)*
- Code of Practice for Bushfire Management on Public Land (2012).

3.5.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Any fire ignitions originating within the licence area are contained within it
- Grass or bushfires burning onto the licence area do not cause health or safety incidents and result in minimal environmental harm.

3.5.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 36.

Table 36 Controls to address fire

#	Details of controls being used	Risk Events being managed	Performance measures
1	For sites located on bushfire prone land, develop and implement "hot work" procedures for the conduct of activities in the open that are a potential source of fire ignition.	1	Written hot work procedures developed and implemented.
2	No "hot work" to be undertaken in the open air on days of Total Fire Ban without a permit from the CFA.	1	Permit to be in place by CFA if emergency hotwork is required.
3	Provide fire-fighting equipment in all on-site vehicles and mobile plant and maintain the equipment in good working order.	1	Fire-fighting equipment in all vehicles and maintained as per the maintenance schedule.
4	Relevant personnel working on sites in bushfire prone areas will be provided with information and training regarding the fire hazard conditions in the area, "hot work" procedures, relevant emergency response procedures and use of applicable equipment.	1	100% of relevant personnel trained within 1 month of commencement.
5	Internal-combustion engines will be fitted with exhaust pipes, mufflers and spark arresters (where consistent with manufacturers specifications) and maintained in good working order.	1	Where consistent with manufacturers specifications engines are fitted with spark arresting devices.
6	For sites located on bushfire prone land, check the National Fire Danger Rating for the area of the site each work day during the prescribed fire danger period. Communicate the hazard rating and any specific instructions to site personnel.	1	Fire Danger Rating checked daily and communicated to site personnel.
7	Implementation of the site Emergency Response Plan in the event of a fire.	1	Emergency Response Plan is up to date and is implemented appropriately in case of fire.

3.5.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 37.

Table 37 Residual risk ratings - fire

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Plant/ hot work starting uncontrolled fire and potentially spreading off-site and causes property damage and/ or injury or death.	All	Rare	Major	Medium

3.5.9 Monitoring

Monitoring arrangements for fire are summarised in Table 38.

Table 38 Monitoring arrangements for fire

#	Aspect to be monitored	Details of monitoring
1	Hot work approvals.	Establish and maintain a register of hot work approvals and hot works undertaken.

#	Aspect to be monitored	Details of monitoring
2	Training of personnel in high fire risk area.	Record of numbers and details of staff trained
3	Fire hazards	Conduct daily visual inspections of work areas
4	Fire readiness and response procedures and equipment	Internal auditing of procedures, equipment and facilities.
5	Fire extinguishers	Arrange for external inspection of fire extinguishers as per Australian Standards AS 1851 and AS 2444.
6	Fire danger rating	Check CFA website daily during hot / dry weather
7	Hot work approvals.	Establish and maintain a register of hot work approvals and hot works undertaken.

3.5.10 Reporting

Reporting arrangements for fire are summarised in Table 39.

Table 39 Reporting arrangements for fire

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Hot work approvals.	Monthly internal reporting and safety compliance assurance.	To ensure risks are being managed.
2	Training of personnel in high fire risk area.	Site management annually prior to fire season.	Availability of trained personnel to assist in fire emergency.
3	Fire hazards	Site management as required	To identify and address potential fire hazards
4	Fire readiness and response procedures and equipment	Site management as required	To ensure site requirements are met
5	Fire extinguishers and hydrants	Site management as required	To ensure fire extinguishers are maintained
6	Fire danger rating	Daily as required during works.	To identify and address potential fire hazards
7	Fire on-site	Reportable event to ERR as soon as practicable.	

3.5.11 Relevant industry publications

Relevant industry publications for management and monitoring of fire are listed in Table 40.

Table 40 Relevant industry publications for fire

#	Document	Source
1	CFA Bushfire Management Template: Pathway 2	https://www.cfa.vic.gov.au/plan-prepare/bushfire-management-statement-bms-templates

3.5.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 41.

Table 41 CGT reference documents - fire

#	Document	Location
1	Hotworks Procedure	CGT document
2	Emergency and Crisis Management Plan (including Fire response and readiness plan)	CGT document

3.6 Flood

3.6.1 Scope and Background

This risk treatment plan is for control of hazards associated with high rainfall (Probable Maximum Flood- PMF).

The major flood risk associated with the project is a high rainfall event which then leads to TSF embankment failure and flooding of the Yarrowee River and downstream receptors.

Dambreak and consequence modelling was completed as part of the Conceptual Design.

TSF4 is designed in accordance with ANCOLD and ERR TSF guidelines with capacity to store the 1:100 AEP 72-hour storm event and maintain a minimum freeboard of 0.2m. A diversion drain around the TSF perimeter is designed to divert surface water flows. The TSF also has an emergency spillway, designed to bypass flows away from the wastewater treatment plant, sized with capacity for the Probable Maximum Flood (PMF) event.

During operations, water is decanted from both TSF cells and pumped to the process water tank (located to the northeast of the TSF) then recycled for daily processing plant operations.

The detailed design will be prepared prior to construction, and all site preparation, construction, material placement etc, will be in accordance with the detailed design.

3.6.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 42.

Table 42 Key sensitive receptors for flood

#	Details of the Sensitive Receptor	Location and proximity to site
1	Surface waters	Yarrowee River located 270 m west of TSF4 site boundary (about 300 m west of the TSF4 embankment). Small tributaries located on the southern side of Whitehorse Road
2	Public safety	Bike path/ walking track located along the Yarrowee River
3	Public safety and private property	<ul style="list-style-type: none"> One house identified to be 1.8 km downstream that is at risk of being inundated under a flood failure scenario. Six roads identified downstream that are at risk of being impacted under a flood failure scenario, the farthest being 16 km downstream, the closest being Whitehorse Road.
4	Public infrastructure	<ul style="list-style-type: none"> Public infrastructure - (six roads) Public infrastructure - Utilities (CHW aqueduct along the Yarrowee River, with pumping station on Docwra Street approximately 1.8 km downstream and 220kV Ballarat- Terang transmission line which crosses the Yarrowee River approximately 5.5 km downstream of the TSF.

3.6.3 Risk events

Risk events associated with flooding are listed in Table 43.

Table 43 Risk events for flood

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of	Operation, Rehabilitation	Unlikely	Critical	High

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
	Yarrowee River and impacts downstream, with it modelled that one resident, a number of public roads and the bike path would be impacted.				
2	TSF4 is at partial capacity and failure of embankment occurs sometime post (and as a result of) a PMF rainfall event, resulting in tailings release (no flooding of Yarrowee River).	Operation, Rehabilitation	Unlikely	Critical	High
3	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream, with public infrastructure modelled to be within the flood zone (Docwra Street pumping station and CHW aqueduct along Yarrowee River).	Operation, Rehabilitation	Unlikely	Moderate	Medium
4	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream surface water quality.	Operation, Rehabilitation	Unlikely	minor	low

3.6.4 Objectives

The key objectives of this risk treatment plan are to:

- Control risks of flood impacts to receptors downstream of the TSF
- Protect the beneficial uses of local waterways as defined in the SEPP (Waters)

3.6.5 Compliance standards

The compliance standards for this risk treatment plan are:

- Australian National Committee on Large Dams (ANCOLD) Guidelines on Tailings Dams (2012)
- ERR Technical Guidelines – Design and Management of Tailings Storage Facilities (2017)
- *Water Act (1989)*
- SEPP (Waters)

3.6.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Operation, monitoring and maintenance of TSF4 per ANCOLD and ERR guidelines to minimise flood risk

3.6.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 44.

Table 44 Controls to address flood

#	Details of controls being used	Risk Events being managed	Performance measures
1	Maintenance of diversion drains and emergency spillway chute	1,2	Any blockages to be removed as soon as possible
2	Operation to maintain low pond levels that separate pond from TSF wall by tailings beach	1,2	Pond and beach levels maintained to provide required freeboard during storm event. Water only against wall during extreme flood events.
3	Dual flow meters at inlet and outlet with alarms and automatic shutdown system.	1,2	
4	Monitor severe weather warnings from BoM	1,2	
5	Implement Operations and Maintenance Manual	1,2	TSF4 operation and management manual to be in place prior to tailings deposition.
6	Implementation of Emergency Response Plan	1,2	Site emergency response plan is up to date and is implemented appropriately in case of flood events

3.6.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 45.

Table 45 Residual risk ratings - flood

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream, with it modelled that one resident, a number of public roads and the bike path would be impacted.	Operation, Rehabilitation	Unlikely	Critical	High
2	TSF4 is at partial capacity and failure of embankment occurs sometime post (and as a result of) a PMF rainfall event, resulting in tailings release (no flooding of Yarrowee River).	Operation, Rehabilitation	Unlikely	Critical	High
3	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream, with public infrastructure modelled to be within the flood zone (Docwra Steet pumping station and CHW aqueduct along Yarrowee River).	Operation, Rehabilitation	Unlikely	Moderate	Medium
4	TSF4 is at full capacity and failure of embankment occurs immediately following (and as a result of) a PMF rainfall event leading to flooding of Yarrowee River and impacts downstream surface water quality.	Operation, Rehabilitation	Unlikely	minor	low

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3.6.9 Monitoring

Monitoring arrangements for flood management are summarised in Table 46.

Table 46 Monitoring arrangements for flood

#	Aspect to be monitored	Details of monitoring
1	Rainfall monitoring	<i>Daily</i> Onsite rainfall station. VicEmergency and news streams
2	Pond level	<i>Twice Weekly to Weekly</i> The reduced level (mAHD) of the decant pond read daily. Gauge boards at the decant pond would be a suitable option.
3	Pore Pressure	<i>Weekly</i> A series of vibrating wire piezometers will be installed within the TSF4 embankment and foundation. The piezometer layout will be detailed during detailed design. As a guide, this will likely comprise approx. 9 piezometers in total, (approx. three (3) piezometers at the maximum section, and at both the left and right abutments). Piezometers installed within the underdrainage, including immediately upstream of the embankment, to monitor its long-term performance, are also recommended (minimum of 4 piezometers).
4	Surface Deformation Markers	<i>Monthly for a period of one (1) year post construction, then reduced to quarterly / 6-monthly (subject to the assessed performance over the first year).</i> Surface Deformation Markers (SMPs) will be installed along the embankment crest at nominally 100 m intervals. This will be confirmed in detailed design.
5	Routine inspections	<i>Twice Weekly to Weekly</i> The frequency of Routine Visual Inspections is guided by the Consequence Category. For a 'High A' Consequence Category storage, ANCOLD (2012a) recommends Routine Visual Inspections are undertaken weekly to twice weekly.
6	Provision of Non-Routine (Special) Inspections	Following events such as major rainfalls resulting in excess water in the TSF, seismic events, where abnormal behaviour has been identified (seepage, deformation, cracking etc.).
7	Dam safety inspections	Table 9 and 10 of ANCOLD (2012a) provides guidance on the level and frequency of Dam Safety Inspections. Broadly speaking, there are two types of Dam Safety Inspections: Comprehensive; and Intermediate. A Comprehensive Inspection includes a thorough onsite inspection, the reviewing and evaluating of surveillance records, and assessing the dam against current and previous design standards. The onsite inspection includes test operation of equipment (there can be exceptions to this). Comprehensive Inspections should be undertaken by experienced dams engineers and specialists (where relevant). An Intermediate Inspection includes a visual examination of the dam and review of surveillance data against prevailing knowledge. Intermediate Inspections should be undertaken by experienced dams engineers. For a High Consequence Category storage, it is recommended that the following be undertaken:

#	Aspect to be monitored	Details of monitoring
		<ul style="list-style-type: none"> Comprehensive Inspections: after first year of operations, then every two (2) years. Intermediate Inspections: every other year.
7	Post-closure monitoring	To be developed and designed in accordance with recommendations in the Concept Design.

It is noted that the frequencies may be varied depending on the final design and an understanding of the performance of the embankment is developed in operation. This would be refined within the Operation and Maintenance Manual.

3.6.10 Reporting

Reporting arrangements for flood management are summarised in Table 47.

Table 47 Reporting arrangements for flood

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Rainfall monitoring	Log to be kept, and to CGT process manager as required.	To track weather conditions related to flood risk
2	Pond level	To CGT control room.	To monitor and manage pond levels and flood risk To ensure pump is operating correctly and identify need for any corrective action
3	Pore Pressure	To CGT control room..	To track pore water pressures within the embankment, and assess any associated stability risks, and within the tailings to indicate effectiveness of the underdrainage
4	Surface Deformation Markers	To CGT process manager.	To track crest settlement and movement
5	Provision of Non-Routine (Special) Inspections	To process manager.	To identify need for corrective actions.
6	Dam safety inspections (including routine inspections)	To process manager.	To identify the need for repairs (e.g. of erosion) or other corrective actions
7	Post-closure monitoring	Site management as required	To identify any actions needed to address erosion or differential settlements
8	Any dam failure or leakage of tailings	ERR reportable event- as soon as practicable after the event.	

3.6.11 Relevant industry publications

Relevant industry publications for management and monitoring of flood hazards are listed in Table 48.

Table 48 Relevant industry publications for flood

#	Document	Source
1	<ul style="list-style-type: none"> ANCOLD Guidelines on Tailings Dams – Planning, Design, Construction, Operation and Closure 	ANCOLD (2012)

#	Document	Source
2	<ul style="list-style-type: none"> ERR Technical Guidelines – Design and Management of Tailings Storage Facilities (2017) 	ERR

3.6.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 49.

Table 49 CGT reference documents - flood

#	Document	Location
1	Emergency Response Plan	Internal
2	TSF4 operations and maintenance manual.	Internal
3	AECOM, 2019. <i>Whitehorse Gully TSF Concept Design Report</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd. This document also includes Independent Technical Review of the conceptual design completed by Golder which is included in Appendix I of the design document.	Prepared for WPV.

3.7 Ground Disturbance

3.7.1 Scope and Background

This risk treatment plan is for control of impacts from ground disturbance due to construction and maintenance activities. Ground disturbance outside of previously disturbed areas has the potential to impact native vegetation and Aboriginal and/or historical heritage features or public infrastructure (sub-surface services, mainly the CHW pipeline asset).

The predominant vegetation at the mine site is pine plantation, and, prior to plantation of pines, the area was subjected to intensive alluvial gold mining resulting in intensive ground disturbance. Exemptions for a permit for native vegetation removal within the plantation area largely apply, and where they do not apply permits and off-sets will be sought, such as within the ESO5 layer or other areas which has been assessed to be not within the plantation. A native vegetation survey has been undertaken by an assessor accredited by DELWP and documented in an assessment report, prepared by AECOM.

The area is not subject to a cultural heritage sensitivity layer, and therefore intersection of cultural material is not included as a risk event. One Heritage Inventory (HI) area is present adjacent to Whitehorse Road, and, as part of the project design, is outside the disturbance area, which will be delineated by a fence.

3.7.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 50.

Table 50 Key sensitive receptors for ground disturbance

#	Details of the Sensitive Receptor	Location and proximity to site
1	Native vegetation	Native vegetation identified on-site. ESO5 planning overlay for koala habitat protection (native vegetation) immediate east of the TSF4 impoundment area.
2	European historic heritage	One Heritage Inventory site currently located in the vicinity of the site- however HI site is within the nominated exclusion zone.
3	Public utilities- services.	Central Highlands Water have a header tank immediately east adjacent to the works area. A CHW pipeline transverses the northern section of the site.

#	Details of the Sensitive Receptor	Location and proximity to site
4	Residences and property in the vicinity of the TSF site	Closest residences located ~100 m east of the TSF4 site on Whitehorse Road and Tinworth Avenue.

3.7.3 Risk events

Risk events associated with ground disturbance are listed in Table 51.

Table 51 Risk events for ground disturbance

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Unauthorised clearance of vegetation resulting in loss of native vegetation and habitat not permitted to be removed.	Construction, operation	Likely	Moderate	Medium
2	Damaging Heritage items (European)	Construction, operation	Unlikely	Major	High
3	Works and maintenance on TSF4 (and associated infrastructure), including via heavy vehicle traffic, damages CHW assets (e.g. Supply Pipeline & Header Tank)	Construction, operation, rehabilitation	Possible	Major	High
4	Encroachment and undertaking works without Consent from landowner within 100m at surface to and 100m vertically	All	Possible	Moderate	Medium

3.7.4 Objectives

The key objectives of this risk treatment plan are to:

- Minimise ground disturbance
- Protect remnant native vegetation on site where possible
- Minimise any unavoidable losses of native vegetation
- Prevent damage to historical heritage and public infrastructure

3.7.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Flora and Fauna Guarantee Act 1988*
- *Planning and Environment Act 1987*
- *Heritage Act 2017*
- Guidelines for the removal, destruction or lopping of native vegetation 2017

3.7.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- No loss of or damage to remnant native vegetation outside any exemptions applicable for the site.
- No damage to historical heritage and public infrastructure

3.7.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 52.

Table 52 Controls to address ground disturbance

#	Details of controls being used	Risk Events being managed	Performance measures
1	Avoid disturbance of areas outside the approved development footprint.	All	No areas disturbed outside of the approved development footprint
2	No clearing of vegetation will be undertaken without approval from the CGT Environment and Community Manager to avoid accidental clearing of remnant native vegetation.	1	Approval obtained prior to any clearing
3	Staff and contractor induction will include recognition and protection of environmental values.	1	All employees and contractors receive site-specific environmental induction.
4	Clearing / grubbing will only be permitted during daylight hours	1	Ground disturbance only undertaken during daylight hours
5	Ensure all personnel are inducted (where required) regarding their heritage responsibilities under the relevant legislation	2,3	All employees and contractors receive site-specific environmental induction.
6	Employees and contractors will be educated regarding the location of the HI sites as part of site induction.	2,3	All employees and contractors receive site-specific environmental induction.
7	The identified heritage site will be outside the activity area (in exclusion zone) and will be clearly signposted to avoid unintentional disturbance	2,3	Known sites signposted
8	Location of the CHW pipeline to be checked and confirmed with CHW prior intrusive works and consultation with utility provider if required to confirm location of assets, with pipeline to be surveyed. Asset protection (fence offset 5m from pipeline) constructed and in place prior to main construction phase commencing.	3	Pipeline surveyed. Site supervisor to check all locations of works with respect to the pipeline and approve intrusive works Asset protection to be in place (fence offset 5m from pipeline).
9	Dial before you dig plans to be obtained prior to intrusive works.	3	Review of DBYD plans
10	All intrusive works must receive approval under the CGT internal dig permit	all	Receipt of CGT dig permit.
11	Designated crossing for traffic over CHW pipeline defined, with detailed design of crossing point for all vehicular traffic including pipeline protection from vehicle traffic.	3	Detailed design and use of designated pipeline crossing point.
12	Establishment of a 100m buffer from residential properties from which all works are excluded. Buffer to be surveyed and marked clearly on site.	4	Buffer to be surveyed prior to any works. No works encroachment into the buffer.

3.7.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 53.

Table 53 Residual risk ratings – ground disturbance

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Unauthorised clearance of vegetation resulting in loss of native vegetation and habitat not permitted to be removed.	Construction, operation	Unlikely	Minor	Low
2	Damaging Heritage items (European)	Construction, operation	Rare	Major	Medium
3	Works and maintenance on TSF4 (and associated infrastructure) impacting of CHW assets (e.g. Supply Pipeline & Header)	Construction, operation, rehabilitation	Rare	Major	Medium
4	Encroachment and undertaking works without Consent from landowner within 100m at surface to and 100m vertically	All	Rare	Moderate	Low

3.7.9 Monitoring

Monitoring arrangements for ground disturbance are summarised in Table 54.

Table 54 Monitoring arrangements for ground disturbance

#	Aspect to be monitored	Details of monitoring
1	Accidental damage or loss of retained areas of native vegetation	Inspect identified areas of native vegetation daily when activities affect those areas
2	Evidence of potential utilities	Reported as an incident if uncovered or struck.

3.7.10 Reporting

Reporting arrangements for ground disturbance are summarised in Table 55.

Table 55 Reporting arrangements for ground disturbance

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Accidental damage or loss of retained areas of native vegetation	Report to site management and DELWP as required.	To determine the need for any offsets and/or corrective actions.
2	Disturbance of historical heritage values.	Report disturbance of known sites to appropriate authority (Heritage Victoria).	To determine the need for any corrective actions.
3	Utility strike	Report to site management and utility owner	To determine need for corrective actions.

3.7.11 Relevant industry publications

Relevant industry publications for management and monitoring of ground disturbance are listed in Table 56.

Table 56 Relevant industry publications for ground disturbance

#	Document	Source

3.7.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 57.

Table 57 CGT reference documents – ground disturbance

#	Document	Location
1	Site Layout Plan	Work Plan Variation
2	Dig Permit	Internal
3	Vegetation Condition Assessment report, prepared by AECOM, 2020.	Work Plan Variation supporting documentation
4	Planning permit to remove native vegetation	To be retained on file.
5	Plantation Licence	To be retained on file.

3.8 Ground Instability

3.8.1 Scope and Background

This risk treatment plan is for control of ground instability. The primary ground instability risks for the project are associated with instability of the TSF embankment and final landform.

TSF4 has had a conceptual design in accordance with ANCOLD and ERR standards. Under ANCOLD Guidelines on Consequence Assessment (ANCOLD 2012), the TSF has been assigned a Consequence Category of High A.

TSF design features include:

- Constructed on bedrock.
- Fully drained design for impoundment.
- Embankment designed with an upstream slope of 1V:2.5H and a downstream slope of 1V:3H.
- Lifts to the embankment will be 'downstream' lifts
- Diversion drain around the perimeter designed to divert flows up to the 1:100 AEP 72-hour storm event
- Emergency spillway sized with capacity for the PMF event
- Engineered cap upon closure.

A detailed design will be prepared prior to construction, and all site preparation, construction, material placement etc, will be in accordance with the detailed design.

3.8.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 58.

Table 58 Key sensitive receptors for ground instability

#	Details of the Sensitive Receptor	Location and proximity to site
1	Surface waters	Yarrowee River located 270m west of TSF4 site boundary (about 300 m west of the TSF4 embankment). Small tributaries located on the southern side of Whitehorse Road
2	Public safety	Bike path/ walking track located along the Yarrowee River
3	Public safety and private property	One house identified to be 1.8 km downstream that would be inundated (1m) under a flood failure scenario.
4	Public safety and public infrastructure	Six roads identified downstream that would be impacted under a flood failure scenario, the farthest being 16 km downstream.

#	Details of the Sensitive Receptor	Location and proximity to site
		Bridge at Whitehorse Road over the Yarrowee River CHW assets, including aqueduct (above ground pipeline running along the Yarrowee River) and pumping station downstream.
5	Groundwater	Regional groundwater level is ~11-12m below ground surface downstream of TSF4.

3.8.3 Risk events

Risk events associated with ground instability are listed in Table 59.

Table 59 Risk events for ground instability

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Striking voids or unknown adits causes unexpected collapse or future instability of TSF leading to impacts on public safety	Construction, operation and rehabilitation	Possible	Critical	Very High
2	TSF4 embankment failure from internal erosion leading to release of tailings which reach Whitehorse Road and impact on public safety (sunny day failure model).	Operation, Closure	Unlikely	Critical	High
3	Differential settlement of tailings such that there is a loss in shape of the final TSF landform so that it does not meet the closure criteria.	Rehabilitation	Possible	Moderate	Medium
4	Striking voids or unknown/unmapped adits or geotechnical anomalies causes unexpected collapse or future instability of TSF leading to impacts on public safety if dam embankment fails as a result.	Construction, operation and rehabilitation	Possible	Critical	High
5	Striking voids, unknown adits or geotechnical anomalies causes unexpected collapse or future instability of TSF leading to impacts on underlying groundwater and impacting on beneficial uses of groundwater.	Construction, operation and rehabilitation	Possible	Minor	Medium

3.8.4 Objectives

The key objectives of this risk treatment plan are to:

- Ensure safe and stable containment of tailings
- Ensure safe and stable landforms during operations
- Ensure safe, stable and sustainable landforms upon closure

3.8.5 Compliance standards

The compliance standards for this risk treatment plan are:

- Australian National Committee on Large Dams (ANCOLD) Guidelines on Tailings Dams (2012)
- ERR Technical Guidelines – Design and Management of Tailings Storage Facilities (2017)
- ERR Guidelines for Environmental Management in Exploration and Mining – Rehabilitation Plans and Other Aspects of Work Plans
- Mining Licence conditions

3.8.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Containment of tailings is safe and stable
- Landforms are safe and stable during operations
- Post-closure landforms are safe, stable and sustainable

3.8.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 60.

Table 60 Controls to address ground instability

#	Details of controls being used	Risk Events being managed	Performance measures
1	Map known adits or geotechnical anomalies prior to construction works, using known maps, site knowledge and geophysical surveys.	1, 4, 5	Identification of adits during foundation works
2	Implementation of specification as detailed design, such as chase out surface anomalies or cap with dental concrete prior to sub-grade construction.	1, 4, 5	Specification to remove/ make safe the anomalies to be followed as per detailed design.
3	Dual flow meters at inlet and outlet with alarms and automatic shutdown system.	2	
4	Early warning system - alarms at CGT	2	Alarms are in place and maintained
5	Implement Operations and Maintenance Manual	2,3	TSF4 operation and management manual to be in place prior to tailings deposition.
6	Control erosion through progressive rehabilitation / revegetation where practicable	3	Progressive rehabilitation is completed where practicable
7	Provide engineered cap, including layer of suitable topsoil.	3	Cap to be placed in a timely manner following the filling of the storage.
8	Revegetate the TSF embankment and cap with suitable species	3	Revegetation of final landform to be completed in a timely manner following filling of the storage
9	Provide adequate cover to allow for consolidation of tailings (mounding)	3	Final landform suitable to meet closure criteria for drainage and vegetation establishment
10	If required, recontour landform of the completed TSF to ensure that there is no opportunity for ponding of water on the surface	3	Final landform suitable to meet closure criteria for drainage and vegetation establishment
11	Periodic review of groundwater monitoring network, including integrity checks of monitoring bores.	5	Annual review of monitoring data.

3.8.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 61.

Table 61 Residual risk ratings – ground instability

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Striking voids or unknown adits causes unexpected collapse or future instability of TSF leading to impacts on public safety or groundwater	Construction, operation and rehabilitation	Unlikely	Critical	High
2	TSF4 embankment failure from internal erosion leading to release of tailings which reach Whitehorse Road and impact on public safety (sunny day failure model).	Operation, Closure	Rare	Critical	High
3	Differential settlement of tailings such that there is a loss in shape of the final TSF landform so that it does not meet the closure criteria.	Rehabilitation	Unlikely	Minor	Low
4	Striking voids or unknown adits causes unexpected collapse or future instability of TSF leading to impacts on public safety if dam embankment fails as a result.	Construction, operation and rehabilitation	Unlikely	Critical	High
5	Striking voids or unknown adits causes unexpected collapse or future instability of TSF leading to impacts on underlying groundwater and impacting on beneficial uses of groundwater.	Construction, operation and rehabilitation	Unlikely	Minor	Low

3.8.9 Monitoring

Monitoring arrangements for ground instability are summarised in Table 62.

Table 62 Monitoring arrangements for ground instability

#	Aspect to be monitored	Details of monitoring
1	Surface Deformation Markers	<p><i>Monthly for a period of one (1) year post construction, then reduced to quarterly / 6-monthly (subject to the assessed performance over the first year).</i></p> <p>Surface Deformation Markers (SMPs) will be installed along the embankment crest at nominally 100 m intervals. This will be confirmed in detailed design.</p>
2	Provision of Non-Routine (Special) Inspections	Following events such as major rainfalls resulting in excess water in the TSF, seismic events, where abnormal behaviour has been identified (seepage, deformation, cracking etc.).
3	Dam safety inspections	<p>Table 9 and 10 of ANCOLD (2012a) provides guidance on the level and frequency of Dam Safety Inspections. Broadly speaking, there are two types of Dam Safety Inspections: Comprehensive; and Intermediate.</p> <p>A Comprehensive Inspection includes a thorough onsite inspection, the reviewing and evaluating of surveillance records, and assessing the dam against current and previous design standards. The onsite inspection includes test operation of equipment (there can be exceptions to this). Comprehensive Inspections should be undertaken by experienced dams engineers and specialists (where relevant).</p> <p>An Intermediate Inspection includes a visual examination of the dam and review of surveillance data against prevailing knowledge. Intermediate Inspections should be undertaken by experienced dams engineers.</p>

#	Aspect to be monitored	Details of monitoring
		For a High Consequence Category storage, it is recommended that the following be undertaken: <ul style="list-style-type: none"> Comprehensive Inspections: after first year of operations, then every two (2) years. Intermediate Inspections: every other year.
4	Post-closure monitoring	To be developed and designed in accordance with recommendations in the Concept Design.
5	Groundwater levels and quality around the TSF (to verify any effects from stored tailings and any potential seepage)	Biannual gauging, sampling, and analysis of the Basement Aquifer down hydraulic gradient of TSF4. Including at a minimum, two wells down hydraulic gradient of the TSF (including at least one in the gully below the embankment toe), and two wells up hydraulic gradient of the TSF for baseline purposes. Water quality parameters to include pH, WAD Cyanide, thiocyanate, TDS. Major ions: Sulphate, Chloride, Carbonate, Bicarbonate, Sodium, Magnesium, Potassium, Nitrate and Ammonia. Metals: As, Cd, Cr, Co, Cu, Fe, Mn, Mo, Ni, Sb, Se and Zn.

3.8.10 Reporting

Reporting arrangements for ground instability are summarised in Table 63.

Table 63 Reporting arrangements for ground instability

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Surface Deformation Markers	To CGT process manager.	To track crest settlement and movement
2	Provision of Non-Routine (Special) Inspections	To process manager.	To identify need for corrective actions.
3	Dam safety inspections	To process manager.	To identify the need for repairs (e.g. of erosion) or other corrective actions
4	Post-closure monitoring	Site management as required	To identify any actions needed to address erosion or differential settlements
5	Dam failure and/ or tailings release	Reportable event to ERR as soon as practicable.	
6	Groundwater levels and quality	Quarterly to ERC Monthly to site management	To verify any effects from stored tailings and any potential seepage

3.8.11 Relevant industry publications

Relevant industry publications for management and monitoring of ground instability are listed in Table 64.

Table 64 Relevant industry publications for ground instability

#	Document	Source
1	ANCOLD Guidelines on Tailings Dams – Planning, Design, Construction, Operation and Closure	ANCOLD (2012)

#	Document	Source
2	ERR Technical Guidelines – Design and Management of Tailings Storage Facilities (2017)	ERR website

3.8.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 65.

Table 65 CGT reference documents – ground instability

#	Document	Location
1	CGT Emergency Management Plan	Internal CGT document
2	CGT TSF4 Operations & Maintenance Manual	Internal CGT document
3	AECOM, 2019. <i>Whitehorse Gully TSF Concept Design Report</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd. This document also includes Independent Technical Review of the conceptual design completed by Golder which is included in Appendix I of the document	Prepared to support WPV

3.9 Hazardous Materials, including Fuel, Lubricants and Contaminated Soils

3.9.1 Scope and Background

This risk treatment plan is for the management of fuel, lubricants of hazardous materials used during the TSF4 activities, and also the potential to encountered unknown and potentially hazardous materials during construction.

Fuel and lubricants will be minimised within the works area, however a diesel tank will be on site for re-fuelling. This risk treatment plan also include management of spills and leaks of fuels and lubricants from plant and earth moving equipment and drilling rigs employed on the site during the activities.

Given the historical use of the site including illegal waste disposal and also historic mining activities, there is risk that the excavation works may uncover hazardous materials or historic contaminated soils.

Impacts from tailings placed in TSF4 impacting on groundwater and surface water are dealt with under the RTP for Wastewater.

3.9.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 66.

Table 66 Key sensitive receptors for fuel, lubricants and hazardous materials

#	Details of the Sensitive Receptor	Location and proximity to site
1	Groundwater	<ul style="list-style-type: none"> Groundwater level in the general area is ~11-25 m below ground surface. Potentially some perched water may be encountered on-site.
2	Surface waterways in the vicinity of the activity areas and associated aquatic habitat, flora and fauna	<ul style="list-style-type: none"> Yarrowee River located 270 m west of TSF4 site boundary (about 300 m west of the TSF4 embankment). Minor tributaries to the south of Whitehorse Road.
3	Soils	Onsite
4	Public safety	Unauthorised public access to the site.

3.9.3 Risk events

Risk events associated with this hazard are listed in Table 67.

Table 67 Risk events for fuel, lubricants and hazardous materials

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Spills or leaks of diesel from fuel tank to be stored on site, and spills and leaks of hydrocarbons or lubricants from plant and equipment used on site.	Operation, Closure	Possible	Minor	Medium
2	Encountering historic illegally placed waste, potentially hazardous material during works, or contaminated materials from historic mining, which may impact on beneficial uses of land or surface water if not managed correctly.	Construction	Likely	Moderate	High

3.9.4 Objectives

The key objectives of this risk treatment plan are to:

- Minimise the risk of fuels, lubricants and hazardous materials released into the environment through leaks, spills and through stormwater runoff.

3.9.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Dangerous Goods Act 1985*
- *Environment Protection Act 1970*
- Dangerous Goods (Storage and Handling) Regulations 2012
- Environment Protection (Scheduled Premises & Exemptions) Regulation (2007)
- Environment Protection (Industrial Waste Resource) Regulations (2009)
- SEPP (Waters)
- SEPP (Prevention and Management of Contaminated Land)
- AS 1940 – Storage and Handling of Flammable and Combustible Liquids
- EPA Publication 1698 - Liquid Storage and Handling Guidelines

3.9.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- State Environment Protection Policy (Waters). [SEPP Waters]
- State Environment Protection Policy (Prevention and Management of Contaminated Land). [SEPP Contaminated Land]
- Environment Protection (Industrial Waste Resource) Regulations (2009)
- AS1940 – Storage and Handling of Flammable and Combustible Liquids.

3.9.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 68.

Table 68 Controls to address fuel, lubricants and hazardous materials

#	Details of controls being used	Risk Events being managed	Performance measures
1	Diesel tank to be in self- bunded designated area.	1	Compliance with AS1940 – Storage and Handling of Flammable and Combustible Liquids.
2	Ensure spills/leaks of hydrocarbons are cleaned up as quickly as possible	1	Spills and leaks cleaned up as quickly as possible
3	Ensure instruction signage is erected at all temporary hydrocarbon transfer locations.	1	Instruction signage is installed
4	Spills to be managed in accordance with the spill response flow chart in the CGT Spill Response Technical Procedure.	1	Spills managed according to procedure
5	Servicing of vehicles and machinery to be conducted on hardstand workshop areas whenever possible	1	Servicing conducted on hardstand whenever possible
6	Servicing, lubricating and mechanical repair of vehicles which cannot be moved to approved servicing areas will only be carried out when approved by Area Manager.	1	Approval obtained when servicing cannot be conducted in approved areas
7	Inspection of equipment to ensure good working order, including inspection of nozzles and hoses, including prior to any on-site refuelling	1	All equipment to be inspected and be in good working order.
8	If suspected contaminated or hazardous materials are encountered, material to be sampled to determine management requirements.	2	All controls to be identified and implemented as required.
9	Any contaminated material to be stockpiled (as a temporary measure only) to be managed (dust, run-off etc) so that it does not impact beneficial uses.	2	Temporary stockpile of contaminated soils/ materials only pending management.
10	If require off-site disposal, hazardous materials will be transported and disposed of by EPA licensed transporters and receiving facilities.	2	Hazardous materials only transported and disposed of by licenced transporters / facilities

3.9.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 69.

Table 69 Residual risk ratings – fuel, lubricants and hazardous materials

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Spills or leaks of diesel from fuel tank to be stored on site, and spills and leaks of hydrocarbons or lubricants from plant and equipment used on site.	Operation, Closure	Unlikely	Minor	Low

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
2	Encountering historic illegally placed waste, potentially hazardous material during works, or contaminated materials from historic mining, which may impact on beneficial uses of land or surface water if not managed correctly.	Construction	Likely	Minor	Medium

3.9.9 Monitoring

Monitoring arrangements for hazardous materials and waste are summarised in Table 70.

Table 70 Monitoring arrangements for fuel, lubricants and hazardous materials

#	Aspect to be monitored	Details of monitoring
1	Hydrocarbon and chemical storage and handling areas	Storage and handling facilities inspected regularly to identify spills / leaks and ensure compliance with relevant standards
2	Spill control equipment and materials	Regular visual inspection
3	Equipment to have inspection as part of daily toolbox to ensure good working order.	Daily visual checks.
4	Observations of waste, hazardous material or soils to be documented.	Visual checks, and laboratory analysis as required.

3.9.10 Reporting

Reporting arrangements for fuel, lubricants and hazardous materials are summarised in Table 71.

Table 71 Reporting arrangements for fuel, lubricants and hazardous materials

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Hydrocarbon and chemical storage and handling areas	Spills of pollutants will be reported to site management as per site incident procedure. If significant, events will be reported to EPA and ERR as required.	To identify clean-up requirements and corrective actions
2	Spill control equipment and materials	To site management as required	To identify and correct deficiencies
3	Equipment and plant inspections	Documentation provided to the site supervisor	To identify correct actions prior to use.
4	Observations of waste, hazardous material or soils to be documented.	Documented to site supervisor and environment manager.	To identify management measures.

3.9.11 Relevant industry publications

Relevant industry publications for management and monitoring of hazardous materials and waste are listed in Table 72.

Table 72 Relevant industry publications for fuel, lubricants and hazardous materials

#	Document	Source
1	Refer to compliance standards.	

3.9.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 73.

C:\Users\lamie.cullum\Desktop\Project Folders\Ballarat CGT\Ballarat tsf4 V 2\Delivered\MIN4847- TSF4 WPV - Risk Management Plan - Final_1_14April_2020.docx
Revision 1 – 14-Apr-2020
Prepared for – Balmaine Gold Pty Ltd – ABN: 67 142 297 685

Table 73 CGT reference documents – fuel, lubricants and hazardous materials

#	Document	Location
1	Chemical and Hazardous Materials Management Plan	Internal CGT document
2	Spill Response Technical Procedure	Internal CGT document

3.10 Noise Pollution

3.10.1 Scope and Background

This risk treatment plan is for control of noise pollution.

Noise monitoring and modelling was completed as part of project design and modelling has assessed that activities will be below the applicable criteria.

3.10.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 74.

Table 74 Key sensitive receptors for noise pollution

#	Details of the Sensitive Receptor	Location and proximity to site
1	Public amenity at residences in the vicinity of TSF4	<ul style="list-style-type: none"> Closest residences are located ~100m east of the TSF4 site on Tinworth Avenue, and on Whitehorse Road.

3.10.3 Risk events

Risk events associated with noise pollution are listed in Table 75.

Table 75 Risk events for noise pollution

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Noise from on-site vehicles (mobile plant) during TSF construction resulting in loss of amenity for neighbouring receptors.	Construction and Rehabilitation	Possible	Minor	Medium
2	Noise from pumps and pipework associated with the tailings delivery system, decant and leachate system, and pumps associated with sedimentation pond.	Operation	Unlikely	Minor	Low

3.10.4 Objectives

The key objectives of this risk treatment plan are to:

- Reduce noise generation from onsite activities and materials handling to the extent practicable
- Minimise offsite noise impacts on nearby sensitive receptors, including members of the public, residential land uses and other sensitive land uses or environments
- Noise levels are maintained within the limits set by Planning Permit for MIN5396, and the limits in the approved EMP for MIN4847.
- Noise experienced by nearby sensitive receptors is within specifications of the Noise from Industry in Regional Victoria (NIRV) guideline.

3.10.5 Compliance standards

The compliance standards for this risk treatment plan are:

- Noise limits as set out in Planning Permit PA93/195 TP1373 (as summarised below at the closest receptors to TSF4 as summarised in the Noise Impact Assessment, Broner, 2019);
- Noise limits set out in the approved EMP for MIN4847 (as summarised below at the closest receptors to TSF4 as summarised in the Noise Impact Assessment, Broner, 2019);
- EPA Publication 480 - Environmental Guidelines for Major Construction Sites

3.10.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Noises levels at nearby sensitive receptors do not exceed the applicable limits set out in City of Ballarat Planning Permit PA93/195 TP1373 and the limits set out in the EMP for MIN4847.

Receptor Name	Day 7am to 6pm	Evening 6pm to 10pm	Night 10pm to 7am	Saturday 7am to 1pm
N2	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
N3	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
N4	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
N5	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
N6	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
N7	54 dB(A)	48 dB(A)	43 dB(A)	54 dB(A)
V1	48 dB(A)*	44 dB(A)	35 dB(A)	48 dB(A)*
V2	46 dB(A)*	44 dB(A)	35 dB(A)	46 dB(A)*
V3	48 dB(A)*	44 dB(A)	35 dB(A)	48 dB(A)*
V10	48 dB(A)*	44 dB(A)	35 dB(A)	48 dB(A)*
R1	54 dB(A)**	48 dB(A)	43 dB(A)	54 dB(A)**

*MIN4847 Construction Noise Limits are 10 dB(A) above day time limits. ** R1 is an adopted monitoring location and uses the MIN5396 limits.

Figure 1 Location of relevant receiver locations (from Broner, 2019).



3.10.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 76.

Table 76 Controls to address noise pollution

#	Details of controls being used	Risk Events being managed	Performance measures
2	To the extent practicable, specify low noise generating equipment when selecting equipment for on-site use.	1,2	As far as practical, all vehicles and equipment used on site will have a low noise rating.
3	Maintain site roads in good condition to minimise noise from vehicle traffic over corrugations and pot holes.	1,2	Corrugations and potholes are remedied as soon as possible to minimise road noise. Maintenance grading plan implemented.
4	Where practicable and consistent with manufacturer's specifications, fit (or retain) noise-generating equipment with noise attenuation devices (e.g. enclosures, baffles, silencers, mufflers etc.) and maintain equipment in good repair.	1,2	Noise abatement devices fitted to all operational noise generating plant.
4	Turn off equipment and vehicles when not in use for an extended period.	1,2	No equipment or vehicles remain on when not in use.
5	Fit low frequency reversing noise signals to all applicable mobile plant.	1,2	All applicable mobile plant fitted with low frequency reversing noise signals.
6	Vehicles, machinery and noise abatement equipment to be serviced regularly as per manufacturer's specifications.	1,2	Machinery and noise abatement equipment are serviced as per manufacturer's specifications.
7	Inform nearby residents of planned works that may generate excessive noise.	1,2	Contact with the community is maintained via a newsletter containing updates of current and planned CGT activities, and more specific notices may be sent to

#	Details of controls being used	Risk Events being managed	Performance measures
			residences likely to be affected by works that may generate excessive noise.
8	Noise awareness will form part of the induction for site personnel, and contract agreements included for contractors and sub- contractors.	1,2	All employees and contractors receive site-specific environmental induction addressing noise management requirements.
9	Orient machinery that emits noise in one direction away from noise sensitive areas.	1,2	Machinery is oriented to minimise noise impacts on sensitive receivers
10	Modify equipment or operational procedures when required based on noise monitoring results	1,2	Adaptive management is implemented where noise limits are not being met

3.10.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 77.

Table 77 Residual risk ratings – noise pollution

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Noise from on-site vehicles (mobile plant) during TSF construction resulting in loss of amenity for neighbouring receptors.	Construction and rehabilitation	Unlikely	Minor	Low
2	Noise from pumps and pipework associated with the tailings delivery system, decant and leachate system, and pumps associated with sedimentation pond.	Operation	Unlikely	Minor	Low

3.10.9 Monitoring

Monitoring arrangements for noise are summarised in Table 78.

Table 78 Monitoring arrangements for noise pollution

#	Aspect to be monitored	Details of monitoring
1	Noise levels at sensitive receptors to determine compliance with applicable limits (based on the approved EMP for MIN4847 and PP for MIN5396)	In assessment of wind direction and weather conditions, attended noise measurements to be collected within 10m of any residence or at the boundary of an adjoining residential zone at locations R1, V1, V2, V3 or V10. During Construction: Day: initially daily during new tasks or changing activity, then weekly During Operation: Day: monthly then reduced frequency following confirmation of compliance Evening: fortnightly during initial operations, then reduced frequency following confirmation of compliance. Night: fortnightly during initial operations, then reduced frequency following confirmation of compliance.
2	Community complaints and feedback	CGT complaints procedure will be utilised when applicable. Portable monitors may be installed where deemed necessary to monitor specific locations where complaints originate.

3.10.10 Reporting

Reporting arrangements for noise are summarised in Table 79.

Table 79 Reporting arrangements for noise pollution

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Noise levels at sensitive receptors to determine compliance with applicable limits (based on the approved EMP for MIN4847 and MIN5396)	Site management as required. Quarterly to the ERC. To DJPR as required.	Monitoring data used to confirm compliance with noise limits, and the presence of any noise non compliances to identify whether any further operational changes are required to maintain activities within applicable limits.
2	Community complaints and feedback	Quarterly to the ERC. Site management as required.	To ensure that complaints are responded to and to determine the need for additional targeted monitoring or property inspections.

3.10.11 Relevant industry publications

Relevant industry publications for management and monitoring of noise are listed in Table 80.

Table 80 Relevant industry publications for noise

#	Document	Source
1	EPA Publication 480 - Environmental Guidelines for Major Construction Sites	EPA

3.10.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 81.

Table 81 CGT reference documents - noise

#	Document	Location
1	Noise Monitoring Procedure	CGT document
2	Noise and vibration management	CGT document
3	Whitehorse Gully- TSF4 Noise Impact Assessment, prepared by Broner Consulting, 2019	Prepared to support TSF4

3.11 Site Security

3.11.1 Scope and Background

This risk treatment plan is for control of security breaches.

The TSF4 site will be fully fenced with 2.4m high cyclone fencing with barbed wire and clearly signed. During operations, the mine site is manned 24 hours per day, 7 days a week. Any person that enters the site must have authorisation from the appropriate CGT supervisor.

3.11.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 82.

Table 82 Key sensitive receptors for security breach

#	Details of the Sensitive Receptor	Location and proximity to site
1	Members of the public (if accessing as unauthorised access)	The TSF4 site is located within the City of Ballarat in the suburb of Mount Clear
2	Crown land	The TSF4 site is located on and adjacent to Crown land
3	Environment in the vicinity of the site, including surface waters	Yarrowee River located 270m west of TSF4 site boundary (about 300m west of the TSF4 embankment).

3.11.3 Risk events

Risk events associated with security breach are listed in Table 83.

Table 83 Risk events for security breach

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Unauthorised access results in injury/ harm to the public.	All	Possible	Critical	Very high
2	Vandalism/malicious damage of plant/machinery by member of the public leading to e.g., pump failure, broken tailings discharge line, return water line.	Operation, Closure	Unlikely	Major	High

3.11.4 Objectives

The key objectives of this risk treatment plan are to:

- Provide for the safety of members of the public when accessing the mine activity areas
- Prevent unauthorised access to the mine activity areas by members of the public

3.11.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Safety on Public Land Act (2004)*
- Earth Resources Regulation's Standard Conditions.

3.11.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Boundary of the mine activity areas is appropriately marked and secured to minimise chances of unauthorised entry
- Safety signage is clearly visible around the boundary fence and at all access points.

3.11.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 84.

Table 84 Controls to address security breach

#	Details of controls being used	Risk Events being managed	Performance measures
1	Boundary of the site area is to be fenced and signposted.	1,2	The site boundary is fully fenced with lockable access gates.
2	The fence is to be patrolled regularly by security and is fully maintained.	1,2	Fence is patrolled weekly and maintenance is completed as required.
3	Control access to site when site is attended. Lock all gates when site is unattended.	1,2	Site gates secured at all times. Any person that enters the site must have authorisation from a CGT supervisor.

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Revision 1 – 14-Apr-2020
Prepared for – Balmaine Gold Pty Ltd – ABN: 67 142 297 685

#	Details of controls being used	Risk Events being managed	Performance measures
4	Warning signs to be maintained around TSF, surge dam and retention pond	1,2	Warning signs in place and maintained
5	Alarms on pump failure	2	Alarms are in place and maintained
6	Alarms and automatic shutdown on pipelines	2	Alarms and automatic shutdown mechanisms are in place and maintained

3.11.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 85.

Table 85 Residual risk ratings – security breach

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Unauthorised access results in an injury to the public.	Operation, Closure	Rare	Critical	High
2	Vandalism/malicious damage of plant/machinery by member of the public leading to e.g., pump failure, broken tailings discharge line, return water line	Operation, Closure	Rare	Major	Medium

3.11.9 Monitoring

Monitoring arrangements for site security are summarised in Table 86.

Table 86 Monitoring arrangements for security breach

#	Aspect to be monitored	Details of monitoring
1	Site entry by members of the public.	Register of all visitors to site.
2	Site security breaches (unauthorised access)	Records kept of site security breaches.

3.11.10 Reporting

Reporting arrangements for security breach are summarised in Table 87.

Table 87 Reporting arrangements for security breach

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Site entry by members of the public.	Daily internal reporting.	Ensure all visitors have exited site prior to end of operating hours.
2	Site security breaches (unauthorised access)	Reported to site management and ERR as required	Improve site security to limit unauthorised site access.

Relevant CGT reference documents are listed in Table 88.

Table 88 CGT reference documents – site security

#	Document	Location

3.12 Surface Water

3.12.1 Scope and Background

This risk treatment plan is for control of surface water, including stormwater runoff (see also Section 3.4- Erosion and Sedimentation and Section 3.9- Hazardous Materials).

The concept design is for interception and diversion of surface run-off from the external catchment away from the TSF4 impoundment via perimeter surface drains. Runoff is directed north and south around the TSF4 via existing gullies and or constructed diversion/catch drains during Stage 1 construction and primarily via new diversion and catch drains on during Stage 2 construction and during operation of the TSF4.

It is proposed that all surface runoff is directed via drains around the TSF4 to a new sedimentation basin is located immediately downstream of the final TSF4 embankment. Treated surface run-off from the TSF4 sedimentation basin will be directed to the surge dam to then enter the approved mine water circuit management system.

3.12.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 89.

Table 89 Key sensitive receptors for surface water

#	Details of the Sensitive Receptor	Location and proximity to site
1	Surface waterways in the vicinity of the activity areas and associated aquatic habitat, flora and fauna	<ul style="list-style-type: none"> Yarrowee River located 270m west of TSF4 site boundary (about 300m west of the TSF4 embankment).

3.12.3 Risk events

Risk events associated with surface water are listed in Table 90.

Table 90 Risk events for surface water

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Inappropriate diversion and/or return of diverted surface water detracts from beneficial uses of surface water.	Construction, Operation, Closure	Possible	Moderate	Medium

3.12.4 Objectives

The key objectives of this risk treatment plan are to:

- Prevent site activities from adversely affecting local surface water sources
- Protect the beneficial uses of the local water environment as defined in the SEPP (Waters).

3.12.5 Compliance standards

The compliance standards for this risk treatment plan are:

- Water Act (1989)
- Catchment and Land Protection Act (1994)
- SEPP (Waters)
- EPA Guideline 1287 Risk Assessment of Wastewater Discharge to Waterways

3.12.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Stormwater is managed to meet SEPP requirements.
- The diversion and return of diverted water to the environment does not detract from beneficial uses of surface water or groundwater.

3.12.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 91.

Table 91 Controls to address surface water

#	Details of controls being used	Risk Events being managed	Performance measures
1	Maintain diversion drainage structures up-gradient of working areas to prevent clean surface water from entering the site and becoming contaminated.	1	Surface water diversion structures effectively intercept surface water before it reaches operating areas.
2	Maintain diversion structures to limit impacts on downstream / offsite surface water flows (e.g. alteration of drainage pathways, change in flow), including maintaining scour protection on the outlet of surface water diversion drains.	1	Downstream environmental flow is maintained.

3.12.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 92.

Table 92 Residual risk ratings – surface water

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Inappropriate diversion and/or return of diverted surface water detracts from beneficial uses of surface water.	Operation, Closure	Unlikely	Minor	Low

3.12.9 Monitoring

Monitoring arrangements for surface water are summarised in Table 93.

Table 93 Monitoring arrangements for surface water

#	Aspect to be monitored	Details of monitoring
1	Effectiveness of upstream diversion drainage structures.	Inspected and maintained as required.
2	Condition of waterway at outlet of diversion drain.	Inspect outlet area to assess the potential for erosion and the effectiveness of scour protection features.

3.12.10 Reporting

Reporting arrangements for surface water are summarised in Table 94.

Table 94 Reporting arrangements for surface water

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Effectiveness of upstream diversion drainage structures	Internal reporting for site management after significant rainfall event or six monthly.	Assess effectiveness and maintenance requirements
2	Condition of waterway at outlet of diversion drain.	Internal reporting for site management after significant rainfall event or six monthly.	Intervention if erosion issues emerge.

3.12.11 Relevant industry publications

Relevant industry publications for management and monitoring of traffic are listed in Table 95.

Table 95 Relevant industry publications for surface water

#	Document	Source

3.12.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 96.

Table 96 CGT reference documents – surface water

#	Document	Location
1	CGT Stormwater and Erosion Management Plan	Internal CGT document
2	Chemical and Hazardous Materials Management Plan	Internal CGT document
3	Spill Response Technical Procedure	Internal CGT document

3.13 Water, including Wastewater

3.13.1 Scope and Background

This risk treatment plan is for control of water including wastewater.

Sources of wastewater resulting from site operations include tailings slurry, decant water and leachate from the TSF.

TSF4 will have an engineered foundation sealing and seepage collection system, with the conceptual design comprising 800mm thick compacted clay floor to 10^{-8} m/sec permeability and a piped drainage system. The TSF is designed to be a zero-discharge facility below the 1:100 AEP storm. Following an extreme event, excess water that cannot be removed by evaporation or process use would be discharged via the existing mine water discharge arrangement.

Residual cyanide remaining in the leach tailings is destroyed prior to disposal into TSF4. The tailings line and decant return line feature flow and pressure monitoring at the pump and discharge point linked by telemetry. The control system will automatically shut down the pump in the event of abnormal fluctuation of these parameters. The pipelines will be housed within concrete box culverts or within outer pipe to retain any spillage. The tailings and return pipeline routes are also designed to be within the site surface water catchment so that any release is fully contained.

The chemical nature of waste rock and tailings generated at the site has been analysed for acid generating potential. Tests have indicated that most of the rock is inert and will not pose a risk of producing Acid Mine Drainage (AMD) when exposed to air and water. Geochemical properties and AMD generating potential of new wastes being brought to the surface are regularly reviewed.

A groundwater impact assessment has also been completed as part of the TSF4 planning phase to inform the ongoing risk management.

3.13.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 97.

Table 97 Key sensitive receptors for water

#	Details of the Sensitive Receptor	Location and proximity to site
1	Surface waters	Yarrowee River located 270m west of TSF4 site boundary (about 300m west of the TSF4 embankment).
2	Groundwater	Regional groundwater level is ~11-12m below ground surface downstream of TSF4.

#	Details of the Sensitive Receptor	Location and proximity to site
		One registered groundwater use, with bore registered for commercial use, located about 240m north west of TSF4 (WRK972479- total depth of 9m).
3	Biodiversity / Ecosystem	Various - on and adjacent to the site, including within the ESO5 layer.

3.13.3 Risk events

Risk events associated with wastewater are listed in Table 98.

Table 98 Risk events for water/ wastewater

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Uncontrolled release of tailings slurry, pipeline failure, causing release of tailings and impacting on surface water and/ or groundwater.	Operation	Likely	Moderate	High
2	Decant water and leachate release from pipeline (back to processing plant) to ground impacting on surface water/ groundwater.	Operation, closure	Unlikely	Moderate	Medium
3	Inappropriate diversion and/or return of diverted surface water detracts from beneficial uses of surface water.	all	Possible	Moderate	Medium
4	Seepage of pore water (arsenic and cyanide) within saturated tailings migrates into underlying Basement Aquifer and impacts on the beneficial uses down hydraulic gradient.	operation	Possible	Minor	Medium
5	Infiltration of water through TSF cap, that saturates the tailings sufficiently to seep to groundwater and then impact on the beneficial uses down hydraulic gradient of site.	closure	Unlikely	Minor	Low
6	Removal and dewatering of perched aquifer during construction results in volumes of water/ saturated materials that cannot be contained and/ or managed with the existing water management system. Resulting in an uncontrolled water flow potentially impacting surface water quality.	construction	Unlikely	Minor	Low
7	Dewatering of groundwater during TSF4 construction resulting in drawdown and impact to local groundwater users.	construction	Possible	insignificant	low

3.13.4 Objectives

The key objectives of this risk treatment plan are to:

- Prevent water quality impacts from tailings storage and management
- Ensure staff are aware of water quality issues and regulatory requirements and have the required competency and skills to prevent contamination incidents.
- Ensure that the site groundwater monitoring program is sufficient to detect early indicators of groundwater impacts from TSF4.

3.13.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Water Act (1989)*
- SEPP (Waters)
- SEPP (Waters) – Monitoring, Evaluation and Reporting Framework
- *Environment Protection Act 1970*

3.13.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- No unacceptable impacts to beneficial uses of surface water and groundwater in consideration of background water quality of the aquifer.

3.13.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 99.

Table 99 Controls to address water/ wastewater

#	Details of controls being used	Risk Events being managed	Performance measures
1	Maximise gravity circuit recovery without cyanide contact to the extent practicable.	1-5	The majority (~95%) of the tailings will come from gravity circuit and will not be in contact with cyanide
2	Leached tailings will be detoxified prior to placement in TSF.	1-5	Cyanide and its toxicity characteristics in tailings are eliminated or reduced to safe limits by natural physical and chemical processes.
3	Regular checks of integrity of containment structures.	1,2	Containment structures are regularly checked.
4	Regularly inspect and maintain pipelines.	1,2	Any required repairs to pipelines are undertaken as soon as possible.
5	The tailings operations manual will be implemented.	1-5	Operations manual is distributed as appropriate and implemented consistently.
6	Alarms and automatic shutdown on pipelines	1-4	Alarms and automatic shutdown systems are in place and maintained
7	Awareness of water quality issues is ensured through environmental induction programs for all personnel.	1-6	All personnel receive site induction addressing water quality management requirements
8	Active pumping from leachate underdrain as required by the operations manual.	4	
9	Alarms on seepage and groundwater monitoring systems	4	Alarms are in place and maintained
10	Provide engineered cap for TSF upon rehabilitation of the TSF.	5	Cap is placed in a timely manner following the filling of the storage.
11	Periodic review of groundwater monitoring network, including integrity checks of monitoring bores.	1-6	Annual review of monitoring data.
12	Implementation of a Construction EMP	6	Implementation of CEMP that contains measures to avoid contamination to land and water during construction of TSF4 and

#	Details of controls being used	Risk Events being managed	Performance measures
			contingency actions in the event of a spill or release.

3.13.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 100.

Table 100 Residual risk ratings - water/ wastewater

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Uncontrolled release of tailings slurry, pipeline failure, causing release of tailings and impacting on surface water and/ or groundwater.	Operation	Unlikely	Minor	Low
2	Decant water and leachate release from pipeline (back to processing plant) to ground impacting on surface water/ groundwater.	Operation, closure	Rare	Moderate	Medium
3	Inappropriate diversion and/or return of diverted surface water detracts from beneficial uses of surface water.	all	Unlikely	Minor	Low
4	Seepage of pore water (arsenic and cyanide) within saturated tailings migrates into underlying Basement Aquifer and impacts on the beneficial uses down hydraulic gradient.	operation	Unlikely	Minor	Low
5	Infiltration of water through TSF cap, that saturates the tailings sufficiently to seep to groundwater and then impact on the beneficial uses down hydraulic gradient of site.	closure	Unlikely	Minor	Low
6	Removal and dewatering of perched aquifer during construction results in volumes of water/ saturated materials that cannot be contained and/ or managed with the existing water management system. Resulting in an uncontrolled water flow potentially impacting surface water and groundwater quality.	construction	Unlikely	Minor	Low
7	Dewatering of groundwater during TSF4 construction resulting in drawdown and impact to local groundwater users.	construction	Possible	insignificant	low

3.13.9 Monitoring

Monitoring arrangements for wastewater are summarised in Table 101.

Table 101 Monitoring arrangements for water/ wastewater

#	Aspect to be monitored	Details of monitoring
1	Groundwater levels and pore pressure	<i>Weekly</i>

#	Aspect to be monitored	Details of monitoring
		<p>A series of vibrating wire piezometers will be installed within the TSF4 embankment and foundation. The piezometer layout will be detailed during detailed design. As a guide, this will likely comprise approx. 9 piezometers in total, (approx. three (3) piezometers at the maximum section, and at both the left and right abutments).</p> <p>Piezometers installed within the underdrainage, including immediately upstream of the embankment, to monitor its long-term performance, are also recommended (minimum of 4 piezometers).</p>
2	Groundwater levels and quality around the TSF (to verify any effects from stored tailings and any potential seepage)	<p>Biannual gauging, sampling, and analysis of the Basement Aquifer down hydraulic gradient of TSF4. Including at a minimum, two wells down hydraulic gradient of the TSF (including at least one in the gully below the embankment toe), and two wells up hydraulic gradient of the TSF for baseline purposes.</p> <p>Water quality parameters to include pH, WAD Cyanide, thiocyanate, TDS. Major ions: Sulphate, Chloride, Carbonate, Bicarbonate, Sodium, Magnesium, Potassium, Nitrate and Ammonia. Metals: As, Cd, Cr, Co, Cu, Fe, Mn, Mo, Ni, Sb, Se and Zn.</p>
3	TSF slurry and decant pipelines	<p>Inflow and outflow gauges for the tailings and decant pipeline with alarms and automatic pump shut-off in the event of flow mismatch.</p> <p>Daily visual inspection of pipeline route.</p> <p>Integrity check of pipeline as per operations and maintenance manual.</p>

3.13.10 Reporting

Reporting arrangements for waste are summarised in Table 102.

Table 102 Reporting arrangements for water/ wastewater

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Groundwater levels and quality	Annually to ERR Quarterly to ERC Monthly to site management	To verify any effects from stored tailings and any potential seepage
2	Pipeline condition	To site management as required	To track the need for maintenance or repairs

3.13.11 Relevant industry publications

Relevant industry publications for management and monitoring of waste are listed in Table 103.

Table 103 Relevant industry publications for water/ wastewater

#	Document	Source
1	ANCOLD Guidelines on Tailings Dams – Planning, Design, Construction, Operation and Closure	ANCOLD (2012)

3.13.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 104.

Table 104 CGT reference documents - water/ wastewater

#	Document	Location
1	CGT Tailings operation and maintenance manual	Internal CGT document

#	Document	Location
2	AECOM, 2019. <i>Whitehorse Gully TSF Concept Design Report</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd. This document also includes Independent Technical Review of the conceptual design completed by Golder which is included in Appendix I of the design document	Prepared to support TSF4 WPV
3	AECOM, 2019b. <i>Groundwater Impact Assessment TSF4</i> , prepared by AECOM Australia Pty Ltd for Balmaine Gold Pty Ltd	Prepared to support TSF4 WPV

3.14 Weeds, pests and disease

3.14.1 Scope and Background

This risk treatment plan is for control of weeds, pests and disease.

Aside from crushed rock for road base construction, no materials are proposed to be imported to site for TSF4 construction or rehabilitation.

3.14.2 Key sensitive receptors

The key sensitive receptors associated with this hazard are listed in Table 105.

Table 105 Key sensitive receptors for weeds, pests and disease

#	Details of the Sensitive Receptor	Location and proximity to site
1	Crown land	The TSF4 site is located on and adjacent to Crown land
2	Biodiversity / ecosystem	Intact native vegetation and habitat- particularly in the ESO5 overlay area.

3.14.3 Risk events

Risk events associated with weeds, pests and disease are listed in Table 106.

Table 106 Risk events for weeds, pests and disease

#	Details of the Risk Event	Phase	Likelihood	Consequence	Inherent Risk Rating
1	Introduction or spread of weeds onsite through movement of soil resulting in infestation of noxious weeds during construction and rehabilitation inhibiting revegetation.	Operations, Closure	Likely	Minor	Medium
2	Increase in pest animals (rabbits, foxes, pigs, dogs and cats) impacting on native species populations, causing nuisance and inhibiting revegetation.	Operations, Closure	Unlikely	Minor	Low

3.14.4 Objectives

The key objectives of this risk treatment plan are to:

- Protect biodiversity values associated with the licence area
- Prevent site activities contributing to the proliferation of noxious weeds, plant diseases or pest animals, on or off the licence area.

3.14.5 Compliance standards

The compliance standards for this risk treatment plan are:

- *Catchment and Land Protection Act (1994)*
- *Planning and Environment Act (1987)*
- *Agricultural and Veterinary Chemicals (Control of Use) Act (1992)*
- *Agricultural and Veterinary Chemicals (Control of Use) Regulations (2007).*

3.14.6 Acceptance criteria

The acceptance criteria for this risk treatment plan are:

- Site operator complies with legislative requirements relating to the control and management of declared noxious weeds and pest animals
- The mining operation does not contribute to the spread or proliferation of soil-borne plant diseases.

3.14.7 Controls to address hazard

The controls for this risk treatment plan are listed in Table 107.

Table 107 Controls to address weeds, pests and disease

#	Details of controls being used	Risk Events being managed	Performance measures (specifying how the control is being implemented –if not implicit in the control)
1	Eradicate or manage any declared noxious weeds or established pest animals present on the mining activity areas area.	1, 2	Infestations of declared noxious weeds and established pest animals are eradicated or controlled.
3	Any soil imported to the site is to be from a location that is known to be free of pathogens, disease and noxious weeds (and their seeds).	1, 2	Imported soil is verified as weed and pathogen free.
5	Contractor selection requires all machinery to be checked and cleaned prior to mobilisation and de-mobilisation from the site.	1, 2	Contractors are required to check and clean all machinery
6	Identify and map areas within the site boundary that contain declared noxious weeds (under the CaLP Act) and establish exclusion zones until the weeds are controlled and/or the area is fully disturbed by the activity.	1, 2	Areas containing declared weed species are not disturbed by site activities.
7	Limit vegetation clearing and surface disturbance activities to the minimum required operationally.	1, 2	Limit clearing to the operational areas indicated in the approved Work Plan.
8	Engage appropriately licenced personnel to conduct any required pesticide application to control weeds and/or pest animals.	1, 2	Only licensed personnel are permitted to apply pesticides.
9	Stockpile and manage soils from areas with noxious weed infestations separately to other soils to avoid cross contamination.	1, 2	Weed infested soils are stockpiled separately
10	Vermin management mitigated by the removal of waste, rubbish, etc. by licensed contractor.	1, 2	Regular waste and rubbish collection services in place.

3.14.8 Residual risk assessment

Considering the controls being put in place, the assessment of the residual risk associated with the risk events identified for this hazard is shown in Table 108.

Table 108 Residual risk ratings – weeds, pests and disease

#	Details of the Risk Event	Phase	Likelihood	Consequence	Residual Risk Rating
1	Introduction or spread of weeds onsite through movement of soil resulting in infestation of noxious weeds during construction and rehabilitation inhibiting revegetation.	Operations, Closure	Possible	Insignificant	Low
2	Increase in pest animals (rabbits, foxes, pigs, dogs and cats) impacting on native species populations, causing nuisance and inhibiting revegetation.	Operations, Closure	Unlikely	Minor	Low

3.14.9 Monitoring

Monitoring arrangements for weeds, pests and disease are summarised in Table 109.

Table 109 Monitoring arrangements for weeds, pests and disease

#	Aspect to be monitored	Details of monitoring
1	Site flora and fauna for noxious weeds, pests and disease.	Inspect all areas annually to assess the health of the vegetation and to check for and map weed infestation and damage from pest animals or diseases.

3.14.10 Reporting

Reporting arrangements for weeds, pests and disease are summarised in Table 110.

Table 110 Reporting arrangements for weeds, pests and disease

#	Aspect being reported	Who will the information be reported to and at what frequency?	How will it be used?
1	Site flora and fauna for noxious weeds, pests and disease.	Annual internal reporting for site management.	For management intervention if operational areas have emerging weed or pest animal issues.
2	Site flora and fauna for noxious weeds and pests.	Report any weed infestations and pest observations to Environment Manager	For management intervention if rehabilitation areas have emerging weed or pest animal issues as part of greater site management.

3.14.11 Relevant industry publications

Relevant industry publications for management and monitoring of weeds, pests and disease are listed in Table 111.

Table 111 Relevant industry publications for weeds, pests and disease

#	Document	Source

AECOM

Risk Management Plan – TSF4 Work Plan Variation- MIN4847 and MIN5396

62

3.14.12 Operator's reference documents

Relevant CGT reference documents are listed in Table 112.

Table 112 CGT reference documents – weeds, pests and disease

#	Document	Location
1	Biodiversity management	CGT document

4.0 Roles and Responsibilities

4.1 Roles and Responsibilities

It is the responsibility of all site personnel to be aware, follow and implement this RMP.

Responsibility for minimising degradation to the environment, public safety and public infrastructure lies with the operator of MIN4847/ MIN5396. Prior to any change in operations which may impact on the natural environment or surrounding community, consultation must occur with the Environment Manager or delegate. The Environment Manager and team are responsible for being aware of the project approval parameters, and to ensure that current or proposed activities do not compromise the project approval.

The site induction must make all employees and contractors aware that it is everyone's responsibility to prevent pollution and/or degradation to the environment and to report any observed risk of pollution and/or degradation.

4.2 Review of the Plan

The Risk Treatment Plans, including controls and monitoring, may be reviewed as part of future WPV submissions, or if site operations changes which may impact on the environmental management of the site and/or surrounding sensitive receptors.

The update of subsidiary documents may not require this document to be updated.

AECOM

Risk Management Plan – TSF4 Work Plan Variation- MIN4847 and MIN5396

64

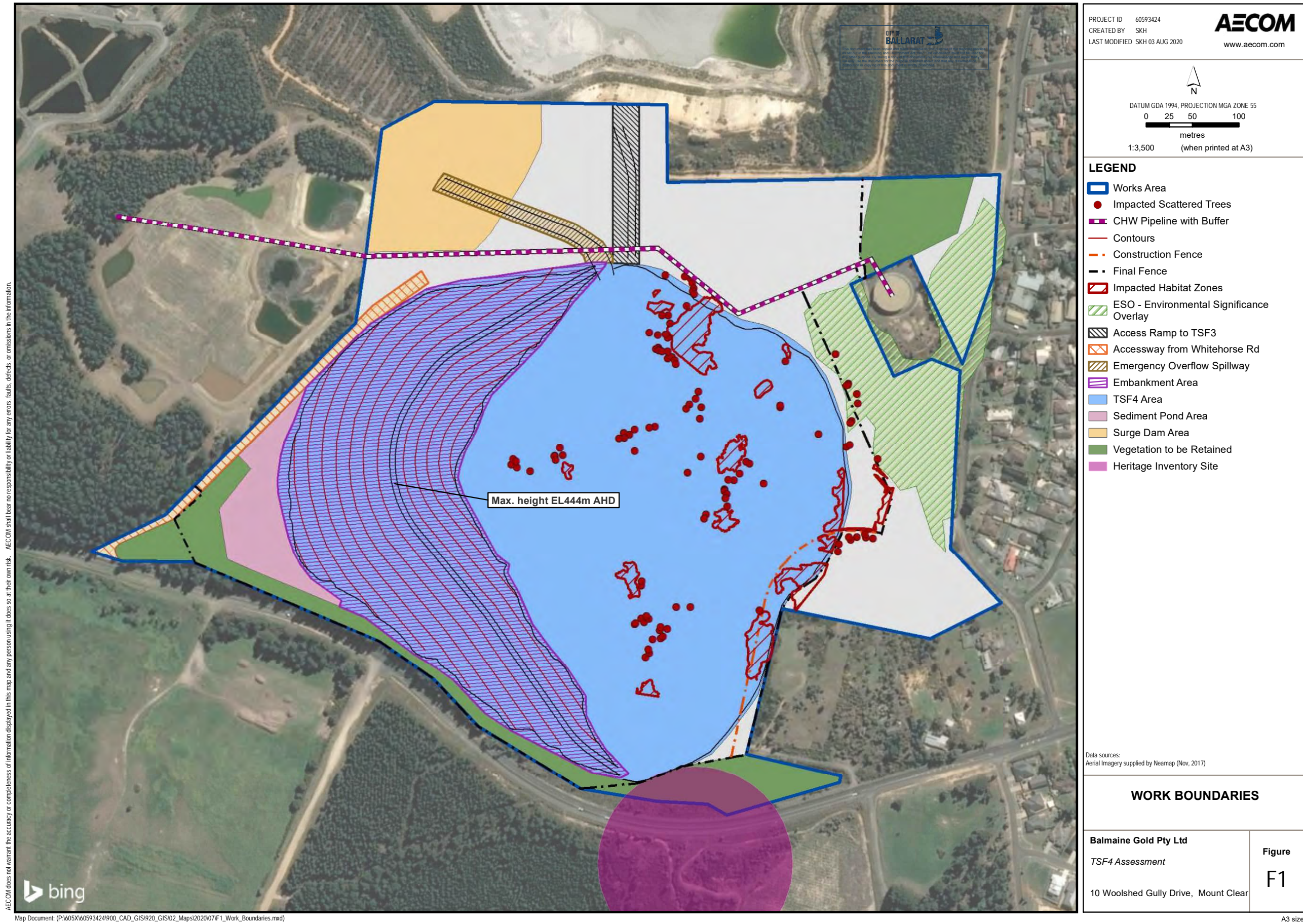
AECOM

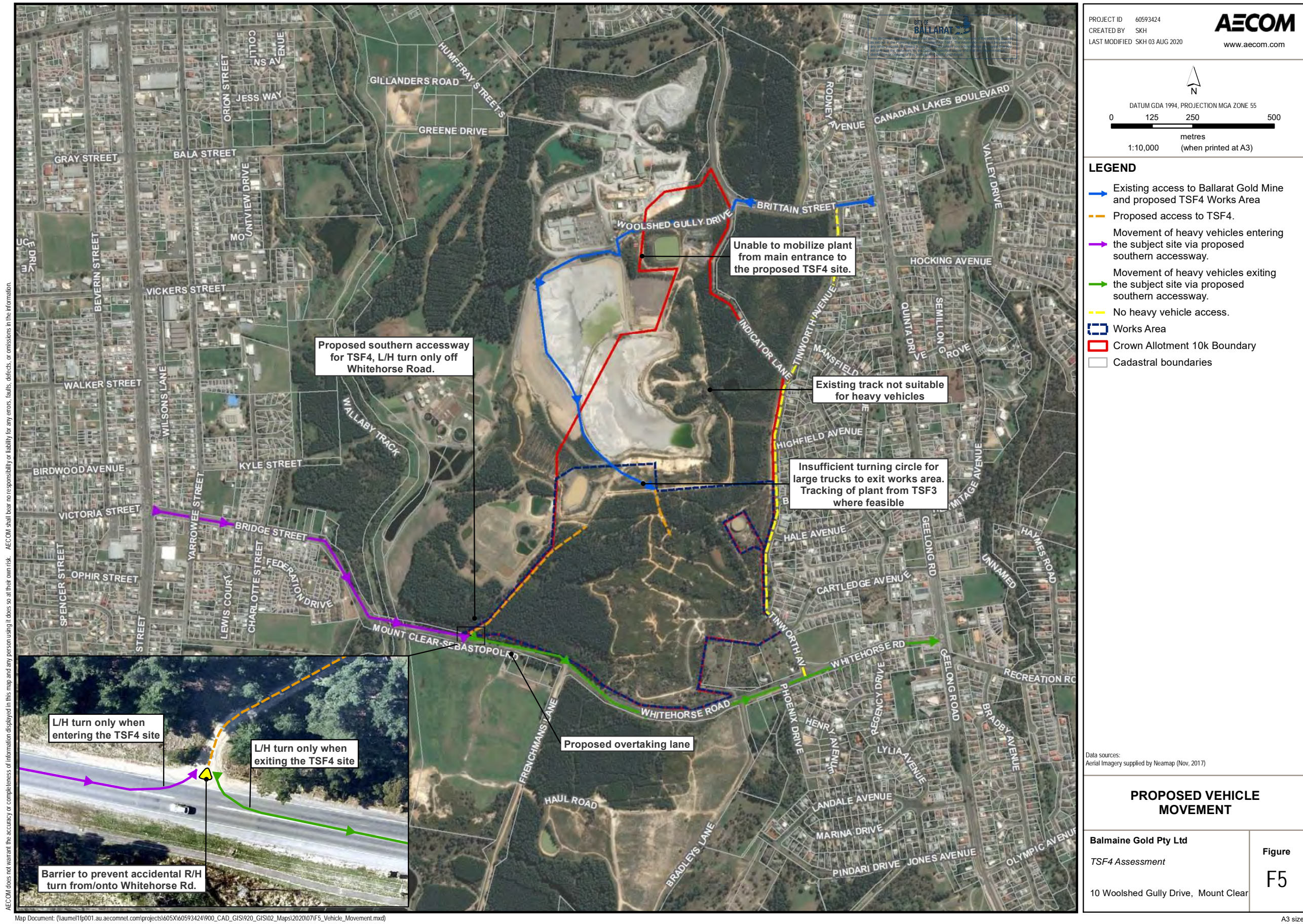
Ballarat Gold Mine
Planning Permit Application – Development of Tailings Storage Facility 4 (TSF4)

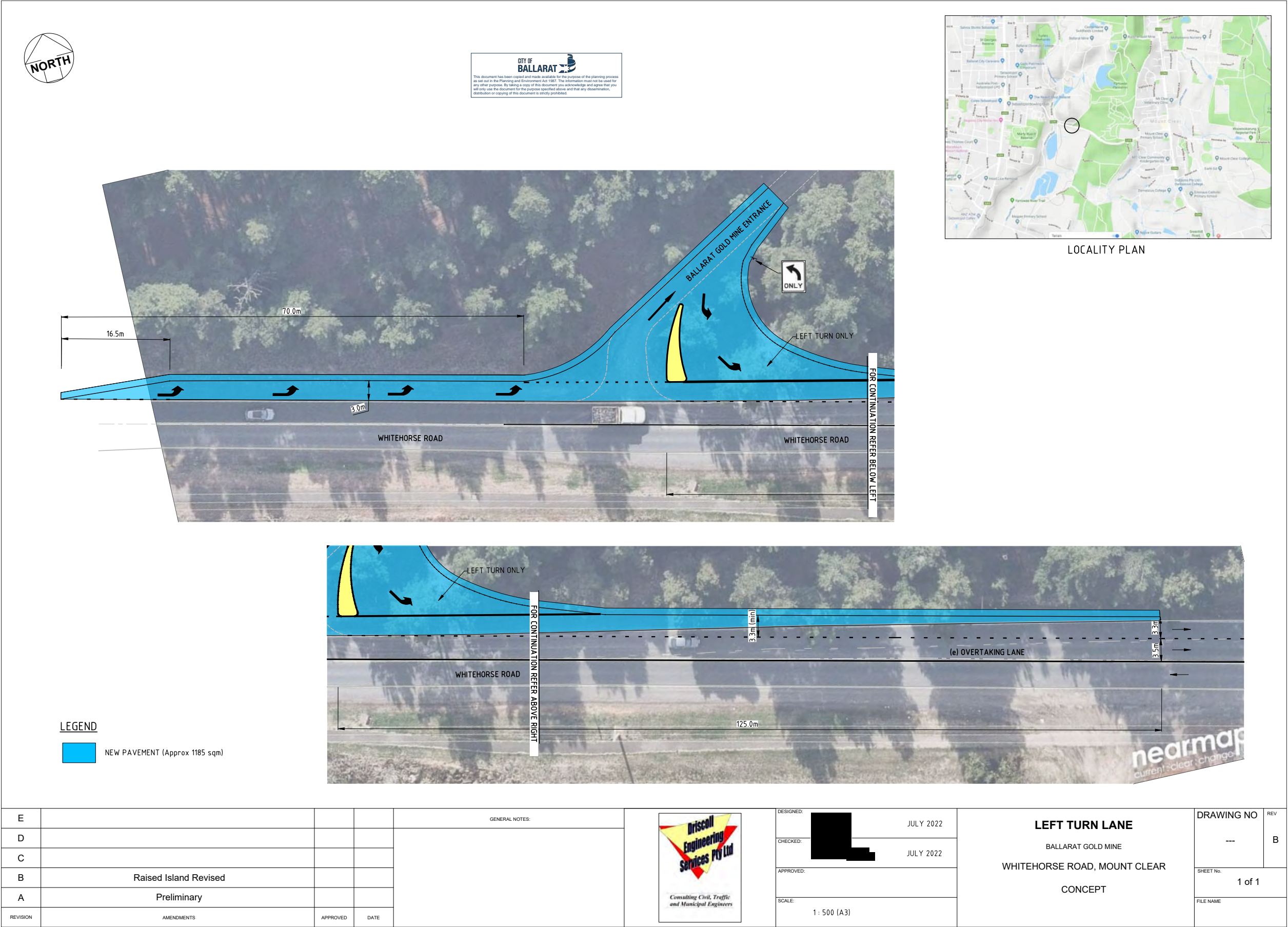
A-1

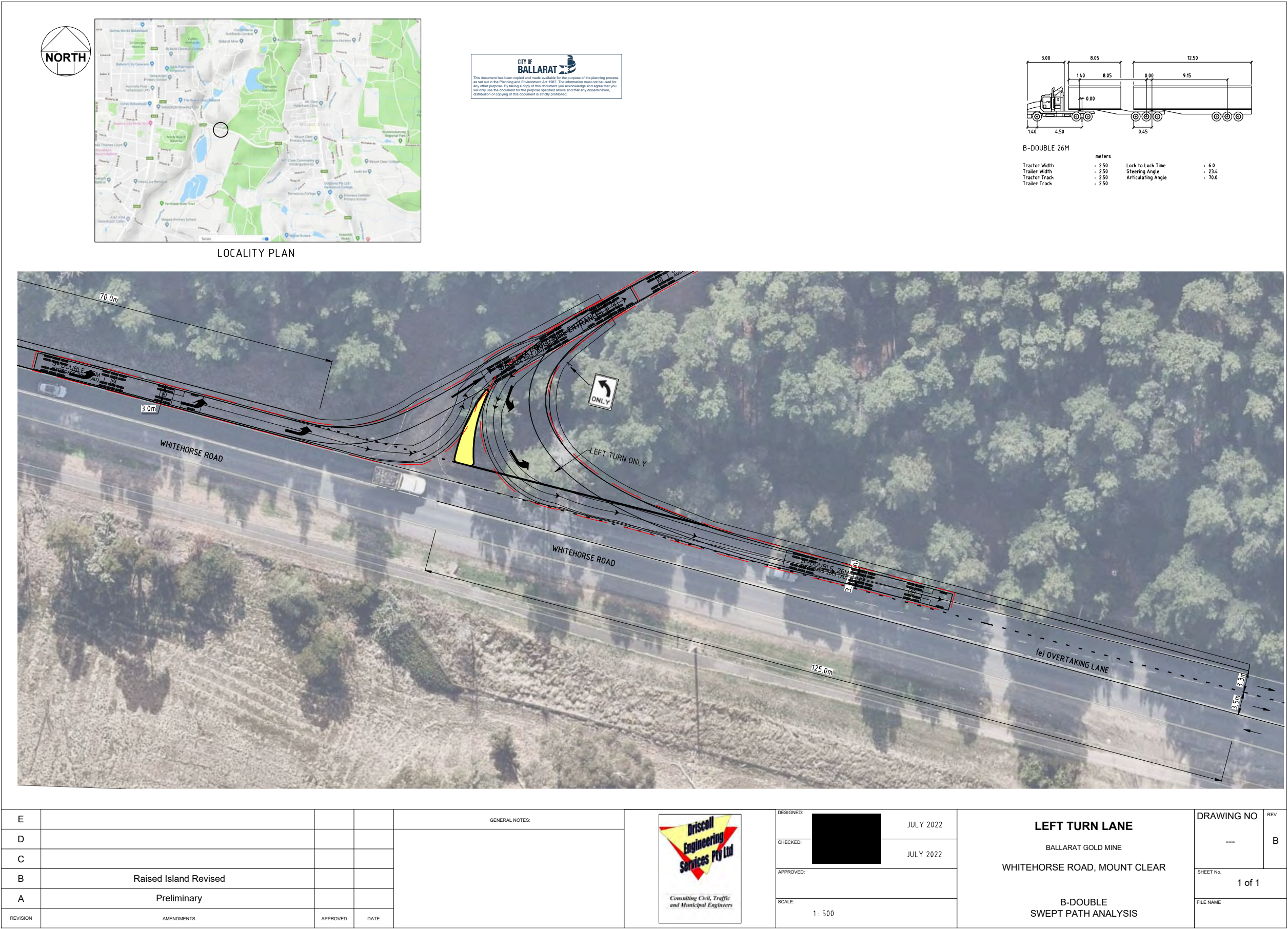


Appendix A Development Plans









9.2. PLP/2022/3/S173 - CATS AND DOGS IN THE SANCTUARY, MT HELEN

Division: Development and Growth
Director: Natalie Robertson
Author/Position: Kahlia Reid - Coordinator Statutory Planning

PURPOSE

1. The purpose of this report is to consider an application in PLP/2022/3/S173 which seeks to amend a section 173 Agreement recorded in instrument no. AE481780B (**Section 173 Agreement**) by removing clause 2 (vi) or in the alternative amending clause 2 (vi) to read cats or dogs kept on a lot must be secured within the lot.
2. The application has been made on behalf of 48 property owners within the area known as Sanctuary Estate, Mount Helen.
3. The lots which the application applies to are known as:

6, 8, 10, 12, 13, 14, 16, 19, 20, 22, 28, 36 ZOE DRIVE, MOUNT HELEN VIC 3350
3, 5, 9, 11, 13, 14, 18 SOBEY STREET, MOUNT HELEN VIC 3350
1, 2, 3, 6, 7 FLETCHER COURT, MOUNT HELEN VIC 3350
17, 19, 21, 27, 28, 29, 30, 31 MOUNT HELEN AVENUE, MOUNT HELEN VIC 3350
1 LOGAN COURT, MOUNT HELEN VIC 3350
18, 20, 24, 26, 38, 40 CHATHAM AVENUE, MOUNT HELEN VIC 3350
3, 11, 17, 19, 21, 23, 25, 27 BRODIE COURT, MOUNT HELEN VIC 3350
10 SEWELL COURT, MOUNT HELEN VIC 3350

BACKGROUND

4. An application to amend the Section 173 Agreement is made under Section 178A of the *Planning and Environment Act 1987* (the Act). It was lodged with the City of Ballarat on 21 December 2022.
5. The Act sets out the planning process and scope of considerations that must be taken into account when assessing this type of application.
6. In accordance with the matters the City of Ballarat is required to consider the proposal under section 178B of the Act. On 17 March 2023 in principle support of the application was provided.
7. Before providing 'in principle' support matters required to be considered include the purpose of the agreement and the reasons why the responsible authority entered into the agreement in the first instance.
8. Following notification to the applicant of the 'in principle' support to the application, advertising was undertaken in accordance with Section 178C(2)(a) of the Act.
9. Individual notices were sent by mail to all owners and occupiers of and bound by the Section 173 Agreement.
10. Advertising originally commenced on 20 April 2023 however due to a clerical error was undertaken again on 9 May 2023.

11. Following completion of advertising, fourteen submissions have been received. Three in support and eleven objecting to the application.
12. The key concerns raised on the objections to the proposal are:
 - Those who bought in Sanctuary Estate knew about the restrictions on domestic animals.
 - Koala numbers have decreased, and food sources have been lost.
 - We should be looking at removing housing and roads and returning land to its natural state.
 - Extending the exclusion area should be investigated.
 - There has been an increase in dog and cat attacks on koalas.
 - Dogs prevent koalas from moving through the landscape.
 - Sanctuary Estate should have never been approved in the first place.
 - It is possible koalas will become extinct in the Ballarat area over the next five years unless every measure is taken to protect their habitat.
 - The type of fencing to secure cats and dogs also risks trapping koalas in yards.
 - The proposal would reverse twenty years of koala protection and management initiatives and community expectations.
 - No evidence has been provided to support the application.
 - The inclusion of the Section 173 Agreement requirement was not contested by the developer.
 - There are substantial number of persons within the Estate in breach of the agreement.
 - The existence of the Environmental Significance Overlay – Schedule 5 is not a logical or proper basis to vary the agreement.
 - The Council should not make the current situation worse.
 - Hard to see how Council could satisfy itself that amending the agreement in the manner proposed would support the policy objectives for biodiversity in Clause 12 and its own local policy for Koala Protection in Clause 22.04 of the Planning Scheme.
 - The area remains a sanctuary for koalas.
13. Given the nature of the application, following advertising the proposal has proceeded to the final assessment.

VCAT MATTER

14. Separate to the assessment of this application, the City of Ballarat is currently involved in an enforcement matter at VCAT in relation to Sanctuary Estate and the keeping of cats and dogs on lots.
15. A third party has sought action against other landowners and occupiers in Sanctuary Estate for breach of the Section 173 Agreement and allowing the keeping of cats and dogs on the relevant lots.
16. Individual landowners and occupiers are a party to the VCAT enforcement matter.
17. The enforcement matter is currently listed for a four day hearing at VCAT commencing Tuesday 14 November 2023.
18. VCAT has listed the enforcement matter for an Administrative Mention on 3 July 2023 for VCAT at which time Council will provide an update on whether a decision has been made on this planning application (PLP/2022/3/S173) and whether the matter is resolved or is proceeding to a hearing.

19. A subsequent Practice Day Hearing is listed on 15 September 2023.

PLANNING ASSESSMENT

20. In the assessment of this application, the responsible authority is required to consider any objections or other submissions under Section 178D of the Act.

21. The City of Ballarat has sought independent advice from Nature Advisory in relation to the application and their advice forms part of the assessment.

22. An assessment of the matters in Section 178B are included in Table 1 below.

Table 1: Matters to be considered in considering a proposal to amend an agreement

<p>1. the purpose of the agreement;</p>	<p>It is unclear from the information before Council (either through the application material or Council's own records and inquiries) as to the planning purpose that was to be achieved by clause 2 (vi) of the Section 173 Agreement. In short, there appears to be little strategic basis and little to no evidence supporting the part of the Section 173 Agreement prohibiting cats and dogs.</p> <p>More broadly, and in respect of other clauses of the Section 173 Agreement, it provides restrictions on the landowners in relation to vegetation management, subdivision, limits to one dwelling on a lot, and rainwater tanks. The planning basis to prohibit the keeping of cats and dogs is unknown, particularly given Schedule 5 of the Environmental Significance Overlay did not exist or apply at the time the Section 173 Agreement was entered into between Council and the owner. The Section 173 Agreement was originally imposed as part of Planning Permit PLP/2003/726 which was granted by VCAT for the subdivision of land into 87 lots in <i>Road Con Constructions Pty Ltd v Ballarat CC</i> [2004] VCAT 2630 (Road Con). It is noted that the same agreement requirement was carried over to PLP/2011/074 which allowed for the completion of the original subdivision proposal.</p> <p>For reasons not made clear in the Tribunal's decision of <i>Road Con</i>, the Tribunal appeared to recognise the site provided 'good quality Koala habitat'. Again, it is not clear the basis for the Tribunal to say this. The Tribunal stated the perceived threat that domestically kept dogs of future residents of the subdivision may threaten the viability of the site as attractive habitat 'already exists'. Senior Member Cimino said:</p> <p>For example, Mr Schlagloth submitted that the proposed subdivision would introduce known Koala predators, domestic dogs, into the area thus</p>
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	<p>threatening the viability of the site as attractive habitat. This may be so, however, this ignores the fact that dogs may be kept as domestic pets on any of the surrounding residential properties directly adjacent to or near the subject site. The threat already exists.</p> <p>I also note Mr McMahon's evidence that:</p> <p>Predation and sub-lethal disturbance of fauna by domestic pets [dogs, cats] and humans will be a significant impediment to the long-term maintenance of the site's biodiversity.</p> <p>The site is not "shut off" or inaccessible; rather, surrounding residential streets provide good access for both people and vehicles. This is a legacy of the street network that has been approved by the Council. There is no fencing to impede such access. There is evidence that people have accessed the site. Human access to the site involving activities such as trail bike riding and walking create tracks that, if left unmanaged, can give rise to erosion. There is evidence of weeds on the site and, not unexpectedly, these are mostly located around the periphery near adjoining properties.</p> <p>Mr Miller's evidence was that there are instances where rubbish has been dumped on the site. I would not be surprised if vegetation has been taken for firewood nor is it inconceivable that nearby residents would take dogs for a walk through the site. All of this activity detracts from the site's ecological values.</p> <p>[Emphasis added]</p> <p>The Tribunal's decision otherwise makes no reference to domestic pets, nor does it consider the merits when imposing condition 4(vc) requiring the owner to enter into the Section 173 Agreement prohibiting the keeping of cats or dogs being on any lot.</p>
<p>2. the purpose of the amendment;</p>	<p>The purpose of the subject amendment is to amend clause 2 (vi) of the Section 173 Agreement which currently states <i>no cats or dogs may be kept on any lot</i>.</p> <p>The amendment sought to the Section 173 Agreement will either result in a change of the wording or removal of the requirement. Effectively this will allow the relevant owners and occupiers on the affected lots to keep cats and dogs in a secure manner, observing as a matter of law, all dogs must be kept on a leash in public places including when outside your home, on the footpath (except in designated off-leash areas/parks). Advice provided from Nature Advisory to the City states <i>if Clause 2 (vi) were removed entirely in relation to cats,</i></p>

	<p><i>the local koala population would likely remain unaffected.</i></p> <p>The City agrees in relation to domestic cats, there is no evidence cats are predators of Koalas.</p>
<p>3. whether any changes in circumstances necessitates the amendment;</p>	<p>Since the Section 173 Agreement was entered into and the Estate was subdivided and developed, the area forming the subject land now forms part of the urban context of Ballarat. While the subject land was already in a residential zone, Sanctuary Estate forms part of a broader residential area where the vast majority of lots are not subject to an agreement prohibiting the keeping of cats and dogs.</p> <p>Where surrounding lots and the broader area is not subject to the same prohibition, the City considers there is little to no benefit derived from the restriction in this small area of the broader residential area.</p> <p>Since the original decision, there have been changes to the planning provisions applying to the area which seek to preserve habitat and minimise impacts of development on environmental values.</p> <p>The provisions allow the management of domestic animals in a manner that seeks to also preserve flora and fauna (i.e through the use of koala-proof fencing).</p> <p>Having regard to expert advice from Nature Advisory, Council considers:</p> <ul style="list-style-type: none"> ▪ the Koala population in the area is in decline; ▪ this is for reason of ongoing urbanisation including loss of habitat, loss of habitat connectivity and increase in traffic; ▪ the Estate does not support significant koala habitat and does not appear to support important koala movement; ▪ the risk of dog predation on koalas is low; and ▪ such low risk of dog attacks on koalas can be mitigated by among other things: <ul style="list-style-type: none"> – adequate fencing or enclosures to contain dogs and cats within private properties; – a restriction on the amended Section 173 Agreement requiring pet owners to ensure all dogs are on a lead outside of the private property and in an area affected by Schedule 5 of the ESO within the Estate and cats are not permitted beyond the private property at any time; and ▪ there is little to no justification for imposing the restriction in the Section 173 Agreement when

	<p>adjacent areas are not subject to the same restriction.</p> <p>The City of Ballarat also independently observes dogs are permitted on lead in the public open space areas within the Estate. It is irrational and unfair to prohibit keeping dogs in private properties within the Estate when dogs are allowed in the public open space areas of the Estate on a lead and supervised.</p> <p>The City of Ballarat also understands, that as a matter of law, all dogs in public places must be on a lead unless specifically permitted to be off lead in a designated off-lead area. To this end, there is already an obligation on dog owners, irrespective of whether they reside in this Estate, to be responsible for and supervise their dogs on leads when in public places. That said, the City considers it acceptable to reinforce this obligation under the Section 173 Agreement given the policy contained in Schedule 5 to the ESO.</p>
<p>4. whether the amendment would disadvantage any person, whether or not a party to the agreement;</p>	<p>There is potential for the amendment to disadvantage people who have purchased in the subdivision knowing the Section 173 Agreement is in place.</p> <p>However, it is noted the prohibition also forms part of a covenant burdening some of the titles and therefore amending the Section 173 Agreement will not remove the obligation from landowners completely. It will, (if the Section 173 Agreement is amended) however, relieve the City of Ballarat from the obligation to enforce a breach of the Section 173 Agreement. Given the site is part of a broader residential area with the majority of lots are not burdened by the same prohibition, Council considers there would be no disadvantage to amend the Section 173 Agreement.</p> <p>The City has sought advice from Nature Advisory in relation to the assessment of this application who have indicated that amending the Section 173 Agreement will be equally in effective in reducing impacts to koalas from domestic animals.</p>
<p>5. the reasons why the responsible authority entered into the agreement;</p>	<p>The City of Ballarat, acting as the responsible authority was required to enter into the Section 173 Agreement originally as a condition of Planning Permit PLP/2003/726 which was granted by VCAT for the subdivision of land into 87 lots.</p> <p>Subsequently PLP/2011/074 was also approved following PLP/2003/726 expiring. Planning Permit PLP/2011/074 included the same agreement requirement due to it allowing the completion of the subdivision originally proposed.</p>

	As previously discussed, it is unclear from information available as to the purpose of the Section 173 Agreement, particularly given it only applies to a small part of the broader residential area in Mount Helen.
6. if the amendment is to remove land from the application of the agreement, whether the land is subject to any further liability under the agreement;	The application to amend the Section 173 Agreement only relates to one part of the agreement which prohibits the keeping of cats and dogs on the land. The application to amend the Section 173 Agreement does not seek to amend any of the remaining clauses and as such those obligations will remain on foot. The application proposes to amend the words in clause 2(vi) to allow cats and dogs to be kept on lots that form part of this application in a secure manner. This obligation would transfer to all parties that form part of this application. The Section 173 Agreement will remain unamended as it applies to other lots in the Estate not forming this application. Parties to the application still have separate obligations under a Covenant applied to their title and City of Ballarat Local Laws.
7. any relevant permit or other requirements the land is subject to under the Subdivision Act 1988;	Not applicable.
8. any other prescribed matter.	Not applicable to this request.

CONCLUSION

23. Having undertaken the prescribed assessment and considered the submissions received it is concluded that Section 173 Agreement, instrument no. AE481780B should be amended.

24. It is considered there is merit in reinforcing the requirements for dogs and cats to be kept securely on lots but not prevent them from being kept together.

25. Owners and occupiers of lots are still obligated to meet other restrictions on title.

OFFICER RECOMMENDATION

26. That Council:

26.1 Support and approve the Amendment of the Section 173 Agreement recorded in instrument AE481780B Clause 2(vi) to read:

‘Cats and dogs must be secured and kept within the boundary of the private lots. Cats are not permitted to roam free beyond the boundary of private lots. Dogs are permitted beyond the private boundary of the lot but must be on lead in any area affected by Schedule 5 of the Environmental Significant Overlay and within the Estate at all times.’

ATTACHMENTS

1. Governance Review **[9.2.2 - 2 pages]**
2. PLP 2022 3 S 173 Mount Helen Sanctuary Estate Response to amendment application - 202305 **[9.2.3 - 2 pages]**

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ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. The report aligns with Council's Vision, Council Plan, Strategies and Policies.

COMMUNITY IMPACT

2. There are no community impacts identified for the subject of this report.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

3. There are no climate emergency and environmental sustainability implications identified for the subject of this report. Further information regarding environmental implications are discussed within the body of the report.

ECONOMIC SUSTAINABILITY IMPLICATIONS

4. There are no economic sustainability implications identified for the subject of this report.

FINANCIAL IMPLICATIONS

5. The cost of running a VCAT hearing is already included within the Statutory Planning Unit's approved budget.

LEGAL AND RISK CONSIDERATIONS

6. Any legal risk/implication resulting from this proposal is discussed within the main body of the report.

HUMAN RIGHTS CONSIDERATIONS

7. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

COMMUNITY CONSULTATION AND ENGAGEMENT

8. There are no gender equality implications identified for the subject of this report.

GENDER EQUALITY ACT 2020

9. There are no gender equality implications identified for the subject of this report.

OFFICIAL

OFFICIAL

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

10. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

PROCUREMENT COLLABORATION

(For Contracts Only)

OFFICIAL



18th May 2023

██████████
 Marcus Lane Group
 PO Box 78
 Brunswick East, Victoria 3057



Attention: ██████████ (Principal)

By email – ██████████@marcuslanegroup.com.au (phone ██████████)

Dear ██████████,

**RE: SANCTUARY ESTATE, MOUNT HELEN
 AMENDMENT OF SECTION 173 AGREEMENT
 PROJECT 23012.02**

Nature Advisory was retained by the Marcus Lane Group to provide a response to an application to amend a Section 173 Agreement (under the *Planning and Environment Act 1987*) (henceforth “the Agreement”). The amendment would either remove Clause (vi) of the Agreement (which currently reads “No cats or dogs may be kept on any lot”) or amend it to read “cats or dogs kept on a lot must be secured within the lot”. It is understood that there is no intention to amend the rest of the Agreement.

Amending Clause (vi) of the Agreement to read “cats or dogs kept on a lot must be secured within the lot” is a strategy which will be equally effective in reducing impacts to koalas from domestic animals. There are several reasons for this, listed below:

- Section 22.04 of the Ballarat Planning Scheme governs local policy in areas within the koala habitat layer. It states that the policy in relation to the keeping of domestic dogs in areas within this layer is to:

“Ensure that developments either specify that they will be dog free, or set out the manner in which dogs will be managed on the subject land to minimise contact between koalas and dogs, including the consideration of proposed fencing and location of dog compounds”.

Therefore, the keeping of dogs in dog compounds secured within lots, using (koala-proof) fencing, is explicitly stated as an option in the Planning Scheme. It is unclear why this option has not been given to the residents of Sanctuary Estate.

- Cats are not discussed at all in Section 22.04 of the Ballarat Planning Scheme. This is likely because they are responsible for a very low proportion of incidents causing koalas to require intervention. Specifically within the Ballarat area, they were found to have been responsible for <1% of such incidents from 1995-2006 (calculated from data provided in “Vehicle collisions and dog attacks on Victorian koalas as evidenced by a retrospective analysis of sightings and admission records 1997 – 2011”, a research article published in the *Australian Zoologist* in 2022 by Rolf Schlagloth, Flavia Santamaria, Alistair Melzer, Marie R. Keatley and Wayne Houston). If Clause (vi) of the Agreement were removed entirely in relation to cats, the local koala population would likely remain unaffected. This does not mean there are no ecological benefits from securing cats within lots – smaller and more threatened vertebrate species such as the Brush-tailed Phascogale have previously been



presumed present in the vicinity of Sanctuary Estate, and these species could be impacted by unsecured cats. However, koalas specifically are unlikely to benefit significantly from a prohibition against the keeping of cats in Sanctuary Estate.

- Resources published by the Department of Environmental and Heritage Protection in Queensland have stated that 96% of all attacks by dogs on koalas are launched by dogs >10kg. Since Victorian koalas are substantially larger than those from Queensland, it is likely that the proportion of attacks in Victoria involving dogs <10 kg is less than 4%. Therefore, If Clause (vi) of the Agreement were removed entirely in relation to dogs <10kg, it is unlikely the local koala population would be detrimentally affected. This is not to say dogs < 10 kg should be allowed to roam unrestrained and unsupervised outside their owners' residences, as such dogs can still be a nuisance, as described in the Ballarat Comprehensive Koala Plan of Management (KPOM). However, koalas are unlikely to benefit significantly from a prohibition against the keeping of dogs <10 kg in Sanctuary Estate.
- Even if Clause (vi) of the Agreement were left as is currently written and properly enforced, it would likely provide only a marginal benefit to the local koala population. Although the Sanctuary Estate reserve functions as a small habitat corridor allowing koalas passage through part of western Mount Helen more easily, it is too small to allow them to cross entirely between surrounding habitat patches without passing through many residential yards outside Sanctuary Estate. These residential yards are not covered by the Agreement and are areas where passing koalas could encounter cats or dogs. Furthermore, these yards constitute the majority of the distance beyond Sanctuary Estate koalas would need to traverse to cross western Mount Helen. Given that Sanctuary Estate covers a minority of western Mount Helen, the reduction in the likelihood of encounters between koalas and dogs in western Mount Helen if the current Agreement were enforced would not be large.
- The KPOM addresses the issue of dogs attacking koalas but appears primarily concerned with roaming domestic dogs that are unrestrained and unsupervised outside their owners' residential lot. This is a risk that was also recognised as the primary risk posed by dogs in the Mount Helen Koala Risk Assessment report written by Biosis in 2021. Clause (vi) would primarily concern dogs attacking koalas within their own backyard and would therefore be addressing an issue of relatively marginal concern to the KPOM. Furthermore, Clause (vi) would not prevent any roaming dogs from entering Sanctuary Estate (including the Sanctuary Estate reserve) from outside of Sanctuary Estate.

Incidentally analysis of available koala rescue data indicates that koala vehicle collision are a far greater threat than dogs to koalas. Council has jurisdiction over its roads and can potentially implement measures that can significantly reduce this threat, such as lowered speed limits and improved warning signs and public education.

Yours sincerely,

[Redacted Signature]

**Director and Principal Consultant
Nature Advisory Pty Ltd**

(03) 9815 2111 / [Redacted] | [Redacted]@natureadvisory.com.au

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PO Box 337, Camberwell VIC 3124
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9.3. BUNINYONG BOTANIC GARDENS MASTER PLAN

Division: Development and Growth
Director: Natalie Robertson
Author/Position: Adam Parrott - Senior Landscape Architect

PURPOSE

1. The purpose of this report is to have Council consider adoption of a Landscape Masterplan for the Buninyong Botanic Gardens.
2. The report outlines consultation which has occurred on the masterplan, findings of a peer review, and proposes progressing the detailed design of the reservoir wall for the Gong to address identified risks to community.

BACKGROUND

Community Consultation

3. The process of developing a new Landscape Masterplan for the Buninyong Botanic Gardens commenced following a Council Resolution of 27 May 2020 stating that:

“Council resolves to:

- 1. Note the detailed responses provided by the mySay engagement process for the Gong Improvement and Rehabilitation Project which provided a very clear viewpoint that additional consultation in respect to a landscape master plan for the entire precinct was desirable.*
 - 2. Commit to a detailed engagement with the key stakeholders across the town and broader Buninyong community to inform a masterplan for the entire precinct to be undertaken during 2020 and early 2021.*
 - 3. Defer any further consideration in relation to the detailed design of the reservoir wall for the Gong until the completion of the further engagement process.”*
4. The development of the Landscape Masterplan followed a rigorous process of community consultation and stakeholder engagement through 2021 into early 2022 and included two main phases:

A - Pre-Engagement Landscape Masterplan

5. Engagement methods in the Pre Masterplan phase included a walk and talk session with members of the Stakeholder Advisory Group (SAG), an online survey, an Open House Drop In Session at the Buninyong Town Hall , online workshops with year five students at Buninyong Primary School, articles in the Buninyong Community News, e-Newsletter, onsite meetings with the Wadawurrung Traditional Owners Aboriginal Corporation, letter drops to properties immediately adjacent to the site, and promotions via Council’s MySay Ballarat page and social media.
6. The majority of respondents were locals who used the Gardens as their local park for socialisation, exercise, respite and to feel connected to the natural beauty and aquatic environment. The strongest theme emerging from the Pre-Masterplan engagement

was the community's high regard for the Buninyong Botanic Gardens and the Gong as a beautiful, natural space and their desire for the changes to the Gardens to be done with a 'light touch' to retaining the historical character of the Gardens and to keep changes to a minimum. Responses from this engagement series were used to help inform the Draft Masterplan.

B - Draft Landscape Masterplan Engagement

7. The Draft Landscape Masterplan was released at an Open House in December 2021. It was then on display for 7 weeks during which time the community and stakeholders were invited to make comments or submissions. Engagement methods included an online survey, a second Open House drop-in session at the Buninyong Town Hall, articles in the Buninyong Community News, e-Newsletter, emails to stakeholders and promotions via Council's MySay Ballarat page and social media.
8. The feedback received through the Draft Masterplan engagement phase varied from simple statements of support for certain recommendations to detailed critiques and questioning of the need for reconstruction of the Gong Wall; preference for less pathways rather than more; specifics on biodiversity, plant collections and amenity outcomes to preserve the Gardens as they are; and requests to 'do nothing'.
9. All responses were considered and where relevant summarised as a series of recommendations to inform the final Landscape Masterplan. The summary of responses and recommendations was shared with all submitters to conclude the engagement process.
10. The Final Draft Masterplan was completed in early 2022. It was not presented to Council for adoption at that time as ongoing discussions were being held with some members of the Friends of the Gardens who sought a peer review to be undertaken of the original GHD risk assessment and proposed engineering solution for remediation of the Gong Wall which form part of the masterplan.

Gong Dam Wall

11. The Gong dam wall has been leaking for many years. Failure of the wall could mean inundation and flooding downstream of the Gong impacting the Botanic Gardens, the Bowling Club, the Primary School, and private residences. The Gong reservoir wall has been identified (in the GHD risk assessment, 2019) 'as not considered to satisfy the As-Low-As Reasonable-Practicable-Principle (ALARP)' with recommendations from GHD to 'take measures to reduce the overall risk'. The identification of this risk means that Council has a responsibility to act.
12. An appropriate engineering solution has been identified to rectify these risks. Proposed works to the Gong wall will protect the wall from piping failure (micro tunnelling) and control the seepage through the wall via the construction of an internal sand filter. This filter will allow controlled discharge of the seepage water into the garden ponds. These works have been recommended by a suitably qualified and experienced dam engineer.
13. These works have also been designed by the consultants with a landscape design response to the required wall reconstruction including:
 - Re-use and redevelopment of the stone retaining wall at the base of the wall on the Gardens side.
 - New low growing, shallow rooting plantings of the Gardens side embankment, consistent with the living Collections Strategy

- Re-use of the old concrete fence posts, where structurally possible, as bollards or similar along the road
- Planting of native aquatic vegetation along the Gong Wall side
- Improved pedestrian connections (boardwalks and path) along Cornish Street and between the Gardens and the Gong as part of the wall reconstruction.

Officers are satisfied that the proposed wall remediation works will mitigate the risk posed by the wall and satisfy an appropriate and improved landscape outcome in recognition of the significance of the Botanic Gardens precinct.

Findings of Peer Review

14. A peer review of the GHD plans and landscape concept has now been completed by Stantec. In summary it generally supported the recommended works and methodology for risk remediation of the Gong Wall, noting some further recommendations to be considered as part of finalising the design and construction detailing for the wall. The peer review findings are considered to generally align with the landscape concepts in the Masterplan and do not inform any change to the Final Masterplan as presented.
15. The Executive Summary of the Masterplan has however been updated to reflect the Peer review having been undertaken. The Masterplan is considered “flexible” enough and is amenable to any changes that may impact through the next phase of the detailed Gong Wall design process.
16. The peer review findings were presented back to the Friends of the Gardens on 26 May 2023 where it was noted the Final Masterplan would next be presented to Council for adoption having satisfied the previous Council resolution of 27 May 2020 for further engagement. The process undertaken to date now completes the previous resolution and enables the detailed design for the Gong Wall reconstruction to progress.

KEY MATTERS

17. The Buninyong Botanic Gardens Landscape Masterplan has been informed through consultation with the community and has now been finalised. The various engagement processes used throughout this project are proven community engagement techniques, relevant to the scale of the project.
18. In addition to the completion of the Masterplan, the original engineering solutions and recommended landscape treatments in both of these documents has been further tested by the Stantec peer review. The peer review findings are considered to generally align with the landscape concepts in the Masterplan and do not inform any change to the Final Masterplan as presented, noting that there are some further recommendations to be considered as part of finalising the design and construction detailing for the wall.
19. The intent of the Council resolution of 27 May 2020 to defer detailed design of the Gong Wall until completion of further engagement has now been fulfilled and therefore detailed design and planning for reconstruction of the Gong Wall is able to proceed.
20. Some members of the local community may not accept that the Gong Wall needs to be remediated, despite the original risk assessment, engineering solutions, proposed landscape treatments in the Masterplan and the subsequent peer review. However, some local residents are very concerned about the risk to their properties, are fully

supportive of the Masterplan and are keen for the Gong Wall remediation works to proceed as a matter of urgency.

21. City of Ballarat as the Responsible Authority is obliged to reconstruct the Gong Wall as a prudent and responsible risk aversion and as a priority.

OFFICER RECOMMENDATION

22. That Council:

22.1 Adopt the attached Buninyong Botanic Gardens Landscape Masterplan (May 2023);

22.2 Note that Officers will prepare an implementation plan including detailed costings that will be presented to Councillors at a future Briefing prior to being referred to future budget cycles for funding.

22.2 Proceed with detailed planning, design and reconstruction of the Gong Wall in consideration of the recommendations of the Stantec peer review and the Landscape Masterplan outcomes for this part of the Gardens.

ATTACHMENTS

1. Governance Review [9.3.1 - 2 pages]
2. Buninyong Botanic Gardens Masterplan (FINAL - May 2023) [9.3.2 - 25 pages]

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ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. The Buninyong Botanic Gardens Masterplan has been developed to satisfy Council resolution from May 2020 to:
 1. *Note the detailed responses provided by the mySay engagement process for the Gong Improvement and Rehabilitation Project which provided a very clear viewpoint that additional consultation in respect to a landscape master plan for the entire precinct was desirable.*
 2. *Commit to a detailed engagement with the key stakeholders across the town and broader Buninyong community to inform a masterplan for the entire precinct to be undertaken during 2020 and early 2021.*
 3. *Defer any further consideration in relation to the detailed design of the reservoir wall for the Gong until the completion of the further engagement process."*
2. The Buninyong Botanic Gardens Masterplan also aligns with Ballarat Open Space Strategy (2008) that recommends Masterplans be developed for District and Regional level reserves.

COMMUNITY IMPACT

3. Adoption of the Masterplan will provide clarity for the future implementation of works for the Buninyong Botanic Gardens and the Buninyong Community. All of the works identified in the Masterplan are considered to have a positive impact on the Community's use and enjoyment of the Gardens.
4. Reconstruction of the Gong Wall will address risk management issues posed by the current wall and provide peace of mind for residents that currently live downstream in areas identified as likely to be impacted if the current wall fails.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

5. Environmental sustainability practices will be implemented as part of delivering works identified in the Landscape Masterplan, including reconstruction of the Gong Wall.

ECONOMIC SUSTAINABILITY IMPLICATIONS

6. There are no economic sustainability implications regarding this Masterplan.

FINANCIAL IMPLICATIONS

7. The Buninyong Botanic Gardens Masterplan includes recommendations for a range of capital, recurrent and management works and improvements. Relevant capital works will be costed for Council's consideration as part of future budgets, where applicable.
8. A budget allocation of \$1.2 million sits in the current draft budget (2023/24) Infrastructure Capital Works Program for design and reconstruction of the Gong Wall.

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An additional \$200,000 has been provisioned in 2024/25. A total budget of \$1.4 million has been allocated for reconstruction of the wall.

LEGAL AND RISK CONSIDERATIONS

9. There are no legal risks associated with adoption of the Buninyong Botanic Gardens Masterplan.
10. There are potentially significant legal and risk management issues associated with further delaying the reconstruction of the Gong Wall, given the flood risk implications identified in the engineering reports and the delays in acting upon those risks due to the development of the Masterplan and the subsequent peer review.

HUMAN RIGHTS CONSIDERATIONS

11. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

COMMUNITY CONSULTATION AND ENGAGEMENT

12. A rigorous process of community and stakeholder consultation commensurate to the task, was undertaken throughout the development of the Buninyong Botanic Masterplan, as outlined in the body of the report.

GENDER EQUALITY ACT 2020

13. There are no gender equality implications identified for the subject of this report.

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

14. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

PROCUREMENT COLLABORATION

(For Contracts Only)

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Buninyong Botanic Gardens Landscape Masterplan

May 2023

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Project Name	230517_Buninyong BG Masterplan_FINAL
Revision	03
Date of Issue	18 May 2023

Revision No.	Date	Detail of Revisions	Reviewed By
00	02/12/2021	Draft	AW/KR
01	14/12/2021	Draft	KR
02	24/06/22	Final	KR
03	17/05/23	Final	AW

Urban Initiatives acknowledges the Wurundjeri People of the Kulin Nation as custodians of the land upon which we work. We acknowledge also the Wadawurrung People as the Traditonal Owners of the lands on which the Buninyong Botanic Gardens sits, and their unique perspective and contributions to this project.

We pay our respects to their respective Elders past, present and emerging.





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Executive Summary

In 2019, the Gong reservoir wall within the Buninyong Botanic Gardens was identified as a public safety risk due to its gradual deterioration over time. An engineering solution was developed to stabilise the wall and a Council resolution recommended that a landscape master plan be created to make the most of the opportunity to integrate the reconstructed Gong reservoir wall into the surrounding landscape. This new landscape masterplan compliments the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) and identifies improvements, actions and strategic directions for the Gardens and Gong in response to the needs of the current and future community. Mandatory works to the Gong reservoir wall were deferred until the completion of the Masterplan and associated engagement.

Engagement undertaken as part of the masterplanning process in July 2021 and again in December 2022 in response to the draft masterplan identified that the community held the Gardens and Gong in high regard as a beautiful, natural space. A preference was expressed for improvements to the existing character and infrastructure instead of large scale change.

The overarching objectives of this Masterplan are to:

- use the impending Gong wall works as an opportunity to achieve a more coherent, integrated Upper and Lower Gardens;
- build on the existing strengths of the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) updating it to reflect new thematic areas of planting, education and the Traditional Owners' connection to country;

- evolve the Gardens to suit the diverse needs of the community, within the context of heritage significance and the availability of Council resources;
- improve accessibility, circulation and connections within the reserves as well as to iconic locations in town and surrounds;
- consider the future of the Gardens in the context of climate change and establish principles to guide inevitable change in the Gardens while retaining character and integrity;
- celebrate the landscape and heritage setting of the Gardens, including the cultural heritage of the location; and
- implement the City of Ballarat's Living Collections Strategy for the Gardens with a particular focus on education.

This Masterplan is intended to compliment the Buninyong Botanic Gardens Conservation Study and Masterplan (2004) and should be read as a high level strategic document identifying opportunities for improvement, strategic development and action.

A peer review of the engineering solution for the Gong wall was completed by Stantec in March 2023. It generally supported the Gong wall engineering and the subsequent landscape improvements presented in this Masterplan with some additional detail.

The Masterplan drawings at the end of this document should be used to inform future works and the development of an Implementation Plan.



1 INTRODUCTION

1.1 Context

In early 1850, William Malcolm, the then Government Surveyor, identified two large allotments amounting to ten acres annotating them as 'Springs & Tea Tree' indicating as the reason they were not allocated as housing allotments. It was also around that time that the Gong dam wall was constructed to ensure a water flow to the adjacent brewery but also to provide additional water for the growing settlement. In 1889, the ten acres were permanently reserved for Botanic Gardens by the Shire of Buninyong.



Fig. 1 Plan of the Township of Buninyong (1856) indicating 'springs and tea tree' on the Botanic Gardens site

During the 1860s the numerous plantings were sourced for the Botanic Gardens including specimens from Frederick von Mueller at the Botanical Gardens in Melbourne, Francis Moss at 'Mossmount' locally in Buninyong, George Longley at the Ballarat Botanic Gardens, and Daniel Bunce at the Geelong Botanic Gardens. It is also likely that additional donations came from Buninyong residents and other local figures. This began the rich history of the Buninyong Botanic Garden cementing it as an integral part of the town's history and identity.

In 1999 the Garden and Gong precinct was included on the Victorian Heritage Register. A more in depth description of the Garden's heritage can be located in the Buninyong Botanic Gardens Conservation Study and Masterplan (2004). This document remains current and should be read in conjunction with this masterplan.

The Buninyong Botanic Gardens Conservation Study and Masterplan (2004) is a comprehensive document that contains a body of research and actions that are still relevant today. This Masterplan is not intended to replace or supersede the Conservation Study and Masterplan, rather it provides an update to some sections of the 2004 document.

Buninyong Botanic Gardens is part of a larger regional network of creeks, waterbodies, open spaces and botanic gardens throughout Victoria. The role and function of botanic gardens both urban and rural, has been the subject of student work at RMIT.

For the Wadawurrung, the land on which the Gardens sit has been significant for millennia. They lie in close proximity to the scene of a significant battle between the two fearsome volcano warriors Derrinalum and Bonan Youang. Below is Uncle Bryon's telling of their creation of Wadawurrung Country.

'We are here on Bongerimennin [Flagstaff Hill lookout in Linton], we have a view of Bonan Youang and Derrinalum. Bonan Youang is now at Mount Buninyong, which means a man lying on his back with his knees raised. Terrinalum is now called Mount Elephant. Terrinalum actually means place of the sea terns, which are like swallows. The story is told by the old people that Bonan Youang and Terrinalum argued and challenged each other to a fight and they came together to fight at a place called Pitfield. Terrinalum had a spear. Bonan Youang had an axe. And as they fought, Terrinalum pierced Bonan Youang's side with his spear. Buninyong hit Terrinalum on the head and split his head with his axe. They were so angry that they spat fire at each other, but they were also hurt so they retired back to their campsites to rest. They turned to stone. You can still see them today. If you look at Bonan Youang you can see where Terrinalum's spear pierced his side. If you look at Terrinalum you can see where Bonan Youang's axe split his head open.'

Wadawurrung ancestors witnessed this fight. Their Country, with its unique volcanic geology, flora and fauna now lies peaceful. The Gong is located directly in the line of fire between the two warriors, and the remains of Derrinalum are discernible in the distance, from the highest point of the upper gardens.



Fig. 2 Wadawurrung Country and the Buninyong Botanic Gardens

1.2 Gong Reservoir Dam Wall Reconstruction

The reconstruction of the Gong Wall will remediate the leaking dam wall and bring it into line with current standards to secure safety for the Buninyong Community. Works to the Gong Wall will retain the existing core and stabilise the structural integrity using a new drainage layer. The finish of the stabilised wall on the Gong side is proposed to be a rocky embankment planted with riverine plants while the Gardens side will be constrained to a soil to a depth of 300mm in order to ensure the wall structure remains intact. Solutions that may provide greater depth of planting medium for the inclusion of larger species, such as terracing, are being explored and are subject to engineering approval.

As part of the Wall repair, a Gong-side boardwalk may allow greater connection between park users and the aquatic environment and a new, safer pedestrian path can be established along Cornish Street. A new walking path is possible at the foot of the new Gong Wall to allow for appreciation of the new embankment collections and improved views into the Botanic Gardens.

Opportunities that arise as a result of this project include:

- Exploring opportunities to better unite the two sides of the Gardens through paths, signage and improved sight-lines;
- Seeing the revegetation of the new embankment wall as an opportunity to extend the collections of the Buninyong Botanic Gardens (and City of Ballarat), as well as providing a considered and heritage-sensitive backdrop for the Sequoia and heritage ponds;
- Redesigning and integrating the Cornish Street edge and crossings to improve pedestrian access, safety and experience;



Fig. 4 Existing Zoning vs Proposed Concept plans for the layout of the Gardens, post the Gong Embankment works.

- Using the new interface of the embankment wall to create a thriving, indigenous, aquatic landscape for habitat, amenity and cultural importance, and to improve its access via boardwalk or similar;
- Using the embankment wall works to enable a staged vegetation replacement strategy which will progressively reduce environmental weed species and replace these with indigenous, water's edge species.

Currently, the Gardens and Gong are used as, and appear to be, two distinct spaces (Figure 4a). Under this Masterplan, the aspirations for the site are to enhance the Botanic Gardens as a place for exotic collections and the Gong side to be developed as a naturalised indigenous and native garden showcasing riverine and Australian plants (Figure 4b).

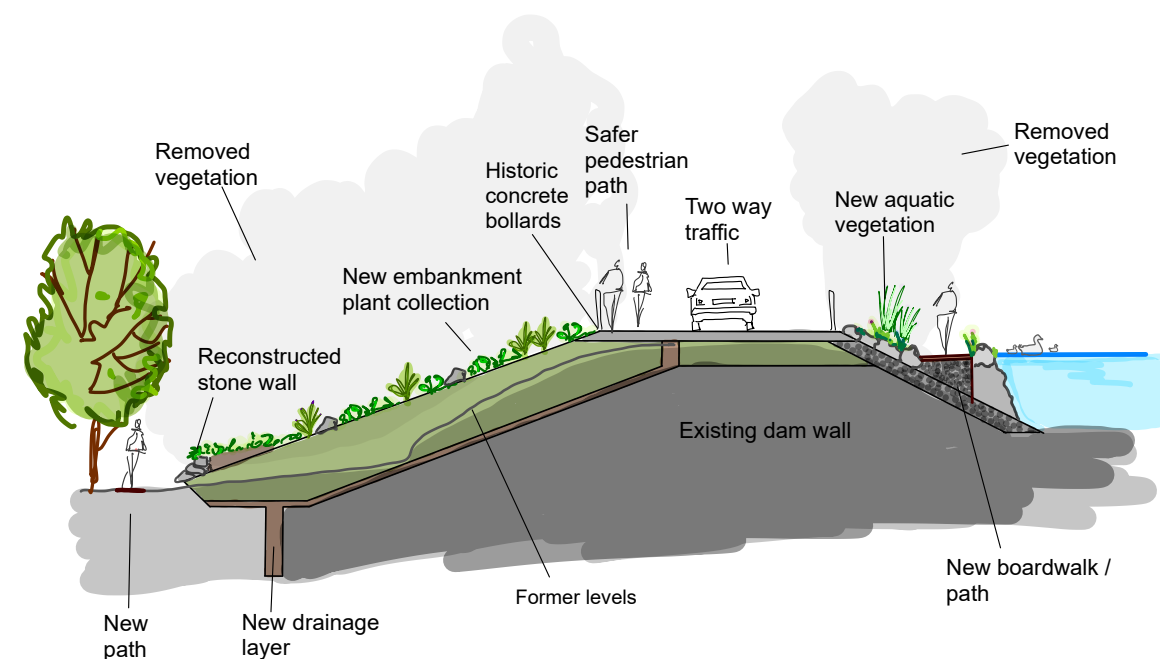


Fig. 3 Draft Concept for the new Gong embankment, Cornish Street and boardwalk. Concept subject to Engineering approval.

1.3 Reference and Guiding Documents

The following key documents were considered in the preparation of this revised Masterplan.

- *Buninyong Botanic Gardens Conservation Study and Masterplan*, Dr. David Jones 2004
- *Paleert Tjaara Dja Let's make Country Good Together 2020-2030*, Wadawurrung Country Plan 2020, Wadawurrung Traditional Owner Aboriginal Corporation
- 'The Gong Reservoir Engagement Summary Document', City of Ballarat, March 2020
- *The Gong Reservoir Dam Wall, Buninyong Botanic Gardens Reserve Heritage Impact Statement*, Context-GML Heritage Victoria August 2020
- 'Community Engagement Report, Buninyong Botanic Gardens Master Plan', City of Ballarat, September 2021
- *Buninyong Botanic Gardens Conservation Study and Masterplan*, Dr. David Jones 2014
- 'The Gong Dam Detailed Design Upgrade Risk Assessment Summary', GHD, 2019
- *Botanical Living Collection of Ballarat - Living Collection Strategy and Plans*, Mark Richardson, May 2018
- Structural Inspection + Report on Buninyong Gardens Former Pool Perimeter Walls, Consult Australia and Quatrefoil Consulting, June 2020
- Student work 'Project Botanica' was also considered as part of contextual research to prepare this Masterplan document. This document is available by contacting RMIT directly.



2 STAKEHOLDER ENGAGEMENT PROCESS

This Masterplan has come about as a direct response to engagement undertaken in 2019 that focused on the reconstruction of the Gong Reservoir Wall stabilisation works. As part of this process, the community advocated that the wall works be considered in the context of a revisited Masterplan for the Gardens and Gong precinct. A Council motion actioned this request.

Community and Stakeholder engagement featured in the development of this Masterplan with two main phases – to inform the development of the Draft Masterplan and then again once a Draft Masterplan had been prepared. Engagement methods in both phases were diverse and included a walk and talk session with member of the Stakeholder Advisory Group (SAG), an online survey, 2 x Open House Drop In Sessions at the Buninyong Town Hall, online workshops with year five students at Buninyong Primary School, articles in the Buninyong Community News, e-Newsletter, onsite meetings with the Wadawurrung, letter drops to properties immediately adjacent to the site, emails to stakeholders and promotions via Council's MySay Ballarat page and social media.

Pre-Masterplan Engagement

Engagement to initiate the Masterplan took place over 10 weeks commencing with an Open House and Survey in July 2021. This phase of consultation focused on understanding what the community valued about the Gardens and what they would like to see retained or changed.

During this period response rates for the key engagement events included:

- Visits to MySay Ballarat– 189 total visits across the 10 weeks

- Attendees at the Community Open House - 25 individuals
- Online survey - 56 respondents
- Classroom conversations with Buninyong Primary School – 200 children.

The majority of the respondents were locals who used the Gardens as their local park for socialisation, exercise, respite and to feel connected to the natural beauty and aquatic environment.

The strongest theme emerging from the Pre-Masterplan engagement was the community's high regard for the Buninyong Botanic Gardens and the Gong as a beautiful, natural space and their desire for the changes to the Gardens to be carried out with a 'light touch', retaining the historical character of the Gardens and keeping changes to a minimum.

Identified areas for improvement included a connected path network spanning Cornish Street, increased tree planting, acknowledgement of Country (to be determined in consultation with Wadawurrung Traditional Owners Aboriginal Corporation), an increased variety of seating, an upgraded play space and greater access to the Gong through a path or boardwalk. There was also a preference for the Lower Gardens to be enhanced to highlight European heritage and exotic plant collections, while the Gong be improved as a naturalised aquatic space exhibiting collections of indigenous plants. There was keen interest in including a telling of the story of the battle of Derrinalum within the Gardens.

Responses from this engagement series were used to help inform the Draft Masterplan.

Draft Landscape Masterplan

The Draft Landscape Masterplan was released at an Open House in December 2021. It was then on display for 7 weeks during which time the community and stakeholders were invited to make comments or submissions.

During this period response rates for the key engagement events included:

- Visits to MySay Ballarat– 218 total visits across the 7 weeks
- Draft Landscape Masterplan downloaded 95 times
- Attendees to Community Open House – 12 individuals
- Submissions/Email Contributions – 20 emails from 24 individuals.

The feedback received from the emails and submissions varied from simple statements of support for certain recommendations, to detailed critiques and questioning of the need for reconstruction of the Gong Wall. There were cases of support for improved path connections, bio-diversity, plant collections and amenity outcomes as well as preserving the Gardens exactly as they are and 'do(ing) nothing'.

All responses have been analysed and considered where appropriate, in the course of actively revising the Masterplan. A document summarising the feedback and identifying how it was used in the revisions to the Masterplan has been provided to all submitters to conclude the engagement process.



The Open House consultation, July 2021.



The consultative site walk through the Gardens with representatives of the Wadawurrung Traditional Owner Aboriginal Corporation revealed the Gardens' most significant view for the Wadawurrung.



3 EXISTING CONDITIONS

3.1 Access and Circulation

Existing Conditions Summary

There is an unsurprising contrast between the formality of the paths in the Lower Gardens and the more organic experience of the Upper Gardens paths around the Gong. This is consistent with the historical development of the Gardens and the difference is something to be celebrated as the Upper Gardens have the potential to evolve into a contrasting zone of the Botanic Gardens in their own right.

Clear and consistent circulation paths are at times compromised by missing links in pathways, grades, inconsistent surface materials and poor drainage. This is evidenced by the proliferation of informal paths or desire lines created throughout the Gardens and Gong. In considering improvements to the path network, travel to destinations beyond the Gardens, such as to Buninyong Primary School and the south-west car park, is worthwhile.

The establishment of a path hierarchy that responds to the various uses of the Gardens would also be beneficial. Whereas currently collections are not clearly defined, the opportunity to explore and experience collections of differing scales on a circuit of secondary or tertiary paths would provide the Gardens and visitors with more varied options for enjoying their time there.

Key Issues

- Lack of safe and accessible crossing between the two halves of the Gardens;
- Filling in missing links, in particular to destination/connections beyond or adjacent to the Gardens;
- Formalising frequented pathways to avoid soil compaction beneath/within tree root zones;



Fig. 5 Access and Circulation Diagram

- Considering universal access, path grades, drainage and surface finishes ;
- Providing circuitous paths for active and more leisurely exercise;
- Providing secondary and tertiary path connecting loops for exploring garden collections;
- Providing North-South pedestrian-only access parallel to Cornish Street but within the Gardens.



Photos from above left: Crossing Cornish Street; Drainage issues affecting existing gravel pathways; Opportunity to better integrate furniture with BBQ facilities for easier access.



3.2 Interpretation

Existing Conditions Summary

The City of Ballarat’s *Living Collections Strategy* has determined a purpose for the Buninyong Botanic Gardens which is complementary to that of the City’s existing collections, on a theme of ‘Education’. The Gardens are strongly positioned to deliver upon this theme owing to:

- their proximity to the Buninyong Primary School;
- the interest of the Wadawurrung Traditional Owners Aboriginal Corporation in this site and project;
- the variety of vegetation collections including the Gardens’ aquatic setting;
- the traditional and colonial heritage significance of the Gardens.

The Buninyong Primary School currently uses the Gardens for exercise and as a recreation space, but have expressed an interest in using it as an educational resource and space for informal teaching or excursion. They are particularly keen to learn about Wadawurrung culture, as is the Buninyong community keen to see it appropriately acknowledged.

Existing interpretation takes the form of plaques and information boards only.



Fig. 6 Cultural Heritage Map

1. Buninyong Botanic Gardens HV (#1826)
 2. The Gong Reservoir HV (#1826)
 3. Entry / Main Gates HV (B1)
 4. Main path HV (S1)
 5. Concrete posts and wire on Scott Street edge (Significant)
 6. Queen Victoria Rotunda HV (B2)
 7. Bowling Club old pavilion HV B4)
 8. Baths walls HV (B6)
 9. Baths pool (covered over) HV (B5)
 10. Main Pool and Island HV (S2)
 11. Upper Pool HV (S3)
 12. Main Pool channel HV (S2)
 13. Stone flume HV (S4)
 14. Former Court House (Significant)
 15. Cornish Street Reservoir and embankment (Significant)
 16. Gong Lake HV (S6)
 17. Acer species (registered trees under the heritage act 1995)
 18. Commemorative trees
 19. Gong path HV (S5)
- This map shows those features listed as significant. For a complete list of heritage-listed features see 'Historic Artefacts in the Buninyong Botanic Gardens' 5.5.1 David Jones, *Buninyong Botanic Gardens Conservation Study and Masterplan 2004*.
- For a full list of heritage and significant trees please refer to the 'Vegetation and Inventory of the Buninyong Botanic Gardens and the Gong Reservoir' David Jones, *Buninyong Botanic Gardens Conservation Study and Masterplan 2004*.



Photos, left to right: Memorial tree plaque; Interpretive signage denoting the history of the Pavilion; Heritage plaque at the Gardens’ main gate.

Key Issues

- Opportunity exists for the acknowledgement of Wadawurrung Country and the integration of interpretation about the pre-colonial history of the site (in consultation with the Wadawurrung Traditional Owner Aboriginal Corporation);
- The quality and definition of existing plant collections are varying, plant labelling and comprehensive data bases are also inconsistent/incomplete;
- Existing interpretation and labelling is traditional and subject to exposure and deterioration. The Wadawurrung have expressed a preference for integrated, non-static interpretation and digital media, rather than visual clutter.

3.3 Waterways and Aquatic Health

Existing Conditions Summary

For an area that is historically damp, the water quality in the Gardens has been compromised by poor flow, residential development and agricultural activities in the catchment. Environmental weed species proliferate and the heritage-listed overflow channel 'The Flume' does not function correctly, nor is it maintained to do so. Constant seepage through the compromised wall means that overflow waters rather than reach 'The Flume', leak through to the base of the wall embankment causing a permanently soggy area.

Lack of water movement in the pond system renders the water stagnant. The waters of the ponds and the Gong, if properly maintained, offer greatly improved opportunities for amenity, for areas of indigenous, wetland habitat and so for attracting wildlife.

Key Issues

- Stagnating waters in both the Gong and pond systems;
- Inappropriate species for filtering of wetland waters;
- Disconnection of Flume;
- Opportunity to improve the termination of the creek system in the gardens that currently leads to a man made drain;
- Proliferation of environmental weed species along the waters edge and in the Gardens, including Willows and Poplars.



Fig. 7 Existing Water Conditions



Above from left: Main Pool Channel terminus; the heritage-listed Flume; Waters of the gardens ponds; The Gong Reservoir.



3.4 Trees, Vegetation and Collections

Existing Conditions Summary

The absence of a Tree and Vegetation Management Plan for the Gardens means that decisions over time have been reactive rather than responding to, and consistent with a coherent vision. Although the collections may have previously presented as intact, today the Gardens are comprised of a disparate grouping of specimens, largely conifers (Pinus, Abies, Sequoiadendron and Cupressus sp.), fairly commonplace exotic deciduous species (Populus, Ulmus, Betula) and dense, shaded areas of *Quercus canariensis*. As the original, coniferous and evergreen specimens have grown and resources for maintenance have lessened, these large plantings have shaded out understorey beds and so, diminished the colour of the original Gardens. Still, the community describe Autumn colour in the Gardens’ trees as one of the highlights of the year.

The impending loss of the Arbutus (Strawberry Tree) on the lower Gong wall embankment and Salix (Willow) on the upper embankment, in addition to the eventual removal of environmental weeds, senescent or unsafe trees, offers the opportunity to rethink plantings to bolster garden-wide strategies: providing spaces for the evolving uses of the Buninyong Community, future-proofing the Gardens’ collections against Climate Change, the removal of environmental weed species which are responsible for long-term harm to the environment and strengthening collections and educative opportunities.

Key Issues

- Garden size is restrictive which limits capacity for the plant collections typical of Botanic Gardens, large tree species, while also providing the open spaces which are important to this community for amenity;

- Dominance by large, evergreen species and conifers which have shaded out extensive areas of understorey, limiting opportunities for garden beds and shrub/annual/perennial collections as well as the contrast between open areas and more intimate/shaded/enclosed areas;
- Areas of environmental weed plantings or suckers;
- History of ad hoc plantings of commonplace species and/or cultivars, lessening somewhat the significance of the place for its collections;
- Poor definition of collections, particularly in the upper gardens;
- The original planting of the Acer collection in a location poorly-suited to the genus and subsequent addition of commonplace cultivars to augment this collection;
- Loss of understorey ‘colour’ described in early accounts of the Gardens in their heyday;
- Danger of losing open space and key views to garden features eg pond, embankment;
- Opportunities for tree planting to the surrounds of the Gardens, including to screen, shade and improve amenity within the car-park and street tree planting;
- Future planning for a tree management plan to guide the staged removal, replacement and renewal of trees throughout the gardens.



Clockwise from top: The Acer Collection; The Gardens/Bowling Club car park, bereft of trees and shade; self-sown Willows on the Gong bank, underplanted with indigenous grasses.



LEGEND

- Acer species (Registered trees under the *Heritage Act 1995*)
- Commemorative trees
- Zone dominated by environmental weed species
- Opportunity for hedge
- Opportunity for new tree plantings to screen and shade car park
- Site boundary

NOTE: This map shows all available existing digital tree data. A complete data base /tree inventory for the Gardens in digital format at time of writing, does not exist.

For a full list of heritage and significant trees please refer to the ‘Vegetation and Inventory of the Buninyong Botanic Gardens and the Gong Reservoir’ David Jones, Buninyong Botanic Gardens Conservation Study and Masterplan’ 2004.

Fig. 8 Existing Vegetation Conditions



3.5 Amenity

Existing Conditions Summary

Existing furniture and facilities in the Gardens would benefit from upgrades to ensure universal accessibility. Alongside upgrades to pathways, an increase in stopping points along circuits would also be worthwhile. A variety of seat groupings has been requested to increase gathering options and use by various community groups and the school.

Access to both shade and more open areas exists, but more comfortable, lighter canopied areas would make a significant contribution to areas of comfort which are cross-seasonal.

As part of the engagement, requests have been received from the community for drinking fountains, to improve water quality and direct access to the waterside areas, as have specific requests for improvements to heritage structures for community use.

Key Issues

- Poor accessibility of some facilities eg. picnic tables;
- Furniture suite is inconsistent in type, age and condition;
- Unclear or inconsistent wayfinding signage;
- Provision of electricity for community events
- Lack of access and condition/safety of the Old Pool
- Outdated and/or inappropriate play equipment;
- Poor quality of water in pond systems and Gong;
- Opportunity to increase seating throughout as well as options for seating eg individual, group, formal, informal;
- Incomplete paths limit garden use for exercise;

- Lack of shelter over BBQ;
- Missing areas of shade/shelter in upper gardens, particularly at the high point where views can be enjoyed;
- Opportunity in heritage buildings - Police Station and the Butter Factory, remain mostly unused;
- Evolving use of the Gardens and planning to accommodate future use;
- Opportunity to repurpose garden beds in the location of the former Caretaker's Cottage as an outdoor classroom setting.



Fig. 9 Existing Buildings & Amenities



Photos above from left: Opportunity of the Heritage Precinct; BBQ facilities adjacent to the heritage-listed Pavilion; Outdated picnic tables, inaccessible for those with mobility issues; Traditional garden seating.



4 MASTERPLAN

4.1 Themes

The work included in this revised Masterplan report reflects the desires of the community and key stakeholders. Stakeholder engagement has revealed that all in all, wholesale changes to the Gardens are not desired but rather, that improvements to or the fine-tuning of what they already provide, is preferred. Themes from the consultation have therefore evolved as follows:

A Place for Connecting

First and foremost the Buninyong Botanic Gardens are a place for connecting. The important place held by the Gardens in the community’s hearts is evident. Visitors retreat to the Gardens to connect to nature, to the seasons, to the past, to family and friends, for community events, for fun, learning, exercise and for respite. Looking forward, the Gardens will continue to provide for these pastimes as well as developing other opportunities to connect, particularly for the Buninyong Primary School, local residents and to the Wadawurrung community and their living cultural heritage.

A Place for Learning

The Living Collections Strategy recommends that a particular focus on education, ecology and biodiversity would make these gardens a unique complement to the City of Ballarat’s

suite of gardens. The community are keen to learn more about their Gardens, the site and its heritage. Reframing the existing assets of the gardens from this perspective would render them an invaluable resource for the Primary School, the community and visitors alike.

Acknowledging our Cultural Heritage

The Gardens site is heritage-rich. Recommended future works will acknowledge this heritage through various interventions including consideration of key views, planting selection, signage, story-telling and interpretive trails, digital media, integrated nature play and land management techniques. Changes will be made in consultation with Heritage Victoria and the Wadawurrung Traditional Owners Aboriginal Corporation as appropriate, and will reference the recommendations of the 2004 Conservation Study and Masterplan.

Caring for our Natural Systems

Future plans and maintenance of the Gardens will be undertaken in a way that prioritises the health of natural systems on-site, particularly in consideration of rapidly changing climatic conditions. This includes improvements to aquatic, ephemeral and terrestrial areas, ensuring biodiversity, the selection of enduring botanical species and ethical maintenance techniques.

A Botanic Gardens for the Future

The Gardens are a precious combination of all of the above. Future-proofing the Gardens does not come at the cost of its heritage value. The essence of what makes the Gardens special is at the centre of all decision-making and innovative design thinking allows us to conserve and nurture without compromise, while evolving where necessary.



4.2 Strategies

Following are a series of strategies offering specific direction for the future development of the Gardens, in keeping with the aforementioned, overarching themes.

4.2.1 Community, Programming + Amenity

The Gardens continue to fill several roles in community life which have remained the same since their inception: those of access to nature, of providing a place for individual respite, exercise and for social gathering/ community events.

Under the umbrella of this strategy, facilitating these requirements from the Gardens has been achieved by:

- Paying heed to the natural topography of the Gardens and to the base of natural amphitheatres/focal points. These spaces can be used for performance and as outdoor teaching spaces;
- Augmenting the existing garden layout to provide a variety of contrasting spatial and natural experiences at different scales. This is achieved through the installation of secondary and tertiary paths and ornamental garden beds which provide the colour and scent in descriptions of the original gardens as well as breaking up of some of the larger expanses of lawn to create more intimate spaces (Refer Fig. 11). Upgrades to the Gong/upper gardens and the addition of wetland boardwalks will also add to the experiences on offer; Ensuring that a central band of open lawn with deciduous plantings and/ or ornamental gardens beds provides ample space for relaxing and picnicking in the gardens. This is as distinct from the Southern section of the Gardens which is dominated by large, evergreen canopies;



Fig. 10 Key Views and Focal Points

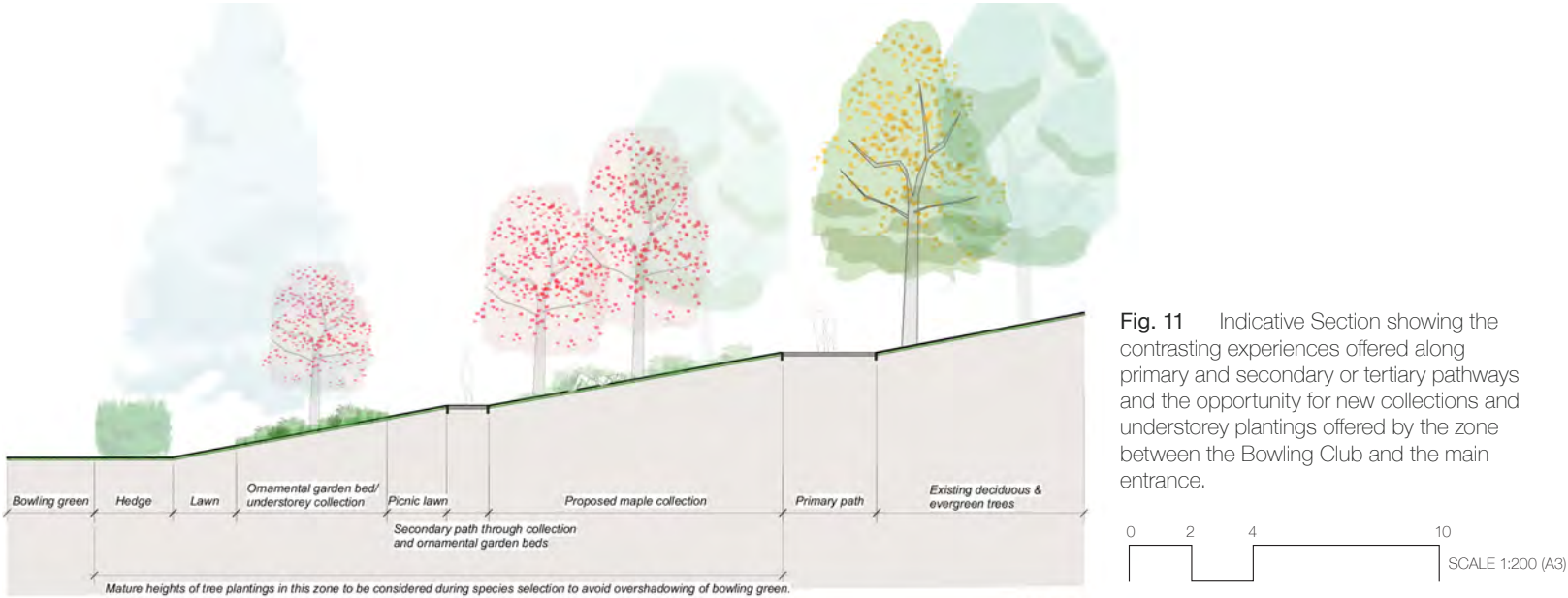


Fig. 11 Indicative Section showing the contrasting experiences offered along primary and secondary or tertiary pathways and the opportunity for new collections and understory plantings offered by the zone between the Bowling Club and the main entrance.



Fig. 12 Programming and Amenity

- Earmarking spaces for formal and informal performance, teaching and ceremonial gathering (seating up to at least 25), for future development in conjunction with relevant stakeholders;
- Providing continuous and accessible pathways as well as circuit paths for walking and running (See Access, Circulation and Connections);
- Providing a consistent and quality suite of seating, tables, water fountains etc. water fountains to include dog bowls;
- Providing clear, informative and integrated signage for interpretation, wayfinding and connection;
- Considering consistent and continuous surfaces to ensure accessibility to furniture and other amenities in the Gardens;
- Recommending upgrades to heritage structures: the Flume, Old Pool, the interface between the Rotunda and the BBQ area, the Butter Factory and the former site of the Caretaker's Cottage to extend programming possibilities for the Community and stakeholders.

4.2.2 Cultural Heritage

Stakeholder interest in the Gardens acknowledging Post-Colonial cultural heritage as well as continuing Wadawurrung culture, is high.

The Wadawurrung Traditional Owner Aboriginal Corporation has indicated a preference that cultural interpretation express one, robust design narrative, in this case, the site-specific story of Bonan Youang (Buninyong), the warrior volcano, who over the course of his battle with Derrinalum formed the unique Wadawurrung Country. The story ‘flows throughout the site, Gardens and beyond’ thus ways of articulating the story and acknowledging ownership which are integrated and/or living, are preferred to static interventions.

The Wadawurrung Traditional Owner Aboriginal Corporation is a fledgling corporation at the time of writing, however keen to be involved in future projects on-site as they evolve as an organisation and resources increase.

The following recommendations have come out of consultation with the Wadawurrung:

- Consider the installation of a ceremonial/ gathering space in the location as shown to remind visitors of the significance of the axis between Bonan Young (Buninyong) and Derrinalum (Mt Elephant). This gathering space, although designed to meet Wadawurrung cultural requirements could double as an events space and outdoor classroom;
- Engage with the Wadawurrung to develop plant lists for the indigenous collection which include recommendations for species for crafting and Bush Tucker;

- Design/develop materials palette/ integrated interpretation and/or nature play elements for an interpretive trail within the Upper Gardens which includes the Bonan Youang/Derrinalum story;
- Develop signage to acknowledge Country to be located as indicated at the entrance/ within the Gardens;
- Design dual-language English/ Wadawurrung plant tags for the Upper Gardens;
- Consider future collaboration with Council for traditional lands and waterway management in the Gardens.

Retaining the visual amenity and character of the Gardens to be sympathetic to the Victorian Period (1870s - 1890s) will be achieved by:

- Developing an integrated and consistent (Garden-wide) Signage and Interpretation Strategy;
- Reinstating the Flume as a high-flow space as part of the Gong wall works, so that it functions when necessary during large rain events, to avoid overflow;
- Retaining/opening up key views, indicated in Figure 10 and significant views/ sightlines (as outlined in the *Conservation Study* 2004);
- Retaining and enhancing elements of the Gardens which reinforce their importance in community life as a place of leisure, education and gathering;
- Replacing like for like, as original tree plantings reach senescence while ensuring key views remain clear;
- environmental weed and non-drought-tolerant species are replaced with similar but sustainable specimens;

- Retaining memorial and heritage/ significant plantings or consulting to relocate/substitute as appropriate;
- Repairing the old swimming pool walls and structure and reinterpreting it as usable space, especially for events;
- Ensuring materials and construction techniques for new structures/ infrastructure are complementary to the existing character of the place.



Fig. 13 Wadawurrung ceremony in Wurdi Youang (You Yangs) (Image: ABC)



Fig. 14 The Gardens' entry gates are of high significance for their craftsmanship



4.2.3 Education and Interpretation

The City of Ballarat’s Living Collections Strategy has determined that the Gardens are strongly positioned to deliver upon a theme of ‘Education’ owing to their history, their collections and their proximity to the Buninyong Primary School.

The traditional ownership of the Wadawurrung and their interest in this site and project, the heritage significance of the Gardens and the huge value of curated natural settings as ‘live’ teaching spaces, renders the Gardens an important educative resource.

This approach has been endorsed by the community and stakeholders, in particular the Wadawurrung Traditional Owner Aboriginal Corporation and representatives of the Buninyong Primary School and Council. As a result, opportunities have been sought to use existing and proposed planting collections, specimens and other aspects of the Gardens as active and passive teaching/learning tools with a particular focus on the following themes:

- Indigenous plantings of cultural significance;
- Natural systems, biodiversity, wildlife and habitat;
- Memorialisation through plantings;
- Colonial history;
- Science and evolution; and
- Climate Change.

Going forward, interpretation relating to traditional stories and culture, in particular the story of Bonang Youang and/or other associated Language projects will be developed in partnership with Wadawurrung Traditional Owners as a living process.

Post European settlement history and heritage values will also be acknowledged appropriately and in consultation with Heritage Victoria.



Fig. 15 Education and Interpretive Opportunities Map

- 1 Consistent approach to interpretation and signage (where necessary) throughout the Gardens begins here. It is appropriate to denote heritage significance and cultural significance at the main gate;
- 2 Memorial Trail: Existing memorial avenue could be augmented by further information eg. veteran details/stories, historical information about the impacts of significant world events on the locality;
- 3 Opportunity to link and bring together information about the heritage structures in this area.
- 4 Interpretive/Educative opportunities around the natural and constructed water systems in the Gardens ie. Gong Reservoir, springs, Flume and ponds;

- 5 Consider opportunities to ‘reverse integrate’ the Buninyong Primary School with the Gardens, with particular focus on the interface between the two and the educative resources requested of the school;
- 6 The Historic/Legal precinct is a rich source of post-colonial educative information for sharing, as well as information about architecture, design and plantings design should the grounds of this precinct be formalised through plantings of the era;
- 7 The upper gardens present an opportunity to sensitively acknowledge Country. Interpretive elements, patterns, stories and other references can be embedded into built form. The boardwalk and areas of rich habitat offer the opportunity to install nesting boxes and bird hides to nurture and observe wetland environments and their fauna. Many wetland species are utilised in traditional cultural practices;

- 8 The Wadawurrung Traditional Owner Aboriginal Corporation has offered to provide Wadawurrung names for the labelling of the upper gardens vegetation. Using this endangered language embodies the opportunity to educate about many things as well as to acknowledge Country;
- 9 Indigenous gardens beds and a new Wadawurrung ceremonial space provide an area for teaching culture, and for teaching more generally.

4.2.4 Access, Circulation and Connections

The existing, historical layout of the pathways is improved by:

- Filling in missing connections on primary paths;
- Ensuring connections are made to destinations within and beyond the Gardens on continuous, safe and accessible pathways;
- Installing secondary and tertiary paths for more detailed exploration of the Gardens and their collections. These also provide a broader offering of spatial experiences (Ref: P15 Fig.11 Indicative Section);
- Addressing DDA compliance across the Gardens as a priority;
- Providing an improved natural experience and closer access to the Gong waters through the installation of a boardwalk. Curvilinear form is preferred by the Wadawurrung;
- Enhancing entry experiences from the main, secondary and car park entrances;
- Addressing access, grading and visibility issues across Cornish Street. Consider changes in the road surface to prioritise pedestrian crossing;
- Improving access to island and connection beyond.



Fig. 16 Improved Paths and Connections

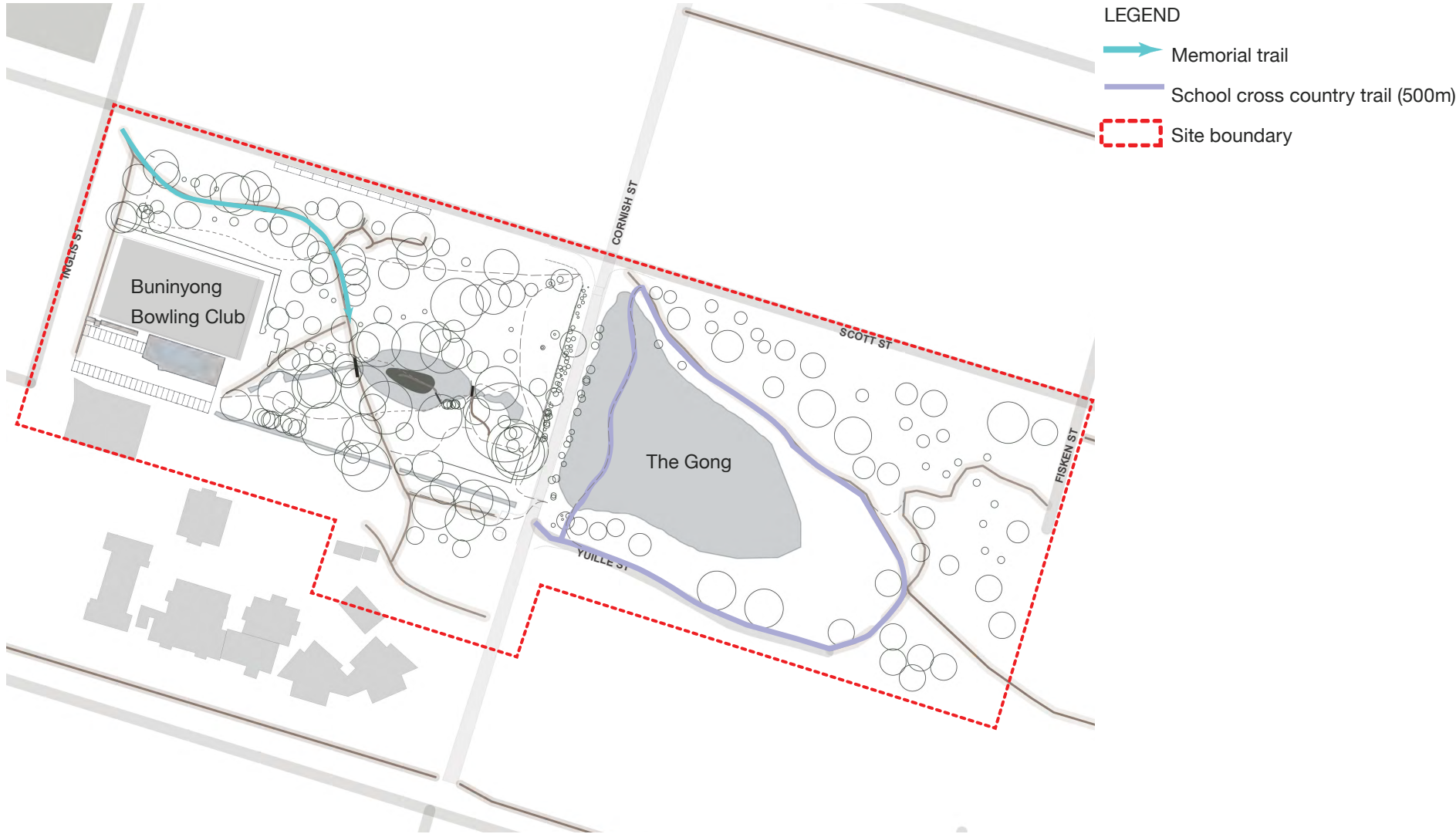


Fig. 17 Visitor Experience Circuits and Exercise Trails

4.2.5 Healthy Ecosystems, Habitat and Water

Flourishing habitat and biodiversity provide benefits for fauna and humans alike and actively nurturing Country embodies the ancient wisdom of the Wadawurrung.

Achieving biodiversity in the Gardens is key to their longevity and preserving their integrity. The Gong works will, by default, precipitate the removal of environmental weed species (largely Willow /*Salix* sp.) which have proliferated on the upper embankment and at the water's edge, particularly on the southern bank of the Gong. Regeneration of the area with indigenous species that provide the ideal habitat for native birds and other animal species would greatly benefit this environment.

Conserving, improving and protecting habitat and plantings for aquatic life around the Gong has been prioritised highly by the community, including the Wadawurrung.

- It is recommended that a Tree and Vegetation Management Strategy for the Gardens is produced to ensure the conservation of the heritage character of the Gardens as well as to support the stakeholder vision for the Gardens into the future.
- Staged removal of environmental weed species is necessary to secure improved water quality and a healthy wetland environment;
- Revegetation of this area will require aquatic, ephemeral and terrestrial plantings which filter the water improving its quality. Improvements to water quality has knock-on benefits for adjacent water bodies and natural systems. Considered design of this area will be beneficial;
- Indigenous wetland species are quick to establish and noticeable improvements to habitat and the waterside environs will be evident within five years of planting;

- Undertaking revegetation works in consultation with the Wadawurrung.

Reengineering of the Gong Wall offers the opportunity to also address and improve the issues around

- Seepage at the base of the embankment wall in the Lower Gardens;
- Poor flow through the Ponds system; and
- The functioning of the heritage Flume.

The Flume is a high water level bypass functioning as a drain during large rain events to avoid overflow. The designed seepage from the Gong wall is normal as it is an earthen wall. The new sub-surface drainage system will be designed and integrated with the wall construction. Collected seepage water will be discharged to the ponds, improving circulation and water quality. The ponds will by virtue of the new sub-surface drainage system, benefit from the water filtration, additional supply and constant flow.

The Lower Ponds would benefit from some attention at the pond terminus, particularly as this is also the entrance to the Gardens from the car park. Enlarging and better integration of the drain would greatly improve its appearance.



Fig. 18 Proposed Water Bodies Map

4.2.6 Trees, Vegetation and Collections

As mentioned previously, the City of Ballarat's Living Collections Strategy has determined a planting strategy for the BBG which is complementary to that of the City's existing collections, on a theme of 'Education'.

Some of the benefits of implementing this planting strategy have been outlined in the 'Signage and Interpretation' as well as the Community, Programming and Amenity strategies.

New plantings on the Gong Embankment will be used to strengthen the Trees Vegetation and Collections strategy and design intent.

In addition, this Masterplan strategy recommends:

- The Upper Gardens be developed to contain an indigenous planting collection. This collection will focus particularly on species appropriate to the site conditions including wetland species for rehabilitation of aquatic systems and for cultural use, Bush Tucker plants of the Wadawurrung and other plants relevant to sharing of knowledge and storytelling;
- Removal of all environmental weeds;

- Plantings that are enduring and non-threatening to natural systems within or beyond the Gardens;
- Plantings are suited to and conducive to the programming requirements of the Gardens;
- Plantings are compatible with the conditions of the location and appropriate in the context of changing climatic conditions to ensure the character of the Gardens remains intact;
- New and replacement plantings whose characteristics (scale, form, habit, evergreen/deciduous, flowering etc) must be considered alongside the other strategies within this document for achieving the long-term vision for the place eg. retention of open views, screening, provision of native habitat etc. as well as retaining heritage character;

- The commissioning of a Tree and Vegetation Management Strategy for the Gardens that aligns with the above recommendations and takes into account the Useful Life Expectancy of existing specimens, securing the future of the Gardens' trees.



Fig. 19 Proposed Vegetation/Collection Map

4.3 Masterplan

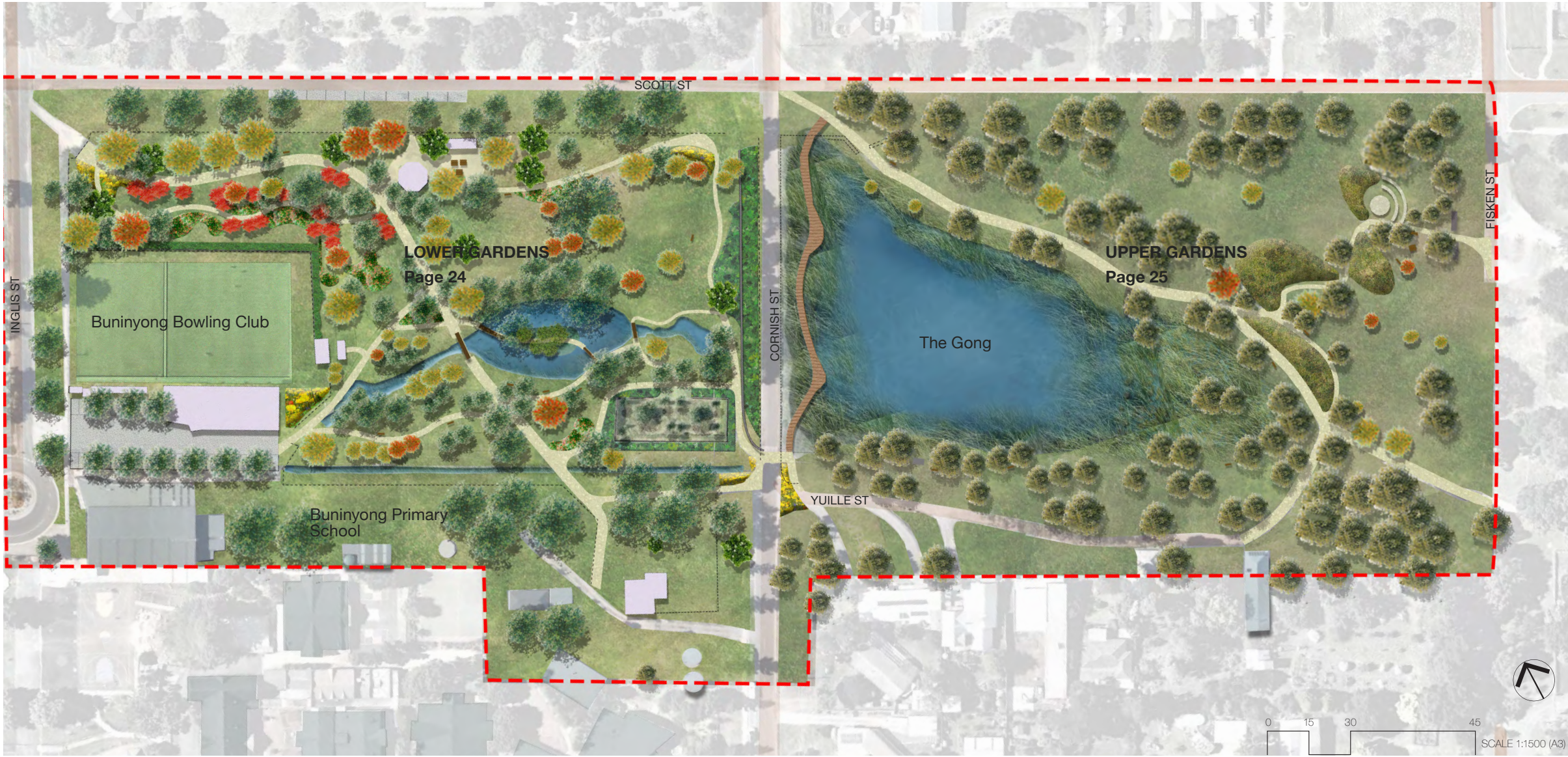
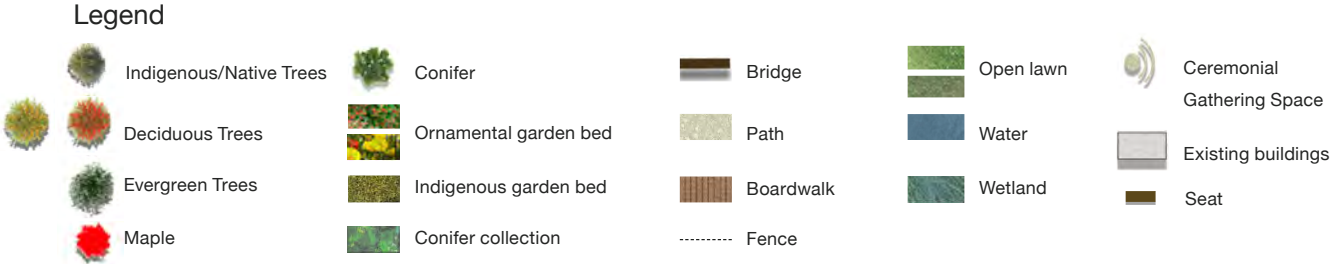


Fig. 20 Buninyong Botanic Gardens Masterplan 2022



4.3.1 Buninyong Botanic Gardens Masterplan 2022 - Lower Gardens

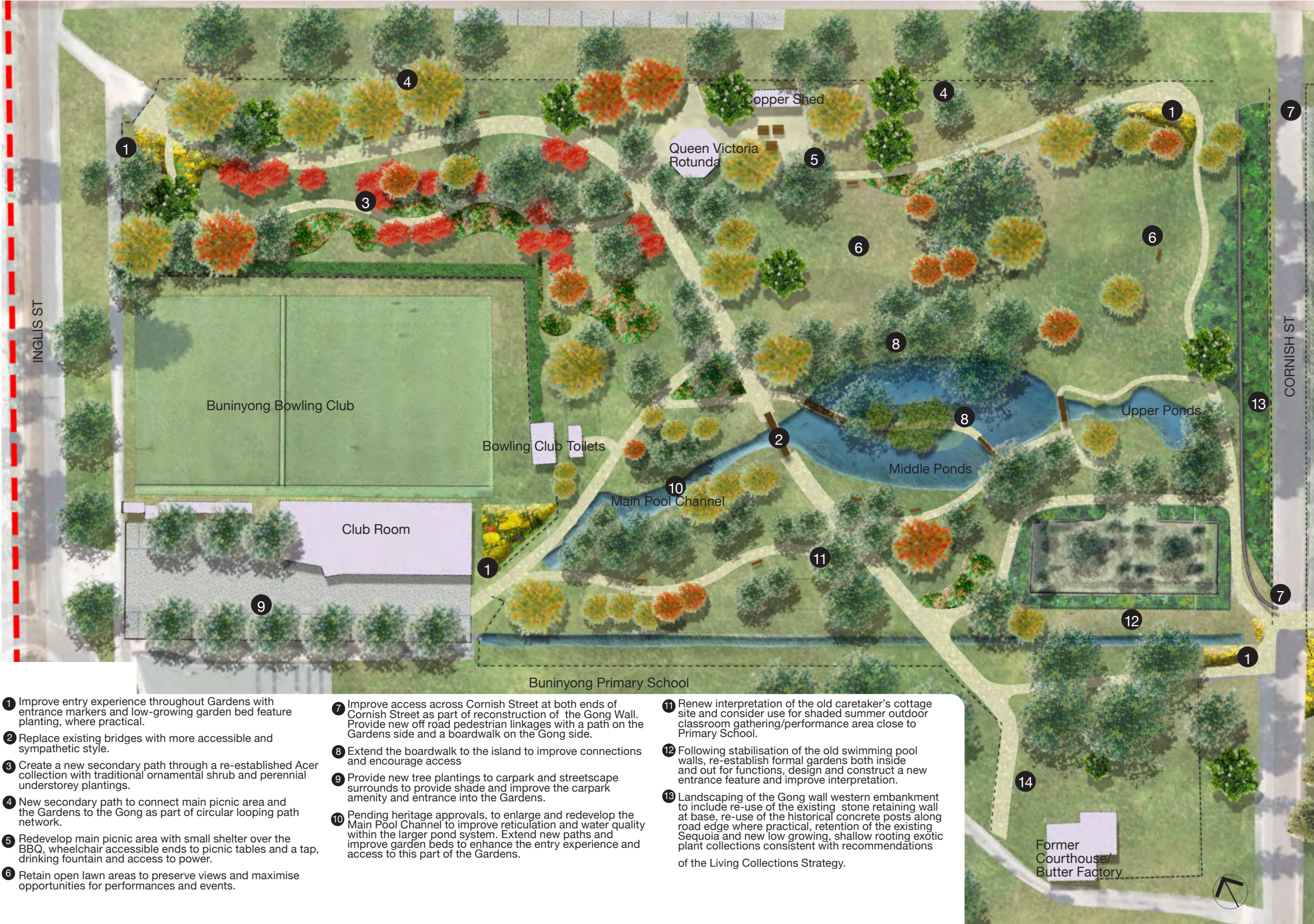




Fig. 21 Buninyong Botanoic Gardens Masterplan 2022

9.4. BRIDGE MALL - SPECIAL RATE

Division: Development and Growth
Director: Natalie Robertson
Author/Position: Kizanne Davies - Business Engagement Officer

PURPOSE

1. To recommend Council declare a new Bridge Mall Special Rate for a five-year period from 1 July 2023 to 30 June 2028.

BACKGROUND

2. In October 2022, the Bridge Mall Business Association (BMBA) requested that the Bridge Mall Special Rate (BMSR) be renewed.
3. At the 14 December 2022 Council meeting resolved (R203/22) to give notice of its intention to declare the BMSR for all properties located between Grenville Street and Peel Street that face the Bridge Mall, Coliseum Walk and the ground floor tenancies in Norwich Plaza (the Precinct – see Attachment 9.1.2) for a period of five years, commencing 1 July 2023.
4. Public Notice was given in the Ballarat Times on 31 March 2023 and a letter sent to all affected rate payers. Submissions and objections were received up until 28 April 2023.
5. A summary of the submissions received was presented to the 7 June 2023 Unscheduled Council Meeting.

KEY MATTERS

6. In accordance with Section 163 of the *Local Government Act 1989* (1989 Act) Council can declare the Bridge Mall Special Rate:
 - a. for a period of five years commencing on 1 July 2023 and concluding on 30 June 2028.
 - b. for the purposes of defraying expenses of advertising, promotion, centre management, business development, security and other incidental expenses associated with the encouragement of commerce in the Precinct, which:
 - i. Council considers is, or will be, of special benefit to those persons required to pay the Bridge Mall Special Rate; and
 - ii. arises out of Council's function of:
 1. encouraging and promoting economic sustainability, commerce, retail activity and employment opportunities in and around the Bridge Mall Special Rate area and the broader municipal district; and

2. providing good governance in its municipal district for the benefit and wellbeing of the municipal community.
 - c. The BMBA requested that the Special Rate be renewed at a level of \$160,000 in the first year and 3% increase year on year for the following 4 years, as follows:
 - i. Year 1 - \$160,000;
 - ii. Year 2 - \$164,800;
 - iii. Year 3 - \$169,744;
 - iv. Year 4 - \$174,836; and
 - v. Year 5 - \$180,081.
 - d. The BMBA have requested that the renewed Bridge Mall Special Rate will continue to apply to all rateable land which is primarily used, or adapted or designed to be used, for commercial purposes and which is located:
 - i. between Grenville Street and Peel Street that faces the Bridge Mall;
 - ii. on Coliseum Walk; and
 - iii. on the ground floor in Norwich Plaza.
 - e. It is considered that there will be a special benefit to persons required to pay the Bridge Mall Special Rate because the viability of Bridge Mall and the business in it will be enhanced through increased commerce and business activity.
 - f. The estimated proportion of the total benefit of the Bridge Mall Special Rate (including special benefits and community benefits) that will accrue as special benefits to all persons who are liable to pay it, is in a ratio of 1:1 (or 100%) on the basis that the community benefit is nil because funds raised by way of the Bridge Mall Special Rate will be applied to marketing, management and business development activities and will accordingly only benefit the owners and occupiers of those properties to which it will apply.
 - g. The owners of the land described in paragraph 6 (d) above would pay the Bridge Mall Special Rate on the same date or dates as Council's general rates are due.
 - h. Council would, subject to and in accordance with the *Local Government Act 1989*, require a person to pay interest on any portion of the Bridge Mall Special Rate which that person is liable to pay and has not been paid by the date specified for its payment.
7. The administration of the Special Rate payments made to the BMBA would be managed by Council during the five-year period to ensure evidence is provided of its use in accordance with the stated purpose.

OFFICER RECOMMENDATION

8. That Council:

- 8.1 Resolves it has considered all submissions made to Council at its Unscheduled meeting held on 7 June 2023 in accordance with Sections 163A and 223 of the *Local Government Act 1989*.
- 8.2 Pursuant to Section 163 of the *Local Government Act 1989*, declares the Bridge Mall Special Rate for a period of five years from 1 July 2023 to 30 June 2028 to all on street level properties located between Grenville Street and Peel Street that face the Bridge Mall, Coliseum Walk and the ground floor tenancies in Norwich Plaza, as follows:-
- Odd Numbers from 17 to 81 Bridge Mall (inclusive);
 - Even Numbers from 2 to 90 Bridge Mall (inclusive);
 - 1 to 17 Norwich Plaza (inclusive);
 - 1 to 6 Coliseum Walk (inclusive).
- 8.3 Endorses the total cost of performing the function and the maximum amount of the Bridge Mall Special Rate to be levied, to be \$160,000 in the first year and 3% increase year on year for the following 4 years, as follows:
- i. Year 1 - \$160,000;
 - ii. Year 2 - \$164,800;
 - iii. Year 3 - \$169,744;
 - iv. Year 4 - \$174,836; and
 - v. Year 5 - \$180,081.
- equating to a maximum of \$849,461 for the full 5 years, or such other amount as is lawfully levied having regard to necessary adjustments to valuations from time to time.
- 8.4 The Bridge Mall Special Rate will be assessed and levied on rateable properties within the Precinct as a rate in the dollar of the Capital Improved Value (CIV) (2023-24 \$0.00280436), subject to the annual valuations of CIV.

ATTACHMENTS

1. Governance Review [9.4.1 - 2 pages]
2. Properties covered by special rate [9.4.2 - 2 pages]

OFFICIAL

ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. This report supports Goal 5 of the Council Plan 'A strong and innovative economy and city'. Specifically, within the Annual Plan, it contributes to the achievement of actions 5.2 and 5.6:
 - 5.2 Support local businesses to explore, innovate and adapt emerging economic opportunities;
 - 5.6 Facilitate increased vibrancy in the CBD and other key business precincts.

COMMUNITY IMPACT

2. This report outlines the community benefit that will be achieved via the proposed Special Rate.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

3. No climate emergency or environmental sustainability implications are relevant to the subject of this report.

ECONOMIC SUSTAINABILITY IMPLICATIONS

4. There are no economic sustainability implications.

FINANCIAL IMPLICATIONS

5. The money raised by the Bridge Mall Special Rate will be released quarterly, as historically requested by the Bridge Mall Business Association, in accordance with the terms and conditions of an Agreement to be entered into, in the amounts of:

Instalment	%	2023	2024	2025	2026	2027
1	18%	\$28,800	\$29,664	\$30,553.92	\$31,470.48	\$32,414.58
2	37%	\$59,200	\$60,976	\$62,805.28	\$64,689.32	\$66,629.97
3	23%	\$36,800	\$37,904	\$39,041.12	\$40,212.28	\$41,418.63
4	22%	\$35,200	\$36,256	\$37,343.68	\$38,463.92	\$39,617.82
		\$160,000	\$164,800	\$169,744.00	\$174,836.00	\$180,081.00

LEGAL AND RISK CONSIDERATIONS

6. There are no particular legal or risk implications identified. Officers have received legal advice throughout the process of consideration of the Special Rate, to ensure Council is acting in accordance with the requirements of sections 163 and 223 of the *Local Government Act 1989*

 OFFICIAL

OFFICIAL

HUMAN RIGHTS CONSIDERATIONS

7. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

COMMUNITY CONSULTATION AND ENGAGEMENT

8. The intention to declare a Special Rate has been subject to public notice, as per the requirements of the *Local Government Act 1989*.

GENDER EQUALITY ACT 2020

9. There are no gender equality implications identified for the subject of this report.

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

10. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

PROCUREMENT COLLABORATION

(For Contracts Only)

OFFICIAL

The properties to which the Proposed Scheme will apply are those properties listed below:

Assessment	Property Address	Property Suburb
403524 2	17 Bridge Mall	BALLARAT CENTRAL VIC 3350
403525 9	23 Bridge Mall	BALLARAT CENTRAL VIC 3350
403526 7	25 Bridge Mall	BALLARAT CENTRAL VIC 3350
403527 5	27 Bridge Mall	BALLARAT CENTRAL VIC 3350
403528 3	29 Bridge Mall	BALLARAT CENTRAL VIC 3350
403529 1	31 Bridge Mall	BALLARAT CENTRAL VIC 3350
403530 9	33 Bridge Mall	BALLARAT CENTRAL VIC 3350
403531 7	35 Bridge Mall	BALLARAT CENTRAL VIC 3350
403532 5	43 Bridge Mall	BALLARAT CENTRAL VIC 3350
403533 3	45 Bridge Mall	BALLARAT CENTRAL VIC 3350
403534 1	47 Bridge Mall	BALLARAT CENTRAL VIC 3350
403535 8	53 Bridge Mall	BALLARAT CENTRAL VIC 3350
403536 6	55 Bridge Mall	BALLARAT CENTRAL VIC 3350
403537 4	57 Bridge Mall	BALLARAT CENTRAL VIC 3350
403538 2	59 Bridge Mall	BALLARAT CENTRAL VIC 3350
403539 0	63 Bridge Mall	BALLARAT CENTRAL VIC 3350
403540 8	65 Bridge Mall	BALLARAT CENTRAL VIC 3350
403541 6	67-69 Bridge Mall	BALLARAT CENTRAL VIC 3350
403542 4	71 Bridge Mall	BALLARAT CENTRAL VIC 3350
403543 2	73 Bridge Mall	BALLARAT CENTRAL VIC 3350
403544 0	75 Bridge Mall	BALLARAT CENTRAL VIC 3350
403546 5	77 Bridge Mall	BALLARAT CENTRAL VIC 3350
403547 3	79-81 Bridge Mall	BALLARAT CENTRAL VIC 3350
403569 7	90 Bridge Mall	BALLARAT CENTRAL VIC 3350
403570 5	88 Bridge Mall	BALLARAT CENTRAL VIC 3350
403571 3	86 Bridge Mall	BALLARAT CENTRAL VIC 3350
403572 1	84 Bridge Mall	BALLARAT CENTRAL VIC 3350
403573 9	82 Bridge Mall	BALLARAT CENTRAL VIC 3350
403574 7	80 Bridge Mall	BALLARAT CENTRAL VIC 3350
403575 4	78 Bridge Mall	BALLARAT CENTRAL VIC 3350
403576 2	76 Bridge Mall	BALLARAT CENTRAL VIC 3350
403577 0	74 Bridge Mall	BALLARAT CENTRAL VIC 3350
403578 8	72 Bridge Mall	BALLARAT CENTRAL VIC 3350
403579 6	68-70 Bridge Mall	BALLARAT CENTRAL VIC 3350
403580 4	66 Bridge Mall	BALLARAT CENTRAL VIC 3350
403581 2	64 Bridge Mall	BALLARAT CENTRAL VIC 3350
403582 0	62 Bridge Mall	BALLARAT CENTRAL VIC 3350
403583 8	62A Bridge Mall	BALLARAT CENTRAL VIC 3350
403584 6	60 Bridge Mall	BALLARAT CENTRAL VIC 3350
403585 3	58 Bridge Mall	BALLARAT CENTRAL VIC 3350
403586 1	54 Bridge Mall	BALLARAT CENTRAL VIC 3350
403587 9	52 Bridge Mall	BALLARAT CENTRAL VIC 3350
403588 7	50 Bridge Mall	BALLARAT CENTRAL VIC 3350
403589 5	48 Bridge Mall	BALLARAT CENTRAL VIC 3350
403590 3	42 Bridge Mall	BALLARAT CENTRAL VIC 3350
403591 1	38-40 Bridge Mall	BALLARAT CENTRAL VIC 3350
403593 7	34 Bridge Mall	BALLARAT CENTRAL VIC 3350

403594 5	32 Bridge Mall	BALLARAT CENTRAL VIC 3350
403595 2	30 Bridge Mall	BALLARAT CENTRAL VIC 3350
403596 0	28 Bridge Mall	BALLARAT CENTRAL VIC 3350
403597 8	26 Bridge Mall	BALLARAT CENTRAL VIC 3350
403598 6	24 Bridge Mall	BALLARAT CENTRAL VIC 3350
403599 4	22 Bridge Mall	BALLARAT CENTRAL VIC 3350
403600 0	18 Bridge Mall	BALLARAT CENTRAL VIC 3350
403601 8	16 Bridge Mall	BALLARAT CENTRAL VIC 3350
403604 2	12-14 Bridge Mall	BALLARAT CENTRAL VIC 3350
403605 9	10 Bridge Mall	BALLARAT CENTRAL VIC 3350
403606 7	8 Bridge Mall	BALLARAT CENTRAL VIC 3350
403607 5	6 Bridge Mall	BALLARAT CENTRAL VIC 3350
403608 3	2 Bridge Mall	BALLARAT CENTRAL VIC 3350
405534 9	4 Coliseum Walk	BALLARAT CENTRAL VIC 3350
405535 6	6 Coliseum Walk	BALLARAT CENTRAL VIC 3350
405536 4	5 Coliseum Walk	BALLARAT CENTRAL VIC 3350
405538 0	1 Coliseum Walk	BALLARAT CENTRAL VIC 3350
423550 3	5 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423552 9	1A Norwich Plaza	BALLARAT CENTRAL VIC 3350
423554 5	1B Norwich Plaza	BALLARAT CENTRAL VIC 3350
423555 2	7-8 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423557 8	4 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423558 6	2 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423560 2	6 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423561 0	10 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423563 6	14 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423564 4	16 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423565 1	17 Norwich Plaza	BALLARAT CENTRAL VIC 3350
426567 7	13 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423568 5	11 Norwich Plaza	BALLARAT CENTRAL VIC 3350
423570 1	3 Norwich Plaza	BALLARAT CENTRAL VIC 3350
440108 9	46 Bridge Mall	BALLARAT CENTRAL VIC 3350
447329 4	12 Norwich Plaza	BALLARAT CENTRAL VIC 3350

9.5. ADOPTION OF 2023/24 BUDGET

Division: Corporate Services
Director: John Hausler
Author/Position: Jason Clissold – Executive Manager Financial Services

PURPOSE

1. The purpose of this report is to present Council with the proposed 2023/24 Budget for consideration and adoption.

BACKGROUND

2. This report addresses the legislative requirements for Council to consider to formally adopt the proposed 2023/24 Budget for the City of Ballarat.
3. The *Local Government Act (LGA) 2020* provides that a Council:
 - Must prepare and adopt a Budget for each financial year and the subsequent three years by 30 June each year – Section 94(1) (a)
 - Must develop the Budget and any revised Budget in accordance with the financial management principles – Section 96(1)(a)
 - Must develop the Budget and any revised Budget in accordance with its community engagement policy – Section 96(1)(b).
4. Council commenced engagement in November 2022 when officers asked Ballarat residents to prioritise the Council Plan's goals and objectives to help inform the Draft Budget 2023/24.
5. In accordance with Sections 94 and 96 of the *Local Government Act 2020*, Council resolved at its meeting held on 26 April 2023 to:
 - a. make the 2023/24 Draft Budget available at Council's customer service centre, Town Hall and via Council's MySay website;
 - b. invite public feedback from 28 April 2023 until 5pm Friday 19 May 2023; and
 - c. hear any person who requests to be heard in support of their feedback before an Unscheduled meeting of the Council on 7 June 2023.
6. Council received 23 submissions for consideration at the 7 June Council meeting.
7. The draft budget has also been reviewed by Council's Audit and Risk Committee.

KEY MATTERS

8. Since the 7 June Council meeting, Council have considered all submissions. A summary of each submission and an officer response is included in Attachment 2.
9. Councillors were provided with all submissions in full, for review and consideration.
10. Following consideration of these submissions and recognising additional information that has become available, since preparing the draft, the following six amendments are proposed to the Draft Budget that was presented to the community.

- a. Amend the rating information in section 4.1.1 – Rates and Charges (commencing on page 64), to reflect the latest rate in the dollar calculation.

The impact on the rates in the dollar are outlined below. These have decreased slightly to offset some changes in the final valuation data. This is a minor change but will ensure Council does not recover revenue in excess of the State Government rate cap.

Type of rate	Rate in the \$ Draft	Rate in the \$ Proposed	Change
Residential	0.00284001	0.00283907	0.00000094
Commercial	0.00727043	0.00726802	0.00000241
Industrial	0.00732723	0.00732480	0.00000243
Farm	0.00204481	0.00204413	0.00000068
Rural Residential	0.00272641	0.00272551	0.00000090
Recreation 1	0.00000000	0.00000000	0.00000000
Recreation 2	0.00727043	0.00726802	0.00000241

- b. Expand the terminology of the ‘cloth nappy rebate’ to ‘reusable nappy, period and sanitary products rebate’.
- c. Update the roads projects as follows:
- with the words – (design and survey) after each project from the detailed project breakdowns listed on page 84 to better reflect the works that will be completed in 2023/24.

Major New Capital Road Project

- Tress Street/Elm Road – Golden Point (design and survey)
- Caffey Street and Cornish Street Buninyong (design and survey); and
- Boundary Road between old Melbourne Road and Finley Street (design and survey).

- Remove item from the list as it will be completed in future years.

Major New Capital Road Project

- Whitefield Street – Bakery Hill (remove from list).

- d. Remove the following projects from the list of Footpath works on page 84 – concrete new as whilst they are projects on our plan they will be delivered in future years and not 2023/24.
- Footpath Works – concrete new: remove Ulswater Road, Dyson Drive, Campbells Cr, Banyule Drive, Stawell Street, and Eyre Street.
- e. Separately list out City Oval Synthetic Green project in the 2023/24 Capital Works Program (Page 81). This is currently within the Recreation project Sports Infrastructure Minor Improvements.

- f. The Fees and Charges relating to Rowan View will be removed as there will be no fees for children attending Rowan View / Safe Haven - they will be fully subsidised by additional State Government Child Care Subsidies.
11. There will be no net financial impact as a result of these amendments.
12. Other minor presentation improvements to improve readability of the budget document will also be undertaken.
13. Statistical modelling relating to the average 3.5% increase in general rates indicates the following:
 - a. 37.7% of assessments will experience a decrease in their rates
 - b. 25% of assessments will experience an increase between 0% and 3.5%; and
 - c. 37.3% of assessments will experience an increase above 3.5%.
14. Once adopted the Final Budget document will be updated and made available on Council's website.
15. Feedback received which is not able to be addressed for the 2023/24 Budget, that aligns to the Council Plan and the adopted strategies of Council, will be referred to relevant officers for consideration in developing the 2024/25 draft budget.

OFFICER RECOMMENDATION

16. That Council, having considered all submissions received;

16.1 Pursuant to Section 94 of the *Local Government Act 2020*, adopt the 2023/24 Annual Budget, as presented to the 26 April 2023 Council meeting, subject to the following amendments;

a. Rates in the dollar to be declared, as follows:

Type of rate	Rate in the \$ Proposed
Residential	0.00283907
Commercial	0.00726802
Industrial	0.00732480
Farm	0.00204413
Rural Residential	0.00272551
Recreation 1	0.00000000
Recreation 2	0.00726802

- b. **Expand the terminology of the 'cloth nappy rebate' to 'reusable nappy, period and sanitary products rebate'.**
- c. **Update the roads projects as follows:**

- i. with the words – (design and survey) after each project from the detailed project breakdowns listed on page 84 to better reflect the works that will be completed in 2023/24.

Major New Capital Road Project

- Tress Street/Elm Road – Golden Point (design and survey)
- Caffey Street and Cornish Street Buninyong (design and survey); and
- Boundary Road between old Melbourne Road and Finley Street (design and survey).

- ii. Remove item from the list as it will be completed in future years.

Major New Capital Road Project

- Whitefield Street – Bakery Hill (remove from list).

- d. Remove the following projects from the list of Footpath works on page 84 – concrete new as whilst they are projects on our plan they will be delivered in future years and not 2023/24.

- i. Footpath Works – concrete new: remove Ulswater Road, Dyson Drive, Campbells Cr, Banyule Drive, Stawell Street, and Eyre Street.

- e. Separately list out City Oval Synthetic Green project in the 2023/24 Capital Works Program. This is currently within the Recreation project Sports Infrastructure Minor Improvements.

- 16.2 Adopt the schedule of Fees and Charges contained within the 2023/24 Annual Budget with the following amendment;

- a. The Fees and Charges relating to Rowan View will be removed as there will be no fees for children attending Rowan View / Safe Haven - they will be fully subsidised by additional State Government Child Care Subsidies.

- 16.3 Acknowledges the contribution of submitters to the budget consultation process, thank them for their contribution and note that officers will provide a formal response to each identified submitter reflecting the information contained in Attachment 2.

- 16.4 Note feedback received which is not able to be addressed for the 2023/24 Budget, that aligns to the Council Plan and the adopted strategies of Council, will be referred to relevant officers for consideration in developing the 2024/25 draft budget.

ATTACHMENTS

1. Governance Review [9.5.1 - 2 pages]
2. Summary Feedback and Responses [9.5.2 - 13 pages]

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ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. The Draft Budget was prepared based on the Strategic Objectives outlined in the Council Plan and in accordance with the requirements of the Local Government Act 2020.

COMMUNITY IMPACT

2. The annual and four-year budget is an important component of the Integrated Strategic Planning Framework, outlining the resources required to deliver the Council Vision Strategy and Policy for the community.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

3. Council's commitment and investment towards Goal 1 (An Environmentally Sustainable Future) is detailed within the proposed 2023/24 budget.

ECONOMIC SUSTAINABILITY IMPLICATIONS

4. The proposed budget contains details of our expenditure in the local community for the 2023/24 year.

FINANCIAL IMPLICATIONS

5. The proposed Budget provides details of Council's planned income raising and expenditure for the 2023/24 year and subsequent 3 years.
6. A financially responsible budget has been prepared for the community, taking into consideration Council's long term financial planning and strategy.

LEGAL AND RISK CONSIDERATIONS

7. Section 94 of the Local Government Act 2020 requires Council to prepare and adopt a budget for each financial year and the subsequent 3 financial years by 30 June each year.
8. Section 96 of the Local Government Act 2020 also requires Council to develop the budget in accordance with the financial management principles and its community engagement policy.

HUMAN RIGHTS CONSIDERATIONS

9. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

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COMMUNITY CONSULTATION AND ENGAGEMENT

10. Community Consultation commenced in November 2022, including an online survey, two community information sessions and the opportunity to provide input into the draft budget.
11. Following the 26 April 2023 Council meeting, the draft 2023/24 Budget was placed on Council's Website and advertised that it had done so. Copies of the draft Budget were also available from Council's customer service at both the Town Hall and The Phoenix building.
12. Two community information sessions were held during the feedback period.
13. 23 submissions were received and considered by Council prior to considering adoption of the proposed budget.

GENDER EQUALITY ACT 2020

14. There are no gender equality implications identified for the subject of this report.

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

15. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

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CITY OF BALLARAT
2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Submission 1

Summary

Resident expressed concern that ratepayer wage growth might be below the rate increase of 3.5%.

Officer Comment

With the Consumer Price Index rising 7.8 per cent in the 12 months to 31 December 2022, we have been faced with increased costs of delivering over 80 services and over 120 projects. This has resulted in the difficult but necessary decision to increase rates per assessment by an average of 3.5 per cent in line with the State Government's Rate Cap. We do not make such decisions lightly and appreciate every household is grappling with the increased cost of living. However, such an increase is necessary for us to adequately service the needs of our community.

The increase is required to ensure Council can maintain the level of service committed to in the Council Plan and ensures a balanced budget is prepared, which requires the cash generated from its operating budget to be at least equal to what is required to fund capital and other balance sheet commitments.

It should be noted the 3.5% is an average increase. Initial analysis has indicated that 37.7% of assessments will experience a decrease, 25% an increase between 0% and 3.5% and 37.3% greater than 3.5%. These increases vary due to the relative valuation increases in individual properties.

Submission 2

Summary

Resident expressed concern that rate increase would put additional strain on many rate payers and suggested cutting expenditure to reduce rate requirements. Expressed that Bridge Mall redevelopment was a waste of money.

Officer Comment

With the Consumer Price Index rising 7.8 per cent in the 12 months to 31 December 2022, we have been faced with increased costs of delivering over 80 services and over 120 projects. This has resulted in the difficult but necessary decision to increase rates per assessment by an average of 3.5 per cent in line with the State Government's Rate Cap. We do not make such decisions lightly and appreciate every household is grappling with the increased cost of living. However, such an increase is necessary for us to adequately service the needs of our community.

The increase is required to ensure Council can maintain the level of service committed to in the Council Plan and ensures a balanced budget is prepared, which requires the cash generated from its operating budget to be at least equal to what is required to fund capital and other balance sheet commitments.

It should be noted the 3.5% is an average increase. Initial analysis has indicated that 37.7% of assessments will experience a decrease, 25% an increase between 0% and 3.5% and 37.3% greater than 3.5%. These increases vary due to the relative valuation increases in individual properties.

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The redevelopment of Bridge Mall is a crucial investment into the commercial and retail heart of Ballarat. It is intended to leverage major private investment in the surrounding area, bringing new jobs, businesses, housing, accommodation and vibrant public places for the community. The construction tender was awarded in late April 2023, and works are expected to commence on-site over the next couple of months.

Submission 3**Summary**

Resident believes the Bridge Mall redevelopment is a waste of money, and the traffic plan around the project does not make sense.

Officer Comment

The redevelopment of Bridge Mall is a crucial investment into the commercial and retail heart of Ballarat. It is intended to leverage major private investment in the surrounding area, bringing new jobs, businesses, housing, accommodation and vibrant public places for the community. The construction tender was awarded in late April 2023, and works are expected to commence on-site over the next couple of months.

Submission 4**Summary**

Resident questioned the budget targets set for various Service Performance Indicator metrics and believes they are not materially increasing, therefore questioning the value residents were getting in performance for rates increase. What is the plan for council to improve their performance?

Officer Comment

Council endeavors to improve its services from one year to the next. This is achieved by regularly monitoring its service performances and requesting feedback from clients and the wider community on performance. Having said this, it is difficult to quantify the impact monitoring and seeking feedback have on the indicators, hence historical information and data is generally utilised to guide Council in setting its Service Performance Indicator targets for the budget. The Service Performance Indicators and targets are comparable to other regional Councils of a similar size.

Submission 5**Summary**

Resident complimented the overall budget, but requested more money be dedicated to climate action, improving active transport options, and beautifying the city.

Officer Comment

The City of Ballarat is committed to climate action. This budget includes funding to support a Climate Action Program which is focused on climate adaptation, corporate emissions reduction and community emissions reduction. Corporate emissions reduction initiatives as per actions in the Carbon Neutrality and 100% Renewables Action Plan (2019-2025) including trialing of electric vehicles. Community emissions reduction initiatives include support for providing financial incentives for sustainable technology installation in apartments, houses

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and commercial buildings. Also funded is a Solar PV Roll Out Program including at the Ballarat Aquatic and Lifestyle Centre (BALC) and other key ESD/electrification initiatives. In addition, environmental sustainability investment will be undertaken in education and events and offset investigations. . \$3million investment in footpaths and cycling paths as well as funding for the development of a footpath strategy (to identify a program of works for new footpaths) and increasing the allocation of funding for the construction of new footpaths.

Submission 6**Summary**

Resident complimented the additional funding allocated to the footpaths program, and one in their local area which will allow safer movement activities for people in this neighborhood.

Officer Comment

Your feedback is acknowledged and welcome. The \$3 million investment in footpaths both new and existing is an ongoing commitment by the City.

Submission 7**Summary**

Resident strongly supports the replacement of the Hockey Playing Surface at Prince of Wales Park and highlighted the need for amenity upgrades at the facility.

Officer Comment

Thank you for your submission and support for the budget that will renew the current hockey pitch. Given this project is in the draft budget and if this is approved Council will deliver this renewal in the “off season” for it to be ready for use for the 2024 season. Council officers are continuing to consult with Hockey representatives regarding a future upgrade to female friendly amenities for hockey at Prince of Wales Park and are also continuing to work with hockey Ballarat regarding the infrastructure that will be necessary to provide for the sport in the future.

Submission 8**Summary**

Resident supports the replacement of the Hockey Playing Surface at Prince of Wales Park and believes further enhancement to a two pitch facility with amenities would attract events to the City.

Officer Comment

Thank you for your submission and support for the budget that will renew the current hockey pitch. Given this project is in the draft budget and if this is approved Council will deliver this renewal in the “off season” for it to be ready for use for the 2024 season. Council officers are continuing to consult with Hockey representatives regarding a future upgrade to female friendly amenities for hockey at Prince of Wales Park and are also continuing to work with hockey Ballarat regarding the infrastructure that will be necessary to provide for the sport in the future.

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Submission 9**Summary**

Resident highlighted that more products are included than just nappies in the "cloth nappy rebate" program. Would have liked to have seen a greater focus on accessible tourism, and bike path and footpath infrastructure. Resident questioned what was being done about the publicised bus routes redesign.

Officer Comment

We acknowledge your feedback regarding the cloth nappy program and will expand the wording to read 'reusable nappy, period and sanitary products rebate' to recognize the other products included. \$3 million investment in maintenance and upgrades of footpaths and cycling paths as well as funding for the development of a footpath strategy (to identify a program of works for new footpaths) and increasing the allocation of funding for the construction of new footpaths. Development of a new Integrated Transport Strategy will better assist embedding active transport consideration into the planning and design of areas earmarked for future housing growth.

Submission 10**Summary**

Resident expressed concern on the condition Ballarat roads and lack of ongoing maintenance, they believe the money allocated for reseals was inadequate for the total length of roads in the region. Requested Council provide more data on asset planning and maintenance.

Officer Comment

Pavement design life is 30 years when a road is rehabilitated, actual design life of our roads varies greatly. Some sealed roads have lasted in excess of 50 years whilst others fail prematurely within 5 years.

The City undertakes sealed road condition assessments every three years, the next one now due for completion. As a step towards improvements in our Asset Management systems, the next sealed road condition assessment will be followed up with asset modelling to provide a 10 year works program based on road condition, failure modes, traffic loading, road hierarchy just to name a few input parameters to the model. With additional spending allocated to our maintenance programs, the City's road network is in relatively good shape.

Submission 11**Request to speak to submission****Summary**

Resident believes Council is not doing enough in the environmental sustainability space and does not support the Bridge Mall Redevelopment and Airport Runway extension projects. Resident highlighted planned Infrastructure works on drainage and roads as being a waste of money that does not provide long term solutions.

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2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Officer Comment

\$3 million investment in maintenance and upgrades of footpaths and cycling paths as well as funding for the development of a footpath strategy (to identify a program of works for new footpaths) and increasing the allocation of funding for the construction of new footpaths. Development of a new Integrated Transport Strategy will better assist embedding active transport consideration into the planning and design of areas earmarked for future housing growth.

Infrastructure construction: The City is constantly trialing new technologies for ESD for road and footpath construction. These technology based products include 'Reconophalt,' 'Innovo,' 'Terra Liquid 3000' and 'Heliix Micro Rebar'. More information on each product can be found on line. Use of recycled materials in road construction is also gaining momentum. Recycled concrete, recycled asphalt, recycled glass, soft plastics, blast furnace slag from the steel industry, ink toner waste residue, recycled sand and granular materials from storm water waste, recycled road base material...are products being used in footpath and road construction that divert waste from landfills and contribute to our full circle economy.

The redevelopment of Bridge Mall is a crucial investment into the commercial and retail heart of Ballarat. It is intended to leverage major private investment in the surrounding area, bringing new jobs, businesses, housing, accommodation and vibrant public places for the community. The construction tender was awarded in late April 2023, and we expect works to commence on-site over the next couple of months.

The runway at the Ballarat Airport is currently being extended, with funding provided by both the federal government and Council. As a next step, we will be updating the current Ballarat Airport Masterplan (2013) to explore opportunities that the Airport's upgraded runway and other capabilities may provide the City and wider region. Further public consultation will be completed during the preparation of this 2023 Airport Masterplan.

Submission 12

Summary

Resident believes the Bridge Mall redevelopment is a waste of money and questioned the planting of trees under powerlines. Resident believes they only utilise basic waste services and are therefore subsidising services for others.

Officer Comment

The redevelopment of Bridge Mall is a crucial investment into the commercial and retail heart of Ballarat. It is intended to leverage major private investment in the surrounding area, bringing new jobs, businesses, housing, accommodation and vibrant public places for the community. The construction tender was awarded in late April 2023, and we expect works to commence on-site over the next couple of months.

Energy Safe Victoria (ESV) is responsible authority for ensuring electrical safety of the power distribution system in Victoria. The City of Ballarat has a statutory obligation under the Electricity Safety Act (1998) for maintaining clearance of public trees from overhead power lines within the "Declared Area" of the City. The "Declared Area" is clearly defined and mapped and is entirely within the urban area of Ballarat. To reduce future cost of this program and to remain compliant with our statutory obligations. The City of Ballarat is continually reviewing our tree maintenance and replacement programs to ensure the right species of tree is planted in the right place.

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The level of utilisation of waste services will vary from resident to resident. All residents are charged the same amount regardless of the amount of the service consumed. Waste services provided by the City of Ballarat go well beyond the kerbside services and include ongoing management and expansion of the Smythesdale landfill, operation and management of the transfer station, and ongoing management of a number of closed landfills. Services also include future service planning to align with State Government changes as per the Recycling Victoria policy, education and behaviour change.

Submission 13

Summary

Resident complimented the work on providing new and improving existing playgrounds, questioned the value of the Bridge Mall redevelopment.

Officer Comment

The redevelopment of Bridge Mall is a crucial investment into the commercial and retail heart of Ballarat. It is intended to leverage major private investment in the surrounding area, bringing new jobs, businesses, housing, accommodation and vibrant public places for the community. The construction tender was awarded in late April 2023, and works are expected to commence on-site over the next couple of months.

Submission 14

Summary

Resident complimented that no new borrowings were planned in 23/24, and some programs that can be serviced by other sectors were ceasing. Also agreed that finishing commenced projects should be a focus and supported ceasing programs not mandatory to Council that could be delivered privately. Suggested the running of several recreation and community facilities should be cost neutral and questioned why more is spent on parks and gardens than roads and footpaths infrastructure. Asked that photos in Council documents represent the whole municipality, not just the CBD.

Officer Comment

Council has a strong focus of delivering the objectives within the Council plan whilst ensuring long term financial sustainability. It is well aware of the financial pressure associated with the increasing demand for community infrastructure within a growing municipality. The focus on completing existing major capital projects and not increasing borrowings during 2023/24 is considered a prudent position in the current environment.

Specifically, in response to the cost of running community facilities:

- The Ballarat Regional Soccer Facility and Mars Stadium are considered large community assets that support local sporting groups and also gives the City the ability to host large national and international sporting events. While there is an annual operating cost to manage these facilities the return on investment from the facilities and major events is significant
- The Lucas Community Hub provides a broad range of services to the community some of which do not generate user fees but are instead partly funded by State Government grants. Such grants are recognised as revenue within the service area, rather than against the facility.

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2023/24 DRAFT BUDGET FEEDBACK RESPONSES

It is important to note that the budgets contained within the Council Plan goals section of the budget relate solely to operating expenditure. After adding the \$36.3 million of capital funds spent on road expenditure to the operating budget, roads expenditure far exceeds spend on parks and gardens overall.

The reusable nappy, period and sanitary products rebate scheme is considered an important program in delivering Goal 1 of the Council Plan - An environmentally Sustainable Future. The City of Ballarat sends about 8 million nappies to landfill each year. This rebate encourages our residents to think and act sustainably as our population grows.

Given the growth of our City, there is a need to invest in resources to facilitate economic prosperity, that is why we've committed to increasing resources in Statutory and Strategic Planning, drainage engineering and asset planning teams to ensure we can meet current and future demands.

Councillors are charged with representing the entire municipality and it is considered that the budget is supportive of all suburbs of the City. While growth and development often make this difficult, Council are continuously engaging with the community to develop future plans.

Submission 15

Summary

Resident does not support the Airport Runway extension project, does not believe it is an economically viable service.

Officer Comment

The runway at the Ballarat Airport is currently being extended, with funding provided by both the federal government and Council. As a next step, we will be updating the current Ballarat Airport Masterplan (2013) to explore opportunities that the Airport's upgraded runway and other capabilities may provide the City and wider region. Further public consultation will be completed during the preparation of this 2023 Airport Masterplan.

Submission 16

Summary

Resident express concern about the facilities and Northern Oval No.2, which are believed to be non-compliant and not fit for purpose.

Officer Comment

There is actually a 2022/23 (current) budget allocation to undertake a refurbishment of these change rooms. This work is programmed to be completed in 2023. Further investigations as part of a master plan review will be held regarding the number 2 oval facility when more detail is available on the plans for the Commonwealth Games. This review will inform the future works within the Recreation Services Capital Infrastructure Plan that will guide any longer term works.

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2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Submission 17**Request to speak to submission****Summary**

Resident believes the amount in the budget for Climate Action Program is inadequate, especially given An Environmentally Sustainable Future is the City of Ballarat's (CoB) number one goal in the 2021-25 Council Plan.

Officer Comment

The City of Ballarat is committed to climate action. This budget includes funding to support a Climate Action Program which is focused on climate adaptation, corporate emissions reduction and community emissions reduction. Climate Action programs proposed for 23/24 include:

- The continued roll-out of on-site solar on Council facilities
- Participation in CitySwitch program, accelerating office-based businesses to net zero
- Promotion of local offsetting activities
- Support of energy upgrades by landlords/tenants
- Support for pop up pocket gardens improving food security
- Sustainability Incentive Scheme Pilot. Providing financial incentives for sustainable technology installation in apartments, houses and commercial buildings, to improve energy and water performance and waste reduction. This can have the added benefit of reducing costs, cutting carbon emissions and increasing the value of the property
- Implementation of Environmentally Sustainable Design in council buildings and infrastructure
- Implementation of Environmentally Sustainable Design for new planning applications
- A reusable nappy, period and sanitary products rebate for residents
- A compost bin / worm farm rebate for residents
- Trialing of electric vehicles in Council fleet
- A program of circular economy initiatives that will increase the number of products that are reused locally and to support the development of local recycling processing and remanufacturing by using more recycled materials in City of Ballarat projects
- Environmental sustainability investment in education and events

Other initiatives include:

- Urban Forest Program - Planting 1,515 trees over the 2023/24 planting season in nature strips and reserves. In addition, 200 to 300 trees will be planted via customer request and over 2,000 tube stock trees, shrubs and understory plants will be planted along our waterways, walking tracks and nature reserves.
- Biodiversity – Funding to support the Nature Stewards Program, and further development of the Biodiversity Strategy development including \$125,000 for a Biodiversity Values and Connections Study to list, map and quantify environmental assets across the City and define and prove the viability of a larger across borders bio link study that identifies priority landscape scale connections.
- Integrated Water Management – Projects to increase the volume of alternative water supplies.

While the dedicated budget for climate action program is \$210,000, much of the work that will be undertaken, is working with internal Council departments and community organisations to encourage and facilitate emissions reduction through the use of their budgets.

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2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Submission 18**Request to speak to submission****Summary**

Resident believes the amount in the budget for Climate Action Program is inadequate, requests additional information resources and programs be available for the community to access at any time.

Officer Comment

The City of Ballarat is committed to climate action. This budget includes funding to support a Climate Action Program which is focused on climate adaptation, corporate emissions reduction and community emissions reduction. Climate Action programs proposed for 23/24 include:

- The continued roll-out of on-site solar on Council facilities
- Participation in CitySwitch program, accelerating office-based businesses to net zero
- Promotion of local offsetting activities
- Support of energy upgrades by landlords/tenants
- Support for pop up pocket gardens improving food security
- Sustainability Incentive Scheme Pilot. Providing financial incentives for sustainable technology installation in apartments, houses and commercial buildings, to improve energy and water performance and waste reduction. This can have the added benefit of reducing costs, cutting carbon emissions and increasing the value of the property
- Implementation of Environmentally Sustainable Design in council buildings and infrastructure
- Implementation of Environmentally Sustainable Design for new planning applications
- A reusable nappy, period and sanitary products rebate for residents
- A compost bin / worm farm rebate for residents
- Trialing of electric vehicles in Council fleet
- A program of circular economy initiatives that will increase the number of products that are reused locally and to support the development of local recycling processing and remanufacturing by using more recycled materials in City of Ballarat projects
- Environmental sustainability investment in education and events

Other initiatives include:

- Urban Forest Program - Planting 1,515 trees over the 2023/24 planting season in nature strips and reserves. In addition, 200 to 300 trees will be planted via customer request and over 2,000 tube stock trees, shrubs and understory plants will be planted along our waterways, walking tracks and nature reserves.
- Biodiversity – Funding to support the Nature Stewards Program, and further development of the Biodiversity Strategy development including \$125,000 for a Biodiversity Values and Connections Study to list, map and quantify environmental assets across the City and define and prove the viability of a larger across borders bio link study that identifies priority landscape scale connections.
- Integrated Water Management – Projects to increase the volume of alternative water supplies.

While the dedicated budget for climate action program is \$210,000, much of the work that will be undertaken, is working with internal Council departments and community organisations to encourage and facilitate emissions reduction through the use of their budgets.

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CITY OF BALLARAT
2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Submission 19**Request to speak to submission****Summary**

BREAZE group welcomes all of Council's initiatives in addressing environmental sustainability challenges. The group believes the amount in the budget for Climate Action Program is inadequate and argues the level of funding allocated to climate action needed to be at least 5% of the overall budget expenditure.

Officer Comment

The City of Ballarat is committed to climate action. This budget includes funding to support a Climate Action Program which is focused on climate adaptation, corporate emissions reduction and community emissions reduction. Climate Action programs proposed for 23/24 include:

- The continued roll-out of on-site solar on Council facilities
- Participation in CitySwitch program, accelerating office-based businesses to net zero
- Promotion of local offsetting activities
- Support of energy upgrades by landlords/tenants
- Support for pop up pocket gardens improving food security
- Sustainability Incentive Scheme Pilot. Providing financial incentives for sustainable technology installation in apartments, houses and commercial buildings, to improve energy and water performance and waste reduction. This can have the added benefit of reducing costs, cutting carbon emissions and increasing the value of the property
- Implementation of Environmentally Sustainable Design in council buildings and infrastructure
- Implementation of Environmentally Sustainable Design for new planning applications
- A reusable nappy, period and sanitary products rebate for residents
- A compost bin / worm farm rebate for residents
- Trialing of electric vehicles in Council fleet
- A program of circular economy initiatives that will increase the number of products that are reused locally and to support the development of local recycling processing and remanufacturing by using more recycled materials in City of Ballarat projects
- Environmental sustainability investment in education and events

Other initiatives include:

- Urban Forest Program - Planting 1,515 trees over the 2023/24 planting season in nature strips and reserves. In addition, 200 to 300 trees will be planted via customer request and over 2,000 tube stock trees, shrubs and understory plants will be planted along our waterways, walking tracks and nature reserves.
- Biodiversity – Funding to support the Nature Stewards Program, and further development of the Biodiversity Strategy development including \$125,000 for a Biodiversity Values and Connections Study to list, map and quantify environmental assets across the City and define and prove the viability of a larger across borders bio link study that identifies priority landscape scale connections.
- Integrated Water Management – Projects to increase the volume of alternative water supplies.

While the dedicated budget for climate action program is \$210,000, much of the work that will be undertaken, is working with internal Council departments and community organisations to encourage and facilitate emissions reduction through the use of their budgets.

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CITY OF BALLARAT
2023/24 DRAFT BUDGET FEEDBACK RESPONSES

Submission 20**Summary**

Resident believes planned upgrades to hockey facility is a waste of money, with current facilities sufficient.

Officer Comment

This project is part of Council's ongoing asset renewal program and is included in the draft budget. If approved the renewal of the pitch will be delivered in the "off season" for it to be ready for use for the 2024 season. Council continues to work with Hockey Ballarat regarding future infrastructure for the sport.

Submission 21**Summary**

The Ballarat Residents and Ratepayers group call on the Ballarat Councillors to reject the 2023/2024 draft budget for the City of Ballarat. The group requests an updated costing assessment be undertaken for proposed capital works to ensure any cost overruns are quantified, the group also ask that the Councillors slow the rate of increasing rates in our City.

Officer Comment

With the Consumer Price Index rising 7.8 per cent in the 12 months to 31 December 2022, we have been faced with increased costs of delivering over 80 services and over 120 projects. This has resulted in the difficult but necessary decision to increase rates per assessment by an average of 3.5 per cent in line with the State Government's Rate Cap. We do not make such decisions lightly and appreciate every household is grappling with the increased cost of living. However, such an increase is necessary for us to adequately service the needs of our community.

Council's practice is to ensure it prepares a balanced budget, which requires the cash generated from its operating budget to be at least equal to what is required to fund capital and other balance sheet commitments. If rates were not increased at the level set by the State Government under the fair go rates system, then Council would need to identify either which items in the draft balanced budget it would not proceed with, or alternatively identify other funding / revenue sources.

Council has made a strategic decision to maintain a minimum level of unallocated retained earnings of approximately \$5 million to ensure is in a position to respond to any unexpected financial stress, such as a natural disaster or a defined benefits call (within the Local Government Defined Benefit Scheme). Being able to have unallocated retained earnings available for a natural disaster is important given the now extensive acquittal process which does not see all required remediation works funded and which also sees a delay in being reimbursed. Also note as a guide the last defined benefits call in 2012 was over \$10 million for the City.

The following Capital Works reconciliation outlines the forecast movement from the adopted 2022/23 budget. These forecasts addressing anticipated and actual budget variances (both operating and capital) are presented to Council for endorsement throughout the 2022/23 financial year.

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CITY OF BALLARAT
2023/24 DRAFT BUDGET FEEDBACK RESPONSES

City of Ballarat**2022/23 Capital Works Budget v Forecast Reconciliation****\$'000****Adopted Budget - 2022/23**

Capital Projects budgeted to be carried forward from 2021/22 to 2022/23	36,391
New Capital Projects - 2022/23 Budget	90,966

Capital Works Budget 2022/23**127,357****Forecast Adjustments - August**

Additional Projects to be carried forward from 2021/22 to 2022/23	23,645
Capital projects funded by grants	17,584
Capital revenue adjustment	588

2022/23 Forecast - 31 August 2022**169,174****Forecast Adjustments – September Quarter**

Projects identified for carried forward to 2023/24	(19,737)
Wendouree West Community Hub	1,500
Lake Lighting	370

2022/23 Forecast - 30 September 2022**151,307****Mid Year Budget Review - 31 December 2022**

Capital Works delivery timing (Rebudget in 23/24)	(48,902)
Permanent Reduction in Capital Works	(3,047)
Increase in Capital Works	4,935
Net other budget variances below \$150k	388

2022/23 Forecast - 31 December 2022**104,681****Submission 22****Summary**

Resident believes more money needs to be allocated to the fulfillment of the community-wide Net Zero target, and more communications and marketing to ensure that the community is aware of such targets.

Officer Comment

The City of Ballarat is committed to climate action. This budget includes funding to support a Climate Action Program which is focused on climate adaptation, corporate emissions reduction and community emissions reduction. Climate Action programs proposed for 23/24 include:

- The continued roll-out of on-site solar on Council facilities
- Participation in CitySwitch program, accelerating office-based businesses to net zero
- Promotion of local offsetting activities
- Support of energy upgrades by landlords/tenants
- Support for pop up pocket gardens improving food security

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CITY OF BALLARAT
2023/24 DRAFT BUDGET FEEDBACK RESPONSES

- Sustainability Incentive Scheme Pilot. Providing financial incentives for sustainable technology installation in apartments, houses and commercial buildings, to improve energy and water performance and waste reduction. This can have the added benefit of reducing costs, cutting carbon emissions and increasing the value of the property
- Implementation of Environmentally Sustainable Design in council buildings and infrastructure
- Implementation of Environmentally Sustainable Design for new planning applications
- A reusable nappy, period and sanitary products rebate for residents
- A compost bin / worm farm rebate for residents
- Trialing of electric vehicles in Council fleet
- A program of circular economy initiatives that will increase the number of products that are reused locally and to support the development of local recycling processing and remanufacturing by using more recycled materials in City of Ballarat projects
- Environmental sustainability investment in education and events

Other initiatives include:

- Urban Forest Program - Planting 1,515 trees over the 2023/24 planting season in nature strips and reserves. In addition, 200 to 300 trees will be planted via customer request and over 2,000 tube stock trees, shrubs and understory plants will be planted along our waterways, walking tracks and nature reserves.
- Biodiversity – Funding to support the Nature Stewards Program, and further development of the Biodiversity Strategy development including \$125,000 for a Biodiversity Values and Connections Study to list, map and quantify environmental assets across the City and define and prove the viability of a larger across borders bio link study that identifies priority landscape scale connections.
- Integrated Water Management – Projects to increase the volume of alternative water supplies.

While the dedicated budget for climate action program is \$210,000, much of the work that will be undertaken, includes liaising with internal Council departments and community organisations to encourage and facilitate emissions reduction through the use of their budgets.

Submission 23

Summary

Concern around condition and maintenance of historical monuments, memorials, and graves.

Officer Comment

Council's advice has been that the Cemetery trust will only intervene to ensure memorials/graves are safe for the public and restoring or maintaining memorials/graves is not a part of their responsibility. It is the responsibility of descendants to maintain these items.

If ratepayer funds and resources were committed to restore graves, Council would be required to obtain permission from either the Holder of Right or the Minister for Health to restore a monument.

9.6. DECLARATION OF RATES AND CHARGES - 2023/24

Division: Corporate Services
Director: John Hausler
Author/Position: Jason Clissold – Executive Manager Financial Services

PURPOSE

1. To formally declare rates and charges for the 2023/24 financial year, following adoption of the City of Ballarat - 2023/24 Annual Budget and the declaration of a Bridge Mall Special Rate.

BACKGROUND

2. Section 158(1) of the *Local Government Act 1989* states:
 - (1) *A Council must at least once in respect of each financial year declare by 30 June the following for that year—*
 - (a) *the amount which the Council intends to raise by general rates, municipal charges, service rates and service charges;*
 - (b) *whether the general rates will be raised by the application of—*
 - (i) *a uniform rate; or*
 - (ii) *differential rates (if the Council is permitted to raise such rates under section 161(1)); or*
 - (iii) *urban farm rates, farm rates or residential use rates (if the Council is permitted to raise such rates under section 161A).*

KEY MATTERS

3. Following the preceding resolutions in this meeting to:
 - a. adopt the City of Ballarat - 2023/24 Annual Budget; and
 - b. declare a Bridge Mall Special Rate
 it is now necessary for Council to formally declare the rates and charges applicable for the 2023/24 Financial Year.
4. This declaration will ensure Council is able to fund the items contained within the 2023/24 Annual Budget.

OFFICER RECOMMENDATION

5. **That Council declare the following rates and charges for the financial period commencing on 1 July 2023 and ending on 30 June 2024 -**

A. AMOUNT INTENDED TO BE RAISED

That the amount of \$151,848,225 be declared as the amount which Council intends to raise by general rates, service charges and special rates which is calculated as follows –

General Rates	\$125,238,219
Service Charges	\$ 26,450,006

Special Rates \$160,000
 \$151,848,225

B. GENERAL RATES

1. A general rate be declared for the period commencing on 1 July 2023 and ending on 30 June 2024.
2. It be further declared that the general rate be raised by the application of differential rates, as detailed in Part H of this resolution.
3. It is confirmed that the general rate for all rateable land within the municipal district be determined by multiplying the Capital Improved Value of each rateable land by the relevant differential rate as specified in paragraph 4 of this Part.
4. That differential rates be declared as specified below:

TYPE OF RATE	RATE IN THE \$ ON CIV
Residential	0.00283907
Commercial	0.00726802
Industrial	0.00732480
Farm	0.00204413
Rural Residential	0.00272551
Recreation 1*	0.00000000
Recreation 2	0.00726802

* Council has determined to levy a nil rate in the dollar for properties eligible to be rated under the provisions of the *Cultural and Recreational Lands Act* (1963), i.e. classified as Recreation 1.

C. MUNICIPAL CHARGE

1. That no municipal charge be declared.

D. SERVICE CHARGES

1. That a Service Charge of \$457.00 per service be levied for the 12 month period from 1 July 2023 to 30 June 2024 on residential and other permitted properties for the collection, removal and disposal of refuse and recyclables where the service is provided.
2. That a Service Charge of \$72.00 per service be levied for the 12 month period from 1 July 2023 to 30 June 2024 for collection, removal and disposal of green waste on all residential properties with a detached house (including houses and granny flats and bungalows) on land sized between 250m² and 4,000m², where the service is provided.
3. Properties eligible for a green waste service may apply for additional service(s) subject to approval by Council's Waste Services Unit. Any additional service(s) will be charged an additional green waste Service Charge.
4. Properties that do not meet the criteria for a green waste service may apply to opt into the service provided that the property is located on an existing collection route. Applications to opt in to such service will be subject to approval by Council's Waste Services Unit.

E. SPECIAL RATES

1. That a special rate of \$0.00280436 on the Capital Improved Value of the properties described in paragraph 2 of this part (E), be declared for the period commencing on 1 July 2023 and ending on 30 June 2024.
2. For the purpose of the Bridge Mall Special Rate, declared by Council on 28 June 2023 for a 5 year period commencing 1 July 2023 and ending on 30 June 2028, applicable to the properties described below:
 - a. On all street level properties located between Grenville Street and Peel Street that face the Bridge Mall, Coliseum Walk and the ground floor tenancies in Norwich Plaza, as follows:
 - i. Odd Numbers from 17 to 81 Bridge Mall (inclusive);
 - ii. Even Numbers from 2 to 90 Bridge Mall (inclusive);
 - iii. 1 to 17 Norwich Plaza (inclusive);
 - iv. 1 to 6 Coliseum Walk (inclusive).
3. In accordance with the 28 June 2023 declaration, the Special Rate for the year ending 30 June 2024 will raise \$160,000 in 2023/24, for the purpose of defraying a proportion of the annual expenditure for the Promotion, Security Services and the employment of a part-time Manager for the Bridge Mall Business Association.

F. WAIVER

1. In accordance with the provisions of section 171 of the *Local Government Act 1989*, Council will waive \$100.00 of the Rates levied for the 2023/2024 year on properties where the ratepayer:
 - b. Is an eligible recipient within the meaning of the *State Concessions Act 2004* and has qualified for a waiver under section 171(4) of the *Local Government Act 1989*, and,
 - c. Who lives alone in their own home and is solely responsible for the payment of rates and charges on that property.

The objective of this waiver is to provide assistance to Pensioners who are the sole ratepayer and are recipients of the pension.

G. INTEREST ON UNPAID RATES AND CHARGES

1. That interest at the rate prescribed by Section 172(2)(a) of the *Local Government Act 1989* be payable in respect of any of the aforesaid rates and charges which are not paid by the dates fixed pursuant to Section 167 of the *Local Government Act 1989*.

H. SCHEDULE OF RATING DIFFERENTIALS

Residential Land

Definition

Residential land is any land, which is used for private residential purposes, including but not limited to houses, dwellings, flats, units and private boatsheds, together with vacant unoccupied land, not covered by another differential, but excluding motels, caravan parks, supported accommodation, accommodation houses, boarding houses and the like.

Objectives

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of City of Ballarat, including (but not limited to) the:

- Construction and maintenance of infrastructure assets
- Development and provision of health and community services
- Provision of general support services

Characteristics

The characteristics of planning scheme zoning are applicable to the determination of vacant land which will be subject to the rate applicable to residential land.

The vacant land affected by this rate is that which is zoned residential under the City of Ballarat Planning Scheme.

The classification of land which is improved will be determined by the occupation of that land and have reference to the planning scheme zoning.

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

100 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Commercial Land**Definition**

Commercial land is any land which is:

- Used or adapted to be used for business and/or administrative purposes, including but not limited to properties used for:
 - The sale or hire of goods by retail or trade sales, e.g. shops, auction rooms, hardware stores
-

- The manufacture of goods where the goods are sold on the property
- The provision of entertainment, e.g. theatres, cinemas, amusement parlours, nightclubs
- Media/broadcasting/communication establishments, e.g. television stations,
- newspaper offices, radio stations, telecommunication towers and associated facilities
- The provision of accommodation other than private residential, e.g. motels, caravan parks, camping grounds, camps, supported accommodation, accommodation houses, hostels, boarding houses
- Short term tourist accommodation specifically identified and coded with an Australian Valuation Property Classification Code (AVPCC) of 232 (serviced apartments/holiday units) or 233 (bed and breakfast)
- The provision of hospitality, e.g. hotels, bottle shops, restaurants, cafes, takeaway food establishments, tearooms
- Tourist and leisure industry, e.g. flora and fauna parks, gymnasiums, indoor sports stadiums, gaming establishments (other than those classified under Recreational 2)
- Art galleries, museums
- Showrooms, e.g. display of goods
- Brothels
- Commercial storage (mini storage units, wholesale distributors)
- Religious purposes
- Public offices
- Halls for commercial hire
- Mixed businesses/milk bars (those operating in residential type zones under the Ballarat Planning Scheme and non conforming residential/milk bar properties within industrial zones under the Ballarat Planning Scheme, with attached residences, occupied as the principal place of residence of the person(s) operating the mixed business/milk bar component of the rateable property, will have the residential portion rated as Residential)
- Used for the provision of health services, including but not limited to properties used for hospitals, nursing homes, rehabilitation, medical practices and dental practices.
- Used primarily as offices or for administration purposes including but not limited to properties used for legal practices, real estate agents, veterinary surgeons, accounting firms, insurance agencies or any other organisation, group, business, association or representative body.
- Vacant unoccupied land and zoned or intended to be used for commercial purposes.

Objectives

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of City of Ballarat, including (but not limited to) the:

- Construction and maintenance of infrastructure assets
- Development and provision of health and community services
- Provision of general support services

Characteristics

The characteristics of planning scheme zoning are applicable to the determination of vacant land which will be subject to the rate applicable to residential land.

The vacant land affected by this rate is that which is zoned residential under the City of Ballarat Planning Scheme.

The classification of land which is improved will be determined by the occupation of that land and have reference to the planning scheme zoning.

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

256 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Industrial Land**Definition**

Industrial land is which is:

- Used primarily for manufacturing processes, including, but not limited to the following:
 - The manufacture of goods, equipment, plant, machinery, food or beverage which are generally not sold or consumed on site
 - Warehouse/bulk storage of goods
 - The storage of plant and machinery
 - The production of raw materials in the extractive and timber industries
 - The treatment and storage of industrial waste materials
- Vacant unoccupied land and zoned or intended to be used for industrial purposes"

Objectives

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of City of Ballarat, including (but not limited to) the:

- Construction and maintenance of infrastructure assets
- Development and provision of health and community services
- Provision of general support services

Characteristics

The characteristics of planning scheme zoning are applicable to the determination of vacant land which will be subject to the rate applicable to residential land.

The vacant land affected by this rate is that which is zoned residential under the City of Ballarat Planning Scheme.

The classification of land which is improved will be determined by the occupation of that land and have reference to the planning scheme zoning.

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

258 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Farm Land**Definition**

Farm land is any land, which:

- Is not less than 2 hectares in area
- Is used for carrying on a business of primary production as determined by the Australian Taxation Office
- Is used primarily for grazing (including agistment), dairying, pig farming, poultry farming, fish farming, tree farming, bee keeping, viticulture, horticulture, fruit growing or the growing of crops of any kind or for any combination of those activities
- Is used by a business:
 - That has a significant and substantial commercial purpose or character
 - That seeks to make a profit on a continuous or repetitive basis from its activities on the land
 - That is making profit from its activities on the land, or that has a reasonable prospect of making a profit from its activities on the land if it continues to operate in the way that it is operating

In consideration the City will take into account:

- Whatever activity is being conducted on a property, it must be a business of primary production as opposed to a hobby or recreational activity.

Objectives

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of City of Ballarat, including (but not limited to) the:

- Construction and maintenance of infrastructure assets
- Development and provision of health and community services
- Provision of general support services

Characteristics

The characteristics of planning scheme zoning are applicable to the determination of vacant land which will be subject to the rate applicable to residential land.

The vacant land affected by this rate is that which is zoned residential under the City of Ballarat Planning Scheme.

The classification of land which is improved will be determined by the occupation of that land and have reference to the planning scheme zoning.

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

72 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Rural Residential Land

Definition

Rural residential land is any land, which:

- Is not less than 2 hectares in area
- Is resided on
- Is located within the Farm or Rural Conservation planning zone that does not satisfy the criteria for farmland

And excludes:

- Vacant land greater than 2 hectares

Objectives

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of City of Ballarat, including (but not limited to) the:

- Construction and maintenance of infrastructure assets
- Development and provision of health and community services
- Provision of general support services

Characteristics

The characteristics of planning scheme zoning are applicable to the determination of vacant land which will be subject to the rate applicable to residential land.

The vacant land affected by this rate is that which is zoned residential under the City of Ballarat Planning Scheme.

The classification of land which is improved will be determined by the occupation of that land and have reference to the planning scheme zoning.

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

96 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Recreational Land 1**Definition**

Recreational land 1 is land as defined under the *Cultural and Recreational Lands Act 1963*.

Objectives

The objective of the rate is to recognise the large contribution that these community organisations and the volunteers make to the Municipality in the provision of sporting, cultural and recreational activities.

Characteristics

Is cultural and recreational land and:

- Occupied by a body which exists for cultural or recreational purposes and applies its profits in promoting the furthering of this purpose
- Owned by the body, by the Crown or by Council
- Not agricultural showgrounds

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

Zero per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

Recreational Land 2

Definition

Recreational 2 land is recreation 1 land where the land or part thereof is used for gaming.

Objectives

The objective of the rate is to recognise the large contribution that these community organisations and the volunteers make to the Municipality in the provision of sporting, cultural and recreational activities.

Characteristics

Is cultural and recreational land and:

- Occupied by a body which exists for cultural or recreational purposes and applies its profits in promoting the furthering of this purpose
- Owned by the body, by the Crown or by Council
- Not agricultural showgrounds

Types and classes

The types and classes of rateable land within this rate are those having the relevant characteristics described above.

Use of rate

The money raised by this rate will be applied to the items of expenditure described in the Budget by the City.

The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

Level of rate

256 per cent of the residential rate.

Use of land

Is any use permitted under the City of Ballarat Planning Scheme.

Geographic location

This rate is applicable to land within the municipal district.

Planning scheme zoning

The zoning applicable to each rateable land within this category, as determined by consulting maps referred to in the relevant Planning Scheme.

Types of buildings

The types of buildings on the land within this rate are all buildings already constructed on the land or which will be constructed prior to the expiry of the 2023/24 year.

ATTACHMENTS

1. Governance Review [9.6.1 - 2 pages]

OFFICIAL

ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. The rating information contained within this report and recommendation is consistent with the proposed 2023/24 Budget and Council's Revenue and Rating Plan.

COMMUNITY IMPACT

2. The ability for Council to raise revenue via rates and charges is a fundamental aspect of delivering services to the community and achieving the objectives contained within the Council Plan.
3. The average increase in rates and charges for 2023/24 have been capped at 3.5%, in accordance with the Fair Go Rates system.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

4. Council's commitment and investment towards Goal 1 (An Environmentally Sustainable Future) is detailed within the draft 2023/24 budget.

ECONOMIC SUSTAINABILITY IMPLICATIONS

5. Council's draft budget contains details of our expenditure in the local community for the 2023/24 year.

FINANCIAL IMPLICATIONS

6. The Budget report provides details of councils planned income raising and expenditure for the 2023/24 year and subsequent 3 years.

LEGAL AND RISK CONSIDERATIONS

7. Section 158(1) of the *Local Government Act 1989* states:
 - (1) *A Council must at least once in respect of each financial year declare by 30 June the following for that year—*
 - (a) *the amount which the Council intends to raise by general rates, municipal charges, service rates and service charges;*
 - (b) *whether the general rates will be raised by the application of—*
 - (i) *a uniform rate; or*
 - (ii) *differential rates (if the Council is permitted to raise such rates under section 161(1)); or*
 - (iii) *urban farm rates, farm rates or residential use rates (if the Council is permitted to raise such rates under section 161A).*

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HUMAN RIGHTS CONSIDERATIONS

8. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

COMMUNITY CONSULTATION AND ENGAGEMENT

9. Community Consultation commenced in November 2022, including an online survey, two community information sessions and the opportunity to provide input into the draft budget.
10. Following the 26 April 2023 Council meeting, the draft 2023/24 Budget was placed on Council's Website and advertised that it had done so. Copies of the draft Budget were also available from Council's customer service at both the Town Hall and The Phoenix building.
11. Two community information sessions were held during the feedback period.
12. 23 submissions were received and considered by Council prior to considering adoption of the proposed budget.

GENDER EQUALITY ACT 2020

13. There are no gender equality implications identified for the subject of this report.

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

14. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

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9.7. MUNICIPAL EARLY YEARS PLAN IMPLEMENTATION REPORT

Division: Community Wellbeing
Director: Matthew Wilson
Author/Position: Amy Treyvaud - Coordinator Early Years Partnerships

PURPOSE

1. To update Council on the progress made against actions in the first year of the implementation of the Municipal Early Years Plan 2022-2026.

BACKGROUND

2. The Municipal Early Years Plan 2022-2026 (MEYP and also referred to as the Plan) was endorsed in June 2022 and lays out the vision and priorities for Ballarat as a child-friendly city in which every child is safe and feels heard.
3. The Plan was developed in consultation with the community, including professional stakeholders and children.
4. The Nest framework (developed by the Australian Research Alliance for Children and Youth) defines the six goals in the MEYP:
 - Valued, Loved and Safe
 - Having Materials basics
 - Being Healthy
 - Children are Learning
 - Children are Participating
 - Positive Sense of Culture and Identity
5. The Plan interlinks with the Council Plan, Health and Wellbeing Plan and other inclusion and infrastructure plans endorsed in 2022.
6. The Plan includes 40 actions to be completed across four years, some actions span the four years, while others will be completed in specific years.
7. The Plan is aligned with the financial year and this briefing relates to the reporting for the first three quarters of the first year. Future reports will relate to full reporting years over the lifespan of the plan.
8. The MEYP 2022-23 Implementation Scorecard is an attachment to this report. Progress has been recorded against all first-year actions and this year's work will inform our work for the next financial year, in conjunction with our action plan.

KEY MATTERS

Notable achievements include:

Goal 1: Valued, Loved and Safe:

- Parent Place Outreach trial commenced with Vichealth funding

- Significant increase in Parent Place Facebook engagement - page reach up 37.3% and page visits up 153.6%
- 185 babies/children seen at Parent Place MCH drop-in service and 174 babies/children seen at Wendouree Children's Centre drop-in service
- 108 families participated in the Supported Playgroup program
- Co-delivery of two supported playgroups with community organisations
- Child Safe Officer employed
- 6km of new footpath installed
- Roll out of mandatory Child Safe training across the organisation - 701 staff have completed the online module and 165 staff have completed additional Child Safe Australia training

Goal 2: Having Material Basics:

- Seven families assisted with immediate access to family violence services at Parent Place
- 654 mother/family or child health referrals made by MCH
- 174 Subscribers to the Parent Place newsletter and this is growing

Goal 3: Being Healthy:

- 25 children referred and booked with paediatric Occupational Therapy program through MCH service
- Girrabanya and Wendouree Children's Centres have both been accredited under the Healthy Together Achievement program
- 17 Supported Playgroup sessions held across Ballarat each week during school terms

Goal 4: Children are Learning:

- Successful application for one of two state funded evidenced based Safe Haven Early Years Education program to be established at Rowan View Kindergarten
- Design, tender and commencement of construction of new Alfredton Community Hub
- Capital upgrade to Rowan View Kinder commenced
- Design for Sebastopol Community Hub underway which will incorporate MCH consultation rooms and early learning facilities

Goal 5: Children are Participating

- Over 1000 children participated in a *Kid Power* activity seeking their input into what is important to them over two days at the Begonia Festival
- Over 4000 children participated in the Art Gallery paper flower activity at Begonia Festival
- Nine large council led community events family-friendly were held
- Two new resident sessions were held at Parent Place

Goal 6: Positive Sense of Culture and Identity

- Three council led events specifically celebrating children were held - Children's Week, Ballarat's Biggest Playgroup and ATSI Children's Day
- Reconciliation Week, NAIDOC Week and Harmony Day were celebrated in our early years programs
- Supported Playgroup co-facilitated with Ballarat Regional Multicultural Council (BRMC)
- Aboriginal and Torres Strait Islander Children's Day event coordinated with officers from Family, Youth & Children's Services (FY&CS) and the Library teams; and Department of Education Koorie Education Support Officers
- Large collection of picture books depicting diverse families purchased and used in Parent Place and Supported Playgroup programs

- Children's Services purchased books in children's first languages and have invited families to read them to the children.

Where to from here:

9. The MEYP 2022-23 Implementation Scorecard provides evidence of activity which indicates a productive year overall, and much progress made towards the MEYP goals.
10. In the next year of the plan, officers will focus on the 2023 actions outlined in the MEYP including the actions that span multiple years.
11. Some of the key action items for the second year of the plan are;
 - a. the development of a children and youth page on Council's website.
 - b. convening of a Children's Brains Trust for input into decisions that impact them.
 - c. the development of an online community directory that provides information about local services for families, youth and children.
 - d. delivery of free wi-fi in City of Ballarat run spaces.
12. The FY&CS unit will also focus on increasing opportunities for children to participate in engagement and routine consultations across council. This work will be led by FY&CS and requires active engagement with all relevant business units.

OFFICER RECOMMENDATION**13. That Council:**

- 13.1 Receive and note the report on the work undertaken in year one to progress the objectives of the City of Ballarat Municipal Early Years Plan 2022-2026.**

ATTACHMENTS

1. Governance Review [9.7.1 - 4 pages]
2. MEYP Scorecard Year One 2022-2023 updated [9.7.2 - 8 pages]

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ALIGNMENT WITH COUNCIL VISION, COUNCIL PLAN, STRATEGIES AND POLICIES

1. The 2022 – 2026 Municipal Early Years Plan (MEYP) was developed with input from an internal steering group including representatives from key business units to ensure alignment with other plans and strategies; such as Development Facilitation, Communications and Design, Business Improvement, Arts and Events, Recreation Services, Engaged Communities, Libraries and Lifelong Learning and Family, Youth and Children's Services.
2. Alignment with the Council Vision, Council Plan (specifically Goal 2: A healthy, connected and inclusive community), strategies and policies are explicit throughout the MEYP; it builds upon the work of the previous Municipal Early Years Plan; and links with the other plans and strategies in the City of Ballarat strategic framework, including:

10 Year Horizons
 Community Vision 2030
 Health and Wellbeing Plan 2021-2031
 Community Infrastructure Plan 2021-2036
 Four Year Horizon
 The Council Plan (2021-2025)
 Other relevant plans, strategies and frameworks
 Ballarat Strategy 2015
 Ballarat Planning Scheme
 Community Engagement Framework
 Intercultural City Strategic Plan 2018-2021
 Play space Management Plan 2021-2025
 Libraries and Learning Strategy 2022-2027
 Reconciliation Action Plan 2022-2024
 Ballarat Integrated Transport Plan 2020
 Ballarat Prosperity Framework 2020
 Circular Ballarat Framework 2021
 Bakery Hill Urban Renewal Plan 2019
 Gender Equality Action Plan 2021-2025
 Disability Access and Inclusion Plan 2019-2022
 Active Ballarat Strategy 2020
 Active Women and Girls Strategy 2018
 Ballarat Creative City Strategy 2019
 Ballarat Cycling Action plan 2017-2025
 Ballarat Event Strategy 2018-2028
 Ballarat Heritage Plan 2017-30
 Food Strategy 2019-2022
 Road Management Plan 2021
 Urban Forest Action Plan 2019

COMMUNITY IMPACT

3. 20% of our population is aged 14 years and younger and this percentage is growing. We need to plan for our growing population the MEYP support the identification of priorities and planning to meet the diverse need of our population, with a focus on inclusion and infrastructure.

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4. Key themes that emerged during the consultations with community, including children, focused on the need for connection. Connection to community, and interconnected service sector, connection to the City of Ballarat and connection to place and country were all highlighted as important. The MEYP aims to strengthen these connections and these aims are embedded in the actions.

CLIMATE EMERGENCY AND ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

5. Environmental sustainability is one of the principles of the MEYP and the plan clearly identifies multiple actions related to climate change awareness and education.

ECONOMIC SUSTAINABILITY IMPLICATIONS

6. There are no economic sustainability implications identified.

FINANCIAL IMPLICATIONS

7. Future financial implications have been detailed in the action plan and business cases will be prepared to support the completion of work in the action plan.
8. The action plan also identifies links to business cases to be developed in line with other strategic plans eg. Creative City Strategy, Reconciliation Action Plan (under development), and Community Infrastructure Plan (2021-2036).

LEGAL AND RISK CONSIDERATIONS

9. There are no immediate risks that have been identified.

HUMAN RIGHTS CONSIDERATIONS

10. It is considered that the report does not impact on any human rights identified in the *Charter of Human Rights and Responsibilities Act 2006*.

COMMUNITY CONSULTATION AND ENGAGEMENT

11. In 2020 and 2021, the City of Ballarat conducted children's consultations, with questions collaboratively developed by Council Officers. The consultation responses were utilised in the development of the MEYP.
12. During the development of the MEYP:
 - Broad consultations and co-design workshops were held with City of Ballarat staff, professional stakeholders and community, including children.
 - Children's consultations responses were gathered via MySay and hard copy templates distributed to schools.
 - Co-design workshops held with students at three primary schools, specific to the MEYP. These were held via Zoom due to COVID restrictions at the time.

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- Following the March Council meeting, where the draft MEYP was approved for public exhibition, a City of Ballarat MySay campaign was opened for a period of four weeks to gain feedback from internal staff, professional stakeholders, community and children.

13. During the current review period:

- Children were consulted on a range of issues by multiple business units during 2022 and the first quarter of 2023 and the responses have been used to inform program priorities, focus and delivery. Most of these consultations took place in person.
- Consultations included:
 - a. 250 children consulted for the Active to School initiative.
 - b. 100 children responded to the Eat Well Feel Good survey.
 - c. library programs consulting with children in the school holiday program evaluation.
 - d. children consulted about events at events such as Children's Week.
 - e. children consulted during development of Children's Services Educator Practice Guide.
 - f. 1000 children participated in the *Kid Power* activity at the 2023 Begonia Festival and the results will be shared with other business units and used to inform future work.

GENDER EQUALITY ACT 2020

14. There are no gender equality implications identified for the subject of this report. Based on findings from the gender impact assessment, it is recommended that as far as is practical, that action is taken to challenge gender stereotypes and roles throughout the operationalisation of this plan.
 15. Children's early years are crucial in the formation of gender roles and stereotypical notions of what it means to be masculine or feminine. In addition, positively influencing children's and families understanding of gender norms, is most likely to be achieved at this time.
 16. Inclusion and equality are amongst the driving principles of the Municipal Early Years Plan. The implementation of the plan will support the provision of gender equitable service provision and the promotion of gender equality through role modelling, language, settings and communication.
 17. Guiding actions include:
 - Staff use of gender-neutral language across our services, including embedding gender-neutral language in our policies and documents as they are developed or reviewed
 - Actively seeking ways to engage more men/fathers in activities, events and parenting opportunities
 - Auditing resources and opportunities such as books and play items to ensure that there are diverse experiences provided that encourage engagement and play that challenge rigid gender norms and expectations.
 18. This recommendation will deliver early years services, events, settings and opportunities that are more inclusive, accessible and equitable and that challenge gender roles and stereotypes. This will strengthen the capacity of Council to reduce
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limits that gender stereotypes otherwise place on children according to rigid societal gender roles and expectations. This will broaden opportunities for children of all genders and their parents through the provision of a supportive environment that actively encourages gender equality.

CONFLICTS OF INTEREST THAT HAVE ARISEN IN PREPARATION OF THE REPORT

19. Council officers affirm that no general or material conflicts need to be declared in relation to the matter of this report.

PROCUREMENT COLLABORATION

(For Contracts Only)

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MEYP Implementation Scorecard							
YEAR ONE 2022/2023 (1st, 2nd 3rd Q)							
Plan Priority	List of year one actions			Notes on delivery of the actions (To be completed by the Business)			
GOAL	ACTIVITY	OUTPUTS	Responsible teams/ business units	RESULT	Number (if applicable)	Description of work undertaken (if applicable)	Key achievements (optional)
Valued, Loved and Safe	1.Ensure City of Ballarat activity is child friendly and child safe with child friendly initiatives and opportunities	Child Safe officer employed	People and Culture	Delivered in full	1	Child Safe and Gender Equity Officer employed	
		Communications and education about Child Friendly initiatives distributed internally	Family, Youth and Children's Services	Delivered in part		Ongoing discussions with teams such as City Design and Events about how we can incorporate child-friendly initiatives into planning. Play Australia professional development opportunities shared with other business units, including City Design. Kid Power Begonia Festival video will be shared with all staff when completed.	
		Participation in Child Safe training	People and Culture	Delivered in part	701 staff completed online module 165 staff have completed additional Child Safe Australia training	Delivery of Child Safe Australia training will continue to be delivered across the organisation.	
Valued, Loved and Safe	2.Develop our neighbourhoods to ensure all children can move safely to play, walk, ride bikes, and commute to school, kindergarten and early learning environments, health settings and recreational activities.	Metres of footpath installed and upgraded	Infrastructure	Delivered in full	6.0km	New footpath installations	
			City Design	Delivered in part	8	1. Sturt St B-Path stage 2 COB - 700m Dawson-Grenville. 2. Station to Station Connection – Stage 1 Lydiard St – Creswick Road via Macarthur St approx 1200m. 3. Steinfeld B-Path COB 500m (by Karen M). 4. Learmonth Road B-Path 3000m (TBC by Karen M) – construction this FYr. 5. Trails and Connections Project – Victoria Park to Moreshead Park approx 1000m – tender preparation. 6. Grenville St south approx. 500m. 7. Grenville St mid as part of B-Hill Project for construction next 18 months. 8. Grenvile St north approx 500m. Sturt St B-Path stage 1 by RRV Pleasant - Dawson was 1300mL. Glenelg Highway B-Path Yarrowee – Delacombe Town Centre - in design for \$6m. Federal Budget Bid 3500m.	
		Active to School initiative is promoted through Children's Centre newsletters	Health and Social Planning	Not yet commenced		This will occur during the next Active to School initiative.	
		Active to school initiative is promoted to the community	Health and Social Planning	Delivered in full	2 news articles		Engaging the student leadership group and co-designing the project
		Number of families engaged in supported playgroups	Supported Playgroups	Delivered in full	108 families		Co-delivery of several playgroups with partners.

Valued, Loved and Safe	3. Provide parents and carers with opportunities to strengthen parenting skills, resources, and capacity	Number of hours Maternal Child Health (MCH) First Parent Group activity	Maternal and Child Health	Delivered in full	148 hours		
		Number of hours Sleep and Settling group activity	Maternal and Child Health	Delivered in full	45 hours		
		Number of times Parent Place Outreach operated	Parent Place	Delivered in part		Outreach commenced in October 2022 and operates weekly, in different 9 locations, during school terms.	Parent Place Outreach trial funded by Vichealth and commenced in October 2022, strong engagement with partners and community
		Parent Place social media reach and engagement	Parent Place	Delivered in full	FB Page reach - 39,726, FB Page Visits - 10,937, FB New Likes - 321		Facebook page reach up 37.3%, Facebook Page visits up 153.6%. Facebook new likes up 13.4%
		Parent Place (including Outreach) hours of operation	Parent Place	Delivered in full	950 hours Parent Place 36 hours Outreach	Parent Place open 9.30 - 2.30 Monday to Friday Outreach operates once per week during school term	
		Number of partner visits at Parent Place including Outreach	Parent Place	Delivered in full		Berry Street Family Violence support - Weekly Grampians Health (Lactation Consultant) - Weekly Maternal and Child Health - Weekly CatholicCare - Weekly Community Legal Service - Fortnightly	
		Attendance at MCH drop ins at Parent Place	Maternal and Child Health	Delivered in full	185 babies/children seen	Drop-in service offered for 3-4 hours each week.	
		Number of Parent Place newsletters distributed	Parent Place	Delivered in part		Parent Place developed newsletters in January 2022 and now distributes a monthly newsletter. This continues to build its audience.	174 subscribers
		Number of targeted sessions run at Parent Place	Parent Place	Delivered in part		Speech session held 2.11.22 at Parent Place Mental Health session at Outreach 3.03.23 with CatholicCare 3 Balance Play sessions held with Aquatic Centre - opportunity for motor development/movement	
		Collaboration with antenatal care providers to link vulnerable families earlier	Family, Youth and Children's Services	Delivered in part		Working with Grampians Health midwives and antenatal staff to link families with support services. Building stronger relationship with Ballarat Community Health also.	
Valued, Loved and Safe	4. Identify and support children at risk of harm in alignment with the MARAM framework	Number of staff that have undertaken MARAM training	People and Culture	Not yet commenced			
			Family, Youth and Children's Services	Delivered in part		Staff have completed two session of 33 collaborative practice training.	
		Number of times Family Violence associated services attended/were available at Parent Place	Parent Place	Delivered in full	38	Berry Street attend weekly	Families who would not have usually accessed these services have done so because of co-location with Parent Place
		Number of times Family Law services were accessed through Parent Place	Parent Place	Delivered in full		3 visits into Parent Place for Family Law Service. 9 referrals made in total. This may not be an accurate reflection of the number of referrals we have actually received as our data base only records referrals that result in a legal 3 service being completed.	
Material Basics	5. Provide families with access to the social and other services they need	Number of times Family Violence services were accessed through Parent Place*	Parent Place	Delivered in full		7 face to face visits to Parent Place accessing family violence service	
		Number of mother/family or child health and wellbeing referrals made by MCH	Maternal and Child Health	Delivered in full	654		

		Number of times parenting support services available at Parent Place	Parent Place	Delivered in full	33		
Material Basics	6. Provide families and children with access to the information they need	Review of current information channels and content to increase access for families	Family, Youth and Children's Services	Delivered in part		This is an ongoing process: Parent Place newsletter content regularly reviewed. Children's Services families are surveyed each year about communication and relevant changes implemented	
			Engaged Communities	Delivered in full		Communication Channel Audit undertaken and shared with relevant teams	
			Communications and Design	Delivered in part		Audit of website completed in 2022 with an interim update made. Further development of website content to occur to increase accessibility of language.	
			Information Services	Not applicable			
		Number of initiatives provided to increase access for CALD children and families	Supported Playgroups	Delivered in full	26 children and parents/carers	Co-facilitate supported playgroup with BRMC. Picture books depicting and celebrating diversity purchased and read during sessions.	
			Parent Place	Delivered in part	3	Weekly play date for BCH Refugee and Migrant Settlement Service was held from July 2022, however ceased in December 2022 due to BCH staff limitations Attendance at BRMC morning tea and BRMC supported playgroup families supported to attend Parent Place	
			Children's Services	Delivered in part	3	Purchasing new books in children's home languages to use in the service and have invited families to read books in their first language to group and to share key words with us. Food pantry signage displayed in known home languages. Interpreters utilised if needed	
	7. Ensure City of Ballarat facilities, including open space, are high quality and facilitate best practice service models	Funds invested in new and improved infrastructure	Infrastructure	Delivered in full		Maintenance costs: ELC/Kindergartens \$80,913.29 MCHC \$3,583.14 Parent Place: \$110,255.01 (main cost roof) Total: \$194,751.44 Projects in the detailed design, construction or complete stage = approx. 12M (this figure includes VSBA grant funds as well as CoB contribution)	
		Number of infrastructure projects advocated for, supported and provided	Infrastructure	Delivered in part		Received 4 VSBA grants – Alfredton Com Hub, Mount Clear, Girra, Sebas South Federal commitment for Sebastopol Community Hub which includes MCH rooms, 3 x kindergarten rooms	

Healthy	8. Increase the inclusivity of community and sporting clubs and organisations for children	Number of inclusive opportunities promoted	Recreation Services	Delivered in part		Work with BFLW to investigate an U12 girls' competition Fully fenced inclusive playspace at MR Power playspace	
		Number of clubs and organisations engaged	Recreation Services	Not yet commenced			
Healthy	9. Partner with the community to deliver initiatives in identified areas of need, including physical health and activity, mental health, dentistry	Oral health measures in each MCH KAS visit	Maternal and Child Health	Delivered in full	711 at 8 month KAS 639 at 18 month KAS 508 at 3.5yr KAS		
		Number of milestones achieved within the Healthy Together Achievement program	Children's Services	Delivered in part		2-3 Milestones achieved for each service and other milestones in 5 progress	All services hit Sunsmart milestone
		Percentage of council managed ELC which are accredited under the HTA program	Children's Services	Delivered in part		Working through milestones	
		Number of times the Smile for Miles program delivered per year in council managed ELC	Children's Services	Delivered in full		Achieved for both Wendouree and Girrabanaya	
		Number of referrals to the speech assessment service within the paediatric occupational therapy program	Maternal and Child Health	Delivered in full	25 referred & booked		
		Number of targeted health focused sessions held at Parent Place (including Outreach)	Parent Place	Delivered in full		Speech session held 2.11 at Parent Place Mental Health session at Outreach 2 3.03 with CatholicCare	
		Number of community initiatives that council have collaborated on or led	Family, Youth and Children's Services	Delivered in part		2	
Healthy	10. Provide opportunities for social connection for all families and children, including positive social and peer supports for parents, carers, and children	Number of Supported Playgroup sessions	Supported Playgroups	Delivered in full		17	One and a half hour sessions held weekly during school terms
		Parent Place (including Outreach) hours of operation *	Parent Place	Delivered in full	Parent Place: 9.30am-2.30pm Monday to Friday Outreach: 9.30-12.30 weekly		
		Number of council events with inclusive children's activities	Arts and Events	Delivered in full		5	Over 1,000 children engaged in the activity 'Kid Power' delivered by Picture Thinking at Begonia Festival. General event statistics: - Parent Place was set up within the Integra Family zone to service families throughout the three days of the festival. - 32% of those surveyed attended as a family with children under 8 years old. - 3,000+ children through the Obstacle Course - 3 school groups worked collaboratively on parade entry 4000+ paper begonia flower made by kids at the Art Gallery kids activity tent Event community sponsor engaged over 15 primary school with the animal canvas competition
		Number of hours MCH First Parent Group activity *	Maternal and Child Health	Delivered in full	148 hours		
Learning	11. Strengthen supports for children and families through key transitions	Number of transition support opportunities facilitated and promoted	Supported Playgroups	Delivered in full	25 families	Library Parent Place	
			Parent Place	Delivered in full		1	Held 24/10 in partnership with CatholicCare
			Children's Services	Delivered in part		2	Additional support for children and families with more complex needs
		Kindergarten registration discussed at all 2-year-old MCH KAS visits	Maternal and Child Health	Delivered in full	638 - 2 year old KAS visits		
		Kindergarten registration discussed with all eligible Supported Playgroup families	Supported Playgroups	Delivered in full	over 200 families		This is discussed with all families attending SP

Learning	12. Continue Leadership of best practice in the early years sector	Number of early years initiatives led by Council	Family, Youth and Children's Services	Delivered in full	1	Innovation grant - ECT retention sessions	Budget bid for ongoing funding to support broader workforce retention and knowledge
		Number of early years groups/networks that Council FY&OS staff attend	Family, Youth and Children's Services	Delivered in full	16	Ongoing membership on: Early Years Partnership, Ballarat 4 Kids Steering Group and Coalition, Child Friendly Cities Advisory and Network groups, Family Day Care statewide group, Educational Leaders group, Supported Playgroup Communities of Practice, CHIFVC member, Parenting Centre Community Advisory Group, MCH Advisory Group, Better Outcomes for our Koorie Kids Network, AEL Reference Group, High Risk Infant Panel, Victorian MCH Coordinator Group	
		Number of partners in Early Years Networks	Family, Youth and Children's Services	Delivered in full	25 member organisations with 63 members in EYP.	Meeting bi-monthly with a focus on Best Start	
		All City of Ballarat early years programs are evidence based.	Family, Youth and Children's Services Libraries and Lifelong Learning	Delivered in full		Library EYL programs reviewed against State Library Victoria frameworks. Supported Playgroup program delivers evidenced-based Smalltalk program. Children's Services programs use the Victorian Early Years Learning and Development Framework.	
Learning	13. Deliver and fund MCH, early learning and kindergarten and advocate for schools that are inclusive, accessible, affordable, within local neighbourhoods, and of a consistent standard and quality across the organisation	Key advocacy and planning work	Family, Youth and Children's Services	Delivered in part		Advocacy ongoing with State Government, following negotiation of Kindergarten Infrastructure Services Plan (April 2022) and adoption of Council's Community Infrastructure Plan (July 2022). Also, successful application for one of two State funded evidence based Safe Haven Programs to be established at Rowan View Kindergarten.	Kindergarten Infrastructure Services Plan Community Infrastructure Services Plan
		Funding allocated per year	Family, Youth and Children's Services	Delivered in part		Design, tender and commencement of construction of new Alfredton Community Hub. Capital upgrade to Rowan View Kindergarten. Designs underway for Sebastopol Community Hub, and upgrades to Brown Hill, Mount Clear, Sebastopol South and Lucas Community Hub.	
Participating	14. Support children and families to remain engaged and connected to their communities throughout COVID-19	Number of council led community events that are family friendly	Family, Youth and Children's Services	Delivered in full	2	Ballarat's Biggest Playgroup Children's Week event ATSI Children's Day event	These events were child and family focused, with a particular focus on the early years.
			Arts and Events	Delivered in full	8	Ballarat Winter Festival Christmas in Ballarat Summer Sundays x 4 Ballarat Begonia Festival, Eureka Sunday Community Day, Eureka Centre School Holiday Programs, Eureka Centre launched 4 online education programs during COVID 19	
		Disability audit pre and post findings	Engaged Communities	Delivered in part		Audit undertaken at Town Hall, Town Hall Library, Wendouree Library, Sebastopol Library	Communication boards for Parent Place, Supported Playgroups, Ballarat Libraries

Participating	15.Ensure facilities, amenities, open spaces, and places in the municipality are inclusive and meet the needs of all children and families	Disability action plan community consultation	Engaged Communities	Delivered in full		Overall, eight hundred and eighty-six (886) people provided input within the Inclusive Ballarat engagement process	Range of engagement tools - including family friendly 'Conversation Kits', worksheets for drawing responses and Interactive Community Boards in places such as libraries where responses could be written or drawn by parents and children.
		Consultation findings	Engaged Communities	Delivered in full		Disability is not a catch-all category: People with disability are diverse and intersectional, and their needs are varied. •Places identified as providing some good accessible features include the library, art gallery, Victoria Park Inclusive Play Space, Ballarat Aquatic and Lifestyle Centre along with some events (e.g. the inclusion of Auslan at the Begonia Festival). Suggested improvements Council could make to facilities and services include having sensory friendly environments, accessible information, additional seating, signage, accessible toilets and assistance dog relief areas. •Footpaths and parking are two areas of public space that currently present significant barriers for people with disability, with consideration of the accessibility of the whole journey. •People with disability want to attend events but fear that accessibility hasn't been considered, or don't know what accessibility features have been included.	
Participating	16. Children are consulted on key City of Ballarat decisions and listened to with respect.	Number of initiatives across Council in which children under the age of 12 were engaged for their feedback and input	Family, Youth and Children's Services	Delivered in part	2	13 children consulted during Childre's Week event. 23 children in our Children's Centres to inform the Practice Guide.	
			Engaged Communities	Delivered in full	5	Active to School - 250 Eat Well Feel Good survey - 100 Co-design sustainability project - 45 MR Power Park - 15 Eat Well Feel Good co-design - 10	Co-design project with students from Mt Clear PS to design the Eat Well Feel Good healthy eating branding
			Libraries and Lifelong Learning	Delivered in part	6 feedback opportunities	This is an ongoing action, and occurs as part of post school holiday program evaluation.	Autumn programming decisions were made in response to feedback and input from children received during the Summer evaluation.
			City Design	Delivered in part	12 small parks design and planning for Improvements	Whilst children were not engaged with specifically, they were able to participate in all My Say feedback and survey opportunities as well as attend a number of on site co-design workshops held with local residents around the parks.	Young people had an opprtunity to have a say and be heard, resulting in some changes to the park designs, playspaces, recreational attractions and further improvements in the local parks.
			Arts and Events	Delivered in part		Eureka Centre education app incorporates a feedback page for students to submit input about the Eureka Education program outcomes and suggestions for improvement.	The app is under development, we are working with the developers to make the surveys easier to access in the backend, currently the information is not collated in a format that is easy to access. Currently working to develop a children's survey for events.
			Recreation Services	Not yet commenced			
			Strategic Planning	Not yet commenced			
			Family, Youth and Children's Services	Delivered in part	36 1000 children at Begonia Festival event	As above. 1000 children aged 4-12 participated in Kid Power event at Begonia Festival	

		Number of children engaged	Engaged Communities	Delivered in full	approx 420	Active to School hands up survey, Eat Well Feel Good survey, co-design sustainability project, MR Power Park skate park, Eat Well Feel Good Co-design	
			Libraries and Lifelong Learning	Delivered in part	234	Ongoing	Autumn programming decisions were made in response to feedback and input from children received during the Summer evaluation.
			City Design	Delivered in part	Not measurable	Small Parks Improvement Program as above	
			Arts and Events	Delivered in part		Working with FY&CS to plan engagement strategies for children	
			Recreation Services	Not yet commenced			
			Strategic Planning	Not yet commenced		Working with Family, Youth and Children's Services to plan engagement strategies for children	
Participating	17. All new residents are welcomed into the community	Number of sessions held for new residents with younger children	Parent Place	Delivered in full		New Residents' sessions held in 2 October 2022 and February 2023	
		New resident sessions promoted broadly across multiple platforms	Parent Place	Delivered in full		Sessions promoted via City of Ballarat and Parent Place Facebook pages, via professional networks and on the COB website	
Culture and Identity	18. All children see themselves and their culture celebrated in their community, events, public art, green and open spaces	Number of times diverse children and families are celebrated via publications, public art or other initiatives	Art and Events	Delivered in full		Children and families and diverse communities represented in event imagery across social media and website. Eureka Centre commissioned new promotional images of diverse families to feature in their 2022/23 promotional material, social media, website and brochure. Diverse families represented in two Parent Place Our Ballarat articles.	
		Number of times recognition events are promoted in early years programs	Supported Playgroups	Delivered in full		Ballarat Biggest Playgroup event Children's Week event 3 ATSI Children's Day	
			Parent Place	Delivered in full		Aboriginal and Torres Strait Islander Children's Day AFLW Pride round attendance 3 Children's Week	
			Children's Services	Delivered in part		Harmony Day, Holi Festival and St Patricks Day celebrated 3	
Culture and Identity	19. City of Ballarat identifies further opportunities to integrate the delivery of programs and services with cultural and community partners	Number of early years programs delivered with cultural and community partners	Supported Playgroups	Delivered in full		Playgroup with BRMC 2 MI Village playgroup	
			Parent Place	Delivered in full		Attendance at Pride Round AFL match. Co-delivery of services with BCH Refugee and Migrant group. Attendance at BRMC welcome mornings.	
			Children's Services	Delivered in full		BADAC KPSAs attend centres with Aboriginal children 95 children at Wendouree). IPAS worker supports staff to support 2 ATSI children.	

		Number of reconciliation activities undertaken in Parent Place (Reconciliation Week, NAIDOC and Harmony Day)	Parent Place	Delivered in full		Wayapa sessions took place with BADAC until end of September 2022 and only ended due to BADAC staffing limitations. Weekly craft session focused on Aboriginal activities during NAIDOC Week.	
		Number of reconciliation activities undertaken in supported playgroups	Supported Playgroups	Delivered in full	1	Acknowledgement to Country at the start of every storytime session during groups. ATSI Children's Day - activities during that week. NAIDOC Week during school holidays and playgroups not running.	
		Number of reconciliation activities undertaken in Children's Services	Children's Services	Delivered in part	3	Significant events celebrated including Harmony Day, Reconciliation Week and NAIDOC Week.	
Culture and Identity	21. Continually reassess and strengthen cultural competence and cultural safety across all areas of City of Ballarat and early years services.	Number of services which have completed a cultural safety audit	Family, Youth and Children's Services	Delivered in part	8	Maternal and Child Health Centres have all completed audit. Girrabanya and Wendouree completed and action plans to be developed. Parent Place and Supported Playgroup programs will complete the audits prior to June 30.	

9.8. WITHDRAWAL OF REQUEST TO MINISTER FOR PLANNING TO APPLY INTERIM HERITAGE OVERLAY – HOLMES STREET PRECINCT, 7-19 HOLMES STREET BALLARAT CENTRAL'

Division: Development and Growth
Director: Natalie Robertson
Author/Position: Kellie Jantzen – Principal Strategic Planner

PURPOSE

1. To have Council consider withdrawal of request to Minister for Planning to apply an Interim Heritage Overlay as resolved (PDC2/23) at the Planning Delegated Committee of 8 February 2023, to:
 - a. 'Request the Minister for Planning exercise power of Ministerial intervention pursuant to Section 20(4) of the *Planning and Environment Act 1987* (the Act) to apply an interim Heritage Overlay and associated provisions to the Precinct identified as 7-19 Holmes Street, Ballarat Central (Holmes Street Residential Precinct) until 9 February 2024'.

BACKGROUND

2. On 8 February 2023, the Planning Delegated Committee resolved to request the Minister for Planning exercise power of Ministerial intervention pursuant to Section 20(4) of the Act, to apply an interim Heritage Overlay and associated provisions to the Holmes Street Residential Precinct, until 9 February 2024.
3. An interim Heritage Overlay was required to protect the integrity of the Holmes Street Residential Precinct, found to be of local heritage significance, in response to a demolition request of the dwelling at 17 Holmes Street under Section 29A of the *Building Act 1993* (PLO/2022/148/29A).
4. The Section 29A application was submitted concurrently to Planning Permit Application known as PLP/2022/707 that proposed demolition and development of a dwelling at 17 Holmes Street, Ballarat Central.

KEY MATTERS

5. Since Planning Delegated Committee resolution to apply an interim Heritage Overlay to the Holmes Street Residential Precinct, the planning permit applicant has submitted amended plans for PLP/2022/707 that includes retention of the dwelling.
6. Ministerial intervention under Section 20(4) of the Act is no longer warranted as the dwelling is no longer under imminent threat from demolition.
7. Permanent heritage controls for the Holmes Street Residential Precinct are being progressing through Planning Scheme Amendment C240ball. Authorisation from the Minister for Planning to prepare this Amendment was received on 27 April 2023.

OFFICER RECOMMENDATION

8. That Council:

- 8.1 Note the resolution (PDC2/23) of the Planning Delegated Committee of 8 February 2023, to 'Request the Minister for Planning exercise power of Ministerial intervention pursuant to Section 20(4) of the *Planning and Environment Act 1987* to apply an Interim Heritage Overlay and associated provisions to the precinct as identified as 7-19 Holmes Street, Ballarat Central, until 9 February 2024';
- 8.2 Note that permanent heritage controls for the Holmes Street Residential Precinct are being progressed through Planning Scheme Amendment C240ball provisions to the precinct as identified as 7-19 Holmes Street, Ballarat Central; and
- 8.3 Write to the Minister for Planning to withdraw the request for Interim Heritage Overlay and associated provisions to the precinct as identified as 7-19 Holmes Street, Ballarat Central.

ATTACHMENTS

- 1. Governance Review [9.8.1 - 2 pages]