BUSINESS PAPER

Infrastructure and Environment Committee Meeting

Council Chambers
17 March 2025

5.30pm

BROKEN HILL
CITY COUNCIL

AUSTRALIA'S FIRST
HERITAGE LISTED CITY

MEMBERS OF THE INFRASTRUCTURE AND ENVIRONMENT COMMITTEE
Mayor Kennedy, Deputy Mayor Hickey (Chairperson) Councillor Algate, Councillor Byrne, Councillor Chandler

Notice is hereby given, in accordance with the provisions of the *Local Government Act 1993*, that the Infrastructure and Environment Committee of the Broken Hill City Council will be held in the Council Chambers on **Monday 17 March 2025** commencing at **5:30pm** to consider the following business:

AGENDA	
1	Opening the Meeting
2	Apologies
3	Leave of Absence Applications
4	Prayer
5	Acknowledgement of Country
6	Acknowledgement of Broken Hill's Mining History
7	Minutes for Confirmation
8	Disclosure of Interest
9	Reports
10	Confidential Matters
11	Conclusion of the Meeting

STATEMENT OF ETHICAL OBLIGATIONS
All Councillors undertook an Oath or Affirmation at the beginning of their term of office and declared to undertake the duties of the office of Councillor in the best interests of the people of the Broken Hill Local Government Area and the City of Broken Hill; and that they will faithfully and impartially carry out the functions, powers, authorities and discretions vested in them under the *Local Government Act 1993* or any other Act to the best of their ability and judgment.

LIVE STREAMING OF COUNCIL MEETINGS
This Committee Meeting is being livestreamed via YouTube and recorded and published online via Council's website. To those present in the meeting today, by attending in this public meeting you are consenting to your image, voice and comments being recorded and published.
The Chairperson and/or General Manager have the authority to pause the livestream if comments or debate are considered defamatory or otherwise inappropriate for publishing.
Participants are advised that they may be subject to legal action if they engage in unlawful behaviour or commentary.

JAY NANKIVELL
GENERAL MANAGER

MINUTES FOR CONFIRMATION

Minutes of the Infrastructure and Environment Committee of the City of Broken Hill held Monday, February 17, 2025.

MINUTES OF THE INFRASTRUCTURE AND ENVIRONMENT COMMITTEE MEETING HELD MONDAY, FEBRUARY 17, 2025 (5:30 PM)

Due to the absence of the Chairperson and the Mayor, the General Manager opened the meeting at 5:30pm and requested that Committee Members nominate a Chairperson for the meeting.

Councillor Algate accepted the nomination (by Councillor Byrne) to Chair the Meeting. Councillor Algate assumed the Chair.

PASSING OF COUNCILLOR DAVE GALLAGHER

The Chairperson spoke of the passing of Councillor Gallagher on 9 February 2025. Councillor Gallagher served as a Broken Hill City Councillor for 14 years. He spoke of Councillor Gallagher's passion for Broken Hill and his strong advocacy to Federal and State Government on important issues for the City during his time as Councillor; and that Councillor Gallagher will be missed by many in the community.

A minute of silence was observed in honour of Councillor Gallagher.

PRESENT: Councillors B Algate (Chairperson), A. Byrne and A Chandler.

Councillor E Gillett.

General Manager, Director Corporate and Community, Executive Officer and Executive Assistant.

Media (nil), Members of the Public (nil)

APOLOGIES: Councillor T Kennedy (Mayor) Councillor J Hickey (Deputy Mayor),

Procedural Motion
Moved Councillor Ashley Byrne, Seconded Councillor Alan Chandler

That the apologies submitted on behalf of Mayor Kennedy and Deputy Mayor Hickey be accepted.

CARRIED UNANIMOUSLY

LEAVE OF ABSENCE APPLICATIONS: Nil.

PRAYER

Councillor Chandler delivered the Prayer.

ACKNOWLEDGEMENT OF COUNTRY

Councillor Byrne delivered the Acknowledgement of Country.

ACKNOWLEDGEMENT OF BROKEN HILL'S MINING HISTORY

Councillor Gillett delivered the Acknowledgement of Broken Hill's Mining History.

MINUTES FOR CONFIRMATION

Recommendation
Moved Councillor Ashley Byrne, Seconded Councillor Alan Chandler

That the Minutes of the Infrastructure and Environment Committee meeting held Monday December 09, 2024 be confirmed.

CARRIED UNANIMOUSLY

DISCLOSURE OF INTEREST

Nil

REPORTS

1. BROKEN HILL CITY COUNCIL REPORT NO. 20/25 - DATED FEBRUARY 10, 2025 - DRAFT WASTE AND SUSTAINABLE MATERIALS STRATEGY 2025-2035 AND SUSTAINABILITY STRATEGY 2025-2030 FOR PUBLIC EXHIBITION D25/6054

Recommendation
Moved Councillor Alan Chandler, Seconded Councillor Ashley Byrne

1. **That Broken Hill City Council Report No. 20/25 dated February 10, 2025, be received.**

2. **That Council endorses the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 for the purpose of public exhibition.**

3. **That the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 be placed on public exhibition for submissions to be received for a period of 28 days.**

4. **That Council receives a further report at the conclusion of the exhibition period, detailing submission and recommend changes arising, with a view to adopting the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030**

CARRIED UNANIMOUSLY

2. BROKEN HILL CITY COUNCIL REPORT NO. 18/25 - DATED FEBRUARY 10, 2025 - TOWN SQUARE - LOCATION OF THE WOMEN'S MINING MEMORIAL D25/6064

Recommendation
Moved Councillor Ashley Byrne, Seconded Councillor Alan Chandler

1. **That Broken Hill City Council Report No. 18/25 dated February 10, 2025, be received.**

2. **That Council consider the results of the public survey, advertised from 30 January 2025 to 10 February 2025, relating to the preferred location of the Women's Mining Memorial.**

3. **That Council approve the result of the public survey and re-establish the Women's Mining Memorial in the preferred location of Option 1, on the Northeastern Corner of Town Square.**

CARRIED UNANIMOUSLY

3. BROKEN HILL CITY COUNCIL REPORT NO. 19/25 - DATED DECEMBER 16, 2024 - MINUTES - 28 NOVEMBER 2024 BROKEN HILL LEAD REFERENCE GROUP D24/60928

Recommendation
Moved Councillor Alan Chandler, Seconded Councillor Ashley Byrne

1. **That Broken Hill City Council Report No. 19/25 dated December 16, 2024, be received.**

2. **That the minutes of the Broken Hill Lead Reference Group Meeting held 28 November 2024 be received.**

CARRIED UNANIMOUSLY

CONFIDENTIAL MATTERS

Nil

CONCLUSION OF THE MEETING

There being no further business to consider, the meeting was declared closed at 5:45pm.

The foregoing minutes were read and confirmed at the Infrastructure and Environment Committee meeting held on 17 March 2025.

_____
Chairperson

REPORTS

INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

March 5, 2025

ITEM 1

BROKEN HILL CITY COUNCIL REPORT NO. 36/25

SUBJECT: DEVELOPMENT APPLICATION 108/2024 - SUBDIVISION OF LAND OF 1 LOT TO 15 LOTS AND ASSOCIATED EARTHWORKS AND UTILITY SERVICE INSTALLATION - 1 HYNES STREET, BROKEN HILL D25/10203

Recommendation

1. That Broken Hill City Council Report No. 36/25 dated March 5, 2025, be received.

2. That Development Application 108/2024 for subdivision of land of 1 lot into 15 lots and associated earthworks and utility service installation, at 1 Hynes Street, Broken Hill, be approved subject to conditions (as attached to this report).

Executive Summary:
A Development Application (DA) has been received to subdivide land at 1 Hynes Street, Broken Hill NSW 2880. The proposal is to subdivide one lot into 15 lots.
Council is to determine the Development Application, by either resolving to approve or to refuse the application.

It is recommended that Council approve this Development Application, under the provisions of the *Environmental Planning and Assessment Act 1979.*

Report:

Development Application (DA) 108/2024 proposes Torrens Title subdivision of land at 1 Hynes Street, Broken Hill NSW 2880.

It should be noted that this Development Application is considered an “Integrated Development” under provisions of the *Environmental Planning and Assessment Act 1979,* and as such the assessment of this Application included seeking the approval of both Rural Fire Service and Heritage Council of NSW.

This DA proposes to subdivide 1 lot into 15 lots.

14 lots are intended to be subject to future residential type development. The remaining land (lot 15) is “residual” and intended to remain untouched and undeveloped.

The current land title is Lot 12 DP 1174503. The site is 6.489 hectares in area, and is rectangular / kidney shaped with dimensions being width 1064 metres and depth 62 metres.

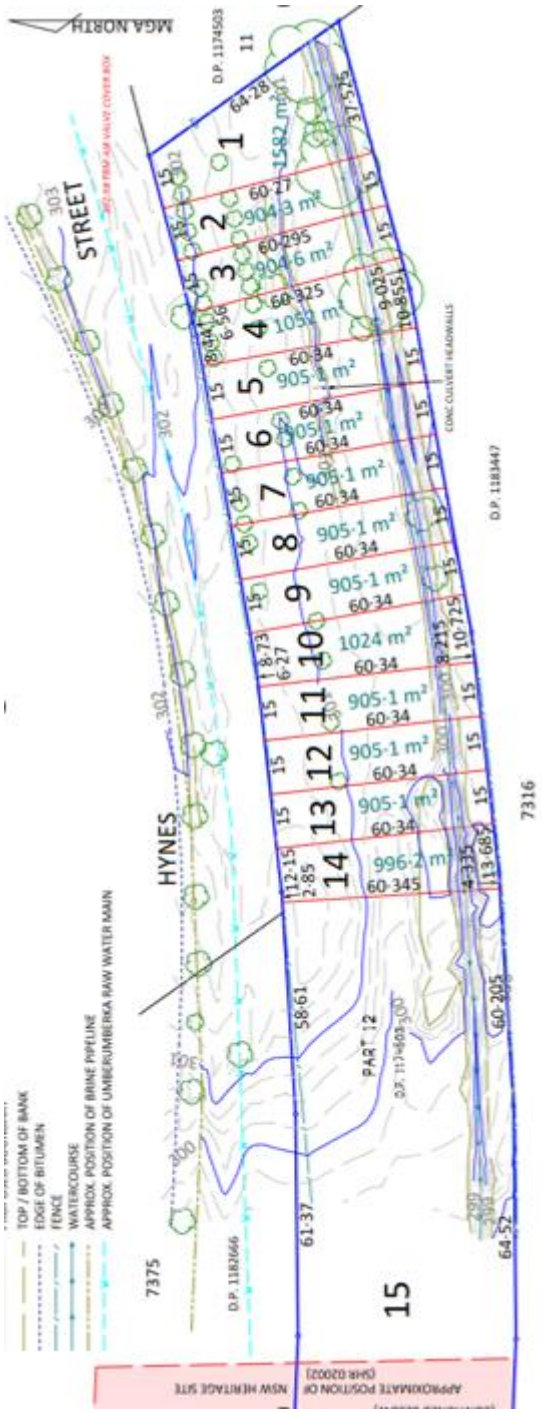
The eastern section of the site (that is the primary focus of this proposed subdivision, being Lots 1 - 14) is zoned R1 General Residential under the *Broken Hill Local Environmental Plan 2013*.

The remainder and majority of the site contains C4 Environmental Living land zoning, which encompasses the central and western portion of the lot.

SITE LOCATION:

SITE LOCATION (Portion of land which is primary focus of this subdivision proposal):

PLAN OF SUBDIVISION:



ASSESSMENT:

All Development Applications are required to be assessed by Council in accordance with the provisions of section 4.15 of the *Environmental Planning and Assessment Act 1979*.

CONSIDERATIONS UNDER SECTION 4.15 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979:

Section 4.15(a) (i) The provisions of any environmental planning instrument

Broken Hill Local Environmental Plan 2013 (LEP)

Aims of the Plan

The aims of the LEP are:

(a) to encourage sustainable economic growth and development in Broken Hill,

(b) to encourage and provide opportunities for local employment growth, and the retention of the population, in Broken Hill,

(c) to encourage the retention of mining and acknowledge that industry's heritage and regional significance,

(d) to identify, protect, conserve and enhance Broken Hill's natural assets,

(e) to identify and protect Broken Hill's built and nationally significant cultural heritage assets for future generations,

(f) to provide for a range of housing types and living opportunities,

(g) to allow for the equitable provision of services and facilities for the community,

(h) to provide for future tourist and visitor accommodation in a sustainable manner that is compatible with, and will not compromise, the natural resource and heritage values of the surrounding area.

The aims or objectives of the plan are not compromised by the proposed development.

Zone Objectives

The site contains dual R1 General Residential and C4 Environmental Living zoning.

The primary portion of the subject site to be subdivided into the 14 lots intended for future development is zoned R1 – General Residential.

The objectives of the R1 zone are:

- To provide for the housing needs of the community.
- To provide for a variety of housing types and densities.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The proposal is consistent with the objectives of the zone.

Relevant LEP Clauses

Clause 4.1 - Minimum subdivision lot size

The objectives of this clause are as follows—

(a) to ensure that the subdivision of land occurs in a manner that promotes suitable land use and development,

(b) to minimise any likely impact of subdivision and development on the amenity of neighbouring properties,

(c) to ensure that lot sizes and dimensions are able to accommodate development consistent with relevant development controls,

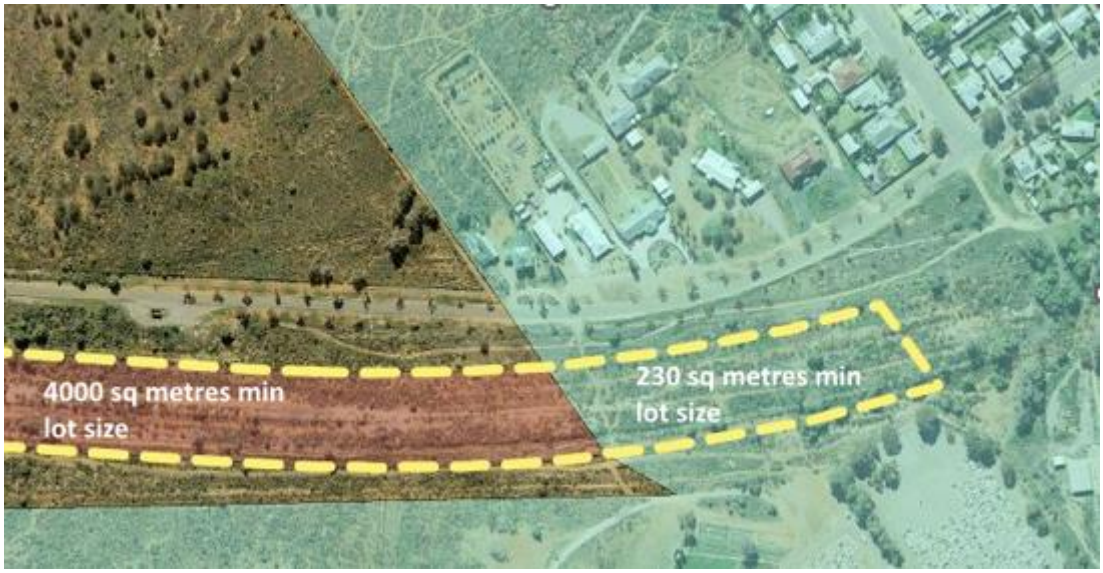
(d) to ensure that subdivision does not have inappropriate impacts on the natural environment.

Mapping which forms part of the LEP identifies the "minimum lot size" that is permitted on land. This means the minimum that a newly created lot must be.

The site contains dual minimum lot sizes of 230 sq metres and 4,000 sq metres which aligns with the dual R1 General Residential and C4 Environmental Living zoned areas of the site, respectively.

All proposed lots in this subdivision achieve the minimum lot size applicable, including the residual lot, and therefore this standard under the LEP provisions is complied with.

Clause – complied.



Clause 5.3 – Development near zone boundaries

A small part of proposed lots 13 and 14 encompass part of the C4 Environmental Living zoned land. The maximum distance of the western most boundary of lot 14 is 21.20m from the R1 zoned land.

The encroachment into the C4 land zone is within the 50 metre allowable under this LEP clause, does not affect any excluded land zone or area and the excluded land use is not proposed or permitted within the adjoining R1 land zone. The proposed development is consistent with all requirements of this clause.

Clause – complied.

Clause 5.10 – Heritage conservation

The site contains a State heritage listed item, SHR item No. 02002 - 1915 Picnic Train Attack and White Rocks Reserve.

A Statement of Heritage Impact (SOHI) was submitted with the development application. It is noted that no works within approximately 130 metres of the item boundary is to occur.

The proposal was referred to the Heritage Council of NSW, who have supported the proposal, subject to conditions.

The site does not otherwise contain a locally listed heritage item, is not located within a heritage conservation area and is not known to contain any Aboriginal objects or Aboriginal place of heritage significance.

search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown hat:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Heritage impact will be discussed further later in this report.

Clause – complied.

Clause 6.1 – Earthworks

Electrical, water, sewer and telecommunication utility services will require minimal disturbance within the road corridor and does not impact any significant, protected or native vegetation.

Clause – complied.

Clause 6.2 - Essential Services

All essential services are able to be provided to the land.

• Access: Site fronts to public, local sealed road being Hynes Street.

• Electricity: Not yet connected but within proximity of site. Low voltage connection to be extended so service runs parallel with the northern site boundary within the Hynes St road corridor and connection to proposed lots 1-14. Initial consultation has occurred between developer and Essential Energy.

• Water: Not yet connected but within proximity of site. Able to be extended to the site.

• Sewer: Not yet connected but within proximity of site. Extension of sewer network to occur from east of the site at the junction of Doe St and Hynes St along the northern site boundary within the Hynes St road reserve, and will connect to proposed lots 1-14. Initial consultation has occurred between developer and Essential Water.

• Stormwater: Not connected but can be catered via on site rain water tanks & detention. (this would be considered and managed at the time of future development of the lots). Stormwater management within proximity of the site includes natural overland flow paths and open swale drains. It is anticipated future development on proposed lots 1-14 will be subject to the provision of rainwater tanks which will enable sufficient onsite detention of post development flows, with existing overland flow directed to existing natural overland flow path at the rear of each proposed lot at pre-development flow rates.

Services will be required to be provided to the land as a result of this development consent.

Servicing strategies and designs will be required to be provided with a Subdivision Works Certificate "SWC" application. (A SWC is a certificate that operates in the same manner as a construction certificate but for subdivision works. It certifies that physical subdivision work such as provision of service infrastructure will be completed in accordance with specified plans and specifications).

Any costs associated with the extension of and provision of services, is to be borne by the owner/developer.

Clause – complied.

Relevant State Environmental Planning Policy

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4 – Remediation of Land

There have been no known approvals or activities undertaken on the site of the kind identified in table 1 of *Managing Land Contamination Planning Guidelines SEPP 55–Remediation of Land*, 1998.

Despite this, it is well documented that particularly lead contamination is known to be present in dust, soil, dirt and rainwater tanks throughout much of Broken Hill.

A preliminary site investigation (PSI) was undertaken by Metaline Engineering which concluded the following:

Potential contamination sources which have been identified during this PSI are summarised as:

- The site has attracted some illegal dumping for construction waste such as cement, concrete, old computer/s and some concrete blocks.

- Laboratory results from the non-railway line sites indicate fairly common results for Broken Hill. With the relatively dense vegetation on site these levels of contaminants are considered to have minimal environmental impact as levels of dust are reduced. However, the railway line site does indicate high levels in lead and zinc, and it is reasonable to conclude that overall, the site is considered to generally have a high risk of contamination should the dirt be disturbed.

- To determine potential risk of harm to human health and environment under proposed development conditions, assessment of the identified area of environmental concern should be undertaken prior to any future development.

The Preliminary Site investigation recommended:

- The implementation of the following recommendations will achieve the objectives of the project and render the site suitable for the intended development.

- Based on the findings of this report together with laboratory results, levels of potential contaminants of concern were above the health investigation and health screening levels for soil samples collected across the railway site, namely Lead and Zinc.

- Levels of Lead and Zinc exceeded the adopted health investigation levels for soil contaminants samples collected from the railway site.

- Excavation of the contaminated fill material would be required for offsite disposal. This option removes the contaminated materials through bulk excavation into trucks that then transfer the contaminated materials to a waste facility with appropriate licenses to receive the waste.

- Therefore, as part of the remediation program, it is the recommendation of this report that the site shall be stabilised with a 50 mm cover of clean material.

- disturbing the railway line is not recommended due to the high levels of Lead and Zinc. An appropriate landscaping plan should be prearranged, in which all dirt areas, as a minimum should be sealed and covered with grass.

It is recommended that a further detailed site investigation (DSI) be undertaken to determine the full extent of potential contaminants and, if required, develop a remediation action plan (RAP), as applicable. The developers planning consultant also contended in the Statement of Environmental effects that this would be an appropriate action.

It is anticipated this could be conditioned upon the DA consent, if issued and therefore would be required prior to the issue of a subdivision works certificate (SWC).

A construction environmental management plan (CEMP) will be required prior to the issue of a SWC, which require information on the method of avoiding the potential contaminated area of the site and include appropriate mitigation measures to avoid disturbance and/or actions if in the event disturbance occurs.

These various requirements are also likely to be conditioned upon any consent issued with for any future development applications for the site.

(Note - The site is not identified on the EPAs published list of contaminated land notified under s60 of the *Contaminated Land Management Act*).

Section 4.15 (a) (ii) Any proposed Environmental Planning Instruments

Not Applicable.

Section 4.15 (a) (iii) Any Development Control Plan (DCP)

Broken Hill Development Control Plan 2016

Chapter 6 - Land Contamination

The site is considered to generally have a risk of contamination should the dirt be further disturbed. With soil samples collected across the railway section of the site containing contaminants namely Lead and Zinc, which are above the suitable levels for health investigation and health screening. While the non-railway line area contained common results for Broken Hill. The Preliminary Site Investigation provided a number of recommendations as follows:

- Site coverage with new vegetation such as grass, small to medium sized trees and other native vegetation should be implemented as a capping source to stabilise the soil. Further capping of the site is also possible by the introduction of a concrete slab in the form of driveways, paths and the footing system of the house.

- Disturbing the railway line is not recommended due to the high levels of Lead and Zinc.

- It is recommended that prior to undertaking any wholesale site remediation works, a further detailed site investigation (DSI) be undertaken to determine the full extent of potential contaminants and, if required, develop a remediation action plan (RAP), as applicable.

- A construction environmental management plan (CEMP) is also suggested to be required which demonstrates the method of avoiding the potential contaminated area of the site and include appropriate mitigation measures to avoid disturbance and/or actions if in the event disturbance occurs.

- Works to be undertaken in a manner which minimises the escape of dust into the atmosphere. To achieve this, only necessary removal of vegetation shall be allowed and appropriate soil wetting should be implemented during any construction works.

These various matters can all be appropriately managed by imposition of conditions on the Development consent, should Council approve this DA.

Section 4.15 (a) (iv) Any Matters Prescribed by the Regulations

Part 3 - Division 3 –

Development applications for integrated development (sections 4.12, 4.47 and 4.64) - The consent authority must consult with relevant authorities prior to determining the development application. Rural Fire Service and Heritage Council of NSW have been consulted. This will be discussed later in this report.

Section 4.15 (a) (v) Any coastal zone management plan (within the meaning of the *Coastal Protection Act 1979)*

Not applicable.

Section 4.15(b) The likely impacts of the development and the environmental impacts on both the natural and built environments and social and economic impacts in the locality.

Heritage

Heritage item SHR 02002, 1915 Picnic Train Attack Site, "is marked by a memorial consisting of a replica freight wagon placed on the southern side of Picton Sales Yard Road, Broken Hill. The embankment of the Tramway Permanent Way lies about 50m north (sic) of the memorial. In between is the trench of the water pipeline from Umberumberka Reservoir"

In a general sense, the Heritage item boundary is within the central portion of the subject site.

The heritage item is currently adjoined by residential development which is within as close a proximity than that resulting by the proposed development. It is not considered any impact to the heritage item will result from the proposed development.

(As noted later in this report, Heritage Council of NSW have granted their approval to the subdivision).

The extent of works within 1 Hynes Street is limited to boundaries of the lot, encompassing the eastern 210 metre R1 General Residential zoned portion of the site. This extent of works are located more than 100 metres from the eastern most curtilage of the SHR 02002 and 265 metres from the replica wagon memorial. Site services will be extended from the east of the site within the Hynes Street road corridor (also 265 metres from the wagon memorial).

Social and Economic impact

The proposed development will enable opportunity for additional housing and other suitable developments within the locality (subject to separate development consent).

Access, Transport and Traffic

The proposed development is not likely to result in traffic generation beyond the capability of the existing road network.

Air

A construction environment management plan will be conditioned for approval prior to the issue of a Subdivision Works Certificate, which will ensure that dust nuisance during works for example can be mitigated.

Biodiversity assessment

N/A. Clearing of native vegetation does not exceed the biodiversity offsets scheme threshold.

Natural hazards

Review of WaterNSW Real-time Water Database indicated no groundwater bores within 1km of the site.

NSW Hydrography mapping indicated there are no mapped watercourses within the site.

The subject site is 'Bush fire prone land' as determined by bush fire prone land mapping under s.146 of the Environmental Planning and Assessment Act (EP&A) 1979. A bushfire assessment was carried out by "Statewide Bushfire Consulting" and the DA was referred to Rural Fire Service for assessment.

The proposed development has been sited and designed to enable ample space and opportunity for future development on the site to appropriately manage and mitigate the potential impact of this constraint.

NSW Rural Fire Service have provided their concurrence to the planned subdivision, and have provided General Terms of Approval (which are conditions required to be imposed on the development consent).

Future Development applications lodged on lots created within this subdivision may be subject to further bush fire assessment.

Section 4.15(c) Suitability of the site for the development

The site is suitable for the proposed development as demonstrated by:

• the permissibility of the proposed development,

• the consistency of the proposed development with applicable land use controls and development standards,

• the site can be appropriately serviced,

• lack of likely significant adverse impacts to the environment.

Section 4.15(d) Any submissions made in accordance with the Act or Regulations

The Development application was notified to neighbours in the vicinity of the site. As a result, 4 submissions were received (1 of those submissions received outside the specified comment period).

The key issues raised in the objections have been summarised below:

Issue	Objection Comment	Assessment Comment
Heritage & Land Use Concerns	Submittor seeks clarification on whether the heritage train currently on-site will remain in its current position or be relocated as part of the development. Confusion about the exact location of the identified heritage site.	The site contains State Heritage Register item no. 02002 - 1915 Picnic Train Attack and White Rocks Reserve. The proposal does not involve relocation of the picnic train carriage. It is to remain untouched. No works are proposed within approximately 130 metres of the heritage site and not within 265 metres of the train carriage. The boundaries of the heritage listed item include an area which covers the actual picnic train, part of Hynes Street itself and a portion which crosses onto the subject site. The proposal was referred to the Heritage Council of NSW for consideration and assessment. The Heritage Council have granted approval to the proposal.
Development Feasibility Concerns	• Changing Development Plans: The neighbour expresses frustration over inconsistencies in how the land has been marketed over the past two years. They highlight that it has been advertised in multiple ways, including as: o Large blocks with 2-storey waterfront dream homes o Sites for unit development o Commercial lots with sheds These shifting plans create uncertainty about the true intention for the site.	It is understandable that neighbour concerns have stemmed from advertising through social media sites, which occurred over a period of time prior to this subdivision application being submitted. This advertising has noted a variety of potential future uses. It should be noted that this current DA assessment only relates to the subdivision proposal. Any future development/use of the land will be subject to separate application. Future applications will consider that the proposed new developments are permitted within the zoning constraints of the land.

Issue	Objection Comment	Assessment Comment
Subdivision Character & Lot Sizes	• Neighbourhood Character Concerns: The objector purchased property in this area specifically because of its low-density nature, where only five homes currently exist on very large blocks (approximately 6,500m²). • Mismatch with Existing Streetscape: They argue that the proposed subdivision, which includes smaller lots of around 900m² with 15m frontages, is not in keeping with the existing character of the street. The significant difference in lot sizes and frontages (compared to their property's 53m frontage) could alter the aesthetic and feel of the area, possibly leading to concerns about increased density and changes to the semi-rural nature of the neighbourhood.	All 14 allotments proposed for future residential development will contain minimum dimensions of: width of 12-15 metres, depth 60 metres and areas of a minimum of 900sq metres. It is noted that the sizes of the proposed lots each far exceed the minimum lot size prescribed for the area (being 230 square metres). Council must balance the need for residential land for new development, with existing area where neighbours may be "used to" a semi-rural type area. It is acknowledged that neighbours have a wish for the current feel of the area to remain as existing, however Council must consider the proposal on its merits, and in accordance with legislated planning controls. The zoning of the subject site to be subdivided, as far back as the Broken Hill LEP in 1996 was 2c City zone which allowed for a variety of uses to be developed. The minimum lot size allowed in that LEP for the site was 230 sq metres – same as currently applies. (The minimum lot size allowed at that time for the neighbours properties across the road was 4000 sq metres).
Site Investigation & Contamination Concerns	• Neighbour concerns about possible discrepancies in the Preliminary Site Investigation: o Multiple neighbours state that they and their neighbours were not consulted as claimed in the report. They did not receive doorknocking, literature in mailboxes, or phone calls. o They dispute the report's claim that the ground was "reasonably undisturbed," noting that significant site	Information regarding to contamination and associated recommendations is outlined elsewhere in this report. Whilst it may be an additional method of gaining insight into a site, it should be noted that neighbour door knocking is not a requirement that has to be carried out. However, it is understandable the frustration of neighbours if it has been incorrectly advised that door knocking has occurred.

Issue	Objection Comment	Assessment Comment
	works have taken place since the study, potentially affecting soil conditions. • Lead Contamination Risks: o Neighbours are particularly concerned about the presence of high lead levels in soil samples taken from the train line area. Given Broken Hill's history of lead contamination, they see this as a serious health risk that must be addressed before any development proceeds. o They stress that further testing and mitigation measures should be considered before approving any new residential development on the site.	Conditions of consent can be imposed which address these concerns. These conditions include matters such as further assessment required as part of the Subdivision works certificate and also mitigation measures to be implemented in relation to any future development.
Pipeline	Concern about an existing pipeline easement that runs opposite their property and between the proposed blocks. This pipeline originates from the Picton saleyards and runs through to the original Hynes Street. The neighbour points out that the development plans do not clearly show how access to the blocks will be achieved.	It is noted that the subdivision plan indicates the position of the Umberumberka Pipeline. Specific details will be required to be submitted at Subdivision Works Certificate stage, to allow for consideration on how the vehicle access will be designed into the lots. This will include consideration by Councils engineer and also Essential Water at that stage. (this is normal process that detailed designs and specifications are required at SWC assessment stage, rather than DA stage which is more a "concept" assessment). It is noted also that the developer has had initial contact with Essential Water.

Section 4.15 (e) Public interest

The proposed development satisfies relevant planning controls and is considered to be in the wider public interest.

The development application provides a development that is consistent with the zoning of the land and DCP 2016.

***Environmental Planning and Assessment Act 1979*.**

Division 4.8 Integrated development

Under the provisions of the Act, this proposal is considered an "Integrated development".

Integrated development means "the consent authority must, in accordance with the regulations, obtain from each relevant approval body the general terms of any approval proposed to be granted by the approval body in relation to the development".

The relevant approval bodies for this DA are Rural Fire Service (Section 100B of the *Rural Fires Act 1997*) and Heritage Council of NSW (Section 58 of the *Heritage Act 1977)*. This is due to the proposal being a subdivision of land which is considered "Bushfire prone land", and also as a State heritage listed item is located on part of the land.

Information submitted with the Development Application included a Bushfire Assessment report and a Statement of Heritage Impact.

Referrals to Rural Fire Service and Heritage Council of NSW occurred in accordance with the requirements of the legislation.

As a result, both approval bodies granted approval and provided Council with "General Terms of Approval" which are to be imposed as part of the conditions of consent, should Council decide to approve this Development Application. These terms of approval are included in the Recommended conditions of consent for this Application.

Recommendation:

Section 4.16 of the *Environmental Planning and Assessment Act 1979* sets out that Council is to determine a development application by:

(a) granting consent to the application, either unconditionally or subject to conditions, or
(b) refusing consent to the application.

Conditions of consent are able to be imposed under Section 4.17 of the *Environmental Planning and Assessment Act 1979.* The courts have determined that, for a condition to come within the relevant statutory power, it must meet the 'Newbury Test', which requires a condition to:

- Be imposed for a planning purpose.
- Fairly and reasonably relate to the development for which permission is being given.
- Be reasonable.

It is recommended that Development Application 108/2024 be approved, subject to conditions of consent (attached).

It is noted that should consent be granted, the "General Terms of Approval" issued by Rural Fire Service and the Heritage Council, must be included in the DA conditions of consent.

Community Engagement:

The Development Application was notified to neighbours in accordance with Council's Communication and Engagement Strategy. Four submissions were received.

Strategic Direction:

Key Direction:	4	Our Leadership
Objective:	4.1	Openness and transparency in decision making
Strategy:	4.1.1	Support the organisation to operate within its legal framework

Relevant Legislation:

Environmental Planning and Assessment Act 1979

Financial Implications:

Nil

Attachments

1. ⇩ Proposed conditions of consent
2. ⇩ Plan of subdivision
3. ⇩ Statement of Environmental Effects
4. ⇩ Statement of Heritage Impact
5. ⇩ Preliminary site investigation
6. ⇩ Bushfire assessment

JAY NANKIVELL
GENERAL MANAGER

PROPOSED CONDITIONS OF CONSENT – DEVELOPMENT APPLICATION 108/2024

1 HYNES STREET, BROKEN HILL

Approved plans

1. The development must take place in accordance with the approved plans and documents submitted with the application, listed below:

Title	Revision/Date	Prepared by
Statement of Environmental Effects	Version 1.0; December 2024	Regional Plan
Bushfire Assessment report	20 November 2024	Statewide Bushfire Consulting
Statement of Heritage Impact	December 2024	Regional Plan
Proposed plan of Subdivision	2 June 2023	Graham F Howe registered Surveyor
Preliminary Site Investigation Report	30 January 2023	Metaline Engineering

except as altered by any condition of this development consent.

Prior to Subdivision Works Certificate

2. Application for Subdivision Works Certificate

An application for a Subdivision Works Certificate must be lodged and issued by Council or an Accredited Certifier, prior to any works commencing on site.

Copies of engineering plans and specifications shall be provided for the purpose of applying for the Subdivision Works certificate. The plans are to include as a minimum:

1. contours and proposed earthworks
2. stormwater drainage
3. water supply works – in accordance with Essential water requirements
4. sewerage works – in accordance with Essential water requirements

5. electricity supply works – in accordance with Essential Energy requirements
6. location of all service conduits (water, sewer, electricity and telecommunications)
7. vehicle access to lots,
8. a Construction Management Plan (CMP) detailing the scope of the subdivision site works to be completed (including details of the various stages of site works, excavation, measures to mitigate noise and vibration etc, identify local traffic routes to be used by work vehicles, hours of work, dust management onsite, temporary fencing during work, etc) shall be submitted to Council prior to the issue of a Subdivision Works Certificate.
    A. The CMP is also to include details relating to the method of avoiding the potentially contaminated area of the site (near former railway line) and include appropriate mitigation measures to avoid disturbance and/or actions if in the event disturbance occurs.

3. Work on the land shall not commence until a Subdivision Works Certificate is issued.

4. Prior to the issue of a Subdivision Works certificate, a further detailed site investigation (DSI) be undertaken to determine the full extent of potential contaminants. If required by the DSI, a remediation action plan (RAP), and validation must then occur.

5. A detailed stormwater drainage design of the site must be submitted and approved by Council prior to the release of a Subdivision Works Certificate.

6. The land shall be connected to the Essential Water reticulated water supply system, and also connected to the sewerage system. Any work required in relation to water and sewer supply work, including any new mains, hydrants, services, and pipes must be designed in accordance with the requirements of Essential Water.
Relevant approvals must be sought from Essential Water and Essential Energy. Details must be provided with the lodgement of a Subdivision Works Certificate.
Confirmation of the works being carried out must be provided to Council prior to a Subdivision Certificate being issued.

7. This assessment has concluded that there is a very low or nil likelihood that the proposed work will adversely harm Aboriginal cultural heritage items or sites. However, during works, if Aboriginal artefacts or skeletal material are noted, all work should cease and the procedures in the Unanticipated Finds Protocol should be followed.

ADVICE - If, during work, an Aboriginal object is uncovered then WORK IS TO CEASE IMMEDIATELY and the Office of Environment & Heritage is to be contacted. Under the National Parks and Wildlife Act 1974 it is an offence to harm an Aboriginal object or place without an 'Aboriginal heritage impact permit' (AHIP).

8. Any allotments created must be within the required distance to a fire hydrant in accordance with Australian Standard AS 2419.

9. Detailed plan showing proposed finished levels of land are to be provided to Council prior to issuing of a Subdivision Works Certificate.

10. The Applicant is to submit to Broken Hill City Council, at least two days prior to the commencement of any works, a 'Notice of Commencement of Building or Subdivision Works' and 'Appointment of Principal Certifier'.

General conditions

11. An application for a Subdivision Certificate shall be lodged with Council for approval to enable the subdivision plans to be submitted and registered with NSW Land Registry Services (formerly Land Titles Office).
Evidence shall be provided that all subdivision works have been completed, including written confirmation and/or compliance certificates from relevant authorities/agencies.

12. Any extensions/alterations/adjustments to public utilities required as a result of the development shall be completed at the sole cost to the person(s) having the benefit of this consent.

13. The hours of work onsite for any works related to the subdivision, are restricted to between the hours of 7.00am and 5.00pm Monday – Friday. No works are to be carried out on Saturdays, Sundays or Public Holidays.

14. The land shall be connected to the Essential Water reticulated water supply system. Any engineering details of the water supply work, including any new mains, hydrants, services and, shall be submitted to Essential Water for their assessment. Confirmation of the works being carried out must be provided to Council prior to a Subdivision Certificate being issued.

15. The land is to be connected to the Essential Water reticulated sewerage system by lodging a 'Water and/or Sewer Connection Application Form' (and relevant fee) with Essential Water. Confirmation of the works being carried out must be provided to Council prior to a Subdivision Certificate being issued.

16. Prior to the release of a Subdivision Certificate, a final written clearance shall be obtained from Essential Water, Essential Energy and relevant telecommunications provider, and submitted to Broken Hill City Council with the Subdivision Certificate application.

GENERAL TERMS OF APPROVAL

HERITAGE COUNCIL OF NSW -

Approved development

1. Development must be in accordance with:

a. Plans, prepared by Graham F Howe as listed below:

Project Name: Proposed Subdivision of Lot 12 in D.P 1174503

Dwg No	Dwg Title	Date	Rev
C156-11P	Proposed Subdivision of Lot 12 in D.P 1174503	2/06/2023	-

b. Statement of Heritage Impact, prepared by Regional Plan, dated 7 December 2024

c. Statement of Environmental Impact, prepared by Regional Plan, dated 7 December 2024.

EXCEPT AS AMENDED by the General Terms of Approval:

Unexpected finds

2. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics or any other buried fabric such as works not identified in the Statement of Heritage Impact, prepared by Regional Plan dated 7 December 2024, are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Reason: All significant fabric within a State Heritage Register curtilage should be managed according to its significance. This is a standard condition to identify to the applicant how to proceed if historical archaeological relics, or other unexpected buried discoveries such as works are identified during the approved project.

Aboriginal objects

3. Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and Heritage NSW is to be informed in accordance with the National Parks and Wildlife Act 1974.

Works affecting Aboriginal objects on the site must not continue until Heritage NSW has been informed and the appropriate approvals are in place. Aboriginal objects must be managed in accordance with the National Parks and Wildlife Act 1974.

Reason: This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.

Compliance

4. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

Reason: To ensure that the proposed works are completed as approved.

Section 60 application

5. An application under section 60 of the *Heritage Act 1977* must be submitted to, and approved by, the Heritage Council of NSW (or delegate), prior to the lodgement of the deposited plan with the NSW Land Registry Services for registration.

Reason: To meet legislative requirements.

Advice

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

GENERAL TERMS OF APPROVAL

NEW SOUTH WALES RURAL FIRE SERVICE –

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the dwellings are below critical limits and prevent direct flame contact.

1. At the issue of a subdivision certificate and in perpetuity, to ensure ongoing protection from the impact of bush fires, the entire of proposed Lots 1-14 must be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019.

When establishing and maintaining an IPA the following requirements apply:

● tree canopy cover should be less than 15% at maturity;

● trees at maturity should not touch or overhang the building;

● lower limbs should be removed up to a height of 2m above the ground;

● tree canopies should be separated by 2 to 5m;

● preference should be given to smooth barked and evergreen trees;

● large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;

● shrubs should not be located under trees;

● shrubs should not form more than 10% ground cover; and

● clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

● grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and

● leaves and vegetation debris should be removed.

2. At the issue of a subdivision certificate, a suitable mechanism such as an instrument pursuant to section 88 of the Conveyancing Act 1919 must be placed over each lot requiring the Asset Protection Zones (APZ) as shown on Figure 3: Bush fire hazard assessment of the document Bush Fire Assessment Report Subdivision 1 Hynes Street Broken Hill, prepared by Statewide Bushfire Consulting, Ref: 24SBC_1026, V1, dated 20 November 2024.

Asset Protection Zones (APZ) must be managed in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019.

The name of authority empowered to release, vary or modify any instrument must be Broken Hill City Council.

Access Requirements

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

3. Property access roads between proposed Lots 1-14 and Hynes Street must comply with the general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:

● property access roads are two-wheel drive, all-weather roads;

● minimum 4m carriageway width;

● in forest, woodland and heath situations, rural property access roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m at the passing bay;

● a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;

● provide a suitable turning area in accordance with Appendix 3 Planning for Bush Fire Protection 2019;

● curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;

● the minimum distance between inner and outer curves is 6m; the crossfall is not more than 10 degrees;

● maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and

● a development comprising more than three dwellings has access by dedication of a road and not by right of way.

Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.

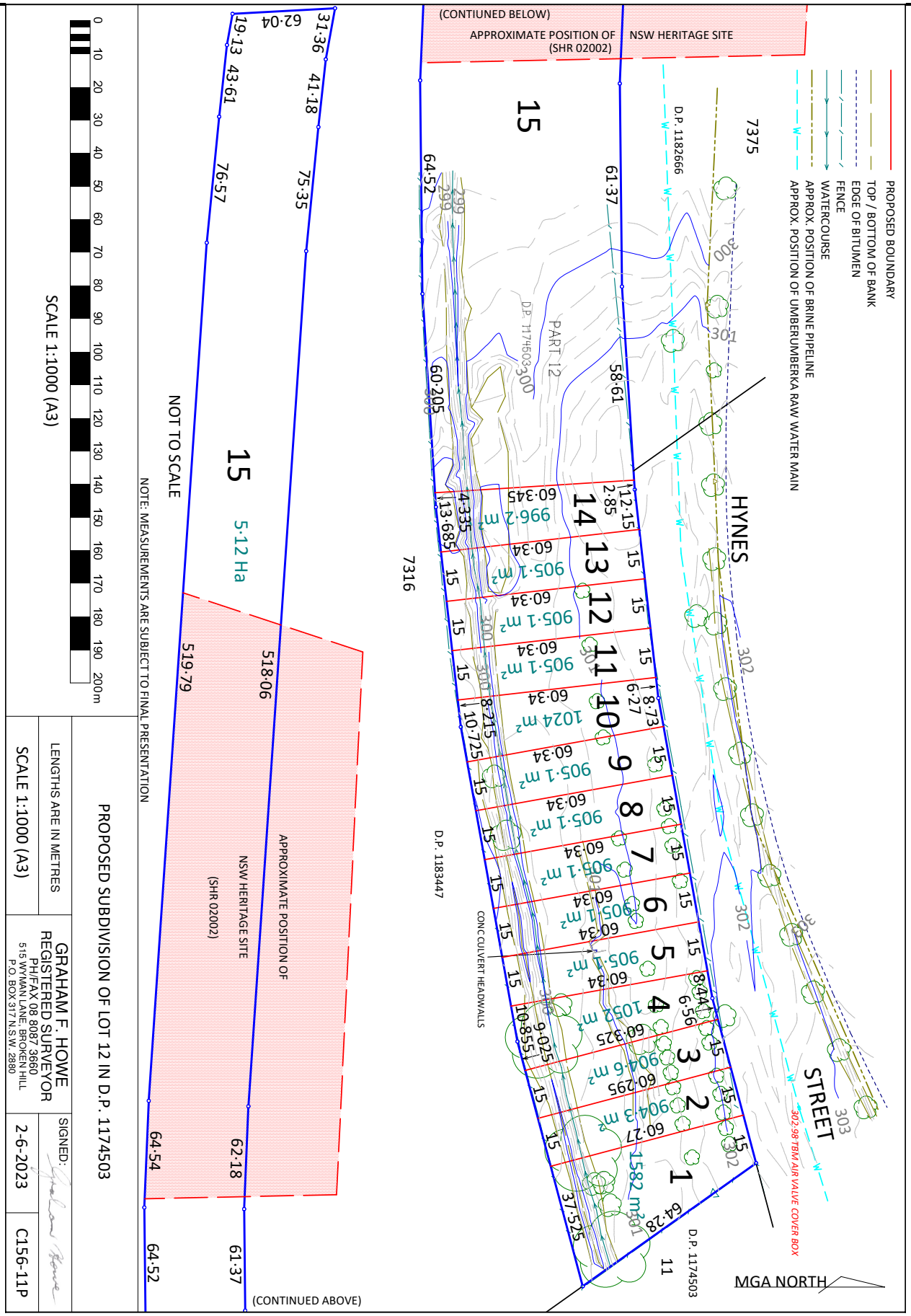
Water and Utility Services

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities

The provision of water, electricity and gas shall comply with Table 5.3c of Planning for Bush Fire Protection 2019.

General Advice –

Development applications lodged on lots created within this subdivision may be subject to further bush fire assessment under the provisions of the NSW Environmental Planning & Assessment Act 1979.


PROPOSED BOUNDARY
TOP / BOTTOM OF BANK
EDGE OF BITUMEN
FENCE
WATERCOURSE
APPROX. POSITION OF BRINE PIPELINE
APPROX. POSITION OF UMBERUMBERKA RAW WATER MAIN
(CONTIUNED BELOW)
APPROXIMATE POSITION OF NSW HERITAGE SITE (SHR 02002)
HYNES STREET
D.P. 1182666
D.P. 1174503
D.P. 1183447
PART 12
7375
7316
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
905.1 m²
996.2 m²
1024 m²
1050 m²
904.6 m²
904.3 m²
1582 m²
5·12 Ha
NOT TO SCALE
NOTE: MEASUREMENTS ARE SUBJECT TO FINAL PRESENTATION
APPROXIMATE POSITION OF NSW HERITAGE SITE (SHR 02002)
CONC CULVERT HEADWALLS
302.98 TBM AIR VALVE COVER BOX
MGA NORTH
(CONTINUED ABOVE)
SCALE 1:1000 (A3)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200m
PROPOSED SUBDIVISION OF LOT 12 IN D.P. 1174503
LENGTHS ARE IN METRES
SCALE 1:1000 (A3)
GRAHAM F. HOWE
REGISTERED SURVEYOR
PH/FAX 08 8087 3660
515 WYMAN LANE, BROKEN HILL
P.O. BOX 317 N.S.W. 2880
SIGNED:
2-6-2023
C156-11P

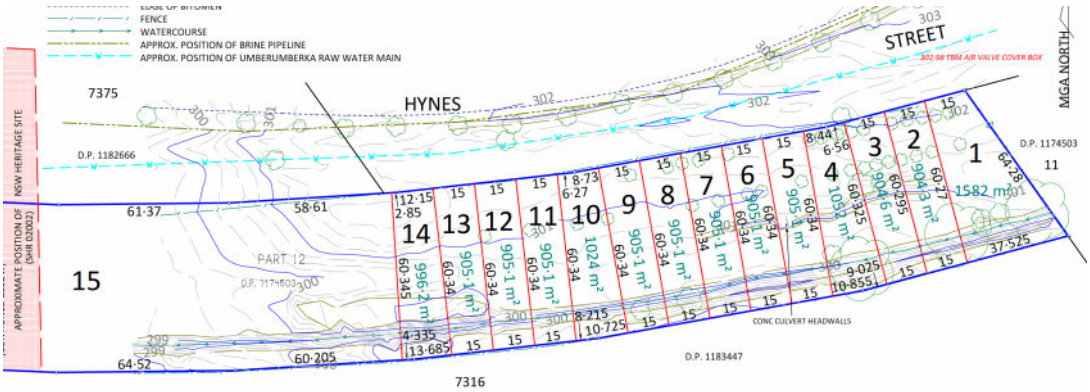
Statement of Environmental Effects

Torrens title subdivision (1 lot into 15) and associated earthworks and services

at

Lot 12 DP 1174503

1 Hynes St Broken Hill NSW



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No table of figures entries found.

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Document control

Author	Version	Date
B. Williams, Regional Plan	1.0	7 December 2024

representations about its suitability for any particular purpose. Users should make their own judgements about those matters. The information contained within is provided on an 'as is' basis with no guarantees of completeness, accuracy, usefulness or timeliness and without warranties of any kind whatsoever, expressed or implied. The author does not warrant that this document and information or material within will be error or omission free. The author excludes all liability for loss or damage arising from the use of, or reliance on, the information contained within, whether or not caused by any negligence on the part of the author or its suppliers.

1 Preliminary

1.1 General overview

This Statement of Environmental Effects (SEE) has been prepared by Regional Plan on behalf of the Applicant, to accompany the submission of an application for development consent pursuant to Part 4 of the Environmental Panning and Assessment Act 1979 (EP&A) Act 1979.

This SEE describes the site, its surrounds, the proposed development, and provides an assessment of the proposal in accordance with the matters for consideration pursuant to Section 4.15 of the *EP&A Act 1979* and other applicable legislation and environmental planning instruments (EPIs) as noted throughout.

1.2 Proposal summary

Table 1: Proposal summary

Applicant	LAND OWNER C/- Regional Plan 123 Crown Street, Tamworth, NSW 2340
Description of proposed development	*The subdivision of land,* pursuant to section 1.5(b) of the EP&A Act 1979. Involving the greenfield Torrens title subdivision of 1 lot into 14.
Street address	1 Hynes Street
Suburb	Broken Hill NSW
Lot / SEC / DP	12 / - / 1174503
Land zoning	R1 *General Residential, C4 Environmental Living*
Site area	6.488ha
Approval(s) sought	a) Subdivision of land b) s.100B bushfire safety authority Rural Fires Act 1997
Type of development	Integrated development s. 57(1) Heritage Act 1977.
Consent Authority	Broken Hill City Council
Local Environmental Plan	Broken Hill Local Environmental Plan (BHLEP) 2013. s2.6 – Subdivision—consent requirements

1.3 SEE structure

The structure and contents of this SEE is as follows:

Table 2: SEE structure

Part 1 - Preliminary	Provides a high-level overview of the proposed development, development type, preliminary consultation, referrals required and supporting documents and specialist technical reports.
Part 2 - Site context	Provides an analysis of the site and its surrounds.
Part 3 - Proposed development	Describes the proposed development.

Part 4 - Statutory planning controls	Assesses the consistency of the proposed development against applicable statutory and non-statutory environmental planning instruments and development standards.
Part 5 - Assessment of environmental effects	Assess the likely impact of the proposed development pursuant to section 4.15 of the EP& Act 1979.
Part 6 - Conclusion	Concludes this SEE.
Part 7 - Appendices	

1.4 Pre DA consultation

Table 3: Pre-DA consultation

Organisation	Matters raised / advice provided
BHCC	**Environmental** • Bushfire prone land • Site contains state heritage listed item • Preliminary site investigation (PSI) required for lead contamination **Services** • Development to contain adequate arrangements for servicing of vehicle access, water, sewer, stormwater, electricity and telecommunications. With consultation with relevant authorities. • Access from Hynes St is preferred
Essential Water & Sewer	**Site water and sewer connection requirements.** Connections to Essential Water's Sewer and Water Mains are to comply with Australian Plumbing/Drainage Standard AS 3500, Water Supply Code WSA 03-2002, Sewerage Code of Australia WSA 02-2002-2.2. Sections of water and sewer maps for this area are attached above. Please Note: Sewer Mains are not directly available, an extension is required subject to Survey, at the cost of the Developer.
Essential Energy (EE)	**Site electrical supply connection requirements.** Advised a DA number is required and a 'subdivision residential and commercial' application to be submitted via EE's website at https://www.essentialenergy.com.au/partners/contestable-work/land-developments#:~:text=How%20to%20apply,next%20steps%20for%20your%20development.
Crown Lands NSW	**Enquiry regarding accessing proposed lots from the South.** Determined not suitable via access licence arrangement and that land acquisition and public road dedication or the like would be required.
Heritage NSW	**State heritage register item No. 02002.**

	Advised the site contains state heritage register (SHR) item no. 02002 and despite the proposed development being outside of the SHR curtilage a statement of heritage impact (SOHI) is required and the development will form integrated development pursuant to under section 60 of the Heritage Act 1977.
Referrals	a)
	b)

1.5 Referrals required

Table 4: DA referrals required

Legislation	Clause
Rural Fires Act 1997	NSW Rural Fire Service, s. 100b Rural Fires Act 1997 (bushfire safety authority)
Heritage Act 1977	NSW Office of Environment and Heritage, s. 57(1) Heritage Act 1977 (State Heritage listing)

1.6 Supporting documents and specialist technical reports

The following documents and specialist technical reports accompany the development application.

Table 5: Supporting documents

Document	Author & date
Bushfire assessment report	Statewide Bushfire Consulting 20 November 2024
Preliminary site investigation (PSI)	Metaline Engineering Group 30 January 2023
Statement of Heritage Impact (SOHI)	Regional Plan 7 December 2014
Plan of proposed subdivision	G, F, Howe 2 June 2023

2 Site context

Table 6: Site analysis

2.1 Site analysis	
2.1.1 Site description and locality	• LOT: 12 • SEC: • DP: 1174503 • ADDRESS: 1 Hynes St Broken Hill NSW • The site is located on the northwestern edge of the Broken Hill township and is the last land parcel containing R1 *General Residential* land zoning which borders the Broken Hill township. The eastern section of the site subject to the proposed development is zoned R1 *General Residential. However,* most of the land parcel contains C4 *Environmental Living* land zoning which encompasses the central and western portion of the lot.
2.1.2 *Site area*	• 6.489ha • Dimensions: Width 1,064m; depth 62 • Shape: rectangular / kidney
2.1.3 Site zoning	• R1 General Residential • C4 Environmental Living
2.1.4 Minimum lot size	• 230m^2 (R1 General Residential) • 4,000m^2 (C4 Environmental Living)
2.1.5 Height of building	• Not applicable
2.1.6 Floor space ratio	• Not applicable
2.1.7 Heritage	• Not applicable (local, European or Aboriginal) • Contains state heritage registered item no. 02002 - 1915 Picnic Train Attack and White Rocks Reserve
2.1.8 Site access and services	• Access: Site frontage to public, local sealed road, Hynes Street • Electricity: Not connected but within proximity of site • Telecommunications: Not connected but within proximity of site • Water: Not connected but within proximity of site • Sewer: Not connected but within proximity of site • Stormwater: Not connected but can be catered via on site rain water tanks & detention. Stormwater management within proximity of the site includes natural overland flow paths and open swale drains. There are no pit and pipe drainage networks within the immediate vicinity of the site.

2.1.9 Easements and encumbrances	• No existing easements that will prevent the proposed development

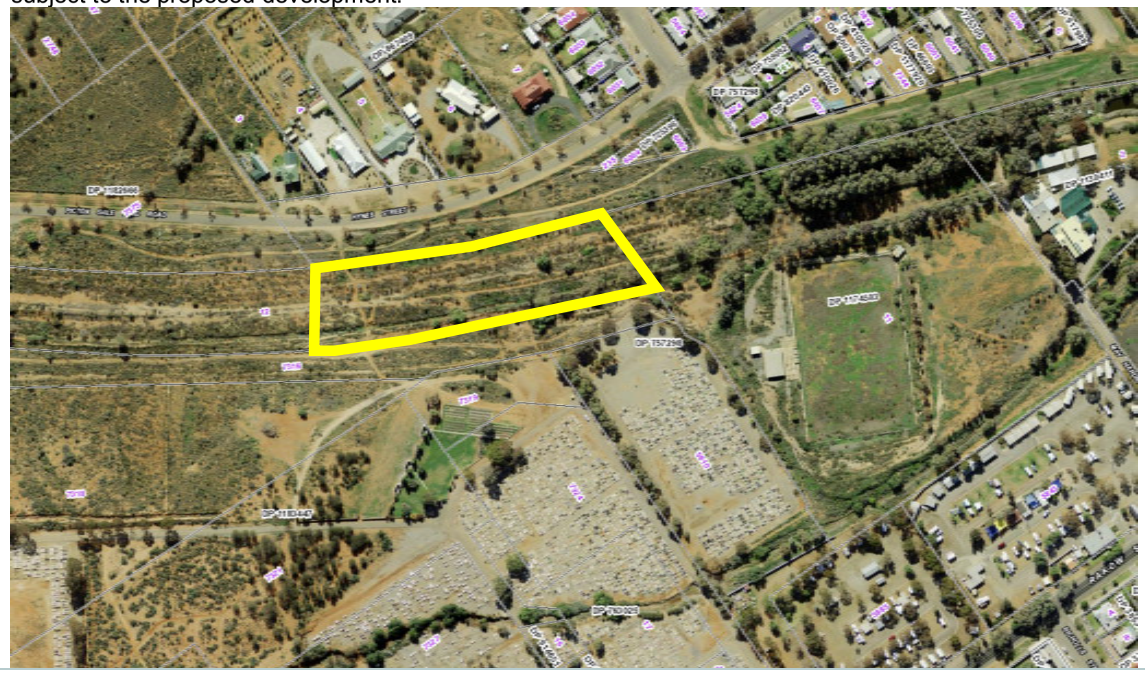
2.1.10 Existing development & previous uses	• Vacant land within section of site subject to proposed development. Former local railway site which was decommissioned 1970, with some footprint of where the railway used to be on the site. Rail line and all jewellery has been removed, though some ballast and mounds of the old rail remains. • Some construction waste mostly concrete is present on the site. Plus an old broken computer. • *As noted in the accompanying PSI report,* - *An online review of the available records on the Broken Hill City Council website was undertaken on 5th January 2023 and there were no records of concern with regards to contamination on site. No Historical information was also found regarding activities relating to development.* - *No sites within 500m of the inspection area were identified on the list of NSW contaminated sites notified to the EPA as required by the Contaminated Land Management Act (1997) and the Environmentally Hazardous Chemicals Act (1985).* - *No sites within 500 m of the inspection area were listed on the EPA public register required under section 308 of the Protection of the Environment Operations Act 1997 (the POEO Act), which lists licenses, notices penalty notices and convictions.* - *Although no neighboring service stations, mechanics, mining or drycleaners are in operation within 500 m of the inspection area, the following operations are active within 2-5km of the inspection area.*

ITEM	TYPE OF ACTIVITY	APPROXIMATE DISTANCE TO SITE BOUNDARY	DIRECTION FROM SITE	ADDRESS	GRADIENT FROM SITE
1	Woolworth Mechanic/Fuel Station	2000m	East	5 Galena Street, Broken Hill	Undulating/down gradient
2	Shell Fuel Station	2500m	East	164 Williams Street, Broken Hill	Undulating/down gradient
3	CBH Resources Broken Hill Operation – RASP Mine - Broken Hill	3000-5000m	East	-	Undulating/down gradient

- *Due to distance and hydraulic gradient from the site, items 1 and 2 above is not expected to have an impact on the site. However, dust particle movement through the air, and Broken Hill's Dust storm climate and events pose a risk for dust particles to move over Kms, this in particular has an impact on the site.*
- *Although lead in Broken Hill's air and soil is common, it is mostly derived from historical and current mining operations. Studies such as those published in the journal Atmospheric Environment has confirmed that some of that lead is emitted as dust every day by the city's mines. The Broken Hill*

2.1.11 Environmental constraints, natural site features, vegetation, topography & other key site considerations	• The site is mostly devoid of any significant vegetation. In its current state, it is unlikely the site would contain significant flora or fauna species. There is no mapped biodiversity of high value. • An unnamed, minor, non-perennial and non-mapped natural overland watercourse toward the rear of the site. • Bushfire prone land category 3 • Generally flat land with gentle downward slope of approximately 1% from north east to south west across the site with a height difference of approximately 2m over 230m with site elevation between 300-302AHD. In the site area subject to the proposed development. A sudden decrease of elevation (approximately 1m) to the back of the block is present due to a possible formed river with gentle downward slope (draining) from east to west . However, this is not identified on hydrospatial mapping per below image. • Review of WaterNSW Real-time Water Database indicated no groundwater bores within 1km of the site. Temporary or stagnant groundwater may be encountered within the soil profile at times of and following heavy or extended rainfall. No springs were listed within 1km of the site in the NSW Government Hydrography Spatial Data (SEED, 2019). • Multiple land zoning of R1 and C4 • Image: NSW Hydrography map for the site. Showing nmo m,apped watercourses within the site.  • Image: Site survey and proposed plan of subdivision

Image: Bushfire mapping

2.2 Surrounding development & land zoning	• The area of the site subject to the proposed development is predominantly adjoined by R1 General residential zoned land to the north east and south. Land to immediate north contains large lot residential development with land to the north east containing smaller lot residential development. • A rugby league ground adjoins the eastern site boundary. • A vacant lot adjoins the southern site boundary with the Broken Hill cemetery located beyond. Which is a listed local heritage No. I40. item • The site is also adjoined by vacant land of C2 and RU2 land zoning to the north and east in the area of the site not subject to the proposed development. • 

2.3 Site photo's

Site photos are contained in **Appendices.**

3 Proposed development

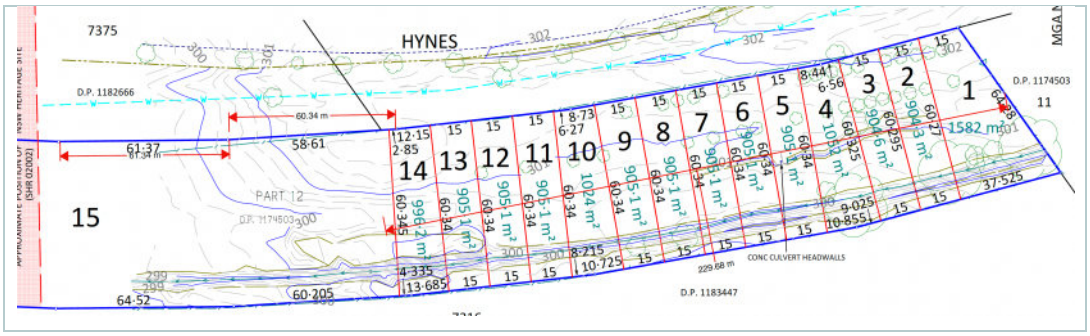
3.1 Outline of proposed development

a) Torrens title subdivision of the site from one (1) lot into fourteen (14) as follows:

Table 7: Outline of proposed development

<table>
<tr><th>Item</th><th>Information</th></tr>
<tr><td>Lot size</td><td>All 14 allotments proposed for future residential development will contain minimum dimensions of: width of 12 meters, depth 60 metres and areas of 900m^2 as outlined below.
All lots will have north south orientation with frontage to Hynes Street.
Residual lot will contain approximately 51,186m^2.
<table>
<tr><th>Lot ID</th><th>Area (m2)</th></tr>
<tr><td>Existing</td><td>64,890.00</td></tr>
<tr><td>1</td><td>1,582.00</td></tr>
<tr><td>2</td><td>904.30</td></tr>
<tr><td>3</td><td>904.60</td></tr>
<tr><td>4</td><td>1,052.00</td></tr>
<tr><td>5</td><td>905.10</td></tr>
<tr><td>6</td><td>905.10</td></tr>
<tr><td>7</td><td>905.10</td></tr>
<tr><td>8</td><td>905.10</td></tr>
<tr><td>9</td><td>905.10</td></tr>
<tr><td>10</td><td>1,024.00</td></tr>
<tr><td>11</td><td>905.10</td></tr>
<tr><td>12</td><td>905.10</td></tr>
<tr><td>13</td><td>905.10</td></tr>
<tr><td>14</td><td>996.20</td></tr>
<tr><td>Residual (15)</td><td>51,186.10</td></tr>
</table></td></tr>
<tr><td>Site access</td><td>Via Hynes St. As part of future dwelling DAs.</td></tr>
<tr><td>Earthworks</td><td>Works limited to installation of utility services to each lot as outlined within subsequent sections.</td></tr>
<tr><td>Sewer</td><td>Extension of sewer network from east of the site at the junction of Doe St and Hynes St along the northern site boundary within the Hynes St road reserve and connecting to proposed lots 1-14.</td></tr>
<tr><td>Stormwater</td><td>It is anticipated future development on proposed lots 1-14 will be subject to the provision of rainwater tanks which will enabling onsite detention of post development flows, with existing overland flow directed to existing natural overland flow path at the rear of each proposed lot at pre-development flow</td></tr>
</table>

<table>
<tr><td></td><td>rates. It is anticipated future development on proposed lots 1-14 will be subject to the provision of rainwater tanks which will enable sufficient onsite detention of post development flows, with existing overland flow directed to existing natural overland flow path at the rear of each proposed lot at pre-development flow rates.</td></tr>
<tr><td>Electricity</td><td>Underground low voltage connection to existing low voltage pillar at 2a Hynes St. With under bore of Hynes St road pavement and service running parallel with the northern site boundary within the Hynes St road corridor and connection to proposed lots 1-14.</td></tr>
<tr><td>Telecommunications</td><td>Underground connection to existing network junction at 2a Hynes St. With under bore of Hynes St road pavement and service running parallel with the northern site boundary within the Hynes St road corridor and connection to proposed lots 1-14.</td></tr>
<tr><td>Waste collection</td><td>Green waste via existing kerbside collection in Hynes St.
It is proposed to apply for a Dark Green Mobile Garbage Bin waste service collection to the site if development consent is issued.</td></tr>
<tr><td>Mail</td><td>Proposed mail box at Hynes St boundary for proposed lots 1-14.</td></tr>
<tr><td>Vegetation removal</td><td>Not applicable. Subject to future development application.</td></tr>
<tr><td>Asset protection zones</td><td>Table 2: Bush fire hazard assessment
<table><tr><th>Transect</th><th>Vegetation formation</th><th>Effective Slope</th><th>Minimum APZ[1]</th><th>Available APZ</th><th>Comments</th></tr><tr><td colspan="6">Proposed Lot 1</td></tr><tr><td>East and North-east
South</td><td>Grassland
Grassland</td><td>Upslope /Flat
Downslope > 0-5^0</td><td>10m
11m</td><td>≥10m
≥11m</td><td>The Minimum APZ is available within Lot 1 to allow a Building Envelope.</td></tr><tr><td colspan="6">Proposed Lot 2-13</td></tr><tr><td>South</td><td>Grassland</td><td>Downslope > 0-5^0</td><td>11m</td><td>≥11m</td><td>The Minimum APZ is available within Lot 2-13 to allow a Building Envelope.</td></tr><tr><td colspan="6">Proposed Lot 14</td></tr><tr><td>West
South</td><td>Grassland
Grassland</td><td>Downslope > 0-5^0
Downslope > 0-5^0</td><td>11m
11m</td><td>≥11m
≥11m</td><td>The Minimum APZ is available within Lot 14 to allow a Building Envelope.
Lot 15 directly adjacent to the west can be partly managed as an 11m APZ for required setbacks in that direction</td></tr></table>[1]PBP 2019 – Table A1.12.2 - Minimum distances for APZs – residential infill development, FFDI 80 areas (<29kW/m2, 1090K)</td></tr>
<tr><td>Easements</td><td>No easements are required for the proposed development. It is anticipated the proposed lotscontain sufficient area for onsite management of stormwater on proposed lots 1-14, with any discharge directed to the existing natural overland flow path to the sites at predevelopment flows.</td></tr>
<tr><td colspan="2">Proposed subdivision plan</td></tr>
</table>


HYNES
7375
D.P. 1182666
D.P. 1174503
11
15
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PART 12
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1582 m²
D.P. 1183447
CONC CULVERT HEADWALLS

4 Statutory planning controls

An assessment of consistency of the proposed development against applicable statutory planning controls has been undertaken as outlined within the ensuing subsections.

4.1 Acts

Table 8: Assessment of the proposed development against applicable Acts

Act & section / clause	Comment
Environmental Planning & Assessment Act 1979	
• **s1.5 Meaning of "development"**	Proposed development involves the subdivision of land. Therefore, comprises development under the Act.
• **s1.7 Application of Part 7 of *Biodiversity Conservation Act 2016* and Part 7A of *Fisheries Management Act 1994* (cf previous s 5AA)**	Part 7 of *Biodiversity Conservation Act 2016* applies to the proposed development and is considered under the relevant Act. Part 7A of *Fisheries Management Act 1994* does not apply to the proposed development.
• **s4.2 Development that needs consent (cf previous s 76A)**	Section 2.6(1) of the *BHLEP 2013* states, "Land to which this Plan applies may be subdivided, but only with development consent". The proposed development does not form exempt development under another Environmental Planning Instrument (EPI).
• **3s4.5 Designation of consent authority**	The proposed development does not comprise state or regionally significant development, nor development which an EPI nominates an authority other than Council as the consent authority. Therefore, BHCC is the relevant consent authority.
• **S4.12 Application**	Application for development consent is hereby made to the relevant consent authority to carry out development.
• **s4.13 Consultation and concurrence (cf previous s 79B)**	Other EPI and regulations require consultation or concurrence prior to the consent authority determining the determining the development application, as noted throughout this SEE.

<table>
<tr><td>

- **s4.14 Consultation and development consent—certain bush fire prone land (cf previous s 79BA)**

</td><td>Not applicable as the proposed development comprises the subdivision of land that could lawfully be used for residential or rural residential purposes or development for a special fire protection purpose on bush fire prone land. A bushfire safety authority is requested under Section 100B of the *Rural Fires Act 1997*.</td></tr>
<tr><td>

- **s4.15 Evaluation (cf previous s 79C)**

</td><td>Addressed throughout various sections of this SEE.</td></tr>
<tr><td>

- **Division 4.8 Integrated development**

</td><td>The following identifies any integrated development which “the consent authority must, in accordance with the regulations, obtain from each relevant approval body the general terms of any approval proposed to be granted by the approval body in relation to the development”.

<table>
<tr><th>Act</th><th>Provision</th><th>Approval</th><th>Comment</th></tr>
<tr><td>*Coal Mine Subsidence Compensation Act 2017*</td><td>s 22</td><td>approval to alter or erect improvements, or to subdivide land, within a mine subsidence district</td><td>Not applicable.</td></tr>
<tr><td>*Fisheries Management Act 1994*</td><td>s 144</td><td>aquaculture permit</td><td>Not applicable.</td></tr>
<tr><td></td><td>s 201</td><td>permit to carry out dredging or reclamation work</td><td>Not applicable.</td></tr>
<tr><td></td><td>s 205</td><td>permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease</td><td>Not applicable.</td></tr>
<tr><td></td><td>s 219</td><td>permit to—
set a net, netting or other material, or
construct or alter a dam, floodgate, causeway or weir, or</td><td>Not applicable.</td></tr>
</table>

</td></tr>
</table>

			otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	
	Heritage Act 1977	s 58	approval in respect of the doing or carrying out of an act, matter or thing referred to in s 57(1)	Applicable. Site contains SHR item No. 02002. Cl1(e) carry out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct,
	Mining Act 1992	ss 63, 64	grant of mining lease	Not applicable.
	National Parks and Wildlife Act 1974	s 90	grant of Aboriginal heritage impact permit	Not applicable.
	Petroleum (Onshore) Act 1991	s 16	grant of production lease	Not applicable.
	Protection of the Environment Operations Act 1997	ss 43(a), 47 and 55	Environment protection licence to authorise carrying out of scheduled development work at any premises.	Not applicable.
		ss 43(b), 48 and 55	Environment protection licence to authorise carrying out of scheduled activities at any premises (excluding any activity described as a "waste activity" but including any activity described as a "waste facility").	Not applicable.

		ss 43(d), 55 and 122	Environment protection licences to control carrying out of non-scheduled activities for the purposes of regulating water pollution resulting from the activity.	Not applicable.
	Roads Act 1993	s 138	consent to— erect a structure or carry out a work in, on or over a public road, or dig up or disturb the surface of a public road, or remove or interfere with a structure, work or tree on a public road, or pump water into a public road from any land adjoining the road, or connect a road (whether public or private) to a classified road	Not applicable. Pursuant to Section 4.46(3).
	Rural Fires Act 1997	s 100B	authorisation under section 100B in respect of bush fire safety of subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for special fire protection purposes	Yes. Relevant documentation to support an application for a Section 100B bushfire safety authority accompany the application.
	Water Management Act 2000	ss 89, 90, 91	water use approval, water management work approval or activity approval under Part 3 of Chapter 3	Not applicable.
Environmental Protection & Biodiversity Conservation Act 1999				
• **Part 3 – requirements for environmental approvals**	The proposed development does not involve an action which requires referral or approval under the EPBC Act 1999.			

Local Government Act 1993	
• **s68**	Future approvals are required under this section as follows. Relevant approvals are proposed be obtained as part of future development on the site. • Part B • 1 Carrying out water supply work, • 3 Install, alter, disconnect or remove a meter connected to a service pipe, • 4 Carry out sewerage work • 5 Carry out stormwater drainage work, • Part C • 4 Dispose of waste into a sewer of the council
Heritage Act 1977	
S58	Applicable. Site contains SHR item No. 02002. Cl1(e) carry out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct,
Rural Fires Act 1997	
- **Subdivision 2 bushfire prone land**	A bushfire safety authority is required for the proposed development. Relevant document accompanies the application.
Biodiversity Conservation Act 2016	
• **3.1 Declaration of areas of outstanding biodiversity value**	• The site does not contain an area of declared outstanding biodiversity value.
• **Part 7 Biodiversity assessment and approvals under Planning Act**	• **s7.2 Development or activity "likely to significantly affect threatened species**: The proposed development is unlikely to significantly affect threatened species due to the minor nature of works involved and identified mitigation measures, primarily sediment erosion and control measures.

	• **s7.3 Test for determining whether proposed development or activity likely to significantly affect threatened species or ecological communities, or their habitats**: A test under this section is not considered necessary for the proposed development nor for future development on the site. The proposed development is unlikely to significantly affect threatened species or ecological communities, or their habitats. The proposed development does not impact ecological communities listed in Schedules 1 and 2; areas declared to be of outstanding biodiversity value under part 3; & key threatening processes listed in Schedule 4, of the BC Act • **s7.4 Exceeding biodiversity offsets scheme threshold:** The proposed development does not involve clearing which exceeds the biodiversity offsets scheme threshold as outlined in the Regulations. • **s7.7 Biodiversity assessment for Part 4 development (other than State significant development or complying development):** The proposed development is unlikely to significantly affect threatened species therefore, a biodiversity development assessment report (BDAR) is not required.
Fisheries Management Act 1994	
• **Part 7A Threatened species conservation**	• There are no approvals required under Part 7A of the Act.
National Parks & Wildlife Act 1974	
• **Part 6 Aboriginal objects and Aboriginal places - Division 1 General**	• **s86 Harming or desecrating Aboriginal objects and Aboriginal places**: There are no known Aboriginal objects or places that may be harmed by the proposed development. • **s87 Defences**: a due diligence assessment has not been undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010).
Water Management Act 2000	

• **s91 controlled activities**	• **s91 Activity approvals:** An activity approval is not required for undertaking a controlled activity for works on or under waterfront land. Pursuant to section 42 and subclause 31 of part 2 of schedule 4 of the *Water Management (General) Regulation 2018.*
Contaminated Land Management Act 1997	
• **s60 Duty to report contamination**	The site is not identified on the EPAs published list of contaminated land notified under s60 of the Act.
Roads Act	
• **s138**	A s138 approval is proposed to be obtained prior to the issue of a subdivision works certificate. The site adjoin a local road thus, CHCC is the relevant approval authority under the Act.

4.2 Regulations

Table 9: Assessment of the proposed development against applicable Regulations

Regulation & section / clause	Comment
Biodiversity Conservation Regulation 2017	
• **cl6.1 Additional biodiversity impacts to which scheme applies (sections 6.3 and 6.6(2))**	The additional matters under this clause as relevant to the proposed development have been considered in determining biodiversity impacts under the biodiversity offsets scheme.
• **Part 7 – Biodiversity assessment and approvals under Planning Act**	• **cl7.1 7.1 – Biodiversity offsets scheme threshold (section 7.4):** assessment of clearing of native vegetation and on land included on the Biodiversity Values Map is outlined further below. • **cl7.2 – 7.2 Clearing of area of land that exceeds threshold:** clearing of native vegetation does not exceed the biodiversity offsets scheme threshold as follows:

Column 1	Column 2	Comment
Minimum lot size of land	**Area of clearing**	
Less than 1 hectare	0.25 hectare or more	Applicable.

<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td>Clearing does not exceed threshold.</td></tr>
<tr><td>Less than 40 hectares but not less than 1 hectare</td><td>0.5 hectare or more</td><td>Not applicable.</td></tr>
<tr><td>Less than 1,000 hectares but not less than 40 hectares</td><td>1 hectare or more</td><td>Not applicable.</td></tr>
<tr><td>1,000 hectares or more</td><td>2 hectares or more</td><td>Not applicable.</td></tr>
</table>
• 7.3 Clearing on land within Biodiversity Values Map exceeds threshold: the site does contain mapped biodiversity of high value.
</td></tr>
<tr><td colspan="2">Water Management (General) Regulation 2018</td></tr>
<tr><td>• Part 3 Approvals; Division 2 Exemptions; Subdivision 4 Exemption from requirement for controlled activity approval</td><td>• 42 Controlled activities—persons other than public authorities:
• Schedule 4 Exemptions; Part 2 Controlled activity exemptions:
• 31 Controlled activities on certain waterfront land: The controlled activity is not carried out on waterfront land. No works are proposed within 40m of the upper bank of the 3rd order stream which transects the southern section of the site.</td></tr>
<tr><td colspan="2">Environmental Planning & Assessment Regulation 2021</td></tr>
<tr><td>• s24 - content of DA</td><td>This application for consent is in the approved form, contains all the information and documents required by the approved form, and the Act or this Regulation, and will be submitted on the NSW planning portal.</td></tr>
<tr><td>• Part 3 - Division 3 Development applications for integrated development—the Act, ss 4.12, 4.47 and 4.64</td><td>The consent authority must consult with relevant other authorities prior to determining the development application as identified.</td></tr>
<tr><td>• Part 3 - Division 4 Development applications for development requiring</td><td>The consent authority must consult with relevant other authorities prior to determining the development application as identified.</td></tr>
</table>

concurrence—the Act, ss 4.12, 4.13 and 4.64	
• **Part 4 – Division 1 Determination of development applications—the Act, s 4.15(1)(a)(iv)**	No items identified in section 62 – 68 of the Regulation apply to the proposed development.
Rural Fires Regulation 2022	
- **s45 Application for bush fire safety authority—the Act, s 100B**	A bushfire safety authority is requested as part of the proposed development. Information required is located throughout this SEE.

4.3 State Environmental Planning Policies

Table 10: Assessment of the proposed development against applicable EPIs

SEPP	Applicable	Section	Comment
SEPP (Biodiversity and Conservation) 2021	☒ Y ☐ N	Chapter 2 – vegetation in non-rural areas	Consistent. See below assessment.
SEPP (Exempt and Complying Development Codes) 2008	☐ Y ☒ N		
SEPP (Housing) 2021	☐ Y ☒ N		
SEPP (Industry and Employment) 2021	☐ Y ☒ N		
SEPP (Planning Systems) 2021	☐ Y ☒ N		
SEPP (Precincts—Central River City) 2021	☐ Y ☒ N		
SEPP (Precincts—Eastern Harbour City) 2021	☐ Y ☒ N		
SEPP (Precincts—Regional) 2021	☐ Y ☒ N		
SEPP (Precincts—Western Parkland City) 2021	☐ Y ☒ N		
SEPP (Primary Production) 2021	☐ Y ☒ N		
SEPP (Resilience and Hazards) 2021	☒ Y ☐ N	Chapter 4 – remediation of land	Consistent.

			See below assessment.
SEPP (Resources and Energy) 2021	☐ Y ☒ N		
SEPP (Sustainable Buildings) 2022	☐ Y ☒ N		
SEPP (Transport and Infrastructure) 2021	☒ Y ☐ N	Subdivision 2 Development likely to affect an electricity transmission or distribution network; 2.48 Determination of development applications—other development.	Consistent. See below assessment.

4.3.1 SEPP consistency assessment table

Table 11: EPI consistency table

SEPP	Comment
SEPP (Biodiversity and Conservation) 2021	
• **Chapter 2 – vegetation in non-rural areas**	The proposed development does not seek the removal of any significant vegetation. Vegetation removal is limited to that required for utility service installation which comprises sparse grass ground cover located within the Hynes St road reserve and does not impact native vegetation nor exceed the biodiversity threshold.
SEPP (Resilience and Hazards) 2021	
• **Chapter 4 – remediation of land**	The proposed development includes consent for the carrying out of development therefore, this Chapter applies. The development site contains residential land zoning. There have been no known approvals or activities undertaken on the site of the kind identified in table 1 of *Managing Land Contamination Planning Guidelines SEPP 55–Remediation of Land, 1998.* Despite this, it is well documented that lead, zinc and silver contamination from the mines surrounding the town is known to be present in dust, soil, dirt and rainwater tanks throughout the town. Remedial actions aimed to remove or reduce the concentrations of heavy metals in the soil are generally not advisable as they pose limited long-term effectiveness. To limit any potential exposure; risk controls, administrative controls and PPE is recommended for control of the potential health risk posed by the heavy metal contaminated soil to workers undertaking construction work.

	A preliminary site investigation has been undertaken which **concludes** the following: - The review of the site history indicated that the site appears to have remained relatively unchanged, confirmation with some of the neighbours (via door knocking), confirmed that the site has been left relatively untouched, however mostly utilised mostly for recreational purposes with pistachio tress planted. A quick check with Broken Hill City Council has also indicated that no significant activity has taken place. Potential contamination sources which have been identified during this PSI are summarised as: - The site has attracted some illegal dumping for construction waste such as cement, concrete, old computer/s and some concrete blocks. - Laboratory results from the non-railway line sites indicate fairly common results for Broken Hill. With the relatively dense vegetation on site these levels of contaminants are considered to have minimal environmental impact as levels of dust are reduced. However, the railway line site does indicate high levels in lead and zinc, and it is reasonable to conclude that overall, the site is considered to generally have a high risk of contamination should the dirt be disturbed. - To determine potential risk of harm to human health and environment under proposed development conditions, assessment of the identified area of environmental concern should be undertaken prior to any future development. And **recommends:** - The implementation of the following recommendations will achieve the objectives of the project and render the site suitable for the intended development. - Based on the findings of this report together with laboratory results, levels of potential contaminants of concern were above the health investigation and health screening levels for soil samples collected across the railway site, namely Lead and Zinc. - Levels of Lead and Zinc exceeded the adopted health investigation levels for soil contaminants samples collected from the railway site.

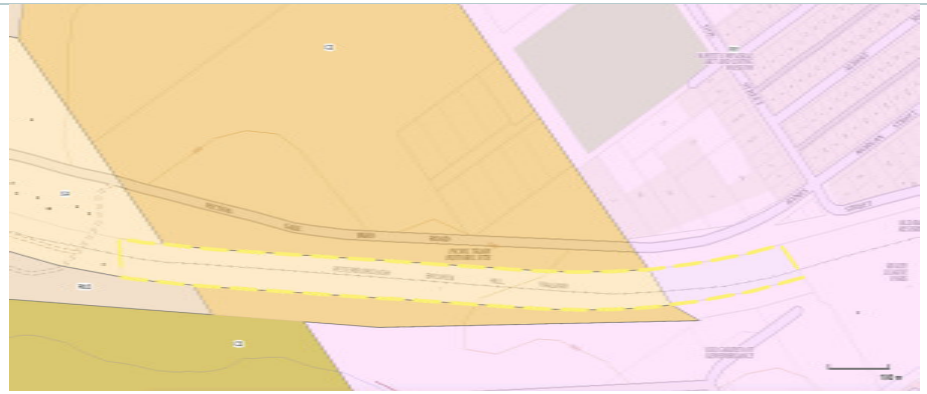
	- Excavation of the contaminated fill material would be required for offsite disposal. This option removes the contaminated materials through bulk excavation into trucks that then transfer the contaminated materials to a waste facility with appropriate licenses to receive the waste. This approach has the advantage of removing the contaminated soils from the site and potentially reducing development restrictions associated with contaminated soils. It also has the advantage of being relatively fast with minimal impact on the neighboring properties. The main disadvantage of excavation and disposal is the expense associated with offsite disposal to an appropriately licensed landfill. - Therefore, as part of the remediation program, it is the recommendation of this report that the site shall be stabilized with a 50 mm cover of clean material. New vegetation such as grass, small to medium sized trees and other native vegetation are a good capping source to stabilize the soil. Further capping of the site is also possible by the introduction of a concrete slab in the form of driveways, paths and the footing system of the house. - However, disturbing the railway line is not recommended due to the high levels of Lead and Zinc. An appropriate landscaping plan should be prearranged, in which all dirt areas, as a minimum should be sealed and covered with grass. No veggie gardens or fruit trees are to be established into the ground. It is also a recommendation to maintain year-round cover of lawn or mulch to minimize dust generation, this should be considered across the site. - Other matters to consider, establishment of a periodic cleaning program must be in place that include the provision regular dusting, washing of AC filters, cleaning and pressure washing of paved areas. Other measures such as proper door and window seals must be incorporated into the designs. - An Unexpected Finds Protocol is recommended to be implemented during site development works to manage possible identification of potential hazards during development. Notwithstanding the recommendations of the PSI, it is recommended that prior to undertaking any wholesale site remediation works, a further detailed site investigation (DSI) be undertaken to determine the full extent of potential contaminants and, if required, develop a remediation action plan (RAP), validation and ongoing site monitoring, as applicable. It is anticipated this could be conditioned upon any consent issued and required prior to the issue of a subdivision works certificate (SWC).

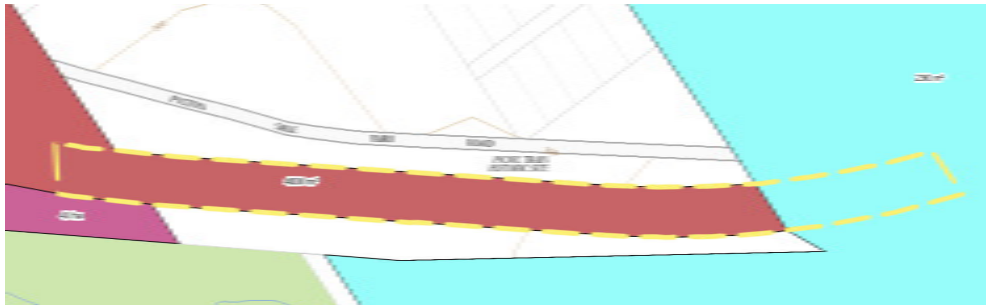
	A construction environmental management plan (CEMP) is also suggested to be required prior to the issue of a SWC, which demonstrates the method of avoiding the potential contaminated area of the site and include appropriate mitigation measures to avoid disturbance and/or actions if in the event disturbance occurs. A detailed landscaping plan should also be required for any future development on the sites.
SEPP (Transport and Infrastructure) 2021	
• **Subdivision 2 Development likely to affect an electricity transmission or distribution network; 2.48 Determination of development applications—other development.**	Proposed development will involve the penetration of ground within 2m of an underground electricity power line and/or an electricity distribution pole and/or within 10m of any part of an electricity tower and/or within 5m of an exposed overhead electricity power line. Therefore, consultation is required with relevant electrical supply authority. Which would otherwise be requied, as outlined below. *"before determining the application, the consent authority must—* *(a) give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks, and* *(b) take into consideration any response to the notice that is received within 21 days after the notice is given.* *Pursuant to clause 2.48(2) of the SEPP".*

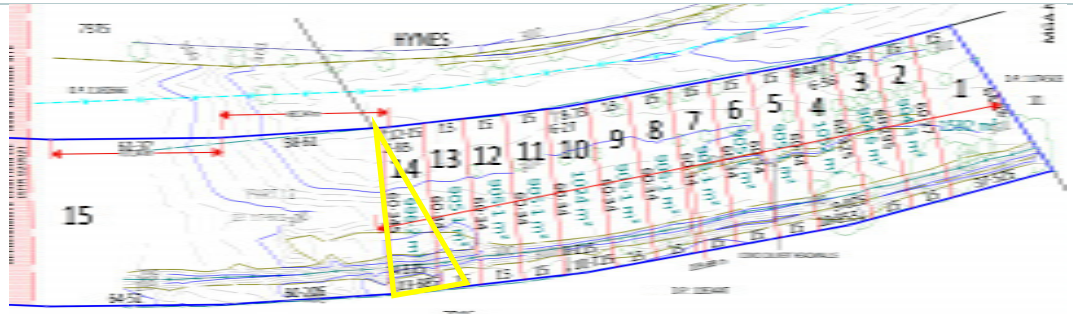
4.4 Local Environmental Plan

Table 12: Assessment of the proposed development against applicable Development Control Plan

Applicable LEP	Broken Hill Local Environmental Plan 2013
LEP clause	**Comment**
Land zoning	The site contains dual R1 *General Residential and* C4 *Environmental Living* zoning.

	
2.3 Zone Objectives and Land Use table	The proposed development seeks to create additional allotments of varying size for future residential development. The proposed development is consistent achieves compliance with the objectives of each land zone (identified below) as outlined throughout this SEE. **Zone R1 General Residential** **1 Objectives of zone** • To provide for the housing needs of the community. • To provide for a variety of housing types and densities. • To enable other land uses that provide facilities or services to meet the day to day needs of residents. **Zone C4 Environmental Living** **1 Objectives of zone** • To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values. • To ensure that residential development does not have an adverse effect on those values.

2.6 – Subdivision consent requirements	The proposed development seeks approval for the Torrens title subdivision of the site into fifteen (15) lots, fourteen (14) additional, as identified in the accompanying plan of proposed subdivision.
4.1 – Minimum subdivision lot size	The site contains dual minimum lot size of 230m^2 and 4,000m^2 which aligns with the dual R1 *General Residential* and C4 *Environmental Living* zoned areas of the site, respectively. All proposed lots achieve the minimum lot size applicable, including the residual lot. Part of proposed lots 13 and 14 encompasses part of the C4 *Environmental Living* zoned land, which is addressed under clause 5.3 of the BHLEP 2013. 
5.3 – Development near zone boundaries	Part of proposed lots 13 and 14 encompass part of the C4 *Environmental Living* zoned land as outlined and depicted below. The maximum distance of the western most boundary of lot 14 is 21.20m from the R1 zoned land. Area of each lot within C4 zoned land. • Lot 14: 498m^2 (996/2) • Lot 13: 94m^2 (3.75*25)



Due to the orientation of the site facing a curved public road and the resultant parent lot being somewhat of a kidney shaped rectangle. Proposed lot 1 has been oriented to cater for the irregularities of the parent lot while enabling sufficient lot width, depth and area for suitable building design and orientation. Boundaries for proposed lots 2-14 have been aligned to enable perpendicular lot boundaries, with lots containing sufficient width, depth and area, enabling more effective building envelope and site design.

Alternate design would result in the following impacts and inefficiencies of the site:

- Reduction of achievable lots by two.
- Lots too narrow
- Lots with irregular shape and unusable area
- Lots requiring additional road construction and / or access handles

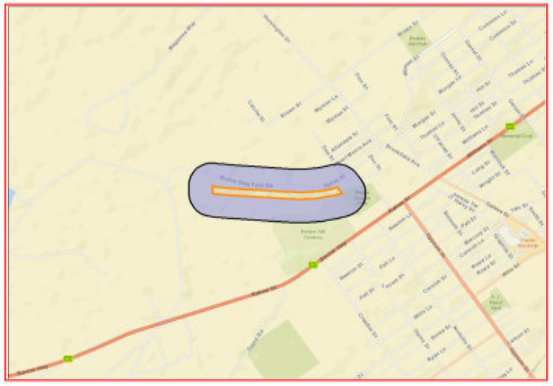
The current design is considered an efficient use of the site which enables full use of the site, provides lots of mostly regular shape and sufficient are and orientation, each with public road frontage and easy access to future utility services.

The encroachment into the C4 land zone is within the 50m allowable under this clause, does not affect any excluded land zone or area and the excluded land use is not proposed or permitted within the adjoining R1 land zone. The proposed development is consistent with all requirements of this clause as stated below.

5.3 Development near zone boundaries

	(1) The objective of this clause is to provide flexibility where the investigation of a site and its surroundings reveals that a use allowed on the other side of a zone boundary would enable a more logical and appropriate development of the site and be compatible with the planning objectives and land uses for the adjoining zone. *(2) This clause applies to so much of any land that is within the relevant distance of a boundary between any 2 zones. The relevant distance is 50 metres.* *(3) This clause does not apply to—* *(a) land in Zone RE1 Public Recreation, Zone C1 National Parks and Nature Reserves, Zone C2 Environmental Conservation, Zone C3 Environmental Management or Zone W1 Natural Waterways, or* *(b) land within the coastal zone, or* *(c) land proposed to be developed for the purpose of sex services or restricted premises.* ***Note—*** *When this Plan was made it did not include all of these zones.* *(4) Despite the provisions of this Plan relating to the purposes for which development may be carried out, development consent may be granted to development of land to which this clause applies for any purpose that may be carried out in the adjoining zone, but only if the consent authority is satisfied that—* *(a) the development is not inconsistent with the objectives for development in both zones, and* *(b) the carrying out of the development is desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land.* *(5) This clause does not prescribe a development standard that may be varied under this Plan.*
5.10 – Heritage conservation	The site does not contain a local heritage item, is not located within a heritage area and is not known to contain any Aboriginal objects or Aboriginal place of heritage significance, as outlined in the following images. Local heritage item I40 is located to the south of the proposed development site, separated by a vacant allotment. The proposed development will not impact the heritage item.

	The site does contain a state heritage listed item, SHR item No. 02002 - 1915 Picnic Train Attack and White Rocks Reserve. As outlined sin the above image, the proposed development is located well outside of the curtilage of the heritage item and does not impact the heritage item. A statement of Heritage Impact (SOHI) accompanies the development application. 

	AHIMS Web Services (AWS) **Search Result** Your Ref/PO Number : 1 Hynes St Client Service ID : 918637 Regional Plan Date: 09 August 2024 7 Pindari Parade Port Macquarie New South Wales 2444 Attention: Brendan Williams Email: brendan@regionalplan.com.au Dear Sir or Madam: **AHIMS Web Service search for the following area at Lot : 12, DP:DP1174503, Section : - with a Buffer of 200 meters, conducted by Brendan Williams on 09 August 2024.** **The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.**  A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that: 0 Aboriginal sites are recorded in or near the above location. 0 Aboriginal places have been declared in or near the above location. *
5.16 – Subdivision of, or dwellings on, land in certain rural, residential or conservation zones	This clause is applicable as part of the proposed development site is zoned C4 *Environmental Living.* As outlined in the clause, *'The objective of this clause is to minimise potential land use conflict between existing and proposed development on land in the rural, residential or conservation zones concerned (particularly between residential land uses and other rural land uses).'* As the proposed development involves the '*subdivision of land proposed to be used for the purposes of a dwelling*', the clause must be considered. With the following matters to be considered: (4) The following matters are to be taken into account—

	(a) the existing uses and approved uses of land in the vicinity of the development, (b) whether or not the development is likely to have a significant impact on land uses that, in the opinion of the consent authority, are likely to be preferred and the predominant land uses in the vicinity of the development, (c) whether or not the development is likely to be incompatible with a use referred to in paragraph (a) or (b), (d) any measures proposed by the applicant to avoid or minimise any incompatibility referred to in paragraph (c). Existing uses of land within the vicinity of the proposed development include vacant land to the north west, west and south, with large and small lot residential development located within the north, north west and beyond immediate adjoining land to the south of the site. It is unlikely the proposed development will have impact preferred and the predominant land uses in the vicinity of the development. The proposed development site comprises the final extent of R1 General Residential zoned land within this area of the Broken Hill town limits. The site in its current state is currently at odds with the objectives of the zone and adjoining development. The proposed development is not considered incompatible with adjoining site uses and no special measures are suggested.
6.1 – Earthworks	Minor ground penetration will be undertaken, associated with the installation of a mailbox for proposed new lots 1-14. Electrical, water, sewer and telecommunication utility services will require minimal disturbance within the road corridor and does not impact any significant, protected or native vegetation. Stormwater management for future development will accompany future development applications for each lot.
6.2 – Essential services	• Electrical, water, sewer and telecommunication services are proposed to be provided by extension of the existing networks within the vicinity of the site. It is suggested servicing strategies and designs be provided prior to issue of a subdivision works certificate. • Site access is proposed from Hynes Street and similarly, with driveway cross sections locations to accompany future development applications for residential development on the new lots. • Stormwater services are also anticipated to be required as part of future development on the site with future residential development applications to be accompted by stormwater management strategies.

4.5 Draft environmental planning instruments

Nil applicable to the proposed development.

4.6 Development Control Plan

4.6.1 Applicable DCP

The following sections of the Broken Hill Development Control Plan 2016 apply to the proposed development.

- 6 Land contamination
- 7 Tree preservation

4.6.1.1 6.1 contamination other than lead and 6.2 lead contamination

As identified in section 4.3.1 of this SEE and the accompanying PSI report, the site is considered to generally have a high risk of contamination should the dirt be disturbed. With soil samples collected across the railway section of the site contain contaminants of concern, namely Lead and Zinc, which are above suitable levels for health investigation and health screening. While the non-railway line sites contained common results for Broken Hill. The PSI provided a number of recommendations as follows:

- Site coverage with new vegetation such as grass, small to medium sized trees and other native vegetation should be implemented as a capping source to stabilise the soil. Further capping of the site is also possible by the introduction of a concrete slab in the form of driveways, paths and the footing system of the house.
- Disturbing the railway line is not recommended due to the high levels of Lead and Zinc.
- An appropriate landscaping plan should be prearranged, in which all dirt areas, as a minimum should be sealed and covered with grass.
- No veggie gardens or fruit trees are to be established into the ground.
- It is also a recommendation to maintain year-round cover of lawn or mulch to minimise dust generation, this should be considered across the site.
- Other matters to consider, establishment of a periodic cleaning program must be in place that include the provision regular dusting, washing of AC filters, cleaning and pressure washing of paved areas. Other measures such as proper door and window seals must be incorporated into the designs.
- An Unexpected Finds Protocol is recommended to be implemented during site development works to manage possible identification of potential hazards during development.

The following mitigation measures are also suggested. It is anticipated these requirements could be condition upon any consent issued with some items required as part of future development applications for the site and/or required to be registered upon the title of the site via a section 88B instrument.

- Notwithstanding the recommendations of the PSI, it is recommended that prior to undertaking any wholesale site remediation works, a further detailed site investigation (DSI) be undertaken to determine the full extent of potential contaminants and, if required, develop a remediation action plan (RAP), validation and ongoing site monitoring, as applicable. It is anticipated this could be conditioned upon any consent issued and required prior to the issue of a subdivision works certificate (SWC).
- A construction environmental management plan (CEMP) is also suggested to be required prior to the issue of a SWC, which demonstrates the method of avoiding the potential contaminated area of the site and include appropriate mitigation measures to avoid disturbance and/or actions if in the event disturbance occurs.
- Works to be undertaken in a manner which minimises the escape of dust into the atmosphere. To achieve this, only necessary removal of vegetation shall be allowed and appropriate soil wetting should be implemented during any construction works.
- Fill brought into the site shall be sourced from a lead-free source. Excavated material from other locations within Broken Hill will not be accepted
- Works shall not be undertaken during periods of high winds, i.e. winds strong enough to raise dust.
- Cover all trailer, truck and utility loads, including fill removed during earthworks to prevent their escape during transport.
- Dispose of all fill and excavated material at an appropriately licenced waste management facility.
- Do not disturb materials unnecessarily.
- Use a plastic membrane as a base when stacking materials in the trailer, truck or utility for transport and disposal.

4.6.1.2 7.1 Trees on public land

No trees on public land are proposed to be removed or planted as part of the proposed development. It is anticipated should any trees be proposed for removal for future development this shall form part of future development application for said future development.

4.6.1.3 7.2 Trees on private land

No living or dead, native or exotic, trees or shrubs on private land with a height equal to or greater than five meters in height or with a trunk diameter greater than 50cm measured at 1.4 meters above ground level are proposed to be removed as part of the proposed development. No vegetation is proposed to be planted on private land as part of the proposed development. It is anticipated should any vegetation be proposed for removal or planting for future development this shall form part of the submission requirements in the form of a vegetation removal and landscaping plan for future development on the site.

5 Assessment of environmental effects

Table 13: s4.15 Evaluation EP&A Act 1979

s.4.15 evaluation	Comment
(1) matters for consideration	
(a) the provision of	
(i) any environmental planning instrument	Refer to section 4 of this SEE.
(ii) any proposed environmental planning instrument	Not applicable. Refer to section 4.5 of this SEE.
(iii) any development control plan	Refer to section 4.6 of this SEE.
(iv) any planning agreement	Not applicable.
(b) likely impacts of that development	
• **Context & setting**	The proposed development is consistent with the objectives of the land zoning and existing land uses within the locality. The slight encroachment into the 4C4 *Environmental Living* land zone is considered suitable and will not adversely impact the site.
• **Access, transport & traffic**	The proposed development is not likely to result in traffic generation beyond the capability of the existing road network which fronts the entirety of the site.
• **Public domain**	The proposed development is not likely to adversely impact the public domain.
• **Utilities**	The proposed development identifies the suitable arrangements for the future provision of utilities as and when required for future development on the site.
• **Heritage**	The proposed development is not likely to adversely impact any items of heritage.
• **Other land resources**	Not applicable.
• **Water quality**	The proposed development is not likely to adversely impact water quality. Erosion and sediment control measures in accordance with the Blue Book shall be implemented during construction. Future development on the site shall be subject to stormwater management plans.
• **Soils**	The proposed development is not likely to adversely affect soils.

	Further investigations and/or remediation works should be contained as required prior to issue if a SWC and/or subdivision certificate.
• **Air & microclimate**	The proposed development is not likely to adversely impact air and microclimate within the locality. A construction environment management plan should be conditioned for approval prior to the issue of a SWC.
• **Flora & fauna**	The proposed development is not likely to adversely impact flora and fauna within the locality.
• **Energy**	Not applicable.
• **Noise & vibration**	The proposed development is not likely to result in noise and vibration impacts which will adversely impact the locality.
• **Natural hazards**	The site is bushfire prone land. The proposed development has been sited and designed to enable ample space and opportunity for future development on the site to appropriately manage and mitigate the potential impact of this constraint. The proposed new lot contains sufficient space and orientation to accommodate future residential development and asset protection zones within the lot boundaries.
• **Technological hazards**	Not applicable.
• **Safety, security, crime & prevention**	Not applicable.
• **Social & economic impact on locality**	The proposed development will enable opportunity for additional housing within the locality. On land which is suitable zoned for residential development purposes.
• **Site design & internal design**	The proposed development has been designed commensurate to the site constraints and opportunities orientation, shape, land zoning, bush fire and existing overland flow paths.
• **Cumulative impacts**	The proposed development is unlikely to result in significant adverse cumulative impacts to the site or surrounding environment.
(c) the suitability of the site for the development,	The site is suitable for the proposed development is demonstrated by: • the permissibility of the proposed development,

	• the consistency of the proposed development with the current and future development within the locality, • the consistency of the proposed development with applicable land use controls and development standards. • the site can be appropriately serviced and is readily accessible from the public road network. • lack of likely significant adverse impacts to the environment, including physical and built.
(d) any submissions made in accordance with this Act or the regulations,	Any submissions made during the notification of the proposed development will be responded to where required and addressed accordingly during assessment of the development application by the consent authority.
(e) the public interest.	The proposed development is not contrary to the public interest. The proposed development is in the public's interest for reasons as follows: • it will provide additional opportunity and housing development on residential zoned land within the Broken Hill LGA; • it is substantially consistent with the requirements of the applicable land use controls and development standards; • it is commensurate to the environmental constraints and opportunities of the site and does not pose any likely significant adverse environmental impact to the surrounding environment; and • it is commensurate with existing and future development characteristic of the locality and does not pose any likely significant adverse impact.

6 Conclusion

In view of the lack of likely significant adverse environmental impacts associated with the proposed development, which comprises the Torrens Title subdivision of Lot 12 DP 1174503, 1 Hynes Street Broken Hill NSW from one (1) lot into fifteen (15). It is recommended to the Council that the application be approved, subject to appropriate conditions of consent. For reasons as follows:

1) The proposed development substantially complies with applicable environmental planning instruments and control plans including:
    a. EP&A Act 1979 and other Acts and Regulations as identified throughout.
    b. Broken Hill Local Environmental Plan 2013, and
    c. Broken Hill Development Control Plan 2016.

2) Is permissible with consent within the applicable land use zone.

3) Provides orderly and efficient use of existing infrastructure within the locality, that:
    a. will provide additional opportunity and housing choice via development on existing residential zoned land within the Broken Hill LGA;
    b. is substantially consistent with the requirements of the applicable land use controls and development standards,
    c. is commensurate to the environmental constraints and opportunities of the site and does not pose any likely significant adverse environmental impact to the surrounding environment, and
    d. is commensurate with existing and future development characteristic of the locality and does not pose any likely significant adverse impact.

4) Will likely result in positive social and economic outcomes for the locality.

In summation, the proposed development offers an efficient utilisation of existing residential zoned land within the LGA and does not pose significant adverse environmental impacts.

7 Appendices

7.1 Proposed subdivision plan and site survey

7.2 Bushfire assessment report

7.3 Preliminary site investigation

7.4 Aboriginal Heritage Information Management System search results

7.5 Biodiversity Values Map and Threshold Report

7.6 NSW Rural Fire Service bushfire prone land search results

7.7 Dial before you dig plans – Essential water, sewer and energy, NBN Co

7.8 Pre-DA authority consultation

7.9 Deposited Plan DP 1174503

Regional Plan
www.regionalplan.com.au

Statement of Heritage Impact (SOHI)

Site	Lot 12 DP 1174503 1 Hynes St Broken Hill NSW
Proposed Development	Torrens title subdivision (1 lot into 15) and associated earthworks and services
Heritage item(s)	a) State Heritage Register (SHR) item No. 02002, 1915 Picnic Train Attack, Heritage NSW ID 5063675 b) Broken Hill Local Environmental Plan 2013, local item I40, Cemetery
Author	Brendan Williams, Regional Plan, brendan@regionalplan.com.au,
Prepared for	Site owner
Date	7 December 2024

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Document control

Author	Version	Date
B. Williams, Regional Plan	1.0	7 December 2024

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1 Introduction

1.1 Project description

This purpose of this statement of heritage impact (SOHI) is to assess and report the potential impacts of a proposed subdivision on the heritage significance of the 1915 Picnic Train Attack site as an item of State significance.

1.2 Approach and methodology

This SOHI has been prepared in accordance with the principles and definitions as set out in the following guidelines:

- The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance,
- Guideline to preparing a Statement of Heritage Impact Guidelines 2023, NSW Department of Planning and Environment,
- Guidelines to levels of heritage significance 2008, Heritage Council of NSW, NSW Department of Planning,
- Guidelines for Nominations to the State Heritage Register 2006, NSW Heritage Office,
- Material Threshold Policy 2020, Heritage NSW, and
- Subdivision and NSW State Heritage Register Items 2019, policy and procedure, Heritage Council of NSW

1.3 Limitations

This SOHI has been prepared by author with no recognised archaeological or heritage qualifications based on a desktop assessment. Using information as obtained on the site visit as conducted and outlined in the preliminary site investigation (PSI) report prepared by Metaline Engineering Group, 30 January 2023, detailed site survey and proposed plan of subdivision prepared by G, F, Howe, dated 2 June 2023 and various reports and publications as outlined within, including the state heritage listing for item SHR 02002 1915 Picnic Train Attacks and White Rocks Reserve.

1.4 Authorship

This SOHI has been prepared by Brendan Williams of Regional Plan. While the SOHI guidelines recommend that a SOHI is prepared by an appropriately qualified and experienced heritage professional with expertise relevant to the heritage item, it is noted no such qualification is held by the author. Notwithstanding, the site's history and heritage significance has been well documented by authors with relevant qualifications. The site not undergone any significant transformation to that which existed at the time of the site's heritage listing. The proposed development is located well beyond the extent of the heritage items curtilage and has been designed with consideration to the relevant guidelines. Subsequently, it is considered the preparation of a SOHI by an appropriately qualified and experienced heritage professional with expertise to the heritage item is not a mandatory requirement nor detrimental

to the outcome of the proposed development. It is noted the author contains the following qualifications and experience:

- Bachelor of Urban and Regional Planning, University of New England, (2012),
- Graduate Certificate of Environmental Management, University of Newcastle (2015),
- Master of Business Administration, Australian National University (2022)

2 The heritage item

2.1 Site description

1 Hynes Street Broken Hill NSW ('subject site or 'site'') is in the Broken Hill Local Government Area (LGA) and is legally identified as Lot 12 DP 1174503. The site borders a public formed and sealed road, Hynes St / Picton Sales Yard Road to the north, contains an area of 6.489ha, and is rectangular / kidney shaped with dimensions of width 1,064m and depth 62m (Figure 1).

The site is located on the northwestern edge of the Broken Hill township and is the last vacant land parcel containing R1 *General Residential* land zoning under the provisions of the Broken Hill Local Environmental Plan (BHLEP) 2013 that borders the township. The eastern section of the site that is subject to the proposed development is zoned R1 *General Residential*. The remainder and majority of the site contains C4 *Environmental Living* land zoning, which encompasses the central and western portion of the lot (Figure 2).

The site is vacant, undeveloped land containing sparse vegetation cover (Figure 3). Nearby development includes primarily low-density residential development to the north, east and south. Mining activity and fuel stations 3-4km and 2km to the east, respectively. The site does not contain existing essential service connections other than public road frontage. A local cemetery adjoins the southern boundary of the immediately adjacent vacant lot to the south of the site. A local sports ground adjoins immediately to the east of the site. Vacant rural zoned land adjoins the site for the majority. Specifically bordering the C4 *Environmental Living* zoned areas of the site. The site formerly contained a railway line that was decommissioned 1970. Some footprints of where the railway used to be are evident with some ballast and mounds present. Though all rail and jewellery has been removed[1]

The site is relatively flat. Containing gradual downward slope from northeast to southwest of approximately 1% in the area subject to the proposed development. A sudden increase of elevation (approximately 1m) is present to the rear due to a possible river.

[1] Preliminary Site Investigation report, Metaline Engineering Group Pty Ltd, 30 January 2023

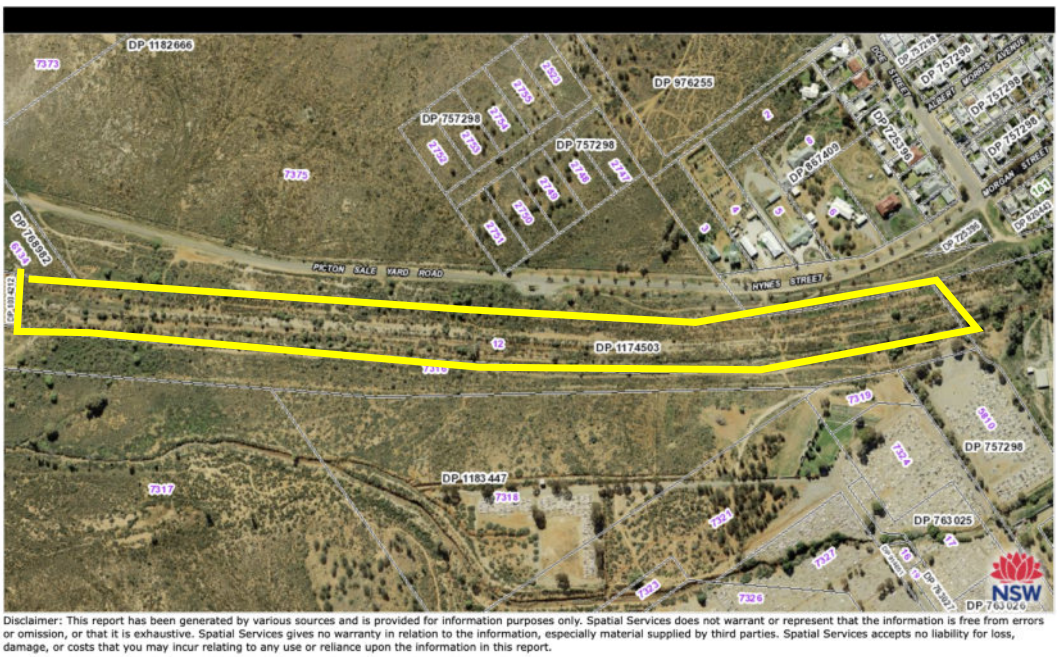


Figure 1: Aerial image of site and surrounds[2]

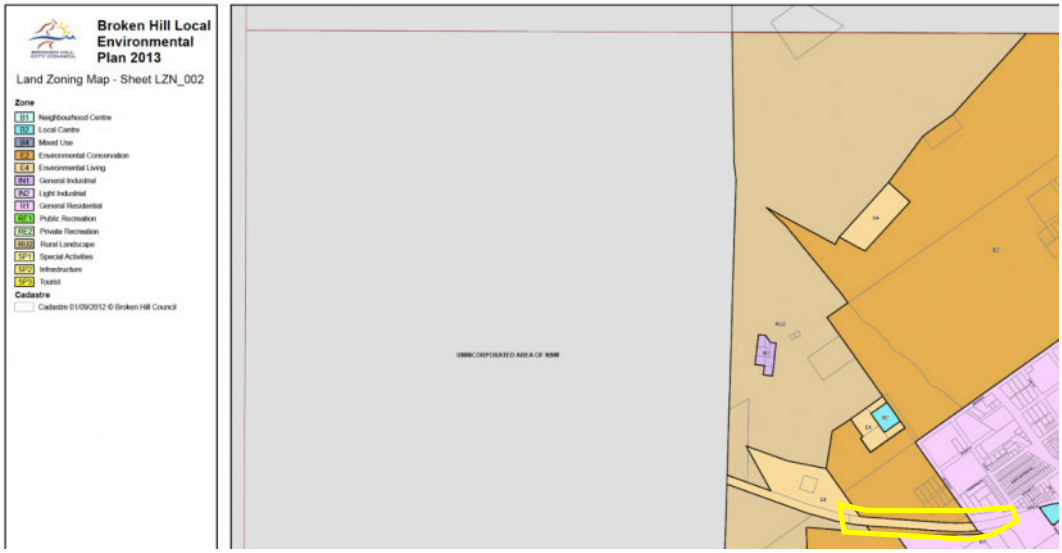


Figure 2: BHLEP 2013 Land zoning map sheet LZN_002

[2] SixMaps NSW

Figure 3: Google street view image depicting site vegetation

2.1.1 Heritage item and listing

The following table summaries the heritage listed items applicable to the site. Empty cells indicate no listing or item is applicable.

Table 1: Summary of heritage items applicable to the site

Listing type	Items and documents	Listing number	Comment	Image reference
Local heritage conservation area				
Local heritage item	Cemetery	I40	Within site vicinity	
State agency s 170 heritage and conservation register				
State Heritage Register	1915 Picnic Train Attack	SHR 02002 Heritage NSW ID 5063675	Within site boundaries	
Commonwealth Heritage List				
National Heritage List				
World Heritage buffer zone				
World Heritage List				
Aboriginal objects or places				

2.1.1.1 Site context to identified heritage item

2.1.1.1.1 State Heritage Register SHR 02002, Heritage NSW ID 5063675, 1915 Picnic Train Attack

As depicted in Figure 4 and Figure 5 the curtilage of SHR 02002 encompasses the entire road corridor of Picton Sales Yard Road, Broken Hill NSW and extends the entire depth of the middle third of existing Lot

12 DP 117450, being the site subject to the proposed development. The curtilage was nominated as a heritage investigation area by the Heritage Council in 2017, before being gazzeted (Figure 6) in 2018[3]. Lot 12 DP 117450 is vacant land containing residential and environmental zoning as outlined section Site description of this report. The Picton Sales Yard Road is a 6m wide sealed road containing a wide road reserve of 55m around the site. The verges contain shrubland and grasses with few mature trees aligning the north and south side of the road formation (Figure 7, Figure 8 and Figure 9). The subject site is located south of Picton Sales Yard road. With the northern boundary of the subject site 38m from the nearest sealed road edge.

The heritage site SHR 02002, 1915 Picnic Train Attack Site, "is marked by a memorial consisting of a replica freight wagon placed on the southern side of Picton Sales Yard Road, Broken Hill. The embankment of the Tramway Permanent Way lies about 50m north (*sic*) of the memorial. In between is the trench of the water pipeline from Umberumberka Reservoir"[4]. "The Picnic Train Attack Site memorial is in good condition. The memorial (Figure 10) is the only reminder of the event; there are no other known traces or archaeological evidence that a battle took place in this location. The railway line has long since been removed but the footprint of where the line was located is clear. A fence line across from the memorial shows one of the ways the unused railway line was salvaged. The ore wagon memorial on site displays an interpretation sign with two photos and information of the fateful day. The wooden section wagon has suffered from years of exposure to the weather, however the rest of the memorial is in good condition" [5]. The area surrounding the wagon has degraded since its installation although vehicle access is still present to access the memorial. "The area around the site has changed considerably since January 1915. The railway line is no longer in-situ although the railway line embankment is still visible. Silverton Tramway Company ceased operations in 1970 due to the standard gauge (4ft 8.5in) line being opened in 1969 connecting NSW to SA. After the closure of the Silverton Tramway Company most of the narrow-gauge railway line (3ft 6in) was removed and recycled for fencing posts and rails, this includes the section of line where the attack took place. A fence now blocks access to the line embankment and the trench where the two men hid is no longer visible due to vegetation. Part of the area is now a semi-rural neighbourhood with the road on the northern side of the site now sealed (Roberts 1995)" [6].

Figure 11 and **Error! Reference source not found.** identify the existing development in the vicinity of SHR 02002. As identified, the area comprises existing large lot residential development to the north east on the northen side of Picton Sales Yard Road / Hynes Street, approximately 100m from the eastern most site curtilage. An undeveloped large lot residential subdivision of ten lots immediately adjoins the heritage curtilage on the northern side of Picton Sales Yard Road. The proposed development will result in the

[3] NSW Government Gazette No 67 of 29 June 2018, 4716, (n2018-2271)
[4] https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5063675
[5] https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5063675
[6] https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5063675

creatin of an fourteen medium sized residential lots located approximately 128m from the eastern most curtilage boundary (Figure 12).

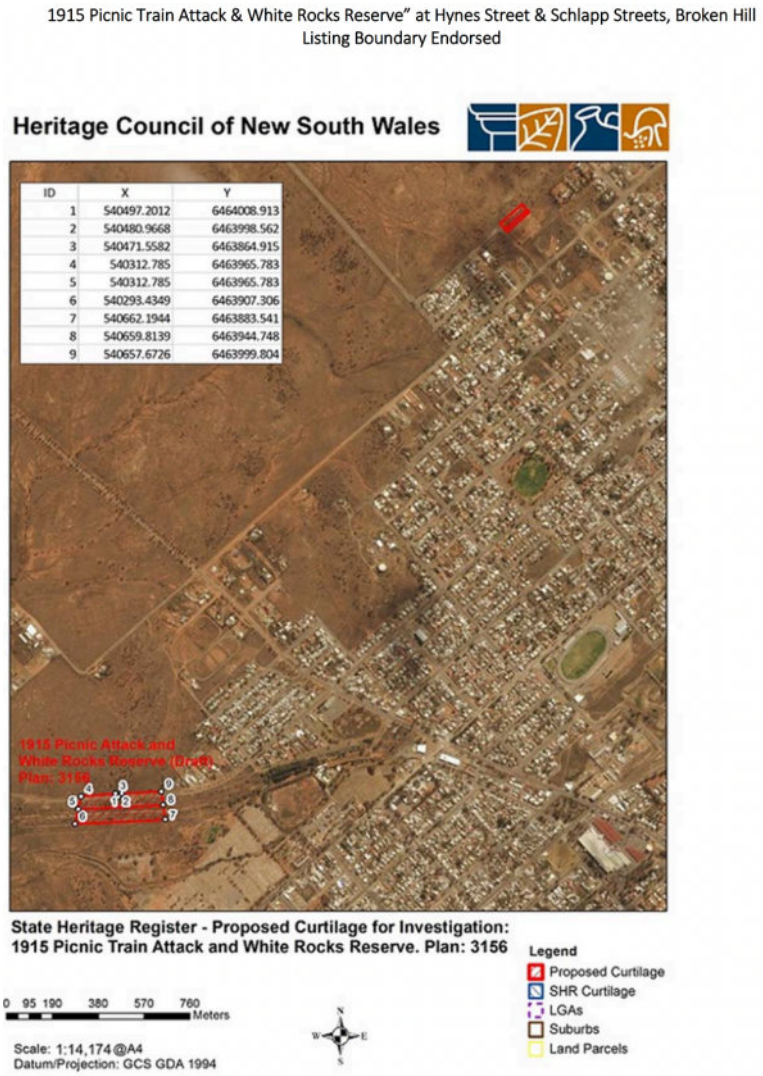


Figure 4: SHR 02002 curtilage investigation area[7]

[7] Meeting minutes – 455, 6 September 2017, Heritage Council NSW

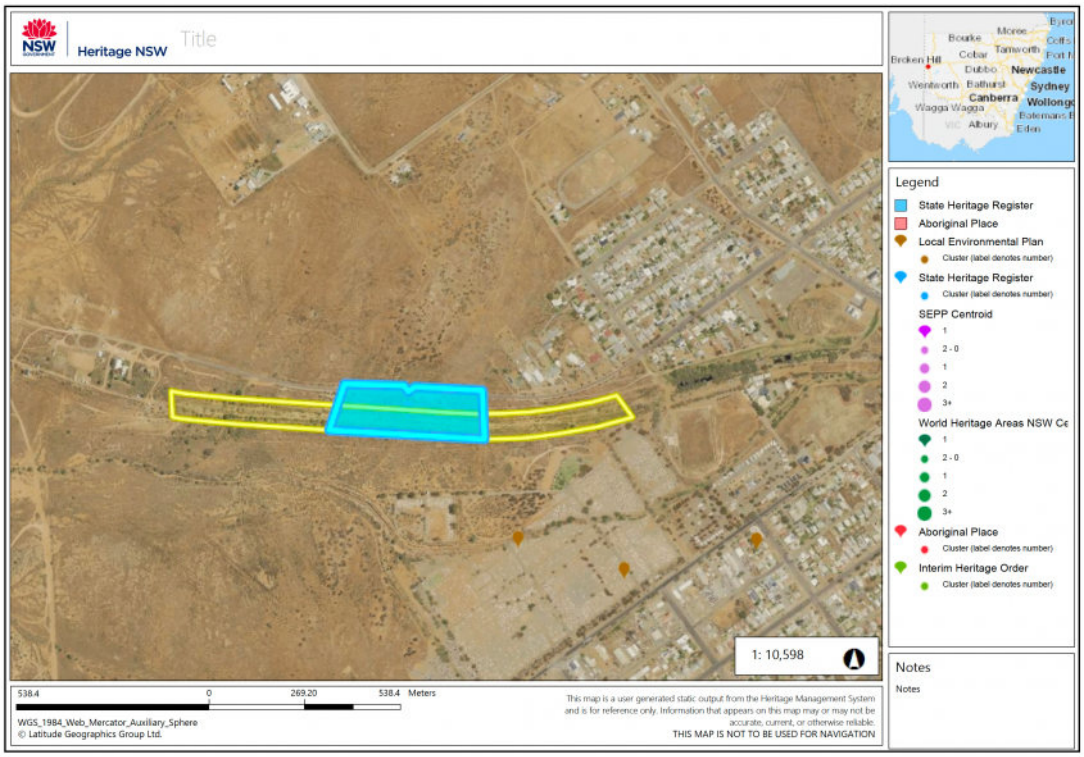


Figure 5: SHR 02002 curtilage per NSW State Heritage Inventory mapping[8]

8 https://www.hms.heritage.nsw.gov.au/App/Item/SearchHeritageItems?_ga=2.165972984.714120821.1658117920-344545924.1656901875

Government Notices

GOVERNMENT NOTICES
Planning and Environment Notices

HERITAGE ACT 1977

DIRECTION PURSUANT TO SECTION 32(1)
TO LIST AN ITEM ON THE STATE HERITAGE REGISTER

1915 Picnic Train Attack and White Rocks Reserve
Hynes Street and Schlapp Street Broken Hill, NSW

SHR No 02002

In pursuance of section 32(1) of the *Heritage Act 1977*, I, the Minister for Heritage, having considered the recommendation of the Heritage Council of New South Wales and the other matters set out at s32(1), direct the Heritage Council to list the item of environmental heritage specified in Schedule "A" on the State Heritage Register. This listing shall apply to the curtilage or site of the item, being the land described in Schedule "B".

The Hon Gabrielle Upton MP
Minister for Heritage

Sydney, 26 Day of June 2018

SCHEDULE "A"

The item known as the 1915 Picnic Train Attack and White Rocks Reserve, situated on the land described in Schedule "B".

SCHEDULE "B"

All those pieces or parcels of land known as Lot 12 DP 1174503, Lot 7375 DP 1182666, Lot 1 DP 820445, Lot 2 DP 820445 in Parish of Picton, County of Yancowinna shown on the plan catalogued HC 3156 in the office of the Heritage Council of New South Wales.

[n2018-2271]

Figure 6: NSW Government Gazette No 67 of 29 June 2018, 4716, (n2018-2271)

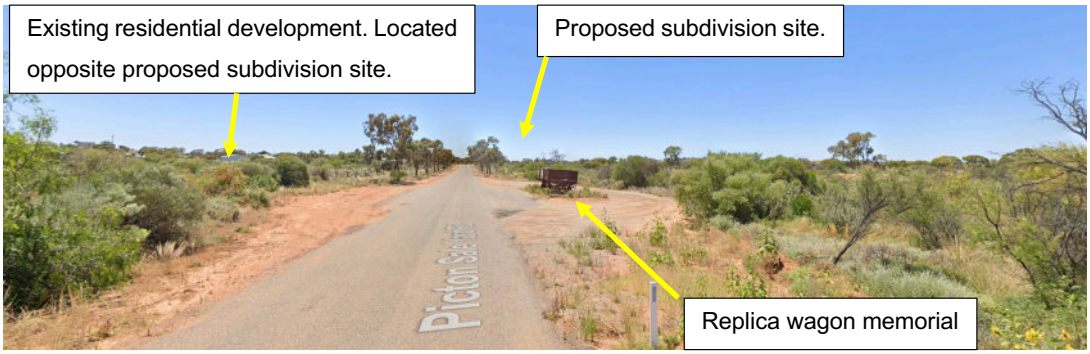


Figure 7: Picton Sales Yard Road looking east[9]

[9] Google maps

Figure 8: Picton Sales Yard Road looking east[10]

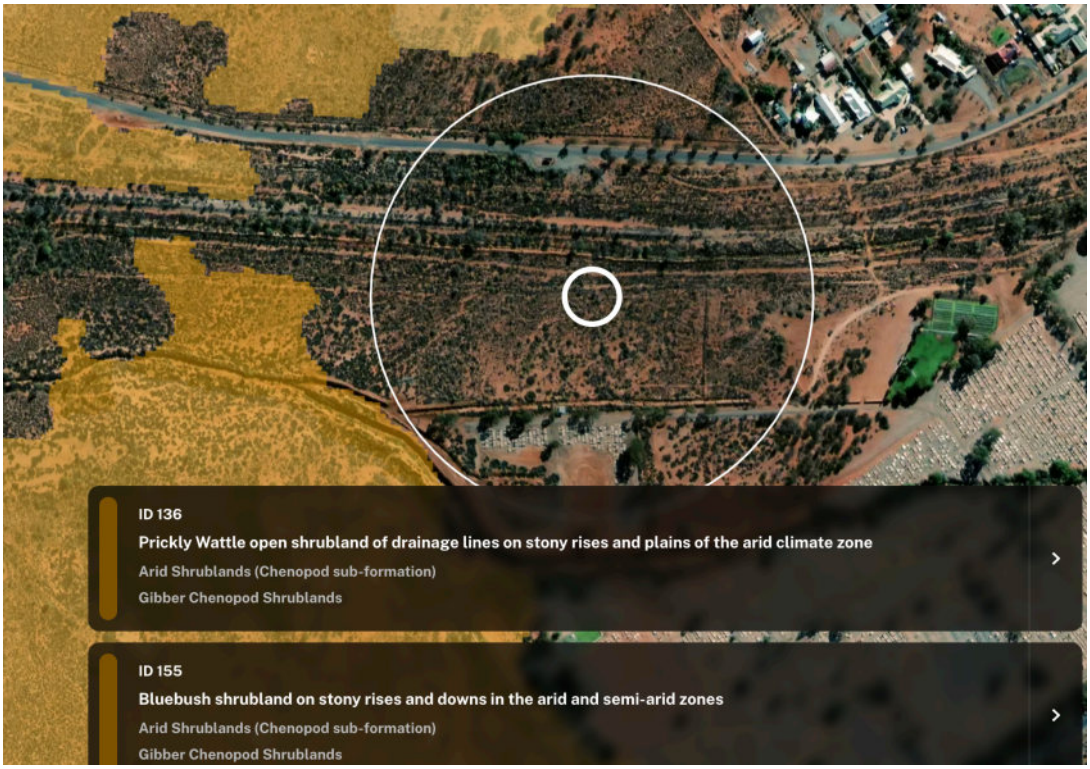


Figure 9: Vegetation category of site[11]

[10] Google maps
[11] https://treesnearme.app/explore

Figure 10: SHR 02002, 1915 Picnic Train Wagon replica memorial (left, original; right, current)

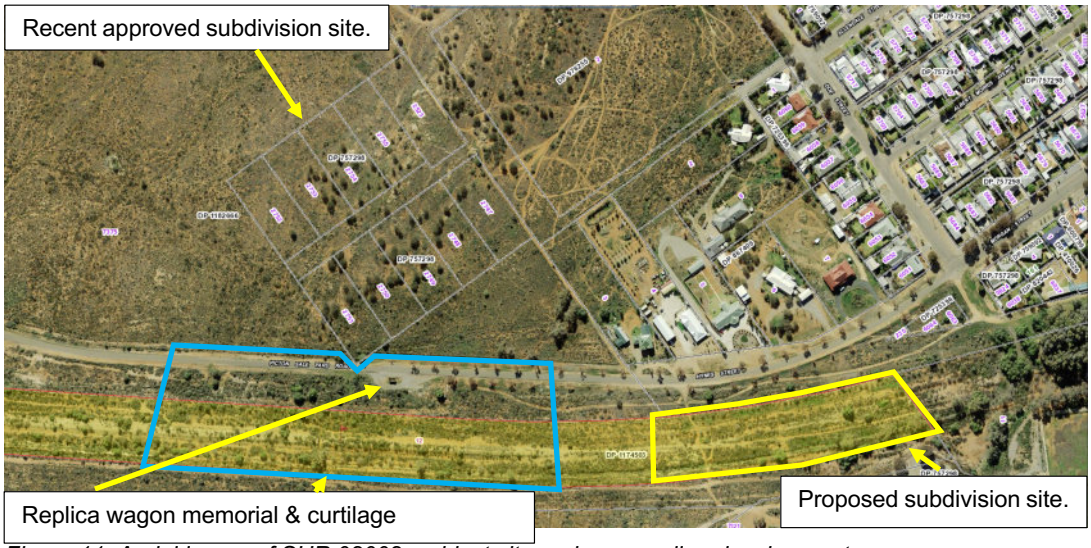


Figure 11: Aerial image of SHR 02002, subject site and surrounding development

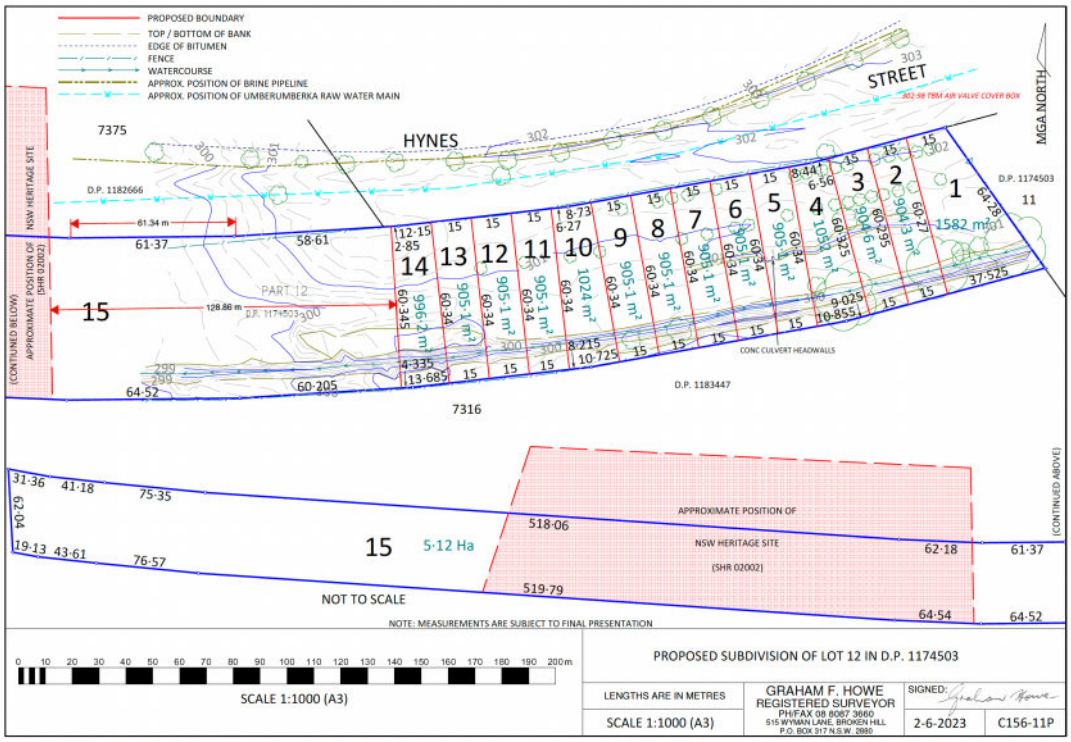


Figure 12: Site survey plan and proposed plan of subdivision[12]

2.1.1.1.2 Local heritage item, I40, Cemetery

Local heritage item I40, cemetery, is located to the south of the site. The cemetery is separated from the site by a vacant Lot 7136 DP 1183447. The cemetery is accessed via Rakow Street. The proposed development does not pose any impact to the site of the local heritage item with site access and utility services proposed on the northern boundary of 1 Hynes Street, within the Hynes Street Road corridor. The heritage item is currently adjoined by residential development in closer proximity than that resulting by the proposed development. It is not considered any impact to the heritage item will result from the proposed development. No recommendations for mitigation actions are suggested beyond what would ordinarily be applied for such development by the local consent authority.

Figure 13, Figure 14, and Figure 15 identify the location of local heritage item I40, cemetery and existing development in the vicinity of the proposed development site.

[12] GF Howe

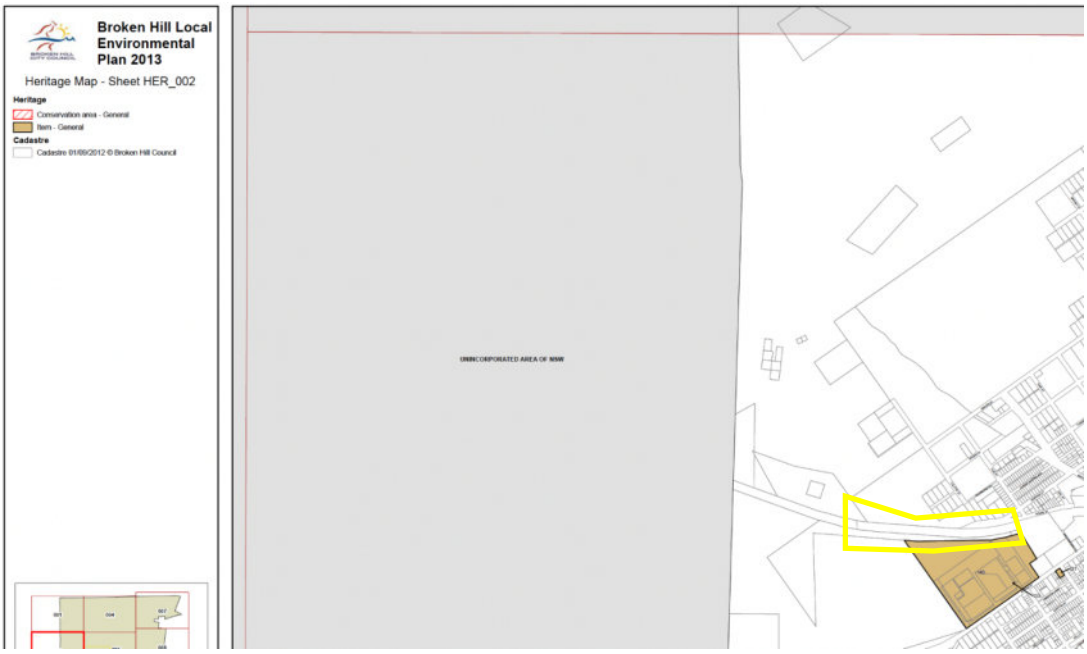


Figure 13: BHLEP 2013 Heritage Map Sheet HER_002

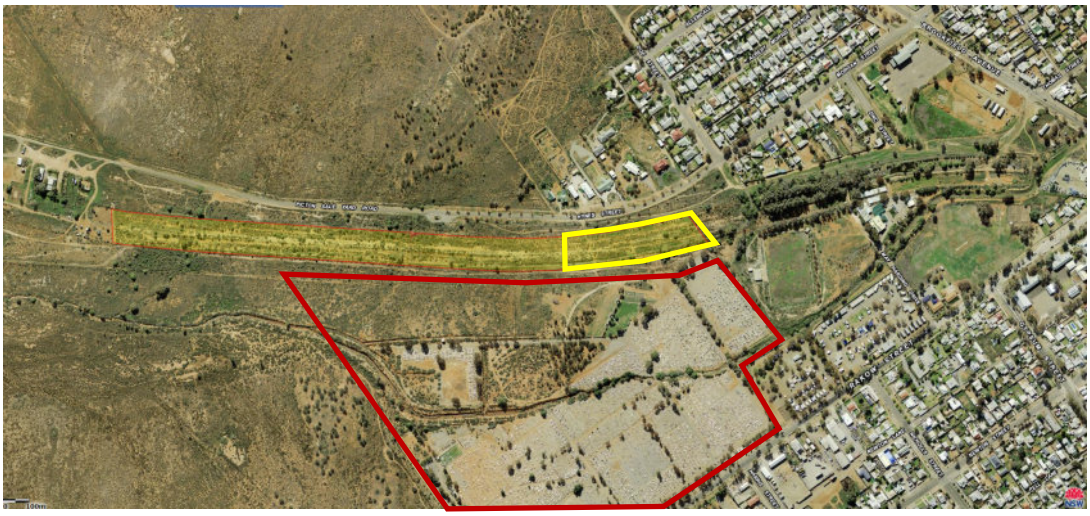


Figure 14: Overview aerial image of site in relation to local heritage item I40, cemetery[13]

[13] SixMaps NSW

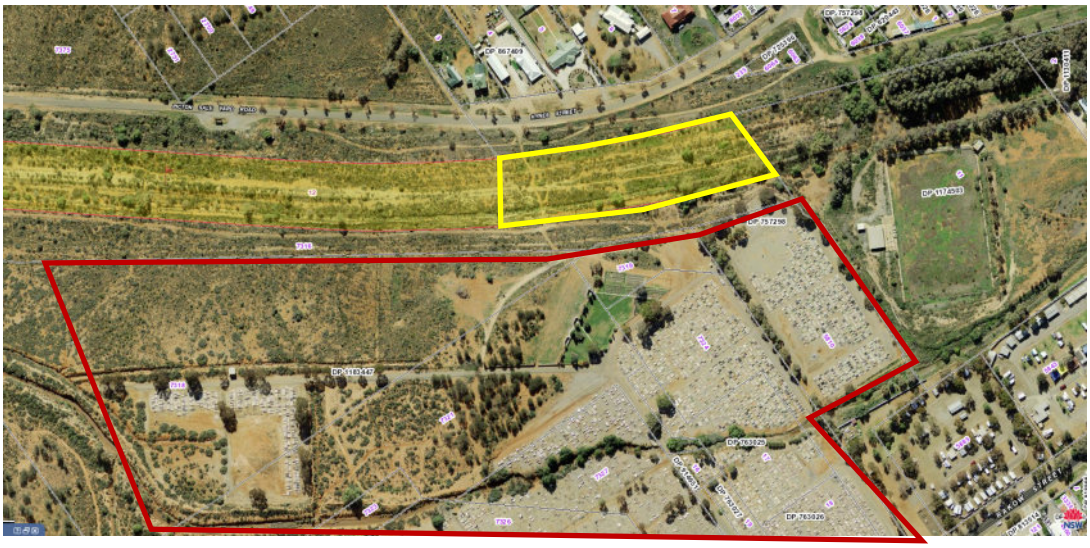


Figure 15: Close-up aerial image of site in relation to local heritage item I40, cemetery

2.1.1.1.3 Proposed works area

The extent of works within Lot 12 DP 1174503 is limited to boundaries of the lot, encompassing the eastern 210m R1 *General Residential* zoned portion of the site. The extent of works are located over 100m from the eastern most curtilage of SHR 02002 and 265m from the replica wagon memorial. Site services will be extended from the east of the site within the Hynes Street road corridor, also 265m from the replica wagon memorial.

The following images depict the proposed development works area. As demonstrated, no works are proposed within proximity to any identified and known heritage items. As such, there is not anticipated to be any direct physical impact to any of the identified and known heritage items.

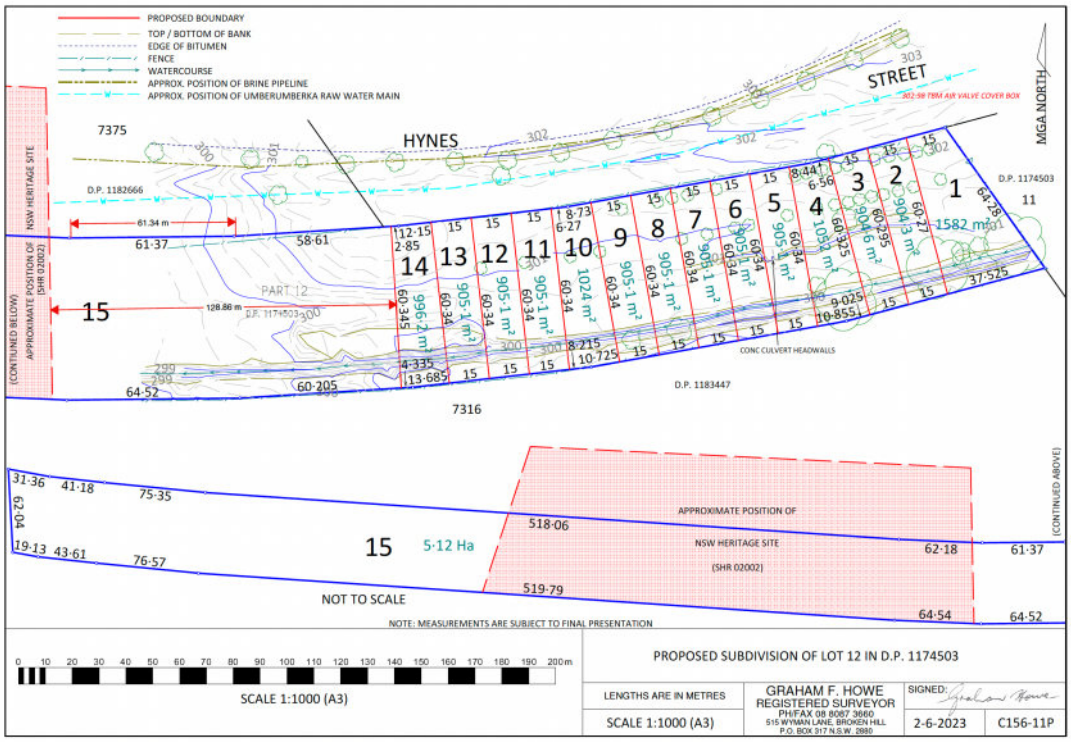
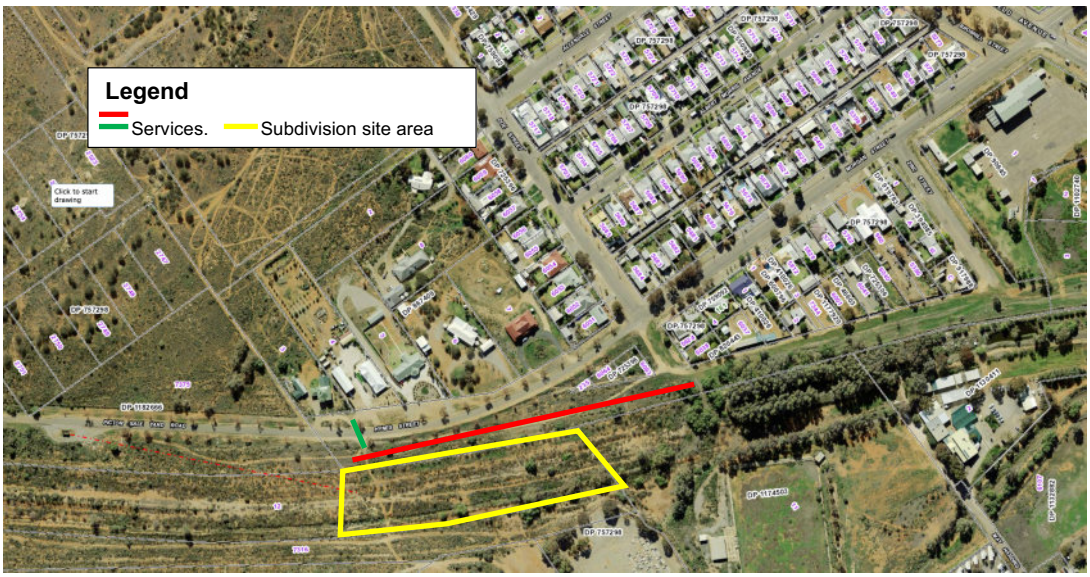


Figure 16: Site survey plan and proposed plan of subdivision[14]



[14] GF Howe

Figure 17: Location of water, sewer, electrical and telecommunication services to be extended along Hynes Street aerial image overlay

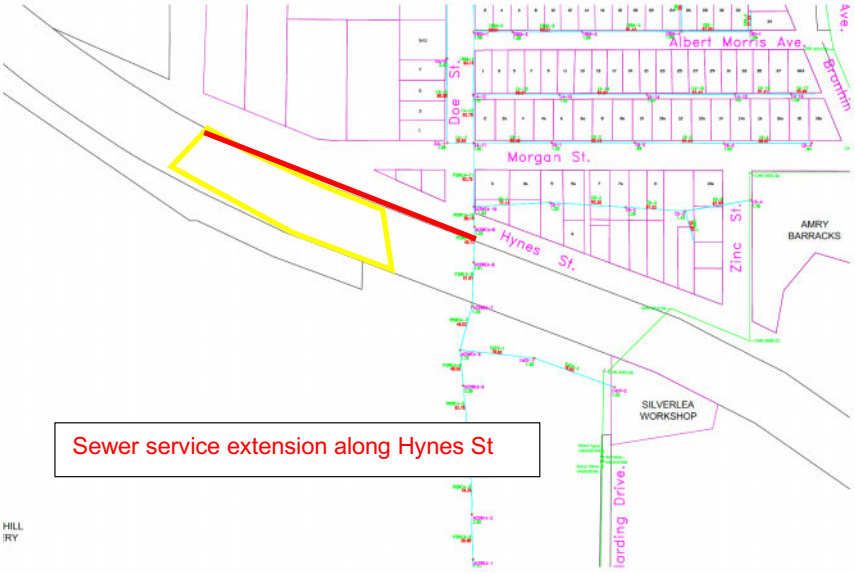


Figure 18: Location of sewer services to be extended along Hynes Street sewer service map overlay

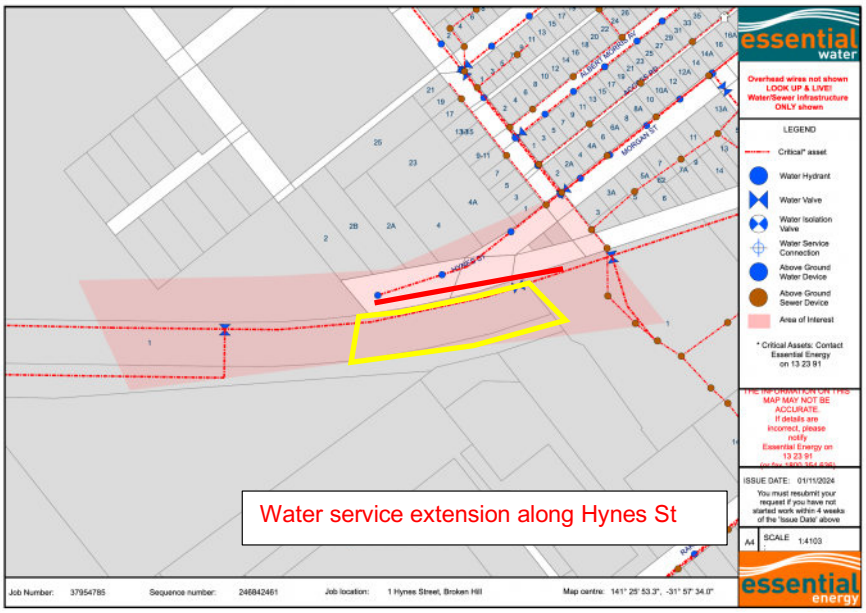


Figure 19: Location of water services to be extended along Hynes Street water service map overlay

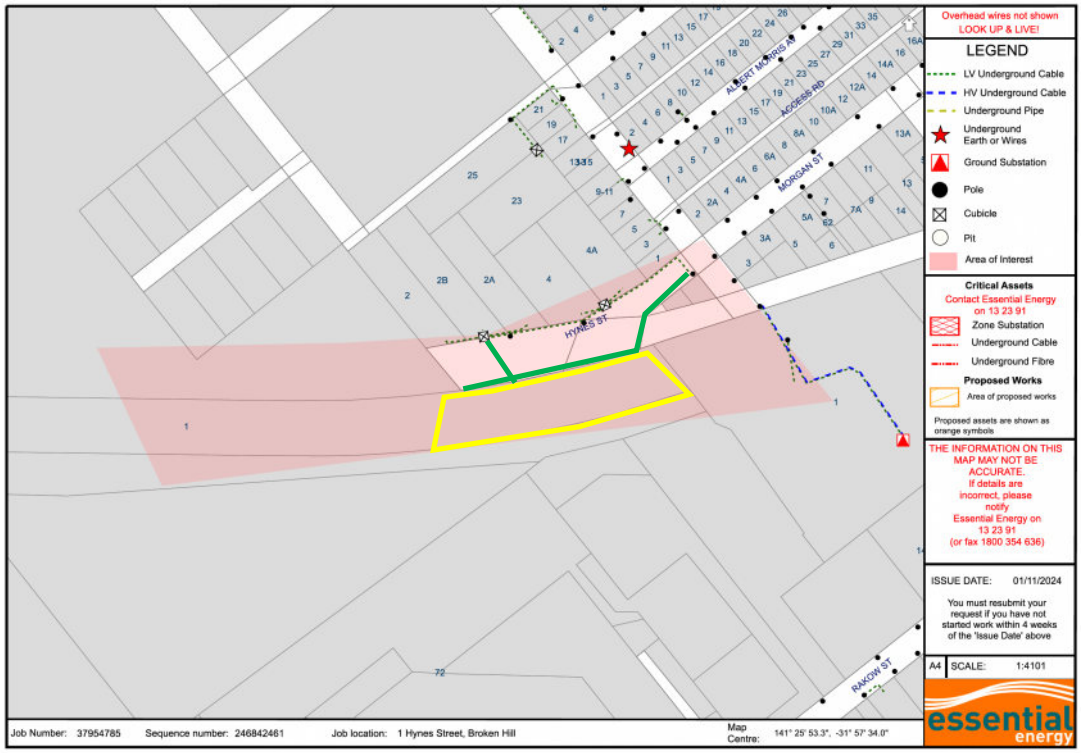


Figure 20: Location of electrical services to be extended along Hynes Street electrical service map overlay

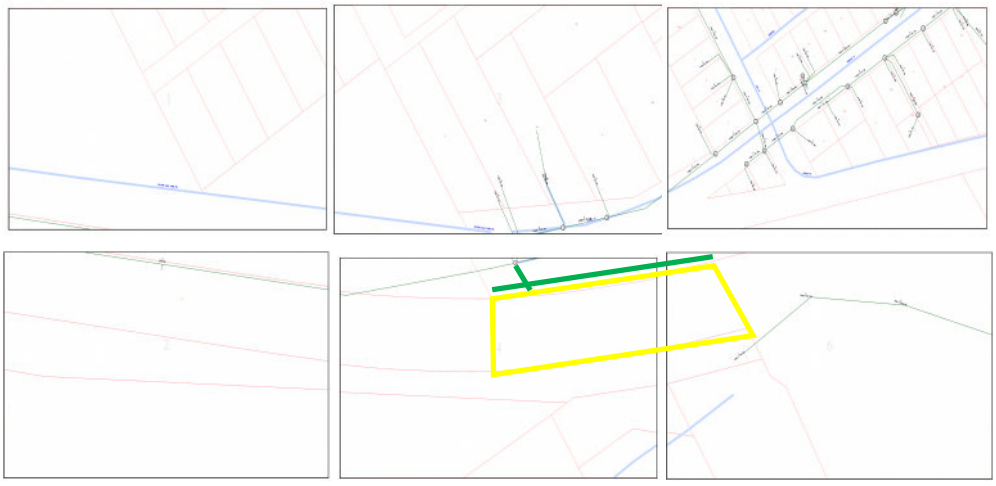


Figure 21: Location of telecommunication services to be extended along Hynes Street NBN service map overlay

2.2 Site summary history

2.2.1 Documented history

The following table summaries the key historical events of the site.

Table 2: Site history summary

Year	Event	Description
1886	Silverton Tramway Act 1886	Act to authorise the construction of the and operation or the Tramway.
1886	Silverton Tramway Act 1888	Act to clarify the alignment requirements for the Tramway.
1915	Picnic Train Attack	Picnic Train Attack, event subject to the site's NSW State Heritage listing
1971	Silverton Tramway Land Vesting Act 1971	Vesting of the land in ownership of Silverton Tramway in fee simple.
1996	Crown Land maps	Identification of the site on the Crown Land maps as applicable under the Broken Hill LEP 1996
2008	Subdivision of site	Subdivision of the site
2010	Subdivision of site	Subdivision of the site to present status
2017	NSW Heritage Council resolution to identify site of state heritage significance.	
2018	NSW Government gazette of the site on the NSW State Heritage register	

2.2.1.1 The Silverton Tramway Company

The Silverton Tramway was a 58-kilometre railway line between Cockburn on the South Australian border and Broken Hill, built for the transportation of silver ore between mines and the smelter at Port Pirie. The line itself closed in 1970, but the Silverton Tramway Company lived on, transporting Broken Hill ore using other local lines[15].

From 1888 to 1970 the Tramway was critical to the economic functioning of Broken Hill. Providing the key transport of ore to the Port Pirie smelters. It played a significant role in the politics and recreation of Broken Hill, and a crucial role at times of water shortage in Broken Hill[16][17].

[15] https://www.abc.net.au/news/2016-11-01/end-of-the-line-for-silverton-tramway-company-social-club/7981178?future=true&

[16] Lew Roberts (1995). Rails to wealth: a history of the Silverton Tramway Company Limited, Broken Hill's railway service. Melbourne: L.E. Roberts. ISBN 978-0-646-26587-2.

[17] Lew Roberts (2015), 'Rails to Wealth', Australian Railway History, Vol. 66, January 2015.

The Silverton Tramway closed on 9 January 1970 after the introduction of a standard gauge line on an alternate alignment from Broken Hill to the South Australian border by the New South Wales Government Railways (Indian-Pacific)[18]. "The company closed its narrow gauge short line business, donating assets to the community and returning its permanent way to the Crown"[19].

The following is a summary of the Silverton Tramway company history as copied directly from Wikipedia.

> *The Silverton Tramway Company was formed in 1886 by a consortium led by J. S. Reid, to build and operate the Silverton Tramway, a 58-kilometre (36 mi)-long 1067 mm (3 ft 6 in)-gauge railway running from Cockburn on the New South Wales-South Australia state border to Broken Hill; after the Government of New South Wales enacted into legislation the Silverton Tramway Act of 1886 that granted the Silverton Tramway Company the rights to build and operate a railway. It was headquartered in Melbourne, listing on the London Stock Exchange in 1897, later transferring to the Australian Stock Exchange.*
>
> *The line opened on 12 January 1888. Initially using hired South Australian Railways Y class locomotives, until it received its own locomotives. By the end of 1888, it had concluded a deal for the South Australian Railways to operate the main line services with Silverton servicing the various mines and sidings in Broken Hill. On 1 July 1893, Silverton resumed operating mainline services.[1]*
>
> *In August 1899, the New South Wales Government Railways (NSWGR) purchased the Tarrawingee Tramway. As it was isolated and to a different gauge from the rest of its operations, the NSWGR contracted Silverton to operate services until the line closed in 1931.[1]*
>
> *Following a new 1435 mm (4 ft 8+½ in) standard gauge line being opened in February 1970 by the Federal Government, the line was made redundant and the company concentrated on operating shunting and track maintenance services to the mines industry in and around Broken Hill with its remaining two diesel locomotives.[2][3][4] Under the 1886 Act, the Government of New South Wales had an option to buy out the company for 21 times the annual divisible profits of the preceding seven years. Silverton calculated it was entitled to $5.8 million, but through legislation this was removed, the company having to settle for a $2 million payment.[5]*
>
> *In 1969, the Dillingham Corporation of Honolulu bought a 33% shareholding, later increasing to 50%. In 1972, it was then taken over by T & G Mutual Life Assurance Society and delisted. It was included in the 1983 purchase of T & G Mutual by National Mutual, and in 1986 was sold in a management buyout to Graham Clements.[4]*

[18] 1915 Picnic Train Attack and White Rocks Reserve". New South Wales State Heritage Register. Department of Planning & Environment. H02002.
[19] "Silverton Tramway Company". Progress in Rail Reform: Submission to the Productivity Commission.

Having purchased a number of locomotives from FreightCorp and AN Tasrail, in 1995/96 Silverton Rail leased six locomotives to National Rail for use on Adelaide to Melbourne services as bankers to Tailem Bend.[6][7] With the introduction of an open access regime in New South Wales the business was rebranded as Silverton Rail, and in August 1999 began operating iron ore services from Cobar to Narromine as a subcontractor to National Rail and relocated the majority of its fleet to Parkes Roundhouse.[8][9] In August 1999, it also began operating trip workings in Sydney.[10] In August 2000, Silverton began operating grain services from Nyngan to Sydney.[11]

During the early 2000s a new depot was established in Newcastle at the Broadmeadow Yard rail facilities. This small crew provided train crewing and logistics for the Southland (Pelton) Coal Mine near Cessnock to Pacific National until its 2003 closure due to underground fires. Other services from the Broadmeadow Depot included the daily containerised freight service from Tolls Carrington to Port Botany and return, as well as crewing both ends of the Wee Waa to Port Botany export cotton trains. Crewing services were also provided to Interail and Pacific National Rural & Bulk, Pacific National Coal and Railcorp for AK Track Recording Cars, maintenance and emergency recovery trains.

In February 2006, Silverton Rail was sold to Western Australian-based South Spur Rail Services.[12] The locomotives and rolling stock were sold to the Allco Finance Group and leased back.[13] Silverton Rail was rebranded as Southern & Silverton Railway.[14] In March 2007, South Spur Rail Services was purchased by Coote Industrial.[15] Following Allco Finance running into financial trouble, Coote Industrial was able to buy much of the former Silverton rolling stock in January 2008 through controlled subsidiary Greentrains.[16] In June 2010 South Spur Rail Services was sold to P&O Trans Australia.[17][18]

In April 2011, Qube Logistics acquired outright control and majority ownership of P&O Trans Australia and Southern & Silverton Rail was rebranded.[19][20] Qube Logistics purchased New South Wales freight operator Independent Transport Group in June 2012.[21]

2.2.1.2 1915 Picnic Train attack

The 1915 Picnic Train Attack is the catalytic event to the site's heritage listing. Details of the event are well documented in literature. The following is account of the event copied directly form Monument Australia.

On 1st January, 1915, members of the Combined Manchester Unity Lodges of Broken Hill and their families were waiting on the Sulphide Street Railway Station to board the picnic train to take them on their annual picnic to Silverton, fourteen miles to the south west. Some of the travellers saw the familiar sight of Gool Mohamed and his ice-cream cart drive by the Station. They wondered among themselves as to why he was flying the Turkish Flag and noticed he was accompanied by his friend, Mullah Abdullah.

At about 10.00am, the long picnic train made up of open ore trucks and packed with picnickers left the Station en route to Silverton. Soon after the train left the outskirts of the town some of the travellers again spied the ice-cream cart standing empty near the railway fence, Turkish Flag fluttering in the slight breeze.

Suddenly shots rang out from behind a mound of earth where the "Turks" were crouching. 18 year-old Alma Cowie died instantly and also William Shaw, a City Council Foreman. Alf Millard, who was riding a bicycle inspecting the water pipeline from Umberumberka reservoir was also shot dead. Two men, Shaw Hendry and Paddy Low bravely rushed to a nearby residence and raised the alarm. The train, which had momentarily pulled up, moved on to the Silverton Tramway's dam so that the victims could be taken to the pumping station.

A number of policemen were soon on the scene and set out after the "Turks" who had taken off into the low hills on the western outskirts of the city. On Rocky Hill old Tom Campbell saw the villains approaching with rifles and slammed the door of his one-room cottage. They shot through the door and he was wounded in the side.

The "Turks" then made their way to a white quartz outcrop and made their last stand. They were completely overwhelmed by the militia men and police and hundreds of rounds of ammunition was poured into the enemy position. A stray Turkish bullet killed Jim Craig who was chopping wood in his nearby backyard.

At one o'clock it was found that Mullah Abdullah was dead and Gool Mahomed died later in hospital. The former was found to have enlistment papers for the Turkish Army and Gool Mohamed had been worried by a fine for killing a sheep on private property. On one hand there was a fiery young man itching to strike a blow for Turkey and on the other a simple friendless old man ready to join forces against authority.

Altogether, four persons were killed and seven wounded - the only enemy attack on Australian soil in World War One[20]*.*

The event was published in news articles, titled ‘war in Broken Hill[21] and is also refered to as ;the Battle of Broken Hill. *The ‘battle’ that took place on New Year’s Day 1915 in Broken Hill, New*

[20] https://monumentaustralia.org.au/themes/conflict/ww1/display/119020-centenary-of-the-picnic-train-attack
[21] https://trove.nla.gov.au/newspaper/article/45309452

South Wales, Australia was unexpected and the first (and possibly only) incident of the First World War involving Australian civilians[22]*.*

2.2.1.3 Post 1915 Picnic Train Attack and NSW State Heritage Register listing

It is understood that post the Picnic Train Attack event the rail line continued in its operation. With the site subject to ongoing use and various subdivision and ownership over time. It was not until 2017 that the site was nominated by the NSW Heritage Council for listing on the NSW State Heritage Register, prior to the site being gazzetted as a State Heritage site in 2018. As noted in the relevant Heritage Council meeting minutes and Heritage Register listing, the site was subject to substantial modification prior to its heritage listing period with physical changes to the site including the removal of rail infrastructure, some of which was used to create the memorial picnic train wagon located adjacent the former rail line alignment.

The heritage listing of the site includes two sites significant to the event. The Picnic Train Attack site SHR 02002 located at Hynes Street Broken Hill and also White Rocks Reserve, which is also listed as a local heritage item under the BHLEP 2013, located at Schlapp Street Broken Hill. The Hynes Street site is significant to the Picnic Train Attack being the site where the civilians were ambushed and murdered while the While Rocks Reserve site is significant being the site where the man hunt and deadly gun battle for the perpetrators occured.

2.2.2 Historical ownership changes

The following images contains the historical search results identifying the historical ownership changes of the site as recorded on NSW Land Registry Services approved Information Broker, Fynd. Associated subdivision and deposited plans are contained in the ensuing section.

The land appears to have been owned by the NSW State Government/agencies until 1971 where it was vested in the Silverton Tramway Company in fee simple before being subdivided and sold in 2008 and 2012 to its current state.

[22] https://www.westernfrontassociation.com/world-war-i-articles/new-year-s-day-1915-the-unknown-battle-of-broken-hill/

Historical Search Fynd

NEW SOUTH WALES LAND REGISTRY SERVICES – HISTORICAL SEARCH

SEARCH DATE
2/12/2024 2:58PM

FOLIO: 12/1174503

First Title(s): OLD SYSTEM
Prior Title(s): 1/1130411

Recorded Number Type of Instrument C.T. Issue
5/7/2012 DP1174503 DEPOSITED PLAN FOLIO CREATED
EDITION 1

*** END OF SEARCH ***

brendan@regionalplan.com.au PRINTED ON 2/12/2024

ORDER: ORD-241209265 DATE: 02/12/2024 TITLE: 12/1174503 ADDRESS: 1 HYNES ST, BROKEN HILL 2880

Fynd hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act 1900. Information contained in this document is provided by Infocert, 73 642 504 238, https://fynd.info an approved NSW Land Registry Services Information Broker.

2.2.3 Previous physical changes and subdivision history

The following table and images summarise the history of subdivision of the site.

Year	Subdivision type	Reference
1886	Silverton Tramway Act 1886	
1971	Vesting of land to Silverton Tramway as the Silverton Tramway Land Vesting Act 1972.	DP 241856, sheets 1-4, registered 29.11.1971 & Silverton Tramway Land Vesting Act 1972.
1996	Identification of site on Crown Land Map. Parish of Picton, County of Yancowinna, land district of Willyama, Western Division NSW, Broken Hill LEP 1996, WL93A55	Crown Land map
2008	Plan of subdivision of Lot 4 DP 1034212, Lot 31 DP 579115, Lot 5902 DP 241856, Lot 5905 DP 757298, & Lot 5949 DP 44244.	DP1130411
2010 (current)	Plan of subdivision of Lot 1 DP 1130411.	DP1174503

2.2.3.1 Silverton Tramway Act 1886

The Silverton Tramway Act 1886 authorised the construction and maintenance of a Tramway from the terminus on the western boundary of the Colony of New South Wales of the South Australian Railway to Broken Hill and was gazette on the 14 October, 1886.

2.2.3.2 1971 Silverton Tramway Vesting Act 1972 Crown Land acquisition deposited plan 241856

The earliest record that can be located regarding the vesting of the land into private ownership is the deposited plans associated with the The Silverton Tramway Land Vesting Act 1972, which vested certain land including the proposed development site to the Silverton Tramway Corporation in fee simple, as outlined in the following clauses of the Act and supporting acquisition and deposited plans.

> ***4 Vesting of lands in Silverton Tramway Company Limited***
>
> *(1) Subject to subsection two of this section, the scheduled lands are hereby vested in the Company for an estate in fee simple.*
>
> *(2) The vesting effected by subsection one of this section:*
>
> *(a) does not extend to any land below a depth of fifty feet from the surface of the scheduled lands or to any minerals in the scheduled lands,*
>
> *(b) is subject to a reservation of:*
>
> *(i) all such parts and so much of the scheduled lands as may, at any time after the commencement of this Act, be required for public ways in, over and through those lands to be set out by the Governor for the time being of the State of New South Wales or some person by him authorised in that respect with full power to any persons authorised in that behalf to make and conduct any such public ways, and*
>
> *(ii) the right of full and free ingress, egress, and regress into, out of and upon the scheduled lands for the purposes of making and conducting any such public ways,*

> ***6 Issue of certificate of title***
>
> *(1) Upon application in writing by the Company and upon payment of the fee therefor prescribed under the Real Property Act 1900, the Registrar-General shall issue to the Company certificates of title under the Real Property Act 1900 for the lands vested in the Company by section four of this Act without investigating the title thereto except so far as may be necessary to give effect to this Act and shall record on the certificates of title for such of those lands as are burdened thereby the easements created by section five of this Act, and the easement for pipe-lines fifteen feet wide appropriated and resumed in the Gazette of 16 July 1948 over the parts of lot 5897 in Deposited Plan 241855 as shown within that lot on that plan and the easement for water supply pipeline twenty feet wide appropriated and resumed in the Gazette of 15 March 1963 over the part of lot 5901 in Deposited Plan 241856 as shown within that lot on that plan.*
>
> *(2) When issuing to the Company certificates of title pursuant to subsection one of this section the Registrar-General shall record thereon that the land is held subject to the provisions of subsection two of section four of this Act.*

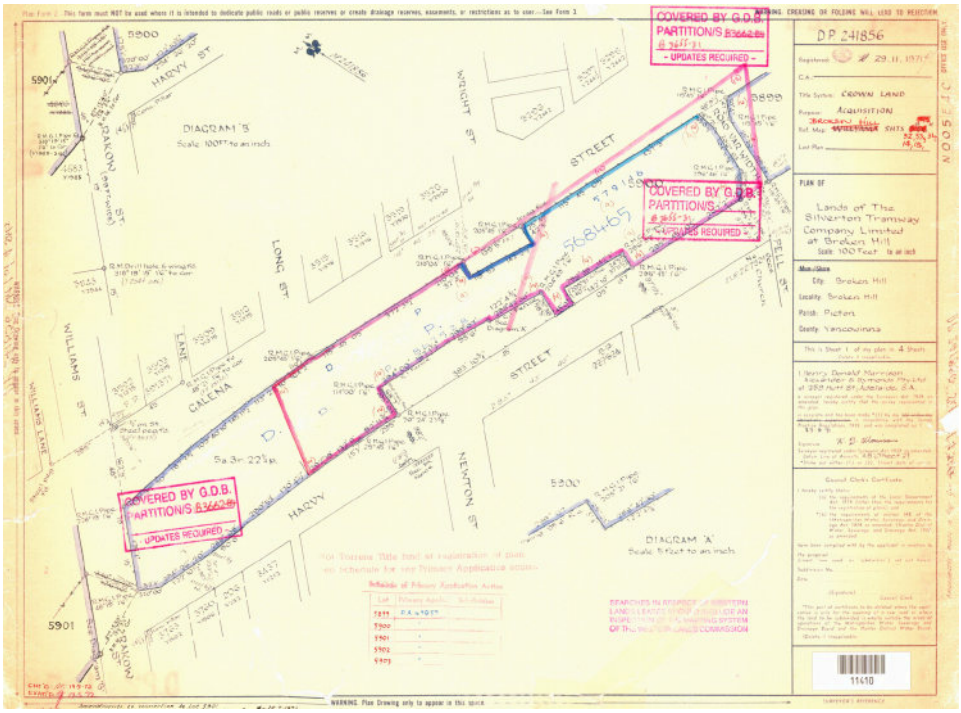
First Schedule

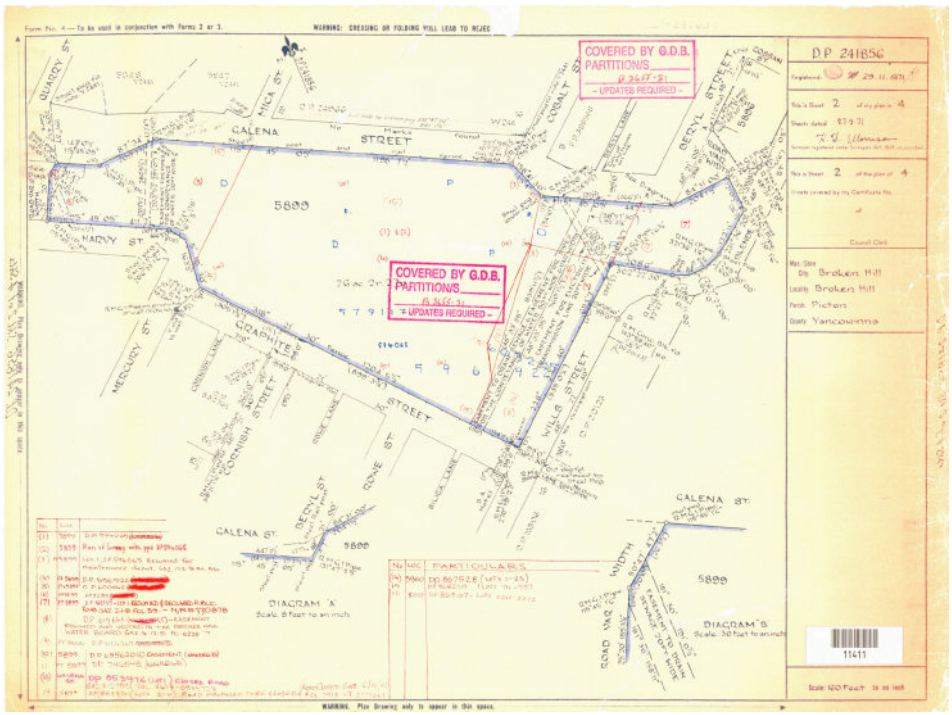
(Section 2)

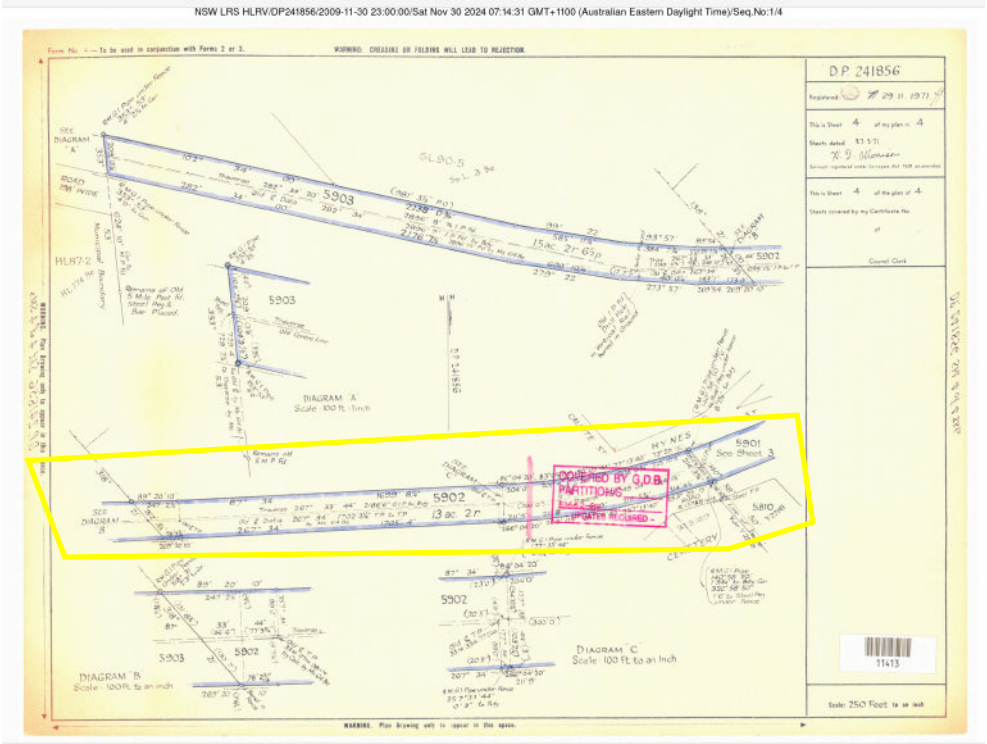
1 ALL the following pieces of land situate at Broken Hill in the City of Broken Hill Parish of Picton County of Yancowinna:

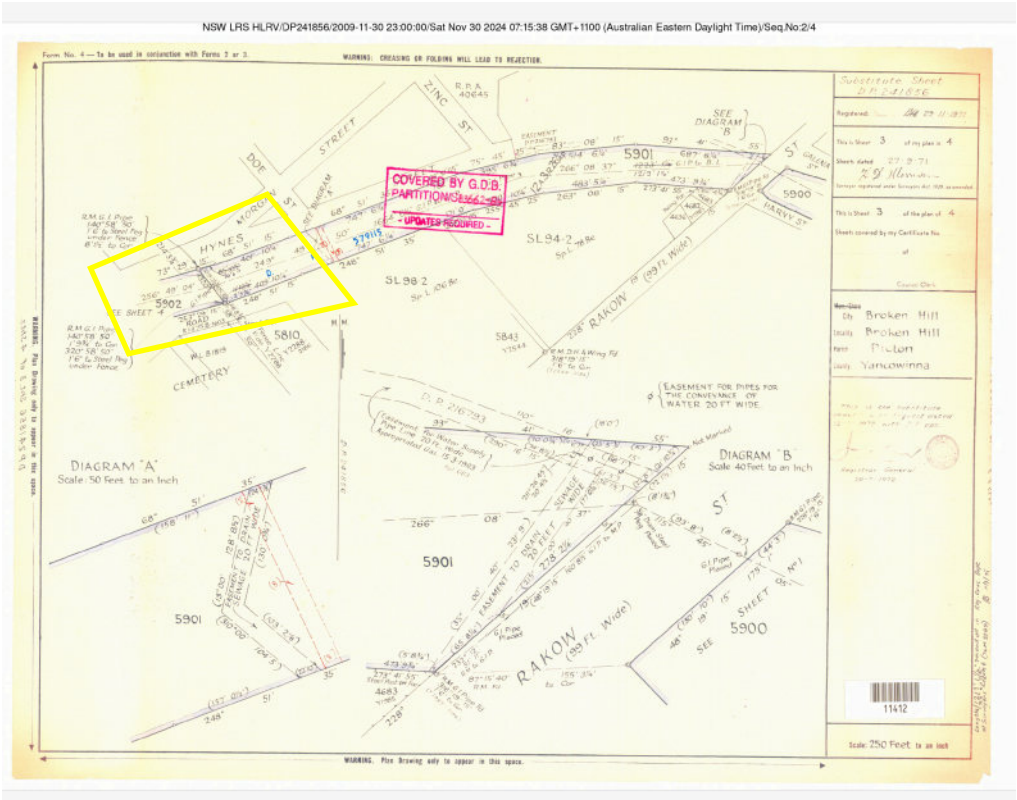
Lots 5889 to 5898, both lots inclusive, in Deposited Plan 241855 and Lots 5899 to 5903, both lots inclusive, in Deposited Plan 241856.

2 ALL THAT piece of land situate at Thackaringa in the Western Division Parish of Albert County of Yancowinna being lot 1 in Deposited Plan 551954.



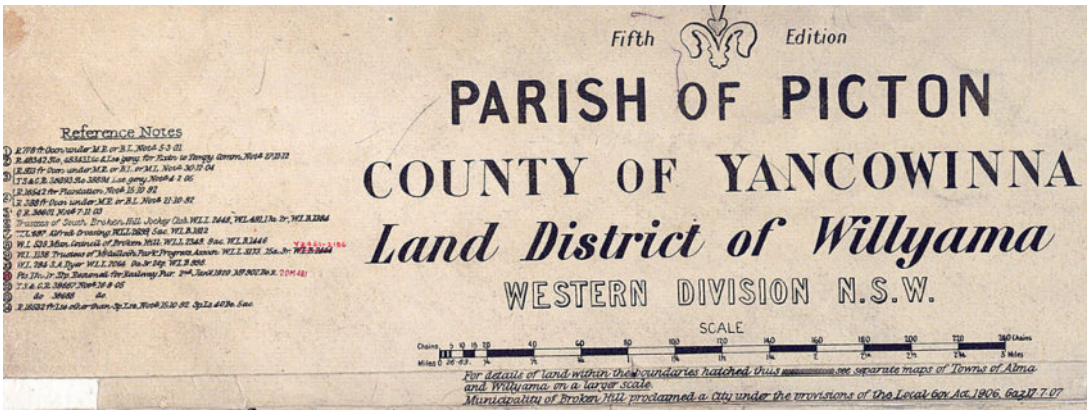

COVERED BY G.D.B. PARTITIONS
- UPDATES REQUIRED -
D.P. 241856
CALENA STREET
HARDY ST
GRAPHITE STREET
MERCURY ST
CORNISH STREET
COVE ST
WILLS STREET
DIAGRAM 'A'
DIAGRAM 'B'
5899
5900

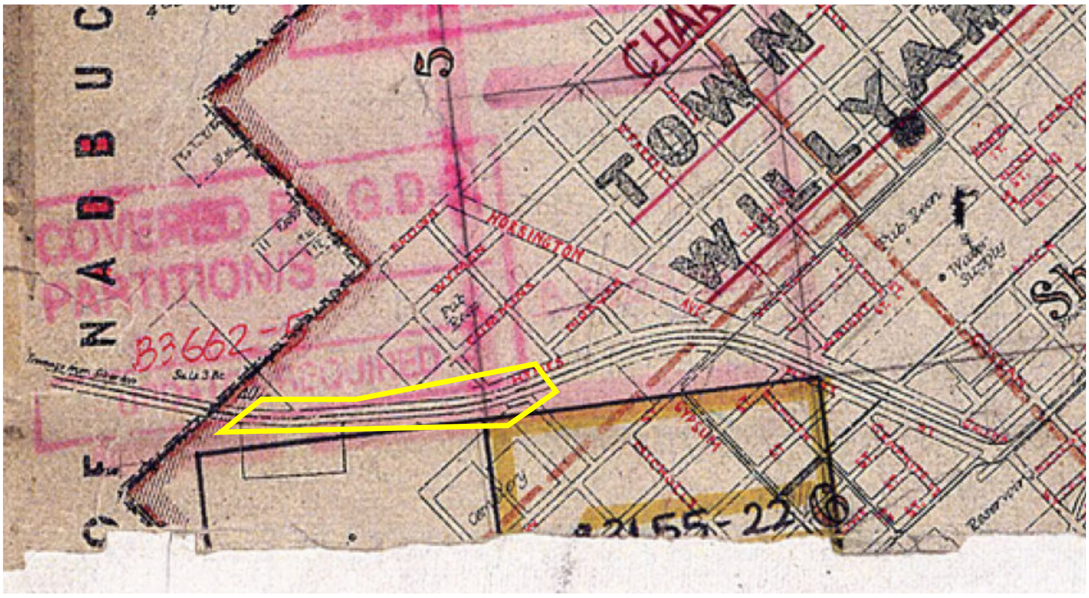

NSW LRS HLRV/DP241856/2009-11-30 23:00:00/Sat Nov 30 2024 07:14:31 GMT+1100 (Australian Eastern Daylight Time)/Seq.No:1/4
D.P. 241856
COVERED BY G.D.B. PARTITIONS
- UPDATE REQUIRED -
HYNES
5901
5902
5903
5810
DIAGRAM 'A'
DIAGRAM 'B'
DIAGRAM 'C'

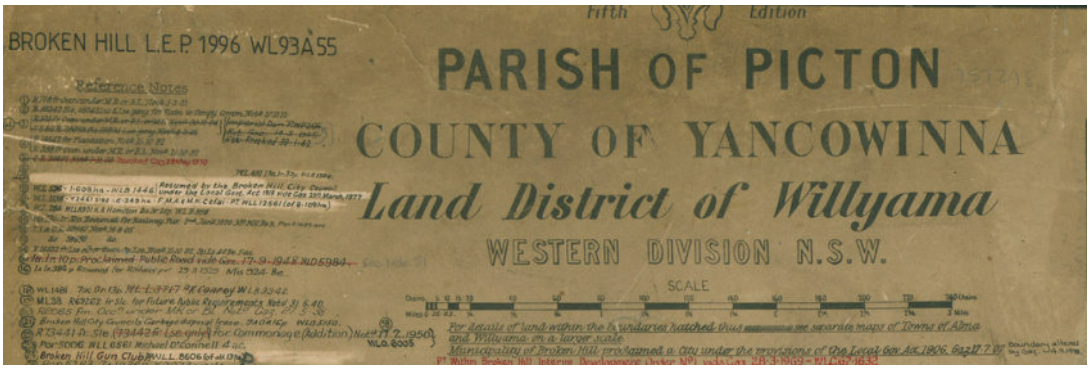


2.2.3.3 Crown Land Maps. Parish of Picton, County of Yancowinna, land district of Willyama, Western Division NSW, Broken Hill LEP 1996, WL93A55

The following maps identify the subject land location with respect to Crown Land maps for Broken Hill LEP 1996.

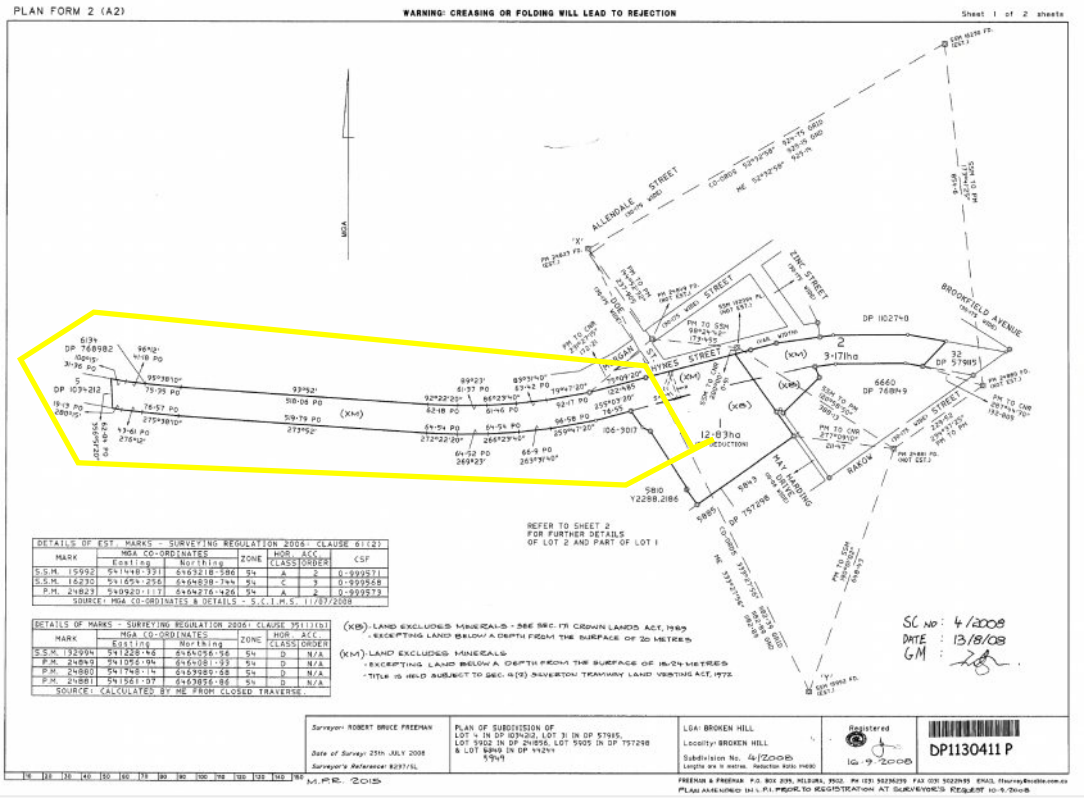



TOWN
B3662-
HORSINGTON
5



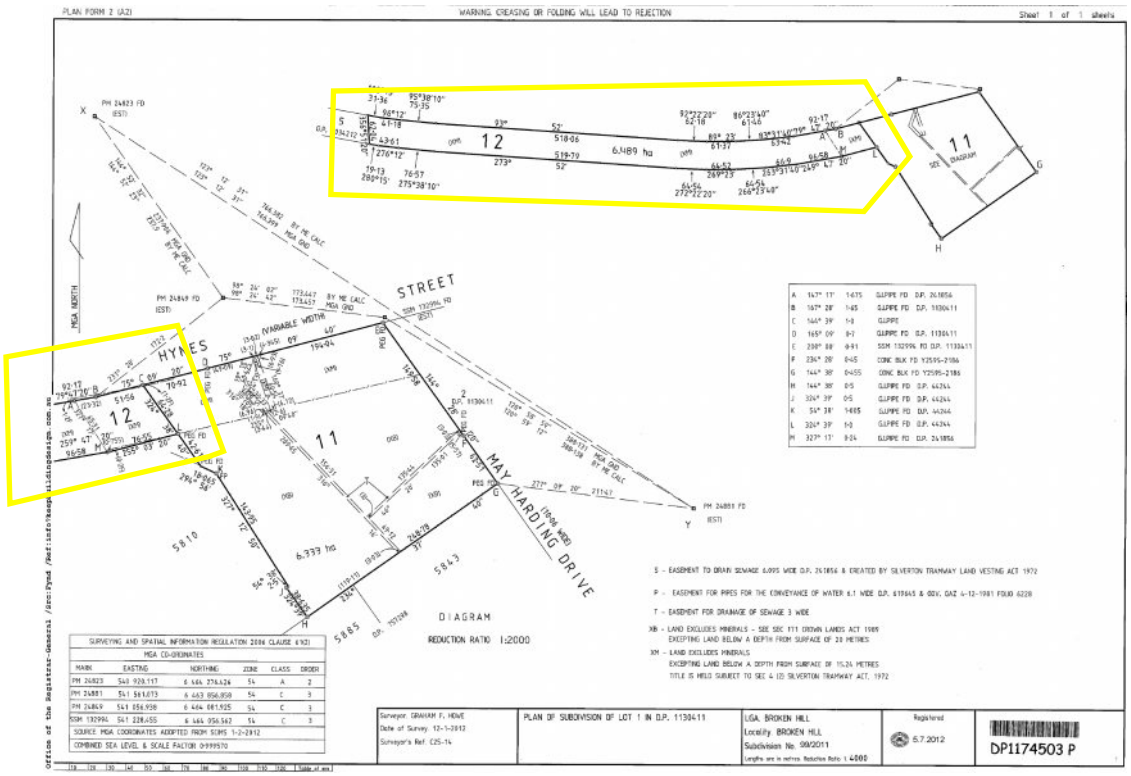
2.2.3.4 DP1130411

The following image identifies the subject land location as part of the subdivision of the site in 2008.



2.2.3.5 DP 1174503 (current)

The following image identifies the subject land location as part of the subdivision of the site in 2012 in its current state.



2.3 Physical analysis

The proposed works do not impact any of the site area that is within the curtilage of the heritage item. The proposed works are located approximately 130m east of the eastern most border of the curtilage boundary. As outlined in the NSW State Heritage register listing for the site, the site has been highly modified since the event for which it is historically listed.

The listing states: *the heritage site is marked by a memorial consisting of a replica freight wagon placed on the southern side of Picton Sales Yard Road, Broken Hill. The embankment of the Tramway Permanent Way lies about 50m north (sic) of the memorial. In between is the trench of the water pipeline from Umberumberka Reservoir.*

The Picnic Train Attack Site memorial is in good condition. The memorial is the only reminder of the event; there are no other known traces or archaeological evidence that a battle took place in this location. The railway line has long since been removed but the footprint of where the line was located is clear. A fence line across from the memorial shows one of the ways the unused railway line was salvaged. The ore wagon memorial on site displays an interpretation sign with two photos and information of the fateful day. The wooden section wagon has suffered from years of exposure to the weather, however the rest of the memorial is in good condition.

The area around the site has changed considerably since January 1915. The railway line is no longer in-situ although the railway line embankment is still visible. Silverton Tramway Company ceased operations in 1970 due to the standard gauge (4ft 8.5in) line being opened in 1969 connecting NSW to SA. After the closure of the Silverton Tramway Company most of the narrow gauge railway line (3ft 6in) was removed and recycled for fencing posts and rails, this includes the section of line where the attack took place. A fence now blocks access to the line embankment and the trench where the two men hid is no longer visible due to vegetation. Part of the area is now a semi-rural neighbourhood with the road on the northern side of the site now sealed. (Roberts 1995).

3 Significance assessment

3.1.1 Statement of significance

The following statement and assessment of significance is reproduced directly from the NSW State Heritage Register listing for SHR item 02002 1915 Picnic Train Attack and White Rocks Reserve, which was last updated 15 August 2017. It should be noted the listing comprises two separate sites within the one listing. The proposed development does not impact the site of the White Rocks Reserve.

The picnic train attack sites are of state heritage significance for their historical values as the only World War 1 incident where Australian citizens were attacked on Australian soil and under a foreign flag, resulting in the death of four people and wounding of seven, as well as the death of the two 'Afghan' cameleer perpetrators. Although a minor incident in the greater history of the war, it had a significant effect on the population of Broken Hill, and right across Australia. It became national news for many months was widely reported on and commented on, with differing perspectives, many xenophobic and some liberal. The war effort initially focused on protecting Australia from attack by German naval ships and mining operations, however this attack, the only World War I attack on Australian soil, played out in the least expected location, the arid centre. This turned Australia's attention from looking out to sea for the enemy to looking within established communities across the nation. The Picnic Train attack had repercussions throughout Australia for people seen as enemy aliens and resulted in many of them being interned for the war period.

The sites state heritage significance are enhanced through association with the so-called Afghan cameleers in the arid regions of Australia, and in particular the people based at the Ghan Town on the outskirts of Broken Hill, and who worshiped at the SHR listed mosque. It is also associated with German and other migrants from countries allied with Germany, and the story of their treatment across Australia as enemy aliens during World War 1. In addition the sites' state heritage significance may be again enhanced through association with the Manchester Unity of Oddfellows, members of which were subject of the Picnic Train attack.

The Picnic Attack Sites have state heritage significance for its research potential into the chequered history of multi-culturalism in Australia as the incident and story are a powerful example of the way that a story that is told reiteratively, having its beginnings in fear and prejudice, continues to be expressed in this way.

For an item to be listed as having State heritage significance, it must meet one or more of the heritage significance criteria established under the Heritage Act. In the assessment of potential impacts arising out of the proposed development, it may be relevant to consider the heritage values of the place in terms of the individual assessment criteria.

The Criteria for listing on the State Heritage Register stipulate that an item may be considered to have State heritage significance if it meets one or more of the following criteria:

- CRITERION A – An item is important in the course, or pattern, of NSW's cultural or natural history or the cultural or natural history of the local area.
- CRITERION B – An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history or the cultural or natural history of the local area.
- CRITERION C – An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW, or the local area.
- CRITERION D – An item has strong or special association with a particular community or cultural group in NSW, or the local area, for social, cultural or spiritual reasons.
- CRITERION E – An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history, or the cultural or natural history of the local area.
- CRITERION F – An item possesses uncommon, rare or endangered aspects of cultural or natural history of NSW, or cultural or natural history of the local area.
- CRITERION G – An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments (or cultural or natural places; or cultural or natural environments of the local area).

The assessment of the heritage significance of 1915 Picnic Train Attack and White Rocks Reserve as set out in the State Heritage Register (SHR) listing report for the item as reproduced below:

- SHR criterion A – Historical significance

  The picnic train attack sites are of state heritage significance for their historical values as the site of the only World War 1 incident where Australian citizens were attacked on Australian soil and under a foreign flag, resulting in the death of four people and wounding of seven, as well as the death of the two Muslim perpetrators. Although a minor incident in the greater history of the war, it had maximum effect on the population of Broken Hill, and right across Australia. It became national news for many months was widely reported on and commented on, with differing perspectives, many xenophobic and some liberal.

  Up until this incident the War Precautions Act 1914 had not affected German or other enemy aliens in Broken Hill, or many other areas. It resulted in the burning of the German Club in Broken Hill, the expulsion of enemy alien miners and mine workers, and workers at the associated smelters at Port Pirie, and the incarceration of people in the Torrens Island internment camp, some later transferred to Holsworthy in Sydney. However innocent, people deemed enemy aliens were punished as a result of the picnic train attack.

- SHR criterion B – Historical association

The 1915 Picnic Train Attack is associated with the history the so-called Afghan cameleers in the arid regions of Australia, and in particular the people based at the Ghan Town on the outskirts of Broken Hill, and who worshiped at the SHR listed mosque. It is also associated with German and other migrants from countries allied with Germany, and the story of their treatment across Australia as enemy aliens during World War 1.

The history of cameleers in Broken Hill spans from when people first settled in Broken Hill through to today. Playing a key role in the outback transportation before the railway. Some of the cameleers remained in the area marrying local women. There are families in Broken Hill today that are descendants of the original cameleers that are still very active in preserving their culture and history in Broken Hill. The Picnic Train Attack and White Rocks Reserve sites provide evidence of the way the cameleers were treated by mainstream society. Mullah Abdullah, one of the attackers, led prayers at the Broken Hill mosque and provided halal meat. He became disaffected because he was not allowed to freely practice his religion. Gool Mahomed was subject to stone throwing and verbal abuse from non-Afghan youth, and felt his former enlistment in the Turkish army should be re-visited now Turkey was a German ally.

In addition the site state heritage significance is enhanced through association with the Manchester Unity of Oddfellows, members of which were subject of the Picnic Train attack. The history of the Manchester Unity of Oddfellows can be traced back to England 1066 and was established in Australia in 1840 in Melbourne. The fraternity existed in Broken Hill and surrounding areas from 1888 through until 1973 and with the Freemasons was related to the strong union movement in this mining town.

- SHR criterion C – Aesthetic significance
  Does not meet this criteria at the state level

- SHR criterion D – Social significance
  The Picnic Train Attack and White Rocks Reserve is of local significance for the esteem in which it is held by the local community and by visitors and makes an important contribution to local history and identity. The attack on the picnic train changed the lives of many people in Broken Hill. Families lost loved ones that died on that day and people suffered from the trauma of witnessing such an event. Citizens lived in fear for some time wondering if another attack would be take place.The German citizens and their families across Australia suffered because of their ethnicity losing their jobs, being separated from their families and becoming prisoners of war, New South Wales had the most prisoner's campsThe Muslim families living in Ghan Town also faced increased abuse and suffering. The dramatic effects of the incident are still widely remembered by the contemporary local community and has been memorialised by the council and the day is still remembered and mourned by family members connected to the victims.

- SHR criterion E – Research significance
  The picnic train attack is of state heritage significance for its research potential as a powerful example of a story that is told reiteratively, having its beginnings in fear and prejudice and continues to be expressed in this way. It remains a powerful example of the way in which such reiterative stories are picked up and perpetuated by modern media over time. The Picnic Train Attack story is as relevant today as in 1915, with modern media interpretations of the picnic train attack following the same lack of clarity, empathy and social inclusiveness. In recent times it has been emotively expressed as the first jihadist terrorist attack in Australia and compared to the Lindt cafe siege, using conflation and confusion to create fear and bias towards a particular religion. It has state significance for its research potential into the chequered history of multi-culturalism in Australia.

- SHR criterion F – Rare assessment
  The event of the train attack is the only known attack by enemy aliens to occur on Australian soil during World War One. The Ottoman flag is unique tangible evidence of the attack on the picnic train

- SHR criterion G – Representative assessment
  The picnic train attack sites and the associated story are representative of the history of xenophobia and bigotry that has been a significant issue in NSW and Australia since the settlement of Australia by Europeans, and particularly during World War I and II.

- Integrity / intactness
  The original landscape is still intact and the railway line embankment and water pipeline trench still exist

The following has also been reproduced directly from the heritage listing with respect to the site physical description, condition, modification, and current and former use.

- Physical description
  The heritage site is marked by a memorial consisting of a replica freight wagon placed on the southern side of Picton Sales Yard Road, Broken Hill. The embankment of the Tramway Permanent Way lies about 50m north (sic) of the memorial. In between is the trench of the water pipeline from Umberumberka Reservoir.

- Physical Condition and/or Archaeological Potential
  The Picnic Train Attack Site memorial is in good condition. The memorial is the only reminder of the event; there are no other known traces or archaeological evidence that a battle took place in

this location. The railway line has long since been removed but the footprint of where the line was located is clear. A fence line across from the memorial shows one of the ways the unused railway line was salvaged. The ore wagon memorial on site displays an interpretation sign with two photos and information of the fateful day. The wooden section wagon has suffered from years of exposure to the weather, however the rest of the memorial is in good condition.

- Modifications & Dates
  The area around the site has changed considerably since January 1915. The railway line is no longer in-situ although the railway line embankment is still visible. Silverton Tramway Company ceased operations in 1970 due to the standard gauge (4ft 8.5in) line being opened in 1969 connecting NSW to SA. After the closure of the Silverton Tramway Company most of the narrow gauge railway line (3ft 6in) was removed and recycled for fencing posts and rails, this includes the section of line where the attack took place. A fence now blocks access to the line embankment and the trench where the two men hid is no longer visible due to vegetation. Part of the area is now a semi-rural neighbourhood with the road on the northern side of the site now sealed. (Roberts 1995).

- Current Use
  tourism and education

- Former Use
  Silverton Tramway line

The following images identify SHR 02002 and curtilage relative the proposed development site and surrounding area.

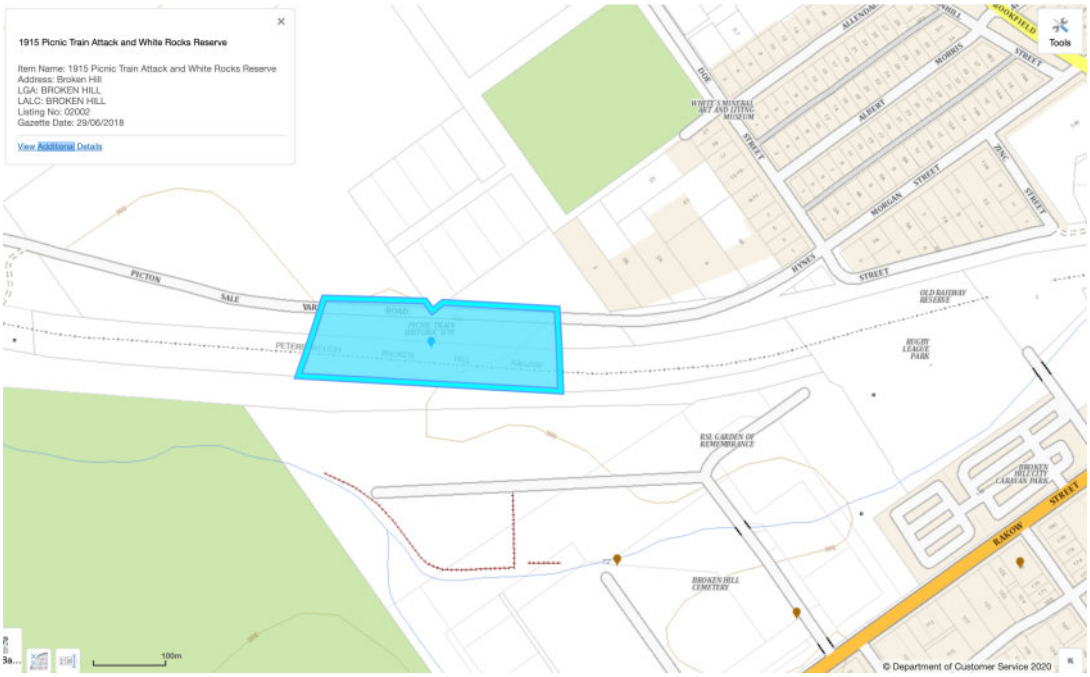


Figure 22: SHR 02002 NSW Heritage Inventory Listing – map site and curtilage – street map overlay

Figure 23: SHR 02002 NSW Heritage Inventory Listing – map site and curtilage – aerial image overlay

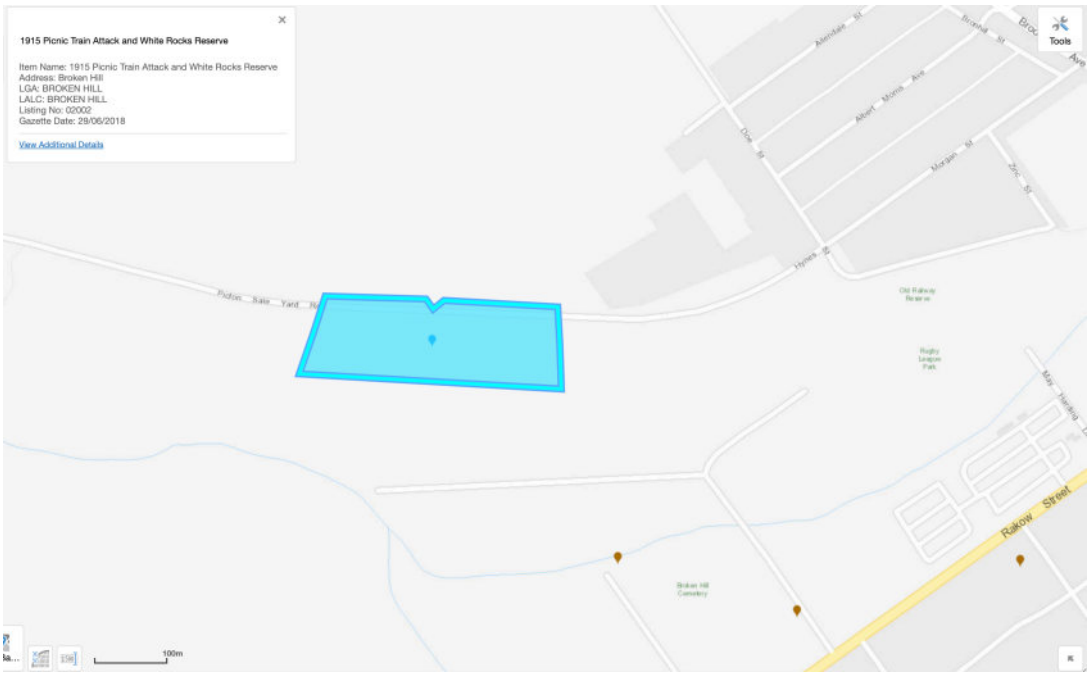


Figure 24: SHR 02002 NSW Heritage Inventory Listing – map site and curtilage – DPE map overlay with local heritage items

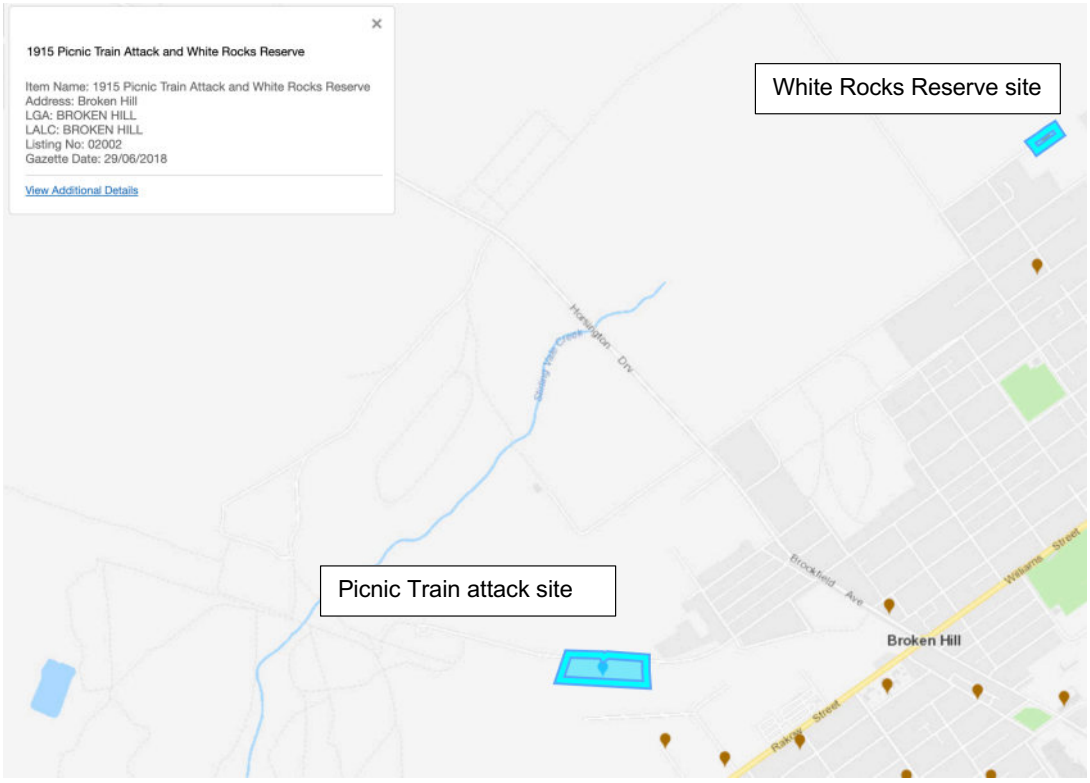


Figure 25: SHR 02002 NSW Heritage Inventory Listing – map site and curtilage depicting Picnic Train Attack site and White Rocks Reserve site – DPE map overlay with local heritage items

3.1.2 Significance of the proposed works area

The proposed works do not impact any of the site area that is within the curtilage of the heritage item. The proposed works are located approximately 130m east of the eastern most border of the curtilage boundary. The proposed works area is not considered to be of significance.

4 Proposed works

4.1 The proposal

The proposal includes the subdivision of the site from one lot into fifteen. With fourteen lots proposed to be used for future residential development and the residual, which contains the entirety of the heritage item curtilage to remain untouched by the proposal. As outlined in section 2.1.1.1.3 Proposed works area of this report, the extent of works within Lot 12 DP 1174503 is limited to boundaries of the lot, encompassing the eastern 210m R1 *General Residential* zoned portion of the site. The extent of works are located over 100m from the eastern most curtilage of SHR 02002 and 265m from the replica wagon memorial. Site services will be extended from the east of the site within the Hynes Street road corridor, also 265m from the replica wagon memorial. As depicted by the images within the same section of this report. The following image depicts the limit to the extent of works proposed. No works are proposed within 130m of the nearest heritage curtilage of SHR 02002.

For assessing the potential impacts of the proposed development. It is considered the entirety of proposed lots one to fourteen will alter from their existing undeveloped, vegetation state to containing landscaped areas and dwelling houses. The residual lot, proposed lot fifteen, will remain unaffected. No development is proposed on proposed lot fifteen.

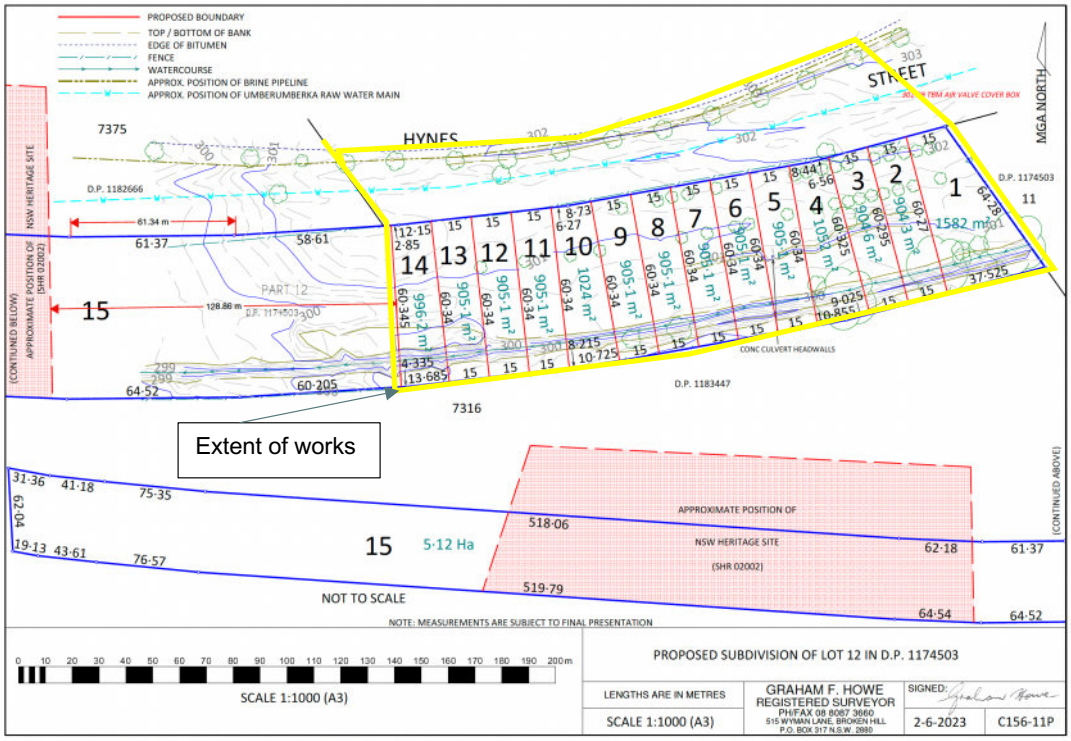


Figure 26: Site survey plan and proposed plan of subdivision

4.2 Background

4.2.1 Pre-lodgment consultation

The following table outlines the preliminary consultation undertaken with a representative of Broken Hill City Council and Heritage NSW regarding the proposed development and heritage considerations and how/where in this SOHI the matters have been addressed.

Table 3: Summary of pre-lodgment consultation

ID	Matter	Description	Response
1.	Site address/ works area	Works include Subdivision of Lot 12 DP 1174503 into 14 lots – 1 Hynes St Broken Hill.	Not applicable.
2.	Heritage item	The subject area is located within Lot 12 which includes the SHR item 02002, 1915 Picnic Train Attack and White Rocks Reserve.	Addresses throughout SOHI.
3.	Development type	The development is integrated development as it affects a lot that contains a heritage item, despite the works being located outside of the heritage curtilage of the item.	Noted.
4.	Approvals	Consent is required for the integrated development application for subdivision of Lot 12 to be provided under the Environmental Planning and Assessment Act 1979, followed by approval for the subdivision under section 60 of the Heritage Act 1977.	Approvals form part of development application and relevant requirements are considered in this SOHI and the supporting statement of environmental effects for the DA.
5.	SOHI requirement	A SOHI, prepared by a suitably qualified heritage consultant in accordance with Heritage NSW guidelines and that addresses the Heritage Council's Subdivision Policy titled Subdivision and NSW State Heritage Register items policy | NSW Environment and Heritage is required to support the development application.	Page 2 of the *Guidelines for preparing a statement of heritage impact, DPE 2023, '*recommends that a SOHI is prepared by an appropriately qualified and experienced heritage professional with expertise relevant to the heritage item'. In this instance, the use of a qualified heritage professional is not considered necessary due to the existing documented and

			substantiated history of the site. In addition to the extremely low likelihood of impact to the heritage significance of the site.
6.	Aboriginal cultural heritage assessment report (ACHAR)	ACHAR is required where there are any works within the SHR curtilage.	Not applicable. No works are proposed within the heritage curtilage.
7.	Association values & wider consultation	Because the place is listed on the SHR for its association values, it is recommended that the proposal is supported by wider consultation with these groups to, ensure the proposal protects and enhance these association heritage values.	Assumed any notification would occur as part of the assessment of the development application, if required.

4.2.2 Works exemptions

The associated heritage listing includes several exemptions for certain works as outlined in the *schedule of standard exemptions to subsection 57(1) of the heritage act 1977 made under subsection 57(2)* of the *State of New South Wales Government Gazette Number 262–Planning and Heritage, dated Friday, 17 June 2022, [n2022-1108).*

The works associated with the proposed development do not comprise an exempt activity as outlined in the standard exemptions.

4.2.3 Considerations of alternatives

4.2.4 Subdivision of entire lot 12 DP 1174503

As outlined in the following images and tables the site contains dual land zoning and minimum lot size of R1 General Residential and C4 Environmental Living and 230m^2 and 4,000m^2, respectively. This would permit a maximum yield of approximately forty-four residential lots if the entire site were to be subdivided, allowing 30% site area for additional essential services including road and drainage corridors within the R1 zoned portion and the heritage curtilage within the C4 zoned portion. Comprising thirty-eight lots in the R1 zoned portion and six lots in the C4 zoned portion. It is noted the heritage curtilage is contained entirely within the C4 zoned portion of the site.

The proposed development seeks a much lower yield than permissible, proposing fourteen residential lots located within the R1 zoned portion of the site of between 900m^2 and 1,400m^2, with the residual lot containing the heritage curtilage untouched. The development as proposed provides lot areas that are commensurate with the residential subdivision pattern within the immediate vicinity of the site and heritage

item. It will also enable the heritage curtilage of SHR 02002 to be located entirely within the residual lot, minimising potential for impact by future residential development on proposed lots one to fourteen. Any future development on proposed lot fifteen would be subject to future assessment at the time of application.

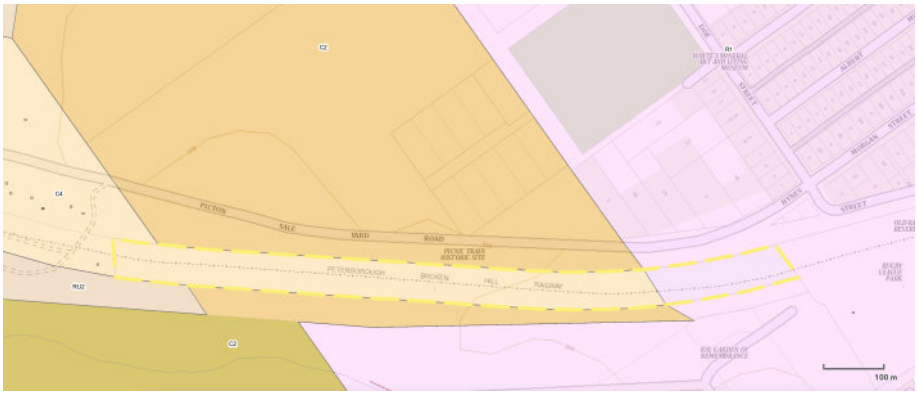


Figure 27: BHLEP 2013 land zoning map

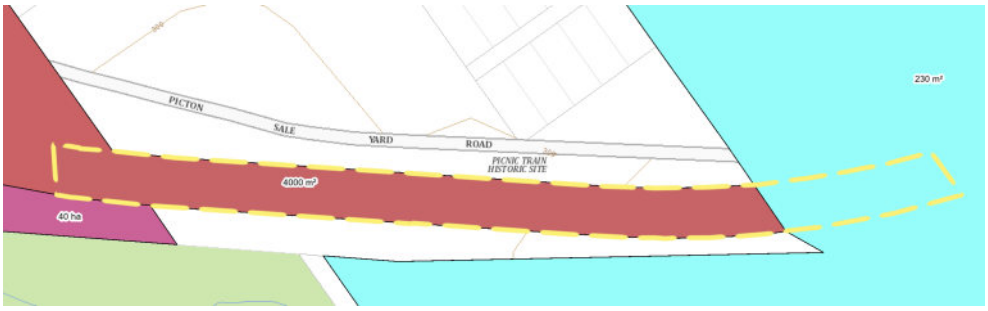


Figure 28: BHLEP 2013 minimum lot size map

Figure 29: SHR 02002 heritage curtilage relative to site

Table 4: Potential maximum development yield

Zone	Minimum lot size (m2)	Site area m2 (approx)	Max number of lots possible	Lots proposed	Heritage curtilage	Adjusted site area for heritage curtilage	Adjusted max lots
R1 General Residential	230.00	12,810.00	55.70	14.00	0	12,810.00	58 pre services. 38 post services.
C4 Environmental Living	4,000.00	51,310.00	12.83	1.00	24,870.00	26,440.00	6.61
	TOTALS	64,120.00	68.52	15.00		39,250.00	62.31 pre. 44 post.
					Curtilage	24,870.00	
					CHECK	0.00	

5 Heritage Impact Assessment

5.1 Matters for consideration

The following images are snipped from elsewhere in this SOHI for ease of illustration purposes.

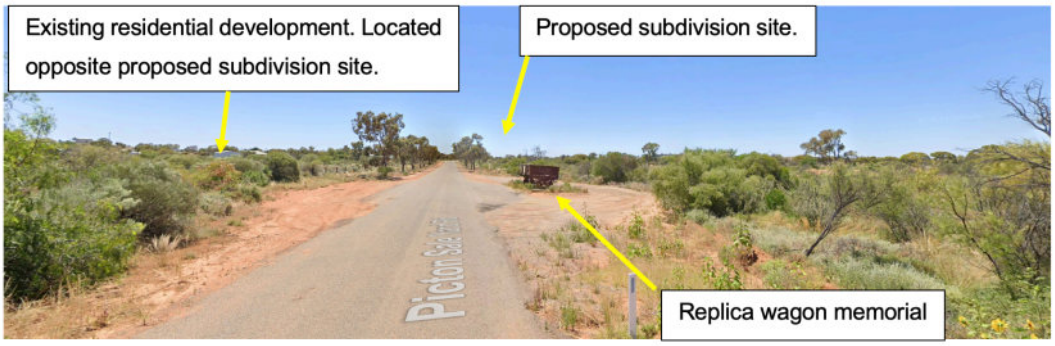


Figure 7: Picton Sales Yard Road looking east[9]

Figure 8: Picton Sales Yard Road looking east[10]

Figure 10: SHR 02002, 1915 Picnic Train Wagon replica memorial (left, original; right, current)

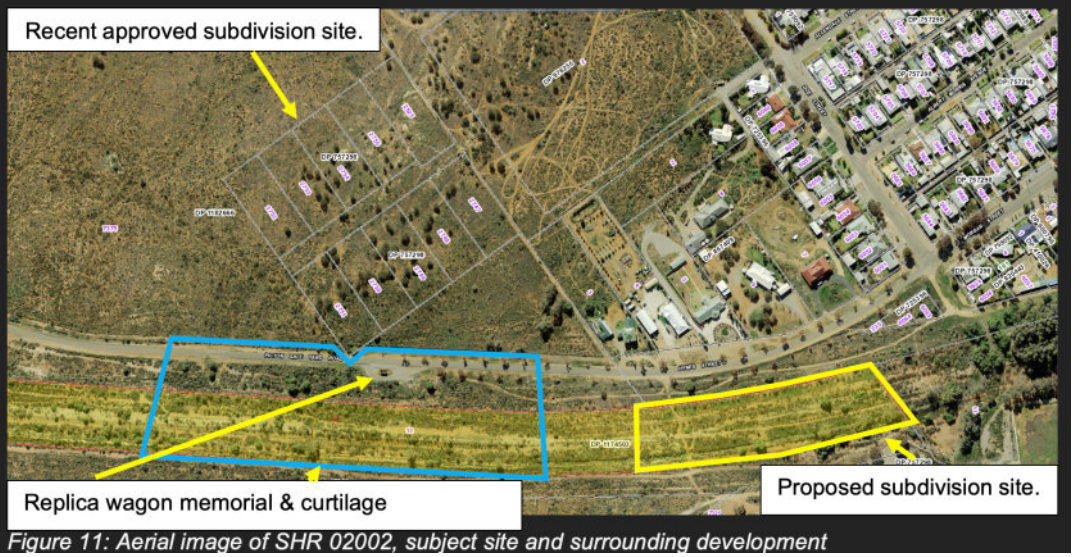


Figure 11: Aerial image of SHR 02002, subject site and surrounding development

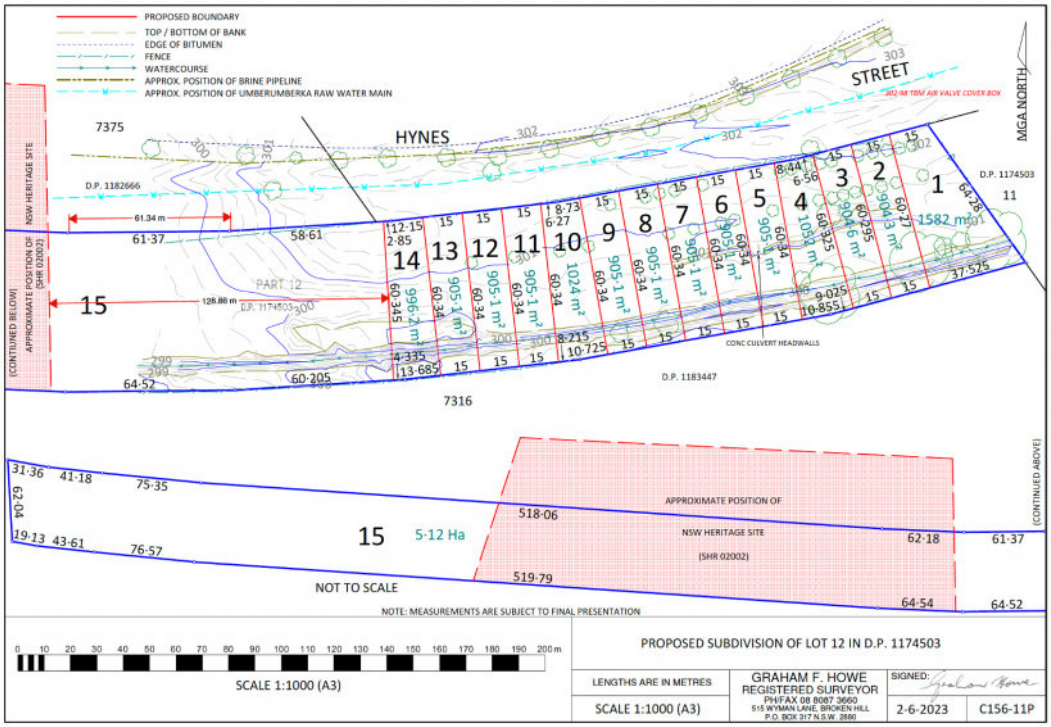


Figure 13: Site survey plan and proposed plan of subdivision[12]

5.1.1 Fabric and spatial arrangement

No detrimental impacts are likely to the fabric or spatial arrangement due to the proposed extent of works being located 130m from the nearest heritage curtilage boundary. Notwithstanding, an induction of site workers of the heritage curtilage and onsite establishment of a no-go zone via orange safety barrier mesh or construction site fencing would assist further mitigating any potential for impact.

5.1.2 Settings, views and vistas

No detrimental impact to settings, views or vistas are likely by the proposed development. The site contains gradual up hillslope of approximately 1% from the memorial site to the Broken Hill township as the location of the proposed subdivision. With land containing existing shrubland vegetation cover. There is existing residential development within the vicinity that is visible from the site on both the north and south side of Hynes Street / Picton Sales Yard Road. Existing visible residential development land located on the north side of Picton Sales Yard Road comprises residential development, site elevation and separation like that of the proposed subdivision site. While existing visible residential development land located on the southern side includes similar residential style development, the land is separated by further distance and contains much higher elevation. There is also a recent subdivision approval located immediately adjacent to the memorial site on the north side in Picton Sales Yard Road that is not yet developed. The proposed subdivision is located 265m from the memorial wagon and 130m beyond the eastern most heritage curtilage boundary. This 130m is wholly located within the C4 Environmental Living

zoned part of the site and proposed future lot 15 and no development is proposed on this lot as part of the proposed development.

It is considered there is sufficient buffer from the memorial site and heritage curtilage to avoid any impacts to settings, views and vistas. With the proposed development also in keeping with the existing residential development pattern of the locality as demonstrated by the following images.

Figure 30: Picton Sales Yard Road looking east at SHR 02002 memorial wagon

Figure 31: Picton Sales Yard Road looking east at SHR 02002 memorial wagon

Figure 32: Picton Sales Yard Road looking south east at SHR 02002 memorial wagon

Figure 33: Picton Sales Yard Road looking south east at SHR 02002 memorial wagon

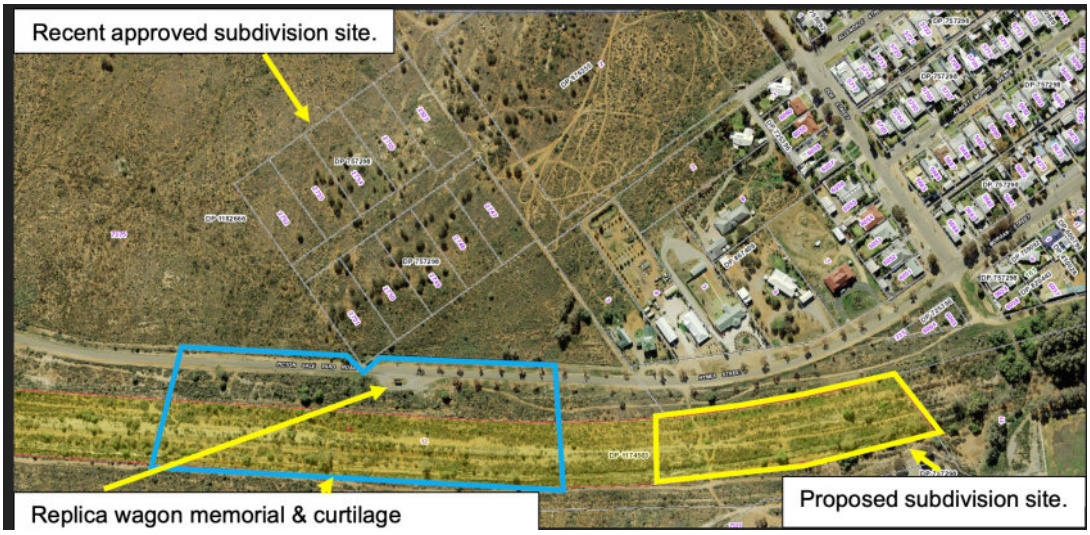


Figure 34: Aerial image of recent approved residential subdivision on north side of Picton Sales Yard Road adjacent SHR 02002 memorial wagon site

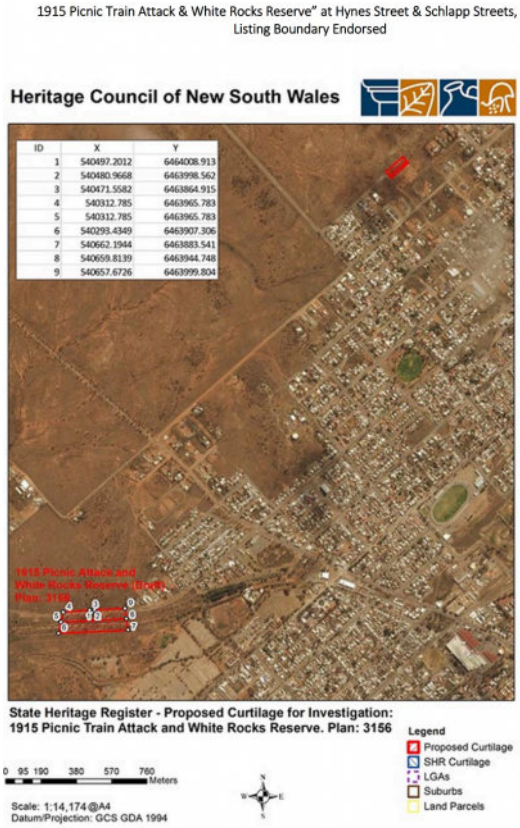


Figure 35: Aerial image development pattern at time of heritage listing of SHR 02002 1915 Picnic Train Attack site

5.1.3 Landscape

No detrimental impact to landscape is likely by the proposed development.

Future residential lots, proposed lots one to fourteen can be assumed to be landscaped with grass and tree species suitable for residential lots within the locality.

Vegetation on proposed lot fifteen will remain unchanged.

5.1.4 Use

No detrimental impact to use is likely by the proposed development. The proposed residential use is majority confined to the R1 General Residential zoned portion of the site and well outside of the heritage curtilage. The wagon memorial is still fully accessible by the public as it located within publicly owned land. It is noted the heritage curtilage encompasses privately owned land which is fenced off from public access. Notwithstanding the proposed development does not impact the heritage curtilage.

5.1.5 Demolition

Not applicable. No demolition of any heritage item or part of a heritage item Is proposed.

5.1.6 Curtilage

Not applicable. No impact to heritage curtilage is proposed.

5.1.7 Moveable heritage

Not applicable. No impact to moveable heritage is proposed.

5.1.8 Aboriginal cultural heritage

Not applicable. The site does not contain any known Aboriginal Place or Object as outlined in the following Aboriginal Heritage Management System (AHIMs) search result.

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 1 Hynes St
Client Service ID : 918637
Date: 09 August 2024

Regional Plan
7 Pindari Parade
Port Macquarie New South Wales 2444
Attention: Brendan Williams
Email: brendan@regionalplan.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 12, DP:DP1174503, Section : - with a Buffer of 200 meters, conducted by Brendan Williams on 09 August 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Figure 36: AHIMS search result for Lot 1 DP 1174503, 1 Hynes Street Broken Hill

5.1.9 Historical archaeology

No detrimental impact to historical archaeology is likely by the proposed development. As outlined in the heritage register listing,

- Physical Condition and/or Archaeological Potential

  'The memorial is the only reminder of the event; there are no other known traces or archaeological evidence that a battle took place in this location. The railway line has long since been removed but the footprint of where the line was located is clear. A fence line across from the memorial shows one of the ways the unused railway line was salvaged. The ore wagon memorial on site displays an interpretation sign with two photos and information of the fateful day. The wooden section wagon has suffered from years of exposure to the weather, however the rest of the

memorial is in good condition'.

- Modifications & Dates
  'The area around the site has changed considerably since January 1915. The railway line is no longer in-situ although the railway line embankment is still visible. Silverton Tramway Company ceased operations in 1970 due to the standard gauge (4ft 8.5in) line being opened in 1969 connecting NSW to SA. After the closure of the Silverton Tramway Company most of the narrow gauge railway line (3ft 6in) was removed and recycled for fencing posts and rails, this includes the section of line where the attack took place. A fence now blocks access to the line embankment and the trench where the two men hid is no longer visible due to vegetation. Part of the area is now a semi-rural neighbourhood with the road on the northern side of the site now sealed. (Roberts 1995)'.

5.1.10 Natural heritage

Not applicable. The site does not contain any identified items of natural heritage significance.

5.1.11 Cumulative impacts

Cumulative impacts of the proposed development and future residential development are considered negligible. The proposed development avoids the heritage item, its curtilage and contains sufficient buffer from the heritage curtilage while also proposing development that is similar with the existing residential development pattern within the locality, pre-dating the sites heritage listing. Any future development on the residual lot, proposed lot fifteen, will be subject to the provision of a future SOHI. Any heritage requirements for future residential development on proposed lots one to fourteen may be conditioned on future development consents and/or applied to the lots via a section 88B instrument as part of the subdivision approval and associated conditions, if deemed necessary by the consent authority. However, none are suggested. Any future development on any of the lots will be subject to addressing the relevant heritage controls applicable at the time of the future application for development consent.

5.1.12 The conservation management plan

Not applicable. A Heritage conservation management plan for the site could not be located.

5.1.13 Other heritage items in the vicinity

Not applicable. The proposed development is not likely to result in adverse impacts to other heritage items in the vicinity of the site.

5.1.14 Commonwealth/National heritage significance

The City of Broken Hill was listed the National Heritage list in January 2015 as identified in the following image.

The National Heritage listing of Broken Hill exists due to the natural resources found during early settlement of Australia and the associated mining history of the town. The site is not located within the mining district of Broken Hill or subject to a mining lease. Notwithstanding there is a restriction on title regarding land and mineral ownership below 15m surface level. The proposed development is not likely to adversely impact upon any matter relevant to the Town's national heritage listing.

The summary statement of significance as copied directly from the National Heritage list maintained by the Australian Government Department of Climate Change, Energy, and the Enviuronment and Water, states:

> *The City of Broken Hill has outstanding significance to the nation for its role in creating enormous wealth, for its long, enduring and continuing mining operations, and the community's deep and shared connection with Broken Hill as the isolated city in the desert, its outback landscape, the planned design and landscaping of the town, the regeneration areas and particularly the physical reminders of its mining origins such as the Line of Lode, the barren mullock heaps, tailings, skimps and slagheap escarpment and relict structures. It exhibits historic qualities in its ongoing mining operations since 1883, the current and relict mining infrastructure and its landscape setting. It is significant for its industrial past and the adoption of vanguard industrial relations and management policies, together with its role as a pioneer in setting occupational health and safety standards.*
>
> *It demonstrates the principal characteristics of a mining town in a remote location with extensive transport infrastructure and administrative connections to three state capitals and as a rare example of a place subject to Australia's complex Federal system where differing administrative, social and economic influences are expressed in both tangible and intangible forms. It has social significance for its residents as a place of community pride, endurance, and as a remote mining community resilient to major social and economic change. Broken Hill has strong social significance for all Australians as a place where great wealth was created, as well as strong group associations with the Barrier Industrial Council. It exhibits outstanding aesthetic characteristics as a city in an arid desert setting, as the subject of interest for Australian artists, poets, film makers, TV producers and photographers.*
>
> *It has significance as a place where outstanding technical achievement has occurred in refining ore for its minerals including the froth flotation process and the computer controlled on-stream analysis of slurries. Broken Hill is also important as a place of research potential to reveal further information on mineral deposits with its range of complex minerals, It is associated with persons of great importance to Australia's history, including Albert Morris (arid land regeneration), Charles Rasp (discoverer), Herbert Hoover (mining engineer), WL Baillieu, WS Robinson and MAE Mawby (industrialists), GD Delprat (metallurgist), Percy Brookfield and Eugene O'Neill (unionists). Broken Hill's association with the Barrier Industrial Council as a group is also important.*

The Broken Hill zinc-lead-silver ore deposit is one of the world's largest ore bodies and contains an extraordinary array of minerals. It is geologically complex and has national scientific significance. The Broken Hill operation is significant for its immense size and unrecorded mineral species continue to be found. It contributes to an understanding of the formation of the Australian continent and more than 2,300 million years of the earth's history.

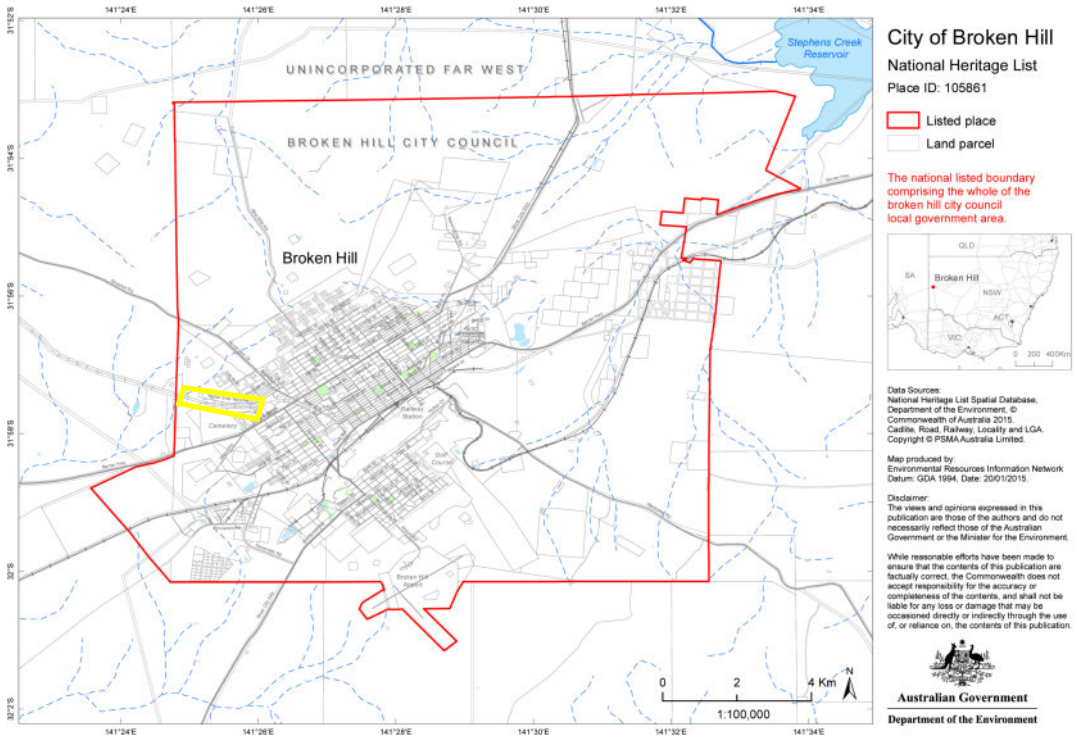


Figure 37: City of Broken Hill National Heritage listing boundary map

5.1.15 World Heritage significance

Not applicable. The site is not identified as being of World Heritage Significance.

6 Heritage Council Subdivision Policy

The following table outlines how the proposed development has considered and complies with the requirements of the Heritage Council Subdivision Policy as applicable at the time of the application.

A detailed site survey and plan of proposed subdivision has been prepared by a registered surveyor which identifies the characteristics and topography of the site including the nominated curtilage of the 1915 Picnic Train Attack site with respect to the proposed subdivision and is appended to this SOHI.

Table 5: Assessment of the proposed development against Heritage Council subdivision policy

Category	Consideration	Complies (Y/N) / Response
Heritage significance	**1** retains the significance of the item including the ability to demonstrate the historic use of the item and to continue any significant cultural practices and uses of the item	Yes. All works are well outside of the heritage curtilage and the proposed works will not impact the heritage item.
	2 maintains any relationships between key elements which are significant to the heritage item, including any historically significant boundaries, fence lines or plantings, built fabric, landscape design; natural features and archaeological remains	Yes. The proposed works will not alter the existing boundaries fence line, fabric or the like within proximity to the heritage item or within the heritage curtilage.
	3 retains any buffer areas which protect the item from visually unsympathetic development, pollution, vibration or vandalism	Yes. All existing buffer areas shall be retained.
Setting and Views	**4** retains key views that are significant to the heritage item including • from public viewing points and • from the heritage item to outside elements where there is an important visual, historical or functional link	Yes. All works are located on private property and will not impact public viewing or accessing the heritage item or memorial site as currently accessible by the public.
	5 recognises the original orientation, setbacks, traditional access points and historic subdivision pattern	Yes. The proposed development is commensurate with the surrounding residential development pattern within the vicinity of the site.

Curtilage	**6** keeps significant associated elements on one title with the heritage item	Yes. The proposed works will enable the heritage curtilage to be located wholly within a single future allotment. The allotment will be separate from the lots proposed for future residential development thereby reducing potential for impact within the heritage curtilage by future residential use of the site.
	7 retains the ability to interpret the historical use, design, layout and significant cultural practices associated with the item	Yes. The proposed development will not alter the physical characteristics of the site as they currently exist and were present at the time of the heritage listing of the site.
Conservation	**8** promotes conservation and continued use of the heritage item, for example, demonstrating that funds generated from the subdivision or future development will be applied to the conservation of the heritage item	Yes. As identified throughout this SOHI the proposed development does not impact the heritage item or heritage curtilage such that the heritage item is conserved for the future.
	9 does not limit future capacity to generate funds for ongoing conservation management	Yes. Development is limited to privately owned land located outside of the heritage curtilage. All publicly accessible areas are retained and the is not likely to be any impact to future capacity to generate funds for conservation of the heritage item.
	10 supports continued public access where applicable	Yes. All publicly accessible areas will remain accessible post development.
	11 is consistent with any existing Conservation Management Plan or Conservation Management Strategy endorsed by the Heritage Council for the item (S62(c1).	Yes While there is not any specific conservation management plan associated with the item. The proposed development has been designed with consideration to applicable guidelines and the requirements of the consent authority.

		The proposed works do not form exempt development as permitted by the exemptions outlined in various environmental planning instruments and relevant guidelines.

7 Conclusion and recommendations

7.1 Conclusion

The proposed subdivision of the property containing the 1915 Picnic Train Attack heritage curtilage intends to separate the Curtilage from the land intended for future residential development, by some 130m from the nearest heritage curtilage and 260m from the memorial picnic train wagon heritage item located within the Hynes Street/Picton Sales Yard Road corrodor.

The proposed subdivision will result in fifteen allotments. Fourteen allotments proposed for future residential development located in the R1 General Residential zoned portion of the site. And one residual allotment on the C4 Environmental Living zoned portion of the site that will contain the whole of the heritage curtilage and is not anticipated for future residential development.

The purpose of this subdivision is to enable the excise and development and / or sale of the current unused land that is zoned for residential purposes. While preserving the heritage item. The subdivision proposes no impact to the heritage item or its curtilage. Future development on any of the land subject to this application would be subject to future applications for development consent at which time further assessment of heritage impact would be undertaken subject the development proposed at that time.

The proposed subdivision and subsequent residential development are considered to have no substantive adverse impact to the heritage significance of the 1915 Picnic Train Attack site.

7.2 Recommendations

Based upon the analysis and conclusions of this SOHI, the following recommendations are suggested and should be considered:

- This report should be provided to the NSW Heritage Council as part of any development application for subdivision of the land.
- Subject to the issue of a development consent for the proposed development, and until the boundary of proposed lots fourteen and fifteen is physically implemented separating the heritage curtilage portion of the site from the future intended residential development portion of the site, a construction environmental management plan (CEMP) should be prepared for the proposed development which includes but is not limited to the following:
    - Induction which includes identifying the heritage significance of the site and location of the heritage item and curtilage,
    - Installation of a physical barrier on the site comprising orange safety barrier mesh or similar to separate the subdivision site form the residual site. Said barrier should be located no further than 20m west of the proposed western boundary of proposed lot fourteen, adjoining proposed future lot fifteen,

- The co-ordinates of the heritage curtilage as listed I the Heritage Council NSW meeting minutes 6 September 2017 should be listed in the CEMP and marked out on site and or induction forms to ensure no works occurs within the area,
- An unexpected finds protocol should be implemented for the works which outlines the procedure to be undertaken should an item of potential archaeological or other heritage be identified during the proposed works, and
- Future development on any of the sites should be subject to further heritage assessment as applicable to any future application for development consent.

9 Appendices

9.1 Plan or proposed subdivision

9.2 Preliminary site in investigation report

9.3 DP 241856

9.4 NSW Government Gazette 2018

9.5 Australian National Heritage List

9.6 Preliminary consultation

9.7 Silverton Tramway Act 1886

9.8 Silverton Tramway Vesting Act 1972

9.9 Heritage Council Minutes 06 September 2017_1915 Picnic Train Attack and White Rocks Reserve

9.10 Crown Land Map Parish Picton County Yancowina 5th edition BHLEP 1996

9.11 DP1130411

9.12 DP 1174503

PRELIMINARY SITE INVESTIGATION

PROPOSED DEVELOPMENT
1 HYNES STREET,
BROKEN HILL, NSW

January 30th - 2023

Metaline Engineering Group Pty Ltd.
www.metaline-engineering.com
Authored by: Anthony Misagh

This report has been requested by:

Name: Mr Douglas Henderson

Contact: bhillaircon@gmail.com | 0410 267 326

Dear Douglas,

Thank you for using Metaline Engineering Group Pty Ltd for providing the following scope of works for you:

- Site Classification and Report
- Preliminary Site Contamination Investigation (PSI)

Below I have attached a copy of the report, should you require further assistance or need clarification on anything that is contained within the report then please do not hesitate to contact me directly.

The attached report includes the following:

- Part 1 Introduction,
- Part 2 Site Description,
- Part 3 Site Contamination Assessment,
- Part 4 Site Classification,
- Part 5 Conclusion,
- Part 6 Recommendations,
- Limitations Statement.

Attachments:

- Appendix A: Aerial Photography/Map
- Appendix B: Laboratory Results
    - Soil sampling Borehole logs,
    - MEG chain-of-custody (COC) sheets,
    - Soil Contamination Lab Results.
- Appendix C: Site Classification Report
- Appendix D: Proposed Development Plans – TBC
- Appendix E: Dial Before You Dig Search findings
- Appendix F: Site walkover photos

Yours Sincerely
Metaline Engineering Group Pty Ltd

Anthony Misagh
Director

Part 1: Introduction

This report documents a Preliminary Site Investigation (PSI) for potentially contaminating activities, or contaminated soils together with a geotechnical study to support design requirements as per AS2870-2011 Residential Slabs and Footings. This report is to support a development application (DA) to Broken Hill City Council for proposed future subdivisions for the development of two residential buildings, located at 1 Hynes Street, Broken Hill, NSW, 2880.

The investigation area for this PSI comprises only part of the site, as shown in Appendix A.

PROJECT DETAILS

Client Name:	Douglas Henderson
Subject Property:	1 Hynes Street Broken Hill, NSW, 2880

INSPECTION & REPORT DETAILS

Inspection Date: Wednesday 2nd December 2022
Inspection Time: 10 am
Stage of Works: Preliminary Studies
Date of this Report: 30th January 2023

INSPECTION NOTES

At the time of this inspection, we note the following:

- Site is clear of any buildings, or other obstructions.
- The day was windy, warm and sunny.
- Access to site was uninterrupted.

REPORT PURPOSE

MEG was commissioned by Mr. Douglas Henderson, to carry out the following scope of works:

- **Preliminary Site Contamination Investigation (PSI)**:
  - Review of available past development consents for the site.
  - Review of historical aerial photographs of the site to assess past site use patterns.
  - Review of other government databases relating to potentially contaminating land uses.
  - Perform Soil Contamination testing for Zinc, Lead, Cadmium, Arsenic and Asbestos.
  - Preparation of a PSI report in accordance with ASC NEPM (2013), NSW EPA (2020) and Council guidelines.
- **Preliminary Geotechnical Investigation and Site Classification**
  - Dial before you dig (DBYD) search to assess if service locating is required.

- Site investigation to include 3 - 4 boreholes. Boreholes are to be completed via drilling machine with boreholes taken to 1.5 – 2.0m below ground level or prior refusal. Boreholes shall be supplemented with penetration testing using a Dynamic Cone Penetrometer (DCP) at each location to similar depths (or prior refusal on rock).
- Report has been prepared in accordance with relevant national guidelines and provide preliminary advice in relation to depth to bedrock; general geotechnical recommendations; and preliminary site classification (AS 2870).

References:

- NEPC (1999, amended 2013) National Environmental Protection (Assessment of Site Contamination) Measure. Referred to as ASC NEPM (2013).
- NSW EPA (2017) 3rd Ed. Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme.
- NSW EPA (2020) Contaminated Land Guidelines: Consultants Reporting on Contaminated Land.
- AS2870 – Residential slabs and footings

Proposed Development and Objective:

The proposed site development involves the construction of two residential homes as per approximate location, site A and Site B with associated outdoor areas.

Proposed development plans are provided in Attachment D.

The Objective of the Investigation include:

- Identification of historic and current potentially contaminating site activities.
- Identification and evaluation of areas of environmental concern and associated contaminants of potential concern within the investigation area.
- Provision of comment on the suitability of the investigation area for the future use, and where required, provide recommendations for additional investigations.
- Provide a soil contamination study on the existence of metals such as Lead, Arsenic, Zinc and Cadmium. Other hazardous materials such Asbestos will also be investigated.
- Provide Site Classification for consideration in footing/slab design.

Project Scope:

The scope of works include:

- Walkover inspection to review current land use, potential contaminating activities and neighboring land use.
- Review of site history using aerial photographs and available historic records.
- Review of NSW EPA notices under the Contaminated Land Management Act (1997).
- Preparation of a report in general accordance with the relevant sections of NSW OEH (2011) and ASC NEPM (2013) and EPA (2017).

Part 2: Site Description

Site Details:

Site information has been summarized in Table 1 below, and site location, aerial photography and general surrounds shown in Appendix A.

Table 1: Site Background Information

ITEM	DESCRIPTION
Site address	1 Hynes Street, Broken Hill, NSW, 2880
Legal Identifier	○ Lot: 12 ○ Section: – ○ Plan No.: DP1174503
Surveyed area (Approximate only)	Approximately 65,000m^2
Local Government Area	Broken Hill City Council
Current Zoning and Land Use	Zone R1
Proposed Land Use	General Residential – Currently Vacant
Site Description	The vacant allotment is approx. 6.48 Ha in size or 16 acres in metric equivalent. The zoning is E4 Environmental living. The property subject to a DA application has an assortment of approved usages, subdivision potential and the likes. Power and water are not connected. *TBC by BHCC*
Surrounding Land Uses	Low-density residential dwellings in all directions, with mining activity 3-4km to the East, fuel stations 2km to the East and local cemetery in the neighbouring block.
Topography	The site is relatively flat. A sudden increase of elevation (approximately 1m) to the back of the block is present due to a possible formed river. The local railway, decommissioned 1970, has a footprint of where the railway used to be on the block. With the rail and all jewellery removed, some ballast and mounds of the old rail only remains.
Expected Geology	Sandy/Rocky substrate.
Surface Hydrology	No natural underground water systems.

Hydrogeology:

Review of WaterNSW Real-time Water Database indicated no groundwater bores within 1km of the site. Temporary or stagnant groundwater may be encountered within the soil profile at times of and following heavy or extended rainfall. No springs were listed within 1km of the site in the NSW Government Hydrography Spatial Data (SEED, 2019).

From the Site Classification/Geotechnical Investigation, underlying substrate is rock, and therefore it is highly unlikely for significant ground water activity. Should further information on permanent site groundwater conditions be required, an additional assessment would need to be carried out (i.e. installation of groundwater monitoring bores / ongoing groundwater monitoring).

Part 3: Site Contamination Assessment

Council Historical Site Records:

An online review of the available records on the Broken Hill City Council website was undertaken on 5th January 2023 and there were no records of concern with regards to contamination on site. No Historical information was also found regarding activities relating to development.

NSW EPA Records:

No sites within 500m of the inspection area were identified on the list of NSW contaminated sites notified to the EPA as required by the Contaminated Land Management Act (1997) and the Environmentally Hazardous Chemicals Act (1985).

No sites within 500 m of the inspection area were listed on the EPA public register required under section 308 of the Protection of the Environment Operations Act 1997 (the POEO Act), which lists licenses, notices penalty notices and convictions.

External Potentially Contaminating Activities:

Although no neighboring service stations, mechanics, mining or drycleaners are in operation within 500 m of the inspection area, the following operations are active within 2-5km of the inspection area.

Table 2: Potentially Contaminating activities

ITEM	TYPE OF ACTIVITY	APPROXIMATE DISTANCE TO SITE BOUNDARY	DIRECTION FROM SITE	ADDRESS	GRADIENT FROM SITE
1	Woolworth Mechanic/Fuel Station	2000m	East	5 Galena Street, Broken Hill	Undulating/down gradient
2	Shell Fuel Station	2500m	East	164 Williams Street, Broken Hill	Undulating/down gradient
3	CBH Resources Broken Hill Operation – RASP Mine - Broken Hill	3000-5000m	East	-	Undulating/down gradient

Due to distance and hydraulic gradient from the site, items 1 and 2 above is not expected to have an impact on the site. However, dust particle movement through the air, and Broken Hill's Dust storm climate and events pose a risk for dust particles to move over Kms, this in particular has an impact on the site.

Although lead in Broken Hill's air and soil is common, it is mostly derived from historical and current mining operations. Studies such as those published in the journal Atmospheric Environment has confirmed that some of that lead is emitted as dust every day by the city's mines. The Broken Hill

Environmental Lead Program is funded by the EPA to raise awareness and carry out remediation works, which actively test and promote lead safe living in the city.

Site walkover and findings:

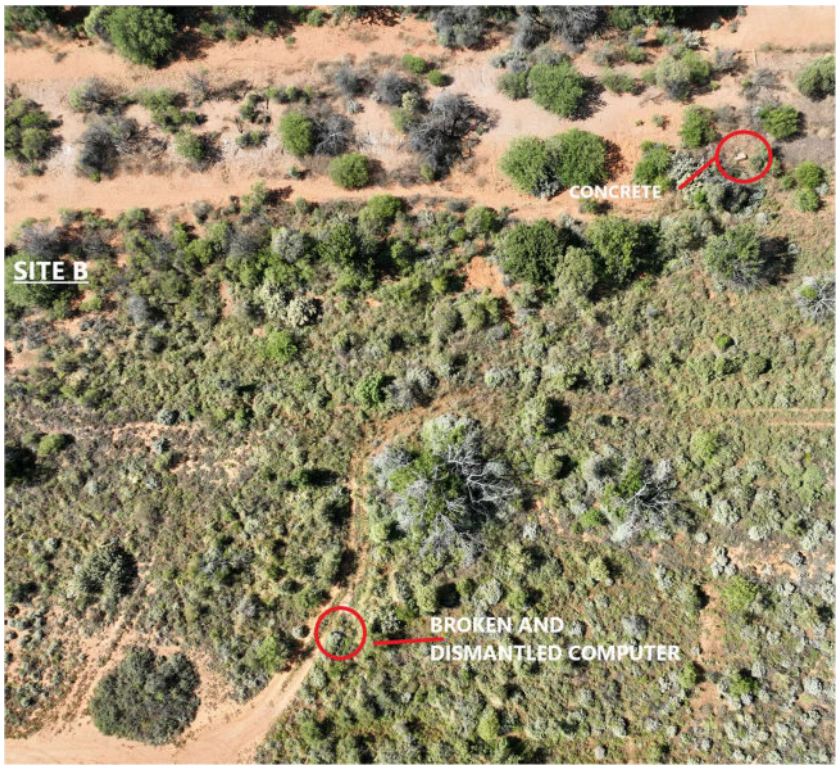
Potential exists for contaminating activities to have been undertaken on site which may impact on the suitability for the proposed land-use which include dumping of waste and mining activities. The historic mining activities have most likely resulted in contaminants such as heavy metals, which are common in broken hill and include Lead, Zinc, Cadmium and Arsenic. See soil sampling procedures below for result summary. Placement of imported fill, illegal dumping and construction waste may have also resulted in contamination, more concerningly asbestos, batteries and plastics would be typical in the Broken Hill region. However, dumping of waste was minimal during the time of the investigation. See soil sampling procedures below.

No historical aerial photographs were found of the site in order to review and investigate historic site activity and surrounding land use. Aerials found indicated that the land was used for potential residential purposes, plantation of pistachio trees and recreational purposes.

Observations of the site and surrounding areas, with respect to the potential for contamination, are summarized below with photographs provided in Appendix F.

Photo 1: Contaminants found Site A:

Photo 2: Contaminants found Site B:



Observations during the site walkover inspection 5th December 2022 is as follows:

The site layout appears to have remained relatively unchanged, confirmation with some of the neighbors (via door knocking), confirmed that the site has been left unmaintained and abandoned. The general site topography was consistent except for the rear of the block were an a drop of approximately 1m difference in elevation at the rear of the property.

- The block/s is bound by residential properties in all other directions. There are two other vacant similar sized blocks within 100m of the site. The rear of the block is the local cemetery.
- Multiple fragments of concrete were found, ranging from 20mm to 300mm. These fragments were scattered mostly on the Easter side of the block.
- A computer was found broken and dismantled.
- Construction waste, namely concrete

Soil Sampling Procedures:

All sampling data was recorded on borehole logs, see Appendix B, and samples selected for laboratory analysis were recorded on chain-of-custody (COC) sheets, see Appendix B. The general soil sampling procedure comprised:

- Soil samples were recovered directly from augers.
- Some samples specifically form waste dump areas were taken also.
- Use of disposable sampling equipment including disposal nitrile gloves.
- Transfer of samples into laboratory-prepared ziplock bags, as per the lab's recommendations.
- Placement of sample containers and bags into a cooled, insulated, and sealed container for transport to the laboratory; and
- COC was always maintained and countersigned by the receiving laboratory on transfer of the samples.

Envirolab Services Pty Ltd (Envirolab), is accredited by NATA for the analysis undertaken, and was employed to conduct the sample analysis. The laboratory is required to carry out in-house QC procedures.

The analytical laboratory, Envirolab Services Pty Ltd (ELS), accredited by NATA, is required to conduct in-house QA/QC procedures. These are normally incorporated into every analytical run and include reagent blanks, spike recovery, surrogate recovery and duplicate samples. These results are included in the laboratory certificates in Appendix B.

Potential Contamination and levels – Metals

Table 3: Soil Assessment Criteria – Metals mg/kg

ITEM	HIL A* – Residential	HIL B* – Recreational	Lab Results - Highest recorded samples (see Appendix B for full Lab results) [mg/kg]
Arsenic	100	500	11
Cadmium	20	140	6.2
Lead^	300	1200	950
Zinc	8000	60000	2000
TRAIN LINE RESULTS			
Arsenic	100	500	78
Cadmium	20	140	28
Lead^	300	1200	6600
Zinc	8000	60000	10000

* *www.NEPC.gov.au*

- **HIL A** – Standard residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake,(no poultry), includes children's day care centres, preschools and primary schools.
- **HIL B** – Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats.

- ^HIL for lead based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.

The above results indicate that the metals found in the train line hold above the maximum limits.

Potential Contamination and levels – Asbestos

Chrysotile Asbestos & Amosite Asbestos have been detected in the soil samples sent through with >7mm sizing found, totaling approximately 2.6g of actual Asbestos or 3.7g/kg of sample, see table 4 below. This maybe generally arising from:

- Inadequate removal and disposal practices during demolition of buildings containing asbestos products.
- Widespread dumping of asbestos products and asbestos containing fill on vacant land and development sites (illegal dumping); and
- Commonly occurring in historical fill containing unsorted demolition materials.
- Mining, manufacturing or distribution of asbestos products may result in sites being contaminated by friable asbestos including free fibers. Severe weathering or damage to bonded ACM may also result in the formation of friable asbestos comprising fibrous asbestos and/or asbestos fines.

Table 4: Health Screening levels for asbestos contamination in soils

ITEM	HIL A* – Residential	HIL B* – Recreational	Lab Results - Highest recorded samples (see Appendix B for full Lab results)
Asbestos	0.01%	0.04%	**ACM - 0**
TRAIN LINE RESULTS			
Asbestos	0.01%	0.04%	-

* *www.NEPC.gov.au*

Asbestos only poses a risk to human health when asbestos fibers are made airborne and inhaled. If asbestos is bound in a matrix such as cement or resin, it is not readily made airborne except through substantial physical damage. Bonded ACM in sound condition represents a low human health risk, whilst both Fibrous Asbestos and Asbestos Fines materials have the potential to generate, or be associated with, free asbestos fibers. Consequently, Fibrous Asbestos and Asbestos Fines must be carefully managed to prevent the release of asbestos fibers into the air.

A detailed asbestos assessment was not undertaken as part of this investigation. The presence or

absence of asbestos as well as a visual assessment for the presence or absence of ACM at the test locations have been adopted for this assessment as an initial screen.

Part 4: Site Classification

An investigation was conducted by Metaline Engineering Group on the 3rd of December 2022 to provide a site classification and identify parameters for the footing system design. Based on the results of the investigation the site has been classified as Class "M-D" - site in accordance with AS 2870-2011 Residential Slabs and Footings.

Two boreholes were completed per site to assess the subsurface conditions. The materials encountered during the field investigation are presented in Appendix C borehole logs and in general consist of granular sandy reddish soil with little to no clays. Soil moisture conditions are considered consistent with the seasonal variation of the area and time of testing.

Groundwater was not encountered during the investigation. A classification explanation sheet is attached in Appendix C, outlining the terms and symbols used in the preparation of the report.

Part 5: Conclusion

The review of the site history indicated that the site appears to have remained relatively unchanged, confirmation with some of the neighbors (via door knocking), confirmed that the site has been left relatively untouched, however mostly utilized mostly for recreational purposes with pistachio tress planted. A quick check with Broken Hill City Council has also indicated that no significant activity has taken place. Potential contamination sources which have been identified during this PSI are summarized as:

- The site has attracted some illegal dumping for construction waste such as cement, concrete, old computer/s and some concrete blocks.
- Broken Hill is also home to one of the worlds largest lead-zinc-silver deposits, as a result, the effects of mining has taken a toll on high lead and levels, specifically for sites in close proximity to the mines. Lead toxicity in children has emerged as a major public health issue over the past decade. In 1991 the first comprehensive testing undertaken on children under five years of age revealed that more than 80 per cent had blood lead levels over the current guideline level of 10 pg/dL. Current environmental exposure to lead appears to be related more to historical mining and mine management practice than current activities. Lead contamination of the broader community arises from sources including:
    - Naturally occurring surface ores;
    - Past smelting and mine waste management practices;
    - Entrapment of dust in linings of domestic buildings and the re-entrainment over time of this dust back into the living spaces - (Post construction)
    - Open-cut mining activities (undertaken in the center of the city until the early 1990s);
    - The handling and transportation of ore concentrates;

- Dust from tailings dams and the contamination of open spaces.
- Off-site use of mining by-products for private use, such as landfill etc.

From the Laboratory results, the non-railway line sites indicate fairly common results for Broken Hill. With the relatively dense vegetation on site these levels of contaminants are considered to have minimal environmental impact as levels of dust are reduced. However, the railway line site does indicate high levels in lead and zinc, and it is reasonable to conclude that overall, the site is considered to generally have a high risk of contamination should the dirt be disturb.

To determine potential risk of harm to human health and environment under proposed development conditions, assessment of the identified area of environmental concern should be undertaken prior to any future development.

Part 6: Recommendation

Based on the findings of this report together with laboratory results, levels of potential contaminants of concern were above the health investigation and health screening levels for soil samples collected across the railway site, namely Lead and Zinc.

Levels of Lead and Zinc exceeded the adopted health investigation levels for soil contaminants samples collected from the railway site.

Excavation of the contaminated fill material would be required for offsite disposal. This option removes the contaminated materials through bulk excavation into trucks that then transfer the contaminated materials to a waste facility with appropriate licenses to receive the waste. This approach has the advantage of removing the contaminated soils from the site and potentially reducing development restrictions associated with contaminated soils. It also has the advantage of being relatively fast with minimal impact on the neighboring properties. The main disadvantage of excavation and disposal is the expense associated with offsite disposal to an appropriately licensed landfill.

Therefore, as part of the remediation program, it is the recommendation of this report that the site shall be stabilized with a 50 mm cover of clean material. New vegetation such as grass, small to medium sized trees and other native vegetation are a good capping source to stabilize the soil. Further capping of the site is also possible by the introduction of a concrete slab in the form of driveways, paths and the footing system of the house.

However, disturbing the railway line is not recommended due to the high levels of Lead and Zinc. An appropriate landscaping plan should be prearranged, in which all dirt areas, as a minimum should be sealed and covered with grass. No veggie gardens or fruit trees are to be established into the ground. It is also a recommendation to maintain year-round cover of lawn or mulch to minimize dust generation, this should be considered across the site.

Other matters to consider, establishment of a periodic cleaning program must be in place that include the provision regular dusting, washing of AC filters, cleaning and pressure washing of paved areas. Other measures such as proper door and window seals must be incorporated into the designs.

An Unexpected Finds Protocol is recommended to be implemented during site development works to manage possible identification of potential hazards during development.

It is the conclusion of MEG that the implementation of the above recommendation will achieve the objectives of the project and render the site suitable for the intended development.

1. *https://www.scu.edu.au/media/scueduau/eal/documents/NEPM-guideline-on-investigation-levels-for-soils-and-groundwater046a.pdf*

LIMITATIONS - TERMS & CONDITIONS FOR THE PROVISION OF THIS REPORT

1. Metaline Engineering Group (MEG) has prepared this report (or services) for this project at 331 Cummins Street Broken Hill, NSW, 2880, in accordance with MEG's proposal dated 5 December 2022 and acceptance received from Douglas Henderson.
2. The work was carried out under an agreed contract between MEG and Douglas Henderson. This report is provided for the exclusive use of the client for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as
3. stated above, and without the express written consent of MEG, does so entirely at its own risk and without recourse to MEG for any loss or damage. In preparing this report MEG has necessarily relied upon information provided by the client and/or their agents.
4. The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after MEG's field testing has been completed.
5. MEG's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by MEG in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.
6. This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. MEG cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.
7. This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by MEG. This is because this report has been written as advice and opinion rather than instructions for construction.
8. Asbestos has been detected by laboratory analysis, either on the surface of the site, or in filling materials at the test locations sampled and analysed. Building demolition materials, such as plastic fragments were, however, located in previous below-ground filling and these are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos.
9. Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. This is either due to undetected variations in ground conditions or to budget constraints, or to parts of the site being inaccessible and not available for inspection/sampling

(due to buildings present onsite), or to vegetation preventing visual inspection and reasonable access (in garden beds).

10. It is therefore considered possible that HBM, including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.
11. The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life.
12. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of MEG. MEG may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to MEG. Any such risk assessment would, however, be necessarily restricted to the (geotechnical /environmental) components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.
13. The Report is expressly produced for the sole use of the Client. Legal liability is limited to the Client.
14. Advice from the inspector has only been around meeting the principal engineers' specifications.
15. Any dimensions given are approximate only. Should any dimensions be considered critical or important, they should be accurately measured.
16. This report, its layout and contents are the copyright of Metaline Engineering Group. Any person, party or entity, other than the party named as the client on this report hereof that uses or relies upon this report without our expressed written permission is in breach of this copyright.
17. All advice given by the Inspector and not included in the Report is given in good faith. However, no responsibility is accepted for any losses, either direct or consequential, resulting from the advice.
18. The Report is confirmation of a visual inspection of the site/inspection area carried out by the Inspector on the day of the inspection and only covers those items that could reasonably be detected by such visual inspection at the time of such inspection.
19. If the Report fails to conform in any material respect to the terms and conditions set out herein, then the Inspector is not liable unless the Client notifies the Inspector of the failure within 28 days after the date of delivery of the Report, and the liability of the Inspector is, in any case, limited to the cost of providing this inspection, and the Inspector is not liable for any consequential damage.

Appendix A

Aerial Photography

Maps.six.nsw.gov.au

Site A

Site B

Appendix B

Laboratory Results


SITE A (1)
SAMPLE 1
SAMPLE 2


SITE B (2)
SAMPLE 1
SAMPLE 2


OLD RAILWAY LINE
SAMPLE

CHAIN OF CUSTODY FORM - Client

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Unit 20/119 Reichardt Road, Winnellie, NT

Company:	Metaline Engineering Group Pty Ltd	Client Project Name/Number/Site etc (ie report title):	Douglas Henderson
Contact Person:	Anthony Misagh	PO No. (if applicable):	6469
Project Mgr:	Anthony Misagh	Envirolab Quote No. :	
Sampler:	Anthony Misagh	Date results required:	
Address:	331 Cummins Street Broken Hill NSW, 2880	Or choose: ☑ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day	
Phone:	Mob: 0484770935	Note: Inform lab in advance if urgent turnaround is required - surcharges apply	
Email Results to:	megprojects@metaline-engineering.com	Additional report format: ☐ Esdat ☐ Equis	
Email Invoice to:	megprojects@metaline-engineering.com	Lab Comments:	

Sample information					Tests Required															Comments
Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample																Provide as much information about th sample as you can
1	Site1 sample 1	150	2/12/2022		As	Zn	Cd	Pb												Loose soil
2	Site1 sample 2	150	2/12/2022		As	Zn	Cd	Pb												Loose soil
3	Site2 sample 1	150	2/12/2022		As	Zn	Cd	Pb												Loose soil
4	Site2 sample 2	150	2/12/2022		Please check for Asbestos - loose soil (NEPM or WA DoH)															Loose soil
5	Train Line sample	150	2/12/2022		As	Zn	Cd	Pb												Please include this in a separate repor

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Envirolab Services
ENVIROLAB 12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 312365
Date Received: 6/12/2022
Time Received: 13:15
Received By: MTL
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/none

Lab use Only

Relinquished by (Company):	Metaline Eng Group	Received by (Company):	ENVIROLAB STD
Print Name:	Anthony Misagh	Print Name:	MTL
Date & Time:	2/12/2022 0:00	Date & Time:	6/12/2022 13:15
Signature:		Signature:	

Job number:	312365	Cooling: Ice / Ice pack / None	
Temperature:	20°C	Security seal: Intact / Broken / None	
TAT Req - SAME day / 1 / 2 / 3 / 4 / (STD)			

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 312365

Client Details

Client	Metaline Engineering Group T/L
Attention	Anthony Misagh
Address	331 Cummins St, Broken Hill, NSW, 2880

Sample Details

Your Reference	**Metaline Engineering - Douglas Hendereson**
Number of Samples	5 Soil
Date samples received	06/12/2022
Date completed instructions received	06/12/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	13/12/2022
Date of Issue	13/12/2022

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Stuart Chen
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Giovanni Agosti, Group Technical Manager
Greta Petzold, Assistant Operation Manager
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Acid Extractable metals in soil				
Our Reference		312365-1	312365-2	312365-3
Your Reference	UNITS	Site 1 Sample 1	Site 1 Sample 2	Site 2 Sample 1
Depth		150	150	150
Date Sampled		2/12/2022	2/12/2022	2/12/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	07/12/2022	07/12/2022	07/12/2022
Date analysed	-	09/12/2022	09/12/2022	09/12/2022
Arsenic	mg/kg	11	6	4
Cadmium	mg/kg	6.2	5.2	4
Lead	mg/kg	950	610	240
Zinc	mg/kg	2,000	1,500	1,100

Moisture				
Our Reference		312365-1	312365-2	312365-3
Your Reference	UNITS	Site 1 Sample 1	Site 1 Sample 2	Site 2 Sample 1
Depth		150	150	150
Date Sampled		2/12/2022	2/12/2022	2/12/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	07/12/2022	07/12/2022	07/12/2022
Date analysed	-	08/12/2022	08/12/2022	08/12/2022
Moisture	%	14	8.3	2.7

Asbestos ID - soils NEPM - ASB-001		
Our Reference		312365-4
Your Reference	UNITS	Site 2 Sample 2
Depth		150
Date Sampled		2/12/2022
Type of sample		Soil
Date analysed	-	08/12/2022
Sample mass tested	g	662.43
Sample Description	-	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected
Total Asbestos#1	g/kg	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected
ACM >7mm Estimation*	g	–
FA and AF Estimation*	g	–
ACM >7mm Estimation*	%(w/w)	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "**--**" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.

Client Reference: Metaline Engineering - Douglas Hendereson

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date prepared	-			07/12/2022	[NT]	[NT]	[NT]	[NT]	07/12/2022	[NT]
Date analysed	-			09/12/2022	[NT]	[NT]	[NT]	[NT]	09/12/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	101	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	96	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Client Reference: Metaline Engineering - Douglas Hendereson

Report Comments

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

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CERTIFICATE OF ANALYSIS 312365-A

Client Details

Client	Metaline Engineering Group T/L
Attention	Anthony Misagh
Address	331 Cummins St, Broken Hill, NSW, 2880

Sample Details

Your Reference	**Metaline Engineering - Douglas Hendereson**
Number of Samples	5 Soil
Date samples received	06/12/2022
Date completed instructions received	06/12/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	13/12/2022
Date of Issue	23/01/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Giovanni Agosti, Group Technical Manager
Greta Petzold, Assistant Operation Manager

Authorised By

Nancy Zhang, Laboratory Manager

Acid Extractable metals in soil		
Our Reference		312365-A-5
Your Reference	UNITS	Train line sample
Depth		150
Date Sampled		2/12/2022
Type of sample		Soil
Date prepared	-	13/12/2022
Date analysed	-	13/12/2022
Arsenic	mg/kg	78
Cadmium	mg/kg	28
Lead	mg/kg	6,600
Zinc	mg/kg	10,000

Client Reference: Metaline Engineering - Douglas Hendereson

Moisture		
Our Reference		312365-A-5
Your Reference	UNITS	Train line sample
Depth		150
Date Sampled		2/12/2022
Type of sample		Soil
Date prepared	-	07/12/2022
Date analysed	-	08/12/2022
Moisture	%	8.8

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.

Client Reference: Metaline Engineering - Douglas Hendereson

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date prepared	-			13/12/2022	[NT]	[NT]	[NT]	[NT]	13/12/2022	[NT]
Date analysed	-			13/12/2022	[NT]	[NT]	[NT]	[NT]	13/12/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	101	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]

Result Definitions	
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NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
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Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

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For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix C

Site Classification Report

Site Classification/Dynamic Cone Penetrometer Test Report

Date of Issue 30-Jan-23

Contract: MEG - Site Classification for 1 Hynes Street, Broken Hill NSW.

Project:	Proposed new development	**Layers Removed:**	0 (BH1)
Chainage:	N/A	**Prior to test:**	N/A
Test No.:	1 & 2 per site 1 and 2	**Easting:**	N/A
Location:	1 Hynes Street - vacant block	**Northing:**	N/A
Direction:	West Broken Hill	**Existing Level:**	N/A
Final Depth (mm BGL):	Site 1 - 550mm Site 2 - 1500mm	**Test Level:**	N/A
Date Tested:	6-Dec-22		

Direct Contact:
Any questions or queries regarding this report should be directed to Metaline Engineering Group on email at megprojects@metaline-engineering.com

Document Revision History:

Date	Rev	Engineer	Comments
30/01/2023	A	A. Misagh	Revision A

1. INTRODUCTION
Metaline Engineering Group Pty Ltd (MEG) have been engaged by the client to conduct an investigation of the surface and subsurface conditions at 1 Hynes Street, Broken Hill, NSW, 2880 as depicted on the cover page with a view to reporting on the Site Classification for a **proposed new residential subdivisions**.

2. SITE CLASSIFICATION

2.1. SITE GEOLOGY
The available Geological Survey Maps showed the site to be underlain by a triangular block of metamorphic and deformed sedimentary rocks forming a series of northeast and northwest trending ridges. Bedrock includes schist and gneiss, intrusive granites, amphibolites and very coarse pegmatites.

Some of these rocks contain inherited minerals forming basement rocks which are partly overlain by Cambrian and Devonian conglomerates, quartz sandstones, shales and thin beds of limestone. Scopes, Mootwingee and Wonnaminta Ranges are mainly Ordovician to Devonian conglomerates – sandstones and shales that have been only gently folded. On the eastern margin of the Mootwingee and Wonnaminta Ranges, horizontally bedded sandstones of Cretaceous age form flat-topped mesas and tablelands that extend northeast into the Mulga Lands Bioregion. The geomorphology of the ranges is controlled by the different rock types and their structure. Faults up to 60 km long form prominent scarps between hill country and plains. Hard rocks outcrop as strike ridges and remnant pinnacles standing above long shallow slopes, with thin soils developed on the softer rocks. These rock cut slopes pass to wide footslopes and alluvial plains. Hills on granite are more rounded and subdued. Limestone and dolomites occur in limited areas as linear outcrops.

Beyond the footslopes the streams expand as alluvial fans, distributing sediment into sandy floodouts and clay playas. Much of the drainage from the Barrier, Mootwingee and Wonnaminta ranges ends in the Bancannia trough, where shallow lakes and swamps have formed and alluvial sand has been blown into sandplains and dune fields..

The Subsurface profile encountered in the boreholes is considered to be consistent with the geological map indications.

2.2. FIELD INVESTIGATION
TWO (2) boreholes were advanced for each site using a **Mechanical Auger** to the depths indicated on the borehole logs (refer to Appendix B). These boreholes were positioned as indicated on the site plan (refer to Appendix A) along with details of the existing surface conditions such as slope, trees, and existing buildings. Disturbed materials obtained from auguring boreholes were logged in accordance with AS1726-2017 and then classified in accordance with AS2870-2011.

A guide to the existing/natural soil profile consisted of: **SANDY and CLAY**

Full details of the observed subsurface material and conditions have been recorded on the borehole logs and presented in Appendix B.

2.3 SITE CLASSIFICATION IN ACCORDANCE TO AS2870 - 2011
In accordance with AS2870-2011 "Residential Slabs and Footings Construction" a site classification of Class **"M-D"** is applicable to this site due to moisture conditions at depth – potential recently demolished building on site and trees, recently removed trees on adjacent sites.

This site is subject to abnormal moisture conditions which must be alleviated or allowed for in the design of the footing system. In the absence of these abnormal moisture conditions, the designing engineer should recognise that the natural soils encountered on this site result in a **"Class M-D"** site classification applying to this site.

On the basis of the findings in this investigation, including visual-tactile identification of the soil profile combined with this writer's local knowledge and experience, the characteristic surface movement (Ys) on this site – under normal conditions – has been estimated to be in the range of 20mm to 40mm

experience, the characteristic surface movement (Ys) on this site – under normal conditions – has been estimated to be in the range of 20mm to 40mm.

It should be noted that this site is in an area with deep-seated movements and this should be taken into account by the designing engineer. Should a more detailed investigation (by others) with relevance to the reactivity of the soils in the local area be available, MEG should be provided with this documentation. It is a condition of this report that any information the client may have with regards to the site and its history be provided to MEG. This may lead to MEG reviewing the above classification and conducting a more detailed geotechnical investigation with regards to the additional information. This report is not a detailed geotechnical investigation. It complies with the requirements of AS2870-2011 and is limited to the items required under Clause 2.2.2(a). Should a more rigorous assessment be required, MEG can provide a Geotechnical Investigation of the site upon request.

In assessing the classification for this site, and unless specifically noted, this report has not considered any future tree(s) to be planted as part of either site or roadside landscaping. If additional information is known by the owner, future owner, any stakeholder, or any consultant, this information must be provided to the design engineer to ensure that the footing system is adequate for the conditions which are expected.

2.3.1 ADDITIONAL NOTES RELATING TO THIS SITE CLASSIFICATION

This investigation is based on a limited geotechnical assessment. Should the subsurface conditions encountered during construction vary from those described above, MEG must be advised of these variations to provide comment or inspect the site where necessary. The use of standard footings as presented in AS2870-2011 is only applicable to building with a loading and a construction style similar that of a residential dwelling as described in section 3.1 of AS2870-2011.

In accordance with Clause 2.5.2 of AS2870 where the site cut exceeds 500mm a second site investigation is recommended. As such;

• Where the cut depth is >500mm and < 1000mm the relevant design engineer may choose to design for a reduced crack zone from first principles

• Where the cut depth is in excess of 1000mm a second soil must be carried out to confirm the effects of the cut on the site classification”

3. FOUNDING RECOMMENDATIONS

Based on the site classification an engineer designed foundation systems is required at this site. The foundation systems must be designed to cater for the potential movements associated with the drying effects of trees, removal of small bush, removal of small to medium trees or a group of trees. **This site is heaviliy vegetated.** The designer may adopt the classification of the site **"Class M-D"** for the purposes of determining the total Yt. The designer should also pay close attention to any adverse scenario where the tree/structure are removed and the subsequent heave that could be expected under this scenario. Hence site conditions may alter to a classification **"P"**

Alternatively, deeper foundations can be adopted as follows:
To prevent differential settlement of the structure consideration should be given to the use of bored piers/screw piles or driven piles where these are founded within the natural occurring undisturbed **SANDY/CLAY.**

Bored Piers should be founded into the **SANDY/CLAY** which has an allowable end bearing pressure as indicated on Table 1. As a guide any bored piers founded deeper than 1800mm from the existing surface the extent of the bored pier founded greater than this depth may adopt a skin friction of **15kPa** for any clay soils.

The pile design should be conducted by engineering principles, adopting the principle of effective stress. Negative skin friction should be adopted for the upper filling material.

The exact depth required to achieve the capacity will need to be analysed by the piling contractor and the current piling codes. **However, for the**

3.1 MAINTENANCE RECOMMENDATIONS

In line with AS 2870-2011 Appendices A and B, the owner, future owner, any stakeholder, and any consultant, have a duty of care to ensure that future landscaping will not contribute to an adverse impact on the footing system. MEG recommends reference to the following resources when planning landscaping works for the site:

• HEDRA – How to protect your house (https://bit.ly/3opoBQf)
• CSIRO – Foundation Maintenance and Footing Performance: A Homeowner’s Guide [2003] (https://bit.ly/3qe0yGb)

3.2 ALLOWABLE BEARING PRESSURES

The following allowable bearing pressures can be adopted for the soils listed in the table below. These bearing pressures apply where typically the embedment is a minimum of 100mm into the specified material.

Table 1: Allowable Bearing Pressures

Soil Type	Indicative founding depth (mm)	Maximum Allowable Bearing Capacity (kPa)
Natural Sandy/Clay*	100mm into layer	80
Natural Sandy/Clay*	100mm into layer	120
Natural Sandy/Clay*	300mm into layer	150
Natural Sandy/Clay*	600mm into layer	250
Natural Sandy/Clay*	900mm into layer	250

*Bearing pressures reported above are only applicable to raft slab and or waffle slab foundations. Where strip, pad, and bored piers are adopted bearing pressures reported for the deeper, clay and or rock units are to be adopted. The minimum founding depths as required by AS2870 can be adopted unless specific founding depths have been provided in Section 3. Further investigation may be required for such footing types.

*Natural Material – All-natural material given allowable bearing capacities denotes strength at optimum moisture conditions. The potential presence of perched groundwater in soils may lead to construction difficulties during wet weather. Please refer to **Section 4.2** for site specific difficulties.

4. CONSTRUCTION TECHNIQUES AND DIFFICULTIES

4.1 GENERAL

1. All loose surface fill, all roots and all organic material are to be removed from the building platform.

2. Notwithstanding the recommendations made in this report, wherever footings are close to any excavations or easements, that part of the footing must be deepened so that the projection from the underside of the footing to the bottom of the excavations makes an angle not exceeding 30 degrees in sandy soils and 45 degrees in clayey soils (This angle is measured from the horizontal). Steeper angles are not recommended unless sufficient testing and investigation has been carried out to indicate otherwise or the foundations are founded in competent rock.

3. It is recommended a second soil test be undertaken if the site is cut more than 400mm for CLAY sites. Where it is proposed to FILL the site a second soil test will be required should > 400mm of CLAY FILL be proposed or >800mm SAND FILL be proposed. It is recommended that any FILLING placed meet the requirements of CONTROLLED FILL as this will minimise the impact of the FILLING on the current classification of the site.

4. The Plumber shall lay waste pipes below ground surface at minimum grade. Risers are to be staked firmly.

5. Care shall be taken with surface drainage of the allotment from the start of construction and must be well drained so that water cannot pond beside or adjacent to footings. The drainage system shall be completed by the finish of construction of the house in accordance with AS2870-2011 Clause 5.5.3 (a).

6. Proper site drainage is very important in reactive sites such as this site. It is therefore recommended that the ground surface immediately next to the perimeter footings be graded away or site drainage issues be addressed. Should you the client require detailed design for specific site drainage plans please do not hesitate to contact MEG Consulting Engineers.

7. Any filling placed across the site to assist in levelling prior to slab construction should conform with the requirement for either Controlled fill (Clause 2.5.3) or Rolled fill (Clause 6.4.2) AS 2870-2011. These clauses are as follows. If it cannot be confirmed that the fill is Controlled Fill or Rolled Fill then the reader should refer to item (c).

A. Controlled Fill - Fill that will be required to support structures or associated pavements, or for which engineering properties are to be controlled AS2870-2011. Refer Clause 2.5.3, Clause 2.5.3(a)(c) - (I.e.: where a specification has been provided on the type, quality and compaction requirements for filling at a site and the earthworks have been deemed compliant with the specification)

B. MEG has the express right to deem FILL uncontrolled where it cannot be clearly demonstrated that fill has been placed under the above conditions. That is to say that it is a requirement of the developer/builder to demonstrate fill placement has been placed in the appropriate layer thicknesses.

C. Rolled Fill - Rolled Fill consists of material compacted in layers by repeated rolling with an excavator or similar equipment. The depth of rolled fill shall not exceed 0.6metres compacted in layers not more than 0.3m thick for sand material or 0.3m compacted in layers not more than 0.15m thick for other material AS2870-2011 Cl6.4.2(b)

D. Where the nature of the fill cannot be confirmed, this office must undertake an assessment of the fill or be supplied with a suitable compaction report or geotechnical assessment of the fill to undertake an appropriate design for the site if the fill is to be utilised as a foundation.

8. We advise that it is possible that some sites may still have the presence of isolated areas of original organic material that may not have been fully removed during the sub division earthworks development stage. MEG will make every effort to identify organic material within the soil profile, however due to the limitation on the number of boreholes for each site investigation, it is possible that some of these pockets may escape identification. MEG does not take responsibility for isolated organic material that lies in areas outside our borehole locations, to the extent that these pockets could affect the design or construction of the footing system.

4.2 SITE SPECIFIC

• The soils encountered on-site could develop a localised perched groundwater during periods of high rainfall which may lead to construction difficulties associated with excavations on this site.

• This site may have contained significant trees that have been recently removed. The builder is to ensure all tree roots/material over the proposed building area has been removed. Any soft or loose material that does not respond to compaction should be excavated to achieve a firm working base. Fill holes with suitable fill compacted in 150mm (maximum) layers.

• An engineer designed footing system in accordance with AS2870 2011 is recommended for this site taking into consideration the effect of the trees in relation to the final house siting.

• Demolition previously of the existing structure is likely to leave isolated pockets of fill and or disturbed ground conditions. Where there is local disturbance the proposed foundations must extend a minimum of 100mm below the level of disturbance into either of the naturally occurring materials as identified in Section 2 of this report. Note alternatively the disturbed material may be controlled and subsequently adopted as a founding material (refer definitions on controlled FILL).

5. CONDITIONS OF USE OF THIS REPORT

5.1 REPORT LIMITATIONS

1. The recommendations in this report are based on the following:

a) Information about the site & its history, proposed site treatment and building type conveyed to us by the client and or their agent

b) Professional judgments and opinions using the most recent information in soil testing practice that is available to us.

c) The location of our test sites and the information gained from this and other investigations.

2. Should the client or their agent neglect to supply us with correct or relevant information, including information about previous buildings, trees or past activities on the site, or should changes be made to the building type, size and or/position, this report may be made obsolete, irrelevant or unsuitable. In such cases, MEG will not accept any liability for the consequences and MEG reserves the right to make an additional charge if more testing or a change to the report is necessary.

3. The recommendations made in this report may need to be reviewed should any site works disturb any soil 200mm below the proposed founding depth.

4. The descriptions of the soils encountered in the boreholes follow those outlined in AS1726-2017; Geotechnical Site Investigations. Colour

descriptions can vary with soil moisture content and individual interpretation.

5. If the site conditions at the time of construction differ from those described in this report then MEG must be contacted so a site inspection can be carried out prior to any footing being poured. The owner/builder will be responsible for any fees associated with this additional work.

6. This report assumes that the soil profiles observed in the boreholes are representative of the entire site. If the soil profile and site conditions appear to differ substantially from those reported herein, then MEG should be contacted immediately and this report may need to be reviewed and amended where appropriate. The owner/builder will be responsible for any fees associated with this additional work.

7. The user of this report must take into account the following limitations. Soil and drilling depths are given to a tolerance of +/- 200mm. Where spot levels or a feature survey have been undertaken, levels are given a tolerance of +/-200mm.

8. It must be understood and a condition of acceptance of this report is that whilst every effort is made to identify fill material across the site, difficulties exist in determining fill material, in particular, for example, well compacted site or area derived fill, when utilising a small diameter auger. Consequently, MEG emphasises that we will not be responsible for any financial losses, consequential or otherwise, that may occur as a result of not accurately determining the fill profile a cross the site.

9. The owner(s) and/or future owner(s) shall be cognisant of their responsibilities as outlined in AS2870-2011 Appendices A and B.

10. MEG's assessment of flooding is based on Government/Council planning and GIS data available at the time of this investigation. MEG has not made a site specific assessment based on height or hydrological data with reference to the future flood risk at the property. MEG does not guarantee that this site is free from flooding as further detailed investigation may be required.

a) This report does not assess the potential for landslide, undermining or aggressive soils.

11. Unless specifically mentioned, this report has not considered the risk of subsidence caused by historical, current or future mining activities.

5.2 VARIATIONS TO THIS REPORT

It is neither economically feasible nor practical to determine every subsurface feature on the site. Studies have shown that a large number of boreholes leads to only a slight increase in probability of detecting hidden site features (such as a filled well or cellar) in the foundation soils. As such, any variations, or discrepancies in soil type, colour, or horizon depth must be reported to the Engineer immediately so that their potential influence on the footings may be assessed.

5.3 LOSS OR DAMAGES

Subject to the limitations of this report as expressed in **Section 5.1**, MEG Consulting Engineers Pty Ltd will not accept liability for loss or damage, consequential or otherwise, based on the recommendations of this report, other than for the cost of re-assessment. This site classification assessment should not be considered a comprehensive analysis of the subject site. Should a more detailed geotechnical assessment be required MEG Consulting Engineers Pty Ltd can provide such a report. Please contact MEG Consulting Engineers Pty Ltd to discuss this further.

Should you have any questions regarding this report please do not hesitate to contact the MEG Site Classification Division on 0484 770 935

For and on behalf of MEG Consulting Engineers Pty Ltd

Metaline Engineering Group Pty Ltd

Anthony Misagh

MEG METALINE ENGINEERING GROUP

APPENDIX A
Site Plan

APPENDIX B

Borehole Logs and DCP Test Results

BOREHOLE LOGS - Site A (1)

Site Address - 1 Hynes Street, Broken Hill NSW, 2880							Mechanical Augure	Mechanical Augure
Location	**USC**	**Soil Type**	**Moisture**	**Density/Consistency/Strength**	**Plasticity**	**Description**	**BH 1**	**BH2**
EXISTING SURFACE LEVEL							0	0
Site A (1)	OL	Sandy/minor traces of Clay	Dry	Loose	Low	Redish Brown	0-400	0-400
Site A (1)	OL	Sandy/minor traces of Clay	Dry	Loose	Low	Redish Brown	450	550
							Bearing Cap >200kPa	Bearing Cap >200kPa
						NOTES	Ground Water Not Encountered	Ground Water Not Encountered

BOREHOLE LOGS - Site B (2)

Site Address - 1 Hynes Street, Broken Hill NSW, 2880							Mechanical Augure	Mechanical Augure
Location	**USC**	**Soil Type**	**Moisture**	**Density/Consistency/Strength**	**Plasticity**	**Description**	**BH 1**	**BH2**
EXISTING SURFACE LEVEL							0	0
Site B (2)	OL	Sandy/minor traces of Clay	Dry	Loose	Low	Redish Brown	0-500	0-400
Site B (2)	OL	Sandy/minor traces of Clay	Dry	Loose	Low	Redish Brown	500-800	500-800
Site B (2)	OL	Sandy/minor traces of Clay	minor	Loose	Low	Redish Brown	800-1000	800-1000
Site B (2)	OL	Sandy/minor traces of Clay	minor	Loose	Low	Redish Brown	1000-1500	1000-1500
							Bearing Cap >200kPa	Bearing Cap >200kPa
						NOTES	Ground Water Not Encountered	Ground Water Not Encountered

Site A (1)

DYNAMIC CONE PENETROMETER (DCP) TEST RESULTS

Test number	DCP-1	DCP-2
Ground Water	Nil	Nil
Depth (mm)	Number of blows/100 mm	
0-100	3	3
100-200	3	3
200-300	3	3
300-400	5	5
400-500	10	10
500-600	Terminate	Terminate

Site B (2)

DYNAMIC CONE PENETROMETER (DCP) TEST RESULTS

Test number	DCP-1	DCP-2
Ground Water	Nil	Nil
Depth (mm)	Number of blows/100 mm	
0-100	5	5
100-200	2	2
200-300	2	2
300-400	2	2
400-500	2	2
500-600	1	1
600-700	1	1
700-800	1	1
800-900	4	4
900-1000	4	4
1000-1500	10	10
	Terminate	Terminate

***Refusal - more tan 20 blows/0.1m**

SITE CLASSIFICATION EXPLANATIONS:

Class	Expected Surface Movement (Ys)	Explanation
A	**0mm**	Includes many sand, gravel and rock sites with little/no clays. These sites have little/no expected movement and as a result zero moisture variation.
S	**0 - 20mm**	Slightly reactive sites which exhibit only small movements with moisture variation.
M	**20 - 40mm**	Moderately reactive sites exhibit moderate amounts of movement with moisture variation. These sites commonly include red/brown silty soils, some sandy clays and loamy soils.
H1	**40 - 60mm**	Highly reactive sites exhibit high amounts of movement with moisture variation.
H2	**60 - 75mm**	Highly reactive sites exhibit high amounts of movement with moisture variation.
E	**>75mm**	Extremely reactive sites which exhibit greater than 75mm of surface movement. Typically, these sites include deep reactive clays, such as black and dark brown soils. These sites typically demand quite expensive footing systems.

In areas of deep seated moisture changes, the site classification shall be modified by the addition of a "-D".

As indicated previously, the Site Classification must consider many aspects of the site, not just the reactivity of the soil. P sites are those that include other factors that need to be brought to the attention of the owner, builder and footing designer. A "P" classification does not indicate a specific Ys value and is described as a "Problem" site.

P

The reasons for a P classification include:

- Clay fill greater <400mm Sand fill <800
- Growth &/or Removal of Trees will cause Abnormal moisture conditions in the subsurface soils;
- Unusually high moisture conditions caused by water flow, ponds, dams etc;
- Sites with Loose fill which can be either "controlled" or "uncontrolled". The P Classification depends upon the depth and type of fill;
- Sites with poor bearing capacity, soft soils, or soils which are prone to collapse;
- Sites prone to mine subsidence, land slip, piping or coastal erosion;
- Sites which for one reason or another cannot be classified as normal sites

APPENDIX C
Site Photos

Site A (1)



Site B (2)



Appendix D

Proposed Draft Development Plans

Appendix E

Dial Before You Dig Search Findings

CABLE/PIPE LOCATION

Assets were found in the search area

COMPANY NAME:	Metaline Engineering Group Pty Ltd
ATTENTION:	Abtin Misagh
SEARCH LOCATION:	1 Hynes Street Broken Hill NSW 2880
SEQUENCE NO:	220541119
DATE:	Monday, 30 January 2023

Provision of Plans:
Please find enclosed plans depicting approximate locations of **Essential Energy** assets in the search location***. The excavator must not assume that there may not be assets owned by other network operators in the search location.***

Underground assets searched for	Underground assets found
Essential Energy Electrical	☑
Essential Energy Water & Sewerage	☑

Plans are updated from time to time to record changes to underground assets and may be updated by Essential Energy without notice. In the event that excavation does not commence within 28 days of receipt of a plan, a new plan should be obtained.

The excavator must retain the plans on site for the duration of the works.

The excavator shall report all damage made to Essential Energy assets immediately. Note that damage includes gouges, dents, holes and gas escapes.

IN CASE OF EMERGENCY OR TO REPORT DAMAGE:
PHONE 13 20 80

DISCLAIMER

Please be aware that plans may **not** reflect alterations to surface levels or the position of roads, buildings, fences etc. **Cable and pipe locations are approximate** and the plans are **not** suitable for scaling purposes. *Essential Energy does not retain plans for privately-owned underground electrical or water & sewerage assets located on private property.* ***Privately-owned underground electrical assets located on private property are the responsibility of the owner.***

The plans have been prepared for Essential Energy's sole use and benefit. **Essential Energy cannot and does not warrant the accuracy or completeness of the plans**. Essential Energy supplies them at no cost with the object of reducing the serious risk of unintentional damage being caused to its cables and pipes. **Essential Energy does not accept any responsibility for any omissions, inaccuracies or errors in the plans, or any reliance place on the material. Any reliance placed on any plan provided in response to your request is at your own risk.**

www.essentialenergy.com.au
ABN 37 428 185 226
PO Box 5730 Port Macquarie NSW 2444
Telephone: 13 23 91 Facsimile: 1800 354 636

Essential Energy retains all intellectual and industrial property rights which exists or may exist in or with respect to the plan(s). The material provided is not to be copies or distributed beyond you.

You release Essential Energy from and against all claims, demands, actions and proceedings arising out of or in any way related to the use of the provided material.

Location of Assets on Site:
The plans indicate only that cables and pipes may exist in the general vicinity – they do not pinpoint the exact location of the cables and pipes.

If it is found that the location of cables or pipes on the plans can be improved, please notify Essential Energy on 13 23 91 (or fax 1800 354 636).

All individuals have a duty of care they must observe when working in the vicinity of underground cables and pipes. It is the **excavator's responsibility to visually expose the underground cables and pipes manually**, **ie. by using hand-held tools and non-destructive pot-holing techniques prior to any mechanical excavation.** The excavator will be held responsible for all damage caused to the Essential Energy network or cables and pipes, and for the costs associated with the repair of any such damage. The excavator will also be held responsible for all damage caused to any persons.

When digging in the vicinity of underground assets, persons should observe the requirements of the applicable Codes of Practice published by the NSW Work Cover Authority or Safe Work Australia, and any amendments from time to time by the Authorities, including although not limited to:

- Excavation Work
- Managing Electrical Risks in the workplace
- How to manage and control asbestos in the workplace

(Please refer to https://www.workcover.nsw.gov.au/law-and-policy/legislation-and-codes/codes-of-practice).

When digging in the vicinity of **electrical assets** persons should observe the requirements of the **Electricity Supply Act 1995.**
Persons excavating near live underground electrical reticulation and/or earthing cables **must exercise extreme caution at all times and adhere to the requirements of Essential Energy's Electrical Safety Rules.** (These are available on our website: http://www.essentialenergy.com.au/content/safety-community and include

- **Work near Essential Energy's Underground Assets:**
  http://www.essentialenergy.com.au/asset/cms/pdf/contestableWorks/CEOP8041.pdf , and
- **Asbestos Fact Sheet**:
  http://www.essentialenergy.com.au/asset/cms/pdf/safety/AsbestosFactSheet.pdf

In some situations these procedures call for work to be performed by authorised staff.
Should there be any doubt as to the exact location of any underground electrical assets, and the potential for conflict with live underground cables caused by excavation at your work site, you should contact **13 23 91** to arrange for an on-site visit by an Essential Energy representative**.** No construction or mechanical excavation work is to commence prior to this on-site visit and approval being obtained.

When digging in the vicinity of **water or sewer assets** persons should observe the requirements of the **Water Management Act 2000.**
Should there be any doubt as to the exact location of any underground water and sewer assets, and the potential for conflict with underground water and sewer pipes caused by excavation at your work site, you should contact **13 23 91** to arrange for an on-site visit**.** No construction or excavation work is to commence prior to this on-site visit and approval being obtained.

Prior Notification:
Please note that for excavation depths greater than 250mm near power poles and stays you should allow for **advance notice** in your construction program to permit Essential Energy time to allocate the necessary field resources to carry out the inspection at the site a **minimum of fourteen (14) working days prior to work commencing**. This service may incur a fee and this can be negotiated with the local Area Coordinator at the time of making the appointment. Failure to give reasonable notice to the local Area Coordinator may result in disruption to Essential Energy's planned works program in the district and could incur an extra charge over and above the normal rate for this service.

For further information please call 13 23 91.

www.essentialenergy.com.au
ABN 37 428 185 226
PO Box 5730 Port Macquarie NSW 2444
Telephone: 13 23 91 Facsimile: 1800 354 636

Job Number: 3350671
Sequence number: 2205411
Job location: 1 Hynes Street Broken Hill
Map centre: 141° 25' 35.8" -31° 57' 38.9"
PICTON SALE YARD RD
HYNES ST
RAKOW ST
essential water
Overhead wires not shown
LOOK UP & LIVE!
Water/Sewer infrastructure
ONLY shown
LEGEND
Critical* asset
Water Hydrant
Water Valve
Water Isolation Valve
Water Service Connection
Above Ground Water Device
Above Ground Sewer Device
Area of Interest
* Critical Assets: Contact Essential Energy on 13 23 91
THE INFORMATION ON THIS MAP MAY NOT BE ACCURATE.
If details are incorrect, please notify Essential Energy on 13 23 91 (or fax 1800 354 636)
ISSUE DATE: 30/01/2023
You must resubmit your request if you have not started work within 4 weeks of the 'Issue Date' above
A4
SCALE : 1:5739
essentia

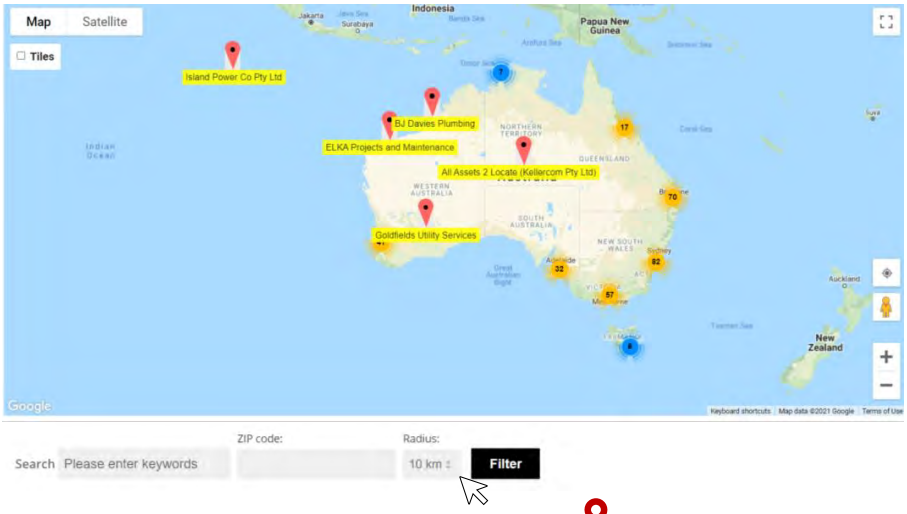
Job Number: 33506731
Sequence number: 22054119
Job location: 1 Hynes Street, Broken Hill
Map Centre: 141° 25' 35.8", -31° 57' 38.9"
PICTON SALE YARD RD
HYNES ST
RAKOW ST
Overhead wires not shown
LOOK UP & LIVE!
LEGEND
LV Underground Cable
HV Underground Cable
Underground Pipe
Underground Earth or Wires
Ground Substation
Pole
Cubicle
Pit
Area of Interest
Critical Assets
Contact Essential Energy on 13 23 91
Zone Substation
Underground Cable
Underground Fibre
Proposed Works
Area of proposed works
Proposed assets are shown as orange symbols
THE INFORMATION ON THIS MAP MAY NOT BE ACCURATE.
If details are incorrect, please notify Essential Energy on 13 23 91 (or fax 1800 354 636)
ISSUE DATE: 30/01/2023
You must resubmit your request if you have not started work within 4 weeks of the 'Issue Date' above
A4
SCALE: 1:5736
essential energy

Certified Locating Organisations (CLO)

Find the closest CLO to your worksite on: https://dbydlocator.com/certified-locating-organisation/

Read the disclaimer and click: Accept and Search Now

A national map and an A-Z list of Certified Locating Organisations is displayed.



Use the map to zoom to your work area and choose the closest Locator indicated.

OR search by entering the **postcode** of your work area.

1. **Enter the post/zip code**
2. **Choose your search radius**
3. **Click filter** (If there is no result, you may have to increase the search radius)
4. **Click on the closest for CLO details or view the results displayed below the map**

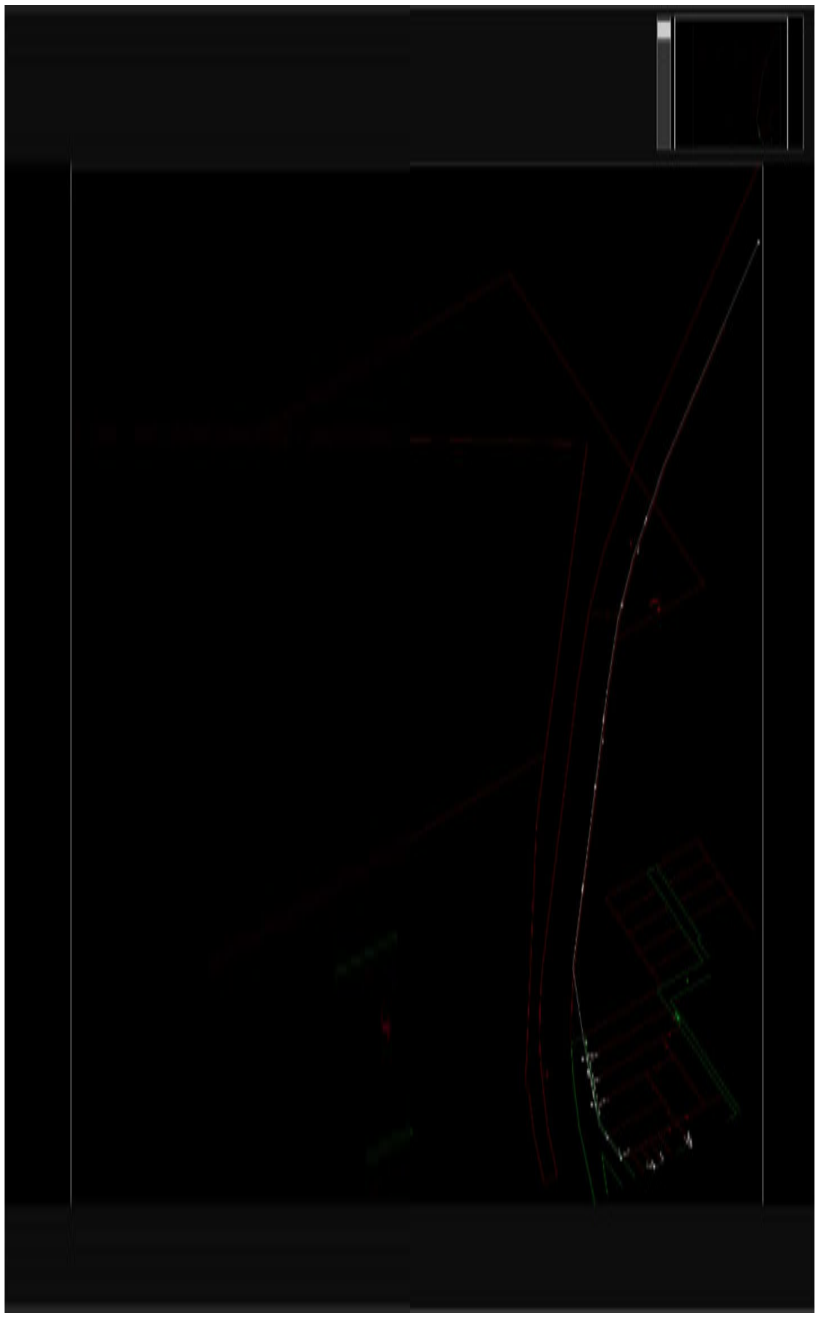
Locator skills have been tested, and the Organisation has calibrated location and safety equipment.

Telstra is aware of each Certified Locating Organisation and their employee locators.

Only a DBYD Certified Locator registered with a Certified Locating Organisation is authorised to access Telstra network for locating purposes.

Each Certified Locator working for a CLO is issued with a photo ID Card, authorising them to access Telstra pits and manholes for the purpose of cable and plant locations.

Please ask to see your Locators' CLO ID Card.



TELSTRA

Working near nbn™ cables

nbn has partnered with Dial Before You Dig to give you a single point of contact to get information about **nbn** underground services owned by **nbn** and other utility/service providers in your area including communications, electricity, gas and other services. Contact with underground power cables and gas services can result in serious injury to the worker, and damage and costly repairs. You must familiarise yourself with all of the Referral Conditions (meaning the referral conditions referred to in the DBYD Notice provided by **nbn**).

Practice safe work habits

Once the DBYD plans are reviewed, the Five P's of Excavation should be adopted in conjunction with your safe work practices (which must be compliant with the relevant state Electrical Safety Act and Safe Work Australia "Excavation Work Code of Practice", as a minimum) to ensure the risk of any contact with underground **nbn** assets are minimised.

Plan: Plan your job by ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.

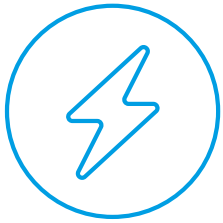
Prepare: Prepare for your job by engaging a DBYD Certified Plant Locator to help interpret plans and identify on-site assets. Contact **nbn** should you require further assistance.

Pothole: Non-destructive potholing (i.e. hand digging or hydro excavation) should be used to positively locate **nbn** underground assets with minimal risk of contact and service damage.

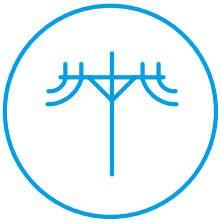
Protect: Protecting and supporting the exposed **nbn** underground asset is the responsibility of the worker. Exclusion zones for **nbn** assets are clearly stated in the plan and appropriate controls must be implemented to ensure that encroachment into the exclusion zone by machinery or activities with the potential to damage the asset is prevented.

Proceed: Proceed only when the appropriate planning, preparation, potholing and protective measures are in place.

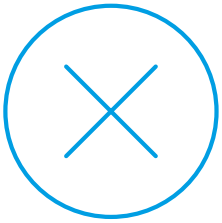
Working near nbn™ cables



Identify all electrical hazards, assess the risks and establish control measures.



When using excavators and other machinery, also check the location of overhead power lines.



Workers and equipment must maintain safety exclusion zones around power lines.

Once all work is completed, the excavation should be re-instated with the same type of excavated material unless specified by **nbn**. Please note:

- Construction Partners of **nbn** may require additional controls to be in place when performing excavation activities.
- The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

Contact

All nbn™ network facility damages must be reported online here.
For enquiries related to your DBYD request please call 1800 626 329.

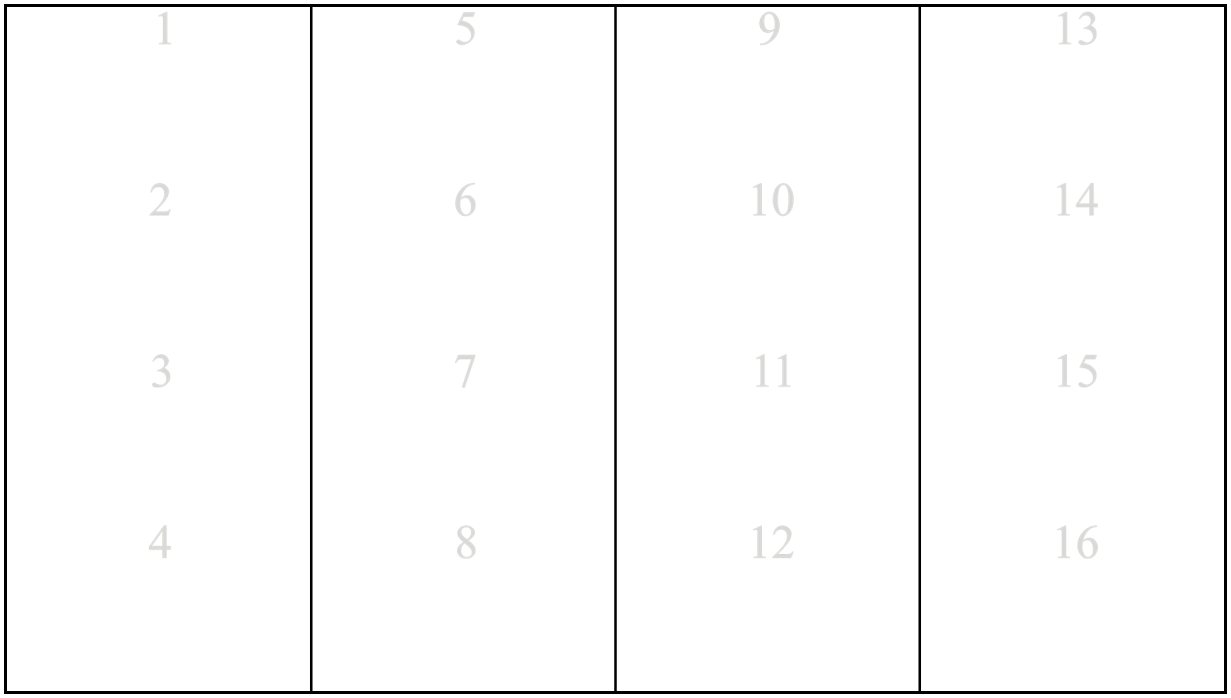
DIAL BEFORE YOU DIG
www.1100.com.au

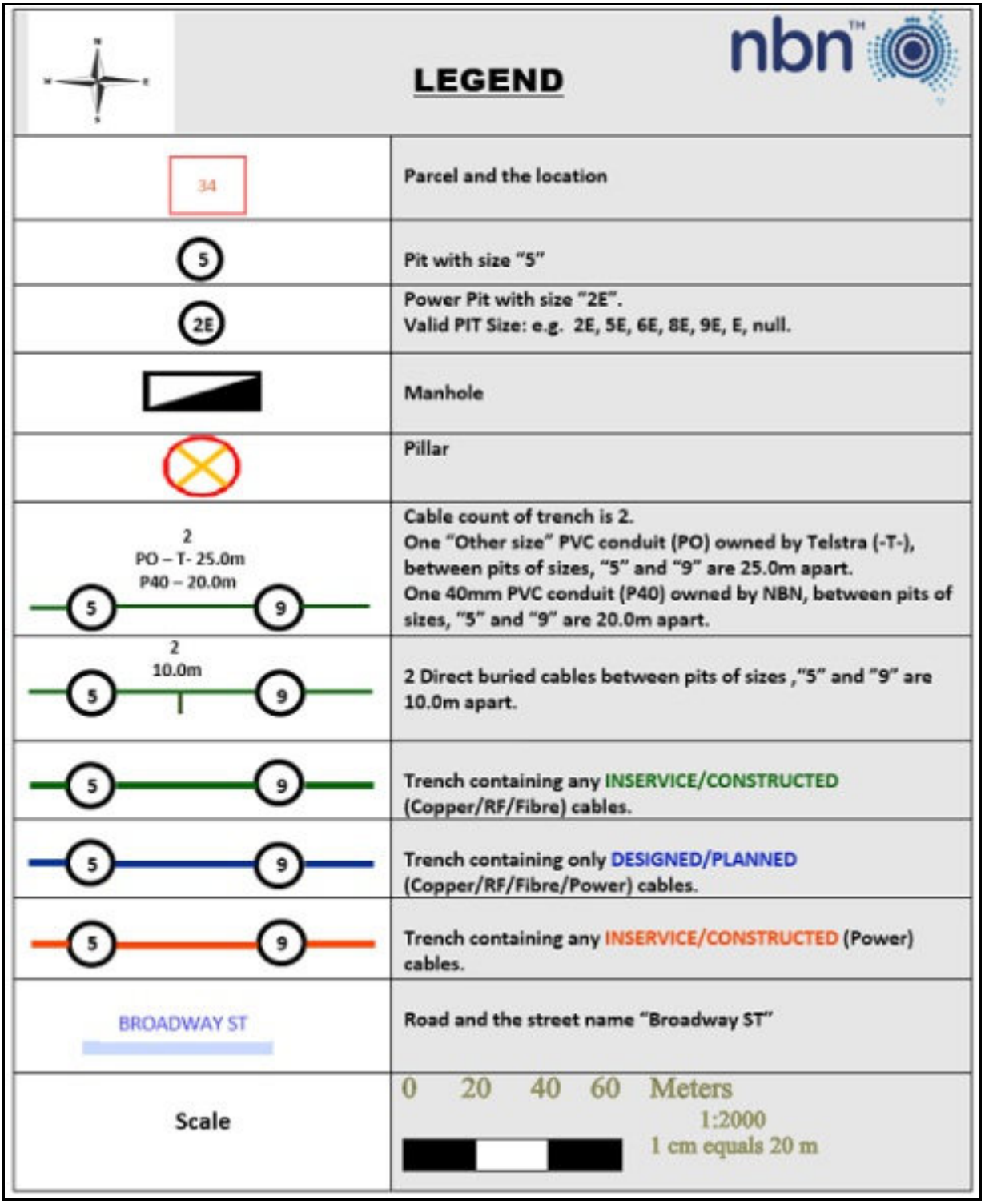
To:	Abtin Misagh
Phone:	Not Supplied
Fax:	Not Supplied
Email:	Megprojects@metaline-engineering.com

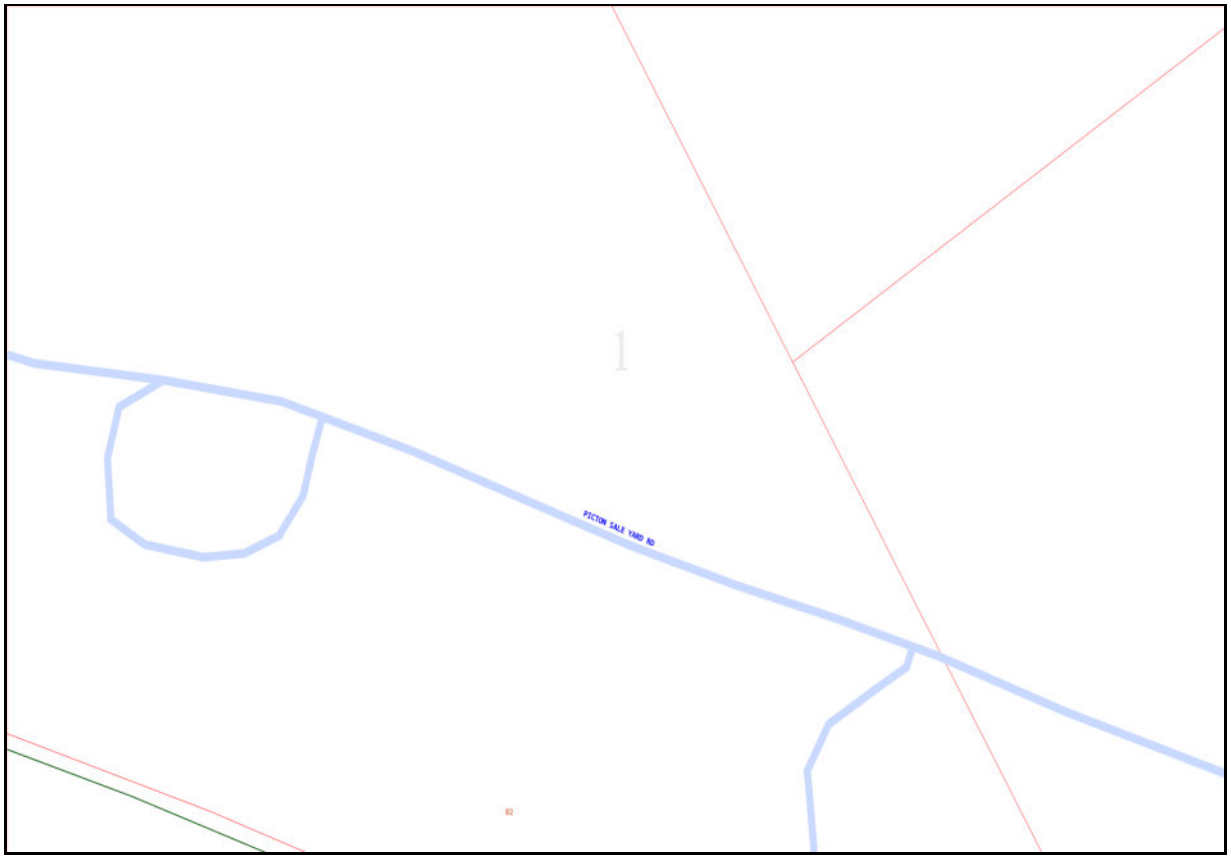
Dial before you dig Job #:	33506731
Sequence #	220541118
Issue Date:	30/01/2023
Location:	1 Hynes Street , Broken Hill , NSW , 2880

DIAL BEFORE YOU DIG www.1100.com.au

Indicative Plans




LEGEND
nbn
34
Parcel and the location
5
Pit with size "5"
2E
Power Pit with size "2E".
Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
Manhole
Pillar
2
PO – T- 25.0m
P40 – 20.0m
5
9
Cable count of trench is 2.
One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart.
One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2
10.0m
5
9
2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5
9
Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5
9
Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5
9
Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST
Road and the street name "Broadway ST"
Scale
0 20 40 60 Meters
1:2000
1 cm equals 20 m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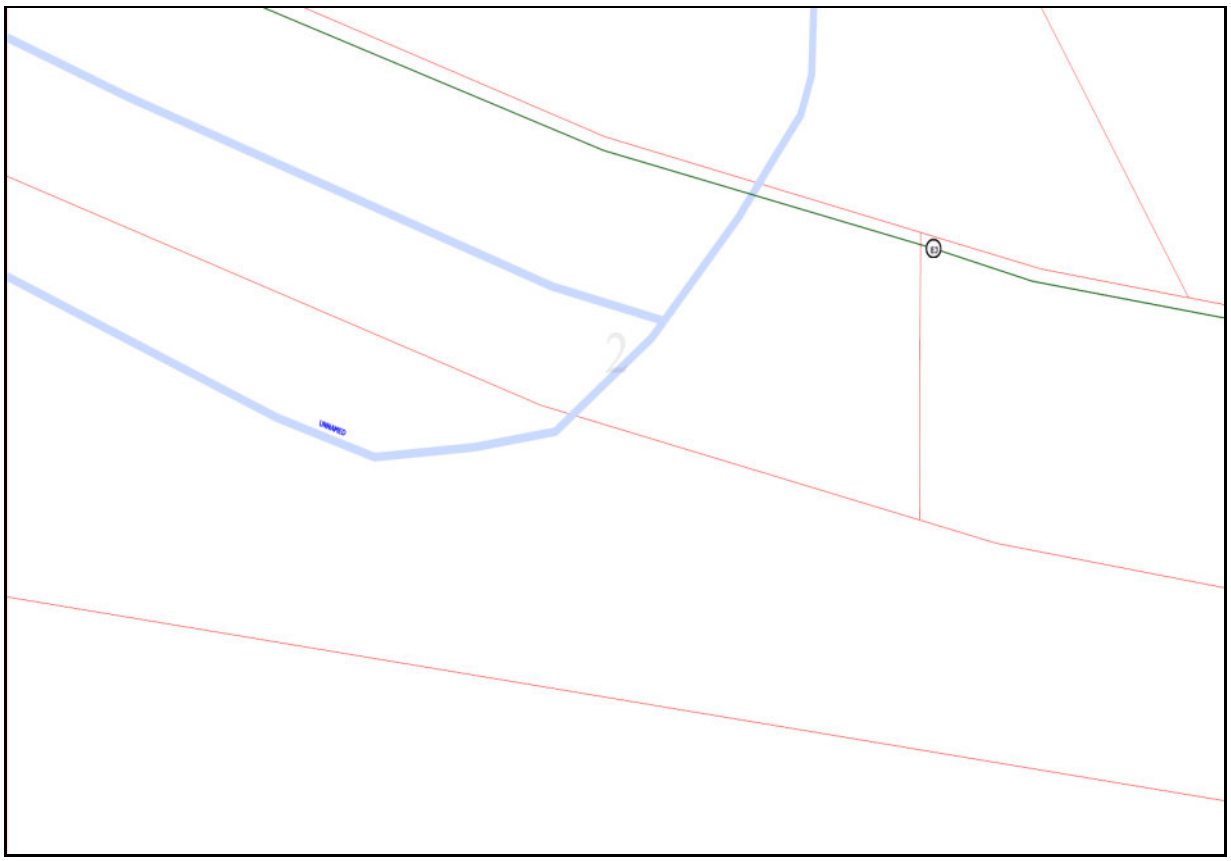

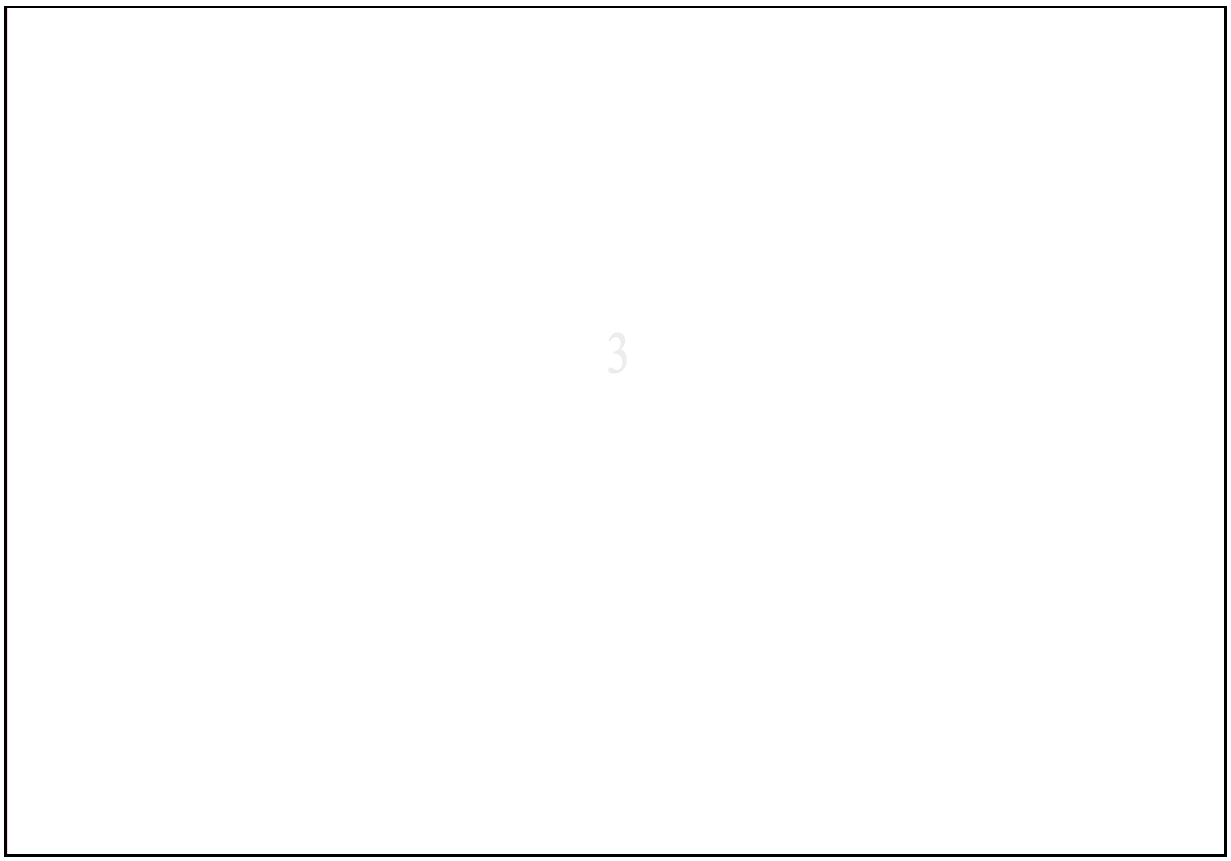

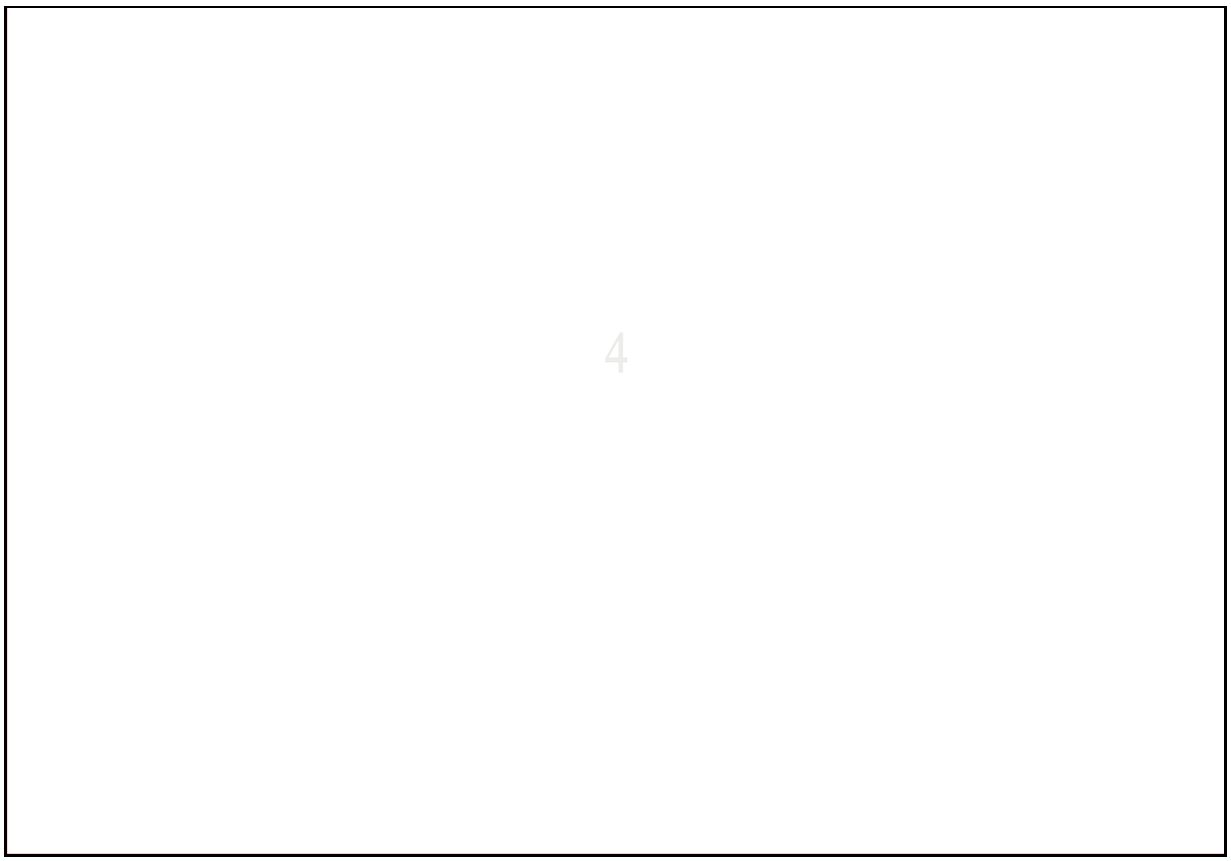
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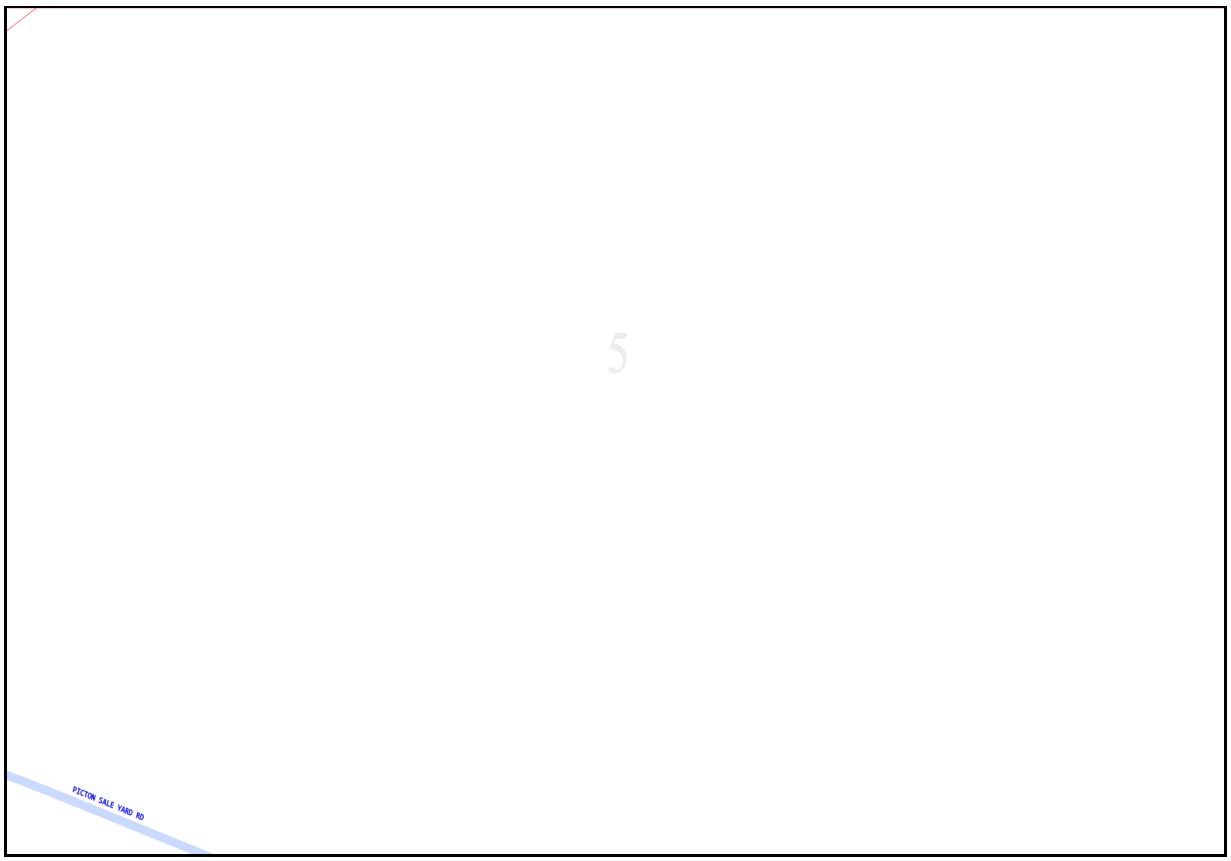
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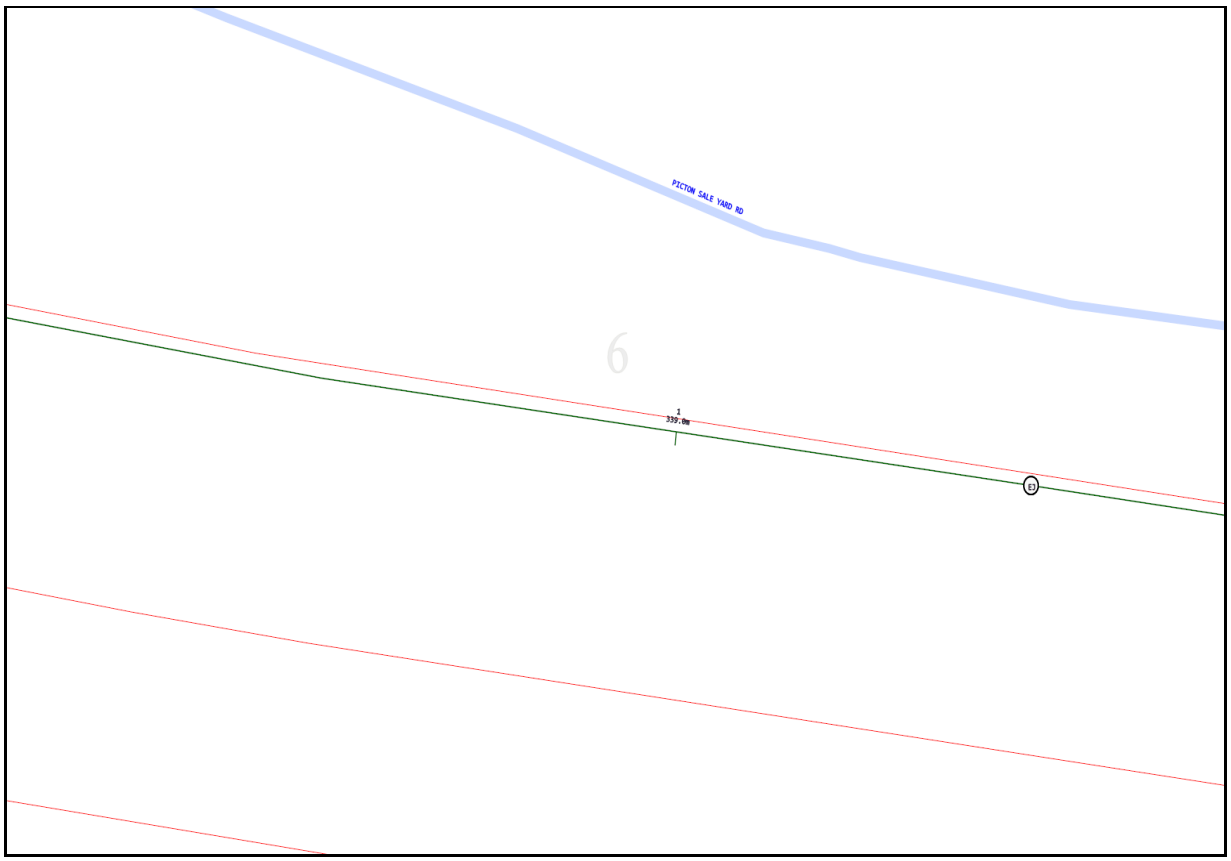
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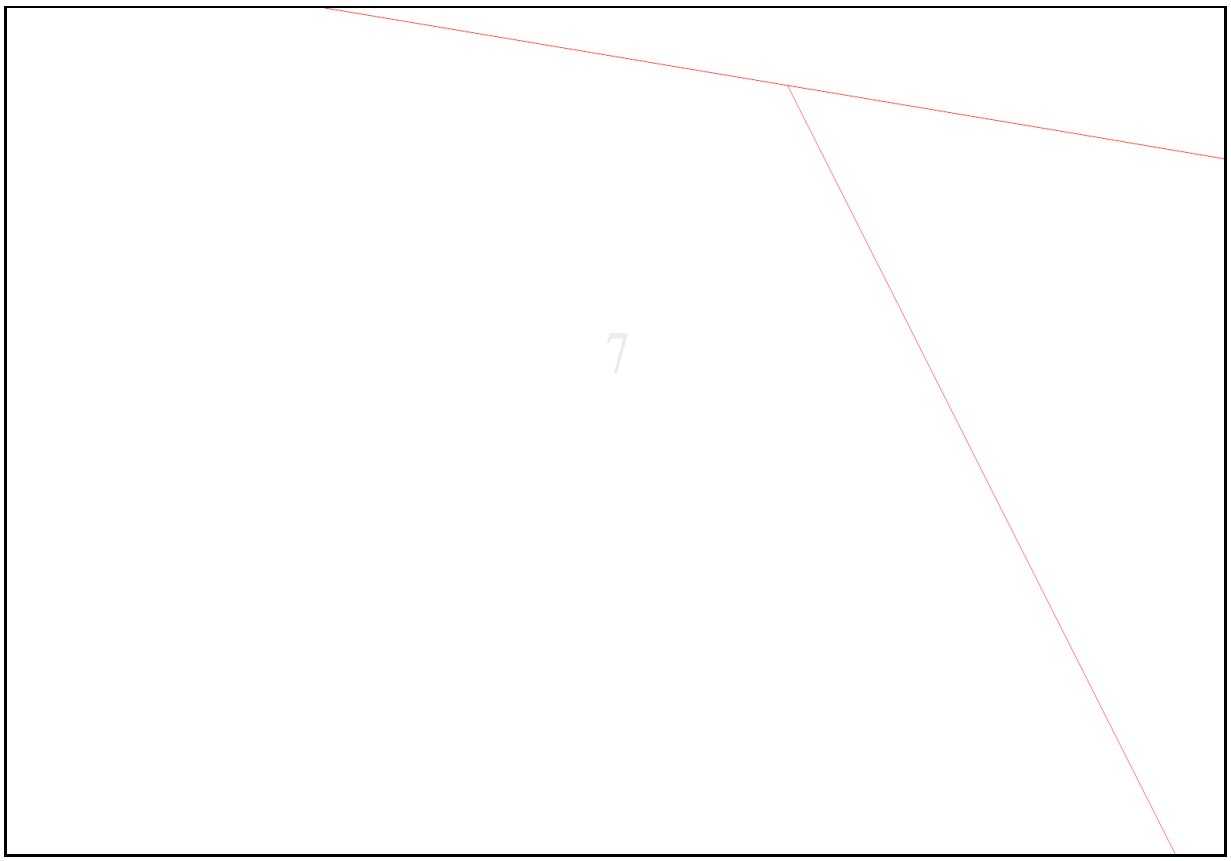

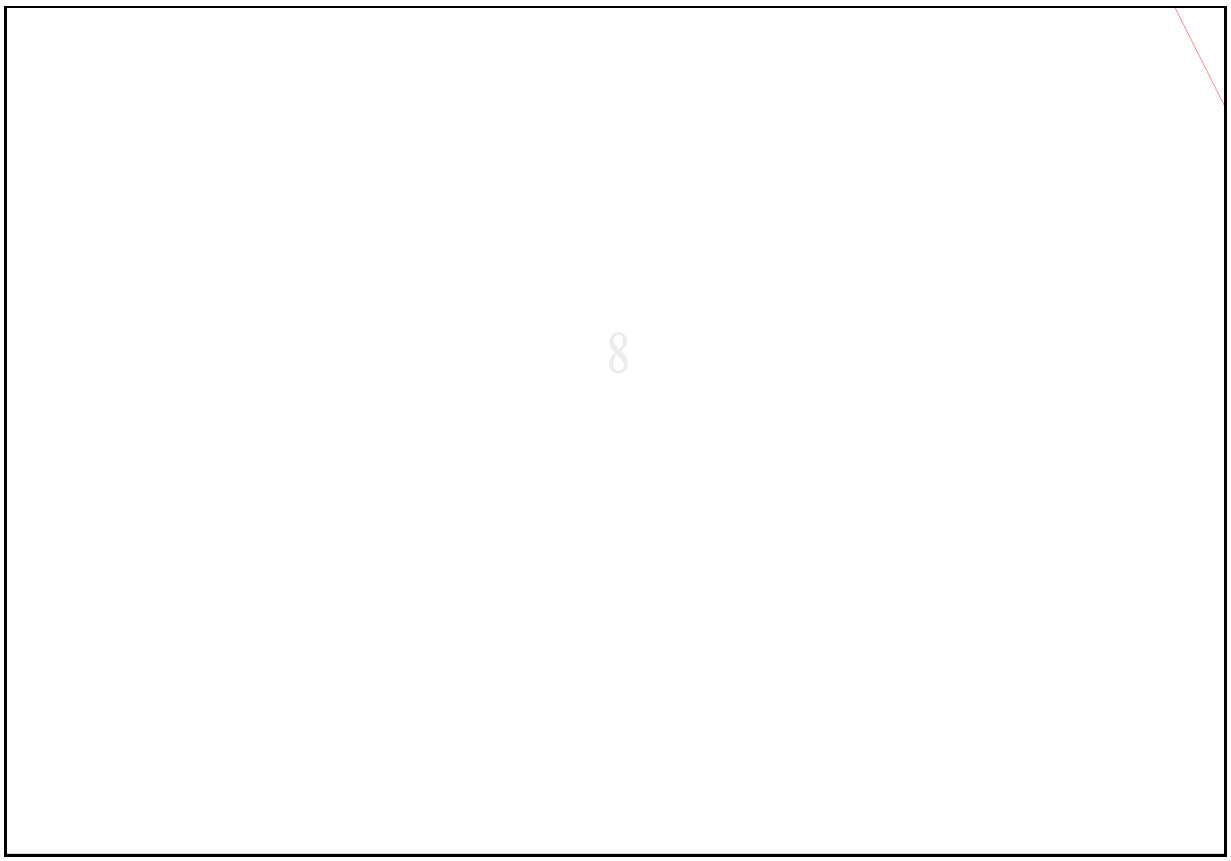

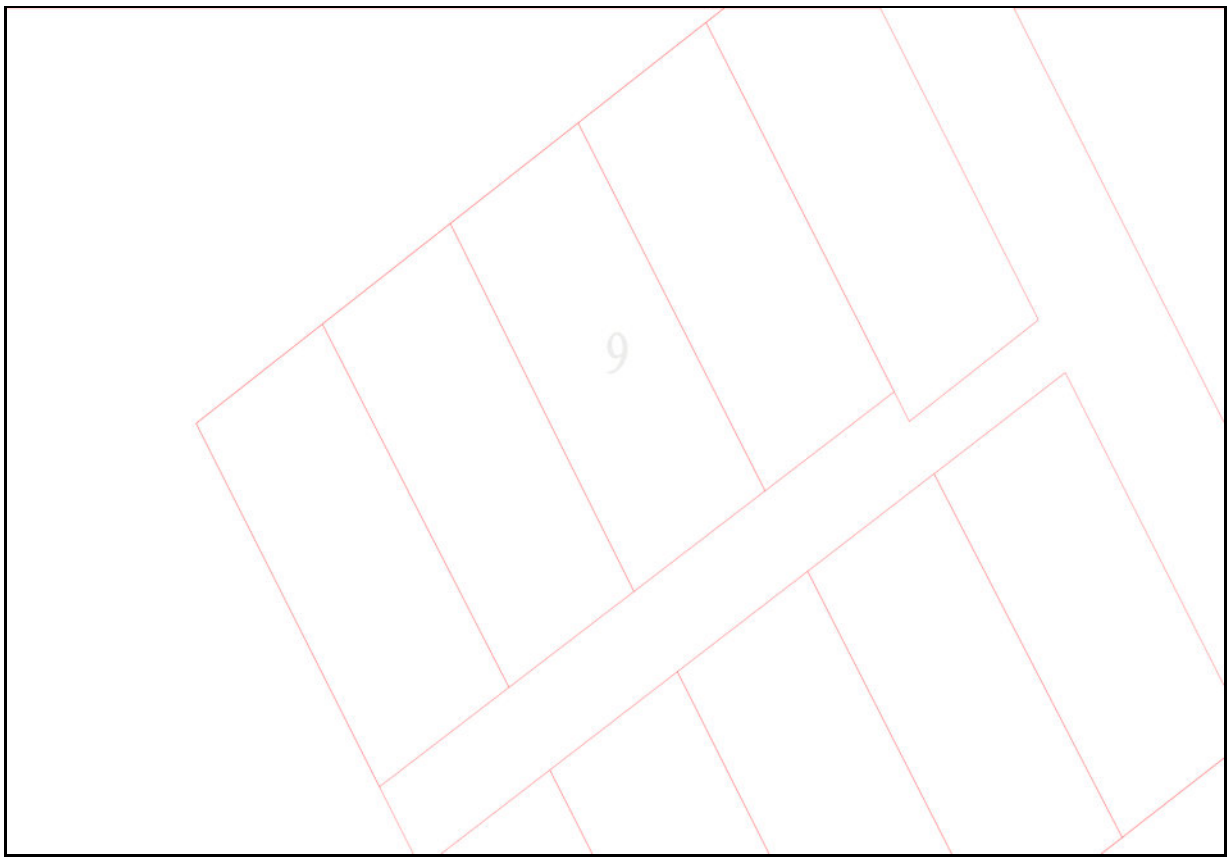

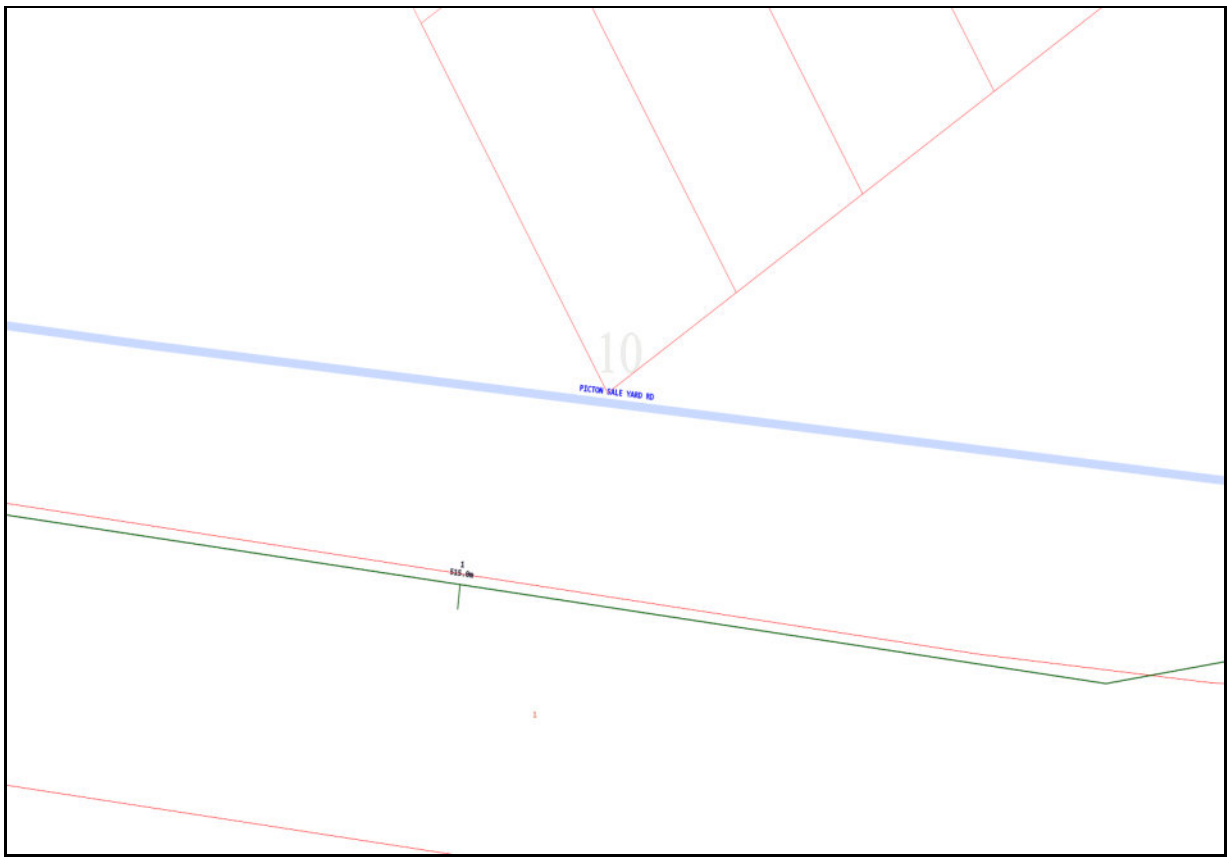
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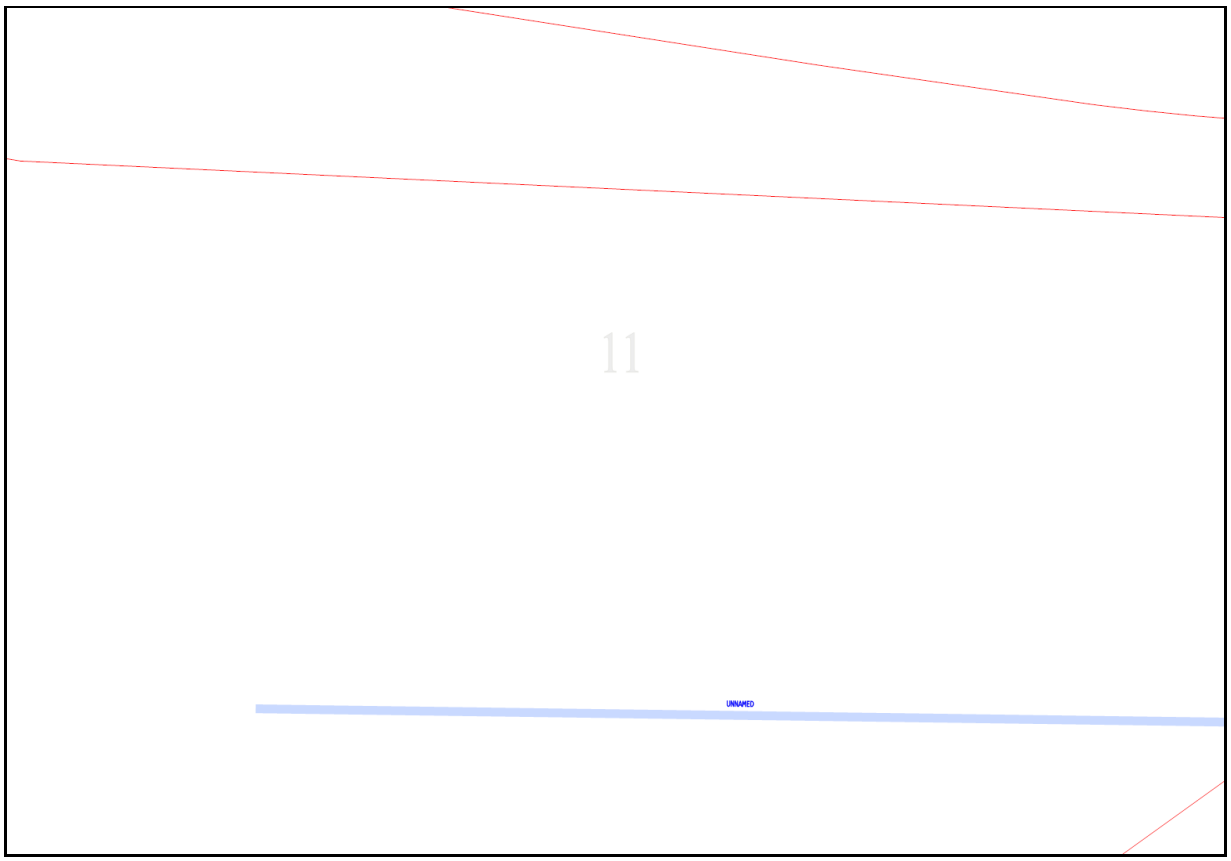
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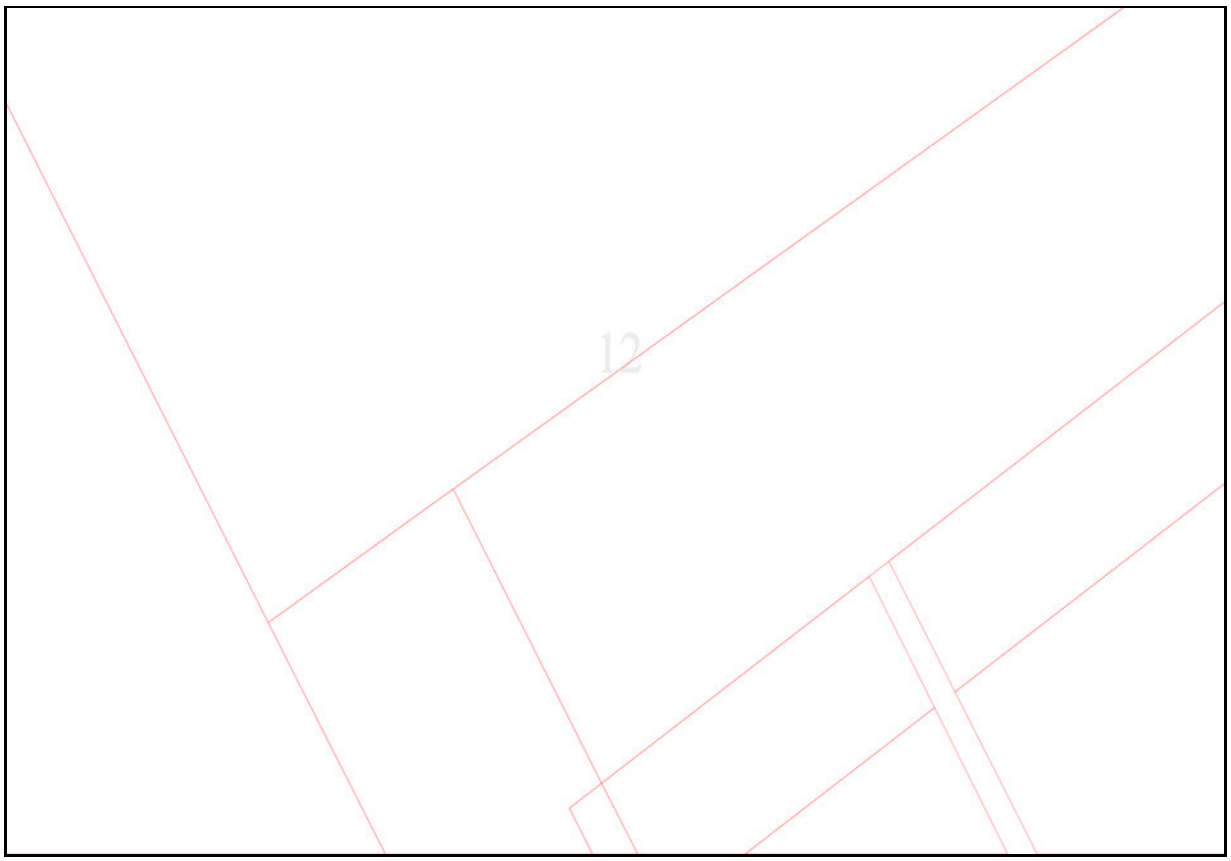
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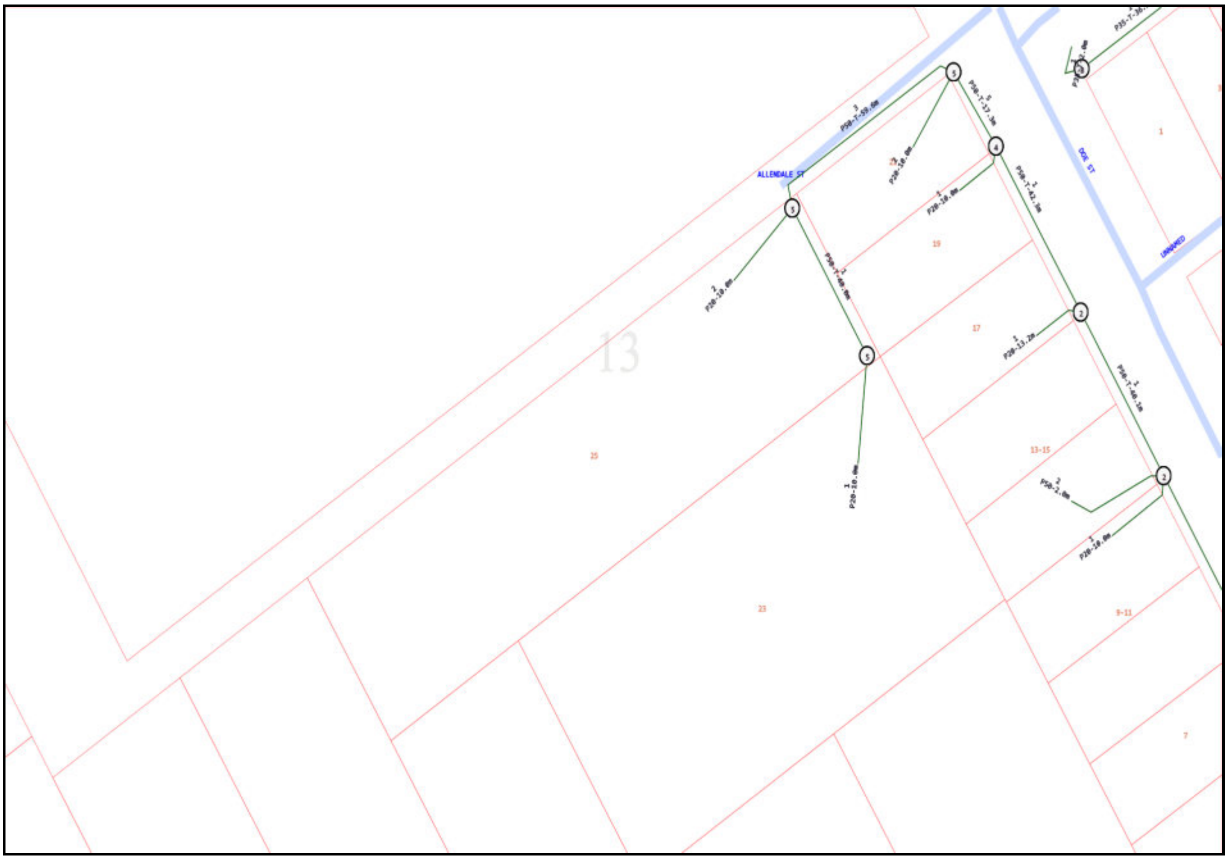
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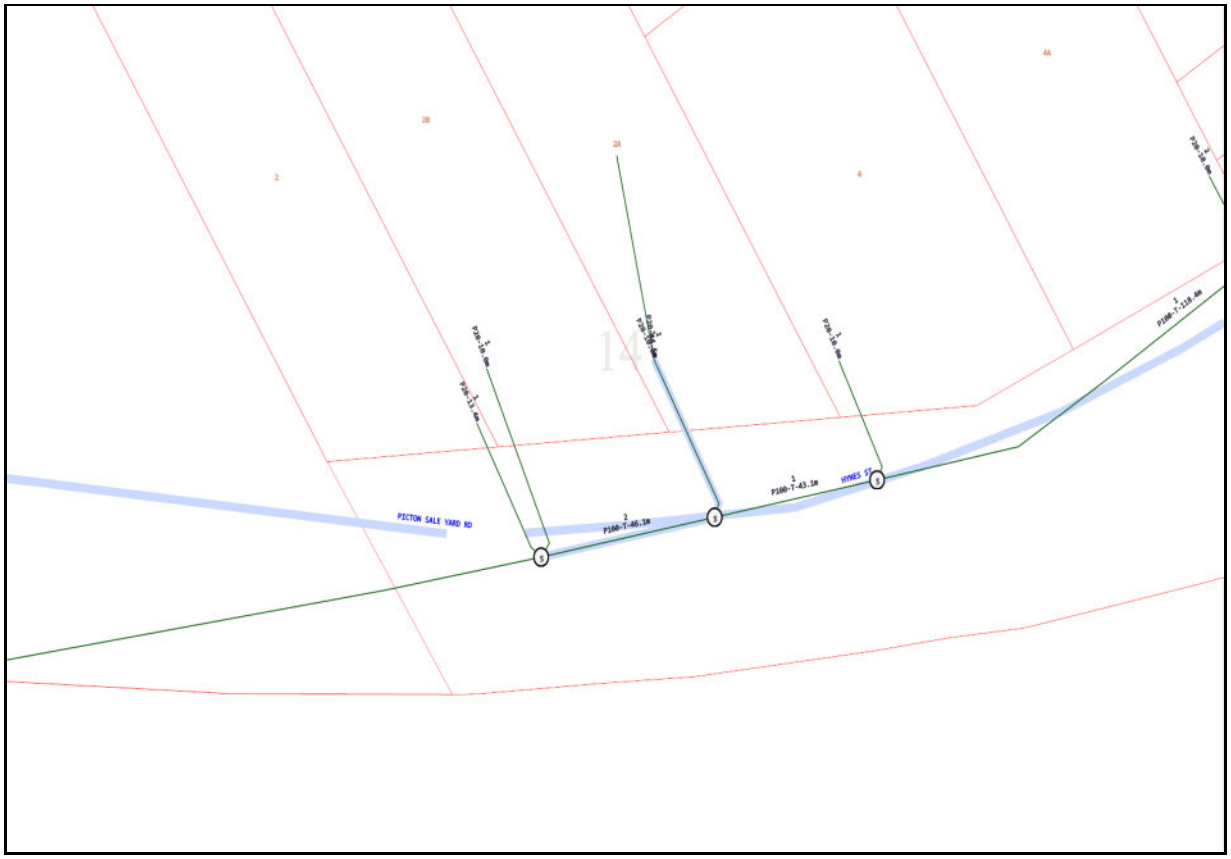
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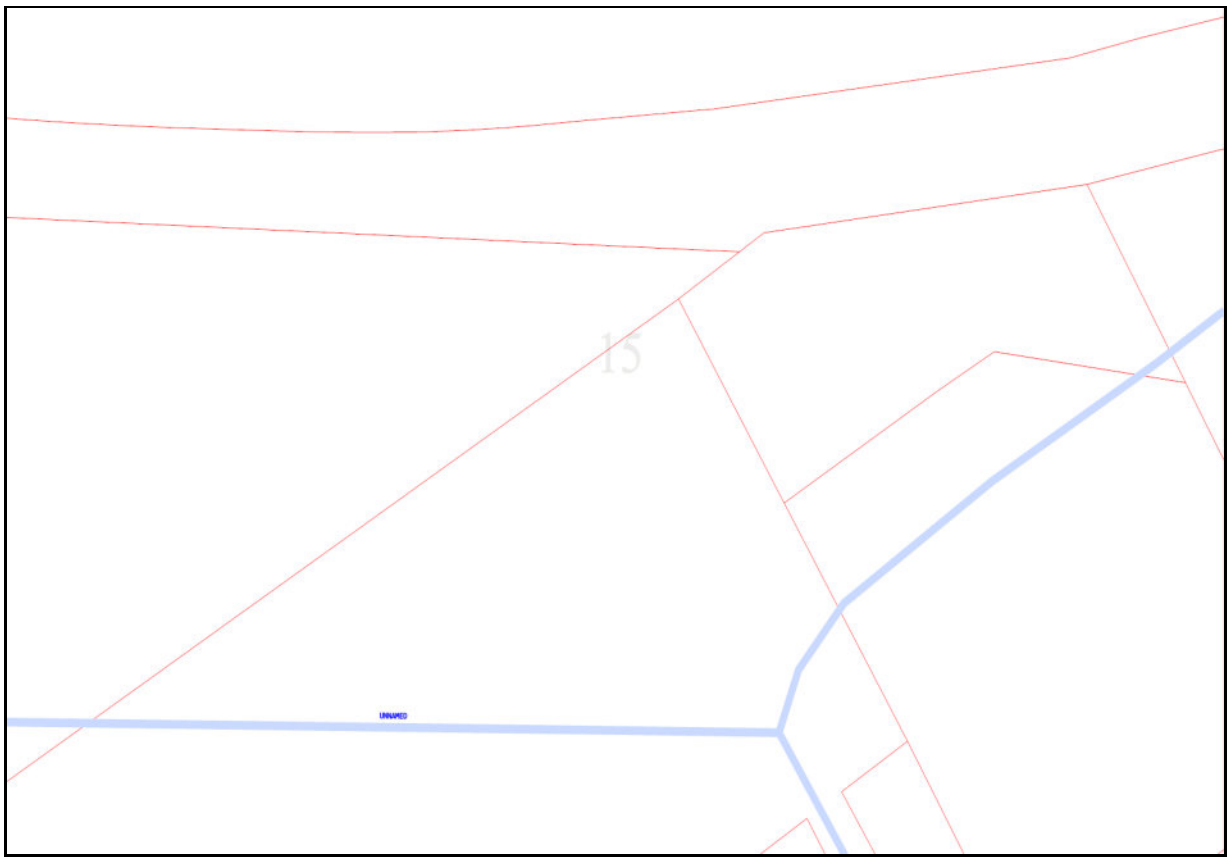
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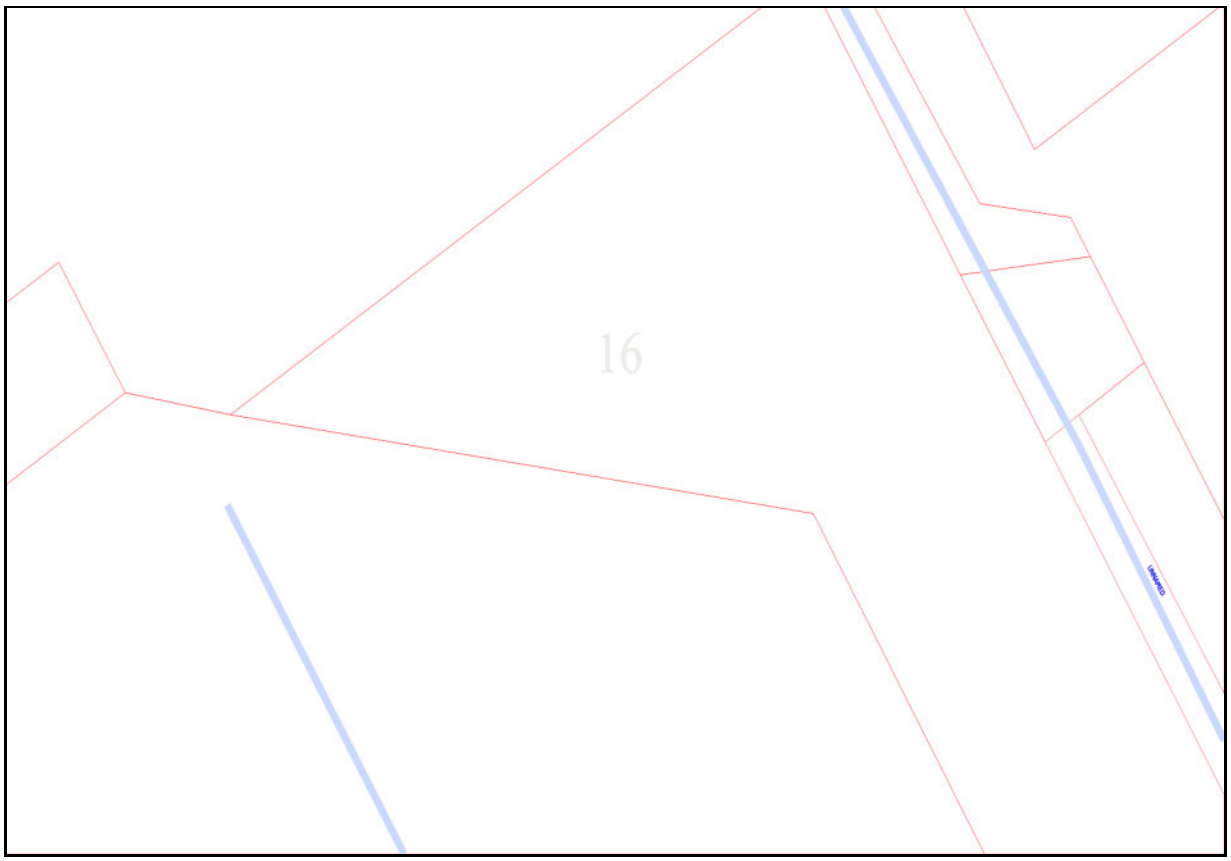

Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

Appendix F

Photos from site walkover

SITE WALK THROUGH

Computer

Sheet Metal and Broken Glass

Some Construction waste, mostly Concrete
(may fall outside of property)

Bush Fire Assessment Report

Subdivision

1 Hynes Street Broken Hill

Document Tracking:

CLIENT:	Richard Berends <info@keepbuildingdesign.com.au>
DATE:	20/11/2024
JOB REFENCE:	24SBC_1026
VERSION:	1
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Contents

1 Introduction

1.1 Building and Site Characteristics

This report forms part of the submission requirements to support a Development Application summarised in **Table 1.**

Table 1: Proposal summary

Property Details	1 Hynes Street Broken Hill 2880 Lot/Section/Plan no: 12/-/DP1174503 Council: BROKEN HILL CITY COUNCIL	
Type of Proposal	☑ Subdivision –Assessed under Section 5 of PBP	☑ Urban
Development	Subdivision of 12/-/DP1174503 create 14 Residential lots and 1 residue (undeveloped) lot. (Stage 2 at later time)	
Bush fire prone land status	☑ Subject Lot mapped as bushfire prone land – **Figure 1**	
Information relied upon	• Plan of proposed subdivision of lot 12/-/DP1174503 – **Figure 2** • FireMaps and ePlanning software - cadastral and topographic information and for New South Wales	

Figure 1: Bush fire prone land mapping showing subject lot captured.

1.2 Legislative requirements

The subject Lot/site is 'Bush fire prone land' as determined by local council bush fire prone land mapping under s.146 of the Environmental Planning and Assessment Act (EP&A) 1979.

Subdivision on bushfire prone land, including subdivision that does not create an additional lot or dwelling entitlement, is termed Integrated Development under section 100B of the Rural Fires Act 1997, requiring a Bush Fire Safety Authority (BFSA) from the NSW Rural Fire Service (RFS).

For the purposes of meeting the requirements under Chapter 5 of PBP for Subdivision, potential building areas are identified on any proposed residential lots not currently containing an existing dwelling.

The outcome of this assessment shows that proposed lots 1-14 will have adequate access and compliant Asset Protection Zone's (APZ's), not exposed to radiant heat levels exceeding 29kW/m² (BAL-29).

1.3 Scope

The purpose of this report is to demonstrate compliance, or otherwise, with the broad aims and objectives of *Planning for Bushfire Protection 2019 (PBP)* and *AS 3959-2018 'Construction of buildings in bushfire-prone areas.*

Based on these requirements, this report seeks to:

1. Assess the proposal with reference to PBP-2019 and AS3959-2018;
2. Identify appropriate Bush fire Protection Measures designed to mitigate the bushfire risk and protect occupants
3. Assist the Consent Authority in the determination of the suitability of the proposed development.

The recommendations contained herein may assist in forming the basis of any specific bushfire conditions that Council and/ or the NSW Rural Fire Service may elect to place within the consent conditions issued for the subject Development Application (DA).

1.4 Development on surrounding lots and other known constraints

No threatened species or other known significant environmental or heritage constraints are known or have been advised.

Local Council or the NSW Rural Fire Service, as the determining authority, will assess more thoroughly any potential environmental, heritage or zoning issues.

Figure 2: Site plan showing proposed residential lots 1-4 and residue lot 15.

Statewide Bushfire Consulting

5

Bush Fire Assessment Report – 1 Hynes Street Broken Hill

2 Site Assessment

The relevant Asset Protection Zone (APZ) and bushfire attack level (BAL) is determined using the methodology detailed in Appendix 1 of PBP.

The site assessment is with respect to potential residential development on proposed lots 1-14 that contain vacant land, to satisfy the conditions for the minimum APZ's under PBP, using the methodology below.

2.1 Vegetation

Determine vegetation formations according to Keith (2004) in all directions around the proposed development to 140m.

Vegetation extent (bushfire hazard) within the study area is derived from Aerial photo interpretation (latest NearMap Imagery)

- Adjacent to proposed lots 1-14 to the west (within reside lot 15), to the south and to the east and north-east are areas of low fuel scrubby vegetation and grass, categorised as Grassland under PBP. The eastern boundary area of Lot 15 can be managed by the proponent to provide the minimum APZ for Lot 14 (see **Figure 3)**
- It is understood the road verge between lots 1-4 and Hynes Road will be managed as an APZ for access roads (driveways) and excluded from assessment.
- To the east is an area of higher density vegetation containing canopy trees, outside the 100m BAL radius.

2.2 Effective Slope

Determine the effective slope of the land from the building for a distance of 100 metres

The slope(s) that most significantly influences the bush fire behavior and has been derived from topographic 2m contour data (FireMaps – FPAA Mapping Software) and depicted in **Figure 3**

2.3 Fire weather

Determine the relevant Fire Area having a Fire Danger Index (FFDI) for the council area

The Lot is situated within BROKEN HILL CITY COUNCIL having a FFDI of 80

2.4 Separation distance and Available APZ:

Determine the separation distance from the unmanaged vegetation to the closest external wall.

The separation distance in all hazard directions is shown in **Figure 3** which represents the available APZ in that direction provided in **Table 2**.

2.5 Bush fire attack level (BAL):

The Bush fire attack level (BAL) is used as the basis for establishing the construction requirements for development of Class 1, 2, 3 and 4 (part) buildings in NSW in bush fire prone areas.

The site assessment methodology for determining the construction requirements for bushfire prone areas is calculated using Appendix 1 of PBP 2019 which determines the appropriate BAL

Table 2: Bush fire hazard assessment

Transect	Vegetation formation	Effective Slope	Minimum APZ[1]	Available APZ	Comments
Proposed Lot 1					
East and North-east	Grassland	Upslope /Flat	10m	≥10m	The Minimum APZ is available within **Lot 1** to allow a Building Envelope.
South	Grassland	Downslope > 0-5^0	11m	≥11m	
Proposed Lot 2-13					
South	Grassland	Downslope > 0-5^0	11m	≥11m	The Minimum APZ is available within **Lot 2-13** to allow a Building Envelope.
Proposed Lot 14					
West	Grassland	Downslope > 0-5^0	11m	≥11m	The Minimum APZ is available within **Lot 14** to allow a Building Envelope. Lot 15 directly adjacent to the west can be partly managed as an 11m APZ for required setbacks in that direction
South	Grassland	Downslope > 0-5^0	11m	≥11m	

[1]PBP 2019 – Table A1.12.2 - Minimum distances for APZs – residential infill development, FFDI 80 areas (<29kW/m2, 1090K)

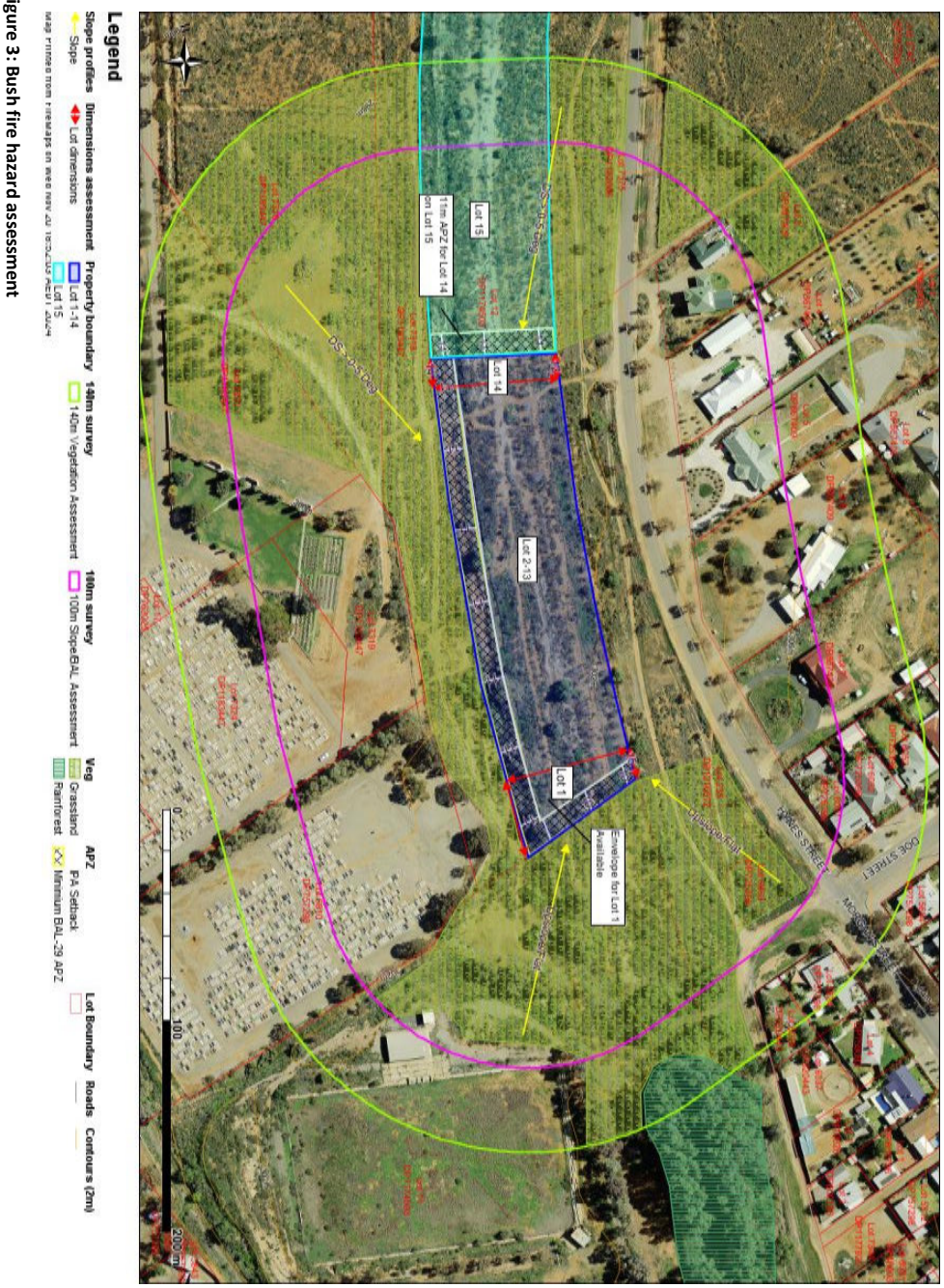

Figure 3: Bush fire hazard assessment

3 Bush fire protection measures

Development proposals for new dwellings on individual lots are to be assessed via Development Application (DA) for single dwelling Infill development under *Section 4.14 of the EP&A Act 1974* or Complying Development (CDC) under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

Table 3 : Summary of bushfire protection measures assessed.

Bushfire Protection Measure	Report Section	Acceptable Solution	Performance Solution
Asset Protection Zones	3.1	☑	☐
Landscaping	3.2	☑	☐
Access	3.3	☑	☐
Water supply	3.4	☑	☐
Electrical services	3.5	☑	☐
Gas services	3.6	☑	☐
Emergency Management	3.7	☑	☐

All r BPMs can comply with the Acceptable Solutions under Table 5.3a (APZ's), and 5.3c (Services) of PBP for subdivision development as demonstrated in Sections 3.1 to 3.7 of this report.

3.1 Asset Protection Zone (APZ)

This assessment shows that any future dwelling on proposed lots 1-14 can provide a building footprint not exposed to radiant heat levels exceeding 29 kW/m² (**BAL-29**) in accordance with Tables A1.12.3 as shown in **Table 2** and mapped on **Figure 3.**

Note: The above is dependent on the proponent providing the minimum APZ for Lot 14 on proposed lot 15 and the entire road verge between proposed lots 1-14 and Hynes road managed as an APZ.

Table 4: Relevant APZ Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
potential building footprints must not be exposed to radiant heat levels exceeding 29 kW/m² on each proposed lot.	APZs are provided in accordance with Tables A1.12.2 and A1.12.3 based on the FFDI.	☑ Can comply.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	☑ Can comply.
The APZ is provided in perpetuity. APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised	APZs are wholly within the boundaries of the development site. APZ are located on lands with a slope less than 18 degrees.	☑ Can comply.

APZ Recommendations:

- Minimum APZ's to be established and managed as an Inner Protection Area (IPA) as outlined in Appendix 4 of PBP:
  - 10m APZ on the western boundary of Lot 1,
  - 11m along the southern boundary of all Lots 1-14, and:
  - 11m APZ on eastern boundary of Lot 15.

- When establishing an IPA, the following requirements are recommended:
  - Tree canopy less than 15% at maturity and separated by 2 to 5m;
  - Lower limbs are removed up to a height of 2m above the ground;
  - Preference is given to smooth-barked and evergreen trees;
  - Large discontinuities or gaps in vegetation are provided to slow down or break the progress of fire towards buildings;
  - Shrubs are not located under trees or form more than 10% of ground cover;
  - Clumps of shrubs are separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
  - Grass to be kept mown (as a guide grass no more than 100mm in height);

3.2 Landscaping

Landscaping within the APZ is designed and managed in accordance with the requirements of 'Asset protection zone standards' outlined in Appendix 4 of PBP – 2019. A summary of the relevant requirements is provided below:

Table 5: Relevant Landscaping Standards Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions	landscaping is in accordance with Appendix 4; and Fencing is constructed in accordance with section 7.6	☑ Can comply.

Landscaping Recommendations:

- 1m wide area suitable for pedestrian traffic provided around the curtilage of the building;
- Planting is limited in the immediate vicinity of the building;
- Planting does not provide a continuous canopy to the building (i.e. Plants are isolated)
- Landscape species are chosen to ensure tree canopy cover is less than 15% at maturity;
- Trees do no touch or overhang buildings;
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips;
- Use smooth bark trees species which generally do not spread fire up into the crown;
- Avoid planting of deciduous species that increase fuel at surface/ ground level (i.e. leaf litter); Avoid climbing species to walls and pergolas;
- Locate combustible materials such as mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building;
- Low flammability vegetation species are used.
- Fencing within 6m of a building or in areas of BAL-29 or greater are made of non-combustible material only.

Fences and Gates: fencing is constructed in accordance with section 7.6. of PBP:

- All fences in bush fire prone areas should be made of either hardwood or non-combustible material. In circumstances where the fence is within 6m of a building or in areas of BAL-29 or greater, they should be made of non-combustible material only.

3.3 Access arrangements

Design of access roads shall enable safe access and egress for residents attempting to leave the area at the same time that emergency service personnel are arriving to undertake firefighting operations.

Future proposed dwellings on Lot 1-14 will be accessed from a standard driveway directly from a sealed all weather public road capable of supporting firefighting vechicles and adequate hardstand area for firefighting operations. No perimeter or internal roads are proposed.

In accordance with Table 5.3b of PBP: *There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles.*

Table 6: Relevant APZ Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
The intent may be achieved where:		
firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two-wheel drive, all-weather roads.	☑ Can comply.
there is appropriate access to water supply.	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2021;	☑ Complies (reasonably assumed) Refer **Section 3.4**

Access Recommendations:

- New property access roads (driveway) are two-wheel drive, all-weather roads;

3.4 Water supply

An adequate supply of water is essential for firefighting purposes. The water supply would enable occupants to stay and defend if chosen to and allow fire-fighting personnel to attach equipment for use.

The proposed lots will be connected to reticulated water. The closest identified hydrant is located directly opposite the subject lot outside Lot 4, DP867409 (opposite the development on Hynes Street)

Table 7: Relevant Water Supply Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
Adequate water supply is provided for firefighting purposes.	reticulated water is to be provided to the development, where available;	☑ Can comply Refer Recommendations
Water supplies are located at regular intervals, accessible and reliable for firefighting operations.	fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021 and are not located within any road carriageway;	☑ Can comply Refer Recommendations
Water flows and pressure are appropriate	fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021.	☑ Can comply Refer Recommendations
Integrity of the water supply is maintained.	all above-ground water service pipes external to the building are metal, including and up to any taps	☑ Can comply Refer Recommendations

Water Supply Recommendations:

- Fire hydrants to be installed on Hynes Street along the development frontage to comply with the following:
  - fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021 and are not located within any road carriageway;
  - fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021.

- All new above-ground water service pipes external to the building are metal, including and up to any taps.

3.5 Electricity services

The location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings. Relevant Acceptable Solutions in Table 5.3c of PBP for Electricity services:

Table 8: Relevant Water Supply Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	Where practicable, electrical transmission lines are underground; Where overhead, are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; No part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 *Guideline for Managing Vegetation Near Power Lines.*	☑ Can comply

Electricity Services Recommendations:

- Where practicable, new electrical transmission lines are underground;
- Where overhead, are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
- No part of a tree is closer to a power line than the distance set out in accordance with the specifications in *ISSC3 Guideline for Managing Vegetation Near Power Lines.*

3.6 Gas services

The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings. Relevant Acceptable Solutions in Table 5.3c of PBP for Gas services:

Table 9: Relevant Gas Supply Performance Criteria, Acceptable Solution and Compliance:

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION (DTS)	COMPLIANCE
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used; All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; All connections to and from gas cylinders are metal (polymer sheathed flexible gas supply lines are not used) Above-ground gas service pipes are metal, including and up to any outlets.	☑ Can comply

Gas Services Recommendations:

- Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- Connections to and from gas cylinders are metal;
- Polymer-sheathed flexible gas supply lines are not used; and
- Above-ground gas service pipes are metal, including and up to any outlets.

3.7 Emergency Management

It is recommended that residents living in a Bush fire Prone Area are encouraged to prepare a Bush fire Survival Plan. The plan should include:

1. Triggers for leaving early in the event of a bush fire or deciding to stay if well prepared.
2. Checklists –
    a. Equipment and Protective clothing checklist
    b. Action checklist – before, during and after the fire.
3. Preparing your home to make it safer.
4. Awareness of current Bush fire Alert Levels and Fire Danger Ratings
5. Key information sites include the "Fires Near Me" smartphone app.

Emergency Management Recommendations:

- A simple Bush fire survival plan is prepared for occupants of any existing dwelling or future dwellings on proposed lots. This plan shall be prepared in accordance with the relevant steps detailed by the NSW Rural Fire Service *Bushfire Survival Plan.*

https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0003/36597/BFSP-Complete.pdf

4 Specific objectives for infill development:

The proposed subdivision can meet the requirements for the specific objectives of subdivision development within PBP.

Table 11: Specific objectives for subdivision development

Specific Objective	Comment
minimise perimeters of the subdivision exposed to the bush fire hazard (hourglass shapes, which maximise perimeters and create bottlenecks should be avoided);	• Subdivision in established semi-rural area with dwellings on adjacent lots. Shape of proposed lots to do not create a higher risk to the development with minimal perimeter exposed to bush fire hazard
minimise vegetated corridors that permit the passage of bush fire towards buildings;	• No vegetated corridors proposed. • Landscaping recommendations apply to minimise bush fire risk (Section 3.2)
provide for the siting of future dwellings away from ridge-tops and steep slopes, within saddles and narrow ridge crests;	• Development within an established semi-rural environment with ample building envelopes provided within each lot
ensure that APZs between a bush fire hazard and future dwellings are effectively designed to address the relevant bush fire attack mechanisms;	• Proposed APZ is wholly contained within subject Lots within subdivision and not dependent on adjoining lands • Proposed lots 1-14 can accommodate a new dwelling at **BAL-29** or lower
ensure the ongoing maintenance of APZs;	• Recommendations for compliance with the acceptable solutions for establishing and maintaining onsite APZ and Landscaping (Section 3.1 and 3.2)
provide adequate access from all properties to the wider road network for residents and emergency services;	• Development has direct access to the public road system.
provide access to hazard vegetation to facilitate bush fire mitigation works and fire suppression; and	• Hazard is located with direct access to public road system.
ensure the provision of an adequate supply of water and other services to facilitate effective firefighting.	• Recommendations for compliance with the acceptable solutions for Water, Gas and Electricity (Section 3.3, 3.4 & 3.5)

5 Conclusions and recommendations

The proposal can meet the requirements for the specific objectives of Subdivision development (**Section 4**) by compliance with the acceptable or performance solutions for all Bush fire protection measures within 'Planning for Bush Fire Protection 2019'

Table 12: Conclusions and Recommendations

Performance Criteria	Report Section	Summary of Recommendations
Asset Protection Zones	3.1	• Minimum APZ's to be established and managed as an Inner Protection Area (IPA) as outlined in Appendix 4 of PBP: ○ 10m APZ on the western boundary of Lot 1, ○ 11m along the southern boundary of all Lots 1-14, and: ○ 11m APZ on eastern boundary of Lot 15.
Landscaping	3.2	• Designed and managed in accordance with Appendix 4 of *PBP*
Access	3.3	• New property access roads (driveway) are two-wheel drive, all-weather roads;
Water supply	3.4	• Fire hydrants to be installed along Hynes Street along the development frontage to comply with **Table 7** • All above-ground water service pipes external to buildings are metal, including and up to any taps.
Electricity service	3.5	• New electrical transmission lines are underground. • Any new transmission lines and poles to be installed in compliance with ISSC3 *Guideline for Managing Vegetation Near Power Lines*.
Gas service	3.6	• Gas services are to be installed and maintained in accordance with AS/NZS 1596:2014. Above-ground gas service pipes, connections and outlets are metal. Gas cylinders kept clear of flammable materials.
Emergency Management	3.7	• Bush fire survival plan is prepared for occupants of the dwelling.

Provided the development, APZ areas, Landscaping, Access and Utilities on site are constructed, designed and maintained in accordance with the recommendations described in this report, the proposed development can satisfy the aims, objectives and performance requirements of PBP 2019 considered relevant to the development under Section 100B of the Rural Fires Act 1997

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Graduate Diploma of Bushfire Protection
BPAD Accredited Practitioner Level 3 No. BPAD46241

6 Disclaimer

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Changeable guidelines	This report is based on the author's interpretation of *Planning for Bush Fire Protection 2019 (PBP)* and *Australian Standard AS 3959-2018 'Construction of buildings in bushfire-prone areas* as at the time of writing.
Conflict of interest	This report reflects the opinions and recommendations of the author only, and not those of the Rural Fire Service (RFS). Should Council or the RFS modify the recommendations or reject an assessment or proposal the author will not be held liable for any financial loss incurred as a result.
Remaining risk	Notwithstanding the recommendations made by the author, there can be no absolute guarantee that a bushfire will not occur or cause damage to property because of the extreme number of variables that bushfires present.
Measures not upheld in perpetuity	It is the responsibility of the client to maintain all bushfire protection measures proposed on a7 n ongoing basis.

7 References

- Keith, D. 2004. *Ocean Shores to Desert Dunes*. Department of Environment and Conservation, Sydney.
- NSW Rural Fire Service (RFS) 2019. *Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners*. Government Publishing Service, Canberra.
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INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

February 20, 2025

ITEM 2

BROKEN HILL CITY COUNCIL REPORT NO. 37/25

SUBJECT: PARKS AND OPEN SPACES SERVICE REVIEW D25/7650

Recommendation

1. That Broken Hill City Council Report No. 37/25 dated February 20, 2025, be received.
2. That Council note the outcome of the Parks and Open Spaces Service Review.
3. That Council develop a strategy/policy to implement an incentivised/subsidised nature strip enhancement program to reduce the growth and spread of noxious weeds throughout residential and commercial areas.

Executive Summary:

The Integrated Planning and Reporting Framework (IP&R) requires that Council's undertake reviews of identified service areas during the term of Council.

The service review program for 2024/2025 included a review of Parks and Open Spaces.

This review was undertaken by Local Government specialists Morrison Low, commencing in September 2024 with the final report issued in February 2025 (Attached).

Report:

The Integrated Planning and Reporting Framework (IP&R) requires that Council's undertake reviews of identified service areas during the term of Council.

The service review program for 2024/2025 included a review of Parks and Open Spaces Services (POSS).

This review was undertaken by Local Government specialists Morrison Low, commencing in September 2024 with the final report issued in February 2025.

Purpose of Review

The purpose of this Service Review was to define service levels as a basis for engaging the new Council and community on the cost of current service levels and the choices Council has, to either meet or vary these service levels. The scope for the proposed POSS service review included:

- Review the portfolio of land maintained by Parks and Open Space Services and in conjunction with Council, establish a parks hierarchy to guide service provision.
- Establish levels of service for the different types of parks, open space and significant activities that are delivered by the team.
- Where possible establish the cost of delivering these service levels.

- Review the quantum of open space, resourcing level and costs against industry ranges (noting that benchmarks or averages are not appropriate for parks operations due to the variation in factor impacting maintenance cost).
- Community satisfaction with the delivery of Parks and Open Space and potential opportunities to improve community and customer satisfaction.
- Risks impacting the delivery of the Parks and Open Space service area and opportunities to mitigate and treat those risks.
- Potential opportunities to improve service delivery.

Comparative Data

Table 4 Comparative data for Parks and Open Space assets

	Australia (median)	Broken Hill
Ha of total park/1,000 residents	18.5	1.65[2]
Ha of actively maintained park/1,000 residents	6.47	0.76
Ha of sports parks/1,000 residents	0.83	0.89
Playgrounds per 1,000 children under 15	7.01	2.32
Street Trees per 1,000 residents	262	1,400[3]
Planted beds per 1,000 residents m2	1,688	-[4]
Operational cost per Ha total park	$20,470	$25,877
Operational cost per Ha of sports ground maintenance	$16,630	$9,388

Broken Hill City's geographic location means the cost of materials and contracts will be much higher than the coastal councils who participated in the benchmarking, so the higher cost by comparison for operational cost per hectare is not unexpected.

The climate, location and geology of the area has shaped the provision of open space in Broken Hill. By comparison, Broken Hill provides fewer areas of actively maintained park land but has a wealth of total park/open space within the city by comparison to other Australian local governments. The Council has more sports fields by comparison and fewer actively maintained parks and playgrounds.

Service Improvement Opportunities Identified

Level of provision

- Proceed with the Masterplan for recreational parks as proposed as this will provide clarity for future investment. This should also consider the option of engaging with the community on developing a play strategy to plan the location and quality of play spaces.
- Broken Hill has a number of underutilised sporting ovals and there is an opportunity to consolidate use onto a smaller number of ovals and reduce the service level on the remaining ovals that would no longer be used for sport.
- Generally, most tree species have an optimum life span and will require replacement near the end of their life before they create problems. There are a number of tree species in the city that pose a risk to Council's assets and the community. Council

should set aside funds to enable a street tree replacement program in accordance with the Tree Management Plan.
- Weeds are likely to remain a significant problem for some time and Council should continue to explore resurfacing options as funding permits.

Changes to service levels

- Existing service levels have been documented in this report and there is an opportunity to engage the community on the appropriateness of current service levels.
- Service levels are generally lower than most urban local governments, however, these service levels are not unrealistic in the Broken Hill environment. There is an opportunity to engage with the community on whether service levels should be improved (at a higher cost) or if they can be reduced.
- Mowing is undertaken on a cyclic basis. There is an opportunity to move to height-based service levels or reduce mowing frequency on medium and low priority open spaces. This will require some discipline from the Parks and Open Spaces Team to adopt a flexible approach.
- There is an opportunity for playground inspections to be increased to coincide with Monday and Friday tasks.
- Council should develop a policy or process for prioritising customer requests and complaints. This will ensure members of the community who have their requests prioritised in a transparent and equitable manner.

Cost recovery

- There is an opportunity to review charges for services e.g. ground use, lighting, line marking, wicket preparation etc., and/or stop providing some specific services and allow sport clubs to undertake the work themselves.

Next Steps

Council officers will continue to review the information provided in the report and further investigate the opportunities identified.

Community Engagement:

A site visit by Morrison Low included the following consultation:

10/09/2024	Leader Innovation and Business Improvement
11/09/2024	Coordinator Parks and Open Spaces
11/09/2024	Parks and Open Spaces Team
11/09/2024	Manager Infrastructure Operations
11/09/2024	Executive Leadership Team
12/09/2024	Director Infrastructure and Environment
12/09/2024	Strategic Asset Coordinator

There are no proposed changes to service levels impacting the community, however if there are any changes to services levels following further review of the 'Improvement Opportunities' listed in the report a further report will be presented to Council.

Strategic Direction:

Key Direction:	4	Our Leadership
Objective:	4.2	Our leaders make smart decisions
Strategy:	4.2.4	Implement Service Review Framework

Relevant Legislation:

Local Government Act 1993, section 428A

Financial Implications:
Nil

Attachments

1. ⇩ Parks and Open Spaces Service Review - Final Report

JAY NANKIVELL
GENERAL MANAGER

MorrisonLow

BROKEN HILL
CITY COUNCIL

Service Review of Parks and Open Space

Broken Hill City Council

January 2025

Document status

Job #	Version	Written	Reviewed	Approved	Report Date
7817	1	Stephen Bunting	Greg Smith	Greg Smith	15 November 2024
	Final	Stephen Bunting	Greg Smith	Greg Smith	31 January 2025

Contents

Tables

Figures

Abbreviations, acronyms and initialisms

Term	Definition
Council	Broken Hill City Council
CLM Act	*Crown Land Management Act 2016*
Guidelines, the	The Integrated Planning and Reporting Guidelines for Local Government in NSW
IP&R	Integrated Planning and Reporting
OLG, the	The Office of Local Government
Local Government Act, the	The *Local Government Act 1993*
PoM	Plan of Management

1 Executive summary

The Broken Hill City Council ("Council") has identified the Parks and Open Space Services ("POSS") as priority for review in 2024.

The POSS maintains key Council assets including the premier park, Sturt Park, a range of other significant or neighbourhood parks, sports fields, small CBD parks and open spaces (pocket parks), nature strips, street verges, trees and drainage channels. The service plays a major role in providing passive and active recreational infrastructure essential to the community. In addition, POSS ensures the presentation of Broken Hill streetscapes and parks to locals and visitors alike, is of a high standard that enhances the community reputation as a liveable city.

While the POSS is meeting its objectives and receives positive feedback, Council has identified there is a need to understand and define service levels and costs so that the Council and community can be engaged and better informed of the options and choices when service level increases or decreases are considered.

The following service improvement opportunities are summarised below and discussed in the body of this report. It is likely that many of these opportunities will require community engagement as they change the status quo either positively or negatively for some community members.

1.1 Level of provision

- Proceed with the Masterplan for recreational parks as proposed as this will provide clarity for future investment.
- Broken Hill has a number of underutilised sporting ovals and there is an opportunity to consolidate use onto a smaller number of ovals and reduce the service level on the remaining ovals that would no longer be used for sport.
- Broken Hill has fewer playgrounds than other councils and could engage the community on developing a play strategy to plan the location and quality of play spaces.
- Generally, most tree species have an optimum life span and will require replacement near the end of their life before they create problems. There are a number of tree species in the city that pose a risk to Council's assets and the community. Council should set aside funds to enable a street tree replacement programme in accordance with the Tree Management Plan.
- Weeds are likely to remain a significant problem for some time and Council should continue to explore resurfacing options as funding permits.

1.2 Changes to service levels

- Existing service levels have been documented in this report and there is an opportunity to engage the community on the appropriateness of current service levels.
- Service levels are generally lower than most urban local governments, however, these service levels are not unrealistic in the Broken Hill environment. There is an opportunity to engage with the community on whether service levels should be improved (at a higher cost) or if they can be reduced.
- Mowing is undertaken on a cyclic basis. There is an opportunity to move to height-based service levels or reduce mowing frequency on medium and low priority open spaces. This will require some discipline from the POSS to adopt a flexible approach.

- There is an opportunity for playground inspections to be increased to coincide with Monday and Friday tasks.
- Council may consider returning more underutilised areas to regeneration areas to reduce costs, however, with limited area of maintained parks and an abundance of natural areas, this option is not favoured unless supported by the community.
- Council should develop a policy or process for prioritising customer requests and complaints. This will ensure members of the community who have their requests prioritised in a transparent and equitable manner.

1.3 Cost recovery

- There is an opportunity to introduce charges for services e.g. ground use, lighting, line marking, wicket preparation etc., and/or stop providing some specific services and allow sport clubs to undertake the work themselves.

Introduction

Local councils are responsible for delivering a wide range of services to their communities and exercising an extensive suite of service, regulatory, revenue, administrative, enforcement and ancillary functions under the *Local Government Act 1993* ("the Local Government Act") and other legislation.

Under the Integrated Planning and Reporting ("IP&R") framework provisions of the Local Government Act, all local councils are required to plan holistically for the future and must develop a suite of interrelated strategies to guide their long-term planning and decision-making in relation to service delivery and resources. All plans, policies, programs, and activities developed and undertaken by local councils must directly relate to their respective IP&R frameworks.

The IP&R framework is designed to support local councils in establishing service levels, monitoring service performance, improving service delivery and encouraging continuous improvement across their organisations and operations.

The *Integrated Planning and Reporting Guidelines for Local Government in NSW* ("the Guidelines") published by the NSW Office of Local Government ("the OLG") and prescribed under the Local Government Act provide that local councils must, via their Delivery Program, *"identify areas of service that the council will review during its term, and how the council will engage with the community and other stakeholders to determine service level expectations and appropriate measures*".

In turn, local councils must specify which service delivery reviews they will undertake each year via their annual Operational Plan, and report on the results of such reviews in their Annual Report. Importantly, councils must disclose in their Annual Report any changes they have made to services in response to the findings of service delivery reviews undertaken in the previous year.

The service review process asks local councils to consider the following questions when reviewing services:

1. Should this service be delivered to the community?
2. If so, how should it be delivered?
3. Is this service delivering on community needs and Council's goals?
4. Is the service being delivered using the most appropriate service delivery mechanisms?
5. Is the service being delivered as efficiently and effectively as possible?
6. Is the service resourced appropriately?
7. Is the service meeting current service standards and levels?
8. What are the current and future issues affecting the service, and what should be done about them?

A service delivery review is a vital process for local councils and will ensure that their service functions are:

- **Appropriate** – that is, services meet current community needs and wants, and can be adapted to meet future needs and wants,
- **Effective** – that is, councils deliver targeted, better-quality services in new ways,
- **Efficient** – that is, councils improve resource use (people, materials, equipment, infrastructure) and redirect savings to finance new or improved services, and
- **Affordable** – that is, the community is able to afford the current and any proposed future service levels.

2 Objectives and scope

2.1 Background

The purpose of this Service Review is to define service levels as a basis for engaging the new Council and community on the cost of current service levels and the choices Council has, to either meet or vary these service levels. The scope for the proposed POSS service review included:

- Review the portfolio of land maintained by Parks and Open Space Services and in conjunction with Council, establish a parks hierarchy to guide service provision.
- Establish levels of service for the different types of parks, open space and significant activities that are delivered by the team.
- Where possible establish the cost of delivering these service levels.
- Review the quantum of open space, resourcing level and costs against industry ranges (noting that benchmarks or averages are not appropriate for parks operations due to the variation in factor impacting maintenance cost).
- Community satisfaction with the delivery of Parks and Open Space and potential opportunities to improve community and customer satisfaction.
- Risks impacting the delivery of the Parks and Open Space service area and opportunities to mitigate and treat those risks.
- Potential opportunities to improve service delivery.

2.2 The Service

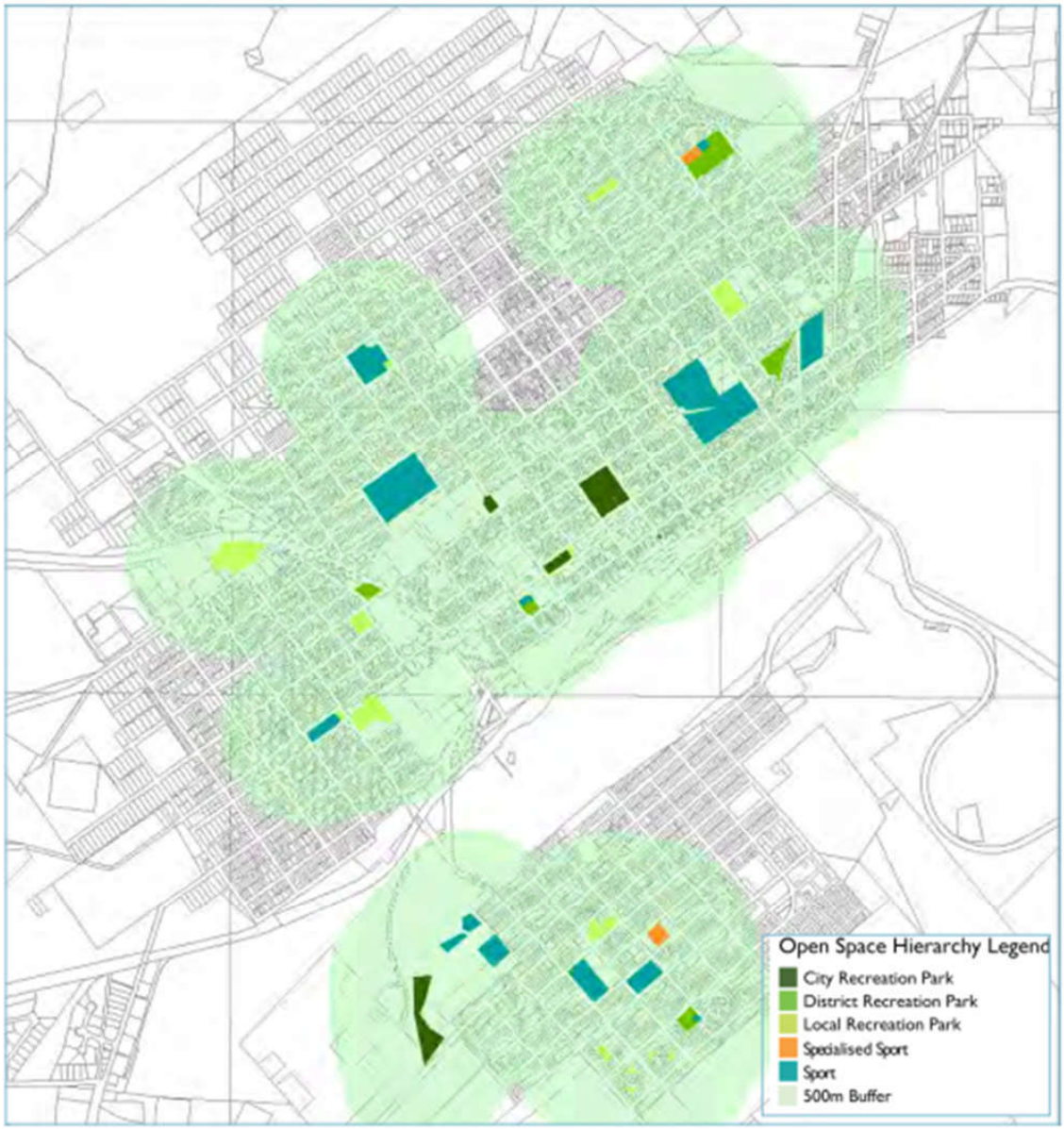
Parks and garden are recognised as an important asset to the quality of urban living. Not only do they provide recreational opportunities and aesthetic value, but they also provide essential ecological and environmental benefits within the community.

The City of Broken Hill is somewhat unique when it comes to the provision of the POSS amongst NSW local governments. The soils, climate, topography and location of Broken Hill had influenced the level of asset provision as well as parks operational maintenance practices. The isolated nature of the community and remoteness from other local government parks and sports fields mean the Council is the sole provider and there are few opportunities to leverage off regional provision to create efficiencies and share resources.

Almost all the cost of parks and open space provision is being borne by the Broken Hill City ratepayers as there is a high reliance on Council resources for service delivery. As the parks and open space assets largely service the local community (baring a few events) there is very few options to recover the cost of service other than rates or user charges. Currently the costs are almost entirely rate funded which places the cost burden on all ratepayer regardless of whether they use the parks and open space assets.

We note the POSS excludes parks open space assets such as: The Living Desert, Cemetries and Willyama Common. The map below shows the main parks and open space within Broken Hill noting Jubilee Ocal and Zinc Oval are not Council assets and that Excelsior Oval is still a sports field.

Figure 1 Map of Broken Hill Parks, Garden and Opens Spaces[1]



[1] Plan of management for opens space. Ross Planning, 2009

In addition to the parks and open space assets the POSS maintains a number of other town or Council assets that are not primarily parks or open space but are of community or historic importance. The assets include the:

- The Administration Centre
- Courthouse
- Town Square
- Roundhouse toilets
- Civic Centre
- Lions Reserve
- Conservation gardens
- Visitor information centre
- Beryl Street boxes
- Art Gallery carpark
- Argent St roses
- JC Cross
- Thomas Street gardens
- Lindsays roses
- Street verges
- Street Trees
- Drainage reserves

The Council's Draft Asset Management Plan summarises the current parks assets in Figure 2, noting that cemetery assets fall outside the scope of this review.

Figure 2 Draft Asset Management Plan parks assets

Facility category	Facility Name	Replacement cost	Accumulated depreciation	Written down value	Annual depreciation
Attractions	Joe Keenan Lookout	23,436	-8,983	14,453	780
	Kintore Reserve	35,028	-17,050	17,978	1,048
	Vietnam Vets War Memorial Wall	75,600	-27,719	47,881	1,259
Attractions Total		**134,064**	**-53,751**	**80,313**	**3,086**
Cemetery	Cemetery	991,469	-400,237	591,231	20,510
Cemetery Total		**991,469**	**-400,237**	**591,231**	**20,510**
Public facility	Administration Centre	412,020	-185,679	226,341	4,859
	Civic Centre	116,550	-74,442	42,108	3,213
	Visitor Information Centre	195,647	-101,301	94,346	4,770
Public facility Total		**724,217**	**-361,422**	**362,794**	**12,841**
Recreational park	AJ Keast Park	466,704	-101,376	365,328	13,245
	Apex Park	241,023	-63,571	177,452	6,635
	Duff Street Park	480,564	-200,675	279,889	14,459
	Duke Of Cornwall	337,625	-148,640	188,984	8,866
	North Family Play Centre	292,194	-94,574	197,620	7,226
	Patton Park	834,792	-162,930	671,862	24,023
	Picton Oval	971,599	-371,201	600,398	30,158
	Queen Elizabeth Park	700,348	-100,304	600,044	21,815
	Riddiford Arboretum	5,292	-1,826	3,466	150
	Riddiford Park	37,644	-20,075	17,569	1,253
	Sturt Park	1,823,254	-504,435	1,318,819	49,213
Recreational park Total		**6,191,037**	**-1,769,607**	**4,421,430**	**177,044**
Sports grounds	Alma Oval	1,412,460	-297,835	1,114,625	123,162
	Lamb Memorial Oval	1,061,928	-540,790	521,138	79,221
	Memorial Oval	2,764,188	-1,669,078	1,095,110	81,719
	Norm Fox Sports Complex	977,540	-305,482	672,057	28,479
	O'Neill Park	2,089,543	-1,101,706	987,837	46,150
	Renfrew Oval	688,464	-448,309	240,155	22,271
Sports grounds Total		**8,994,122**	**-4,363,201**	**4,630,921**	**381,002**
Wetland	Mulga Creek Catchment	1,150,330	-598,145	552,184	22,980
Wetland Total		**1,150,330**	**-598,145**	**552,184**	**22,980**
Grand Total		**18,185,238**	**-7,546,365**	**10,638,874**	**617,464**

2.2.1 The stakeholders

There is a considerable number of stakeholders who have an interest in the POSS including:

- Community individuals
- Sporting groups
- Other Council departments
- The local Aboriginal community
- Local business
- Environmental groups.

No new external stakeholder engagement was undertaken as part of this project as the review is intended to gather and report sufficient information to provide a robust basis for future engagement.

2.3 Acknowledgements

We wish to thank Council staff for all the assistance, cooperation and courtesy extended to us during the course of our review, particularly during our site visit to Broken Hill from Tuesday, 10 September to Thursday, 12 September.

2.4 Limitations

In preparing this report, Morrison Low has relied on:

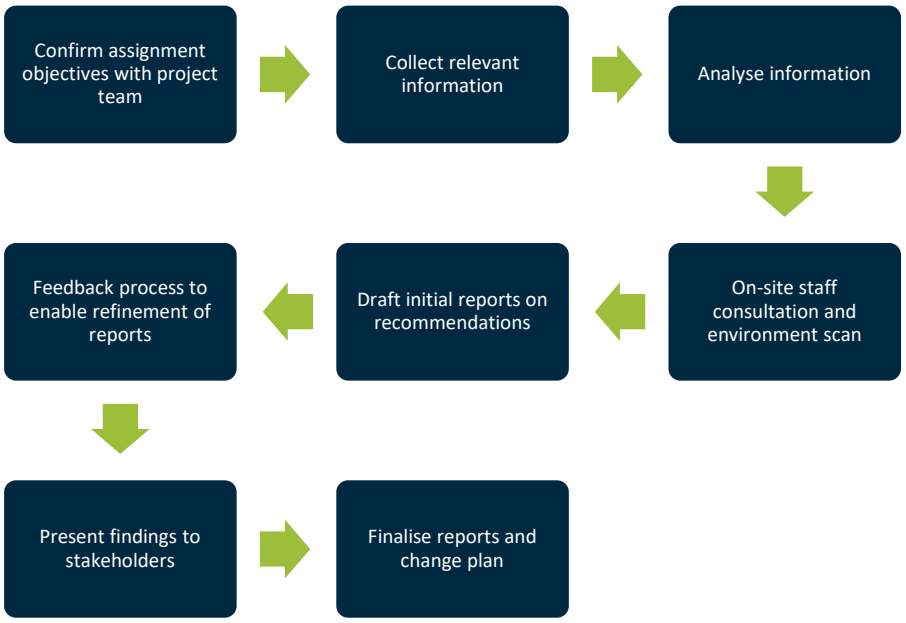
- Information provided by Council
- Feedback provided by Council's staff
- Publicly available information
- Our own analysis.

We have endeavoured to source as much information as possible and have relied on the accuracy of this information in preparing this report.

2.5 Methodology

The diagram below provides a detailed overview of the methodology applied by Morrison Low in undertaking the service review of Parks and Gardens service:

Figure 3 Methodology in undertaking service review of Parks and Open Space Service



In completing this service review and formulating our recommendations, we have focused on establishing a park hierarchy and considered noting challenges and risks that may either support or hinder an efficient and effective service delivery model.

2.6 Strategic Alignment

The Broken Hill community identified trees, parks and open space as a key attribute for the city as part of the community engagement undertaken in developing Council's Community Strategic Plan; Broken Hill 2040 (BH2040). In addition, the community identified a cleaner and greener city, local environmental protection, trees, parks and open space, and tourism as priorities. As a result, the BH2040 includes the following objectives:

- **Objective 2.4** We are a destination of choice and provide a unique experience that encourages increased visitation.
- **Objective 3.1** Our environmental footprint is minimised.
- **Objective 3.2** Natural environments and flora and fauna are enhanced and protected.

The Council's 2022-26 Delivery Program and 2023-24 Operational Plan outline Council's contribution to achieving the BH2040.

The Delivery Program identified the development of Parks and Open Space Asset Management Plans and this service review as priorities for Council. The Operational Plan allocated approximately $1.9 million to Parks and Open Space for services, operations, maintenance.

2.7 Strategic Direction

In addition to the IP&R strategies and plans, the strategic direction of POSS is guided by:

- Plans of Management (PoM). There is a current PoM for Elizabeth Park.
- The Parks and Open Space Asset Management Plan.

Following the completion of the Asset Management Plan and service review, Council's operational plan notes the intention to prepare a Masterplan for recreational parks and investigate the preparation of a master plan for the Memorial Oval. These plans, when completed, will provide an important foundation for engaging the community on service strategy and service level to enable Council to be able to cost, resource and manage POSS service delivery.

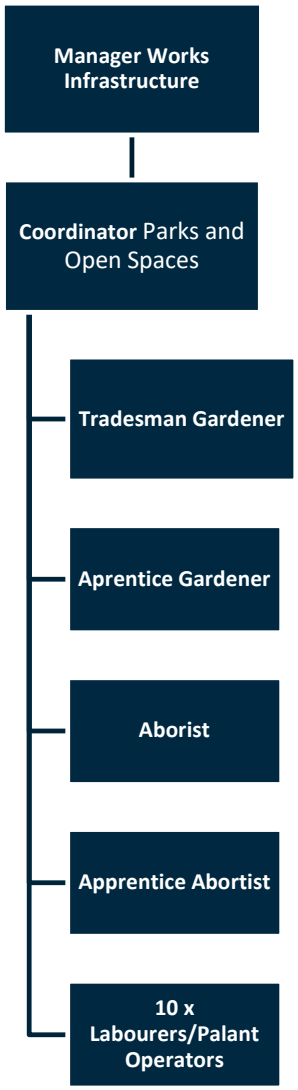
3 Current service delivery and performance

3.1 Resources

3.1.1 Workforce

The current organisational structure allocates 15 staff to POSS operations. The structure is a hierarchical organisational structure with all staff reporting to the coordinator, however, it does contain functional specialists for technical gardening and arboriculture.

Figure 4 Current organisation structure of the POSS



3.1.2 Financial

The actual costs for the last two completed financial years for the POSS are summarised in Table 1.

Table 1 Actual Costs

Parks and Open space	2023/24 Actual	2023/24 Budget	2022/23 Actual
Income			
User Fees	-$6,745	$0	$0
Facility hire	-$1,882	$0	-$2,567
Total Income	**-$8,627**	**$0**	**-$2,567**
Expenses			
Park maintenance	$603,976	-	$561,693
Sport Ground maintenance	$146,446	-	$106,420
Other general maintenance	$457,996	-	$605,596
Total Expenses	$1,208,417	$1,448,880	$1,273,709
Work on Roads by POSS	$255,923		$192,761

Total expenditure in the Parks and Open Space cost centre decreased between 2022/23 and 2023/34. Budgeting occurs at the cost centre level. Council receives minimal income from parks and open space fees and charges. There is sufficient data to budget at a lower level and enable the cost of major activities such as weed or tree management to be identified and service levels to be tested with Council and the community. As more robust task or activity-based costs are established, budgeting should occur at that level, particularly for major expense groups.

Parks maintenance includes all expenditure on dedicated parks while general maintenance includes POSS expenditure on non-parks sites such as council and non-council building surrounds, airport, nature strips etc.

Almost all the expenditure on roads is made up of vegetation control, watering and tree removal.

It is not unusual for POSS expenditure to vary between years, and it will be influenced by climatic events, growing conditions and changing priorities.

3.1.3 Assets

There is a draft Asset Management Plan covering the management of assets for the Parks and Open Space assets, therefore, Council's budgets will be more robust in future years.

The Asset Management Plan identifies the value of the assets in the portfolio with the vast majority maintained by the POSS.

Figure 5 Open Space Portfolio Value ($)

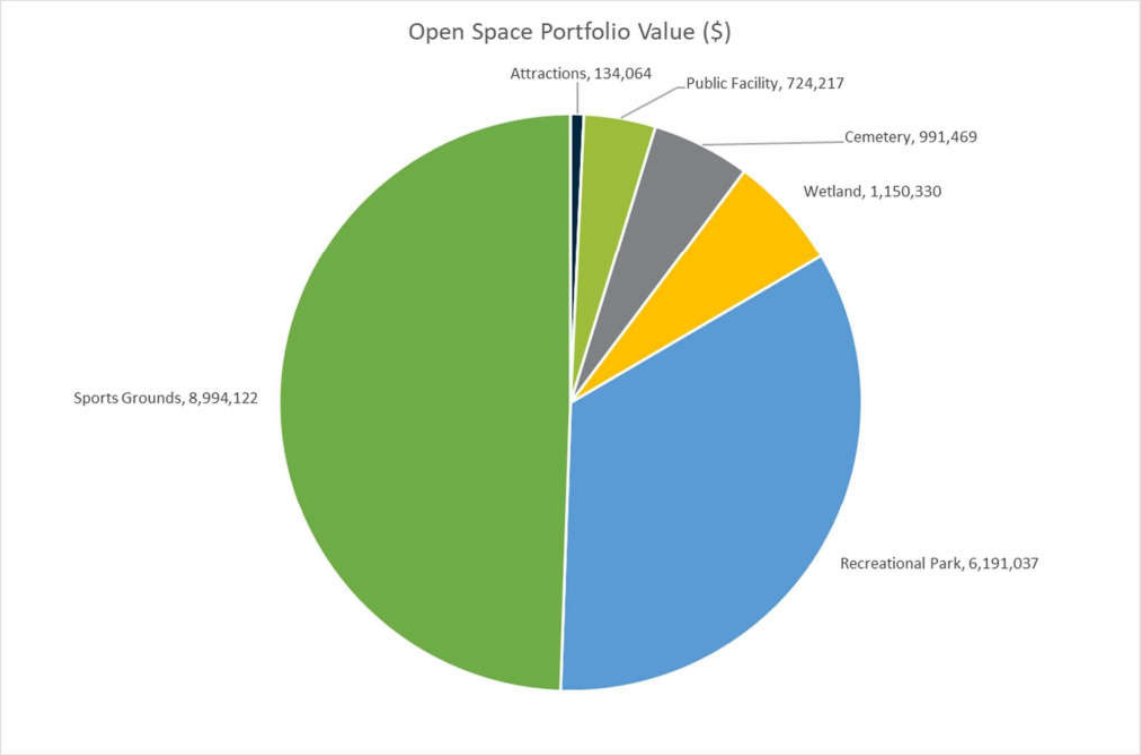


Table 2 shows Council's parks are generally in good condition while the largest proportion of sport grounds are in satisfactory condition. Normally we would expect the majority of sports grounds to be in a good or better condition. We note that Council relies on Section 355 committees for some sport ground operations, but this does not prevent a significant workload by the POSS.

Table 2 Condition of Council's parks

Asset type	Excellent	Good	Satisfactory	Poor	Very Poor	Grand Total
Recreational Park	34.34%	55.45%	8.11%	0.76%	1.35%	100.00%
Sports Grounds	13.61%	26.52%	41.70%	17.85%	0.33%	100.00%
Wetland	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%

3.1.4 Asset Service Levels

The draft Asset Management Plan identifies high level of service levels for the management of Parks and Open Space assets.

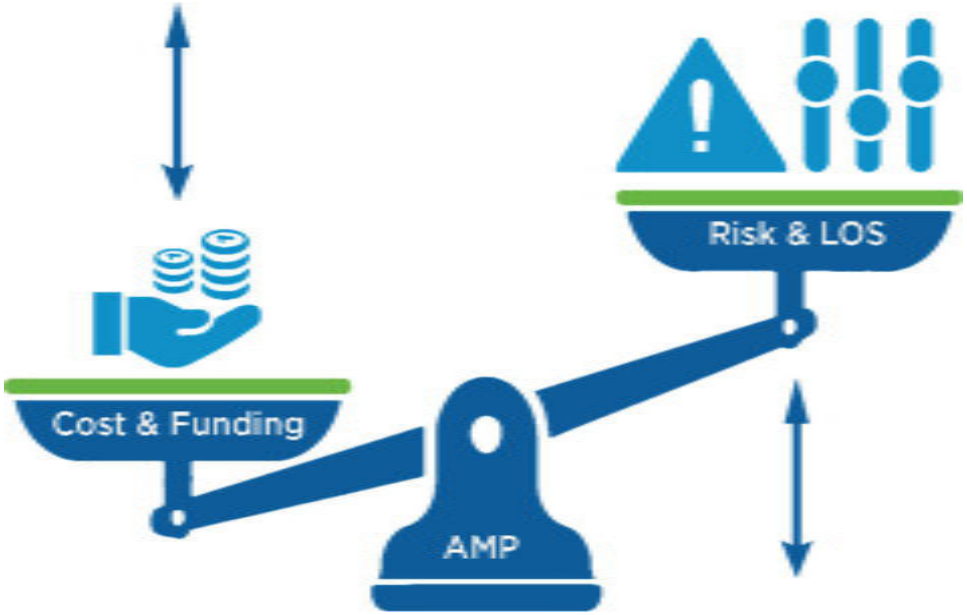
Table 3 Service levels for the management of Parks and Open Space assets

Service level outcome	Level of service	Performance measure process	Performance target	Current performance
Quality / Condition	Keep Open Space in visibly good condition	Condition assessment of assets	90% assets in Condition 3 or better	87% assets in condition 3 or better
	Open Spaces are meeting the needs of the community	Community satisfaction survey	Gap between importance and satisfaction decreases	Not measured
Affordability	Open Spaces are affordable and managed using the most cost-effective methods for the required level of service	Review of service agreements and benchmark with other councils	Maintenance/Opex budget expenditure +/- 5% of annual budget	Not measured
Health and Safety	Provide Open Spaces safe for users and free from hazards	Safety inspections of assets	Inspection program completed to schedule	Not measured
Reliability / responsiveness	Planned works completed in accordance with schedules	Completion of scheduled work	90% completion within scheduled service standard	Not measured
	Be responsive to the needs of the Open Space asset users	Number of customer requests received	85% of requests are completed within Council's service charter	Not measured

Service level outcome	Level of service	Performance measure process	Performance target	Current performance
	Provide well maintained Open Space assets that are affordable to the community	Annual works program planned vs reactive, based on the three-year plan	Greater than 50% of maintenance expenditure is undertaken through planned maintenance schedules	Not measured
Sustainability	Continue to provide Open Space assets to meet the need of the community	Complete capital work program on-time and on budget	Annual capital works for time and budget +/- 5%	Not measured
	Rationalise Open Space to reduce lifecycle costs and deliver best value to the community	Develop and implement rationalisation plan	Disposal budget and timeline adopted	Not measured
	Assets are being renewed in a sustainable manner	Asset renewal ratio (asset renewal expenditure / annual depreciation expense)	OLG benchmark >100%	185% (est 2023/24)
Affordability	Council maintains its Open Space assets	Asset maintenance ratio, measured by (actual maintenance expenditure). Required maintenance expenditure.	OLG benchmark 100%	106%
Quality / condition	Assets are maintained in a satisfactory condition	Backlog ratio (cost to satisfactory / written down value of the assets)	OLG benchmark <2%	14.7

3.2 Operational practices

The Asset Management Plan aims to provide the appropriate balance between level of service, risk and cost. The diagram below shows that the more Council invests in a service such as the POSS, service risks reduce, and service levels increase.



This balance is ideally influenced by the community through an engagement process that determines the optimal balance point between willingness to pay and the level of service they would like. This is a difficult and challenging process to be able to educate the community on the decision-making process and provide enough information for the ratepayer to quantify and understand the service levels trade-offs.

In the absence of a robust data and community conversation on service levels, levels become influenced by the available budget and customer requests or complaints. Service levels then adjust on an ad hoc basis often favouring a part of the community at the expense of another and without regard for the impact they may have on other services or projects.

The POSS currently use run sheets and task lists to guide service delivery activities and in turn, service levels. Most service levels are frequency based with tasks completed on a two-week cycle. Below is an example of one of the run sheets for parks (Friday and Monday) that is currently in use. POSS uses other run sheets for the Town activities.

Figure 6 Example of a run sheet for parks (Friday and Monday)

The example of weekly tasks sheets below lists the activities to be undertaken on each of the sites as well as sites to be weeded or where tree maintenance is required. Staff are allocated to these tasks and with the exception of the qualified gardening and tree management, staff rotate around the other tasks to provide variety of work as well as ensure there is a general knowledge within the POSS of all main tasks.

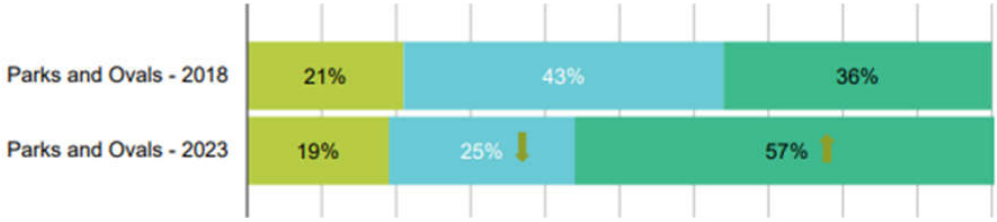
Figure 7 Example of a weekly task sheet for the maintenance of Parks and Open Space assets

	26.8.24	27.8.24	28.8.24	29.8.24	30.8.24
STAFF	Monday	Tuesday	Wednesday	Thursday	Friday
Staff member name	PARKS RUN	WEED MAINT. PLAN	WEED MAINT. PLAN	WEED MAINT. PLAN	PARKS RUN
Staff member name	RDO	WEED MAINT. PLAN	WHITE CARD COURSE	WEED MAINT. PLAN	TREE MAINT.
Staff member name	RDO	KINTORE PLANTING	KINTORE PLANTING	KINTORE PLANTING	TOWN RUN
Staff member name	RDO	ANNUAL LEAVE	STURT PARK	STURT PARK	STURT PARK
Staff member name	RDO	TREE MAINT.	STUMP GRINDING	TREE MAINT.	TREE MAINT.
Staff member name	PARKS RUN	PARKS MOWING	WHITE CARD COURSE	WEED MAINT. PLAN	WEED MAINT. PLAN
Staff member name	RDO	WATER TRUCK	ANNUAL LEAVE	WATER TRUCK	WATER TRUCK
Staff member name	RDO	OVAL MOWING	OVAL MOWING	CARERS LEAVE	SLASHING
Staff member name	RDO	STURT PARK	STURT PARK	STURT PARK	STURT PARK
Staff member name	SICK LEAVE	SICK LEAVE	SICK LEAVE	SICK LEAVE	SICK LEAVE
Staff member name	STURT PARK	KINTORE PLANTING	KINTORE PLANTING	KINTORE PLANTING	STURT PARK
Staff member name	RDO	PARKS MOWING	PARKS MOWING	PARKS MOWING	WEED MAINT. PLAN
Staff member name	WATER TRUCK	WATER TRUCK	STUMP GRINDING	TREE MAINT.	TOWN RUN
Staff member name	TOWN RUN	TREE MAINT.	PARKS MOWING	PARKS MOWING	PARKS RUN

The system seems to work well and provides a good basis for workload planning.

3.3 Performance and community satisfaction

Community satisfaction with parks and ovals increased in the past five years between 2018 and 2023, with more people more satisfied (57%) and fewer neutral (25%) or dissatisfied (19%). Comparatively parks and oval satisfaction scores well amongst the service provided by Council.



The two areas of responsibility that draw the most complaints within the POSS work program are weeds and street trees.

As noted earlier, POSS has few Operational Plan performance indicators and those that exist are project based and are either completed or nearing completion.

3.4 Stakeholder perceptions and feedback

Engagement was only conducted with internal stakeholders. The key points from this engagement summarised below are not inclusive of all feedback but reflect repeated messages or consistent observations.

- All stakeholders think the POSS is operating well.
- There is a high level of confidence and satisfaction in the team's leadership which flows into the team culture.
- The POSS team has a strong team culture and support each other.
- The POSS has the plant and tools to perform required functions, although more specialised plant could improve performance.
- The current team is very knowledgeable and have a good understanding of the requirements of tasks they perform.
- No work, health or safety issues were reported.
- The team uses a rotational model to manage succession and knowledge transfer.
- It can be frustrating as complaints are prioritised without consideration of the team's expertise.
- Some residents use the complaints process to receive favourable treatment.

3.5 Industry comparisons

The NSW Government comparative data published by the Office of Local Government, highlights that Broken Hill has an abundance of open space, with more than four times the Group 4 councils' average. With 3,800 ha, this is the highest amount of any of the councils and twice the amount of the next highest council, but only 13 ha comprises actively maintained park and 16 ha of sporting ovals.

The comparative data in the table below was provided confidentially by a council that participated in a national benchmarking programme. The participating councils ranged from large metropolitan councils to regional councils across most states of Australia. There were no directly comparable councils to Broken Hill with similar park conditions, therefore, this data should be used for indicative purposes only.

Table 4 Comparative data for Parks and Open Space assets

	Australia (median)	Broken Hill
Ha of total park/1,000 residents	18.5	1.65[2]
Ha of actively maintained park/1,000 residents	6.47	0.76
Ha of sports parks/1,000 residents	0.83	0.89
Playgrounds per 1,000 children under 15	7.01	2.32
Street Trees per 1,000 residents	262	1,400[3]
Planted beds per 1,000 residents m2	1,688	-[4]
Operational cost per Ha total park	$20,470	$25,877
Operational cost per Ha of sports ground maintenance	$16,630	$9,388

Broken Hill City's geographic location means the cost of materials and contracts will be much higher than the coastal councils who participated in the benchmarking, so the higher cost by comparison for operational cost per hectare is not unexpected.

The climate, location and geology of the area has shaped the provision of open space in Broken Hill. By comparison, Broken Hill provides fewer areas of actively maintained park land but has a wealth of total park/open space within the city by comparison to other Australian local governments. The Council has more sports fields by comparison and fewer actively maintained parks and playgrounds.

We noted by comparison, Broken Hill has fewer footpaths and off-road areas to walk safely to playgrounds,

[2] Excludes the Living Desert, Willyama Common and Regeneration Areas
[3] Estimated by staff
[4] Unknown but small

possibly influencing playground provision. Some roadside verges are challenged with weed infestations, and the climate at times is not always favourable for using playgrounds.

By comparison, Broken Hill has a large number of street trees which are a source of complaint, drive cost and the use of POSS resources.

3.6 Business analysis

In undertaking this service review, Morrison Low identified the key strengths, weaknesses, opportunities and threats of the current POSS service delivery model. Table 5 below presents the key strengths, weaknesses, opportunities and threats identified, with further commentary provided below.

Table 5 SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
High level of community satisfaction. Internally recognised as a service that is performing well. Dedicated and knowledgeable staff. A very good team culture. Work is scheduled and documented.	Lack of a forward-looking Masterplan. No formally agreed service levels or community engagement on service levels. All parks are serviced on the same basis. Worksheets are manual processes. Time spent managing legacy issues/decisions e.g. tree species. Challenges with uniqueness of the City's climate, geology and design.	Formalising a parks hierarchy to enable work programming to be prioritised. Develop and document service levels for future decision making. The POSS team becoming more involved in asset planning providing practical input into new asset design. Increase revenue through fees and changes. Rationalising some service delivery offerings. Increased use of technology e.g. driverless	Community expectation for service delivery or quality increasing as Council does more. Community satisfaction with the POSS decreasing if unable to deliver a consistent standard. Risks from poor species planting are realised.

Strengths	Weaknesses	Opportunities	Threats
	Service delivery subject to politics at times creating inequity between some customers.	mowers.	

4 Service Analysis and Findings

4.1 Parks Hierarchy

Key findings

- Council has no formal parks classification structure; however, staff operate an informal park classification structure that is well known and accepted.
- Council has considered adopting a hierarchy on previous occasions.
- An objective of this service review is to be able to engage Council and the community on the POSS work program and costs. A park hierarchy for prioritising work is important for this engagement process.

Issues and commentary

Most councils classify their parks and open Space assets according to a hierarchy that corresponds to their primary role or function in the community. Service levels are then assigned to ensure each type of asset in the hierarchy is maintained to deliver the function at the required level. Service levels for high value and feature parks and open space are the highest and vary as the function of the space changes. Currently there is no formal parks hierarchy for Broken Hills parks and open spaces. A recommended parks hierarchy that aligns to current practice is shown in Table 6.

Table 6 Suggested hierarchy of Council's parks and open spaces

Rating	Type	Description	Location
1	Premier Park	High profile, well used parks or open space. Includes grassed areas, trees, rose garden landscaping, public toilets, park furniture, rubbish bins, playground equipment, lighting. Assets maintained in condition to show case the City.	Sturt Park.
2	High value	Well used parks and open space, CBD areas that receive frequent visitation. Asset maintained in good condition operationally and aesthetically.	Queen Elizabeth Park Patton Park Courthouse Civic Centre Small CBD Open Spaces Sporting Ovals
3	Medium value	Community parks and open space. Assets maintained to be fit for purpose.	All other actively maintained parks Essential drainage channels

Rating	Type	Description	Location
4	Low value	Less used local open spaces, drainage channels, suburban verges and street trees, often small with minimal infrastructure. Key health and safety issues addressed, and asset functionality is maintained.	Street verges Street trees
5	Natural Areas	Relatively undisturbed bush land, may have conservation value or cultural significance.	Mulga Wetlands (subject to review) Willyama Common and Regeneration areas[5] Living Desert State Park[6]

4.2 Current Service Levels

Key findings

- There are no formally adopted maintenance service levels.
- POSS operates to a set of internally defined service levels. These service levels have not been tested with the community as recommended by the IP&R guidelines.
- Council's service levels are considerably different than the average service level provided by other local government parks and open space providers. Service levels in Broken Hill are strongly influenced by Broken Hill's location, geography, environment, climate and history.

Issues and commentary

The current service levels are summarised in the table below.

Table 7 Current service levels of Council's parks and open space

		1	2	3	4
Activity	**Premier**	**High**	**Medium**	**Low**	**Natural Areas**
Grass mowing and maintenance	Grass is well maintained to a medium height (generally less than 15-20mm). Edging and blowing.	Grass is well maintained to a medium height (generally less than 15-20mm). Typically, fortnightly mowing in summer and	Typically, fortnightly mowing in summer and monthly in winter. Edging and blowing.	Grass is maintained as required to a height generally not exceeding 300mm.	Grass is not maintained, mown as required for hazard reduction only

[5] Not part of the POSS area of responsibility.
[6] Not part of the POSS responsibility.

		1	2	3	4
Activity	**Premier**	**High**	**Medium**	**Low**	**Natural Areas**
	Typically, fortnightly mowing.	monthly in winter. Edging and blowing October to March - prepare and maintain cricket wickets fit for purpose. April to September – mark AFL lines and maintain.		Typically, monthly mowing.	
Irrigation and watering	Irrigation applied to maintain surface	Irrigation applied to maintain surface	Irrigation applied to maintain surface	All new street trees are watered weekly in the summer and fortnightly in the winter	N/A
Parks and open space presentation	Every Monday and Friday Roads, tracks and paths are inspected and cleaned if required. Empty bins and pick up litter Clean BBQs	Every Monday and Friday Roads, tracks and paths are inspected and cleaned if required. Empty bins and pick up litter Clean BBQs	Every Monday and Friday Roads, tracks and paths are inspected and cleaned if required. Empty bins and pick up litter Clean BBQs	Litter collected as required prior to mowing.	Tracks and paths are safe, and risks mitigated.
Garden bed maintenance and weed management	Garden beds are weed free, mulched and plants replaced as required.	Garden beds are generally weed free, mulched annually and dead plants replaced annually as required.	Garden bed weeds no higher than 300mm, mulched annually and dead plants replaced annually as required.	Street verges weeded in accordance with Weed Management Plan and published program.	Weeds managed in accordance with Weed Management Plan.

		1	2	3	4
Activity	**Premier**	**High**	**Medium**	**Low**	**Natural Areas**
Trees, shrubs, ornamental plants	New plants or replacement plants to improve aesthetics, generally annually. Spraying pests as required	New plants or replacement plants to improve aesthetics, generally annually. Spraying pests as required	Planting as funding available	N/A	N/A
Playgrounds	Inspected weekly and made safe within 12 hours.	Inspected fortnightly and made safe within 12 hours.	Inspected fortnightly and made safe within 24 hours.	N/A	N/A
Trees maintenance	Trees inspected monthly and maintained to be safe and aesthetically attractive. Dead or inappropriate trees removed.	Trees inspected annually and work is programmed to ensure trees are safe and aesthetically attractive. Dead or inappropriate trees removed.	Trees inspected annually and work is programmed to ensure trees are safe and aesthetically attractive. Dead or inappropriate trees removed.	Trees inspected annually and work is programmed to ensure trees are safe and aesthetically attractive. Dead or inappropriate trees removed.	N/A

4.3 Governance and Management

Key findings

- The POSS Team is performing well. Management is complimentary of the team's performance and management.
- POSS are well organised with instructions well documented and weekly work tasks distributed.
- Activities and tasks rotate within the labourers to ensure cross skilling and maintaining variety. This is popular within the team.

Issues and commentary

The POSS team is regarded by internal stakeholders and management as one of the high performing teams at Council. This has led to a high level of confidence in the management of POSS. The performance of core functions are valued by the community.

4.4 Policies and Procedures

Key findings

- POSS have documented work programs and frequencies.
- The work programs reflect historic levels of service but have not been subject to engagement with the community on their appropriateness.

Issues and commentary

POSS has a range of documented work programs, rosters and schedules of tasks. While these do not appear to be formalised into an operations manual, they are documented and do ensure that work is structured according to need, risks and complaints are minimised. They ensure parks and open space are presented in a good condition for the different users demands and occupancy peaks.

4.5 Staff

Key findings

- There are sufficient staff to maintain the Council's assets to current service levels and comply with statutory requirements.
- POSS staff would like to be able to respond more positively to customer requests but are limited by workloads and resources. Staff acknowledge that these limitations constrain and express frustration when customer requests are not equitably prioritised.
- The POSS culture is positive and has created a positive working environment.
- Staff are happy with how they are led and managed and believe they work well together a team.

Issues and commentary

POSS staff demonstrated a clear understanding or their work programs. Staff were happy with the way work was allocated, and they were managed day to day. Except for qualified gardening and arboriculture, staff favoured the current model of generalist staff for all other tasks as opposed to functional specialists. This approach provides work variety and gives staff the opportunity to learn different skills. They acknowledged that Council has improved the plant they use, and while expressing the need for additional plant to make their job easier, they were realistic that this was a lower priority in the context of all of Council's other priorities.

5 Assessment against service review questions

Should this service be delivered to the community?

The Community Strategic Plan identifies the outcomes of this service as important services and outcomes for the Broken Hill community.

If so, how should it be delivered?

The location of Broken Hill limits the Service Delivery options for this Service. Council currently delivers this service in-house using Council employees supported by contractors when necessary. This is an appropriate delivery model.

Is this service delivering on community needs and Council's goals?

There are no specific performance measures for the POSS other than the preparation of asset management plans and the completion of this service review.

Is the service being delivered using the most appropriate service delivery mechanisms?

Council has few service delivery options to deliver the POSS. There is a small contractor market in Broken Hill, and this is unlikely to create a competitive and sustainable outsourcing option for the delivery of the service. The budget and location are unlikely to provide incentive for new or larger contractors to relocate to the city.

Internal and external customer satisfaction with the service is high and an indicator of a successful service delivery mechanism.

Is the service being delivered as efficiently and effectively as possible?

There are opportunities to improve efficiency and effectiveness through the development of a parks hierarchy with service levels varied to suit the different type of parks. These opportunities are considered limited, as current service levels are tailored to the local conditions, albeit they are at the lower end of traditional park service levels.

Is the service resourced appropriately?

The current resources appear appropriate. Work backlog was identified in the weed management activity, but additional resources have been allocated to this task.

Is the service meeting current service standards and levels?

There are no formalised service levels for the POSS at present, but the service identified that informal service levels have evolved over time. These service levels need to be tested with the community.

What are the current and future issues affecting the service, and what should be done about them?

The main issues impacting the service are:

- Parks provision and service levels in Broken Hill have been shaped by the City's unique combination of history, location, geology, geography, climate, environmental and social needs.
- There are no adopted parks hierarchy and service levels. A current hierarchy and service levels are included is this report for consultation.
- Broken Hill has a high number of street trees with some inappropriate species having been planted and some poor condition. Council should continue to remove and replace in appropriate or high-risk species.
- Weed infestations are a major problem in Broken Hill and generate many complaints. It will take years to address this problem with the current resources. As funding permits continue to resurface urban street verges.

6 Risk Analysis

Following completion of the service review, we have analysed some of the issues to Council, evaluating each to consider potential risk significance.

The results of that analysis are detailed in Table 8, below.

Table 8 Risk analysis

Subject	Issue	Risk Consideration		
		Probability	Impact	Significance of Risk
Strategic Direction	Lack of defined strategic direction	M	M	L
	Increasing public expectations on service delivery	H	M	M
	Management plans out of date and non-compliant	L	L	L
Governance and Management	Internal relationships poor	L	M	L
	Poor cultural and operational behaviours of POSS	L	M	L
	Lack of agreed service levels	M	M	L
Policies and Procedures	Poor documentation of operational procedures	L	L	L
Financial	Loss of financial control in POSS	L	M	L

7 Improvement Opportunities

7.1 Level of provision

- Proceed with the Masterplan for recreational parks as proposed as this will provide clarity for future investment. This should also consider the option of engaging with the community on developing a play strategy to plan the location and quality of play spaces.
- Broken Hill has a number of underutilised sporting ovals and there is an opportunity to consolidate use onto a smaller number of ovals and reduce the service level on the remaining ovals that would no longer be used for sport.
- Generally, most tree species have an optimum life span and will require replacement near the end of their life before they create problems. There are a number of tree species in the city that pose a risk to Council's assets and the community. Council should set aside funds to enable a street tree replacement programme in accordance with the Tree Management Plan.
- Weeds are likely to remain a significant problem for some time and Council should continue to explore resurfacing options as funding permits.

7.2 Changes to service levels

- Existing service levels have been documented in this report and there is an opportunity to engage the community on the appropriateness of current service levels.
- Service levels are generally lower than most urban local governments, however, these service levels are not unrealistic in the Broken Hill environment. There is an opportunity to engage with the community on whether service levels should be improved (at a higher cost) or if they can be reduced.
- Mowing is undertaken on a cyclic basis. There is an opportunity to move to height-based service levels or reduce mowing frequency on medium and low priority open spaces. This will require some discipline from the POSS to adopt a flexible approach.
- There is an opportunity for playground inspections to be increased to coincide with Monday and Friday tasks.
- Council should develop a policy or process for prioritising customer requests and complaints. This will ensure members of the community who have their requests prioritised in a transparent and equitable manner.

7.3 Cost recovery

- There is an opportunity to review charges for services e.g. ground use, lighting, line marking, wicket preparation etc., and/or stop providing some specific services and allow sport clubs to undertake the work themselves.

CONFIDENTIAL MATTERS

Infrastructure and Environment Committee Meeting to be held Monday, March 17, 2025

1. BROKEN HILL CITY COUNCIL REPORT NO. 38/25 - DATED FEBRUARY 20, 2025 - MULGA CREEK WETLANDS LICENCE WITH DEPARTMENT OF CLIMATE CHANGE, ENERGY, THE ENVIRONMENT AND WATER FOR CONDUCTING DUST MONITORING **- CONFIDENTIAL**

   (**General Manager's Note**: This report considers Licence Agreement and is deemed confidential under Section 10A(2) (c) of the Local Government Act, 1993 which provides for information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business).