

Licence Amendment Application

Proposed Solid Waste Depot

Lot 821 and Aprt of Lot 802(501) Alexander Drive, Mirrabooka WA 6061



Prepared for: Brajkovich Landfill and Recycling Pty Ltd T: +61 8 9227 8222

Prepared by: Site Environmental and Remediation Services Pty Ltd (SERS) 281 Newcastle Street Northbridge, WA 6003 PO Box 377 Northbridge WA 6865 T: +61 8 9220 2000 W: www.sers.net.au



DOCUMENT CONTROL SHEET

| Issued by: | Site Environmental & Remediation Services Pty Ltd |
|--------------|---|
| | 281 Newcastle Street |
| | Northbridge WA 6003 |
| | |
| Client: | Brajkovich Landfill and Recycling Pty Ltd |
| Project: | Lot 821 and Part of Lot 802 (501) Alexander Drive, Mirrabooka WA 6061 |
| Title: | Licence Amendment Application |
| Reference: | 004-28_SWD_Oct 2024 |
| Status: | Final |
| Report Date: | 2 nd October 2024 |

Document Production Record

| Issue Number | Name | Signature |
|---------------------|------|-----------|
| Reporting | | |
| QA Review/ Approved | | |

Document Revision Record

| Issue Number | Date | Revision Details |
|--------------|--------------------------------|-------------------------|
| 1 | 24 th July 2024 | SERS Internal Review |
| 2 | 2 nd October 2024 | Issue |
| 3 | 28 th November 2024 | Re-issue with RFI |



EXECUTIVE SUMMARY

This proposal/amendment application presented by Brajkovich Landfill & Recycling (Malaga) Pty Ltd to include Category 62 Solid Waste Depot ancillary to the existing licence L6764/1997/14 for the premises located on Lot 821 and Part of Lot 802 (501) Alexander Drive, Mirrabooka (herein referred to as 'The Site'), which is substantial Lot of 24.2 hectares. This site has been licenced by the Department of Water and Environmental Regulation (Ref L6764/1997/14, herein referred to as 'the licence') under Category 63. Category 63 permits the use of the site as a Class I Inert Landfill site on which waste is accepted for burial. Whereas Category 62 will allow the existing licenced premises to be used as a Solid Waste Depot on which waste is stored, or sorted, pending final disposal or re-use.

The site has been selected as a desirable location, due to the current zoning and location. The site is zoned as Parks and recreation and Industrial under the Metropolitan Region Scheme (MRS) and located approximately 12km north of the Perth Central Business District (CBD).

The closest sensitive receptor to the Site is located 20m east of the Site. The site is situated 30m away from Bush Forever area and closest residential receptor is located 85m from the Site. The topography of the site flows from a low of 55m AHD in the northeast corner to 74m AHD in the northwest corner.



Table of Contents

| ABREV | VIATIONS / DEFINITIONS | 6 |
|--------------|-----------------------------------|----|
| 1. | INRODUCTION | 7 |
| 1.1. | The Proponent | 7 |
| 1.2. | Consultant | 7 |
| 1.3. | Summary of Proposed Development | 7 |
| 1.4. | Purpose of Report | 9 |
| 1.5. | Regulatory Approval Required | 9 |
| 2. | PLANNNING CONSIDERATION | 10 |
| 2.1. | Metropolitan Regional Scheme | 10 |
| 2.2. | Local Planning Scheme | 10 |
| 3. | PREMISE DETAILS | 12 |
| 3.1. | Site Details and History | 12 |
| 3.2. | Surrounding Land Use | 13 |
| 3.3. | Project Characteristics | 15 |
| 3.4. | Contaminated Site Status | 16 |
| 4. | PROJECT SUMMARY | 18 |
| 5. | PROJECT MANAGEMENT | 21 |
| 5.1. 5.1. | Site Operations | 21 |
| 5.1 | .2. Waste Sorting | 22 |
| 5.1. | .3. Waste Storage | 22 |
| 5.2 | Site Access and Traffic Movements | 23 |
| 5.3 | Fire Mitigation Measures | 24 |
| 6. | ENVIRONMENMTAL MANAGEMENT PLAN | 25 |
| 6.1. | Flora and Vegetation | 26 |
| 6.2. | Conservation Areas | 26 |
| 6.3. | Fauna | 26 |
| 6.4. | Wetland and Watercourses | 27 |
| 6.5. | Surface and Groundwater | 27 |
| 6.6. | Topography and Elevation | 27 |
| 6.7. | Soils | 27 |
| 6.8. | Visual Amenity | 27 |
| 6.9. | Heritage | 28 |



| 6.10.Air Quality |
|--|
| 6.11.Noise |
| 6.12. Dieback Management Plan29 |
| 6.13. Weed Management Plan |
| 6.14.Bushfire Prone Areas and Fire Management31 |
| 6.15.Asbestos Management Plan32 |
| 6.16. Complaints Management |
| 6.17. Roles and Responsibilities |
| 7. CONCLUSION |
| 8. REFERENCES |
| Figure 1- Site Location |
| Figure 2- Site Layout & Infrastructure |
| Figure 3- Surrounding Land Uses40 |
| Figure 4- Buffer Zones and Surrounding Sensitive Receptors41 |
| Appendix A- CERTIFICATE OF TITLE42 |
| Appendix B- LETTER OF AUTHORITY43 |
| Appendix C- DUST MANAGEMENT PLAN45 |
| Appendix D- NOISE MANAGEMENT PLAN46 |
| Appendix E- ASBESTOS MANAGEMENT PLAN47 |
| Appendix F- <i>NatureMap</i> SPECIES SEARCH REPORT48 |



ABREVIATIONS / DEFINITIONS

| Abbreviation | Definition |
|--------------|--|
| 'the Site' | Lot 821 (501) Alexander Drive, Mirrabooka WA 6061 |
| ACM | Asbestos Containing Material |
| AHD | Australian Height Datum |
| BLR | Brajkovich Landfill & Recycling (Malaga) Pty Ltd |
| CBD | Central Business District |
| DWER | Department of Water and Environmental Regulation |
| LGA | Local Government Authority |
| m | Metres |
| MRS | Metropolitan Region Scheme |
| SERS | Site Environmental and Remediation Services (WA) Pty Ltd |



1. INRODUCTION

1.1. The Proponent

Brajkovich Landfill and Recycling (Malaga) Pty Ltd is a company part of the Brajkovich group, who focus on resource recovery and recycling. It is proposed that in the acquisition of the sought approval, Brajkovich Landfill and Recycling (BLR) will utilise the Site located at 501 Alexander Drive, Mirrabooka WA 6061 (hereby know as 'the Site'; refer to **Figure 1**) in further resource recovery, in line with the objective of the Waste Avoidance and Resource Recovery Act 2007.

Address: 1686 Great Northern Highway Upper Swan WA 6069

Brajkovich Landfill & Recycling (Malaga) Pty Ltd are the operator at the Site, which is substantial Lot of 24.2 hectares. The Site has been licenced by the Department of Water and Environmental Regulation (Ref L6764/1997/14, herein referred to as 'the licence') under Category 63. Category 63 permits the use of the site as a Class I Inert Landfill site on which waste is accepted for burial. Whereas proposed Category 62 will allow the existing licenced premises to be used as a Solid Waste Depot on which waste is stored, or sorted, pending final disposal or re-use.

1.2. Consultant

Site Environmental and Remediation Services (WA) Pty Ltd (SERS) is an Environmental Consultancy specialising in development approvals, environmental approvals, environmental sampling, and site remediation. SERS is assisting BLR in the preparation of the relevant reports to gain licence amendment to include Category 62 solid waste depot ancillary to Category 63.

Address: 281 Newcastle Street Northbridge WA 6003

Key Contact: Environmental Planner Phone-Email-

1.3. Summary of Proposed Development

It is proposed that the Site will be utilised as a Solid Waste Depot. Operation is proposed to be in accordance with the following definition:



Solid waste Depot – Premises on which waste is stored and sorted, pending final disposal or re-use.

a) A refund point (as defined in the *Waste Avoidance and Resource Recovery Act 2007* section 47C
(1)) (a *refund point*);

Or

b) A facility or other place (an *aggregation point*) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.

Due to the nature of the proposed works, it was essential that the existing licence (L6764/1997/14) amended to include Category 62 is acquired from the Department of Water and Environmental Regulation (DWER).

Category 62- Solid Waste Depot

The DWER licence amendment application form has been provided with this supporting document.

Operation of proposed Solid Waste Depot will be restricted to area as outlined within **Figure 2**- **Site Layout & Infrastructure**. Site entry is proposed off Victoria Road, northeast corner of the Site. There is currently an accessible driveway suitable for Vehicles, which will be utilised in Site access and egress. All vehicles carrying waste will be required to go through an installed weighbridge. Vehicles will use designated roads on site for ingress and egress.

Vehicles carrying waste will be directed to the waste sorting area on the central western portion of the site, where waste will be deposited into tipping area (*refer* Figure 2 Site Layout & Infrastructure for details). Waste deposited into the tipping area will be taken to southwest area of the site for further processing such as mechanical sorting. The Southwest area has been proposed for sorting and storage of waste material due to its depth in comparison to other parts of the site. This area will be filled to a level of approximately 70mAHD on expiration or early termination of current lease.

Wheeled Loaders and excavators will be utilised in the sorting of waste materials. It is proposed that the southwest corner of the site will be utilised for sorting of waste, where waste will be sorted by mechanical means. Sorted waste material will be stored in separated stockpiles outlined within **Figure 2**. Stockpiles will be separated into areas clearly marked for unprocessed waste. Clearly visible and legible signage is to be installed in proximity of the stockpiles.



The Middle portion of the site will be utilised as a steel sorting area. The structure on the central-east portion of the site is intended to be utilised as an administration office and amenity block for site staff. Equipment to be utilised as part of the site operations are inclusive of the following:

- Vehicles like water cart, wheel loaders (x2)
- Excavator (x3)

Site operation and layout have been displayed within Figure 2 Site Layout & Infrastructure.

1.4. Purpose of Report

The purpose of this report is to provide the relevant planning and environmental information in support of licence amendment application for Lot 821 and Part of Lot 802 (501) Alexander Drive, Mirrabooka WA 6061. The report details the project activities, land use planning, assessment of the environmental impacts, environmental management strategies and supporting information for the proposed works approval.

1.5. Regulatory Approval Required

The following planning and environmental approvals are required prior to the commencement of project activities:

• Licence amendment Application (DWER)

A relevant application form has been provided with this proposal.



2. PLANNNING CONSIDERATION

2.1. Metropolitan Regional Scheme

The Metropolitan Region Scheme (MRS) is a legal land plan administered by the Western Australian Planning Commission outlining urban planning objectives and zoning throughout the Perth Metropolitan Area. Under the provisions of the MRS, the subject site is zoned Parks and recreation (Reserve) and Industrial zone. Surrounding MRS land zoning is displayed in **Figure 3 Surrounding Land Use**.

Zones and reservations in the MRS are broad categories. They are not precisely defined or limited, the following is used to describe the 'industrial' zone, which is described as land in which manufacture, processing, warehousing, and related activities are undertaken. The proposal to conduct activities in line with the general definition of solid waste depot are in line with the general description of an 'Industrial' zone.

2.2. Local Planning Scheme

Local Planning Scheme are generated in guidance of Part 5 of the Planning and Development Act 2005. Scheme that includes zoning and classification are generated in reference to the planning and development (Local Planning Scheme) Regulations 2015.

The City of Stirling operate under the local planning scheme known by Town Planning Scheme No. 3 (TPS3). The TPS3 outlines and regulates a series of planning functions including classification and zoning, guiding land use developments, outlining procedures for assessment and determination of planning application, and implementation administration and enforcement of TPS3.

According to the TPS3, the Site is zoned 'Industry' and 'development zone'. As per Part 4 Zones and the use of land of City of Stirling Local Planning Scheme, the objectives of each zone for subject site are as follows.

The objectives of an industry zone are to:

- (a) To provide for a range of industrial and business development, as well as facilities for the storage and distribution of goods.
- (b) To ensure a high standard of development appropriate to a modern industrial area and which is conducive to safe and convenient access by all clientele.



On 27 October 2015, Part Lot 1, House No. 501 Alexander Drive, Mirrabooka was zoned as development and development area from no zone. This amendment has been reported as amendment 42 in *City of Stirling Local Planning Scheme No.* 3. The objectives of a development zone are to:

- (a) To provide for coordinated development through the application of a comprehensive structure plan to guide subdivision and development.
- (b) To avoid the development of land for purposes likely to detract from the amenity or integrity of the area.

As per Schedule 10 of City of Stirling *Local Planning Scheme No.* 3 indicates that to facilitate the development of a range of:

- Light/service industrial uses; and
- Mixed business uses

Clause 6A of Local planning Scheme No. 3 will be implemented.

Clause 6A- Development (Structure Plan) Areas of City of Stirling Local Planning Scheme enables Structure plant to be prepared and adopted to subdivision, use of development of land, where comprehensive planning is required to coordinate such subdivision, use or development.



3. PREMISE DETAILS

3.1. Site Details and History

The proponent, Brajkovich Landfill and Recycling (Malaga) Pty Ltd are the operator at Lot 821 and on Part of Lot 802 (501) Alexander Drive, Mirrabooka. This premises has been licenced by the Department of Water and Environmental Regulation (Ref L6764/1997/14, herein referred to as 'the licence') under Category 63. This category permits the use of the site as a Class I Inert Landfill site on which waste is accepted for burial. This proposal seeks licence amendment to include Category 62 which will allow the site to operate as a Solid Waste Depot on which waste is stored and sorted, pending final disposal or re-use.

Sand quarrying commenced in late 1950s at the site. This site was operated by Atlas Group Pty Ltd (Atlas) under category 63 since 1960. The site was previously accepting both putrescible and inert waste for burial. In 1977, the premises was reclassified from a putrescible landfill to a Class I inert landfill only, due to the risk to groundwater from putrescible was being buried in unlined cell. Post reclassification, the premises continued to accept putrescible wastes for sorting only.

In 2009, the premises was classified under the CS Act as '*Possibly Contaminated-Investigation Required*'. In October 2011, the licence holder was served an Investigation Notice to undertake groundwater investigation. As a results of investigation notice found that landfill leachate had impacted groundwater beneath the site and approximately one kilometre offsite to south-west into residential area of Dianella and Mirrabooka. Further Investigation undertaken in 2013 found that the risk from identified compound were low and further work was not required to quantify the risk to ecological and human receptors. Given the significant impact on groundwater quality in the area, in 2004 the Department of Health (DoH) recommended groundwater impacts continue to be monitored. As recommended by DOH, the licence holder conducted biannual groundwater monitoring of the on and offsite bores in 2015, 2016 and 2017. In 2018, the licence holder requested an amendment to reduce monitoring requirements outline in Condition 2.3.1 of the existing licence (L6764/1997/14). In 2019, considering licensee's proposal, DWER amended the licence to revise groundwater monitoring requirements.

Until September 2022, Atlas was operating a category 62 Solid Waste Depot along with Category 63 Class I inert landfill under the licence L6764/1997/14 which was later amended to remove Category 62 due to its complexity.

The amendment history for existing licence has been presented in Table 3-1.



| Table 31 | - Licence | amendment | history |
|----------|-----------|-----------|---------|
|----------|-----------|-----------|---------|

| Instrument/Reference number | Issued | Description/ Summary of change |
|--------------------------------|------------|--|
| L6764/1997/6 | 17/07/2000 | Licence re-issue |
| L6764/1997/7 | 17/07/2001 | Licence re-issue |
| L6764/1997/8 | 17/07/2002 | Licence re-issue |
| L6764/1997/9 | 17/07/2003 | Licence re-issue |
| L6764/1997/10 | 12/07/2004 | Licence re-issue |
| L6764/1997/11 | 27/06/2005 | Licence re-issue |
| L6764/1997/12 | 07/07/2006 | Licence re-issue |
| L6764/1997/13 | 29/06/2009 | Licence re-issue |
| | 29/03/2012 | Licence re-issue |
| | 01/05/2014 | Licence amendment to update format |
| | 04/12/2014 | Licence amendment to groundwater monitoring regime including addition of off-site monitoring bores |
| L6764/1997/14 | 22/10/2015 | Licence amendment to include the acceptance of Inert Waste Type 2 |
| | 14/06/2022 | Amendment to remove most of Lot 820 from the premises boundary for remediation under the <i>Contaminated Site</i> <i>Act 2003</i> . Category 62 and Putrescible waste acceptance were also removed. |
| L6764/1997/14 | 16/11/2023 | Transfer of licence to Brajkovich Landfill & Recycling (Malaga) Pty Ltd |

The site is located approximately 12 km north of the Perth CBD and is bounded by industrial/commercial receptors to the east and west and residential receptors to the north and south. The closest commercial receptor is located on east of the site. Vehicle Access to the site is gained off Victoria Road (see Figure 2-Site Layout and Key Infrastructure)



The site is located within the area zoned as Industrial and Park & recreation (Reserve) according to Metropolitan Regional Scheme, however the surrounding area to the north and south of site has been zoned as Urban (Figure 3. Surrounding Land Use). The nearest sensitive receptor is an industrial receptor located adjacent to eastern boundary of the site. There are industrial and urban receptors located within 100m and 500m of the site boundary (Figure 4. Sensitive Receptors). Measurements have been taken conservatively from the closest boundary of the site to the boundary of the receptor. It should be noted that operation areas will have additional buffer distances due to their location onsite and strategic positioning. Table 3-2 below lists sensitive receptors within 100m buffer of the site boundary.

| Receiver | Location | Receptor | Site boundary ¹ (m) |
|----------|---|----------------------------|--------------------------------|
| 1 | 29 Rheingold Place, Mirrabooka WA 6061 | Res <mark>id</mark> ential | 93 |
| 2 | 27 Rheingold Place, Mirrabooka WA 6061 | Residential | 99 |
| 3 | 26 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 81 |
| 4 | 24 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 100 |
| 5 | 20 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 100 |
| 6 | 18 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 93 |
| 7 | 16 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 94 |
| 8 | 27 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 100 |
| 9 | 29 Floribunda Gardens, Mirrabooka WA 6061 | Residential | 99 |
| 10 | 3 Silkpod Heights, Mirrabooka WA 6061 | Residential | 100 |
| 11 | 1 Silkpod Heights, Mirrabooka WA 6061 | Residential | 98 |
| 12 | 2 Silkpod Heights, Mirrabooka WA 6061 | Residential | 85 |
| 13 | 4 Silkpod Heights, Mirrabooka WA 6061 | Residential | 99 |
| 14 | 28 Coppercups Retreat, Mirrabooka WA 6061 | Residential | 92 |
| 15 | 30 Coppercups Retreat, Mirrabooka WA 6061 | Residential | 85 |
| 16 | 25 Coppercups Retreat, Mirrabooka WA 6061 | Residential | 98 |
| 17 | 27 Coppercups Retreat, Mirrabooka WA 6061 | Residential | 86 |

Table 3--2 Sensitive Receptors within 100m buffer around the Site Boundary



| Receiver | Location | Receptor | Site boundary ¹ (m) |
|----------|---|-------------|--------------------------------|
| 18 | 14 Everlasting Gardens, Mirrabooka WA 6061 | Residential | 93 |
| 19 | Lot 820 (501) Alexander Drive, Mirrabooka WA 6061 | Industrial | 20 |

¹Distances to sensitive receptors have been determined through measurement platforms on NearMaps.

3.3. Project Characteristics

It is proposed that the western subdivision portion of the site be used for activities associated with the operations of Brajkovich Landfill and Recycling (Malaga) Pty Ltd. It is proposed that operation onsite will be conducted in line with the definition of Category 62 solid waste depot.

Operations are proposed to take place in locations as outlined within Figure 2- Site Layout and Infrastructure.

Equipment proposed to be mobilised to the Site in aid of the proposed operations, includes:

- Excavator x 3
- Screen x 1

The proposed operations are to be contained within the Site boundary (Figure 2. Site Layout and Infrastructure). A summary of the Site details is listed below in Table 3-3.

| Street Address | Lot 821 and Part of Lot 802 (501) Alexander Drive, Mirrabooka WA 6061 |
|---|--|
| Land Area | 24.2 ha |
| Occupier/operator | Brajkovich Landfill & Recycling (WA) Pty Ltd |
| Certificate of Title (see Appendix A) | Lot 821 on Deposited Plan 404602 Certificate of Title Volume 2941 Folio 371 Lot 802 on Deposited Plan 424564 Certificate of title Volume 4040 Folio 372 |
| Local Government Authority | City of Stirling |
| Metropolitan Region Scheme (MRS) Zoning | Park and Recreation (Reserve), Industrial (Zone) |
| Local Government Authority (LGA) Land Zoning | City of Stirling Scheme No. 3 |

| Table 33 Summary of the Project Site and Relevant Information | Project Site and Relevant Information |
|---|---------------------------------------|
|---|---------------------------------------|



| Land Use | Lot 821 (501) Alexander Drive has previously been utilised as a Class I Inert Landfill Site. | | |
|-------------------------|---|--|--|
| Site Access | The site is accessed from Victoria Road. | | |
| Neighbouring Properties | North: Bush forever Area adjacent northern boundary (Residential Receptors further away after bush forever zone) East: Industrial receptors South: Bush forever Area adjacent southern boundary (Residential Receptors further away after bush forever zone) West: Bush forever Area | | |

1.1 Contaminated Site Status (Lot 802)

In May 2007, Lot 802 along with Lot 821 (501) Alexander Drive, Mirrabooka was listed on the DWER Contaminated Site database as "Possibly Contaminated- Investigation Required" based on the information provided to the department on 1St of December 2006. Following the receival of additional information in July 2023, the Department of Water and Environmental Regulation reclassified the site as "Contaminated restricted use".

The site (Comprising Lot 802 Alexander Drive, Mirrabooka) was reported because it was formerly part of a larger lot that was used as a mixed putrescible and industrial landfill for approximately 20 years, from 1977 to 1997. This is a land use that has potential to cause contamination as specified in the guideline 'Assessment and Management of contaminated sites' (Department of Water and Environmental Regulation, 2021).

As per Basic Summary of Records Search Response, contamination assessments carried out in 2022 and 2023 were comprised of soil, groundwater, and landfill gas investigations. Groundwater monitoring and investigations found that groundwater beneath the landfill and across a wider area to the south-west of the landfill has been impacted by the presence of the landfill leachate.

Groundwater investigations found that groundwater near the western boundary of this site is impacted with the substance indicative of landfill leachate. Nutrients, hydrocarbons, metals and per and polyfluoroalkyl (PFAS) were found to be present in groundwater at concentrations exceeding assessment levels for non-potable use of groundwater, as published in the guideline 'Assessment and management of contaminated sites' (Department of Water and Environmental Regulation, 2021).

Similarly, landfill gas assessment focused on the potential for gas generated within the waste mass on the site indicated that landfill gases (methane, carbon dioxide and hydrogen sulfide) are being generated within the waste mass.

Based on Basic Summary of Records Search Response, Remediation of adjacent lots to the east of the site



was carried out in 2023. Remediation works involved bulk excavation of all areas of buried waste fill on the adjacent lots of underlying natural soils, and screening of the excavated material to separate waste material and soil. A remediation action plan for landfill gas mitigation was developed and implemented to prevent lateral migration of landfill gases from beneath this site to affect the proposed adjacent commercial development. The remediation strategy comprises an actively vented gas interception system (GIS) that has been installed within an easement along the eastern boundary of Lot 802.



4. PROJECT SUMMARY

A summary of the project activities and relevant details are provided in Table 4.1 below:

Table 4--1 Summary of Proposed Activities and relevant details

| ASPECT | PROPOSAL CHARACTERISTICS | | | |
|---|--|--|--|--|
| Site Staff | 12 Site staff are expected to be onsite | | | |
| Hours of Operation | Hours of operations are to be restricted between 7:00 and 19:00 (7am to 7pm) Monday to Friday and between 7:00 and 17:00 (7am to 5pm) on Saturday | | | |
| Site Amenities | Site Amenities are to be located on the north-eastern portion of the site Site amenities will be available to all staff Site Amenities will include a Site staff Area and Toilet Block | | | |
| Acceptance / Inspection of Waste to be Received | Waste/material acceptance will occur west of the site entrance All loads will be inspected at the gatehouse via remote camera system Loads will be assessed for non-conforming materials on arrival, where non-conforming materials are identified, loads will be rejected Loads will be assessed for Asbestos Containing Material on arrival, where ACM materials are identified, loads will be rejected | | | |
| Summary of materials to be accepted | Construction and Demolition Waste (Waste containing visible asbestos or ACM will not be accepted) Green waste Plastics Uncontaminated fill Clean fill | | | |
| Movement of Materials onsite | Once accepted onto the site, materials will be transported to the waste sorting area, where they will be sorted pending reallocation onsite Once waste materials have been sorted, it will be stockpiled into appropriate product stockpiles for the purpose of resource recovery Non-conforming materials will be separated and isolated, and removed offsite within 4 weeks of identification Asbestos containing materials will be removed offsite immediately once identified and confirmed | | | |



| ASPECT | PROPOSAL CHARACTERISTICS | | |
|--|--|--|--|
| Stockpiling specification | Stockpiles will be separated into areas clearly marked for unprocessed waste The unprocessed waste stockpiles will be clearly separated from the processed waste by a minimum of 3m distance Clearly visible and legible signage is to be installed in proximity of the stockpiles to segregate stockpile areas. | | |
| Process | Unprocessed materials will be stockpiled and separated clearly from processed materials (as per the Waste/Material Storage Section) Site staff will be inducted and trained in the identification of non-conforming materials and Asbestos Containing Materials Green Waste will be stored on designated area (refer to Figure 2) | | |
| Separation of non- conforming materials | Non-conforming materials will be separated and isolated as per the Department of Health Guidelines (2021) Guidelines for assessment, remediation, and management of asbestos-contaminated sites in Western Australia and the Department of Environment and Conservation (2012) Guidelines for managing asbestos construction and demolition waste recycling facilities, a summary of the asbestos management onsite is included within Section 6.15 Where waste does not meet the waste acceptance criteria set out in the licence (L6764/1997/14) will be removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility within seven days of receipt. Where other non-conforming materials (materials that do not conform with the classification of construction and Demolition waste) are identified onsite, they will be removed within 4 weeks of identification Non-conforming materials, which are not asbestos containing, will be isolated from categorised stockpiling areas on identification. | | |
| Access and egress | Site access and egress will be through the northern entrance of the site off the access road connected to Victoria Road | | |



| ASPECT | PROPOSAL CHARACTERISTICS | | |
|-------------------|--|--|--|
| Vehicle Movements | It is expected that a maximum of 96 heavy vehicle movements will be mobilised to site daily (48 vehicles in and 48 vehicles out) It is expected that 15 small vehicle movements will be mobilised to site daily, these will be parked within the staff parking lot adjacent to the site entrance (this is exclusive of site visitors, where applicable) | | |



5. PROJECT MANAGEMENT

5.1. Site Operations

5.1.1 Waste Acceptance

Waste acceptance will occur at the site entrance on the northern boundary of the Site. Office staff will record waste/product and volumes, clientele, and materials prior to, or on arrival of new loads. Each load will be classified for site management for inspection of asbestos material as per the table represented within section 3.3 of the *Guidelines for managing asbestos construction and demolition waste recycling facilities*, (DWER, 2021).

Following Site acceptance, the materials will be transported to the waste sorting area where they will be primary sorted into waste/materials requiring further processing and those that are not. The materials which do not require further processing will be stockpiled within the stockpiling area as displayed within **Figure 2.** Materials that require further processing will be transported to the sorting area onsite, processing undertaken is further discussed in **Section 5.1.2**. However, as stated in condition 4 (Table 3-(d)) of current licence L6764/1997/14, crushing of Inert waste type 1 will not be carried out on the premises. When tipped at the proposed facility, careful attention is paid by the driver and the supervisor as to not generate dust whilst tipping. Loads are wet down prior to tipping to ensure minimal generation of errant dust. Each load is inspected by the truck driver post-tipping. If hazardous materials are found within the load the following actions are required to be taken:

- i. The driver is to alert the supervisor of the facility immediately.
- ii. The supervisor/driver is to alert the operate of the source of the load and remedial action at the origin of load is to occur; and
- iii. The load tipped is to be flagged and isolated and moved when an appropriate risk assessment can be made.

Loads will be assessed for non-conforming materials on arrival. Where non-conforming materials are identified loads will be rejected. If non-conforming material are identified further in the material processing or storage process onsite, the non-conforming materials will be isolated within the areas as outlined within **Figure 2** and removed from the Site within 4 weeks of identification, except for asbestos which will be removed as soon as possible. Where waste does not meet the waste acceptance criteria set out in condition 1 of current licence (L6764/1997/14), it will be removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility within seven days of receipt.



5.1.2. Waste Sorting

Waste material accepted on site will require sorting. Waste sorting includes receipt, handling, associated storage and removal of waste by transportation to alternate recycling facilities. The sorted waste will be transported to appropriately authorised facility for further processing. Waste accepted on site will be sorted by mechanical means and manual picking and will be stored in segregated stockpiles outlined in **Figure 2**.

This application does not propose processing of waste materials into recycled product. This includes mechanical jaw crushing and associated screening to produce recycled aggregate.

Should any suspected asbestos material be identified, the following will take place.

- The emergency stop button on the sorting equipment is to be engaged immediately and loading of the material is to cease.
- Loading of the sorting equipment is to cease, the machine itself is to be stopped, and a further inspection is required of the material upon the equipment and all current stockpiles from the sorting equipment.
- Removal of material from the equipment and cleaning of equipment where material is confirmed hazardous; and
- A risk assessment is to be carried out.

5.1.3. Waste Storage

During the offloading of material to the stockpiles, the material usually needs to be further managed to form the stockpile. The operator of the loader/excavator does this by carefully displacing each bucket in a fashion as to not generate dust and, where possible, the operator inspects each bucket as it is moved.

If an operator sees the presence of Asbestos in any moved bucket or within the stockpile, the following procedures will be put into action:

- Operation of the loader is to cease, and a further inspection is required; and
- A risk assessment is to be carried out



At the conclusion of the above being carried out by a competent person, one of the following options will apply:

Option 1

Manual hand picking of affected area with appropriate handling measures put into practice. All ACM will be bagged and disposed of as per regulatory requirements. Prior to further mechanical works, inspection to be carried out and the process repeated until no ACM is visually detected within the material.

Option 2

If the affected area is identified as an isolated area but not suitable for hand picking the affected area is to be treated as Special Waste Type 1. The affected area will mechanically be loaded onto suitable lined semi-tipper for disposal at suitably licensed landfill facility approved to accept ACM.

The liner will then be sealed, and the loaded trailer is to be suitably wet down during loading and covered with a suitable membrane for transportation. The membrane shall cover the entire load and not allow any dust or fragments to exit the vessel during transportation.

The above two options shall be repeated until a competent person is satisfied that the presence of Asbestos is not evident in the affected area.

Option 3

If the affected area cannot be isolated and is not suitable for hand-picking, the whole of the accepted material stockpile is to be loaded out as Special Waste Type 1.

The affected area is mechanically loaded onto suitable lined semi- tipper for disposal at a suitable licensed landfill facility approved to accept ACM. The liner is then sealed, and the loaded trailer is suitable wet down during loading and covered with an appropriate membrane for transportation as per The *Code* of *Practice How to Safely Remove Asbestos (WHSC, 2022)*.

5.2 Site Access and Traffic Movements

Access and egress of vehicles, equipment and machinery will be via the access road connecting to Victoria Road. It is proposed that the driveway be constructed as part of the subdivision works, as which will be suitable for RAV vehicles.



It is proposed that a maximum of 96 vehicle movements be expected for the site daily, this is inclusive of 48 movements into the Site and 48 movements out of the Site. 12 Site staff will be employed during the operations, as such individual parking spots have been provided to each of the staff members, the staff parking area has been displayed within **Figure 2**.

5.3 Fire Mitigation Measures

The site will ensure the following measures are maintained to ensure in the unlikely event of fire, that the fire can be managed appropriately.

- Install a fire water storage tanks and distribution system which will include.
- A total water capacity of at least 450kL in site tank/s that are easily accessible (refer Figure 2 for proposed location).
- The installation of a water pipe system where any potentially combustible stockpile can be reached by a 10m length hose.
- All hose and tank systems will be provided with Storz hard suction and British Instantaneous connections.
- On-site groundwater bore (GW licence- 50920) will be used to fill up the tank and maintain the tank at a full level.
- Install firefighting equipment and system and maintain them in good working order.
- The firefighting system will be capable of controlling any waste material fire within the premises.
- An all-weather trafficable ring roads be provided that allow access by fire brigade appliances.
- All staff onsite will receive fire system and management training as a part of the site induction.
- Any water or waste that may results from firefighting be contained and collected onsite.
- Any recoverable firefighting water is to be removed from the premises by a carrier licenced under the Environmental Protection (Controlled Waste) Regulation 2004 and disposed of to a suitable licenced premise.
- Any fire on the premises is extinguished.



6. ENVIRONMENMTAL MANAGEMENT PLAN

A Summary of the environmental factors and relevant details are provided in Table 6.1 below:

Table 6--1 Environmental Factors

| ENVIRONMENTAL FACTORS | | |
|---|---|--|
| Flora | Lot 821 has previously been cleared of native vegetation. As previously, the site was operated as a mixed putrescible and industrial landfill for approximately 20 years from 1977 to 1997. Negligible vegetation remaining since then. No threatened or priority flora found within the site boundary, however NatureMap search revealed a list of threatened and priority flora within the search buffer of 20km around the site boundary. NatureMap search result has been presented Appendix H . | |
| Fauna | No threatened or Priority fauna have been identified on the site. As the site has been previously cleared of native vegetation, the site provides little fauna habitat. | |
| Wetland | No wetland noted within the site premises or within the database buffer. | |
| Conservation Areas | The site shares northern, southern, and western boundary with Conservation area, known as a Bush Forever Area Site No. 385 | |
| Depth to Groundwater | Groundwater ranges from a depth of 11m on the eastern boundary of the site, to 47m on the north-western corner of the site (Perth Groundwater Atlas). | |
| Public Drinking Water Source Areas (PDWSAs) | The site lies within the Priority 3 West Mirrabooka Underground Water Pollution Control Area and Perth Coastal Underground Water Pollution Control Area. | |
| Topography | The site slopes from the western end of the property at 76mAHD to the central part of the property which sits at 31mAHD. The natural ground surface of the premises slopes towards the east. Most of the premises is relatively flat the exception of a steep incline in the western portion of the premises. | |
| Sensitive Receptors | The closest sensitive receptor is an industrial premises located on eastern boundary of the site. There are no residential receptors located within 100m of the site boundary. | |
| Aboriginal Heritage | No Aboriginal Heritage Sites have been registered within 1.0 km of the site. | |
| European Heritage | No European heritage sies exist in or near the site. | |



| ENVIRONMENTAL FACTORS | | | |
|-----------------------|---|--|--|
| DFES Bushfire | The site resides within Bushfire prone areas on the DFES Bushfire Prone Areas | | |
| Prone Areas | Map (DFES, 2017). | | |

6.1. Flora and Vegetation

The site has been previously cleared of native vegetation. The remaining vegetation is scarce and is isolated to the site boundaries. As there is no intention to extent operations to the outer boundaries, there is no vegetation clearing proposed as part of this application. No threatened or priority fauna were found within the site boundary, however threatened, and priority species have been identified as a result of NatureMap species search within 20km of the site boundary.

6.2. Conservation Areas

The site is surrounded by Bush Forever Conservation Area (Bush Forever Site 385) from northern, southern, and western boundaries which covers approximately 294.5ha of area. Additionally, there are four reserves located within 1km radius of the site boundary.

| Conservation Area | Distance | Direction | |
|-------------------------------|----------|------------|--|
| Floribunda Reserve | 180m | North | |
| Knaphil Heights Reserve | 430m | North | |
| Farnesian Wintersweet Reserve | 496m | North-west | |
| Snowdrop Boyare Reserve | 560m | North-west | |
| Twining Reserve | 993m | North-west | |

Table 6--2 Conservation Area within 1km radius around the site

It is not expected that this development will have an impact on the Bush Forever site 385 or conservation area located near the site.

6.3. Fauna

Due to historic clearing of this area for the historical landfilling activity, there are no critical habitat of communities of fauna remaining and further use of the site as a solid waste depot is unlikely to have a significant impact on threatened species and ecological communities.

Threatened and priority species have been identified within 10km in a Nature Map search provided by



Department of Biodiversity, Conservation and Attraction. The complete list is attached in **Appendix H**.

6.4. Wetland and Watercourses

No wetland or watercourses identified within 1km buffer area around the site boundary.

6.5. Surface and Groundwater

The superficial aquifer is present beneath the Premises at a depth ranging from 11.7m below ground level(bgl) in the north-east to 42mbgl in the south-west Groundwater elevation monitoring at the premises indicates groundwater flows to the south-west which is consistent with the regional groundwater flow direction. The premises indicate that saturated thickness of the superficial aquifer is approximately 20 to 30m (Salama *et al.*, 1989).

The depth to the Osborne Formation ranges from approximately 40-50m in the north-east of the Premises to 80m in the south-west of the Premises.

Based on the tracer test, the estimated range of groundwater flow velocities in the superficial aquifer at the Premises was 0.1-0.35m/day (Salama *et al.*, 1989), Water level monitoring in the 1980s indicated that the hydraulic head increased with depth to a maximum in the central part of the superficial aquifer, possibly due to recharge further away in the Gnangara mound (Salama *et al.*, 1989). The hydraulic head was lowest at the base of the aquifer indicating possible leakage into the Osborne Formation (Salama *et al.*, 1989).

No surface water body has been identified within or near the site boundary.

6.6. Topography and Elevation

The natural ground surface of the premises slopes towards the east. Most of the premises is relatively flat except for a steep incline in the western portion of the premises.

6.7. Soils

The site resides within a sandplain, mainly Cenozoic inland eolian and alluvial deposits present. State interpreted bedrock geology, as per Department of Mines Industry Regulations and Safety (DMIRS), has classified the site under Coolyena Group with chalk, greensand, glauconitic sandstone, siltstone, marl; characteristically glauconitic.

6.8. Visual Amenity

The boundaries of the site are mostly screened by planted trees, particularly the northern, western, and



southern boundaries. The eastern boundary (subject to the proposed entrance to the site) is screened by large industrial gate structure and a weighbridge, administration office and a carpark.

Due to the site location within an industrial zoned area, it is not expected that visual amenity of the area will be impacted by the proposed works. Operations will be conducted in accordance with the Dust Management Plan to ensure that the amenity of the area is not impacted by the works.

6.9. Heritage

No heritage controls are proposed for the implementation of the Site activities as there are no Heritage Site within 1.0km radius of the site boundary.

6.10. Air Quality

Dust has the potential to be generated because of the project activities, which can, in turn, cause on the Air Quality in the direct vicinity of the Site. The sources of dust that are associated with the proposed activities include:

- Stockpiling of materials.
- Vehicle movements; and
- Material transfer (loading), storage and transportation.

Dust has the potential to impact local amenity and cause a nuisance to surrounding land users. In extreme situations, when dust is suspended in the atmosphere, it may reduce visibility, settle on native vegetation and effect human health.

It is unlikely that dust will become problematic due to the proposed controls. The main factor influencing dust as part of the project activities is the suspension and dispersal of dust in the wind. Once dust enters the atmosphere, it may transfer to the surrounding environment and impact surrounding landowners. To manage potential impacts associated with dust, a Dust Management Plan (DMP) has been prepared and is provided in **Appendix C.** The DMP will be implemented as part of the project activities.

Controls within the DMP are inclusive of:

- Installation and maintenance of reticulation systems surrounding stockpiles to ensure that stockpiles are wetted down.
- Installation of dust monitors on the Site boundary, to be monitored by a relevantly qualified environmental technician as contracted by BLR- Proposed location of dust monitors are



shown in Figure 2.

• Operation and maintenance of an onsite Water Cart to ensure stockpiles and internal roads are wetted down at all times.

6.11. Noise

There are two main sources of noise from the proposed development. These include the operation of plant onsite (Water cart, Wheel loaders and excavators), and the transport of materials via vehicles. There are no residential receptors located within 50m the Site boundary. In terms of site barriers, it is proposed that bund be constructed to the north of the stockpiling area. The bund will shield residential receptors to the north and run against the length of the boundary.

A Noise Management Plan (NMP) has been developed for the Site, assessing the worst-case scenario impacts whereby all equipment onsite is operating concurrently to the nearest sensitive receptor. The NMP has been developed in accordance with the requirements of the *Environmental Protection (Noise) Regulations 1997.* The NMP provided a series of methodologies to be implemented onsite to ensure that noise levels, as determined within the NMP, are complied with during the Site operations. The NMP concluded that noise emissions comply with the *Environmental Protection (Noise) Regulations 1997*, subject to the appropriate methodologies being in place. The NMP has been included at the rear of the report as **Appendix D**.

6.12. Dieback Management Plan

Dieback of vegetation is often attributed to *Phytophthora Cinamomi* even though there are other Phytophthora species and other diseases such as *Armillaria* that can cause dieback like symptoms. Microscopic soil-borne fungi of the genus Phytophthora kill a wide range of native plants and can cause severe damage to many vegetation types, particularly those from the families *Proteaceae Epacridaceae*, *Xanthorrhoeaceae* and *Myrtaceae*.

In most cases dieback is caused by a pathogen which infests the plant and causes it to lose vigour, with leaves dying, and over time may kill the plant. As such the management of Dieback is essentially related to plant hygiene when coming onto a site and within a site.

There are several guides to the management of Dieback:

• Department of Environment and Conservation CALM Dieback Hygiene Manual 1992 is a practical guide to Dieback management.



- Department of Environmental and Conservation CALM Best Practice Guidelines for the Management of *Phytophthora Cinamomi*, draft 2004.
- Dieback Working Group 2000, Management of Phytophthora Dieback in Extractive Industries.

As the site is mostly cleared and the Site is within an Industrial zoned area, the dieback risk is minimal. However, as a matter of good environmental practice management BLR will use practices that will minimise the introduction of weeds and plant pathogens. The aim of dieback management during the proposed Site operations is to minimise the risk of entry of dieback into the site.

In many ways the management of site for dieback is like that for the management of weeds, and the two management practices should be considered together.

The other management is to ensure that all equipment and road transport vehicles are clean and free from soil and vegetation matter prior to entering the site. This is normal practise by BLR who strive for high levels of resource hygiene to minimise any potential for dieback spread.

The following actions will be taken on this site to reduce to risk of dieback spread:

- Illegally dumped rubbish is to be removed promptly.
- No contaminated or suspect soil or plant material is to be brought onto the site.
- A wheel wash will be available where required at the entrance of the site, all trucks will be required to enter the wheel wash before picking up or dropping off materials. This will reduce the risk of transfer onto the site; and
- A sign will be installed at the site entrance directing the sole use of sealed hardstand when navigating the site, as to not spread any potential plant pathogens into the exposed soil or boundary vegetation.

The successful implementation of these methods is expected to reduce the risk of dieback spreading to the site.

6.13. Weed Management Plan

The management of weeds is essentially like that for plant diseases. Weeds have a high potential to spread to surrounding localities, therefore it is important to ensure they are controlled as processes occur. It is



desirable that the site does not become a haven for environmental weeds and therefore a management and control program is warranted.

Weeds can be declared under the *Agriculture and Related Resources Protection Act 197*6 which requires that declared weeds are eradicated. Other weeds are not declared but may be classified as Environmental Weeds because they are well known for impacting on vegetation.

Generally, the application of methods to prevent the spread of Dieback are applied which will usually ensure the control of environmental weeds in the process. There are no significant weeds that currently require treating.

The management of weeds will employ the following principles:

- All equipment to be used during Site operations will be cleaned and free from soil or plant material when arriving at site.
- Illegally dumped rubbish is to be removed promptly.
- No contaminated or suspect soil or plant material is to be brought onto the site.
- A wheel wash will be installed at the entrance of the site, all trucks will be required to enter the wheel wash before picking up or dropping off materials. This will reduce the risk of transfer onto the site.
- A sign will be installed at the site entrance directing the sole use of sealed hardstand when navigating the site, as to not spread any potential plant pathogens into the exposed soil or boundary vegetation.
- Declared weeds or environmental weeds should be treated promptly by digging out or spraying; and
- Weeds will be treated promptly no matter how few there are.

6.14. Bushfire Prone Areas and Fire Management

The site is surrounded by bushfire prone zone. Due to proximity of the Bush forever area several locations on the site receives a BAL risk rating. A summary of the management strategies includes the following:



- All fuel tanks to be kept clean to avoid waste build up and immediately report and resolve any onsite fuel spills.
- Immediately call emergency services for any fire outbreaks on site.
- Ensure all machinery is regularly maintained to avoid sparks.
- No smoking allowed on the site.
- Training to be provided to all landfill staff to identify fire risk, identify the type of fire and
- operate firefighting equipment on site.
- Equipment and fire suppression systems to be serviced ad inspected regularly.
- Keep roadways clear for emergency service vehicles and ensure water truck and other equipment are available for emergency services.
- Maintain Boundary fencing and access gates to ensure no trespassers can access the site.
- Emergency Response evacuation flowchart emergency response procedures to be made available to all employees.
- Create a buffer zone from the green waste to any fuel load or ignition source.
- Monitor adverse weather conditions and total fire ban periods.
- Emergency information to be located at the front gate and HAZMAT regularly updated.
- Smoke alarms installed in all buildings.
- 100mm Dual Hydrant Riser will be installed on site.
- As an additional measures, tanks will be placed on site.
- On-site groundwater bore (GW licence- 50920) will be used to fill up the tank in case of fire emergency.

6.15. Asbestos Management Plan

Due to the nature of works onsite in the acceptance of Construction and Demolition Waste, there is a risk of Asbestos inadvertently being transported and identified onsite. As such, site staff need to be



appropriately trained in working with Asbestos Containing Materials (ACM) and the processes surrounding their isolation and removal from Site.

It is proposed that Construction and Demolition materials are accepted to Site, inclusive of excess or waste material arising from the demolition of buildings and structures or pavements. Primarily the Construction and Demolition wastes and materials accepted to site will be inclusive of 'concrete, brick, rubble, asphalt, metals (ferrous and non-ferrous), timber, wallboard, glass, plastics, soil and other building materials and products.' Toxic materials are excluded from the accepted materials.

The operations, inclusive of the sorting, will sort through cement and concrete materials for categorisation and stockpiling. The stockpiled materials are to be utilised in the resource recovery scheme at offsite facilities whereby they are on sold as product.

Asbestos has been used historically as an integral component of many structures in Western Australia due to its fire-proof properties. As such, within demolition activities it is common for demolition contractors to encounter ACM, given reason for a comprehensive Asbestos Management Plan (AMP) to be implemented onsite. A detailed AMP has been attached as **Appendix E** at the rear of this report.

A Summary of Asbestos Management Procedures outlined within the AMP are as follows:

- Site Staff are to be trained in the identification and procedures of isolation where ACM is discovered onsite.
- All personnel subject to the isolation of asbestos onsite or removal offsite are to be wearing appropriate forms of PPE.
- All ACM waste identified onsite is to be kept in a wet state, wrapped in polythene or otherwise sealed, and removed from the Site as soon as possible.
- Used disposable PPE is to be placed into bags for disposal with other asbestos waste.
- Non sorted material stockpiles are to be regularly inspected for the presence of any residual ACM; and
- The materials to be isolated and removed from site will be clearly marked with the words "CAUTION ASBESTOS".

6.16. Complaints Management

A complaints register will be established for the site in the event of any complaints in relation to the



operations. All complaints shall be treated promptly by BLR and will be dealt with in accordance with the complaints management system and issue resolution procedure. The procedure for managing complaints shall be as follows:

- Site signage displaying the contact details of the site manager will be always positioned at the entry of the site.
- Any complaints made to the site manager shall be documented and dealt with expeditiously.
- Any complaints received either directly from the complainant or via the CoC will be reviewed by the operator and interested parties to assess:
- The legitimacy of the complaint.
- The aspects of the operation that triggered the complaint.
- Management actions required to address the issues raised to bring operations into line with conditions imposed by the CoC.
- Actions deemed necessary to bring operations into line with relevant legislation, regulations and licence conditions will be undertaken immediately and before works are recommenced.
- Summaries of complaints and actions taken to address each specific issue will be recorded in the Complaints Register.
- A record of all complaints shall be retained onsite for inspection by the CoC as necessary; and
- Amendments to the complaint's management process will be implemented reflective of conditions within the development approval as issued by the CoC and the WAPC.

6.17. Roles and Responsibilities

BLR and the site manager will be responsible for the implementation of the management methods listed throughout this document and those listed within the appendices. The site manager will be responsible for implementation of management methods of the operational processes, whilst BLR will be responsible for, but not limited to, pre-operational and oversight of processes. It is the responsibility of all employees to report environmental incidents immediately to their shift supervisor, who will alert the site manager of the occurrence for immediate response.

7. CONCLUSION

In conclusion, SERS, on behalf of Brajkovich Landfill & Recycling (Malaga) Pty Ltd, have developed this application for the Site, located at 501 Alexander Drive (Mirrabooka), for use in line with the definition of a



Solid Waste Depot.

It is proposed that the Site is purposed for storage and sorting of waste material arriving on site. Sorted waste will be stored in separate stockpiles. Stockpiles will be separated by 3m at the base to ensure no cross contamination of product.

Due to the site's location, it is considered that these works are within a favourable location. The City of Stirling Town Planning Scheme 3 states that the use of solid waste depot is considered a land use permitted by the Scheme and therefore compliant with the relevant development standards and requirements of the Scheme.

This proposal has been accompanied by various environmental management measures which will ensure that the proposed development has minimal impact on the surrounding natural and human environment.

It was reported that the proposed project is to comply with regulations as outlined within the *Environmental Protection (Noise) Regulations 1997*, through the development of a Noise management Plan. Management methodology as outlined within the Noise Management Plan will be implemented throughout the operations to ensure no exceedances are reached in terms of Noise emissions.

Due to the sites historical use, the driveway design has been considerate of RAV type vehicles, which is what is proposed to be utilised throughout the operations for removing and receiving materials from Site.

It is in the opinion of SERS, in consultation of BLR (Malaga), that with the above management plans risks associated with the proposed project will not cause harm to its surrounding environment.



8. **REFERENCES**

Australia, Government of Western Australia, WA Planning Commission. (2021). *Guidelines for Planning in Bushfire Prone Area* (Vol. 1.4). Perth, WA: Western Australian Planning Commission.

Australian Ramsar Wetlands. (2022). Retrieved October 3, 2022, from https://www.dcceew.gov.au/water/wetlands/australian-wetlands-database/australian-ramsar-wetlands

Department of Environment and Conservation. (2011). A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities. Perth, WA: Department of Environment and Conservation, Western Australia.

Department of Mines, Industry Regulation and Safety GeoVIEW.WA. (2022). Retrieved October 25, 2022, from https://geoview.dmp.wa.gov.au/geoview/?Viewer=GeoView

Department of Water and Environmental Regulation, *Assessment of environmental noise emissions* (draft) 4–17 (2021). Perth, WA; Government of Western Australia.

Department of Water and Environmental Regulation, Waste Authority. (2019). *Waste avoidance and resource recovery strategy action plan 2030: Western Australia's waste strategy*. Perth, WA

Department of Water and Environmental Regulation. (2019). *Landfill Waste Classification and waste definitions 1996 (as amended 2019)* (pp. 8-25). Perth, WA: Government of Western Australia.

Department of Water and Environmental Regulation. (2021). *Managing asbestos at construction and demolition waste recycling facilities* (pp. 5-25). Perth, WA: Government of Western Australia.

Department of Water, Landfilling with inert materials Water Quality Protection Note

Department of Water. Perth Groundwater Map. (2017). Retrieved September 25, 2022, from https://www.water.wa.gov.au/maps-and-data/maps/perth-groundwater-atlas

Desmond, A. (2001). *Swan Coastal Plain 1 (SWA1 – Dandaragan Plateau subregion)* (pp. 1-11) (Department of Parks and Wildlife). Perth, WA: Government of Western Australia.

El-Fadel, M., Sadek, S., & Chahine, W. (2001). Environmental management of quarries as waste disposal facilities. *Environmental Management*, *27*(4), 515-531. doi:10.1007/s002670010167



Environmental Protection Agency, *Separation distances between industrial and sensitive land uses* 5–12 (2005). Perth, W.A.

Environmental Protection Authority. (2018). *1490.1: Closed landfill guidelines* (pp. 1-28). Melbourne, VIC: EPA Victoria.

Government of Western Australia. (2015). *Landfilling with inert materials* (Note no. 24, pp. 2-10). Perth, WA: Department of Water.

Hirschberg, K. J. (1992). *Municipal Waste Disposal in Perth and its impact on groundwater quality*. Perth, WA: Western Australia Geological Survey.

Minimum construction requirements for water bores in Australia. (2020). Wangara, WA: Australian Drilling Industry Association.

Siddiqua, A., Hahladakis, J., & Al-Attiya, W. (2022). An overview of the environmental pollution and health effects associated with waste landfilling and open dumping. *Environmental Science and Pollution Research*, *29*(39). doi:10.1007/s11356-022-21578-z

State Government Victoria. (2015). *Siting, design, operation and rehabilitation of landfills* (pp. 10-55). Southbank, VIC: Environment Protection Authority.

Salama, R. B., Davis, G. B. and Barber, C., 1989. *Characterizing the hydrogeological variability of a sand aquifer in the region of a domestic waste disposal site*, IAHS Publ. no. 188.

The Department of Planning. (2021). *Guidelines for Planning in Bushfire Prone Areas* (Vol. 1.4). Perth, WA: Western Australian Planning Commission.

Western Australia., Environmental Protection Authority. (2005). *Separation distances between industrial and sensitive land uses* (Vol. 3, pp. 5-12). Perth, W.A., WA: EPA.

Western Australian Government. (2022). *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007* (Vol. 2, Dangerous Goods Safety Act 2004, pp. 120-125). Perth, WA.

Work Health and Safety (General) Regulations 2022. (2022). Perth, WA: Government of Western Australia.

Yellishetty, M. (2020). Rehabilitation opportunities: How Victoria can repurpose its abandoned mines. Retrieved October 10, 2022, from <u>https://lens.monash.edu/@technology/2020/08/06/1380973/how-victoria-can-repurpose-its-abandoned-mines</u>



Figure 1- Site Location



| Remails for Peridow | PROJECT. LICENCE AN |
|-------------------------|---------------------|
| Tel: +61 (08) 9220 2000 | PROJECT No: 004-28 |

http://www.sers.net.au

BASEMAP: Near Maps

SCALE: NTS

ISSUE: FINAL DESIG

DESIGN/DRAWN: BK

DATE: November 2024

© SERS Pty Ltd



Figure 2- Site Layout & Infrastructure



© SERS Pty Ltd



Figure 3- Surrounding Land Uses







Figure 4- Buffer Zones and Surrounding Sensitive Receptors



| Figure 4. Sensitive Rece | ptors (Buffer | ed 100m & 5 | 00m) | |
|---|--------------------|---------------|------------------------|--|
| PROJECT Lot 821 and part of Lot 802(501) ALex | ander Drive, Mirra | booka WA 6061 | PROJECT CODE 004-28 | and the second s |
| DESIGN/DRAW BK Checked By MC | VERSION 01 | DATE N | ovember 2024 | |
| | Source N | earMaps | | Perth a |
| BREDARED FOR | Scale 0 | 5 10 km | | |
| Brajkovich Landfill and Recycling Pty Ltd | | | | Presented and Pres |





http://www.sers.net.au

BASEMAP: Near Maps

SCALE: NTS

2 metre contours (DPIRD-072)

ISSUE: FINAL

DESIGN/DRAWN: BK

DATE: November 2024

© SERS Pty Ltd