Environmental and Waste Management Plan
Concrete Batching Plant

92 - 94 DUNSMORE ROAD, COWES
## Revision Table

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<th>Rev</th>
<th>Description</th>
<th>Date</th>
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<td>0</td>
<td>Environmental And Waste Management Plan</td>
<td>20/06/2019</td>
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<td>92 - 94 Dunsmore Road, Cowes</td>
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<tr>
<td>20/06/2019</td>
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<td>Jardine Johnstone</td>
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FIGURE 2 - ENVIRONMENTAL AND WASTE MANAGEMENT PLAN
1 INTRODUCTION

1.1 Background

At the request of Jardine Johnstone, Beveridge Williams & Co P/L (Beveridge Williams) has prepared an Environmental and Waste Management Plan for a proposed concrete batching plant at 92 - 94 Dunsmore Road, Cowes (referred to as “the site” in this document). The work was authorised by Chris Johnstone on behalf of Jardine Johnstone on 20 May 2019 via email.

1.2 Purpose of Environmental and Waste Management Plan

Beveridge Williams understands that a small concrete batching plant is to be installed on site in the south east portion, and an environmental and waste management plan (EWMP) is required by Council prior to commencement of operations. The purpose of the EWMP is to allow concrete batching machinery to operate without adverse environmental impacts.

1.3 Environmental Guidance Publications

This document has been completed with reference to EPA Publication 628 “Environmental Guidelines for the Concrete Batching Industry” (June 1998).
2 DESKTOP SITE REVIEW

2.1 Site Location, Historical and Current Use

The site is located at 92-94 Dunsmore Road, Cowes in an industrial/commercial area and covers approximately 3,300 m². The site is currently being used by the Blue Gum Garden Centre and has been used as a garden/landscaping supply business for over ten years.

The location of the site is shown on Figure 1.

2.2 Topography and Drainage

The site is generally flat with an elevation of approximately 10 mAHD. Current stormwater drainage runs along the north portion of the site. Based on survey levels (Figure 1), there is a slight gradient towards the south east corner of the site at the location of the proposed batching plant.

The regional topography indicates a slight slope downwards to the north east. Western Port Bay is the main regional low point and is located approximately 850 m north of the site.

2.3 Sensitive Receptors

No nearby sensitive environmental receptors have been identified.
3 SITE EVALUATION

3.1 Summary of Site Information and Potential Environmental Risks

Table 3-1: Summary of Site Activities

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Information Source</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Gum Garden Centre Operations</td>
<td>Blue Gum Website¹, Site Owner Information</td>
<td>The site is used as a garden centre selling products such as soils, screenings, gas refills, stock feeds and general gardening supplies. Some of the existing products sold at the site such as sands and aggregates will be used in the production of limited quantities of concrete (less than 75 tonnes per week) which is below the EPA Publication 628 threshold for EPA Works Approvals (100 tonnes).</td>
</tr>
<tr>
<td>Major plant and equipment</td>
<td>Typical Observations and Site Owner Information</td>
<td>Trucks are used onsite in depositing/transporting soils, a small excavator is used onsite also. Mini cement mixer (agitator) trucks will be used when the batching plant is in operation.</td>
</tr>
<tr>
<td>Operating hours</td>
<td>Jardine Johnstone Town Planning Report</td>
<td>Operating hours are within normal limits: Monday to Friday 7:30 am to 4:30 pm Saturday 8 am to 2 pm Sunday 9 am to 1 pm</td>
</tr>
<tr>
<td>Transport methods and volumes</td>
<td>Observations</td>
<td>Trucks are used for depositing soils in larger volumes, while private sales would use trailers or utes for smaller volumes. As noted above, mini cement mixer (agitator) trucks will be used when the batching plant is in operation.</td>
</tr>
<tr>
<td>Energy consumption</td>
<td>Observation</td>
<td>Site operations are not considered to be energy intensive. Energy usage is unknown but the impact on the environment is likely to be low.</td>
</tr>
</tbody>
</table>

Table 3-2: Summary of Potential Environmental Risks

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Information Source</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Solid Waste Management</td>
<td>EPA Publication 628 ‘Environmental Guidelines for the Concrete Batching Industry’</td>
<td>The main waste associated with concrete batching is excess concrete. Also, any spilled concrete dust, sand or aggregate is considered a solid waste if not recoverable. Recycling will occur where possible. A sedimentation pit will trap wash down sediment and runoff from the concrete batching plant. Sediment will be tested and disposed of in accordance with EPA regulations. Additional packaging waste will be disposed of appropriately to landfill (if recycling is not practical).</td>
</tr>
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<tr>
<td>Noise Emissions</td>
<td>EPA Publication 628 'Environmental Guidelines for the Concrete Batching Industry'</td>
<td>The main sources of noise associated with concrete batching are the use of the hopper as well as the delivery of concrete supplies to and from the site. Indicative noise levels from the batching plant are not expected to exceed existing noise levels and noise from the plant will not be continuous but periodic. The site is located more than 100 m away from residential homes which satisfies EPA Publication 628.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>EPA Publication 628 'Environmental Guidelines for the Concrete Batching Industry'</td>
<td>The main air quality issues involved with concrete batching is the generation of dust due from sources such as dry concrete and stockpiles of sand/aggregate (existing site use), the transport and transfer of these materials, spills, and dust caused by vehicle movements. Cement powders will be supplied to site in enclosed bulk bags which will be stored undercover in the onsite shed. No exposed/stockpiles of cement powders will be stored in open areas and therefore additional dust generation is expected to be minimal. During concrete production the bulk bags are placed directly into the batching hopper which is then sealed before automatic perforation of the bulk bag. The batching plant has been designed this way to minimise airborne cement dust. Exposed raw materials such as sand and aggregates are stored in storage bays that will be arranged in a northerly direction away from prevailing winds. Generally raw materials are ordered in quantities to meet expected demand/project needs and therefore large stockpiles of stored material onsite is unlikely. Raw materials can be wetted down if dust generation is excessive. Simple rectification options are also available such as sprinkler systems (if needed but not mandatory for small operations).</td>
</tr>
<tr>
<td>Water Quality</td>
<td>EPA Publication 628 'Environmental Guidelines for the Concrete Batching Industry'</td>
<td>The main water quality issues with concrete batching are increasing the water pH and turbidity of local waters due to contaminating of wastewater with cement, sand, aggregates and potentially petroleum products. Alkaline and/or turbid wastewater will be generated through cleaning and washdown activities. The batching plant will be situated on a concrete slab with rollover-bunding to contain wash down and water runoff. Waste water will be directed to an onsite sedimentation pit. Waste water will be recycled within the batching plant for new concrete production as well as wash downs. At appropriate intervals, sedimentation in the pit will be tested and disposed offsite in accordance with EPA regulations. Regular inspections of the plant including the integrity of bunding, sedimentation pit, pumps will be undertaken.</td>
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4 ENVIRONMENT MANAGEMENT AND MONITORING

4.1 Environmental and Waste Management Plan and Staff Training

Suggested management and monitoring measures for the concrete batching plant are presented on Figure 2. It is suggested that Figure 2 be placed on a company noticeboard and that all onsite staff undertake training to ensure the EWMP is implemented and environmental risk factors are monitored.

4.2 Contingency Measures

In the event of a non-routine situation such as identification of contaminated runoff or significant environmental impact, personnel observing the impacts must report it to the site manager or site owner. Depending on the potential environmental risk and/or severity of the impact, the site manager or owner should seek advice from a suitability qualified environmental professional (i.e. Beveridge Williams). Appropriate actions to prevent adverse impacts must be implemented immediately.

4.3 Environmental Monitoring

The site owner has ultimate responsibility for ensuring that the EWMP is implemented and that environmental risks are monitored appropriately. It is considered prudent to complete an audit of raw material and waste generation periodically after operations commence to improve overall environmental performance of concrete batching operations.

4.4 Environmental and Waste Management Plan Review

Beveridge Williams considers it prudent to review the contents of the EWMP on an annual basis, after any significant environmental events or if site operations change substantially.
FIGURES

FIGURE 1 - SITE LOCATION PLAN AND PROPOSED CONCRETE BATCHING PLANT

FIGURE 2 - ENVIRONMENTAL AND WASTE MANAGEMENT PLAN
Concrete apron with roll-over bund at perimeter

Truck Loading Area

Wash down and runoff to sedimentation pit and pump equipment

Wastewater to be recycled and collected sediment to be tested and disposed of in accordance with EPA regulations
I have read this Environmental Waste Management Plan and agree to undertake works in accordance with this plan.