

Environment Protection Act 2017

number	BEP000300002
Issue date	25 July 2024
Last amended	-
Expiry date	31 July 2025
Participant	Gypsum & Fertilizer Pty Ltd City Circle Recycling Pty Ltd ResourceCo Pty Ltd Delta Recycling Pty Ltd
Prescribed permission activities	Non-scheduled Activity



Suzy Neilan
Executive Director Strategy
Delegate of Environment Protection Authority Victoria (EPA)

Context

Environment Protection Authority Victoria (EPA) is Victoria's environmental regulator acting in accordance with the *Environment Protection Act 2017* (the Act). Our regulatory role is to work with community, industry and business to prevent and reduce the harmful effects of pollution and waste on Victoria's environment and people.

Key information and obligations

Interpretation

For the purposes of this BEP "You" means the "participant" identified on the first page. Unless a contrary intention appears, words or terms used in the conditions of your BEP have the same meaning as in the Act, and in any regulations made pursuant to the Act.

Compliance

Your BEP is subject to conditions. These conditions confer legal obligations on you as a BEP participant. Some of these are general in nature, while others require you to do (or not to do) specific things. The requirements of these conditions do not detract from each other in any way, nor do they affect any other duties or obligations with which you are required to comply by law. You must fulfil all duties and perform all obligations set out in this BEP or otherwise required by law.

If a participant fails to comply with this BEP, the Authority may in accordance with section 187 of the Act — (a) suspend the operation of the plan; or (b) suspend the participation of the participant in the plan; or (c) remove the participant from the plan; or (d) revoke the plan.

You must comply with the Act and regulations administered by EPA. This includes, but is not limited to, compliance with the general environmental duty (GED).

Duties under the Act

Under the Act, you have legal obligations in relation to your prescribed and non-prescribed activities. These legal obligations exist to minimise risks of harm to human health and the environment from pollution and waste.

You may be committing an offence and be liable to a penalty under the Act if your actions or omissions constitute a breach of these legal obligations.

General environmental duty

The Act places the onus on you to understand the risks associated with your operation or activity and requires you to minimise the risk of harm. This is called the general environmental duty (GED).

Sections 6 and 25 of the Act provide the legal basis for the GED. These sections state that a person engaging in an activity which may give rise to risks of harm to human health or the environment from pollution or waste must eliminate or minimise those risks, as far as reasonably practicable.

Duty to notify EPA of notifiable incidents

A notifiable incident is a pollution incident that causes or threatens to cause material harm to human health or the environment or is a prescribed notifiable incident. Under section 32 of the Act, you have an obligation to notify EPA of a notifiable incident as soon as practicable after you become aware of the incident.

Duty to take action to respond to harm caused by pollution incident

Under section 31 of the Act, if a pollution incident has occurred as a result of an activity (whether by act or omission) and the pollution incident causes or is likely to cause harm to human health or the environment, a person who is engaging in that activity must, so far as reasonably practicable, restore the affected area to the state it was in before the pollution incident occurred.

Duty to notify of contaminated land

Under section 40(1) of the Act, a person in management or control of land must notify EPA if the land has been contaminated by notifiable contamination as soon as practicable after the person becomes aware of the notifiable contamination.

Notifiable contamination means contamination which is prescribed in the Regulations, or contamination for which the cost of action to remediate the land is likely to exceed \$50,000, or any other prescribed amount.

Duties relating to industrial waste, priority wastes and reportable priority wastes

Under parts 6.4 and 6.5 of the Act, a person has obligations in relation to the generation, receiving, recording, managing, transporting, and disposal of industrial, priority wastes and reportable priority wastes. These duties include:

- Duties of persons depositing industrial waste.
- Duties of persons receiving industrial waste.
- Duty of persons involved in transporting industrial waste.
- Duties of persons managing priority waste.
- Duty to investigate alternatives to waste disposal.
- Duty to notify of transaction in reportable priority waste.
- Duty of persons transporting reportable priority waste.

For further information on waste classifications see schedule 5 of the Regulations.

Further information and resources

To aid compliance with the Act and the Regulations, Environment Reference Standards (ERS), Compliance Codes, Position Statements and Guidelines have been developed to address a range of environmental objectives, permitted and non-permitted activities and risks.

You should understand how the Victorian environment protection framework applies to you and your activity, operation or business by making yourself familiar with the Act, Regulations, Compliance Codes and other relevant guidance material.

To assist you with understanding your obligations refer to www.epa.vic.gov.au.

Amendment

You can apply at any time to EPA for an amendment to your BEP under section 184(1) of the Act. EPA may also decide to amend a BEP under its own initiative according to section 184(4) of the Act.

Structure

Your BEP has multiple parts:

- Conditions
- Appendix 1 – locality plan
- Appendix 2 – activity plan
- Appendix 3 – BEP objectives
- Appendix 4 – BEP actions
- Appendix 5 – participant signatures

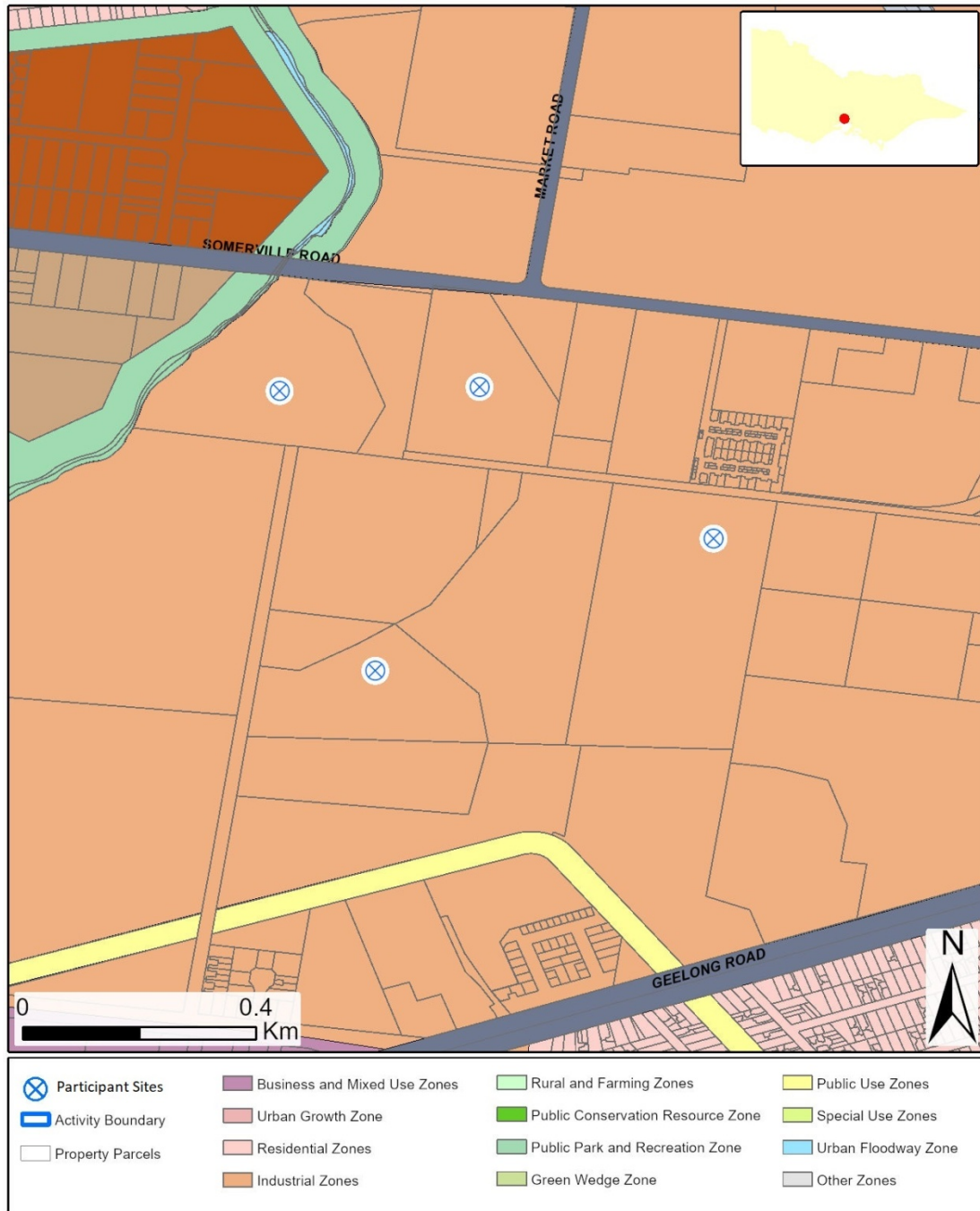
Conditions

General conditions

BEP_G1	All participants of this BEP must complete the actions by the phase 1 timeframe as specified in Appendix 4.
BEP_G2	Within 1 month of the completion of the approved actions, you must provide to the Authority a written report that includes: evidence to verify the completion of actions.
BEP_G3	Phase 2 of this BEP cannot commence until all phase 1 actions have been completed and you have received written approval from the Authority.
BEP_G4	You must within 3 months of the issue date of this BEP, provide the Authority with key performance indicators for each action listed in Appendix 4.
BEP_G5	The approval of this BEP does not authorise any action that requires the authorisation from another stakeholder.

Appendices

Appendix 1 – locality plan



Before relying on the information in this map, carefully evaluate its accuracy, currency, completeness and relevance. Obtain appropriate professional advice before using this information.

Appendix 2 – activity plan



The four participants undertake recycling activities and/or associated material handling within the Brooklyn Industrial precinct, which is located within the vicinity of Bunting Road, Brooklyn Vic 3012 (the Brooklyn Site).

Before relying on the information in this map, carefully evaluate its accuracy, currency, completeness and relevance. Obtain appropriate professional advice before using this information.

Appendix 3 – BEP objectives

The key human health and environmental objective of the BEP is as follows:

Investigate collaborative and innovative actions between the BEP participants aimed at mitigating the emissions to air of particulate matter (PM) from the Brooklyn Site.

Other objectives of the BEP include:

- To drive innovation by the participants working collectively within a business precinct to investigate group actions for precinct-scale approaches & coordinated individual actions to minimise dust so far as reasonably practicable;
- To develop demonstrable and measurable actions through which the participants can show leadership in environmental management within the Brooklyn Site and enhance Victoria's reputation for sustainable business; and
- To develop a collaborative approach between participants to improve environmental management within the Brooklyn Site and to communicate more broadly with industry and stakeholders about the value of the Brooklyn Site to achieving a sustainable, circular economy.

Appendix 4 – BEP actions

Action # / reference	Group Action 1
<p>Description and objective of action</p>	<p>Objective: Develop and implement a shared incident and dust monitoring response system</p> <p>Dust control systems will inevitably be insufficient at times, particularly during periods of dry weather. Rapid identification of problems and implementation of backup measures can quickly correct these problems.</p> <p>An array of fit-for-purpose dust sensors will be distributed across the BEP participants’ sites providing an effective method to detect high dust events. When coupled with real-time weather data, the dust sensors will identify likely dust sources with precision, and automatically provide the relevant operational staff with an alert to investigate the potential sources, causes, and dust mitigation solutions. Working collaboratively across multiple nearby sites provides an innovative mechanism for the sensors to cover a wider area and therefore better understand where sources are located. This data will be set up to help sites fast track the implementation of backup dust controls.</p> <p>This approach is innovative as it is beyond industry best practice. <i>1961 Guideline for assessing and minimising air pollution</i> (EPA VIC 2022), lists Continuous Emission Monitoring Systems (CEMS) as “best practice for the measurement of emissions from stationary point sources” and “expensive to install and maintain. Therefore, they are generally used only on large industrial emitters.” The BEP participant emissions are from volume and area sources rather than point sources, and they are not large industrial emitters. This group action will involve innovative collaboration to utilise shared fit-for-purpose sensors covering a large area to increase the value and effectiveness of the data.</p>

<p>How it will be delivered</p>	<p>This action will be delivered and reported in three stages: Phase 1 - Research and planning; Phase 2 - Proof of concept; and Phase 3 - Full deployment.</p> <p>Phase 1 (Research and planning) will consist of:</p> <ul style="list-style-type: none"> • Discussions with participants and subject matter experts to determine desired accuracy, spatial resolution, sensor features, and system outputs; • Analysis of site layouts to determine sensor technology, number of sensors and approximate locations to achieve desired results; • Assessment of options for purchasing and setup of system, including cost estimates for stage 2 and 3 and recommendations; • Selection of preferred systems; and • Summarising findings together with a plan for phase 2. <p><i>Note: Phase 1 will be completed on the submission of a final report summarising phase 1 findings and the recommended plan for phase 2.</i></p> <p>Phase 2 will include purchase and or development of a small number of test sensors and reliability testing.</p> <p>Phase 3 will consist of setup of software to automate alerts and installation of all necessary sensors.</p>
<p>Who is responsible</p>	<p>The BEP participants will appoint a specialist engineering firm to lead this research and innovation project.</p>
<p>Timeframe</p>	<p>Phase 1 – 31 October 2024; Phase 2 – 30 September 2025; and Phase 3 – 31 March 2027.</p>
<p>Verified on</p>	
<p>Verified by</p>	

<p>Action # / reference</p>	<p>Group Action 2</p>
<p>Description and objective of action</p>	<p>Objective: Develop and implement a vegetation planting and landscaping project to act as a wind break and, to the extent reasonably possible, capture airborne dust.</p> <p>A comprehensive vegetation planting and landscaping project will be undertaken at the Brooklyn Site and, if appropriate, the immediate surrounds. Although not commonly appreciated, vegetation such as trees and shrubs, which are sometimes used as wind breaks, can also capture airborne dust on their leaves. Vegetation also reduces wind speed and hence reduces wind erosion (a source of dust emissions). Wind reduction and dust capture rates depend on plant species, moisture levels, windspeed, foliage morphology, foliage dimensions, plant spacing and other factors. Research in this field is ongoing, with studies underway in many countries. Vegetation plantings can also reduce the visual impact of residual dust emissions and can build valuable support across the local community if planned and implemented collaboratively.</p> <p>Determining the optimal density of planting can improve the effect significantly. In previous studies, environmental engineering firm, Synergetics Pty Ltd, has identified that an optimal density is needed to maximise the dust capture, as denser vegetation will tend to have less airflow through it, while less dense vegetation will capture less of the incoming dust. Optimising this balance will increase the effectiveness.</p>
<p>How it will be delivered</p>	<p>This action will be delivered and reported in three stages: Phase 1 - Research and Planning; Phase 2 – Vegetation Planting; and Phase 3 -Vegetation Maintenance.</p> <p>Phase 1 (Research and planning) will include:</p> <ul style="list-style-type: none"> • Identification of an appropriate method to remove goats, including discussion with, and approval from, relevant local Council and regulatory bodies [<i>see note 2 on Goats below</i>]; • Discussions between BEP participants and relevant specialists to identify preferred planting locations. Plantings will predominantly take place within the Brooklyn Site. Some planting locations external to the Brooklyn Site may also be identified (i.e. on adjoining Council or State Government owned/controlled lands); • Discussions and approval from relevant regulatory authorities, should appropriate planting locations be identified outside the Brooklyn Site; • Characterise sites based on size, elevation, gradient and water availability; • Review of research to identify best plant types to achieve dust capture in these locations. Native and indigenous plantings will be prioritised to aid in biodiversity outcomes in addition to dust control. Vegetation will also aid in carbon capture with GHG offsetting benefits;

- Conduct a Computational Fluid Dynamics (CFD) study to identify capture efficiency as a function of vegetation density, height and depth (see figure 1 below);
- Analyse results to identify optimum vegetation areas and mixture of plant sizes;
- Begin discussions with local vegetation companies to identify specific native plants that will provide desired features whilst also being hardy;
- Explore opportunities for government vegetation funding/grants; and
- Summarise findings together with a plan for phase 2.

Note 1: Phase 1 will be completed on the submission of a final report summarising phase 1 actions and findings, and the recommended plan for phase 2.

Note 2: The Brooklyn Site is currently home to a feral goat population, which have destroyed several past attempts at vegetating the site, despite considerable effort by several BEP participants and Council. Approval and removal of the goats is therefore required prior to beginning vegetation planting and landscaping under phase 2. As the goats are primarily on Crown land, the actions taken to remove the feral goats will be determined in collaboration with, and subject to the approval of, relevant local Council and regulatory bodies. The removal of the feral goats from the precinct will be done according to best practice animal welfare practices and in consultation with the RSPCA.

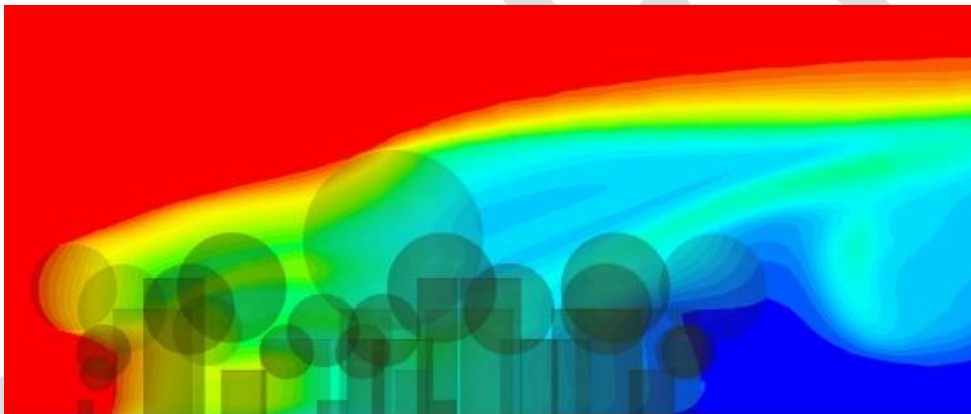


Figure 1: An example of dust capture by vegetation, showing the simulated effect (CFD) for a 10 km/h wind from left to right. Red corresponds to high concentrations and blue to low. Image adapted from a previous Synergetics study.

Phase 2 (Vegetation planting): Subject to the successful completion of phase 1, phase 2 will consist of:

- Removal of the feral goats in accordance with relevant approvals obtained under phase 1.
- Undertaking the vegetation plantings in accordance with the recommended plan.

Phase 3 (Vegetation maintenance): Following the completion of the plantings under phase 2, phase 3 will involve ongoing maintenance of the planted vegetation and support as required.

Who is responsible	The BEP participants will appoint a specialist firm or institution to research and develop an effective vegetation planting and landscaping plan (with timelines) under phase 1.
Timeframe	Phase 1 – 31 October 2024; Phase 2 – subject to recommendation from phase 1, likely to have seasonal dependencies; and Phase 3 – ongoing.
Verified on	
Verified by	

Action # / reference	Group Action 3
Description and objective of action	<p>Objective: In consultation with Local and State Governments, establish a reporting system to expedite cleaning and repair of roads</p> <p>While BEP participants are currently working hard to reduce dust build up on local roads near the Brooklyn site by using wheel washers and covered trucks, among other techniques, many other businesses and associated vehicles use surrounding roads. Significant friable solids build-up and airborne particulate emissions are spilled from trucks generating airborne particulate by the thousands of passing vehicles on all roads leading to and surrounding the Brooklyn site. When vehicles drive over these contaminated roads it can generate elevated levels of particulate emissions, increasing the overall particulate concentrations in the Brooklyn area.,</p> <p>BEP participants will consult with Local Councils and State Government to establish an effective system for:</p> <ul style="list-style-type: none"> • rapid and real time reporting to Council when road conditions surrounding the Brooklyn site are poor; and • to assist Councils with scheduling road cleaning and maintenance to rapidly correct issues before they become significant. <p>This integrated approach of collaboration between multiple industries and local government is innovative with significant dust emission reduction potential. By enabling targeted maintenance and cleaning, it may also result in a reduction in maintenance and cleaning costs.</p> <p>This Group Action will proceed under two phases: Phase 1: Consultation with relevant Local Councils and State Government; Phase 2: Subject to completion of phase 1, participants implement agreed reporting system.</p>

How it will be delivered	<p>The BEP participants will appoint a communications specialist to liaise with Council and State Government and contribute to an effective road dust reporting system. Preliminary consultation indicates that all identified stakeholders, in this case the three local LGAs and VicRoads, are open to further discussion about how Group Action 3 will be delivered.</p> <p>This Group Action will be advanced during the initial Brooklyn BEP Working Group meetings.</p> <p>Once the system is established, other businesses in the area will be invited to participate. However, even with participation from just the four BEP participants, it is anticipated that significant benefits will be achieved from the proposed reporting system.</p>
Who is responsible	The communications specialist will be responsible for this action.
Timeframe	Phase 1: 31 October 2024 Phase 2: 31 December 2024
Verified on	
Verified by	

Action # / reference	Group Action 4
Description and objective of action	<p><i>Objective: Review current training of participants' personnel, and where necessary, implement additional training addressing dust health impacts and methods to control dust emissions.</i></p> <p>Existing training by BEP participants will be reviewed, and where necessary, additional training implemented to raise awareness of both dust health impacts and methods to control dust emissions, followed by training refreshments if required.</p> <p>The training program will focus on:</p> <ul style="list-style-type: none"> • understanding the impacts of dust; • dust mitigation obligations; • dust mitigation controls; and • effective implementation and monitoring.

How it will be delivered	<p>The BEP participants will appoint specialist engineers to develop a program for regular training of participant staff. Development will include setting up an online system to facilitate easy access to training for all staff, both current and future.</p> <p>It is expected that development of the training program will include the following steps:</p> <ul style="list-style-type: none"> • Review of training materials used by each site; • Review of global best practice training materials used by comparable facilities; • Develop a draft online training tool to both refresh staff and fill any gaps in existing training; • Workshop and refine the training tool, including a digital certificate upon completion. • Train participants' management in the deployment of the tool to their personnel; and • Maintain training tool, updating as necessary when new equipment, management practices or research require it. <p>A log of completed training courses and refresher training will be kept for audit purposes. The training validity will be reviewed as part of the audit process.</p>
Who is responsible	The BEP participants (under the advice of the appointed specialist engineering firm) will be responsible for development of the training program. BEP Participants will be responsible for ensuring all assigned site based staff complete required training courses.
Timeframe	Training program developed and training completed by 31 October 2024. Refresher training will be ongoing.
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Action # / reference	Group Action 5
Description and objective of action	<p><i>Objective: Appoint a Community Liaison Officer to lead and facilitate BEP community engagement.</i></p> <p>Respectful and meaningful two-way communication will be a key factor in improving and managing relationships between participants and key stakeholders, particularly residents in nearby communities to the Brooklyn Precinct. A part-time Community Liaison Officer will be appointed to lead the community engagement and act as an interface between the community and participants.</p>

How it will be delivered	<p>BEP participants will collectively fund and appoint the part-time Community Liaison Officer. The role of the Community Liaison Officer will be as follows:</p> <ul style="list-style-type: none"> • Provide a two-way information source to ensure the community is heard and they understand the scope of operations that are conducted in the Brooklyn Precinct; • To attend and engage with community representatives and community meetings concerning the Brooklyn Precinct; • To assist in providing the community with updates on the BEP participants' progress in meeting their committed actions under the BEP; • To assist where appropriate with stakeholder engagement under Group Action 2 and 3; • To assist in the implementation of the Community Engagement Program on Circular Economy (see Group Action 6 below); and • To maintain a dedicated email address to receive feedback from community members regarding the BEP and its progress.
Who is responsible	The part time Community Liaison Officer will be collectively funded and appointed by the BEP participants. The resource will be coordinated by strategic communications company.
Timeframe	The officer will be appointed by 31 October 2024.
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Verified by	

Action # / reference	Group Action 6
Description and objective of action	<p><i>Objective: Develop and implement a Community Engagement Program on Circular Economy</i></p> <p>An innovative community engagement program focused on the Circular Economy in Victoria will be developed and implemented. It will use the activities of the BEP participants as a best-in-class case study for educational purposes.</p>

<p>How it will be delivered</p>	<p>BEP participants will collectively fund and implement the program, which will consist of the following:</p> <ul style="list-style-type: none">• a dedicated website for the BEP;• social media engagement;• a series of fact sheets and educational content and curriculum for the purposes of use in Victoria’s primary and secondary schools; and• maintenance of an opt-in database of email addresses so that regular correspondence and updates can be quickly distributed. <p>Preliminary consultation indicates that all identified stakeholders are willing to partner with the four participants on the delivery of Group Action 6. The Participant’s extensive stakeholder consultation, including attendance at recent BCRG meetings, has identified that a lack of meaningful communication and engagement with local community has meant that the precinct’s activities and impact on dust generation are not understood.</p> <p>This Group Action will be considered and reviewed at the bimonthly Brooklyn BEP Working Group meeting to provide clarity and transparency on general progress in relation to the BEP and status of KPIs. The relevant KPI’s will be developed as part of the audit process outlined in Group Action 7.</p> <p>One of the key outcomes that this Community Engagement Program will enable is genuine, meaningful and respectful communication and engagement between all parties.</p> <p>The participants note the Victorian Government’s statement on the Circular Economy: “Our circular economy plan, Recycling Victoria: A new economy, steps out the systemic change that’s needed to cut waste and boost recycling and reuse of our precious resources. This is our plan for a cleaner, greener Victoria with less waste and pollution, more jobs and a sustainable and thriving circular economy.” (11 October 2023).</p> <p>The participants believe the BEP will enable the Brooklyn precinct to provide leadership and an important real-life example of a successful component of Victoria’s Circular Economy in action.</p> <p>It should be noted that during the BEP’s preliminary consultation phase and through engagement with organisations, including the Victorian Waste Management Association, other Brooklyn Precinct companies have expressed an interest in signing on as participants to the BEP once the BEP is operational and proven.</p>
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	This Group Action will be considered and reviewed at the bimonthly Brooklyn BEP Working Group meeting.
Who is responsible	The program will be collectively funded and implemented by the BEP participants. The Community Liaison Officer (see Group action 5) will assist in implementation.
Timeframe	The program will be developed and operational by 31 March 2025.
Verified on	
Verified by	

Action # / reference	Group Action 7
Description and objective of action	<p>Objective: Develop and implement a third-party audit program covering the participants' BEP Group Actions and other individual dust mitigation actions.</p> <p>A cycle of annual third-party audits will be implemented to check that the BEP participants' dust mitigation commitments are progressing on schedule and performing optimally. These audits will provide an understanding of the performance of the BEP, and in the event of shortcomings, provide advice on what could be done to correct this.</p> <p>The audit program will cover:</p> <ul style="list-style-type: none"> • Group Actions 1 through to 6 outlined above; and • The participants' individual dust mitigation actions as part of their ongoing GED compliance. <p>A self-assessment structure will also be implemented to assist sites with monitoring their internal performance and detect any potential issues rapidly.</p> <p>The BEP Working Group will be tasked with the identification of Key Performance Indicators to underpin the Audit and reporting process.</p>
How it will be delivered	BEP participants will appoint a specialist engineering firm to develop and conduct audits
Who is responsible	The appointed specialist engineering firm will be responsible for implementation.
Timeframe	A draft audit program and internal self-assessment structure will be completed by 30 April 2025. The first annual audit will take place in May/June 2025.
Verified on	
Verified by	

Action # / reference	Group Action 8
Description and objective of action	<p>Objective: Actively explore additional BEP actions as part of an ongoing process of continuous improvement in dust mitigation and GED compliance at the Brooklyn site.</p> <p>The BEP participants will actively explore additional BEP actions as part of an ongoing process of continuous improvement in dust mitigation and GED compliance at the Brooklyn Site.</p> <p>The inclusion of additional participant actions or responsibilities to the BEP will be subject to the EPA approval processes outlined in the BEP.</p>
How it will be delivered	Additional BEP actions will be explored within the BEP Working Group and in response to applicable BEP audit findings and recommendations under Group Action 7.
Who is responsible	The BEP participants.
Timeframe	Ongoing over the period of the BEP
Verified on	
Verified by	

Appendix 5 – participant signatures

THE COMMON SEAL of THE COMPANY was affixed in accordance with the <i>Corporations Act 2001</i> in the presence of:)) 
	Director Christian Buxton Gypsum & Fertilizer Pty Ltd
	Director/Company Secretary
THE COMMON SEAL of THE COMPANY was affixed in accordance with the <i>Corporations Act 2001</i> in the presence of:)) 
	Director Matt Skidmore City Circle Recycling Pty Ltd
	Director/Company Secretary
THE COMMON SEAL of THE COMPANY was affixed in accordance with the <i>Corporations Act 2001</i> in the presence of:)) 
	Director Brad Lemmon Resource Co Pty Ltd
	Director/Company Secretary
THE COMMON SEAL of THE COMPANY was affixed in accordance with the <i>Corporations Act 2001</i> in the presence of:)) 
	Director Dominic Santullo Delta Recycling Pty Ltd
	Director/Company Secretary

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