

## BINGO EASTERN CREEK RECYCLING ECOLOGY PARK COMMUNITY WEBINAR FAQs (DECEMBER 2021)

Odour and air quality	
Question	Response
Why is odour still being produced in landfill that is supposedly licensed to only take non-putrescible waste	<p>BINGO's Eastern Creek Recycling Ecology Park (ECREP) landfill is not licensed to accept, nor accepts putrescible wastes. The material that is permitted to be landfilled does contain organic material (such as wood waste, garden waste, paper and cardboard). This material can degrade to result in emissions of methane and other landfill gases. LFG destruction in a properly designed and operated control device, such as a flare or energy recovery unit, is preferable to uncontrolled release of landfill gas for managing health and environmental impacts associated with landfill gas. In fact, many of the large landfills in Sydney licensed to receive general solid waste have landfill gas capture flare systems and/or energy recovery systems in place. To deal with any potential odour, a temporary gas flare system was installed in June 2021. A permanent gas flare system is proposed to be installed (subject Planning Approval) to manage any potential emissions.</p> <p>BINGO has installed four temporary flares as part of its advanced gas collection and management system at its Eastern Creek landfill and is in process of commissioning additional temporary flares to provide further contingency until the permanent flare system is established on the site. The temporary flares and 31 wells are now operating at close to 100%.</p> <p>BINGO has submitted a development application as required under the site's Environmental Protection Licence (EPL13426) to build on the success of the temporary landfill gas collection and treatment system, and provide a more permanent, long-term sustainable landfill gas treatment solution to reduce the environmental impact of gases that would be otherwise discharged to the atmosphere from the landfill.</p>
What type of waste does ECREP receive	The ECREP is licenced to receive non-putrescible waste from commercial and industrial and construction and demolition sources.
How much of it is recycled and what products it is used for	The ECREP currently has a resource recovery rate of around 81.5% which is verified through independent external resource recovery audits. This means that around 81.5% of the waste that is received at the ECREP is recovered for direct re-use or reprocessed into a new product.
What is the nature and composition of residual material that goes into landfill	<p>BINGO currently recovers at industry leading rates of over 80% (FY21: 81.5%). Through BINGO's investment in state of art advanced recycling technology, we are able to process and separate 13 different waste streams to be either on sold (steel, PVC, gyprock, paper / cardboard) or converted into recycled products for sale under BINGO's ECO Product brand (which include sands, soils, road aggregates and mulch).</p> <p>We continuously look for innovative technology and circular opportunities for our residual waste stream which is currently landfilled and represents ~19% of the volume off the back of our advanced recycling facilities. This residual waste stream is predominately comprised of light materials which include plastic, some timber, textiles, rubber, ceramics/dust/dirt and rock. As part of BINGO's innovation hub and commissioning of MPC2 at Eastern Creek, we are undertaking a waste audit of these materials to understand the specifications of the material and exact composition of plastics / textiles etc. to inform further investment in recycling technology to enhance the diversion rates over time. There is no report on our residual waste that is publicly available.</p>

<p>How are you managing water run off to prevent it getting into the landfill and causing odour</p>	<p>Runoff at the ECREP is managed through a Soil, Water and Leachate Management Plan. Generally surface water on the site is captured through the site's water management infrastructure and directed away from the landfill void. Some water is unable to be prevented from entering the landfill such as rainfall that falls on the landfill surface and walls. If this water comes into contact with waste, it becomes leachate and will be managed through the site's leachate management infrastructure. To manage odour, BINGO has implemented a range of measures such as installation of temporary flare network, capping and odour monitoring and is in the process of seeking approval for two permanent gas flares at the site. The temporary flare system continues to operate effectively. The permanent flare system will provide long term sustainable ongoing odour management for landfill gas capture and treatment.</p>
<p>What are the health impacts of ongoing exposure to fugitive landfill gas and emissions from the flares</p>	<p>Flaring of gas reduces the risk of any potential health impacts of landfill gas. Both our current temporary landfill gas treatment system and proposed permanent system will control landfill gas. Pollutants emitted from the proposed permanent flare system have been modelled by an expert air quality consultant and are expected to comply with concentrations of all pollutants assessed which are below the NSW Environment Protection Authority (NSW EPA) air quality criteria, at all residential and industrial locations surrounding the ECREP.</p>
<p><b>Planning, Regulation and Reporting</b></p>	
<p>Why are SSD pathways being used rather than traditional DA's</p>	<p>The NSW environmental planning and assessment framework is established by the Environmental Planning and Assessment Act 1979 (EP&amp;A Act) and the Environmental Planning and Assessment Regulation 2000 (EP&amp;A Regulation). The EP&amp;A Act sets out approval requirements and provides for the making of environmental planning instruments (EPIs) which in turn determine the relevant planning approval pathway for development in NSW.</p> <p>The ECREP was originally approved under Part 3A of the EP&amp;A Act (MP 06_0139) in November 2009. Following repeal of Part 3A of the EP&amp;A Act on 1 October 2011, the project was declared to be State Significant Development (SSD) by the Minister on 2 October 2020 and all future modifications to the original approval will be subject to the planning provisions under Part 4 of the EP&amp;A Act.</p> <p>The Recycling Infrastructure Optimisation Project is being undertaken as a State Significant Development as it triggers the requirements outlined in Clause 23, Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011, specifically:</p> <p>2) <i>Development for the purpose of waste or resource transfer stations in metropolitan areas of the Sydney region that handle more than 100,000 tonnes per year of waste.</i></p> <p>3) <i>Development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste.</i></p> <p>The Permanent Flare and Western Operational Area Projects have both been authorised as modifications to the original site approval (MP06_139) by the Department of Planning Industry and Environment. As these modifications are being made to the original site approval which has been declared to be State Significant Development, these projects are being assessed in accordance with legislation relevant to that pathway.</p>
<p>ECREP has gone through so many modifications isn't it time to assess it as a completely new project and a new</p>	<p>The Recycling Infrastructure Optimisation Project is being undertaken as a separate State Significant Development project.</p> <p>The Permanent Flare and Western Operational Area Projects have been endorsed by the Department of Planning, Industry and Environment as modifications as the development, when modified will be substantially the same as the development for which consent was originally granted (in accordance with the requirements outlined in the Environmental Planning and Assessment Act 1979.)</p>

<p>licence should be applied for</p>	<p>If approved, any changes required to the site's existing Environmental Protection Licences will be made through a separate application to the NSW EPA.</p>
<p>The priority should be to conclusively resolve the odour issue and demonstrate this can be effectively managed before approving on any additional applications for expansion of recycling activities</p>	<p>The effective and long-term resolution of odour issues at the site is a top priority for BINGO. The Permanent Flare project is being developed to directly manage odour issues at the site. The application for this project was lodged with the Department of Planning, Industry and Environment on 30 November 2021 and it is expected to be operational following Project Approval.</p> <p>The Recycling Infrastructure Optimisation Project and the Western Operational Area Project are not anticipated to be lodged until later in 2022 and if approved, would not be operational until sometime in 2024.</p>
<p>If waste no longer goes to directly to landfill when did this activity cease and are there any legacy issues or risks associated with it</p>	<p>BINGO continues to accept non-putrescible waste direct to landfill that is not suitable for resource recovery in accordance with the conditions of the existing approvals and environmental protection licence.</p>
<p>What is the pre-lodgement stage and what is the role of consultation at this point</p>	<p>The pre-lodgement stage involves project planning, concept design and engineering, consultation and impact assessment activities which are undertaken prior to formal lodgement of an application for project approval with a consent authority (in this case the Department of Planning, Industry and Environment).</p> <p>Consultation is undertaken during this stage to obtain feedback from key stakeholders such as surrounding residents and businesses, and government agencies. This feedback is then incorporated into the project design and impact assessment activities to optimise the project outcomes and minimise potential environmental impacts.</p>
<p>What opportunities will there be the community to see the detail of plans and provide comments</p>	<p>In addition to the pre lodgement consultation that has been undertaken to date, the community will be able to view the detailed project applications once they are on public exhibition. The exhibition process provides the community the opportunity to review the documents and provide feedback to the Department of Planning, Industry and Environment during the exhibition timeframe. BINGO will then prepare a report (known as a response to submissions) that will address the questions and comments made on each project in a consolidated report.</p> <p>BINGO is preparing and submitting the permanent flare application as a 4.55(1a) application which has been discussed and agree with the Department of Planning, Industry and Environment. The Department does not typically publicly exhibit the SEARs or assessment documentation of these projects.</p>

Permanent Landfill Gas Capture Project	
BINGO has as their third proposal, the Landfill Gas Capture Project. shouldn't this be your first priority	The permanent landfill gas capture project is a high priority development project for BINGO. The effective and long-term resolution of odour issues at the site is a top priority for BINGO. The permanent landfill gas capture project is being developed to directly manage odour at the site. The application for this project was lodged with the Department of Planning, Industry and Environment on 30 November 2021 in accordance with the requirement of the site's license. This project is the top priority project for the site and will be delivered first.
What is the quantity of methane that is being extracted and proposed to be flared off	<p>An air quality impact assessment has been prepared for the permanent flare modification. The assessment estimates that the total landfill gas generation rate is around up to 3,000 standardised cubic metres per hour. The exact composition varies but typically landfill gas comprises between 45% – 60% methane.</p> <p>The air quality impact assessment found that with the installation of the permanent flare system, the predicted air quality would not exceed any of the relevant air quality impact assessment criteria at any of the sensitive receivers surrounding the site.</p>
Have BINGO assessed the greenhouse gas impacts of burning methane	Methane is 25 times more powerful as a greenhouse gas than carbon dioxide. It is also highly flammable, and flaring (burning) of the methane results in its conversion to carbon dioxide and water. A greenhouse gas assessment has been performed which indicates that through the implementation of the permanent flare, approximately 265,000 tonnes of carbon dioxide equivalent could be avoided each year, which equates to an annual greenhouse gas emission reduction of 67 percent, when compared to a pre-flaring situation.
Can you give us more detailed information on the air quality impacts of burning landfill gases. This needs to include the composition of the gas as well as dispersal concentrations at different distances/locations	The flare has been designed to meet NSW, Australian and European emissions standards. Pollutants emitted from the proposed permanent flare system have been modelled by an expert air quality consultant and are expected to comply with concentrations of all pollutants assessed which are below the NSW Environment Protection Authority air quality criteria, at all residential and industrial locations surrounding the ECREP.
Will the flare system be a permanent solution or do residents need to be concerned about BINGO's ability to manage rain events	The permanent landfill gas capture project is seeking approval for the installation of a permanent flare solution that would provide a long-term sustainable management solution of landfill gas emissions from the site.

and endure another 3 months of an odour problem	
<b>Recycling Infrastructure Optimisation Project and Western Operational Area Project</b>	
Will you be burning any waste at ECREP	No. The development projects at the site do not involve the combustion of waste. The proposals have no linkage to the Next Generation Energy From Waste (EFW) facility. It is noted that this project will no longer proceed based on the recent NSW Government announcement of the NSW EFW Infrastructure Plan.
Why are you considering expansion when existing problems with odour and other non-compliances are not yet fixed	<p>The effective and long-term resolution of odour issues at the Site is a top priority for BINGO. The permanent flare project is being developed to directly manage landfill gas at the site. The application for this project was lodged with the Department of Planning, Industry and Environment on 30 November 2021. This project is the top priority project for the site and will be delivered first.</p> <p>The Recycling Infrastructure Optimisation Project and the Western Operational Area Project are not anticipated to be lodged until 2022.</p>
How is the waste that is being diverted being characterised	BINGO currently recovers at industry leading rates of over 80% (FY21: 81%). Through BINGO's investment in state of art advanced recycling technology, we are able to process and separate 13 different waste streams to be either on sold (steel, PVC, gyprock, paper / cardboard) or converted into recycled products for sale under BINGO's ECO Product brand (which include sands, soils, road aggregates and mulch).
Can we be confident of the 85 % claimed recycling rate? How is this being calculated	BINGO's resource recovery rate is subject to an independent audit. Based on the most recent audit, the site's current resource recovery rate is around 81.5%. With the commencement of operations of Material Processing Centre 2 (MPC2) in Q1 2022 this is expected to increase further. MPC2 incorporates state-of-the-art processing equipment with the capability to recover up to 90% of materials from the incoming waste streams. Once operational, the site will undergo further audits of the resource recovery rate to identify the recovery rate. However, until this is complete a conservative estimate of 85% resource recovery has been assumed.
How will noise be managed, and will the facility be operating 24 / 7	Noise at the site is managed through the site's approved Environmental Management Strategy. The site undertakes biannual monitoring as a license requirement and is compliant with the limits established in the environmental protection licence.
Will MPC2 be quieter than MPC1. Neighbours already hear the noise at night times	An assessment of the operational noise impacts from the operation of MPC1 and MPC2 will be included in the Recycling Infrastructure Optimisation Project. The site is currently compliant with the noise limits established in its environmental protection license.
How will this infrastructure improve dust management - with more throughput	<p>The majority of the increase in throughput associated with the Recycling Infrastructure Optimisation Project would be processed through MPC2. MPC2 is a state-of-the-art facility that has been designed to include a range of measures to manage dust and particulate matter including:</p> <ul style="list-style-type: none"> <li>▪ Processing of waste within the enclosed facility</li> <li>▪ Dust extraction systems on processing equipment</li> <li>▪ Dust suppression systems such as misters and hosing down dusty materials</li> </ul>

<p>there will be more dust and particulates from increased levels of materials handling, stockpiles and truck movements within the ECREP</p>	<ul style="list-style-type: none"> <li>▪ Enclosed conveyors.</li> </ul> <p>In addition to this, the Recycling Infrastructure Optimisation Project also includes upgrades to existing internal roads as well as rumble grids and wheel washes at the next exits. These measures would assist in minimising potential air quality impacts from the ECREP during operation. An air quality impact assessment is being prepared as part of the Environmental Impact Statement (EIS) for the Recycling Infrastructure Optimisation Project which will identify potential air quality impacts from construction and operation of the proposal and provide mitigation and management measures to manage any potential impacts.</p>
<p>Is the extension of Archbold road proposed as part of these works</p>	<p>No. The Archbold Road extension has been proposed by and is the responsibility of Transport for NSW.</p>
<p>Will this mean extra trucks in surrounding suburbs and on busy roads</p>	<p>The ECREP is strategically located adjacent to the arterial road network including key roads such as the M4 Western Motorway and the Westlink M7 Motorway. All vehicles would access the site via Honeycomb Drive and Wonderland Drive as the only primary access roads within the broader industrial precinct. The Recycling Infrastructure Optimisation Project would result in an increase in the number of vehicles accessing the site. However, these vehicles would continue to access the site to and from key arterial roads such as Wallgrove Road, the M4 and the M7 and would not use local roads in surrounding suburbs.</p>
<p>Will these works permanently address drainage and runoff so water doesn't get into the landfill and cause odour</p>	<p>The Recycling Infrastructure Optimisation and Western Operational Area Projects will incorporate water management infrastructure upgrades to ensure surface water on the operational areas of the ECREP are appropriately managed. Rainwater that falls on the landfill walls and floor will be managed by the existing water management infrastructure located within the landfill. Any water that comes into contact with waste materials within the landfill will be treated as leachate and will be managed by the existing leachate management system. These systems and the permanent flare infrastructure that is currently the subject of a modification application provide a permanent solution to managing landfill gas at the ECREP.</p>