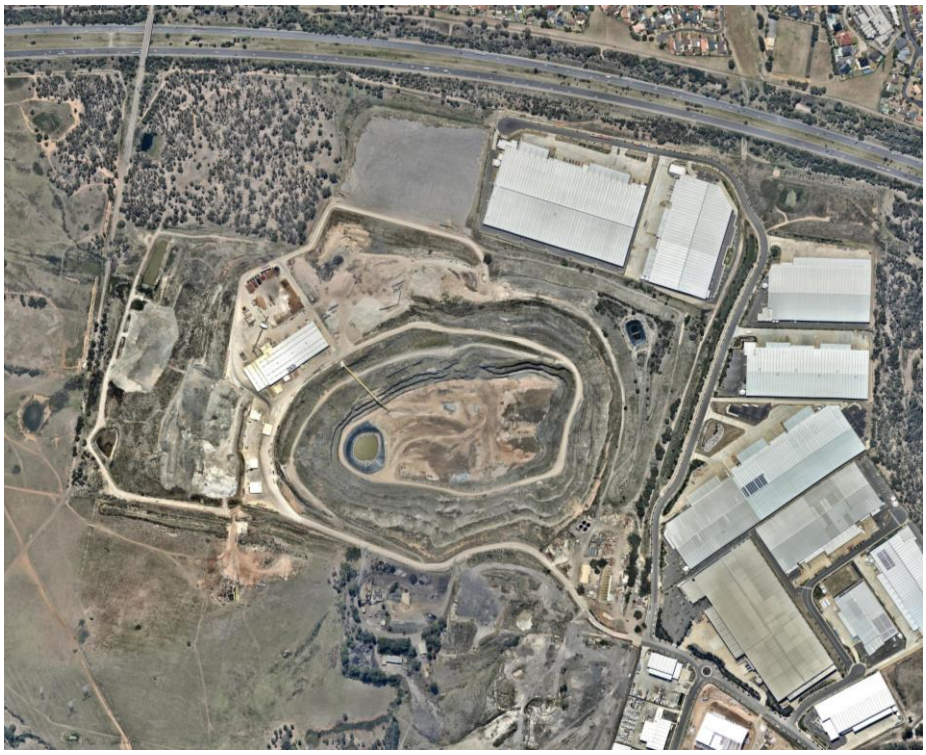
Eastern Creek Recycling Ecology Park Mod 10

Landfill gas capture and treatment project
State Significant Development Modification Assessment
(06_0139-Mod-10)

March 2022



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Published by the NSW Department of Planning and Environment

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Title: Eastern Creek Recycling Ecology Park Modification 10

Subtitle: Landfill gas capture and treatment project

Cover image: Aerial photograph of the Eastern Creek Recycling Ecology Park and surrounds (Source: Nearmap)

Glossary

Abbreviation	Definition
Applicant	Dial-a-Dump Industries (EC) Pty Ltd
Council	Blacktown City Council
Department	Department of Planning and Environment (DPE)
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence
Minister	Minister for Planning
Planning Secretary	Secretary of the Department
RtS	Response to Submissions
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011

Contents

1 Introduction

This report provides the NSW Department of Planning and Environment's (the Department's) assessment of an application to modify the State significant development (SSD) consent for the Eastern Creek Recycling Ecology Park (06_0139).

The modification application seeks approval to install two permanent landfill gas (LFG) flares to support the operations of the Eastern Creek Recycling Ecology Park.

The application was lodged on 10 December 2021 by Dial-A-Dump Industries (EC) Pty Ltd (the Applicant) pursuant to section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Background

Bingo Industries Pty Ltd owns the Dial-a-Dump (EC) Pty Ltd entity name and operates the Eastern Creek Recycling Ecology Park (REP), which was previously known as the Genesis Waste Management Facility. The site is located at 1 Kangaroo Avenue, Eastern Creek, within the Blacktown local government area and is shown in **Figure 1**.

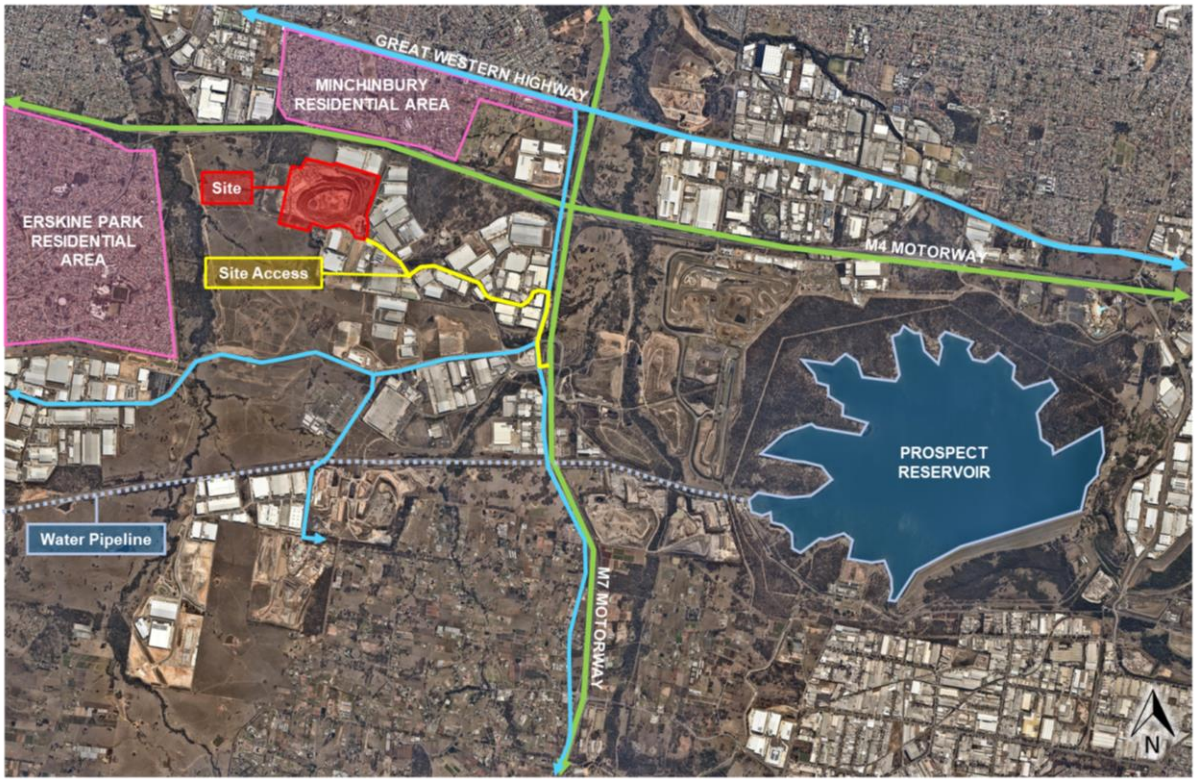

Figure 1 | Regional Context Map

The site was known as the Pioneer Quarry between the 1950s and 2005 when it operated as a hard rock (breccia) quarry by Hanson Construction Materials Pty Ltd. Following the cessation of extractive operations, the site was sold to ThaQuarry Pty Ltd (now Dial-A-Dump Industries). The Dial-A-Dump Industries Group was acquired by Bingo Industries (Bingo) in February 2019.

The site is now occupied by the Eastern Creek REP which is a resource recovery and non-putrescible landfill facility permitted to accept up to 2,000,000 tonnes per annum (tpa) of solid (non-putrescible) and

asbestos waste. The resource recovery arm of the REP comprises two Materials Processing Centres (MPC1 and MPC2), a Segregated Materials Area (SMA) and a Pre-Sort Enclosure (PSE). The Applicant holds Environment Protection Licence (EPL) number 13426 to carry out scheduled waste activities at the site.

In March 2021, an extreme weather event caused extensive water ingress in the landfill resulting in release of odours which were detectable in the residential areas of Minchinbury, Mt Druitt, St Clair, Erskine Park, Horsley Park and Eastern Creek. The Environment Protection Authority (EPA) received 750 odour complaints (rotten egg gas, sulphur smelling and foul chemical smells) between April and July 2021 and issued a Clean-up Notice requiring the Applicant to take immediate action to control offensive odour. In May 2021, the EPA further issued an EPL variation requiring installation of a temporary LFG flare system in the vicinity of the leachate riser on the surface of the landfill void. The Applicant installed this temporary LFG collection and flare system in May and June 2021.

On 10 September 2021, the EPA issued the Applicant a Variation Notice which placed a condition on the EPL via a pollution reduction program (PRP) requiring the Applicant to submit a modification application to the Department seeking consent for a permanent flare system by 30 November 2021.

1.2 The Site

The site covers an area of approximately 120 hectares (ha), however the operational components of the REP are contained within an area of 52 ha. The operational components consist of the landfill (quarry void), the resource recovery facilities and associated infrastructure. Several minor components outside of the operational area include the stormwater detention basins, parts of the north-west amenity screen and the sewer line. Four temporary LFG flares and 31 LFG extraction wells and associated infrastructure are located in the landfill void. The aggregated treatment capacity of the existing temporary flares is 2,000 standard cubic metres per hour (Sm^3.hr) of LFG.

The site falls within the land identified as the Western Sydney Employment Area (WSEA) under State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP). The WSEA SEPP aims to promote economic development and employment, provide for the orderly and coordinated development of land, rezone land for employment or conservation purposes, ensure development occurs in a logical, cost-effective and environmentally sensitive manner and conserve and rehabilitate areas with high biodiversity, heritage or cultural value within the WSEA. The WSEA SEPP also makes a specific provision (Schedule 1, Clause 1) for a non-putrescible landfill on the site.

The site is located near major transportation infrastructure, including the M4 Motorway 300 metres (m) to the north and the M7 Motorway two kilometres (km) to the east. The site is also located 36 km west of the Sydney central business district (see Figure 2).

The closest residential area is in Minchinbury approximately 400 m north of the site, just north of the M4 Motorway. Residences in Erskine Park are approximately 1.25 km to the west of the site. Vacant industrial land owned by Jacfin and Sargents is located to the west and south and is identified for industrial and employment uses. A 132 kilovolt (kV) electricity transmission line traverses land approximately 300 m to the west of the site.

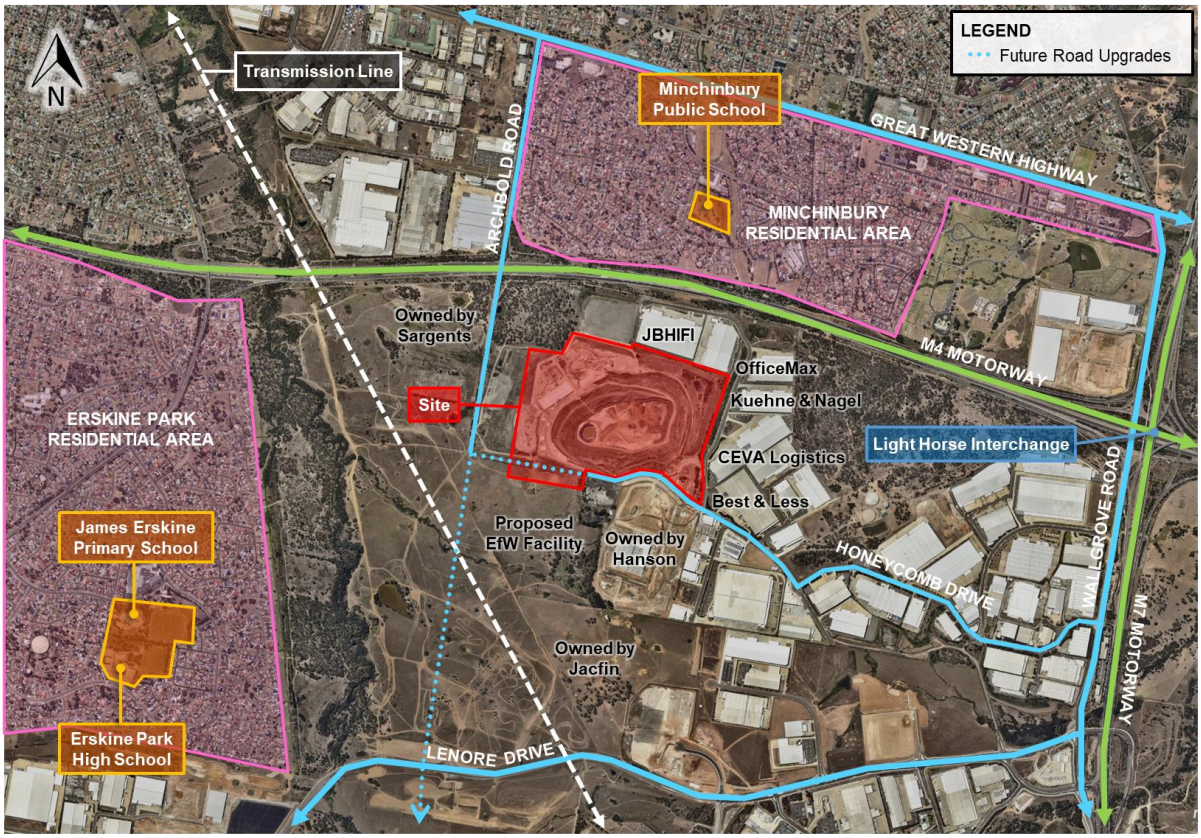

Figure 2 | Local Context Map

1.3 The Applicant

The Dial-A-Dump Industries Group, which was acquired by Bingo in February 2019, provides waste removal, transfer, and disposal services in New South Wales, primarily in the construction and demolition sector. Dial-A-Dump Industries owns and operates the Eastern Creek REP. The resources recovered at the Eastern Creek REP are then sold and include woodchip, mulch, road base, aggregates, soil, and sand.

1.4 Approval history

Both the resource recovery arm and the landfill operate under a single Ministerial approval (06_0139) granted on 22 November 2009 under the former Part 3A of the EP&A Act. In summary, the Project Approval permits:

- a throughput capacity of 2,000,000 tpa of non-putrescible waste for the site
- of the 2,000,000 tpa accepted at the site, landfilling in the quarry void up to 1,000,000 tpa of non-putrescible waste (including asbestos and other non-recyclable waste)
- a MPC which recovers recyclable material from comingled commercial and industrial (C&I) and construction and demolition (C&D) waste
- crushing, grinding, and separating works to process waste masonry material
- stockpiles for 50 tonnes (t) of tyres and 20,000 t of green waste (stockpiles for all other material cannot exceed the height of the berms, impervious barriers, or visual screens).

The Project Approval has been modified on seven occasions, and one modification application (MOD 9) is currently being prepared by the Applicant. A summary is provided in **Error! Reference source not found.**.

Table 1 | Summary of Modifications

Mod No.	Summary of Modifications	Approval Date
MOD 1	• installation of conveyor and chute • permit two-way traffic on Fourth Avenue • construction of concrete bay walls within the Green waste Processing Area • relocation of the wheel wash	30 September 2010
MOD 2	• administrative amendment to correct the land (lot and DP) to which the project applies	9 November 2010
MOD 3	• amendments to final landform level of the fill pad at Area D • revision of operational landform levels and the site's stormwater design • revision of the Voluntary Planning Agreement (VPA) • retrospective approval of various buildings/structures, including: - additional internal office and external amenities at the weighbridge - new administration and amenities buildings - relocation of the vehicle turning bay	5 December 2011
MOD 4	• extension of the operating hours for the MPC1	14 December 2013
MOD 5	• construction of a PSE adjacent to the MPC1	17 March 2016
MOD 6	• increase the proportion of the annual waste receival limit that can be landfilled from 700,000 to 1,000,000 tpa • extension of the operating hours of certain activities • amend the noise limits	29 April 2020
MOD 7	• modifications to the site entry point and the site layout.	Withdrawn on 12 July 2019
MOD 8	• change the use of the PSE building approved under Mod 5 to a second MPC (referred to as MPC2) • construct enclosed under awning areas on the northern, eastern, and western elevations of MPC2 • construct a concrete apron, storage bays and an amenities building, to the eastern side of the MPC2 • install advanced fixed waste recycling plant and outfeed conveyors • changes to the tip floor operations • relocate car parking and weighbridges.	3 March 2021
MOD 9	• expansion of the operational boundary of the site to relocate existing waste processing activities, including two	Proposed

Mod No.	Summary of Modifications	Approval Date
	new buildings, an extension of the road network and new hardstand area	

In addition, a separate SSD application (SSD-11606719) is currently under preparation for the site. This SSD will seek approval to increase the throughput of the REP from 2 million tonnes of waste per annum to 2.95 million tpa, including upgrade of supporting site infrastructure.

2 Proposed modification

2.1 Proposed Modification

The Applicant has lodged a modification application under section 4.55(1A) of the EP&A Act to install and operate a permanent LFG flare system to replace the existing four temporary LFG flares installed in the landfill void during 2021. The modification is described in full in the Statement of Environmental Effects (SEE) included in **Appendix A** and is illustrated on **Figure 3**. The modification seeks to:

- install and operate two permanent enclosed LFG flares, with a combined treatment capacity of 3,000 Sm^3.hr at a location approximately 50 m northeast of MPC 1
- install supporting infrastructure for the flares:
  - engineered concrete hardstand base (area 19 m x 34 m) for flares
  - a stainless-steel condensate knockout pot
  - 1.8 m high palisade security fence (area 45 m x 45 m) around the flare compound
  - a new 450 mm main header line connecting the existing LFG collection system in the landfill void to the new flares
- decommission the four temporary LFG flares located in the landfill void

The Applicant has indicated the flare system may be amended in future to provide energy via a co-generation system using landfill gas, however approval for a co-generation system is not included in this modification.

The modification application does not seek to increase the volume or types of waste accepted at the site or the number or type of operational traffic movements.

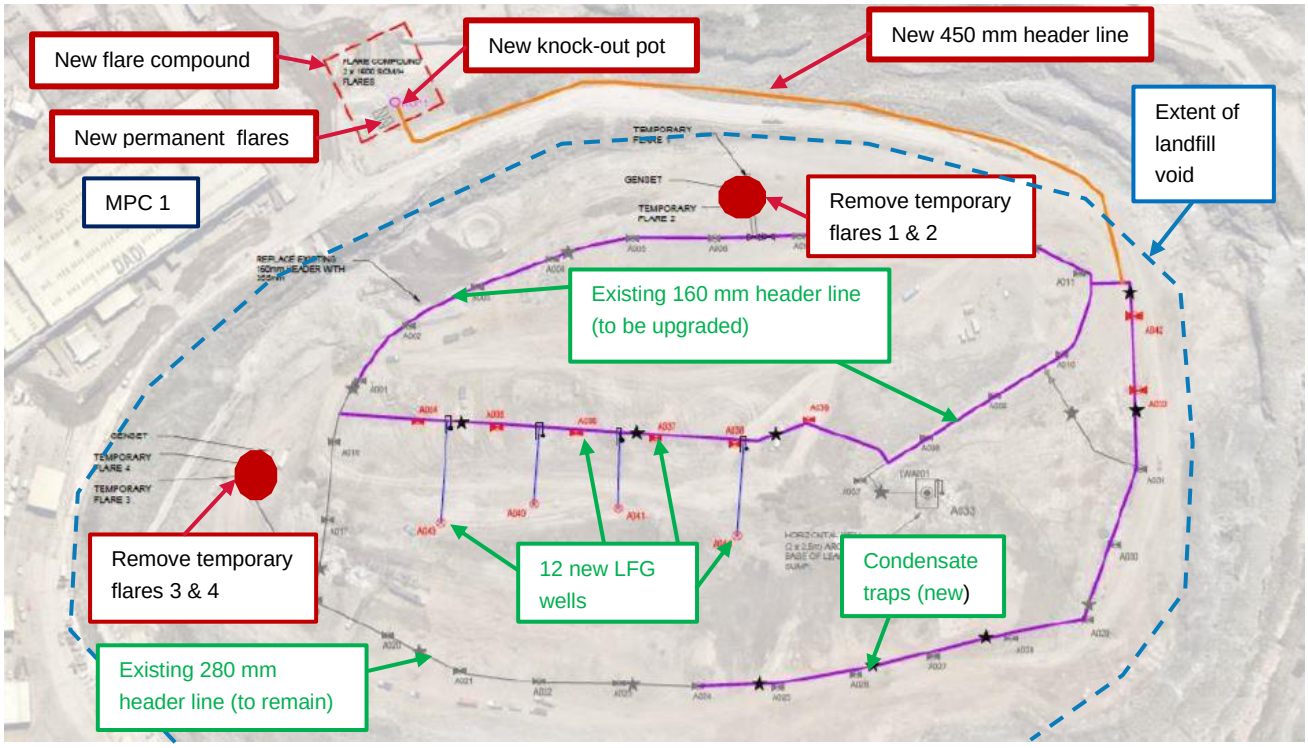

Figure 3 | Proposed modification (also showing (labelled in green) the existing LFG infrastructure not included in this modification)

2.2 Landfill Gas Flare System

LFG is generated by the decomposition of organic waste within a landfill, and the rate and total volume of LFG produced is influenced by varying factors such as waste composition, temperature, moisture content and waste compaction. LFG typically contains 45-60% methane and 40-60% carbon dioxide, as well as small amounts of trace gases such as nitrogen, ammonia and sulphide compounds which are odorous. LFG flares are effective in reducing odours by combusting the LFG to oxidise odorous gases and destroy volatile organic compounds (VOCs).

The two LFG flares would be Run Energy model OEF-300, each with a capacity of 1,500 Sm^3.hr. The flares would be 8 m high and located on concrete hardstand in a compound approximately 50 m northeast of the MPC 1 building (see **Figure 4**).

Figure 4 | Example of LFG flare

The flares would incinerate biogas from the landfill and would be designed, constructed, and operated in accordance with the relevant standards. Safety features include a safety controller, block and bleed valves with auto shut-off, flame detection sensors and independent controls on each flare. LFG would be extracted from gas wells in the landfill via a header line at a rate of 1,500 m^3/hr, with the flow controlled by flow meters and a positive displacement blower. To ensure no liquids pass into the flares, LFG would be drawn through a stainless-steel knockout pot.

The design parameters for each flare include:

- destruction efficiency of 98%.
- residence time of 1.55 seconds
- combustion temperature of 900 Celsius.
- gas collection efficiency is likely to be up to 85% over the life of the project.

The permanent flares and associated infrastructure would operate 24 hours per day.

2.3 Changes to Existing LFG Collection System

In addition, works are required to upgrade the existing LFG collection system in the landfill void. The Applicant considers that, as these works are upgrades to the existing system, they do not require further approval and **do not form part of the modification** (see **Figure 3**). These works include:

- installation of 12 new gas collection wells (additional to the 31 existing wells)
- replacement of a portion of the existing 160mm header line with a new 355mm header line
- extension of the LFG network through the installation of additional 355mm header line
- construction of in-line barometric condensate traps to remove any condensate build up
- remedial works required to compact the clay liner back to its previous state.

The Applicant has advised the works on the existing LFG infrastructure would last around two months and construction impacts would be low due to the small scale and timeframe of the works. Overall, the potential impacts would be similar to those associated with installation of the temporary LFG flare system during 2021.

2.4 Applicant's Justification for the Proposed Modification

A temporary flare system has been in place since mid-2021 following multiple public complaints of odour from the landfill. The Applicant maintains the excess odour was caused by a large rain event in March 2021. The Applicant has advised the installation of a customised, permanent LFG flare system would be more effective than the temporary system and provide enduring positive benefits for the environment and community by reducing both greenhouse gas (GHG) emissions and the potential for dispersion for odour gases to nearby sensitive receivers.

3 Statutory context

3.1 Scope of Modifications

The Department has reviewed the scope of the modification application and considers the application can be characterised as a modification involving minimal environmental impacts as the proposal:

- would not increase the environmental impacts of the project as approved
- the primary function and purpose of the approved development would not change as a result of the proposed modification
- the modification is of a scale that warrants the use of section 4.55(1A) of the EP&A Act.
- is substantially the same development as originally approved
- would not involve any further disturbance outside the already approved disturbance areas for the development.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(1A) of the EP&A Act and does not constitute a new development application (DA). Accordingly, the Department considers that the application should be assessed and determined under section 4.55(1A) of the EP&A Act rather than requiring a new DA to be lodged.

3.2 Consent Authority

The Minister for Planning (Minister) is the consent authority for the application under section 4.5(a) of the EP&A Act. Under the Minister's delegation of 26 April 2021, the Director, Industry Assessments, may determine the application under delegation as:

- the application has not been made by a person who has disclosed a reportable political donation under section 10.4 of the EP&A Act
- there are fewer than 15 public submissions (other than a council) in the nature of objections, and
- Council has not made a submission by way of objection under the mandatory requirements for community participation listed under Schedule 1 of the EP&A Act.

3.3 Mandatory Matters for Consideration

The Department conducted a comprehensive assessment of the development against the mandatory matters for consideration as part of the original assessment of 06_0139. The Department considers this modification application does not result in significant changes that would alter the mandatory matters for consideration under section 4.15 of the EP&A Act and conclusions made as part of the original assessment.

3.4 Part 3A Transition to State Significant Development

The project was approved under former section 75J of the EP&A Act and was a transitional Part 3A project under Schedule 2 of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (EP&A (ST&OP) Regulation).

Following amendments to the EP&A Act and the commencement of the associated EP&A (ST&OP) Regulation on 1 March 2018, the power to modify Part 3A project approvals under former section 75W is no longer available for modifications submitted after 1 March 2018. In order to modify a transitional

Part 3A project approval, the Minister for Planning and Public Spaces can declare the development to be SSD by order under clause 6 of Schedule 2 of the EP&A (ST&OP) Regulation. If a declaration is made the project approval becomes a development consent which can be modified under Part 4 of the EP&A Act if it meets the relevant criteria.

The Director, Industry Assessments (as delegate of the Minister for Planning and Public Spaces), made an order under clause 6 of Schedule 2 to the EP&A (ST&OP) Regulation declaring the development the subject of project approval 06_0139 to be SSD. The order was published in the NSW Government Gazette (Gazette No 246) on 2 October 2020 and took effect from that date.

The effect of this order is that this project approval is taken to be a development consent under Part 4 of the EP&A Act for the carrying out of the development.

3.5 Biodiversity Conservation Act 2016

Clause 30A(2)(c) of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* specifies that if the determining authority is satisfied a modification will not increase the impact on biodiversity values, a biodiversity development assessment report (BDAR) is not required.

The site is highly modified and contains exotic grasslands with pockets of degraded native vegetation. The Applicant has advised that no native vegetation would be impacted by the modification.

The Department considers the modification would not impact vegetation integrity and abundance, habitat suitability and connectivity, threatened species abundance and movement, flight path integrity or water sustainability. The site is located on a disturbed site as it operated as a hard rock quarry for over 50 years prior to becoming a waste management facility. The modification would not increase the footprint of the development, or the overall site processing capacity. Further, no additional vegetation would be removed as a result of the modification.

For the reasons discussed above, the Department's assessment concludes a BDAR is not required for the proposed modification as it will not increase the impact on biodiversity values.

4 Engagement

4.1 Department's Engagement

Clause 117(4) of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) requires a section 4.55(1A) modification application to be notified or advertised if specified by a community participation plan. The Department's Community Participation Plan notes the exhibition requirements for such modifications are discretionary, and based on the urgency, scale, and nature of the proposal.

Given the proposed changes would result in minimal environmental impacts (see **Section 4**), the application was not notified or advertised. However, it was made publicly available on the Department's website on 10 December 2021 and was referred to the EPA and Blacktown City Council for comment.

4.2 Applicant's Engagement

During preparation of the modification application, the Applicant undertook a number of activities targeted at engaging with the community surrounding the site. These included a community newsletter, webinars, private meetings, and website and social media updates. This information was provided in conjunction with information on other development applications currently on foot for the site (SSD-11606719 and MOD 9).

During the webinars, there was considerable public interest in the reasons for the historic odour issues at the site and how the proposed permanent flares would address this issue. In December 2021, the Applicant provided the Department a Community and Stakeholder Engagement Outcomes Report that outlined its plans for ongoing community engagement and responses to issues raised by the community to date regarding this modification (MOD 10).

4.3 Government Advice

Council did not object to the modification however requested specific notification of the modification to the Minchinbury community and provided a number of recommended conditions of consent relating to noise and construction management.

The **EPA** did not object to the modification but had requirements for the installation and operation of the flares and recommended conditions of consent relating to evaluation of the flares' performance and effectiveness following commissioning.

The Department requested further information on construction impacts for the components of the modification (amendments to existing LFG system) deemed by the Applicant to be within the scope of the existing project approval.

4.4 Response to Submissions

On 10 February 2022, the Applicant submitted a response to the issues raised the EPA, Council and the Department. The response was made publicly available on the Department's website and included further details of the construction impacts of the works which are outside the scope of the modification.

5 Assessment

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- the SEE and response provided to support the proposed modification (see **Appendix A**)
- documentation and Department's assessment report for the original DA and subsequent modification application(s) (see **Appendix A**)
- advice from State government authorities and Council (**Appendix A**)
- relevant environmental planning instruments, policies, and guidelines
- requirements of the EP&A Act, including the Objects of the EP&A Act.

The Department considers the key assessment issue is air quality. The Department's assessment of other issues is provided in **Table 2**.

5.1 Air Quality and Greenhouse Gas

As the modification involves extraction and combustion of LFG and construction of a connecting pipeline and compound for LFG flares, it has the potential to impact on air quality in the locality due to fugitive emissions from the landfill surface and unburned gas.

As described in Section 2.2, LFG contains a range of gases that can cause odours and the proposed permanent flare system would capture up to 85% of LFG produced by the landfill and combust this with 98% efficiency.

Applicant's Assessment

An Air Quality Impact Assessment (AQIA) and Greenhouse Gas Assessment (GHGA) were prepared in accordance with the relevant legislation and guidelines.

The AQIA included a detailed assessment of the operational impacts of the permanent flares. The construction works for installation of the flares and associated infrastructure were deemed to be minimal and were not further assessed, however the Applicant committed to the continued application of a range of standard emissions control measures to mitigate any potential minor impacts during construction.

The AQIA divided neighbourhoods in the site's vicinity into 13 'receptor zones', which were classified by their population density and distance from the flares. Distances ranged from 229 m to 3,366 m away (see **Figure 5**). In total, these zones represent 4,900 individual locations, including sensitive receivers in the residential areas of Minchinbury, Mt Druitt, Rooty Hill, Colyton, Erskine Park and St Clair.

The AQIA identified the relevant NSW EPA air quality criteria for the key pollutants of concern, being Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), Carbon Monoxide (CO), Hydrogen Sulphide (H_2S), Particulate Matter (PM_{10} and $PM_{2.5}$) and Total Suspended Particulates (TSP). Dispersion modelling predicted operational air quality impacts at the receptor zones using the conservative assumption of 70% gas capture (rather than the expected 85%). Modelling results showed the relevant maximum and annual average concentrations for SO_2, NO_2, CO and H_2S would be below the relevant criteria at all residential and industrial receivers.

In terms of the maximum 24-hour average for PM_{10} and $PM_{2.5}$, exceedances of the air quality criteria (50 µg/m^3 and 25 µg/m^3 respectively) were observed due to elevated background levels detected at

three air quality monitoring stations near the site. For PM_{10}, the addition of the predicted PM_{10} concentrations would not result in any additional exceedances even under a conservative scenario. For $PM_{2.5}$, under a worst-case scenario a nominal cumulative exceedance of the relevant criterion was predicted at receptor zones A, B, K, L, however there would be no additional exceedances of criteria due to the operation of the flares.

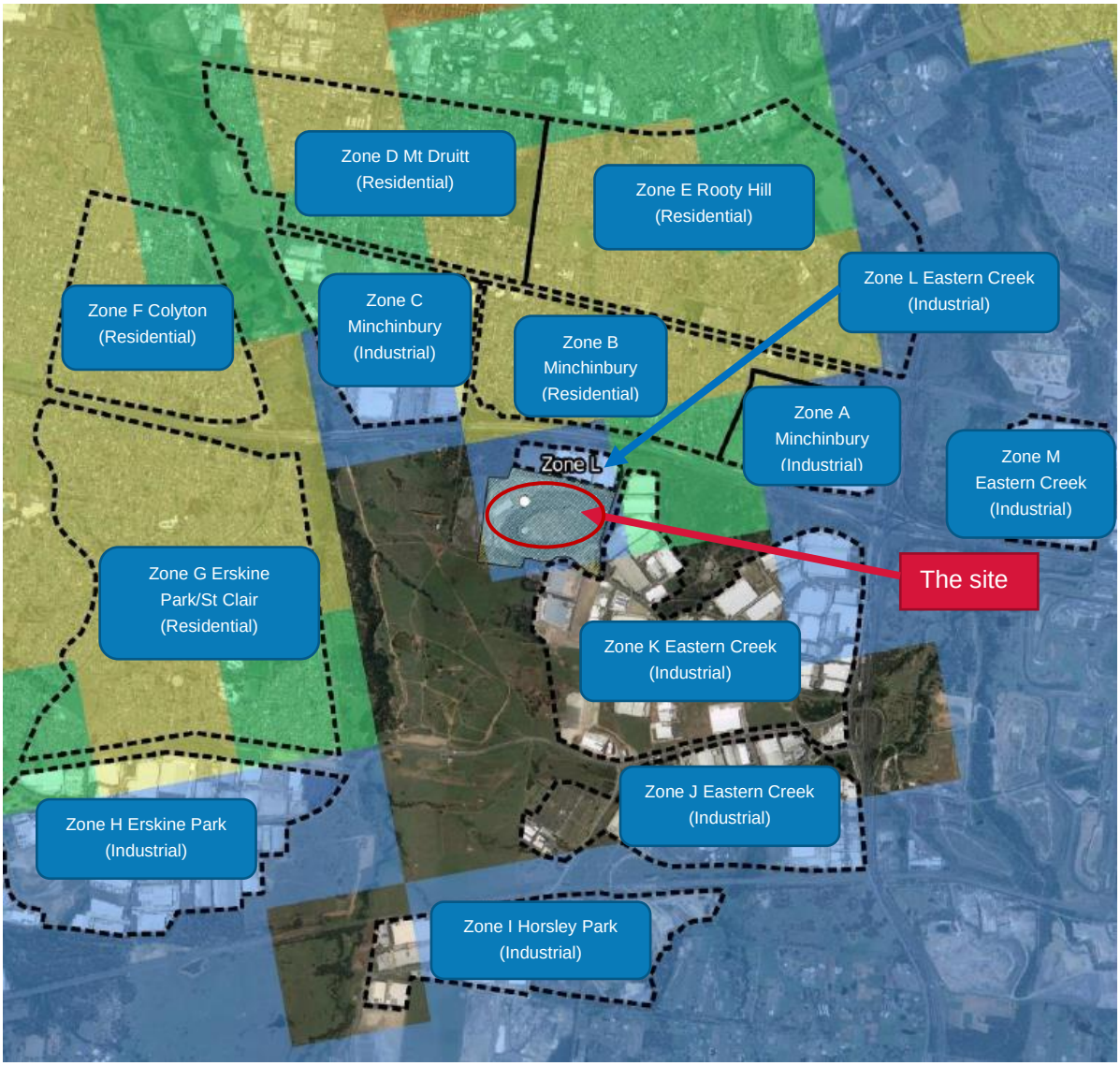

Figure 5 | Receptor zones surrounding the site

As the existing conditions of consent already require odour and LFG emissions monitoring, no additional mitigation measures are proposed by the Applicant except for the update of the existing Air Quality, Odour and Greenhouse Gas Management Plan (AQ Plan) to reflect the modification.

The GHGA evaluated the potential change in GHG emissions against the base case of no LFG capture or flaring, and predicted a net 67% decrease in GHG emissions due to the modification.

The EPA did not have any specific concerns regarding the flare technology, however required that design, installation, and operation of the flares comply with certain design criteria, the POEO Clean Air Regulation and the EPA's Landfill Guidelines. As limited information was provided to support the assumption of 85% flare efficiency, the EPA also required evaluation of the flares' performance and

effectiveness following commissioning. In addition, the EPA noted some uncertainties in the assumptions in the AQIA around H_2S surface emissions from the landfill, as well as H_2S and SO_2 flare emission rates. However, as the modification has been identified as a priority to minimise air quality impacts on nearby receptors, the EPA recommended conditions of consent to address the uncertainties.

Council recommended conditions relating to dust emissions during construction and compliance emission testing of the LFG system following commissioning.

The Department's Assessment and Conclusion

The Department has reviewed the AQIA and GHGA, noting the low potential for construction impacts and the earlier public concerns about odour emissions from the site. The Department notes the dispersion modelling demonstrates concentration levels at surrounding sensitive receivers would meet the relevant criteria for the key pollutants of concern and there would be no additional exceedances as a result of the modification. The Department also notes the positive impacts of the flares reflected in the large reduction in GHG emissions.

The existing consent includes a requirement for an AQ Plan which includes a program for monitoring subsurface gas, surface gas emission, and gas accumulation. However, in line with the EPA's concerns regarding uncertainties in the modelling, the Department has recommended verification and evaluation of actual fugitive LFG emissions, LFG collection efficiency, and actual H_2S emission rates following commissioning of the flares.

Existing Condition 30 requires that no offensive odours be emitted from the site, however to ensure air quality risks, particularly odour, are minimised, the Department also requires the Applicant to design, install and operate the flares strictly in line with the requirements of relevant guidelines and legislation, including the POEO (Clean Air) Regulation 2021 and the EPA's Solid Waste Landfill Guidelines (2016).

With the recommended conditions in place, the Department concludes potential air impacts would be adequately minimised and managed to ensure no detrimental air quality or odour impacts on nearby residents.

5.2 Other Issues

Table 2 | Assessment of Other Issues

Findings	Recommendations
Noise	
• There is potential for additional noise impacts from the construction and operation of the LFG flare system, noting the flares would operate 24 hours per day. • A Noise and Vibration Impact Assessment (NVIA) was prepared in accordance with the *Noise Policy for Industry* (NPfI) and the *Interim Construction Noise Guidelines* (ICNG). • The NVIA noted the blower and the burning flares would be the main sources of noise, with continuous sound power levels of 89 dBA and 97 dBA respectively.	No additional conditions required

Findings	Recommendations
• Noise levels were predicted for morning shoulder, day, evening, and night-time flare operation under both standard and noise-enhancing conditions. • Existing approved noise limits from the EPL range between 39 dBA and 48 dBA. Predicted noise emissions for all time periods show the operation of the flares would not contribute to any increase in noise from the site and there would be no exceedances of the noise limits at the required monitoring locations. • Construction noise impacts were also assessed and found to remain below the existing noise limits. • EPA did not have any comments on the noise impacts. • Council did not object to the noise impacts however requested a post-commissioning acoustic report to validate the noise impacts of the flares as well as noise validation and investigation following any noise complaint. • The Department notes the risk of noise impacts from construction and operation of the flares is very low. While recognising Council's request for post-commissioning acoustic validation, the Department finds this is sufficiently included in the existing requirement for a noise monitoring program (Condition 40). The existing noise monitoring program requires monitoring at various nearby residential locations every six months, and includes mitigation measures to be implemented if exceedences arise to ensure noise levels remain below the limits in the consent. • The Department concludes the noise impacts of the modification would be negligible and can be managed via the existing conditions of consent.	
Hazards and Risk	
• As the modification involves combustion of gas there is potential for fire or explosions that could impact the locality. • A qualitative environmental risk assessment undertaken in accordance with the relevant guidelines considered key potential impacts (off-site risks to people, property, and the environment) from equipment failure, operator error and external events. • The assessment qualitatively assessed various worst-case scenarios and deemed these to be low risk, except LFG fire or explosion which was moderate risk. • The assessment further identified a range of mitigation measures in place to manage the fire and explosion risk, including design of the flares in accordance with the relevant standards and inclusion of safety features. • In addition, preliminary risk screening considered the modification was not potentially hazardous or offensive as it would not trigger the provisions of SEPP 33. • No agencies had comments on the hazard aspects of the modification. • The Department has reviewed the information provided and is satisfied the mitigations and safeguards identified are appropriate. As the flare system will be designed in accordance with the relevant Australian and International standards, the risk associated with the modification is minimised. • The flares are designed to incinerate LFG with up to 60% of methane content. The modification is therefore handling of approximately 602kg of methane per hour per flare. Given the proposed flare	No additional conditions required

Findings	Recommendations
locations have sufficient distance from the site boundary, the Department agrees the proposed modification would not trigger SEPP 33 and is not considered as potentially hazardous. • Given the existing requirement for an Emergency & Fire Response Plan, the Department's assessment concludes further hazard-related conditions are not required.	

6 Evaluation

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act. The Department considers the proposed modification is appropriate on the basis that:

- it will allow for improvements to the existing LFG system to control odours and support the operations of the Eastern Creek Recycling Ecology Park
- it is supported by the EPA and would contribute to meeting the broad aim of the PRP to minimise and manage landfill gases and odours
- it will result in minimal environmental impacts beyond the approved facility.

Overall, the Department is satisfied the impacts from the modification can be appropriately managed through the existing conditions of consent and the Department's recommended conditions. The Department is satisfied that the modification should be approved, subject to conditions.

7 Recommendation

It is recommended that the Director, Industry Assessments as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **determines** that the application Eastern Creek Recycling Ecology Park Mod 10 falls within the scope of section 4.55(1A) of the EP&A Act
- **forms the opinion** under clause 30A(2)(c) of the Biodiversity Conservation (Savings and Transitional) Regulation 2017 that a BDAR is not required to be submitted with this application as the application will not increase the impact on biodiversity values on the site
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification
- **agrees** with the key reasons for approval listed in the draft notice of decision
- **modify** the consent 06_0139-Mod-10
- **signs** the attached approval of the modification (**Appendix B**).

Recommended by:

Sheelagh Laguna

A/Team Leader
Industry Assessments

8 Determination

The recommendation is **Adopted** by:

11 March 2022

Chris Ritchie
Director
Industry Assessments

as delegate of the Minister for Planning

Appendices

Appendix A – List of Documents

The Department has relied upon the following key documents during its assessment of the proposed development:

Modification Application

- Statement of Environmental Effects Modification Proposal Gas Collection System and Landfill Gas Flare Eastern Creek prepared by Jackson Environment and Planning dated 30 November 2021 - https://www.planningportal.nsw.gov.au/major-projects/projects/ec-rep-mod-10-landfill-gas-capture-and-treatment-project

Submissions and Advice

https://www.planningportal.nsw.gov.au/major-projects/projects/ec-rep-mod-10-landfill-gas-capture-and-treatment-project

Response to Submissions

- Response to Request for Additional Information prepared by Jackson Environment and Planning dated 8 February 2022 - https://www.planningportal.nsw.gov.au/major-projects/projects/ec-rep-mod-10-landfill-gas-capture-and-treatment-project

Department's Assessment Report for MP06_0139

- https://www.planningportal.nsw.gov.au/major-projects/projects/eastern-creek-recycling-ecology-park

Appendix B – Notice of Modification

https://www.planningportal.nsw.gov.au/major-projects/projects/ec-rep-mod-10-landfill-gas-capture-and-treatment-project

Appendix C – Consolidated Consent

https://www.planningportal.nsw.gov.au/major-projects/projects/ec-rep-mod-10-landfill-gas-capture-and-treatment-project