

SWCPP Ref. No.	PPSSWC-7
DA Number	DA19/0470
LGA	Penrith City Council
Proposed Development	Alterations to existing approved waste management & resource recovery facility including alterations to finished landform & increase in waste storage capacity
Street Address	1725a Elizabeth Drive, Badgerys Creek
Applicant	SUEZ Recycling & Recovery Pty Ltd
Owner	SUEZ Recycling & Recovery Pty Ltd
Regional Planning Panel Criteria	Designated Development
Addendum Report Author	Paul Anzellotti, Senior Development Assessment Planner, Penrith City Council
Addendum Report Date	17 July, 2020

Assessment Report Addendum

Background

This report provides an addendum to the Council assessment report dated 1 July 2020, in relation to the subject development proposal. Council's original assessment report and updated conditions of consent in response to matters raised in this addendum is provided as *'Attachment A'* to this Addendum Report.

On the 15 June, 2020, DA19/0470 (SWCPP Ref. No. PPSSWC-7) was provided to a Sydney West City Planning Panel (SWCPP) meeting for determination. The application was provided with a recommendation for approval. The Panel unanimously agreed to defer consideration of the application. The 'Record of Deferral' notice was publicly issued on the 3 July, 2020. The 'Record of Deferral' issued by the SWCPP is provided as *'Attachment B'* to this Addendum Report.

Penrith City Council has received commentary from Jamie McMahon of AECOM on behalf of SUEZ (dated 14 July, 2020) formally responding to the issues provided by the 'Record of Deferral' for DA19/0470 (SWCPP Ref. No. PPSSWC-7) issued by the SWCPP. This response on behalf of the applicant is provided as *'Attachment C'* to this Addendum Report. This response by SUEZ also provides as attachments the following documents;

- Attachment A: Previous correspondence provided to Penrith City Council and the Panel on the 16 June, 20120.
- Attachment B: Meeting minutes between SUEZ and WSA Co, 13 February, 2019.
- Attachment C: Elizabeth Drive Landfill Environmental Management Plan

This addendum report addresses the applicant's specific response to the Panel's deferral items.

Reasons for Deferral and response by Applicant

1. Clause 18 of State Environmental Planning Policy (Western Sydney Employment Area) 2009

The Record of Deferral has identified Clause 18 of the State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP) as a reason for deferral. Clause 18 of the WSEA SEPP requires the requirement for the preparation of a Development Control Plan. The last paragraph of this point provided reads as follows, *'The Panel referred that issue to the Department for consideration and has now been informed that the Secretary has now provided the requisite written direction to the Council that the requirements of the clause are not to apply to assessment of this application'*.

Council can confirm that an exemption from the preparation of a Development Control Plan (DCP) for a proposed development on land within the Western Sydney Employment Area (WSEA), under State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP) has been provided by the Department of Planning, Industry & Environment dated 30 June, 2020, a copy of this correspondence provided as 'Attachment D'. This matter is also reiterated in the commentary provided on behalf of the applicant.

Therefore, this specific matter for deferral identified is considered resolved.

2. Consistency of the proposal with the development of Western Sydney Airport

The 'Record of Deferral' identified the following item as a matter of importance;

An important issue arising from those discussions was the compatibility of extending the operation of the facility with the planned developing future character of the area associated with the new airport.

An associated theme was the impression given at the time the present limits were set for the facility that a compromise had been struck with the local community which should not be departed from.

The Panel invited those participating in the meeting to provide any additional response on the subject of:

- *Consistency of the proposal with the development of the Western Sydney Airport and anticipated associated development, and proposed mechanisms to impose time limits on the operation of the facility.*

In response to the above matter, the applicant has attached correspondence identifying the nature of consultation which has occurred between the Western Sydney Airport (WSA) and SUEZ. The applicant has advised that they are open to discussions with WSA in an effort to cooperatively manage issues relating to the operation of the airport.

It is also acknowledged that the proposal would not provide for a time limited consent. The current consent operating on the subject site allows for landfill operations to continue until a capped height of RL 80 is reached. This application requests that this be increased to RL 95 with a closure date dependent on the rate of filling to reach this maximum RL level. It is noted that a maximum amount of non-putrescible solid wastes which may be imported onto the site for landfilling is 950,000 tonnes per annum.

It is acknowledged that the operations of the landfill site have been in its present location for a period of 30 year and that it is anticipated that the WSA will commence operations in

December, 2026. Consideration by Council was given to the main issues of operations by the proposal which could impact upon the operation of WSA. These are as follows;

- a) The proposal was assessed in relation to the Obstacle Limitation Surface (OLS) associated with the future operations of the WSA. Correspondence received from WSA have advised that, *'The site sits within a transitional surface within the OLS ranging from approximately 118.8m AHD to 125.5m AHD'*. With a maximum increase in height proposed for the landfill operations by 15m to RL 95m, the proposal is not considered to impact upon the safety of arriving or departing aircraft as its uppermost point will be below the OLS from between 23.8m to 30.5m.
- b) Commentary provided by the applicant in response to the Panel's 'Record of Deferral' advising as follows in relation to gas flaring from the subject site;

'It should also be noted that as part of the Site's existing after-care obligations the landfill gas flare is expected to be operational for approximately 30 years post-closure, regardless of the outcome of the subject DA.'

As indicated within the original Assessment Report presented for the Panel's consideration, the increase in gas generation associated with the proposal is identified to be in relation to the total volume of gas captured and burn over the full life of the gas to energy system rather than an increase to the velocity of gas exiting the current flare/combustion system. To mitigate any concerns in relation to the operation of the WSA, a draft condition is also included with the recommendation reading as follows;

Any changes to the nature and volume of gas flaring which would increase the velocity of gas exiting the flare/combustion system is to be reported immediately by the applicant to the Western Sydney Airport Authority and the NSW Environment Protection Agency.

If it is identified by the Western Sydney Airport Authority that a change to the nature and volume of gas flaring will create a safety concern in the operation of the Western Sydney Airport, all landfill operations on the subject site including flaring are to cease and not recommence until documentation in relation to the nature and volume of gas flaring is provided for review and to the satisfaction of the NSW Environment Protection Authority in relation to the safety of operating gas flaring on the subject site and impacts on the Western Sydney Airport.

- c) As the proposal will provide for only non-putrescible material to be imported on the subject site for landfilling operations, the potential for wildlife (especially birds) to be attracted to the subject site is considered minimal. While not part of the subject application, consideration has been given to the nature of any capped land form on the subject site following the completion of landfill operations, noting for instance that a mix of grass species may attract wildlife to the finished mound and increase safety concerns for the operation of the WSA. In this regard, were approval forthcoming, a draft condition is also included within the recommendation reading as follows;

Prior to the final capping of the subject site in association with landfill operations, landscape plans associated with the future capping are to be reviewed by an ecologist (or suitably qualified person) and Western Sydney Airport authorities to identify and minimise the possibility of future impacts to operations of Western Sydney Airport in relation to the possible attraction of wildlife.

3. Landfill Environmental Management Plan and groundwater monitoring well locations

The 'Record of Deferral' identified the following items as a matter of discussion;

- *The current Landfill Environmental Management Plan*
- *The location and sufficiency of existing groundwater monitoring wells*

The Applicant has provided as part of their response to the Panels 'Record of Deferral' a copy of the current Landfill Environmental Management Plan, attached as part of 'Attachment C' to this Addendum Report. The report also includes eight groundwater monitoring locations, with the purpose of this document described as follows in its introduction;

The purpose of this document is to describe the environmental management of operational activities at Elizabeth Drive Landfill that have, or are likely to have, an impact on the environment. The document sets out detailed procedures and measures that must be taken to minimise and eliminate environmental impact. This document also assists internal and external stakeholders in assessing environmental performance and ensures transparency across environmental operations.

SUEZ Environmental, Quality and Safety (EQS) Management System is structured in accordance with the requirements of the following standards:

- AS/NZS 4801:2001 Occupational Health and Safety Management Systems;
- ISO 14001:2015 Environmental Management Systems: and
- ISO 9001:2005 Quality Management System

SUEZ is certified to the above standards by an independent third-party

The operation of the Environmental Management Plan is provided as a requirement of the existing Environmental Protection Licence applicable for the subject site. It is noted that a draft condition is included that the applicant must apply to the Environmental Protection Authority and be issued with a variation to the existing Environmental Protection Licence (EPL) No. 4068 prior to altering the existing approved waste management and resource recovery facility. In this regard, any necessary changes to the existing Environmental Management Plan will be dictated by the requirements of an EPL rather than any forthcoming development consent, noting that one is currently provided for existing operations and would still be maintained were this current application not received by Council.

Noting the above, the attached Environmental Management Plan is provided to the Panel only for their consideration in relation to the nature of operations on the subject site.

4. Draft Conditions of Consent provided by Penrith City Council

Commentary from Jamie McMahon of AECOM on behalf of the applicant (dated 14 July, 2020) in regard to the 'Record of Deferral' identified that within their letter to the Panel dated 16 June, 2020 four draft (4) conditions accompanying the original report are requested to be clarified. Consideration of these conditions are discussed below;

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12	Further commentary provided by SUEZ	Further commentary provided by PCC
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		June 2020)		
<p>Condition 21:</p> <p><i>Mud and soil from vehicular movements to and from the site must not be deposited on the road.</i></p>	<p>Whilst we agree with the intent of this condition it is not practical in its current form in that it may be interpreted as no mud or soil whatsoever. This is simply not achievable. Instead we propose the same condition be imposed here as suggested to the EPA for internal sealed roads, being:</p> <p><i>During operating hours the site access road must be inspected twice per day and cleaned with a high-pressure water spray if clumps of dirt, deposited sediment or other soil or waste debris are present. This is not required if it is raining or has rained within the previous four hours.</i></p>	<p>The modification of this condition is not supported as it is considered that the proposed replacement wording is open for interpretation, for instance the requirement to not clean the road if it has been raining within a time period as well as the nature of any high pressure water spray to be used and its further impact upon the surrounding environment.</p>	<p>Despite the additional commentary provided by PCC, SUEZ is still concerned that the original condition is highly open to interpretation. For example, it does not specify which road. It also may be interpreted as 'no mud or soil whatsoever', which is, in practice, impossible.</p> <p>To address PCC's concern with regard to 'high pressure water spray', we have added detail regarding on site water carts to align this condition fully with the EPA's proposed wording in their GTA's.</p> <p>Our proposed wording substantially clarifies this condition and provides a reasonable, feasible and auditable commitment for environmental management. We request that the panel further consider our amended wording for this condition as</p>	<p>Agreed.</p>

			<p>provided below:</p> <p><i>During operating hours the site access road must be inspected twice per day and cleaned with a high-pressure water spray using on-site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.</i></p>	
<p>Condition 31:</p> <p><i>The following dust mitigation measures are to be actioned in the operation of the landfill at all times;</i></p> <ul style="list-style-type: none"> <i>Sealing is to be provided to waste delivery haul routes. Sealed roads are to be progressively laid moving onto the landfill towards the tipping face. Only the final 50m of the haul/turnaround area is to remain unsealed.</i> <i>Twice daily cleaning of sealed roads is to be provided using high-</i> 	<ul style="list-style-type: none"> Update second dot point in line with changes requested to EPA GTAs i.e. During operating hours sealed roads must be inspected twice per day and cleaned with a high-pressure water spray if clumps of dirt, deposited sediment or other soil or waste debris are present. This is not required if it is raining or has rained within the previous four hours. Fifth dot point makes reference to 'shale and clay cover' on non-active surfaces. The agreed plans with the EPA only require 	<p>For the request to the second dot point, this is not supported as no commentary has been returned by the EPA supporting the change to the GTA.</p> <p>Agreed.</p>	<p>As outlined above SUEZ is concerned that the condition relating to cleaning of sealed roads is highly impractical in its current draft. We suggest that this condition is updated in the same manner, that is:</p> <p><i>During operating hours the site access road must be inspected twice per day and cleaned with a high-pressure water spray using on-site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.</i></p>	<p>Agreed.</p>

<p><i>pressure water spray from on-site water carts.</i></p> <ul style="list-style-type: none"> • <i>Shale covers are to be placed on non-active areas of the general and restricted waste cells.</i> • <i>Tarps are to be used at night on the general waste cell batters for the life of the project.</i> • <i>Shale and clay cover is to be placed on non-active surfaces.</i> • <i>Chemical stabilisers are to be used on disused shale stockpiles.</i> 	<p>clay on final capped surfaces, and the requirement for shale as an intermediate cover is already captured in the third dot point. We suggest this fifth dot point is removed entirely.</p> <p>The final dot point refers to the use of chemical stabilisers on disused shale stockpiles. We request that this is updated as follows to reflect current industry standards of utilising hydromulch on these areas:</p> <p>Hydromulch or similar products with stabilising additives are to be used on disused shale stockpiles</p>	Agreed.		
<p>Condition 40:</p> <p><i>Total vehicle movements are not to exceed 640 per day.</i></p>	<p>The body of the assessment report indicates that the proposed cap of 640 vehicles per day was derived from the traffic and transport study in the EIS. It should be noted these numbers in the EIS were based on long term</p>	<p>The argument presented to provide for a modification of this condition is not supported.</p> <p>Section 3.1.5, 'Summary of Future Daily Heavy Vehicle Trips with Project' provided within the Traffic and Transport</p>	<p>SUEZ are particularly concerned that PCC have misinterpreted the traffic impact assessment outlined in the EIS, Page 10 of the traffic and Transport Technical Report (Appendix B to the EIS) outlines</p>	<p>Agreed subject to the following amendment to the requested updated condition by SUEZ as follows:</p> <p><i>Total vehicle movements are not to exceed an average of 640 per day, measured over</i></p>

	<p>averages and predictions of individual vehicle capacities, rather than on actual daily maximums. As such, even under current operations (750,000 tpa), the number of vehicle movements per day sometimes exceeds 640.</p> <p>The EIS demonstrated that traffic issues are not a problem based on the current fluctuating levels and RMS has also raised no objections to the proposal. In addition, as noted in the assessment report, the future upgrade of Elizabeth Drive and 'bypass' provided by the M12 will provide substantial additional capacity on Elizabeth Drive, hence rendering any traffic benefits from this mandated reduction in vehicle movements obsolete. Given this and the fact that we do sometimes have busier days above 640</p>	<p>Impact Technical Report as part of the Environmental Impact Statement reads as follows; <i>The existing consent for the Site limits the number of daily heavy vehicle movements per day to 780. Based on the future site operation with the Project, it is expected that the forecast daily heavy vehicle movements generated by the Site will remain under 780 (Table 3.7).</i></p> <p>Table 3.7 – <i>Forecast total daily vehicle movements of SUEZ's Elizabeth Drive Recovery Park with this Project</i> provides the following for a typical weekday;</p> <ul style="list-style-type: none"> • <i>Number of daily heavy vehicle movements – landfill without project = 444</i> • <i>Number of additional daily heavy vehicle movements – landfill with project = 116</i> • Number of 	<p>in several locations that the traffic assessment is based upon an average waste vehicle tonnage. As such the 640 vehicle movements per derived from this assessment is also an average. This implies that these are times when vehicle movements are higher and times when they are lower than this number.</p> <p>PCC outline that the application was assessed and referred to relevant authorities based upon the figures provided within the Traffic and Transport Technical Report. This report clearly indicates that 640 vehicles per day is an average. As such the assessment undertaken by PCC and RMS remains valid, as it was based upon parameters stated clearly within the report. No further assessment by PCC's traffic engineer or RMS is</p>	<p><i>a calendar year, with an upper limit of 780 per day. Upon request, a vehicle movement log (or similar) is to be provided of total vehicle movements to the subject site over a calendar year.</i></p> <p>Please refer to next point No. 5 in this addendum report provided below for further discussion.</p>
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	<p>movements, we request that the previous limit of 780 vehicle movements per day be retained.</p>	<p>daily heavy vehicle movements – SAWT = 80</p> <ul style="list-style-type: none"> • Total daily heavy vehicle movements = 640 <p>As the application was assessed and referred to relevant authorities based upon the figures provided within the accompanying Traffic and Transport Impact Technical Report and referrals returned based upon the figures within this report, the provision of a maximum 640 vehicle movements is considered appropriate.</p>	<p>therefore necessary.</p> <p>For this reason, SUEZ requests that the panel consider the retention of the existing limit on vehicle movements of 780 per day. SUEZ consider this limit appropriate given that traffic into and out of the site is demonstrably not an issue under current operating conditions, and that this traffic will be further mitigated by imminent Elizabeth Drive upgrade and the construction of the M12 motorway.</p> <p>SUEZ propose the following revised wording for this condition:</p> <p><i>Total vehicle movements are not to exceed an average of 640 per day, measured over a calendar year, with an upper limit of 780 per day.</i></p>	
<p>Condition 41:</p> <p><i>All landscape works are to be constructed in</i></p>	<p>We request the addition of text to time-limit the operation of this condition to the end of landfilling</p>	<p>The modification of this condition is not considered acceptable. The vegetation to the</p>	<p>SEUZ request that this condition is considered further by the panel.</p>	<p>Agreed.</p>

<p><i>accordance with the stamped approved plans and as amended by the conditions of this consent.</i></p> <p><i>Landscaping shall be maintained:</i></p> <ul style="list-style-type: none"> <i>• in accordance with the approved plans, and</i> <i>• in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.</i> <p><i>If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.</i></p>	<p>operations. This is because at this stage (final operations) the site will be well in its way to being fully grassed over and the need for strict vegetation management as a visual screen will become obsolete.</p>	<p>perimeter of the subject site is considered to contribute the visual presentation of the landfill when viewed especially from the eastern and southern sides. As operations are not time restricted and noting the possibility for new uses adjoining the subject site with the development of the Aerotropolis, retention of this condition is considered appropriate.</p>	<p>Specifically, we request that reference to 'in perpetuity' be removed here, as has been agreed to by PCC for condition 43.</p> <p>SUEZ also request the removal or reference to replacing vegetation at the same maturity given that this will be impossible for any trees larger than those held in pots at commercial nurseries.</p> <p>As such we propose the following wording be considered by the panel:</p> <p><i>All landscape works are to be constructed in accordance with the stamped approved plans and as amended by the conditions of this consent.</i></p> <p><i>Landscaping shall be maintained:</i></p> <ul style="list-style-type: none"> <i>• in accordance with the approved plans, and</i> <i>• in a healthy state, and in perpetuity by the existing</i> 	
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			<p>or future owners and occupiers of the property. If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.</p>	
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5. Daily vehicle movements

Council provided for draft Condition No. 40 in relation to the proposal restricting the number of daily vehicle trips as follows:

40. *Total vehicle movements are not to exceed 640 per day.*

It is noted and accepted based upon the further commentary provided by the Applicant that 640 truck movements per day is an average operational volume based upon a typical weekday. The following is also noted under the accompanying Traffic and Transport Impact Technical Report at Section 3.1.5:

The existing consent for the site limits the number of daily heavy vehicle movements per day to 780. Based on the future site operation with the Project, it is expected that the forecast daily heavy vehicle movements generated by the Site will remain under 780.

This is identified via table 3.17 of this report which provides for an average of 640 total daily heavy vehicle movements, It is therefore accepted that some variation to peak operational periods will be provided for. In this regard, the existing limit of 780 trucks per day is considered appropriate in conditioning the maximum truck volume.

Via documentation dated 16 June, 2020 addressed to the panel, the applicant provided for the condition to be amended as follows;

Total vehicle movements are not to exceed an average of 640 per day, measured over a calendar year, with an upper limit of 780 per day.

While in principle, this is appropriate as it allow for some periods of peak movement while still maintaining the average provided by the supporting Traffic and Transport Impact Technical Report accompanying the proposal's Environmental Impact Statement to assure that a measure of review can be provided in regard to the overall number of vehicle movement provided throughout the calendar year, it is recommended that this requested condition be adjusted to read as follows;

Total vehicle movements are not to exceed an average of 640 per day, measured over a calendar year, with an upper limit of 780 per day. Upon request, a vehicle movement log is to be provided of total vehicle movements to the subject site over a calendar year.

6. Overlap of conditions of consent and EPL requirements

It is agreed that the overlapping of conditions of consent and the requirements of an Environmental Protection Licence (EPL) are undesirable as each is provided under different legislation with different considerations. Noting the existing EPL for the subject site being EPL No. 4068, the Environment Protection Authority (EPA) issues EPL's under the Protection of the Environment Operations Act 1997 (POEO Act).

In this regard, it is not considered that the proposed draft conditions raise the above concern in relation to overlapping of conditions with EPL requirements, with draft condition No. 4 requesting only that a variation to the existing EPL be provided for prior to any alteration of the current approved landform taking place. This condition reads as follows;

- 4. Prior to altering the existing approved waste management and resource recovery facility, altering finished landform and increasing waste capacity at the premises, the applicant must apply to the Environment Protection Authority and be issued with a variation to the existing Environment Protection Licence No. 4068.*

A copy of the amended Environment Protection Licence No. 4068 is to be provided to Penrith City Council prior to any works commencing as part of this Development Consent.

The proposal is to operate in accordance with the amended Environment Protection Licence No. 4068 issued by the Environment Protection Authority and the conditions of this development consent at all times.

7. Windblown Litter

Via commentary received by SUEZ, windblown litter from the subject site is identified as a potential issue. Instance is drawn to this occurring on the 26 November, 2019 and the actions taken by the applicant to resolve as soon as possible this matter.

The issue of windblown litter is primarily a matter which is regulated by the NSW Environment Protection Authority and the EPL applicable for the operation of the subject site in addition to the operational Environmental Management Plan. While so, draft conditions of consent are also provided which are considered to assist in mitigating potential pollution concerns from the site including the requirement that;

- *Shale covers are to be placed on non-active areas of the general and restricted waste cells.*
- *Tarps are to be used at night on the general waste cell batters for the life of the project.*
- *Shale and clay cover is to be placed on non-active surfaces.*
- *Chemical stabilisers are to be used on disused shale stockpiles.*

8. Visual screening along southern boundary

The application was provided with a landscape and visual impact assessment addendum which provided for a visual impact of the southern site along the southern boundary. The visual impact addendum concluded that the significance of the visual impact of the proposed development to this boundary would be low.

It is noted that this boundary is currently provided with a 5m high earth mound for the majority of its length with landscaping. The following commentary has been provided by the additional correspondence by SUEZ to this reason for deferral;

SUEZ notes the verbal representation made at the meeting by Mr Paul Sims regarding visual impact for his property to the south of the landfill site, as well as his written submission to Council. SUEZ reiterates our commitment to augmenting screening vegetation along our shared boundary in order to mitigate visual impacts to Mr Sims' property. SUEZ would also investigate the condition of the existing 5 metre bund adjacent to Mr Sim's boundary with view to augmenting this where possible through additional material or supplementary screen planting.

The following draft condition is provided in relation to the landscape plan accompanying the proposal;

Prior to the commencement of any works associated with this consent, the approved landscape plan as provided in Condition 1 is to be amended to the satisfaction of Penrith City Council to provide for the following;

- a) an identification of all new plant species, number of new plants to be planted and pot size to be provided (for each new species), to the existing vegetation buffers along the northern, eastern and southern perimeter of the subject site.*

In this regard, it is noted that this condition also includes the southern perimeter. As SUEZ have identified the opportunity of providing for additional landscaping to the southern boundary as well as further discourse with adjoining neighbours, it is considered appropriate that the condition is to be amended to read as follows;

Prior to the commencement of any works associated with this consent, the approved landscape plan as provided in Condition 1 is to be amended to the satisfaction of Penrith City Council to provide for the following;

- a) an identification of all new plant species, number of new plants to be planted and pot size to be provided (for each new species), to the existing vegetation buffers along the northern, eastern and southern perimeter of the subject site.*
- b) evidence that SUEZ have held discussions with the owners of adjacent properties along its southern boundary in relation to any new plant species and number of new plants to be provided along its southern boundary.*

9. DA submissions

Commentary has been provided by SUEZ in relation to the key issues arising from the receipt of the Development Application via the notification process. This was provided for via a request to Penrith City Council under the Government Information (Public Assess) Act 2009 (GIPA Act) to obtain the submissions received during the notification period.

The following conclusion is provided by SUEZ in correspondence received;

Having reviewed these submissions SUEZ confirms that all relevant issues raised have been comprehensively addressed in the EIS and through subsequent correspondence provided to PCC and the Panel.

10. Oral Representations

Further oral representation by persons has been indicated by the 'Record of Deferral' to be made to all of the Panel members in any deferred meeting. noting the conflict of interest arising for two of the professional Panel members and the inability to maintain the usual 5 members for the original determination meeting.

While so, it is agreed, should it be necessary that the 2 alternate members for the deferred meeting may review audio recording of the original 15 June, 2020 meeting. Furthermore, this addendum report is considered to maintain addendums including the original assessment report and updated draft recommended conditions, 'Record of Deferral' by the Panel, response to the Record of Deferral prepared on SUEZ behalf and exemption to Clause 18 of the WSEA SEPP provided by the Department of Planning, Industry & Environment to allow for a proper understanding of the Development Application and its determination.

Conclusion

A review of the commentary from Jamie McMahon of AECOM on behalf of the applicant (dated 14 July, 2020) is considered to have identified and responded to all matters pertaining from the 'Record of Deferral' provided by the Panel following the original determination meeting on the 15 June, 2020.

This review has also provided for the updating of recommended conditions of consent.

Recommendation

That DA19/0470 for alterations to an existing approved waste management and resource recovery facility at 1725a Elizabeth Drive, Badgerys Creek providing for alterations to the finished landform and increase in waste capacity be approved subject to the recommended conditions.

Attachment A

Council's original assessment report and updated conditions of consent in response to matters raised in this addendum

SWCPP Ref. No.:	PPSSWC-7
DA No.:	DA19/0470
PROPOSED DEVELOPMENT:	Alterations to Existing Approved Waste Management & Resource Recovery Facility including Alterations to Finished Landform & Increase in Waste Storage Capacity - Lot 1 DP 542395, Lot 740 DP 810111, 1725 a Elizabeth Drive, BADGERYS CREEK NSW 2555
APPLICANT:	Suez Recycling & Recovery Pty Ltd
REPORT BY:	Paul Anzellotti, Senior Development Assessment Planner, Penrith City Council

Assessment Report

Executive Summary

Council is in receipt of a Development Application from SUEZ Environment Group & Recovery Pty Ltd proposing alterations to an existing approved waste management and resource recovery facility at 1725a Elizabeth Drive, Badgerys Creek via alterations to the finished landform and increase in waste capacity. The Development Application is both a designated and integrated development application.

The subject site is currently provided with two zonings under Penrith Local Environmental Plan 2010 being RU2 Rural Landscape and E2 Environmental Conservation. The subject development application is located wholly within the RU2 zoned portion of land. The current proposal also seeks to modify the existing operational consent on the subject site (DA08/0958) under Section 4.17 of the Environmental Planning and Assessment Act 1979 so as for it to only be applicable to the E2 zoned portion of the site, with the current proposal (on the RU2 zoned land) to operate concurrently with the existing consent.

The subject site provides for a number of active uses under separate approvals. In this regard the site includes both the active landfill operation, the SUEZ Advanced Waste Treatment (SAWT) facility and a landfill gas to energy system, which operate concurrently and independently of the landfill. It is noted that the operation of the SAWT and landfill gas to energy system do not form part of this development application.

The operations on the site are currently subject to two Environmental Protection Licences (EPLs) being EPL No. 4068 for landfilling and EPL No. 12889 for the SAWT facility.

In accordance with Schedule 7 (Regionally Significant Development) of the State Environmental Planning Policy (State and Regional Development) 2011, a 'designated development' is required to be determined by a Regional Panel. In this regard, the Sydney Western City Planning Panel (SWCPP) is the determining authority as the proposal is identified as a 'designated development' due to the nature of the waste management facility works, operations of the EPL for landfilling and vicinity to a natural waterbody.

The application is an Integrated Development Application in accordance with Section 138 of the Roads Act 1993 and was subsequently referred to the Roads and Maritime Services (RMS). Correspondence received from the RMS dated 3 September, 2019 has advised that no objection was raised with the proposal. The application is also an Integrated Development Application under Section 43(a) of the Protection of the Environment Operations Act 1997 and was subsequently referred to the Environment Protection Authority (EPA). Following discussions between the EPA and the applicant and the provision of amended information to respond or clarify questions raised, General Terms of Approval (GTAs) were issued by the EPA on the 11 May, 2020.

The EPA has advised upon the issue of the GTAs that prior to altering the existing approved waste management and resource recovery facility, altering finished landform and increasing waste capacity at the premises, the applicant must apply to the Environment Protection Authority and be issued with a variation to the existing Environment Protection Licence No. 4068.

The development application had been advertised in the local newspaper and notified to all adjoining and adjacent property owners and placed on public exhibition from 2 August to 2 September, 2019. During this period seven (7) submissions were received.

Key issues identified for the proposed development include:

Relationship to future Strategic Planning surrounding the Western Sydney Airport

The subject site is identified as being located within the future Badgerys Creek Precinct of the Western Sydney Aerotropolis. At present, the Western Sydney Aerotropolis Plan - Draft for public discussion has been released as of December, 2019 which has identified the site as being subject to a future Enterprise zone. A review of the expected permissible land uses has identified that a waste or resource management facility is in principle a permissible use under this zone. In this regard, the continued operation of the site is not considered contrary to the envisaged planning controls and objectives of this area.

Relationship with the future Western Sydney Airport

The subject site is positioned so as to be directly under an identified flight path for aircrafts departing or arriving on the runway of the future Western Sydney Airport currently under construction. It is envisaged that Western Sydney Airport will commence operations in December, 2026. The maximum height of the proposed landfill at RL 95m has been reviewed and will not impact upon the necessary Obstacle Limitation Surface (OLS) associated with the operation of the future runway, the OLS ranging from approximately 118.8m AHD to 125.5m AHD. Furthermore, the impact of gas flaring is not considered to create a safety concern for oncoming aeroplanes while the receipt of only non-putrescible waste will minimise the potential for wildlife strikes in the area associated with aircraft arriving or departing from the future airport.

Environmental Impact from continued Use of Landfill Operations

The application was provided to the Environment Protection Authority (EPA) for consideration under the provisions of Integrated development, also noting that the development is 'Designated Development' and currently maintains an Environment Protection Licence. The EPA took into consideration noise, air and odour impacts from the proposal as well as a leachate pipe strength and slope stability assessment and returned General Terms of Approval to be provided with any determination granted. In this regard, the environmental impacts are considered to have been appropriately mitigated via documentation provided, with any consent granted to also be conditioned to ensure that environmental protections are maintained for surrounding properties for the duration of landfill operations.

Visual Impact

The proposal will provide for a reconfiguration of the approved landfill mass in addition to an overall increase in height by 15m. While so, it is not considered that the visual presentation of the final capped landform once works are complete will create a significantly detrimental relationship to surrounding areas with its impact considered to be in a low to moderate category. Taking into consideration the expected changing land uses surrounding the subject site including the construction of large scale infrastructure (for instance via the M12 motorway to the north) and the development of future industrial and commercial uses in line with the objectives of the developing Aerotropolis, the presentation of the landform is considered to be visually offset in part by future surrounding features. Comparatively, were the surrounds to remain rural in nature, it is considered that the visual impact would

be further extenuated by the current proposal. From afar, the visual impact is not considered to be dramatically altered while landscaped screening to the perimeter of the site does assist in partially screening operational works. It is also noted that the existing relationship to Badgerys Creek via landscape buffering will be maintained by this proposal which is identified as an Environment and Recreation zone under the draft Aerotropolis planning controls and objectives.

Traffic and Transport Implications

The subject site is currently accessed via Elizabeth Drive from a public road managed by Penrith City Council maintaining a length of 600m. While this intersection with Elizabeth Drive was identified as being impacted upon by degenerating conditions due to the expected increase in traffic volumes associated with the future operations and a general increase in traffic along Elizabeth Drive, the queuing of vehicles to enter and exit the site via a right turn is not considered to create inappropriate lengths for waiting vehicles. Furthermore, future upgrading works to Elizabeth Drive, expected to be conducted prior to the opening of the Western Sydney Airport are considered to improve the intersection performance as well as traffic flows. Future works have identified that right turns will be restricted with non signalised intersections, with left in and left out only which is considered to assist in improving safety for motorists. In addition, Elizabeth Drive is to be provided with a number of signalised intersections before and after the access road which will assist in creating opportunities to enter or exit this road.

Modification of existing Development Consent DA08/0958

The subject proposal will regulate the entirety of the site other than existing elements currently located on land zoned E2 Environmental Conservation along the western boundary of the site. The application also seeks to modify the existing operational consent on the subject site (DA08/0958) under Section 4.17 of the Environmental Planning and Assessment Act 1979 to allow for this consent to only be geographically applicable to the E2 zoned portion of the site, with the current proposal on the RU2 zoned portion to operate concurrently with the existing consent. The identified planning pathway has been reviewed and is considered to provide for an acceptable avenue for the provision of concurrent consents on the subject site. In this regard, any condition of consent included in a favorable determination will be provided requesting the applicant deliver a '*notice of modification*' to Penrith City Council within 12 months of any consent granted to modify the existing development application so as to be geographically applicable only to the E2 zoned portion of the subject site. Prior to this '*notice of motion*' being delivered, it is considered necessary that concurrence to this modified consent be sought from the EPA.

An assessment under Section 2.12, Section 2.14, Section 4.15 and Section 4.46 of the Environmental Planning and Assessment (EP&A) Act 1979 (as amended) has been undertaken and the application is recommended for approval.

Site & Surrounds

The subject site is described as Lot 1, DP 542395 and Lot 740 DP, 810111 and maintains a street address of No. 1725a Elizabeth Drive, Badgerys Creek. The site is currently occupied by the Kemps Creek Resource Recovery Park which includes both the active land fill operation and the SUEZ Advanced Waste Treatment (SAWT) facility and landfill gas to energy system.

The site has a total area of 85 hectares with the footprint of the proposal occupying approximately 60 hectares, the SAWT facility 7 hectares and the remainder of the site reserved for vegetation buffers and ancillary facilities. Directly adjoining the subject site to its west is Badgerys Creek with a vegetation buffer maintained along much of its length to Badgerys Creek. The site is accessed from Elizabeth Drive via a public access road approximately 600m in length.

The site is subject to two zonings under the Penrith Local Environmental Plan 2010. The majority of the land is

zoned RU2 Rural Landscape (on which the current proposal is situated) and a portion of the western side of the site, adjacent to Badgerys Creek is zoned E2 Environmental Conservation (also maintaining existing SUEZ operations). The draft Western Sydney Aerotropolis Plan has identified the subject site as being located within the Badgerys Creek Precinct and provided with a future Enterprise zoning and Environment and Recreation zoning which aligns with the current applicable RU2 and E2 zone boundaries. The relationship of the subject site with its identified draft zonings is discussed further within this report.

In 1990, approval was granted by Penrith City Council for the '*continued operation and backfilling of Badgerys Creek Quarry*' (DA451/89). The majority of the site is currently occupied by quarrying and landfill operations. Major Project Approval (MP06-0185) under Part 3A of the Environmental Planning and Assessment Act 1979 was granted in April, 2008 for the construction of the SAWT facility. This facility has been in operation since 2009 with approximately 55% of incoming material delivered to the SAWT diverted from putrescible landfill. DA12/0515 was approved in May 2013 for two (2) 1.4 MW generators within the site which operate a supply of landfill gas from the landfill. Power generated by the landfill gas to energy system is used to power the SAWT facility, with excess power being delivered to the electricity network.

The surrounding area currently comprises of primarily rural-residential and smaller areas of residential development. The following land uses are observed to be surrounding the subject site;

North of the Site

- Directly adjoining the subject site to the north is rural open land which is owned by the University of Sydney. It is noted that this land has been identified as maintaining in part the corridor alignment for the proposed M12 motorway.
- Further to the north in the vicinity of 800m from the subject site is the Twin Creeks residential estate which also maintains the Twin Creeks Golf and Country Club and associated 18 hole golf course.

West of the Site

- Directly adjoining the subject site is Badgerys Creek which forms the western boundary.
- Further to the west of Badgerys Creek is predominately cleared open agricultural land with a number of existing farm dams.

South of the Site

- Three (3) rural-residential properties are immediately to the south of the subject site towards Elizabeth Drive which is located approximately 800m south of the site boundary.
- Adjoining the access road along its eastern side is an existing waste facility commonly known as Crush and Haul. This facility is currently subject to a number of legal actions by Council in relation to unauthorised works and land uses.

East of the Site

- Directly adjoining the site along its eastern boundary is 'Kingsford Stud' and further to the east, the waterway of South Creek.
- DA19/0826 is currently under assessment by Penrith City Council in relation to No. 1669 - 1723 Elizabeth Drive, directly adjoining the subject site to its south east. The Development Application seeks consent for the operation of a Waste Management Facility by the importation of fill material, including demolition of existing structures, bulk earthworks, tree and vegetation clearing and dam de-watering and decommissioning.

The site is approximately 800m north from the construction site for the future Western Sydney International (Nancy Bird Walton) Airport (situated along the southern side of Elizabeth Drive), which is driving a range of

broader land use changes in the region. This includes changes in land use and the construction of infrastructure to support the future airport such as the NSW Government's Western Sydney Aerotropolis and the proposed M12 and M9 motorways to be positioned to the north and west of the subject site.

Proposal

Background

Prior to 1990, the subject site was the location of the Badgerys Creek Quarry which extracted clay, shale, sandstone and laminate. Since 1990, the site has been subject to a number of development approvals over the last 30 years, which have also been modified a number of times with approvals generally provided for quarrying and landfilling or for waste management operations. Prior to this, the subject site was used solely for the purpose of a quarry operation.

The first relevant Development Consent granted by Penrith City Council in relation to the current existing operations was DA451/89, issued on the 22 October, 1990 for, *'the continued operation and backfilling of the Badgerys Creek quarry'*. The consent allowed for continued extraction of clay, shale, sandstone and laminate with rehabilitation also provided via backfilling quarried areas with solid non-putrescible waste.

Since approval was granted, DA451/89 has been modified on five occasions. The subject site's primary existing operating consent, DA08/0958 (being a modification to DA451/89), was issued by Penrith City Council on 9 November, 2009 and included original conditions from the original Development Application as well as updates arising from subsequent modifications up to 2009. The accompanying Environmental Impact Statement provided the following discussion in regard to the intent of the current proposal;

This EIS seeks to obtain additional development consent for the Site to allow for expanding landfill activities. While previous development consents obtained under DA451/89 and subsequent modifications would not be surrendered, it is intended that the development consent, if approved, for the Project would outline conditions to regulate the ongoing operation of this site as a landfill.

The subject site also currently maintains two separate existing consents as described by the accompanying EIS in support of the current proposal;

- *Major Project Approval MP 06-0185 - SAWT Facility*

In 2007, the Site was rezoned to permit a waste treatment facility as a permissible use on the Site. The rezoning was approved by the then Minister of Planning and gazetted on 16 February, 2007.

Major Project Approval (MP 06-0185) under Part 3A of the EP&A Act was granted in April 2008 for the construction of the SAWT facility. At full capacity, the SAWT facility is capable of treating up to 134,000 tpa of waste, comprising up to 120,000 tpa of municipal solid, commercial, industrial and green waste plus up to 14,400 tpa of biosolids from sewage treatment plants.

The SAWT facility has been in operation since 2009. Approximately 55% of incoming material delivered to the SAWT is diverted from putrescible landfill.

- *Development Application DA12/0515 for Gas to Energy Platform and Gas Collection System*

SUEZ (then SITA) submitted a DA to PCC for two 1.4 MW generators within the Site, which was approved in May 2013. The generator operates on a supply of landfill gas from the landfill at a rate of 750 cubic metres per hour. A minor modification was approved in August 2018 under Section 4.55 (previously Section 96) of the EP&A Act for minor upgrades to the facility. Power generated by the landfill gas to energy system is used to power the SAWT

facility, with excess power being delivered to the electric network.

Noting the above, current activities and facilities within the subject site may be summarised as follows;

- Landfill: The acceptance of an average of approximately 750,000 tonnes per annum of non putrescible waste into the existing general solid waste and restricted solid waste cells. It is noted that the current Development Consent does not provide for a limitation on the amount of waste that may be received per year. In this regard, the figure of 750,000 tpa is an estimated average of current operations which may fluctuate above or below this figure.
- The excavation of approximately two million cubic metres of shale and clay of which 0.8 million cubic metres is stockpiled on site for future use.
- Gas management infrastructure to capture and destroy landfill gas.
- Stormwater dams and leachate tanks.
- Ancillary buildings including administration, maintenance workshops, car and truck parking areas and weighbridge.

In addition to the above, the following activities at the site are conducted not relating to the project area;

- SAWT facility with the processing of approximately 134,000 tonnes per annum including green and food waste for recycling and composting, and
- Landfill gas to energy system: two 1.4 megawatt generators powered by landfill gas.

Current Landfill Operations

The existing landfill currently accepts non-putrescible general solid waste and restricted solid waste. Current landfilling operations accept on average approximately 750,000 tpa of non-putrescible general solid waste and restricted solid waste. General waste cells are located to the centre and west of the project area and receive non putrescible general solid waste. Waste cells located along the northern and eastern boundaries of the project area receive restricted solid waste. These activities are currently conducted under DA451/89 as modified. This consent allows SUEZ to currently provide landfilling operations to a regimented landfill form with a maximum final cap height of RL 80m. A limit of 780 vehicle movements is also conditioned by the current operational consent.

Leachate is currently collected separately from general solid waste cells and restricted waste cells with the primary source of most leachate being rainwater falling on the site with some also originating from the deposited waste. Leachate originating from restricted waste cells is extracted from the landfill and contained within leachate storage tanks in the vicinity of the eastern boundary of the site with a capacity of 200,000 litres. Leachate originating from general waste cells is extracted from the landfill and contained within leachate storage tanks in the vicinity of the western boundary of the site with a capacity of 100,000 litres.

The site is currently accessed by vehicles transporting waste via a 600m long sealed access road from Elizabeth Drive, with vehicles entering the site weighed on a weighbridge. Supporting buildings and structures on the site are currently provided as a weighbridge, on-site utilities, administration building, workshop and leachate management system. Existing landfill equipment includes landfill compactors, bulldozers, excavators, dump trucks, graders, rollers, water carts and road sweepers.

The current operating hours on the subject site are as follows;

Activity	Day	Operating Hours
Landfill receipt of waste	Monday - Friday	6am - 6pm
	Saturday	7am - 5pm
	Sunday and Public Holidays	8am - 5pm

Landfill quarrying and compaction	Monday - Friday	7am - 6pm
	Saturday	7am - 5pm
	Sunday and Public Holidays	8am - 5pm

The current operations are considered to be 'designated development' as prescribed by Clause 32 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 as the operations are classified as a 'waste management facility or works' and meet the following provisions as provided by Clause 32;

1) *Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and -*

(a) *that dispose (by landfilling, incinerating, storing, placing or other means) of solid or liquid waste...*

(ii) *that comprises more than 100,000 tonnes of "clean fill" (such as soil, sand, gravel, bricks or other excavated or hard material) in a manner that, in the opinion of the consent authority, is likely to cause significant impacts on drainage or flooding...*

(d) *that are located -*

(i) *in or within 100 metres of a natural waterbody, wetland, coastal dune field or environmentally sensitive area...*

Future Use

Following the completion of site capping, the subject site will be closed and an aftercare phase would commence. It is expected that this aftercare period would be for a minimum of 30 years to allow for appropriate settlement of the site to take place. It is expected that the final landform would continue to settle over several years beyond the construction of the final cap. Vegetation of the capped mound, ongoing collection and management of leachate, maintenance of stormwater infrastructure and ongoing inspections in regard to the integrity of the cap would be provided during this period.

The current application does not propose to change the future land use of the capped site which is expected to present as a grassed hill. It is noted that the capped landfill would also retain the landfill gas extraction infrastructure as per current operations.

Current Proposal

Prior to the lodgement of the Development Application, the applicant lodged a request for Secretary's Environmental Assessment Requirements (SEARs) with the NSW Department of Planning, Industry and Environment in June 2018. SEARs were issued on the 20 July, 2018 (SEAR 1239) in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000. In this regard, the Development Application is identified as a 'Designated Development' and has been accompanied by an Environmental Impact Statement addressing the requirements of the SEARs.

The SEARs issued on the 20 July, 2018 provided for the following description;

The proposed expansion of an existing landfill facility to increase its capacity from 750,000 to 850,000 tonnes per annum of non-putrescible General Solid Waste (GSW) and Restricted Solid Waste (RSW).

Following representation by the applicant to the NSW Department of Planning, Industry and Environment in February, 2019 seeking updated SEARs for the preparation of an Environmental Impact Statement, correspondence was returned by the Department with the following advice:

The department notes that SEAR 1239 issued on 20 July, 2018 was for the expansion of an existing landfill facility to increase its capacity from 750,000 to 850,000 tonnes per annum (tpa) of non-putrescible General Solid

Waste (GSW) and Restricted Solid Waste (RSW). However, you are now proposing a capacity of 950,000 tpa of non-putrescible GSW and RSW.

The Department is satisfied that the existing SEARs will allow for the preparation of an EIS that appropriately addresses any potential impacts of the revised proposal. Accordingly, the Department does not consider it necessary to amend SEAR 1239.

If you do not lodge an application under Section 4.12(8) of the Environmental Planning and Assessment Act 1979 by 20 July 2020, you must consult with the Planning Secretary in relation to any further requirements for lodgement.

Development Application DA19/0470 was subsequently received by Council on the 17 July, 2019 and seeks consent for the following:

- Intensification of the existing landfill operation for non-putrescible general solid waste and restricted solid waste upon the RU2 zoned portion of the subject site by raising the currently approved finished cap height by 15 metres within the footprint of the active landfill, from a reduced level of RL 80m to RL 95m.
- An increase in the final cap height is expected to provide additional landfill airspace capacity of approximately 4.8 million cubic metres.
- An increase in the final cap height would provide for increased gradients on battered slopes, along with horizontal benching for the management of drainage. Battered slopes are to be provided so as to allow for future post-settlement slopes of 1:4 with the gradient of the upper portion of the cap to be approximately 1:20.
- An increase to the existing filling rate of the landfill by 200,000 tonnes per annum (tpa) from a current rate average of 750,000 tpa to an approximate maximum rate of 950,000 tpa. Based upon this new maximum filling rate, this is expected to extend the life of the current operations to around the year 2031.
- Continued collection of leachate from general solid waste cells and from restricted waste cells. The collection of leachate is identified as being broadly consistent with current operations on the subject site with no changes proposed to the leachate collection, storage or management procedures.
- The application has identified that there will not be an increase in the amount of landfill gas currently flared or combusted at the subject site. While so, the duration of this activity is to be increased due to the amount of additional waste to be deposited on the subject site.
- For any forthcoming consent to replace parts of DA451/89 (as modified). As described in the accompanying EIS, *'It is SUEZ's intention that the consent for the Project would regulate the ongoing use of the Site for landfilling activities whilst the existing consent continues to operate for parts of the site not subject to this DA'*. In this regard, the current Development Application seeks to consolidate approval of the current operations into a single new consent, apart from existing elements of the project located along the western boundary of the subject site on land zoned E2 Environmental Conservation. Those elements would continue to be operated under the existing consent.
- The current development application does not request a change to the number of persons currently employed at the subject site or the existing hours of operation.

The application proposes that the final landfill be provided in 3 stages throughout the subject site. Each stage is to provide landfill to its identified RL level prior to being capped. Grading designs have identified a series of batters and benches, which has slopes ranging from approximately 1 in 12 to 1 in 16. The proposal has identified an overall batter slope of approximately 1 in 3.5 (pre settlement) eventually settling to 1 in 4.05 (post settlement).

The crest of the proposed cap is identified as providing for slopes of approximately 1 in 20. The pre-settlement sloping is provided with 10m wide benches. The benches are proposed to be graded inwards to a swale drain at the toe of the higher batter to capture stormwater within the drainage system.

The proposal has identified an upgrading to the existing perimeter landscaping provided to the subject site and

has been accompanied by a landscape plan.

The application was briefed to the Sydney Western City Planning Panel on the 18 November, 2019 with the following key issues discussed;

- Proximity to Western Sydney Airport and potential implications for surrounding future uses, noting that Stage 2 of the Land Use and Infrastructure and Implementation Plan (LUIIP) is pending;
- Existing use rights - scale of proposed activity, landscaping and visual impact, as well as timing of continued operations beyond 2026 (when the new airport is due to open);
- Lack of support for proposal from EPA, with concerns including potential environmental impacts (gas flaring, increased noise, odour, etc);
- Potential safety issues for the operation of the second Sydney airport;
- Council has a commercial arrangement with the operator so the assessment report shall be peer reviewed prior to reporting to the Panel; and
- The Panel emphasised that the key consideration is the compatibility of the finally restored site with the intended future land uses of the precinct, which are yet to be defined.

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy (Western Sydney Employment Area) 2009
- State Environmental Planning Policy No 33—Hazardous and Offensive Development
- State Environmental Planning Policy No 55—Remediation of Land
- Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

Planning Assessment

• Section 2.12 – Sydney Western City Planning Panel (SWCPP)

Under Sections 2.12 and 2.15 of the Environmental Planning and Assessment Act 1979, a regional panel is taken to be the Council whose functions are conferred on a regional panel.

Under Clause 7(c) of Schedule 7 *Regionally significant development* of the *State Environmental Planning Policy (State and Regional Development) 2011* a regional panel, in this instance being the Sydney Western City Planning Panel, is required to determine an application for *waste management facilities or works, which meet the requirements for designated development under Clause 32 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000*.

The proposal is considered to be 'designated development' as prescribed by Clause 32 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000 as it is classified as a 'waste management facility or works' and it meets the following provisions as provided by Clause 32;

(1) Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and -

(a) that dispose (by landfilling, incinerating, storing, placing or other means) of solid or liquid waste...

(ii) that comprises more than 100,000 tonnes of "clean fill" (such as soil, sand, gravel, bricks or other excavated or hard material) in a manner that, in the opinion of the consent authority, is likely to cause significant impacts on drainage or flooding...

(d) that are located -

(i) in or within 100 metres of a natural waterbody, wetland, coastal dune field or environmentally sensitive area...

In this regard, the Sydney Western City Planning Panel is required to determine the subject application.

- **Section 4.14 - Bushfire prone land assessment**

Penrith City Council's bush fire prone land map identifies that the subject site contains both Category 1 and Category 2 vegetation along identified Vegetation Buffer zones to the perimeter of the site. As part of the applicant's request for Secretary's Environmental Assessment Requirements (SEARs) for the proposal and in the preparation of the accompanying Environmental Impact Statement (EIS), an assessment of the risk of bush fire, including addressing the requirements of *Planning for Bush Fire Protection 2006* was conducted. In this regard, the EIS has been accompanied by a Bush Fire Assessment Report prepared by Australian Bush Fire Consulting Services who provided the following conclusion;

The subject property is determined to be bush fire prone land and it is appropriate to consider bush fire as part of any proposed development within the site. In this instance the application is for an increase in land fill height within an existing landfill depot only, which will extend the site's operational life. There is no new building or change of use and occupancy proposed. The development does not seek approval for any expansion, construction or intensification and a Bush Fire Safety Authority from the NSW RFS is not required.

It is acknowledged that the proposal does not seek approval for any new buildings, residential development, Special Fire Protection Purpose development, change of use or intensification of existing uses. It is also noted that there are no extensions to the existing site or development boundaries or modification of land use zones that would otherwise allow for additional uses with the proposal primarily requesting an increase in height of the final landfill which will extend the operating time frame of the site.

While so, the protection measures required by *Planning for Bush Fire Protection 2006* were considered in the accompanying Bush Fire Assessment Report which identified that;

- The existing Asset Protection Zone distances around the perimeter of the landfill are achieved or exceeded in all instances with no vegetation management or tree removal necessary,
- Suitable access for fire services exists, no new access drives or upgrades to existing service trails are required and no further recommendations are considered necessary, and
- Reticulated water mains also available to the site and an 80mm ring main extends throughout the site.

The report also provided for a review of the existing Emergency Response Plan. The plan was identified as having a section addressing fires on-site however does not specifically address bush fire. The report recommended that this plan be updated to include appropriate triggers and responses to a bush fire event on-site. In this regard, a condition to this effect is to be provided with any development consent granted.

The accompanying report also provided for the following discussion;

The end use of this site as a final capped landfill is many years away and rezoning to industrial uses to coincide with the future airport occupation is likely to occur. A reassessment of the site's restoration and bush fire protection measures should be undertaken at the time the site ceases to operate as an active landfill.

Noting the above commentary, a condition to this effect is to be included with any development consent granted.

- **Section 4.15 - Evaluation**

The proposed development has been assessed in accordance with the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration.

- **Section 4.46 - Integrated development**

The proposed development is defined as an Integrated Development under Section 4.46 of the Environmental Planning and Assessment Act 1979. The development application requires an approval in accordance with Section 138 of the Roads Act 1993 from the NSW Roads and Maritime Services (RMS) and an approval in accordance with the Protection of the Environment Operations Act 1997 from the NSW Environment Protection Authority (EPA).

Correspondence was returned from the RMS dated the 13 August, 2019 advising as follows;

Roads and Maritime has reviewed the submitted application and raises no objection to the application of the proposed alterations to the existing approval.

Roads and Maritime is currently investigating the proposed M12 Motorway Project and the subject property is within the broad investigation area. Roads and Maritime has now defined a preferred corridor for further examination.

Following on from the above comments received, the Final M12 Environmental Impact Statement has been released for public exhibition (closing in November 2019) which identified that the subject site is located directly to the south of the proposed M12 motorway.

The site is currently subject to two Environment Protection Licences (EPLs) as follows;

- EPL 4068 - Landfilling
- EPL 12889 - SAWT

Under the Protection of the Environment Operations Act 1997, the owner or occupier of a premises engaged in a scheduled activity (as per this instance) is required to hold an EPL (being No. 4068 for the landfilling component) and comply with the conditions of this licence. In this regard, the application was referred to the EPA. It is noted that the EPA has provided numerous correspondence to Council dated 19 August, 2019, 4 September, 2019, 20 November, 2019 and 6 December, 2019 which were relayed to the applicant for consideration. The EPA raised a number of concerns in relation to pipe loading assessment, slope stability assessment, additional leachate management measures, final cap design and noise, air and vibration impacts.

Following discussions with the applicant and the receipt of a final amended package of information in response to concerns raised, the EPA provided General Terms of Approval (GTAs) in relation to the proposal on the 11 May, 2020. The GTAs provided are to be incorporated in the conditions of consent should development consent be forthcoming.

Section 4.15(1)(a)(i) The provisions of any environmental planning instrument

State Environmental Planning Policy (Infrastructure) 2007

Clause 121(1) of the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) reads as follows:

(1). Development for the purpose of waste or resource management facilities, other than development referred to in subclause (2), may be carried out by any person with consent on land in a prescribed zone.

As previously identified, the existing SUEZ operations are located both upon a RU2 Rural Landscape and E2 Environmental Conservation zone under Penrith Local Environmental Plan 2010. While so, the current proposal under this application is located wholly within the RU2 zone. The RU2 zone is specified as a *prescribed zone* within the ISEPP, and in this regard the proposal is permissible with consent. For the landfill operations located upon the E2 zoned portion of the site, permissibility for continued operations is dependent on the 'existing use' provisions of the Environmental Planning and Assessment Act 1979.

The development application was referred to the Roads and Maritime Services as the subject site has direct access to Elizabeth Drive which is a Classified Road and the proposal is identified as traffic generating development (being a waste or resource management facility of any size or capacity) in Schedule 3 of the ISEPP. In this regard, correspondence was returned from the Roads and Maritime Services dated 3 September, 2019 raising no objection to the proposed alterations to the existing site operations.

State Environmental Planning Policy (Western Sydney Employment Area) 2009

An assessment has been undertaken of the proposal against the relevant criteria within State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP).

The site is located within the boundaries of the Land Application Map of WSEA SEPP.

Under the WSEA SEPP, the site is considered 'unzoned land' as per the relevant Land Zoning Map. This is addressed under Clause 12 of the SEPP as follows:

12 Unzoned land

(1) Development may be carried out on unzoned land only with consent.

(2) Before granting consent, the consent authority:

(a) must consider whether the development will impact on adjoining zoned land and, if so, consider the objectives for development in the zones of the adjoining land, and

(b) must be satisfied that the development is appropriate and is compatible with permissible land uses in any such adjoining land.

Noting the above, Clause 12 permits development to be carried out on land that is unzoned under the WSEA SEPP only with consent. The subject site is zoned RU2 Rural Landscape under the Penrith LEP, and is therefore only unzoned for the purposes of the WSEA SEPP. Pursuant to Clause 12(2)(a), the consent authority, before granting consent, must consider whether the development will impact on adjoining zoned land.

Clause 8 of the WSEA SEPP reads as follows:

8 Relationship to other environmental planning instruments

(1) State Environmental Planning Policy No. 1—Development Standards does not apply to the land to which this Policy applies.

(2) This Policy to prevail over LEPs In the event of an inconsistency between this Policy and a local environmental plan or deemed environmental planning instrument that applies to the land to which this

Policy applies, this Policy prevails to the extent of the inconsistency.

Clause 8 confirms that the WSEA SEPP prevails over the Penrith LEP in terms of any inconsistency. In this regard, the subject site is unzoned under the WSEA SEPP (therefore not introducing any specific land uses), but maintains a RU2 zoning under the Penrith LEP which has identified that a waste or resource management facility is a prohibited use.

In this instance, it is not considered that the Penrith LEP is inconsistent with the WSEA SEPP as the site is identified as being unzoned, therefore not creating an inconsistency between a zoning provided by two environmental planning instruments. Nevertheless, it is noted that under the State Environmental Planning Policy (Infrastructure) 2007, a waste or resource management facility is a permitted use under the RU2 zoning as provided by the Penrith LEP.

Clause 18(1) of the SEPP outlines that the consent authority must not grant consent to development on any land to which the SEPP applies, unless a DCP has been prepared for the land. Clause 18(2) and subsequent Schedule 4 outlines specific requirements that are to apply to any such DCP. There is no specific DCP prepared under the WSEA SEPP that is specifically applicable to the subject site, but while so, the Penrith Development Control Plan 2014 is applicable to the site and in turn also covers all land covered by the WSEA SEPP. It is also considered that the Penrith DCP satisfies the requirements of Schedule 4 of the WSEA SEPP and in this regard, it is considered that Clause 18 has been satisfied.

In addition to the above, the Draft Western Sydney Aerotropolis Development Control Plan 2019 was released in December 2019. This DCP was prepared pursuant to the provisions of Section 3.44 of the *Environmental Planning and Assessment Act 1979* and identifies the precinct planning principles, objectives and performance outcomes to allow precinct planning to progress. It is noted that the subject site is located within an initial precinct, being 'Badgerys Creek' as identified in the draft Aerotropolis SEPP, of which the DCP is applicable.

Draft exhibition documentation has also identified that the area currently within the Aerotropolis Area which also forms part of the WSEA SEPP (with the exception of the Mamre Road Precinct) will be in the future amended so as to remove the Aerotropolis Area from the Land Application Map under the WSEA SEPP. As yet, this amendment has not occurred but is expected to once the Aerotropolis SEPP comes into effect.

Further discussion in relation to the subject site's relationship with the Western Sydney Aerotropolis Plan will be provided later within this report.

State Environmental Planning Policy No 33—Hazardous and Offensive Development

Under the terms of the SEARs issued by the Department of Planning, Industry and Environment in relation to the subject proposal, a key issue identified that, *'the EIS must assess the proposal against the relevant environmental planning instruments'*, which includes State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (SEPP 33). SEPP 33 presents a systematic approach to planning and assessing proposals for potentially hazardous and offensive development for the purpose of industry or storage and applies to any proposals which fall under the policy's definition of *'potentially hazardous industry'* or *'potentially offensive industry'*.

A potentially offensive development means a development for an industry, that without appropriate measures, would emit a polluting discharge in a manner that may have a significant adverse impact. As the current operations (as well as any future operations) require an Environment Protection Licence under the Protection of the Environment Operations Act 1997, this is considered to be potentially offensive. As such, the proposed re-development is considered to be a 'potentially offensive' development.

It is noted that the application was referred to Council's Environmental Management Team who raised no concerns with the current operations being considered potentially offensive under SEPP 33. Furthermore, the application was referred to the Environment Protection Authority (EPA) who have issued General Terms of Approval under the Protection of the Environment Operations Act 1997. In this regard, it is considered that any issues raised by SEPP 33 have been adequately resolved.

State Environmental Planning Policy No 55—Remediation of Land

Clause 7 of State Environmental Planning Policy No. 55 (SEPP 55) outlines the following requirements that a consent authority must consider prior to the issue of a consent for any development:

A consent authority must not consent to the carrying out of any development on land unless:

- (a) it has considered whether the land is contaminated, and*
- (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

It is noted that the relevant Environment Protection Licence for the existing use is EPL No. 4068 which includes the following provision:

Closure Plan

06.28 - The licensee must prepare and submit to the EPA, within twelve months prior to the last load of waste being landfilled, a closure plan in accordance with Section 76 of the Protection of the Environment Operations Act 1997.

This condition on the EPL requires a closure plan to be prepared and provided to the EPA prior to the last load of waste being landfilled. SUEZ has advised that they do not seek any change to this licence condition and intent to provide a closure plan at the relevant time as per this requirement. This information was reviewed by Council's Environmental Management Team and considered satisfactory. It is also noted that should approval be forthcoming, an amended EPL would be issued by the EPA maintaining a condition regarding a closure plan.

As a result, it is considered that the proposed development is compliant with the provisions of SEPP 55.

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the proposal against relevant criteria within Sydney Regional Environmental Plan No. 20—Hawkesbury-Nepean River (No 2—1997). This Policy aims “*to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context*”. The Policy requires Council to assess development applications with regard to general and specific considerations, policies and strategies.

The proposal is not found to be contrary to these general and specific aims, planning considerations, planning policies and recommended strategies of the plan. The site is not located within a scenic corridor of local or regional significance and it is considered that the proposed development will not significantly impact on the environment of the Hawkesbury-Nepean River either in a local or regional context.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 1.2 Aims of the plan	Complies - See discussion
Clause 2.3 Permissibility	Does not comply - See discussion
Clause 2.3 Zone objectives	Does not comply - See discussion
Clause 4.3 Height of buildings	N/A
Clause 4.4 Floor Space Ratio	N/A
Clause 5.10 Heritage conservation	Complies - See discussion
Clause 7.6 Salinity	Complies - See discussion
Clause 7.7 Servicing	Complies - See discussion
Clause 7.9 Development of land in the flight paths of the site reserved for the proposed	Complies - See discussion

Clause 1.2 Aims of the plan

Under the Penrith Local Environmental Plan 2010, the particular aims of this Plan are as follows:

- (a) to provide the mechanism and planning framework for the management, orderly and economic development, and conservation of land in Penrith,*
- (b) to promote development that is consistent with the Council's vision for Penrith, namely, one of a sustainable and prosperous region with harmony of urban and rural qualities and with a strong commitment to healthy and safe communities and environmental protection and enhancement,*
- (c) to accommodate and support Penrith's future population growth by providing a diversity of housing types, in areas well located with regard to services, facilities and transport, that meet the current and emerging needs of Penrith's communities and safeguard residential amenity,*
- (d) to foster viable employment, transport, education, agricultural production and future investment opportunities and recreational activities that are suitable for the needs and skills of residents, the workforce and visitors, allowing Penrith to fulfil its role as a regional city in the Sydney Metropolitan Region,*
- (e) to reinforce Penrith's urban growth limits by allowing rural living opportunities where they will promote the intrinsic rural values and functions of Penrith's rural lands and the social well-being of its rural communities,*
- (f) to protect and enhance the environmental values and heritage of Penrith, including places of historical, aesthetic, architectural, natural, cultural, visual and Aboriginal significance,*
- (g) to minimise the risk to the community in areas subject to environmental hazards, particularly flooding and bushfire, by managing development in sensitive areas,*
- (h) to ensure that development incorporates the principles of sustainable development through the delivery of balanced social, economic and environmental outcomes, and that development is designed in a way that assists in reducing and adapting to the likely impacts of climate change.*

As discussed within this report, the subject site is located within the area identified by the Western Sydney Aerotropolis Plan which is marked as being the main strategic planning document for the development of land around the future Western Sydney Airport. As to be further discussed within this report, the Aerotropolis Plan has identified the subject site as being located within a future enterprise area which does allow for the provision of a waste or resource management facility as a permissible land use. In this regard, the continuing operation of the facility is not contrary to the desired future uses in this area alongside the development of the Western Sydney Airport. It is also noted that the draft Western Sydney Aerotropolis Plan has identified the rezoning of initial precincts (one of which the subject site is located within, being the Badgerys Creek Precinct) by mid 2020.

Noting the above and as discussed within this report, approval of the subject proposal would be consistent with the future vision for the area, would result in an orderly development and as per commentary provided by the Environment Protection Authority as well as other external bodies, would not create an inappropriate environmental impact to existing and future surrounding uses subject to any forthcoming consent being appropriately conditioned.

Noting the above, approval of the proposal is not considered to be inconsistent with the aims of the Penrith Local Environmental Plan 2010.

Clause 2.3 Permissibility

The provision of a '*waste or resource management facility*' which includes the definition of a '*waste disposal facility*' is a prohibited use within both the subject site's RU2 Rural Landscape and E2 Environmental Conservation zonings under Clause 2.1 of the Penrith Local Environmental Plan 2010. While so, Division 23, Clause 121(2) under '*Development permitted with consent*' of the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) allows for the provision of a waste or resource management facility with consent on land in a prescribed zone.

It is noted that Clause 120 '*Definitions*' in the ISEPP identifies the RU2 Rural Landscape zone as being a prescribed zone. The subject area as part of this Development Application is confined to the RU2 zoned land with the ISEPP not permitting the development of a waste or resource management facility within land zoned E2. In this regard, the continued operation of the facility within the RU2 zone is permissible with consent under the provisions of the ISEPP.

This Development Application also seeks to replace parts of DA451/89 (as modified) to allow operation of the remaining area of landfill on land zoned E2 Environmental Conservation. The operation of the facility upon the E2 zoned land is dependent upon the 'existing use' provisions of the Environmental Planning and Assessment Act 1979. As to be discussed within this report, it is considered that Section 4.17 of the Environmental Planning and Assessment Act 1979 provides for a mechanism by which a condition can be imposed upon a development consent requiring the modification of another development consent or existing use.

Clause 2.3 Zone objectives

The proposal is located within an existing RU2 Rural Landscape zoning which provides for the following zone objectives;

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To minimise conflict between land uses within the zone and land uses within adjoining zones.*
- *To preserve and improve natural resources through appropriate land management practices.*
- *To ensure development is compatible with the environmental capabilities of the land and does not unreasonably increase the demand for public services or public facilities.*

As discussed within this report, the provision of a waste or resource management facility is not a permissible use within the RU2 zone but is permissible under the State Environmental Planning Policy (Infrastructure) 2007. Furthermore, were the proposal not permissible under a separate environmental planning instrument, the existing operations maintain existing use rights in regard to the continuance of the current approval being DA451/89 (as modified).

Noting the above, non-compliance with the objectives of the RU2 zone is accepted in this instance due to the continued operations of the subject site over the last 30 years and based on established permissibility under the State Environmental Planning Policy (Infrastructure) 2007.

Clause 5.10 Heritage conservation

The subject site is located in the vicinity of two heritage items of local significance as provided by Schedule 5 'Environmental Heritage' of the Penrith Local Environmental Plan 2010 as follows;

- No. 1793 - 1951 Elizabeth Drive, Badgerys Creek (McGarvie-Smith Farm), adjoining the site to the south west, and
- No. 885a Mamre Road, Kemps Creek (The Feurs Radio Telescope Site), located to the north of the subject site.

The immediate impact to the significance of these existing heritage items is not considered significant noting their distance from the subject site and the identified continued operations. In this regard, no concerns are raised in regard to heritage impacts.

Clause 7.6 Salinity

The subject site is affected by moderate salinity. While so, it is considered that appropriate environmental measures can be taken to avoid or reduce any undesirable effects that may be created as a consequence of the proposed modification of the existing development.

Clause 7.7 Servicing

Clause 7.7(1) and (2) of the LEP states that:

(1) The objective of this clause is to ensure that development and any land to which this Plan applies reflects the availability of services.

(2) Before granting development consent for development on any land to which this Plan applies, the consent authority must be satisfied that:

- (a) the development will be connected to a reticulated water supply, if required by the consent authority, and*
- (b) the development will have adequate facilities for the removal and disposal of sewage, and*
- (c) if the development is for seniors housing, the development can be connected to a reticulated sewerage system, and*
- (d) the need for public amenities or public services has been or will be met.*

The objective of the clause is to ensure that development of land reflects the availability of services. As the subject site maintains an existing waste and resource management facility, it is considered that adequate information has been provided via the accompanying Environmental Impact Statement to satisfy Council that adequate connection can be made to service the development in the future. The proposal is therefore satisfactory having regard to the objectives and specific matters required under Clause 7.7(1) and (2) of the LEP.

Clause 7.9 Development of land in the flight paths of the site reserved for the proposed

The objective of this clause is to ensure that development in the vicinity of the proposed Badgerys Creek airport site:

- (a) has regard to the use or potential future use of the site as an airport, and*
- (b) does not hinder or have any other adverse impact on the development or operation of an airport on that site.*

A submission has been received from the Federal Department of Infrastructure, Transport, Cities and Regional Development as well as from the Western Sydney Airport Authority. Issues raised in the correspondence include the management of gas flaring, plume rise assessment, wildlife/bird hazard management, obstacle limitation surface requirements and traffic and environmental impacts. These issues are discussed in detail in the submissions section of this report with conclusions considered to identify that the issues raised have been resolved or may be appropriately conditioned were consent is forthcoming.

Accordingly, it is accepted via a response to the concerns raised that both objectives (a) and (b) contained in this clause can be achieved.

Section 4.15(1)(a)(ii) The provisions of any draft environmental planning instrument

The following discussion is provided in regard to the applicable draft Aerotropolis Plan currently applicable to the subject site.

Background

On 21 August, 2018, the NSW Department of Planning, Industry and Environment (DPIE) released for public exhibition, the *Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (LUIIP)*. The LUIIP was placed on public exhibition until 2 November, 2018. The purpose of the LUIIP was to set the strategic direction for the Western Sydney Aerotropolis. The subject site was identified as being located within the LUIIP. In this regard, the LUIIP identified the subject site as being located within the Badgerys Creek Initial Precinct which under Clause 8.2 of the LUIIP was identified as providing for the following key features:

Directly adjoining the Airport to the east and Aerotropolis Core to the south, the Badgerys Creek precinct will support airport operations and the new urban centre. Affected by aircraft noise, it is not suitable for noise sensitive land uses. However, it will meet demand for a range of employment generating uses that do not require or benefit from direct access to public transport but which would benefit from proximity to airport operations and the new urban centre. Residential development is not appropriate.

The subject Development Application was subsequently lodged with Penrith City Council on the 17 July, 2019. In this regard, at the time that the Development Application was lodged, the relevant future strategic planning document for the subject site and its immediate surrounds was the LUIIP.

Current Draft Plan

On the 6 December, 2019, the *Western Sydney Aerotropolis Plan - Draft for Public Comment (WSAP)* was released. The draft document was placed on public exhibition from the 6 December, 2019 to the 13 March, 2020. In addition to the WSAP, the following further documents were also provided for exhibition during this period;

- *Western Sydney Aerotropolis Discussion Paper on the proposed State Environmental Planning Policy*

- (SEPP Discussion Paper), and
- Draft Western Sydney Aerotropolis Development Control Plan (Draft DCP) Phase 1.

The WSAP has identified the following time frame for future planning of the Aerotropolis;

- *Rezone initial precincts by mid-2020.*
- *Exhibit precinct plans by mid-2020 and finalised by late 2020.*
- *Commence master planning of large sites, subject to statutory requirements.*
- *Retain existing zoning under Liverpool LEP 2008 or Penrith LEP 2010 until precincts are rezoned under Aerotropolis State Environmental Planning Policy.*
- *Sequence precinct planning and rezone to match infrastructure provision and the rate and nature of development in initial precincts and adjoining areas.*

The LUIIP had previously identified land around the subject site as being 'Flexible Employment' which is maintained by the WSAP. This is further expanded upon within the *Western Sydney Aerotropolis Discussion Paper on the proposed State Environmental Planning Policy (SEPP Discussion Paper)* which has indicated that four broad zone types will be provided throughout the Aerotropolis area to allow for greater site design and flexibility. These four zones are as follows:

- Enterprise Zone;
- Mixed Use Zone;
- Environment and Recreation Zone; and
- Agribusiness Zone.

In addition, the following standard instrument zones will apply;

- SP1 Special Activities (Airport) Zone;
- SP1 Special Activities (Commonwealth Zone); and
- SP2 Infrastructure Zone.

The majority of land provided within the Badgerys Creek Precinct is identified as being zoned as an 'enterprise' zone as shown on the Land Zone Map under Section 3.2.1 of the WSAP. This map shows that the subject site provided as part of this Development Application which is currently zoned RU2 Rural Landscape under the Penrith Local Environmental Plan 2010 is identified as being proposed to be an Enterprise Zone under the future SEPP. In addition, the existing western portion of land provided as E2 Environmental Conservation in relation to the existing use is identified as maintaining an Environment and Recreation Zone in the future SEPP.

Clause 3.8 of the *Western Sydney Aerotropolis Discussion Paper on the proposed State Environmental Planning Policy (SEPP Discussion Paper)* identifies the proposed land use table for each future zone. It is noted that a 'waste or resource management facility' is identified as being permitted with consent in the future Enterprise corridor.

The continued operation of the existing waste or resource management facility is therefore considered to align with a permissible use (subject to consent) within the future 'Enterprise Zone' to be provided to the subject site forming part of this Development Application.

Further to the above, the proposed Land Use Table has identified the following objectives for the draft Enterprise zone:

- *To ensure a range of uses that enable successful aerospace and defense industries.*
- *To manage the transition of land from non-urban uses to employment uses.*

- *To support the development of well-planned and serviced new urban communities in accordance with the Precinct Indicative Layout Plan.*
- *To safeguard land used for non-urban purposes from development that could prejudice the use of the land for future commercial land use purposes.*
- *To encourage a precinct built around professional services, high technology, food production and processing, health and education and creative industries.*
- *To ensure the land which has the potential to impact environmental conservation areas is developed appropriately and enhances biodiversity outcomes for the Precinct.*
- *To protect the operations of the Airport, including 24-hour operations, and provide appropriate protections for the community.*
- *Ensure there are no sensitive land uses (such as residential, aged care, early education and childcare, educational establishments and hospitals amongst other uses) located within the ANEC 20 and above contours.*
- *Ensure that the land uses up to the ANEC 20 contour are subject to appropriate design and construction standards to reduce any potential for airport noise impacts.*
- *Prevent potential conflicts between airport operations and land use/development outcomes.*

An assessment of the Development Application as discussed within this report is not considered to identify that the continued use of the site for landfill operations will be contrary to the above objectives. While it is acknowledged that a Precinct Plan for Badgerys Creek is currently not available, the use is a current commercial employment operation which does not provide for any further development within the identified 'Environment and Recreation' zone (adjoining directly to the west) while maintaining the envelope of landfill works within the future 'Enterprise' zone. The existing and future operations are not noise sensitive (noting its location within ANEC contours of between 20 and 35), while subject to conditioned environmental management, its relationship with adjoining future industrial and commercial uses can be appropriately managed until the site ceases operations, is capped and will then present as a grassed hill.

It is also noted that the forecasted land filling of the site under the proposed 950,000 tonnes per annum will provide for a conclusion to operations by 2031. While this date is over a decade away, a long term analysis of the site's usage is considered to identify the finalisation of a use (albeit identified as permissible) in an area now subject to new operational planning controls, which would also minimise possible risks in terms of environmental impacts on future surrounding uses.

Clause 8.3 of the *Western Sydney Aerotropolis Discussion Paper on the proposed State Environmental Planning Policy (SEPP Discussion Paper)* also provides a discussion in relation to development applications submitted prior to precinct planning, noting that the rezoning and exhibition of precinct plans is expected to occur in mid 2020. In this regard, the following is identified;

The proposed SEPP will require for DAs submitted after notification of the proposed SEPP but prior to precinct planning being finalised, that the consent authority cannot grant consent unless they are satisfied of certain matters have occurred to prevent ad hoc and unplanned development. These considerations will include requirements to:

a) consider whether the proposal:

- i. is consistent with the Western Sydney Aerotropolis Plan published by the Department on its website;*
- ii. is incompatible with land uses in any environmental planning instrument applying (or proposed to apply) to the land, or would result in fragmentation of landholdings;*
- iii. makes provisions for or with respect to infrastructure services and does not hinder the orderly and coordinated provision of infrastructure across the Aerotropolis.*

b) has the concurrence of the Secretary of the Department and relevant concurrences from State Government agencies.

The following responses are provided to each of the above points;

- a) i. Discussions within this section of the report have identified that the continued use of the existing facility would provide for a use permissible within the future 'Enterprise Zone' within the WSAP.
- a) ii. The current operations are permissible under the provisions of Clause 121(1) of the State Environmental Planning Policy (Infrastructure) 2007. In addition, the proposal is a use permitted with consent in the future 'Enterprise Zone' as identified in the WSAP. The proposal will also not alter any existing land boundaries.
- a) iii. The proposal is not considered to increase the requirements for infrastructure and will maintain existing operations. Its impact upon the re-development of adjoining lands subject to the provision of appropriate conditions with any consent granted is considered acceptable.
- b) The proposal has been identified as a designated development. In this regard, Secretary's Environmental Assessment Requirements (SEARs) were provided by the Department of Planning, Industry and Environment on 20 July, 2018 and these have been addressed within the Environmental Impact Statement accompanying this Development Application.

Noting the above discussion, it is considered that the Development Application is in line with the future strategic direction of the draft Aerotropolis Plan applicable to the subject site and its surrounds.

Section 4.15(1)(a)(iii) The provisions of any development control plan

Development Control Plan 2014

Provision	Compliance
DCP Principles	Complies - see Appendix - Development Control Plan Compliance
C1 Site Planning and Design Principles	Complies - see Appendix - Development Control Plan Compliance
C2 Vegetation Management	Complies - see Appendix - Development Control Plan Compliance
C3 Water Management	Complies - see Appendix - Development Control Plan Compliance
C4 Land Management	Complies - see Appendix - Development Control Plan Compliance
C5 Waste Management	N/A
C6 Landscape Design	N/A
C7 Culture and Heritage	N/A
C8 Public Domain	N/A
C9 Advertising and Signage	N/A
C10 Transport, Access and Parking	Complies - see Appendix - Development Control Plan Compliance
C11 Subdivision	N/A
C12 Noise and Vibration	Complies - see Appendix - Development Control Plan Compliance
C13 Infrastructure and Services	Complies - see Appendix - Development Control Plan Compliance
D5.1. Application of Certification System	N/A
D5.2. Child Care Centres	N/A
D5.3. Health Consulting Rooms	N/A
D5.4. Educational Establishments	N/A
D5.5 Parent Friendly Amenities	N/A
D5.6. Places of Public Worship	N/A
D5.7. Vehicle Repair Stations	N/A
D5.8. Cemeteries, Crematoria and Funeral Homes	N/A
D5.9. Extractive Industries	Complies - see Appendix - Development Control Plan Compliance
D5.10 Telecommunication Facilities	N/A
D5.11 Boarding Houses	N/A

Section 4.15(1)(a)(iiia) The provisions of any planning agreement

There are no planning agreements applying to the proposal.

Section 4.15(1)(a)(iv) The provisions of the regulations

The relevant prescribed conditions of the Regulations, such as the requirement for compliance with the Building Code of Australia, will be imposed as conditions of consent where applicable. Subject to the recommended conditions of consent, the proposed development complies with the requirements of the *Environmental Planning and Assessment Regulation 2000*.

Section 4.15(1)(b) The likely impacts of the development

Context and Setting

The existing SUEZ landfill operations have been maintained on the subject site for nearly 30 years following the approval of DA451/89. Previous to this approval being granted, the subject site was used for quarrying activity. DA451/89 has been modified on a number of occasions in relation to the current approved activities on the subject site. The subject site currently provides for an environmental buffer to Badgerys Creek directly adjoining to the west while rural uses over a number of land ownerships are currently located to its north (towards the Twin Creeks Estate), to its south (towards Elizabeth Drive) and to the west of the subject site (towards Mamre Road).

As discussed within this report, the nature of land uses within the immediate context of the subject site are expected to change in the upcoming years to reflect new land use zoning controls associated with the greater development of the Western Sydney Airport precinct under the Western Sydney Aerotropolis Plan. For the Badgerys Creek Precinct this is identified as being provided primarily in the form of an 'Enterprise' zone allowing for flexible employment but no additional residential dwellings. The immediate impact of future changes will therefore see a move away from the surrounding rural land uses towards areas being rezoned for commercial, industrial and infrastructure uses. Following on from such changes, it is also expected that many of the existing rural-residential landowners will leave the area as re-development in line with the new Aerotropolis planning controls commences.

To the west of the subject site, the site's relationship with Badgerys Creek is not expected to alter noting that its western portion (not part of this proposal and currently zoned E2 Environmental Conservation) is identified as being re-zoned to an 'Environment and Recreation Zone'. In this regard, it is considered that the immediate context of the relationship to this watercourse will not be dramatically altered. The current proposal providing for a request to modify DA451/89 so as to be only geographically applicable to the E2 zoned portion of the subject site, is also considered in principle to maintain the status quo for this western portion of land adjacent Badgerys Creek.

Furthermore, Badgerys Creek will form part of the new Wianamatta-South Creek Precinct which will maintain a landscape buffer to the Northern Gateway Precinct directly to its west. A review of draft planning controls for the Northern Gateway Precinct has identified that its eastern portion will be dominated by the new 'Enterprise' zone and infrastructure, including the proposed M12 motorway corridor and a potential East-West rail link which connects onto the proposed Sydney Metro Greater West along with industrial and commercial uses. The future M12 motorway is identified as continuing in an easterly manner so as to be positioned directly adjoining the northern boundary of the subject site and then redirecting towards the future airport in the vicinity of between 750m to 850m to the west of Badgerys Creek.

Noting the above, the expected setting for adjoining property directly to the north of the subject site is in the form of the M12 motorway which will provide direct access to the Western Sydney International Airport at Badgerys Creek and connect to Sydney's motorway network. The status of the M12 motorway is that submissions in relation to its Environmental Impact Statement closed in November 2019 with the project expected to commence construction in early 2022 and an expected completion date before the opening of

the Western Sydney International Airport in 2025.

Based upon the foreseeable changes to the west and north of the subject site, the context of the proposed changes via additional landfill is not considered to create an inappropriate future relationship, to an area primarily dominated by infrastructure features and a number of commercial or industrial uses.

Directly adjoining the subject site to the west is a large parcel of land, being No. 1669a Elizabeth Drive which is currently rural in nature. Adjoining this site to the south and to the south east of the SUEZ site is No. 1669 - 1723 Elizabeth Drive which is subject to a current Development Application with Penrith City Council (DA19/0826) for the operation of a waste management facility by the Importation of fill, including demolition of existing structures, bulk earthworks, tree and vegetation clearing and dam de-watering and decommissioning. It is noted that this is the second application for a waste management facility on this adjoining parcel of land (following DA19/0319 which was withdrawn by the landowner). The current application provides for a mixture of cut and fill to the adjoining site providing for a total of 528,803m³ of fill upon the site. It is noted that the application does not seek consent for the creation of building pads, warehouse buildings or internal road networks and only seeks consent for a waste disposal facility; site-specific building works will be subject to future development applications for the site.

Taking into consideration the adjoining proposal currently under assessment by Penrith City Council and also to be reported to the Sydney Western City Planning Panel for determination, the proposal to the south east of the subject site is not considered dissimilar to the current proposal (each serving as a waste disposal facility), notwithstanding any environmental impacts which will be discussed later within this report. While not directly adjoining, it is noted that an existing extractive industry and resource recovery facility is also located to the east of the subject site, at No. 1513-1519 Elizabeth Drive, Kemps Creek with consent granted under DA09/0164.

Adjoining the subject site directly to the south (extending to Badgerys Creek to the west) are three (3) separate parcels of land, being 1783-1789, 1763-1781 and 1745-1761 Elizabeth Drive. These land parcels have not been identified for re-development and are currently buffered from operations on the subject site by buffer vegetation. Adjoining these sites to the east and alongside the carriageway from Elizabeth Drive to the current SUEZ operations, is No. 1725-1743 Elizabeth Drive which currently operates as a Resource Recovery Facility under Development Consent DA16/0722 issued by Penrith City Council on the 12 April, 2018.

Noting the above direct surrounding uses, the continued operation of the proposal is not considered to be out of context with the site's immediate surrounds. As discussed, the M12 motorway is proposed directly to the north with further transport infrastructure proposed to the west of Badgerys Creek. To the south east of the site is a current proposal for a waste management facility and directly to the south of the subject site are the current operations of a resource recovery facility. The operation of waste facilities is considered common for this part of Elizabeth Drive with three identified within a distance of 2km of each other and a further separate application currently under assessment by Council and to be reported to the Sydney Western City Planning Panel for determination. The proposal (which has been maintained for an extended period of time) has also identified the retention of all landscaping buffers currently existing along the site's boundaries which will assist in maintaining the current at grade relationship between properties in the future.

Relationship with future Western Sydney Airport

Construction of the future Western Sydney Airport is currently being conducted along the southern side of Elizabeth Drive, approximately 800m to the south west of the subject site. The future airport is planned to have 24-hour and curfew-free operations and is expected to open in December 2026. Under the current consent, the provision of an average of 750,000 tpa of landfill to the subject site is anticipated, meaning

that the current RL 80m capped level would be reached by 2025 prior to the airport becoming operational. The subject proposal with a maximum of 950,000 tpa of landfill to be imported to the subject site would extend the life of the facility to 2031 when the airport will be operational.

The subject site in this regard is identified as being located directly under the future approach and departure flight paths of the airport. It is considered that the following potential safety concerns are related to the current operation which may impact upon the future airport as follows; the Western Sydney Airport airspace (obstacle limitation surface), plume rise/air turbulence from future gas flaring on the subject site, and landscaping and wildlife management. These are discussed separately below.

a) Obstacle Limitation Surface

The SUEZ site and its associated landfill operation is subject to the Western Sydney Airport Obstacle Limitation Surface (OLS). The OLS is a series of virtual surfaces around a runway and airspace which establish height limits for objects in the vicinity of airports to ensure that aircraft can safely arrive or depart from a runway. The subject site is identified as maintaining a transitional surface within the OLS ranging from approximately 118.8m AHD to 125.5m AHD.

The current operational approval is provided with a maximum height of RL 80m with the subject application identified as increasing this maximum height by 15m to RL 95m. In this regard, it is not considered that the finished land form as part of this application will impact upon the safety of arriving or departing aircraft as it is below the OLS from between 23.8m to 30.5m.

During the assessment of the proposal it was identified under Section 3.1 of the accompanying Environmental Impact Statement that, *'For operational reasons and prior to the finalisation of the cap it will be necessary to temporarily place stockpiled quarried material on or near the top of the cap. These temporary stockpiles would not exceed 10 metres (or RL 105m) and would be removed prior to the final capping of the landfill'*. Clarification was requested from the applicant who has advised that temporary stockpiles would not be placed upon the final cap creating no projected elements above the proposed RL 95m level.

Taking into consideration the maximum OLS height provided to the subject site and the future maximum landfill RL as part of this application, it is not considered that aircraft will be impacted by any safety concerns upon arrival or departure to an operational Western Sydney Airport.

b) Gas Flaring

Landfill gas is currently combusted and flared on the subject site in association with existing operations. Approval for this flaring in the form of a gas to energy system was approved by Penrith City Council in 2013 under DA12/0515. It is noted that this consent is not time limited but is rather constrained by the production of gas at the site including future ongoing rehabilitation works following the completion of landfilling. In this regard, it is acknowledged that gas flaring will be operational at the time of the opening of the Western Sydney Airport and as indicated by the accompanying Environmental Impact Statement will continue for at least 30 years after the cessation of landfilling.

Chapter 15 'Hazards and risk' of the accompanying Environmental Impact Statement provides in part the following commentary under Clause 15.4 - Western Sydney Airport considerations;

SUEZ has also provided additional detail about the landfill gas flaring operations that are ongoing at the Site. It is noted that these would be no increase to the rate of gas flaring as part of the Project, though the overall duration of this activity would extend based upon the greater volume of waste to be landfilled.

The following commentary is also provided;

Landfill gas is currently combusted and flared on-site. This would continue during the prolonged filling operations at the landfill, and for several decades beyond final capping. Whilst no plume rise assessment has been undertaken, the potential for interference with aircraft operations is expected to be minimal. SUEZ has engaged with Western Sydney Airport in relation to bird strike and plume risks, and would continue to do so prior to the commencement of the airport's operations.

The increase in gas generation associated with the proposal is identified to be in relation to the total volume of gas captured and burnt over the full life of the gas to energy system rather than an increase to the velocity of gas exiting the current flare/combustion system. In this regard, the proposal will not create an increase to the rate of gas flaring while identifying that the additional volume of waste proposed will extend the period that the gas flaring will be in operation.

Noting the above, it is not considered that the continued operation of the gas flaring on the subject site will pose an immediate hazard to the operations of the future Western Sydney Airport, as the rate will be maintained in line with current operations. It is noted that the accompanying Environmental Impact Statement for the future Western Sydney Airport also included a hazard and risk review on the operations of the airport. A review of this EIS for the airport has identified that immediate concerns discussed included aircraft accidents, bird and bat strike, remotely piloted aircraft, fuel storage fires, bush fires, flooding, high structure/terrain strikes and terrorism as possible concerns to consider with no mention provided of operating gas flaring on the subject site.

c) Landscaping and Wildlife Management

The existing landfill operations currently provide for non-putrescible material to be provided to the subject site. This is identified to continue with no variation proposed to the nature of landfill to be provided. As non-putrescible waste is primarily provided from demolition works, construction works or alterations to a building, and does not contain food waste, the potential for wildlife (for instance in the form of birds) to be attracted to the subject site is considered minimal.

This is considered to maintain an acceptable safety level for aircraft departing from or arriving to the Western Sydney Airport as future works will not alter the current scenario in the form of materials received and potential to attract wildlife.

While not part of the subject application, consideration needs to be given to the nature of any capped land form on the subject site following the completion of landfilling operations. In this regard, it is expected that the final capped landfill surface will be stabilised using a mix of grass species and maintenance via mowing. While acknowledging that it is uncertain when this will occur as existing operations are not time limited but dependent on the rate of fill provided to the subject site, the transformation of the site to a landscaped feature may also attract wildlife to the subject site. In this regard, were approval forthcoming, it is considered appropriate that a condition be included requiring any future landscape plans to be reviewed by an ecologist (or suitably qualified person) to identify and minimise the possibility of future impacts to the airport operations in terms of the possible attraction of wildlife.

Visual Impact

The provision of additional landfill to the existing operations will result in a change to the visual environment around the site. Changes to the broad height and landform of the capped area of the site will provide for subsequent changes to the visibility of the site from surrounding areas. The current operational approval provides for a peaked mount (at RL. 80m) which falls to each boundary and is considered to present as a mounded hill. Noting the existing topography of the lands surrounding the subject site, with RL figures

provided of 50m and 55m to the eastern boundary, 50m and 45m to the southern boundary, between 40m to 55m on the eastern boundary and 45m along the northern boundary, the current approved overall height of the proposed final landfill works would equate to a mounded hill varying between 25m to 40m in height dependent on which site boundary is the vantage point.

At present, operations on the site have provided for a RL of 75m to the centre of the landfill area. This is a current maximum level with the remainder of the site provided with varied operating heights reflective of work currently conducted in individual cells within the landfill area. In this regard, the subject site may be best described as a patchwork operation, with work provided at various areas at any given time. Council has been advised that at present approximately 4 million tonnes of landfill would have to be provided for the site to reach capacity with its current operational consent. Noting the estimated figure of an average of 750,000 tpa, capacity would be expected to be reached in the next 5 or so years at this rate.

A review of the proposed landfilling works as part of this application has identified that the proposed finished mound has been modified to provide for greater angled slopes from each boundary with benching intermittently located within each elevation. Rather than maintaining a traditional peaked top as per the current situation, the proposal would provide for a generally wide flat topped area with plans identifying greater distances between RL 90m to RL 95m as compared to the spacing indicated between RL 60m and RL 80m, highlighting the angled presentation leading up to a flat hill scenario. Operations are also proposed to be provided in 3 stages to the proposed landfill creating a scenario of certain areas being built up and completed before others prior to the overall finalisation of the proposed flat hill landform.

The application has been accompanied by a Visual Impact Assessment forming part of the supporting Environmental Impact Statement which details visual receptors from either residential areas or from public roads. These visual receptors provide visual impact assessments from two locations on Elizabeth Drive, to the south east of the subject site from a residential/employment area (Liverpool Council), Luddenham Road to the west, Twin Creeks residential development to the north, with the remaining visual reception points taken from either the east or north east of the site from Mamre Road (three locations) and Mount Vernon. Following a request for further information from Penrith City Council, a further visual impact assessment was provided with three additional visual receptors provided in closer vicinity of the site directly to its south, east and to the north giving consideration of the location of the future M12 motorway.

In the assessment of the visual impact created by the subject proposal upon its surrounds, it is considered prudent to note that in the years leading up to and following the completion of the Western Sydney Airport, the area surrounding the subject site will be open to significant changes. These works are anticipated to be in line with the Aerotropolis Plan (primarily in the form of industrial and commercial development), the constriction of two new motorways in the M12 (directly to the north of the site including interchange areas) and the M9 (to the west of the subject site) and expected upgrade works to Elizabeth Drive.

From visual receptors to the east of the subject site (for instance from Mamre Road and Mount Vernon), the impact of works proposed is considered minimal noting the existing topography and distance provided (being in the range of 2km to 3km). This is also considered the case for future impacts provided from Luddenham Road to the west, noting also the future works expected in the area which will contribute to general changes in the character of the area. Views from the south east (from Elizabeth Drive and areas of the Liverpool Council area) are also not considered to be significantly impeded with fleeting views from motorists along Elizabeth Drive provided. From the mixed rural-residential employment areas within the Liverpool Council area, the subject site is not considered to provide for any visual prominence noting the mix of uses within this area (maintaining a mixture of buildings and landscaped elements) which are considered to serve as greater visual detractors than the subject site's landform viewed at a distance. In this regard, it is considered that the proposed landfill operations with the present rural surrounds will create a low visual impact to areas in the vicinity of 2km to 3km away from the subject site.

The Twin Creeks residential estate is located from a distance of 800m north of the subject site, with the Golf Clubhouse for instance at a distance of 2.5km away. A review provided within the accompanying Visual Impact Statement has identified a moderate to high visual impact created by the new landfill, with the top half of the landfill operations to be visible from residential properties on the southern edge of the estate. While noting the degree of impact created, it is considered that this may be partially mitigated in the future via the site capping and landscaping in the form of a grass cover which would be reflective of the Twin Creeks pastoral surrounds. It is unclear as to what impact the provision of the M12 motorway (between the subject site and the Twin Creeks estate) will have visually on residents and if this will serve to minimise the visual impact of the subject proposal noting some sections of the motorway are to be elevated over Badgerys Creek for instance. Visual analysis taken from the south west of the subject site along Elizabeth Drive has also identified a moderate to high visual impact created by the proposal (at around 1,500m from the site). Views would primarily be from motorists travelling along Elizabeth Drive rather than from established residential areas. In analysing the changes to the views created, it is noted that the existing landform is in the nature of open paddocks which will be dramatically transformed in the future via the expected provision of industrial and commercial uses west of Badgerys Creek as well as the road infrastructure connecting the future M12 motorway to the Western Sydney Airport. In this regard, while noting a visual impact will be created, it is considered that future developments in building forms of various heights and sizes will assist in screening the proposal from passing motorists along Elizabeth Drive.

As previously identified, following a request from Penrith City Council further visual analysis was provided directly to the south, east and north of the subject site, the northern analysis considering the location of the future M12 motorway abutting the subject site. Both the eastern and southern boundary of the subject site currently maintain buffering vegetation which is to be retained with the subject proposal. Each of these sides are likely to be occupied with future industrial development in line with the future zoning identified which may provide for a mixture of storage areas, property fencing and vehicle manoeuvring areas as well as future built forms. While assumptions may only be provided presently in regard to future adjoining land uses, it is noted that the future landfill will provide for a more engineered form with a relatively flat top. Noting these points, it is considered that with the existing landscaping to the subject site's perimeter to be maintained, the primarily background view from each of these adjoining properties would consist of the upper level of the landfill, which when capped will identify as a large grassed flat topped mound. As views from either property would be blocked due to existing works, the additional landfill will not further diminish non-existent vistas. The immediate visual impact from properties adjoining to the east and south is therefore not considered significant noting the retention of the boundary landscape buffer screening surrounding the landfill operations and future uses which will be maintaining views of the upper levels of a landscaped mound which would also occur were the existing consent finalised.

Views of the subject site from the future M12 motorway would see motorists approximately 150m to the site's north. The proposed fill is considered to be visible in the background of the view provided to motorists, but while so prolonged attention to this view is considered to be low, noting the speed it is anticipated that vehicles will be travelling in either direction. In addition, while details have not been finalised, it is considered that sections of the M12 motorway will also provide for additional features such as motorway signage, landscaping or built form features to capture the attention of motorists, especially in a section which would be traversing Badgerys Creek. In this regard, the impact on motorists is not considered significant.

Noting the points raised above, it is considered that the visual impact created by the proposal is generally acceptable. While acknowledging that the dynamics of the landscaped mound will change into a higher form with a flatter cap via the subject application (as compared to the present approval providing for a rounded high point), from afar the visual impact is not considered significant while at closer range, retention of perimeter landscaping will assist in mitigating the overall impact of the larger adjoining form to future expected industrial and commercial uses.

Environmental Considerations

As the site currently maintains an operational Environment Protection Licence and noting that the operations are considered to be designated development, the application was referred to the NSW Environment Protection Authority (EPA) to give due consideration to the environmental impacts created by modifications to the existing landfill site. In this regard, the following environmental concerns are discussed below.

a) Pipe Loading Assessment for Leachate Extraction

Leachate (being water that has percolated through a solid and leached out some of the constituents) is currently generated at the subject site through the landfill body and from the moisture content of certain disposed waste. At present, waste cells exist on the subject site which provide for the leachate to percolate through the waste, until it reaches the landfill liner and drains to the leachate sump. Leachate is collected via a grid of trapezoidal shaped drains incorporated in the bottom of each cell liner. These drains are filled with porous material and slope to header lines leading to a collection sump in each cell. Leachate is then removed from the sump and transferred to four on-site storage tanks.

Upon initial referral, EPA concerns were returned in regard to the leachate pipe strength assessment and pipe loading assessment. In this regard, technical advice was prepared by GHD dated February, 2020 and returned to the EPA for their consideration. This advice provided for a leachate pipe strength assessment concluding that the leachate collection system would not be adversely affected by the proposed additional fill with the strength of the installed and proposed leachate collection pipes in general and restricted waste cells suitable to maintain an acceptable performance. It also advised that sufficient contingency existed in the collection system to provide a suitable factor of safety should localised failures occur. Technical advice provided was reviewed by the EPA and considered acceptable with the administrative conditions of the General Terms of Approval issued by the EPA identifying that works and activities must be carried out in accordance with this document.

b) Gas Collection Pipes

Gas collection at the subject site is currently provided by the installation of vertical wells connected to an active gas extraction system. This method is expected to be continued with the modified landfill (being the installation of vertical gas wells) extending through the provided waste which is common practice in the collection of gas. It is also considered appropriate that retrofitting of additional wells as required would be undertaken as the landfill is increased to its proposed final capped height.

Noting the above, it is not considered that any environmental impacts will be generated in relation to the identified manner of infrastructure construction for the continued collection of gas. This report has previously discussed the velocity of future gas flaring in relation to the future Western Sydney Airport which has identified no immediate safety concerns for future aircraft movements.

c) Air and Odour Quality Considerations

By the nature of landfilling works, it is considered that the dispersion of dust and air quality generally is a naturally generated environmental impact upon surrounding properties. In this regard, the application was accompanied by an Air Quality Impact Assessment prepared by AECOM which provided for a description of all potential sources of air and odour emissions, an air quality impact assessment to be provided in line with the relevant Environment Protection Authority guidelines and an appraisal of air quality impact mitigation, management and monitoring measures. Wind erosion considerations were also provided for as well as consideration of other climatic factors such as periods of rainfall, temperatures throughout the year and prevailing wind patterns.

Initial commentary returned by the EPA following the receipt of the application highlighted a request for further information to be provided. Following a series of discussions and provision of additional information (up to and including February, 2020), the EPA advised that it is satisfied that appropriate measures have been included to address the managing and settling of landfill to mitigate air and odour impacts upon surrounding properties. This is identified in the conditions accompanying the issued General Terms of Approval issued by the EPA. Furthermore, information provided in relation to dust mitigation measures has identified the following active measures to be followed;

- Sealing of waste delivery haul roads, up until the last 50m of the haul/turn around area,
- Twice daily cleaning of sealed haul roads via the use of high pressures water sprays on the on-site cart to minimise dust potential,
- A continued placement of shale covers on non-active areas of the general and restricted waste cells,
- The use of tarps during the evening on the general waste cell batters to minimise the impacts of any winds,
- The placement of shale and clay cover on non-active surfaces, and
- The use of chemical stabilisers on disused shale stockpiles.

Each of the above mitigation measures are considered necessary to minimise the potential of air impurities and will be included as conditions of consent with any development consent granted.

d) Noise Impacts

The development application was originally accompanied with a noise and vibration impact statement prepared by AECOM which identified the noise and air vibration impacts for the proposal would result in a change in noise levels between the currently approved and proposed landfill operations of only 1dB(A) for any receiver. It is noted that this provided for a total of nine (9) receptors surrounding the subject site including within the Twin Creeks estate, within the Liverpool Council area and to the eastern and western adjoining properties. The increase in noise levels represented a potential noise exceedance of the existing Environmental Protection Licence noise limits of up to 8dB(A). A request for further information was identified by the EPA and relayed to the applicant.

Further amended information was received in November, 2019 and February, 2020 which was relayed to the EPA. It is noted that operations on the subject site will not provide for all equipment to be operating throughout the whole of the site's landfill cells simultaneously or all within a single landfill cell at any one time. Information provided also considered the location of the closest residential receivers but it is noted that existing rural dwellings are expected to be removed as part of the future redevelopment of the surrounding area in line with the aims and objectives of the Aerotropolis Plan's strategic direction. In addition, the location of the surrounding residential receivers identified in the noise and vibration impact assessment are located within areas to be high noise zones being positioned in areas above the ANEC/ANEF 20 associated with the future movement of aircraft from the Western Sydney Airport. As the current draft planning documents associated with the Aerotropolis seek to prohibit the development of residential uses within these zones, it is considered more likely that these uses will be overtime removed or at a minimum provided with acoustic measures to mitigate the intrusion of future aircraft noise.

Modelling was also provided in regard to the varied heights that the landfill may be at over the stages of its future operations with scenarios provided at RL 65m, RL 75m and RL 90m (minus 5m to allow for capping). This modelling identified that the noise level impacts on surrounding properties was improved (i.e. the decibel level was reduced) with higher landfill comparative to lower landfill, attributed to the enhanced barrier effect and mitigation measures provided by the landform, including an increased slant distance between working landfilling cells and receivers. In principle, the higher the works are conducted, the greater chance of a landfill barrier serving as a buffer with the angle of works at a higher point creating less noise concerns than at a lower point. Noise impacts to surrounding receivers did maintain marginal non-

compliances at a rate of 2 dB(A) during operations and 3dB(A) during capping, but while so was only identified under noise enhancing meteorological conditions.

Noise mitigation measures were also identified as being provided in the form of proposed 5m high noise protection berms (mounds of soil) and are to be positioned so as to be wrapped around the working landfill cells to assist in removing the line-of-sight between residential receivers and noise sources. The provided modelling identified that the use of noise protection beams would reduce noise impacts primarily due to the break in the line-of-sight method proposed in the vicinity of a 5dB(A) noise reduction. Capping activities also identified to create a non-compliance due to the removal of noise protection berms, but comparative to the overall operations of the landfilling proposed, capping activities are expected to be much shorter in duration.

Noting the above noise disturbances, the application via the provision of supplementary noise considerations (separate to project noise trigger levels adopted), has identified that a noise mitigation action plan would be developed within six months of any development consent being granted. This plan is intended to outline a trigger, or a group of triggers, for enacting a management response relating to the investigation and consideration of additional noise mitigation measures. Noting the measures proposed and the nature of the changing landscape surrounding the subject site, this is considered an appropriate method in response to the specific nature of noise emissions responsible for any triggers being created. Any forthcoming approval will provide for a condition of this nature.

A further supplementary noise impact assessment was provided by the applicant for the consideration of the EPA following a review of the period for the receipt of waste to the subject site. It is noted that the operational Environment Protection Licence for the subject site allows for the following hours of operation;

L6.1 All quarrying and waste compaction activities at the premises must only be conducted between the following hours: 7.00am to 6.00pm Monday to Friday; 7.00am to 5.00pm Saturdays; and 8.00am to 5.00pm Sundays and Public Holidays.

L6.2 All waste receipt activities at the premises must only be conducted between the following hours: 6.00am to 6.00pm Monday to Friday; 7.00am to 5.00pm Saturdays; and 8.00am to 5.00pm Sundays and Public Holidays.

Noting the above, the receipt of waste items between 6.00am and 7.00am from Monday to Friday is identified as being within a night period of the *Noise Policy for Industry (NPfI)* and further information was requested in relation sleep disturbance as well as amenity impacts. The NPfI identifies that the 6.00am to 7.00am time period is a shoulder period as it then progresses into a morning assessment. Information provided identified the projected noise levels as well as sleep disturbance noise levels with noise levels identified as compliant and sleep disturbance noise levels considered negligible in accordance with the definition provided by the NPfI, that is the predicted noise level minus the project noise trigger level, being identified at 2dB(A).

The above information was reviewed by the EPA throughout the assessment of the application, including a request for additional information and clarification of a number of technical points. The noise impacts from the proposal were concluded to be considered acceptable subject to appropriate conditions provided via the General Terms of Approval with part of the conditions provided identifying strict compliance with noise limits for both during the day and night at noted receptors. In this regard, it is considered that noise impacts can be appropriately mitigated were an approval forthcoming by conditions of consent in addition to conditions provided by the EPA's General Terms of Approval.

Landscaping and Biodiversity

The proposal has been accompanied by a landscape plan which has identified incorporating further screen planting along the southern and eastern side boundaries to minimise the extent of the final landform when viewed from surrounding locations. It is noted that the existing northern, eastern and southern boundaries are provided with mature landscaping which forms a distinct edge to the subject site, forming a buffer for instance between internal roadways on the subject site along the eastern and southern boundaries to its perimeter. This landscaping is considered to partially screen views of the landfill area, especially lower sections. While so, the provision of the accompanying landscape plan is not considered to clearly identify how the existing perimeter landscaping will be augmented during the operation and post completion of the proposal via the introduction of further planting to enhance this landscaped buffer.

While additional supplementary landscaping is supported and identified on the landscape plan as providing *'the reinstatement of endemic vegetation with characteristics of local plant communities to provide a constant landscape character'*, the application does not provide for an appropriate species of plants to be provided.

Noting the above, it is considered appropriate that further information including a planting species be provided for Penrith City Council's consideration and approval prior to the commencement of any works, were approval to be granted. This would enable Council to ensure that an appropriate management policy has been prepared and appropriate species selected which will survive in the varied climate of Badgerys Creek.

A review of the proposal was also conducted in relation to the requirements of the Biodiversity Conservation Act 2016. It is noted that amendments have been provided to the Biodiversity Conservation Act which require any application received on or after the 25 November, 2019 to be assessed against the updated requirements of the Act. As the proposal was received prior to this date, consideration of the new requirements is not required. While so, the proposal was reviewed under the requirements of the Biodiversity Offset Scheme and the following is identified;

- The subject site (being the RU2 zoned portion of land maintaining landfill operations), is not identified on the Biodiversity Values Map, and
- The proposal does not provide for any tree or vegetation removal and in this regard no exceedance of clearing thresholds will occur.

Noting the above, the proposal does not create any impact upon the existing biodiversity conditions within or surrounding the subject site.

Traffic and Transportation

The subject site is currently located off Elizabeth Drive, which connects traffic primarily in an east to west direction (or vice versa) from The Northern Road (west) to the M7 motorway (east). The site itself is 600m from Elizabeth Drive and provides an access road allowing for one traffic lane in each direction. This road is a public road being managed by Penrith City Council which also provides access to adjacent neighbouring rural-residential properties. This access road intersects with Elizabeth Drive as a signalised 'Give Way' intersection with a 60km maximum speed limit.

The development application was accompanied by a Traffic and Transport Impact Technical Report which has identified AM and PM peak hour traffic along Elizabeth Drive and the access road and provides the following commentary;

Site access routes for heavy vehicles were derived from traffic surveys undertaken at the intersection of Elizabeth Drive and the access road leading to the Site. Vehicles predominantly access the Site by travelling westbound along Elizabeth Drive and making a right turn into the Site Access Road. A smaller

proportion travel eastbound along Elizabeth Drive and turn left into the Site Access Road. Vehicles predominantly exit the Site by travelling southbound along the Site Access Road and turning left to travel eastbound on Elizabeth Drive, accounting for 89% of vehicles in the AM peak hour and 86% in the PM peak hour. A smaller proportion of vehicles travel southbound on the Site Access Road and turn right to travel westbound on Elizabeth Drive; 11 % in the AM peak hour and 14% in the PM peak hour.

Peak hour trips associated with the operations on the subject site were identified to be between 11am and 12pm, which identified that there was no overlap between Elizabeth Drive's peak traffic volumes from 7am to 8am. Analysis has also been provided for future operations with the project at 2025 and 2031, the latter date being the expected closure date for the site based on the proposed 950,000 tpa landfill being supplied to the existing operations. With a current landfill capacity of 750,000 tpa, 222 heavy vehicles were identified to access the site per weekday, with an average waste load per truck of 12.7 tonnes. It was then assumed that the operation of the subject site with an annual landfill capacity of 950,000 tpa would provide for 280 heavy vehicles per weekday, representing an increase in 58 heavy vehicles per day. Regarding the AM and PM peak period (being 7am to 8am and 4pm to 5pm respectively) along Elizabeth Drive, the Transport and Traffic Impact Technical Report provides the following commentary;

It is therefore expected that the Project would generate an additional 6 heavy vehicles during the AM peak hour, and 2 heavy vehicles during the PM peak hour. These heavy vehicles are expected to enter and exit the site within the same hour, and therefore it is forecast that an additional 12 heavy vehicle movements (6 in, 6 out) would be generated during the AM peak hour, and an additional 4 heavy vehicle movements (2 in, 2 out) would be generated during the PM peak period.

The current operational consent limits the number of vehicle movements per day to 780. The accompanying Traffic and Transport Impact Technical Report has identified that current vehicle rates are well below the current limit with the predicted updated total vehicle movements in relation to this Development Application being a total of 640 vehicle trips (this figure broken down to be 560 vehicle trips associated with the landfill and 80 heavy vehicle movements to the SAWT facility). In this regard, with any development consent granted, a revised figure of 640 vehicle trips is considered appropriate to include as a condition of consent and reflective of future operations.

The report provided for further analysis of the performance of the intersection of the access road and Elizabeth Drive again at forecasted at 2025 and 2031 operational levels. The level of service (LoS) was considered in multiple scenarios with the report concluding as follows;

The future modelled scenarios of 2025 and 2031 show that there are forecast operational issues at the intersection of Elizabeth Drive and the Site Access Road under the with Project and without Project scenarios:

- Future year modelling for 2025 showed no substantial decrease in the performance of the intersection. Under both the with and without Project scenarios, through traffic on Elizabeth Drive continued to operate at LoS A, with the right turn from Elizabeth Drive into the Site Access Road continuing to operate at LoS D in the AM peak hour and maintaining the same level of average delay and queue length under both scenarios. The Site Access Road continued to operate at LoS F under both with and without Project scenarios during both the AM and PM peak hours. This is due to the delay caused by vehicles turning out of the site waiting for appropriate gaps in traffic.*
- The number of vehicles making the right turn is considered to be a small percentage of the overall total of vehicles entering the Site.*
- Future year modelling for 2031 showed a deterioration in the operation of the intersection. Through traffic on Elizabeth Drive continued to operate at LoS A, however the right turn from Elizabeth Drive*

into the Site Access Road deteriorated to LoS F in the AM peak hour. Queues are expected to be contained within the holding capacity of the right turn lane on Elizabeth Drive and as such, would not obstruct westbound through traffic. The Site Access Road is forecast to continue to operate at LoS F due to constraints presented by right turning vehicles.

The increase in weekday peak hour trips is nominal, and represents an additional trip every thirty minutes during AM peak hour and every ten minutes during the PM peak hour. Although the traffic modelling presents failures at the intersection, the impact that the Project will have on intersection performance is minimal, and the modelling shows an exponential increase in delay for a minor increase in trips generated by the site due to the failures that are forecast along Elizabeth Drive given the increase in background traffic growth.

Growth in background traffic results in the mid-block reaching capacity on Elizabeth Drive by 2025. As a result, heavy vehicles will struggle to find suitable gaps to turn into the site due to the constant nature of through traffic flow, and may experience significant delays entering the site. This issue is further exacerbated year on year. This would in turn cause the performance of Elizabeth Drive to deteriorate regardless of the Project. This would suggest that upgrades would be required to increase capacity along Elizabeth Drive to cater for any projected increases in background traffic growth.

The above analysis identified a deterioration in the performance of the intersection of the access road to Elizabeth Drive as well as a desire for Elizabeth Drive to be upgraded to assist with the increased volume of general traffic over time as well as with vehicle movements associated with the subject site.

The Roads and Maritime Services (RMS) are currently undertaking the planning process for the upgrade of the whole length of Elizabeth Drive in anticipation of the future developments associated with the Aerotropolis and the future opening of the Western Sydney Airport. The proposal will provide for road widening primarily along the northern side of Elizabeth Drive and consists of the following:

- Two lanes in each direction with a wide central median between the M7 motorway and The Northern Road (14km in length),
- The provision for a future third lane in each direction,
- Pedestrian, cycling and bus stop infrastructure along the length of Elizabeth Drive to promote active transport,
- Traffic signals at a number of intersections to improve safety and increase journey time reliability. Intersections in the vicinity of the subject site to receive traffic signals are identified as follows; a) proposed new traffic light intersection and realignment of Adams Road and/or Luddenham Road, b) proposed new traffic light intersection between Badgerys Creek Road and Lawson Road, c) proposed new traffic light intersection at Martin Road and d) proposed new traffic light intersection at Western Road, and
- Any intersections on Elizabeth Drive without traffic lights would be left in, left out access only.

The upgrade project was provided with a community consultation period from June to July, 2019. During this period 43 submissions were received in response with the main issues identified including the need for additional traffic light intersections, concerns about future traffic congestion as well as concerns about impacts to properties and questions about the timing and the scope of works. Furthermore, the RMS has recently completed displaying their Community Consultation Report (March 2020) which will then be followed by the concept and environmental assessment phase which will consider any comments received and address them in further detail. It is expected that the environmental assessment phase will run from between 18 months to 2 years after which time a final business case will be prepared by the RMS.

Works proposed by the RMS in the future are considered to create a direct impact on the performance of the intersection of the site's access road and Elizabeth Drive in a positive manner by virtue of upgrade

works increasing capacity along Elizabeth Drive and improving access and safety. Furthermore, the installation of traffic lights to this 14km stretch of road (which currently does not maintain signals), especially for instance to the Elizabeth Drive and Martin Road intersection to the east of the site's access road and between Badgerys Creek Road and Lawson Road along Elizabeth Drive to the west of the site's access road, is considered to allow for improved opportunities for heavy vehicles to enter and exit the site, especially when this involves a right turn in or out of the access road.

Commentary provided by the RMS as identified above has also indicated that any intersection on Elizabeth Drive without traffic lights (as would be the scenario for the access road) would be left in, left out access only. In this regard, the concerns raised by the accompanying Technical Report in relation to right turns (while only a small portion of overall turns) are considered largely resolved via the future upgrade works. While so, prior to this occurring, trucks or heavy vehicles which do provide for right turns in and out of the site may be delayed due to the current and forecasted increased volumes of traffic. Data received has determined though that queue lengths associated with vehicles performing these turns are still considered acceptable. Furthermore, with upgrade works on Elizabeth Drive expected to be provided prior to the opening of the future Western Sydney Airport in 2026 to allow for appropriate connections to the future road system including motorways associated with the Aerotropolis, access is considered to be available to a future road system which will be greatly improved compared to the current single lane each way condition of Elizabeth Drive.

It is also noted that the application was referred to the RMS as required by the State Environmental Planning Policy (Infrastructure) 2007 with the response received raising no objection to the application. Correspondence from the RMS (dated September, 2019) indicated that investigations were being conducted in relation to the position of the future M12 motorway, but while so it is noted that an Environmental Impact Statement has been released for the M12 identifying its location not within the boundaries of the subject site.

Noting the above, the proposal is considered acceptable on traffic and transportation grounds.

Modification of existing Development Consent DA08/0958

The existing landfill and quarrying activities for the entirety of the subject site are currently provided for by Development Consent DA08/0958. This consent provides for conditions of consent which cover operations on both the existing RU2 Rural Landscape and E2 Environmental Conservation zoned portions of the subject site. As previously discussed within this report, at present the RU2 Rural Landscape zoned portion of the subject site is permitted to maintain a waste or resource management facility under the provisions of Clause 121(1) of the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP), this zoning being identified as a prescribed zone allowing for this use. The E2 Environmental Conservation zoned portion of the subject site is not identified as a prescribed zone under the provisions of the ISEPP. In this regard, this portion of the subject site may only maintain continued operations under the reliance on the 'existing use rights' provisions (Division 4.11) of the Environmental Planning and Assessment Act 1979.

Upon initial receipt of the application, clarification on the planning mechanism to modify the existing operational consent via the subject application was requested. In this regard, following the receipt of further information, the subject application proposes the following;

- The subject development application (being DA19/0470) will regulate the entirety of the current landfill operations except for the existing elements which are located along the western boundary on land zoned E2 Environmental Conservation.
- The existing elements of the landfilling operation located within the E2 Environmental Conservation zoned land (along the western boundary of the subject site) will continue to operate under the existing Development Consent DA08/0958.

- Approval of the subject development application would see it operate concurrently with the existing development consent.
- This development application seeks to exercise Section 4.17(1)(b) of the Environmental Planning and Assessment Act 1979 which reads as follows; *(1) Conditions—generally; A condition of development consent may be imposed if...(b) it requires the modification or surrender of a consent granted under this Act or a right conferred by Division 4.11 in relation to the land to which the development application relates...*
- It is also noted that Section 4.17(5) is applicable to the proposal as it also relates to Section 4.17(1)(b) reading as follows; *(5) Modification or surrender of consents or existing use rights - If a consent authority imposes (as referred to in subsection (1)(b)) a condition requiring the modification or surrender of a consent granted under this Act or a right conferred by Division 4.11, the consent or right may be modified or surrendered subject to and in accordance with the regulations.*
- A condition is requested to be imposed upon the subject development application (being DA19/0470) under Section 4.17 of the Environmental Planning and Assessment Act 1979 requiring that the existing development consent (being DA08/0958) be modified so as to limit the geographical extent of the existing development consent only to the part of the site that is zoned E2 Environmental Conservation and which will facilitate the integration and interaction between the existing development consent and the subject development application. The provision of a condition in this manner is allowable under Clause 97 of the Environmental Planning and Assessment Regulation 2000 via the provision of a 'notice of modification'.

It is accepted that under Section 4.17 of the Environmental Planning and Assessment Act 1979 that it is lawful to impose a condition of development consent which would require the modification of another development or of an existing use right. While this may create a scenario that the future operations on the subject site would be operated under more than one consent, any entity which has the benefit of these consents would still be required to comply with the requirements of each consent.

The western portion of the subject site (associated with the approved waste use) currently zoned E2 Environmental Conservation presently provides for a number of stormwater dams, an existing waste leachate storage tank, internal roadways and a portion of landfill associated with the main landfill purpose of the adjoining RU2 zone. In addition, it is noted that the SAWT facility is partially located over the boundary of both the E2 and RU2 zones for the site, but while so this is subject to a previous State Significant Development approval. In this context and noting that the E2 zone is not a prescribed zone under the ISEPP and has been marked as an Environment and Recreation zone under future Aerotropolis planning documents, the ability to allow the applicant to provide a 'notice of modification' is considered acceptable in this instance with any approval granted to be appropriately conditioned.

As the consent authority for the existing consent is Penrith City Council, any 'notice of modification' would procedurally be returned to Council. While the application has been accompanied with revised conditions of consent as a chapter to the Environmental Impact Statement, it is considered appropriate that further consideration of the nature of any modified consent be continued by Council prior to the 'notice of motion' being actioned. Noting also that the landfill operations are subject to an Environment Protection Licence, it is also considered appropriate that the applicant obtain concurrence from the Environment Protection Agency prior to the serving of any 'notice of modification'.

In this regard, any determination granted will provide for a condition reflecting the above allowing the applicant a twelve (12) month period from the date of determination to provide a 'notice of modification' to Council.

Greenhouse Gas Emissions

Documentation accompanying the proposal has identified that extending the life of the landfill will generate

in the vicinity of 2,300,000 tonnes of additional greenhouse gas emissions in comparison to maintaining a baseline scenario of operations in their present state, primarily comprised of methane. The application, accompanied by a Greenhouse Gas Calculation report has identified that 23% of degradable waste is estimated to remain after 30 years and 11% after 50 years with the existing landfill gas collection system to remain in operation and be extended throughout the life of the landfill. Landfill gas will continue to be used by the on-site landfill gas-powered electricity generators to provide power to the SAWT facility and external power grid network with excess landfill gas to be flared and destroyed.

Carbon emissions have also been identified to increase as a consequence of the increased number of heavy vehicle trips per day and the use of machinery on site which are dependent on diesel oil.

Conclusions provided for in the Greenhouse Gas Calculation report identify that both total emissions and average annual emissions will be increased with the proposal as compared to the existing baseline operational scenario primarily due to the increase in the waste disposal rate and the consequential extension of landfilling created (i.e. anticipated to be from 2025 to 2031). While so, it is noted that the existing operations on site are not proposed to be modified by this application (i.e. the capturing of gas to be combusted for electrical generation or flaring).

The ability to maintain electrical generation and gas flaring does allow for an avenue in the collection of gas emissions and use in a beneficial manner (by providing power to the SAWT facility and external power grid network). In this regard, the maintenance of existing operations during landfilling and following the capping of the landfill does allow for the subject site to be pro-active in minimising emissions into the atmosphere, as compared to waste being disposed at a landfill plant which does not maintain the opportunity to convert landfill gas for electrical use or flaring.

Social and Economic Impacts

The proposed development is not considered likely to result in any negative social impacts for the area of the Badgerys Creek and as discussed within this report, the proposal has been assessed against the relevant strategic and environmental principles and objectives contained within a number of environmental planning instruments applicable to the subject site. In particular, it is noted that the application as amended will provide for the continuation of an existing use, which when completed will allow for the landfill to be capped and then commence a period of settlement into a use with long term possibilities of potentially being able to be used as open space, in the form of a grassed hill. The use is currently permissible (within the RU2 zoned land) and has been identified as permissible in the future 'Enterprise' zone under the draft Aerotropolis planning controls.

A review of the environmental impacts has identified that no significant amenity concerns have been raised with the Environment Protection Authority providing for the necessary General Terms of Approval, required prior to any development consent being granted. It is also acknowledged that the surrounding land uses will undergo a transition into expected industrial and commercial uses associated with the use of the future Western Sydney Airport which will also assist in removing any impacts which currently exist upon any surrounding residential receivers.

In terms of economic benefits, in enlarging the existing landfilling operations, this will allow for a continuation of a facility which could accommodate the safe disposal of non-putrescible waste materials.

Section 4.15(1)(c) The suitability of the site for the development

The subject site is considered suitable for the proposed development for the following reasons:

- The proposal will maintain an existing landfill facility which has been in operation almost 30 years since the original Development Consent DA451/89 (as amended) was issued on the 22 October, 1990.
- The proposal will provide for an increase in landfill within the existing RU2 Rural Landscape zoned portion of the subject site as provided under the Penrith Local Environmental Plan 2010. While waste or resource management facilities are prohibited under the LEP zoning, Clause 121(1) of the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) advises that *'development for the purpose of a waste or resource management facility, other than development referred to in subclause (2), may be carried out by any person with consent on land in a prescribed zone'*. The RU2 zone is specified as a prescribed zone within the ISEPP and the proposal is therefore a permissible use.
- Existing operations on the subject site under DA451/89 (as amended) also include a portion of land zoned E2 Environmental Conservation as provided by the Penrith Local Environmental Plan 2010. While not part of the proposed increase in landfill operations, modification of the existing consent for this portion of the subject site as part of this proposal to allow for the existing landfill development consent to operate concurrently with the subject proposal is permissible under Section 4.17 of the Environmental Planning and Assessment Act 1979.
- The existing operations on the RU2 zoned portion of the site, subject to the current request for an increase in landfill operations, is identified as being located within the future 'Enterprise' zone of the draft Western Sydney Aerotropolis Plan. A Waste or Resource Management Facility is identified as being a permitted use with consent in the 'Enterprise' zone within the proposed land use table. In this regard, an increase in landfill operations on the identified 'Enterprise' zoned portion of the subject site is in line with the future strategic direction of the Aerotropolis.
- The Development Application was referred to the Environment Protection Authority (EPA) as it is a designated and integrated Development Application. The EPA has assessed the likely environmental impacts to be created by the proposed landfill operations and has issued General Terms of Approval. In this regard, subject to compliance with any applicable conditions provided as part of a forthcoming development consent, the proposal is not considered to create an unacceptable impact upon the environment or its immediate surrounds.
- The subject site currently maintains an appropriate level of infrastructure to allow for an intensification of existing operations.
- Subject to capping of the landfill being provided as per the subject proposal, it is not considered that the height of the development will impact upon the future operations of the Western Sydney Airport. In addition, documentation provided in support of the Development Application is considered to identify that there will be no increase in the velocity of gas flaring as part of this proposal and that the leachate pipes will maintain an appropriate operation under the new landfill height.
- Recommended conditions of consent are considered to ensure that the proposal will have an acceptable and manageable impact on the surrounding environment during the continued operational use of the site.

Section 4.15(1)(d) Any Submissions

Community Consultation

The development application was advertised in the local newspaper and notified to owners and occupiers of adjoining and nearby properties pursuant to the requirements of the Regulations and in accordance with Council's Development Control Plan. Affected property owners and occupiers were notified in the surrounding area and invited to make a submission on the proposal during the exhibition period from 2 August, 2019 to 2 September, 2019. During this period, Council received seven (7) submissions.

The concerns raised in these submissions are addressed below.

Issue: Concern in regard to current proposal once again requesting a change in the nature and

form of landfill to be provided upon the subject site which will restrict the use and future development of adjoining lands.

Comment: The current Development Application is restricted wholly to the existing operations on the SUEZ site. Legally, were any consent forthcoming, this would only relate to Lot 1, DP 542395 and Lot 740, DP 810111. In this regard, any changes to the slope or gradient of future landfill on the subject site does not require a change in existing natural ground contours upon adjoining properties were these adjoining sites to be developed in the future as part of the Aerotropolis.

Issue: Concern that the proposal has not appropriately consulted neighbouring landowners as part of the future Western Sydney Aerotropolis Plan.

Comment: The application was accompanied with an Environmental Impact Statement which is considered to have appropriately assessed all necessary issues in outlined in SEAR 1239 issued by the Department of Planning, Industry and Environment on the 19 August, 2018. In this regard, it is noted that key issues identified in the SEARs were strategic context and suitability of the site, plus consultation. The Environmental Impact Statement has provided discussion in relation to the context and nature of the surrounding sites and expected future uses with the development of the general region in association with the future Western Sydney Airport.

In regard to consultation, SUEZ has identified that this has been conducted by direct letter box drops of information flyers and notification in local newspapers. The Environmental Impact Statement has identified that flyers were distributed in Twin Creeks, Luddenham, Kemps Creeks, Badgerys Creek, Mount Vernon and to residents within the Liverpool local government area. It has also been identified that a community information session was held at the Elizabeth Drive landfill in November, 2018 as well as a community briefing to the Twin Creeks Community Association in January, 2019.

Issue: Current landfill operations should be ceased by 2025 in line with the timing of commencement of operations of the new Western Sydney Airport to allow an opportunity to transition into the future vision for the area.

Comment: It is noted that the construction of the Western Sydney Airport is expected to be completed by December, 2026. The current operations are not time limited but rather dependent on the rate at which landfill is provided to the site to reach the maximum height RL. This would be also applicable with the subject Development Application were approval to be forthcoming to an approved height 15m above the current approved level but would also set a maximum of 950,000 tonnes per annum that could be provided to the landfill operations. In this regard, restricting the current operations to 2025 as requested is not legally enforceable based on the operation of the existing consent. This would also be the scenario for any approval granted for the subject proposal.

Noting the above, once the final capping of the landfill site is provided for by either the subject application or existing consent, the site is to be subject to a closure plan (as provided by the current Environment Protection Licence) to ensure that the landfilled site is treated in an acceptable landscaped manner which will be maintained in perpetuity.

Issue: The current proposal has not appropriately considered the future zoning of lands immediately surrounding the subject site as part of the future Western Sydney Aerotropolis Plan.

Comment: The application has been considered in light of the current draft planning instrument for the subject site and its surrounds being the Western Sydney Aerotropolis Plan. Located within the future Badgerys Creek Precinct, the subject site and its adjoining neighbouring properties are earmarked as being rezoned to an 'Enterprise' zone. Land to the subject site's western side and along Badgerys Creek has been

identified as being provided as an 'Environment and Recreation' zone. The future 'Enterprise' zone is expected to enable uses typically associated with employment lands, supporting a range of commercial and industrial sectors. It is noted that a waste or resource management facility has been identified as a permissible use with consent in this future zoning. In this regard, the current operations or intended future operations on the subject site are not contrary to expected future land uses within the envisaged commercial/industrial zone primarily applicable to the subject site.

Noting the above, it is considered that future zonings of land have been appropriately considered by the subject proposal. Adjoining landowners are permitted to lodge Development Applications along side an existing land use which has been identified as permissible in an area transforming from rural to employment uses.

Issue: An increase in the contours of the subject site will impact upon adjoining properties as they will also be required to provide for an increase in the contours of their sites to align with the new levels.

Comment: The application has provided solely for the subject site and its current operations. In this regard, any approval granted does not legally provide for any mechanism to modify or dictate the nature of future developments on adjoining sites. In this regard, granting approval will not create a requirement for an increase in contours to adjoining landforms via future Development Applications.

Issue: Significant areas of the landform have already been completed and should remain undisturbed, at the currently approved maximum heights.

Comment: The proposal provides for modifications to the nature of landfill provided to the subject site in turn creating an alternate engineered form for the final mound to be provided. This will provide for changes to the finished levels for the whole of the subject site in turn modifying the previous layout approved for landfilling. While acknowledging that the current proposal will provide for a larger landfill mound in light of the additional fill volume provided, a review of the visual analysis assessment of the proposal has identified that for properties in various locations and distances from the subject site, the immediate impact of the bulk and scale of the proposal is of a manner so as to not create a significant visual impact. In this regard, it is considered that the nature of the subject site may provide for additional fill and still maintain an acceptable visual relationship with its surrounds.

Issue: The proposal will create an inappropriate visual impact to surrounding properties with surrounding boundary bund walls not assisting to minimise visual impact.

Comment: The subject site is currently provided with landscaping or bunded walls along its immediate perimeter to neighboring properties. This landscaping feature has been identified to be retained with the subject proposal. The nature of this bunding and landscaping is considered to provide assistance in screening the existing operations on the subject site, especially for the lower sections of the landfill bulk with the upper half of the sloped batters visible above the buffering vegetation. Noting the continued growth of this vegetation over time and the expected future changes in uses for sites surrounding the subject site, these existing bunded features and vegetation are considered an acceptable measure to be maintained and will assist in screening the perspectives of the subject site from varying positions of adjoining properties.

Issue: The proposal will increase dust and noise and odour pollution upon adjoining land owners.

Comment: The application was referred to the Environment Protection Authority (EPA) which provided for an assessment of the proposal as required under the Protection of the Environment Operations Act 1997, as the operators of a premises engaged in a scheduled activity (as in this instance) are required to hold an EPL (being No. 4068) and comply with the conditions of this licence.

In this regard, the EPA has returned General Terms of Approval (GTAs) and has considered the potential impacts of dust, odour and noise on surrounding properties and considers these impacts acceptable subject to these GTAs being followed as part of any determination granted. It is also noted that any consent granted will require the existing Environment Protection Licence relating to landfill operations to be updated to reflect the proposed development.

Issue: No specific timeframes have been identified for the completion of each proposed phase of landfilling on the subject site.

Comment: The proposal has been accompanied with plans identifying the various filling stages for the subject site, noting that the filling is to be provided in three staged sections over the existing operations. While it is acknowledged that the current proposal does not provide for a set timeframe for the completion of these works (nor would a consent granted be time limited), capping of landfilling would be provided in line with the approved plans with the rate of landfilling operations determined by the demand for the receipt of waste products at a maximum capacity of 950,000 tonnes per annum. Once stages are complete, this will also allow operations to move to the next stage until the subject site is finalised as per any forthcoming consent.

Noting the above, were the maximum 950,000 tonnes per annum provided for, the Environmental Impact Statement has advised that it is anticipated that the site will reach capacity by 2031.

Issue: Non-putrescible waste materials should only be received to minimise safety concerns for the future Western Sydney Airport noting its location directly under a future approach and departure flight path.

Comment: The Development Application has identified that only non-putrescible waste is to be received for landfilling operations.

Issue: Any future stockpiling above the proposed capping of landfill should be limited to avoid protruding above airspace located within the Obstacle Limitation Surface associated with the future Western Sydney Airport.

Comment: The proposal has been assessed in relation to the Obstacle Limitation Surface (OLS) associated with the future operations of the Western Sydney Airport. In this regard, the maximum RL height provided will not intrude into the OLS. Final capping of the site is not therefore considered to create any immediate safety concerns for the movement of incoming and outgoing aircraft associated with the future Western Sydney Airport.

Issue: Concern in regard to future gas flaring/plume rising activity created which may cause turbulence in the critical flight approach path to the future Western Sydney Airport.

Comment: The application has identified an increase in the volume of gas to be collected from the additional load to be provided on the subject site. This will in turn extend the operational life of the existing gas flaring operations as gas will be extracted from the site even after final landfilling is provided. While the volume of gas to be flared will be increased, the velocity of the gas flaring will be maintained in its present state which is not considered to create any safety concerns for arriving or departing aircraft to the future runway of the Western Sydney Airport.

Should development consent be granted, a condition of consent is to be included advising that should the nature of existing gas flaring operations change in the future, that appropriate discussions are to be held with the Western Sydney Airport authorities to ensure that no safety concerns are created in relation to the movement of aircraft.

Issue: Concern in regard to future wildlife that a capped and treated landfill will attract and impact upon future operations of the Western Sydney Airport.

Comment: The subject site's landfilling operations currently receive non-putrescible waste for filling purposes. As this waste does not contain food scraps of the like, the potential that wildlife (for instance in the form of birds) will be attracted to the site is considered minimal. Once the final landfill load is provided for, it is expected that the final capped landfill surface will be stabilised using a mix of grass species and maintained via mowing. While no set date has been provided for this to occur, the transformation of the site to a landscaped feature may also attract wildlife to the subject site.

Noting the above and as discussed within this report, were approval forthcoming, it is considered appropriate that a condition be included requiring any future landscape plans to be reviewed by an ecologist (or suitably qualified person) to identify and minimise the possibility of future impacts to the airport operations in terms of the possible attraction of wildlife.

Issue: Additional trips created by the proposed expansion will have have a compound impact in the future on the existing road infrastructure.

Comment: The application was accompanied by an Environmental Impact Statement which provided for a traffic and transport report. This report identified that, *'the project is likely to increase heavy vehicle trips by four trips in the AM peak and twelve trips in the PM peak hour. This increase in trips is nominal, and represents an additional trip approximately every 15 minutes during the AM peak hour and six minutes during the PM peak hour'*. The report also identified failures at the existing intersection of the site access road and Elizabeth Drive but advised that the queue length delays can be considered acceptable and lengths are contained in the extremities of the right turn bay on Elizabeth Drive and the impact that the proposal would have on intersection performance is nominal.

Noting the above, the application was referred as required to the Roads and Maritime Services (RMS) who have indicated that no objection is raised in regard to the proposed changes to the landfill operations. Support was also provided to the proposal by Council's Traffic Engineer subject to concurrence from the RMS. It is also noted that Elizabeth Drive will be subject to future upgrade works which are considered to improve overall safety for motorists. In this regard, the increase in the number of trips created and the impact on the intersection is considered acceptable and appropriately justified. It is also noted that the future construction of the M12 motorway would provide a bypass for traffic around Elizabeth Drive in the future which is also considered to assist in resolving future traffic concerns.

Issue: Concern that the proposal will affect the integrity and operation of the facility's environmental management system, particularly the leachate management system and the impact the additional weight will have on its integrity.

Comment: The application was referred to the Environment Protection Authority (EPA) who have reviewed the proposal in relation to the operation of the facility's environmental management system. In this regard, a review of the proposed increased load on existing pollution control infrastructure in the landfill and in particular on the leachate collection pipes was conducted. Following discussions with the EPA and the provision of additional information by the applicant, the collection system is considered to be acceptable, highlighted via the provision of GTAs by the EPA.

Issue: Concern in regard to the past environmental performance of the existing facility (mainly in relation to notices issued under the Protection of the Environment Operations Act) and how this can be appropriately managed in the future.

Comment: The orderly monitoring of ongoing operational activities to ensure that no environmental impacts

are created to surrounding land uses from the SUEZ site is subject to an existing Environment Protection Licence (EPL No. 4068). Were approval to be granted, the applicant must apply to the Environment Protection Authority (EPA) to be issued with a variation to the existing EPL. In this regard, the EPA as required under the Protection of the Environment Operations Act 1997 is responsible for monitoring of the subject site as assisted by Penrith City Council.

The ability to comply with EPL requirements in the future will be subject to the nature of any reported non-conformances with operating licence conditions to the regulatory authority, being the EPA. Were the nature of any non-conformances of a nature to be considered serious breaches of licensing requirements, the opportunity is available for the regulatory authority to review and even revoke any EPL provided to the subject site.

Issue: A new application either by way of a modification application to the current landfill approval or a new Development Application covering the combined operations at the site should be required to ensure the entire facility is assessed as an integrated operation and that the environmental management of the facility is upgraded to current best practice.

Comment: The Development Application has been accompanied by a request to also modify the existing operational consent (being DA451/89, as modified), so as to provide for two concurrently running approvals for the site, the existing consent to cover operations upon the E2 Environmental Conservation zoned land and the subject application to be maintained across the RU2 Rural Landscaped zoned land. By allowing for the modification of the existing approval, this is considered to allow for an acceptable integrated operation for the whole of the site as a number of conditions of consent imposed under the existing operational consent have been identified as needing to be modified to facilitate interactions between the existing approval and the subject proposal.

Issue: The accompanying documentation in support of the proposal has not provided for adequate information in relation to a hydrogeological risk assessment.

Comment: The application was required to be referred to the Environment Protection Authority (EPA) as part of the subject assessment process noting the proposal is integrated development. In this regard, it is noted that the EPA has provided General Terms of Approval in support of the proposal.

The application was also referred to Council's Development Engineering and Waterways Sections who have both reviewed the information provided accompanying the proposal and advised that no objection is raised subject to the provision of appropriate conditions were development consent granted.

Issue: Concern that the proposal will create impacts in regard to the adjoining E2 Environmental Conservation zone.

Comment: The current proposal will provide for additional landfill works to the existing RU2 Rural Landscape zoned portion of the subject site only, with the western E2 Environmental Conservation zoned area maintaining existing operations not part of the subject Development Application. It is noted that the RU2 and E2 zoning align with the future 'Enterprise' and 'Environment and Recreation' zoning under the draft Areotropolis planning controls. In this regard, no works are proposed within the adjoining E2 Environmental Conservation zone.

The subject proposal also seeks to modify the existing landfill development consent, limiting the geographic extent of the existing landfill consent to that part of the site currently zoned E2 Environmental Conservation. In this regard, the existing consent is to remain in force and continue to apply to the parts of the landfill operations located upon the E2 zoned land with the subject Development Application relating solely to the RU2 zoned land. As discussed within this report, modification of the existing development consent is

considered necessary to facilitate an acceptable interaction between the existing landfill use (to be maintained on the E2 zoned land) and the proposed landfill use located upon the RU2 zoned land.

By also restricting additional landfill to the RU2 zoned portion of the subject site, this will remove the potential for an intensification of works within the adjoining E2 zoned land, which would not be appropriate noting its future 'Environment and Recreation' zoning. This is also considered to allow for appropriate vegetation and landscape buffering to be provided to the eastern side of the adjoining Badgerys Creek.

Issue: A waste management facility is not within the long term vision of the Aerotropolis and its lifespan should not be extended.

Comment: The application has been considered in relation to the draft planning instruments for the surrounding area associated with the future Western Sydney Airport and its surrounds, primarily the draft Western Sydney Aerotropolis Plan. This draft document has identified that the subject site and lands surrounding to the north, south and east are proposed to be provided as an 'Enterprise' zone with the western portion of the subject site straddling Badgerys Creek identified as being provided as an 'Environment and Recreation' zone.

The 'Enterprise' zone has identified that a waste or resource management facility within the proposed land use table is a use which will be permitted with consent as part of the Western Sydney Aerotropolis Plan. In this regard, it is considered that the current operations and future intended operations represent a use which has been identified as contributing to the industrial sector of the future Aerotropolis and can be considered not contrary to the long term vision for the Aerotropolis.

Issue: The view coming into land at the future Western Sydney Airport should not be of a waste facility or resource recovery centre.

Comment: The future Western Sydney Airport is planned to open in December, 2026. SUEZ has advised that based upon maintaining the approved maximum RL 80m final height and at current projected waste volumes, the landfill is anticipated to reach its end life by approximately 2025. In this regard, any approval granted for additional landfill to be provided will extend the life of landfill operations to coincide with the commencement of operations at the new Western Sydney Airport.

As discussed within this report, a waste or resource management facility is identified to be a use permissible with consent in the new enterprise zone to the north of the future airport as well as within all enterprise zoned areas surrounding the future airport. This zoning will also allow for a range of future uses subject to development approval which unlike the current use will not be capped and landscaped once the maximum RL height level has been reached. In this regard, while in the short term were approval to be granted, it is acknowledged that the landfill operations will be located within an identified arrival flight path, in the long term, once operations are complete, this will present as a grassed hill which is not considered an unacceptable overall solution for the Aerotropolis area and the approach to the future airport.

Furthermore, it is not considered that refusal can solely be granted in relation to a project based upon its visual presentation noting that the use is existing and a waste or resource management facility has been identified as an acceptable future use based on the draft zoning applicable to the subject site.

Issue: Concern that the proposal will not return the site to open space as originally envisaged by the original approval.

Comment: The portion of the subject site currently used for landfill purposes at present operates under the requirements of Environmental Protection Licence No. 4068 issued by the Environment Protection Authority (EPA). As part of this current licence, a Closure Plan is required to be provided under Condition 06.28 to the

EPA prior to the last load of waste being landfilled.

The applicant (SUEZ) has identified with the subject proposal that they do not seek any change to this licence condition. In this regard, the site will ultimately be provided as open space as originally envisaged.

Referrals

The application was referred to the following stakeholders and their comments have formed part of the assessment:

Referral Body	Comments Received
Building Surveyor	No objections
Development Engineer	No objections - subject to conditions
Environmental - Environmental management	No objections - subject to conditions
Environmental - Waterways	No objections - subject to conditions
Environmental - Public Health	No objections
Environmental - Biodiversity	No objections
Traffic Engineer	No objection

Section 4.15(1)(e)The public interest

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and in accordance with the prevailing planning controls. In this regard, an assessment of the proposed works is considered to identify that they are consistent with the relevant planning provisions. The proposal is not envisaged to create long term environmental impacts to the surrounding community during its operations due to the provided commitments identified to mitigate these potential concerns. Furthermore, once the subject landfill is provided with a capping to commence its transformation into its future maintained grassed presentation, continued management of the site in a sustainable manner will also be provided for via the continuation of the combustion of land fill gas.

Noting the above and subject to compliance with conditions of any development consent as outlined within this report, the proposal is considered worthy of support.

Section 94 - Developer Contributions Plans

Section 7.11 development contributions do not apply to the proposed development.

Conclusion

The proposed development has been assessed in accordance with the relevant provisions of the environmental planning instruments pertaining to the land. It is noted that the proposal will provide for additional landfill only to the existing RU2 Rural Landscape portion of the subject site which is permissible under the provisions of the State Environmental Planning Policy (Infrastructure) 2007. The proposal has outlined a planning pathway under Section 4.17 of the Environmental Planning and Assessment Act 1979 to allow for modification of the existing operational consent for the subject site (being DA08/0958) so as to only be applicable to the remaining E2 Environmental Conservation portion of the site and to allow both consents to operate concurrently for either portion of the subject site.

The additional landfill works have been considered in relation to the existing draft legislation pertaining to the

subject site and its surrounds under the Western Sydney Aerotropolis Plan and are considered to be consistent with the objectives of this document. The continuation of landfill operations as a waste or resource management facility has been identified as a use which is permissible with consent under the future 'Enterprise' zone applicable to the portion of the site subject to this application. In this regard, an intensification of this use is not considered contrary to the envisaged strategic direction for this area of the Aerotropolis.

The proposal has also been considered in relation to its future relationship with the Western Sydney Airport currently under construction with an opening date identified for December, 2026. The height of the landfill will not impact upon the necessary Obstacle Limitation Surface associated with the operation of the future runway in which the site is positioned in the vicinity of the future departure and arrival flight paths. Furthermore, the impact of gas flaring is negligible to the safety of aircraft while the receipt of only non-putrescible waste will minimise the potential for wildlife (especially birds) to interfere with the safety of aircraft arriving or departing from the future airport.

The assessment of the proposal has considered the environmental impacts of the proposal and identified that subject to appropriate conditions, no immediate impact upon the site's surrounds will be created. The proposal has been reviewed by the Environment Protection Authority as required, noting the development is integrated development, which returned General Terms of Approval to be provided with any determination granted. Their review took into consideration noise, air and odour impacts from the proposal as well as a leachate pipe strength and slope stability assessment.

Consideration has also been given to traffic and transportation impacts of the proposal primarily upon Elizabeth Drive from which via an access road, the subject site operates from. While the intersection with Elizabeth Drive was identified as being impacted upon by degenerating conditions due to the expected increase in traffic volumes not only from the subject proposal but generally from an increase in traffic movements along Elizabeth Drive, the queuing of vehicles to enter and exit the site via a right turn is not considered to create inappropriate queuing lengths for vehicles. Furthermore, future upgrade works to Elizabeth Drive, expected to be conducted prior to the opening of the Western Sydney Airport, are considered to improve the intersection performance as well as traffic flows along Elizabeth Drive.

While it is acknowledged that the increase in the overall height of the landfill operations by 15m as well as the engineered shape of the landfill mound will result in some level of visual impact upon the site's surrounds, this impact is considered to be in a low to moderate category. Taking into consideration the expected changing land uses around the subject site, including the construction of infrastructure (for instance, the M12 motorway to the north) and the development of industrial and commercial uses, the presentation of the landform will be offset with surrounding features, where comparatively, were the surrounds to remain as rural in nature, it is considered that the visual impact would be extenuated. An analysis of the information provided has also identified that the impact visually from public areas will be minimal with the retention of landscaping to the perimeter of the site also assisting in partially shielding the use from existing and future adjoining uses.

It is also noted that once operations are complete, that the landfill will be capped and appropriately landscaped. This will occur over an extended period of land settlement, ultimately resulting in a grassed mound which will be located in the vicinity of surrounding future commercial or industrial uses.

The proposed development has been assessed against the relevant heads of consideration contained in Section 2.12, Section 2.14, Section 4.15 and Section 4.46 of the Environmental Planning and Assessment Act 1979 and has been found to be satisfactory. The site is suitable for the proposed development and the proposal, subject to compliance with recommended conditions, is in the public interest. The proposal is therefore worthy of support.

Recommendation

That DA19/0470 for alterations to an existing approved waste management and resource recovery facility at 1725a Elizabeth Drive, Badgerys Creek providing for alterations to the finished landform and increase in waste capacity be approved subject to the recommended conditions.

CONDITIONS

General

- The development must be implemented substantially in accordance with the following approved plans and documents, the application form and any supporting information received with the application, except as may be amended in red on the approved plans and documents and by the following conditions.

Plan No.	Issue	Title	Prepared by	Date
60571292-SHT-CI-00001	B	Locality Plan and Drawing Index	AECOM	4 January, 2019
60571292-SHT-CI-00004	B	Proposed Final Landform Pre-Settlement Contours	AECOM	4 February, 2019
60571292-SHT-CI-00005	B	Pre-Settlement Final Landform Sections and Approved Cap Sections	AECOM	4 February, 2019
60571292-SHT-CI-00006	B	Pre-Settlement Final Landform Sections	AECOM	4 February, 2019
60571292-SHT-CI-00007	B	Indicative Stage 1 Fill - Layout	AECOM	4 February, 2019
60571292-SHT-CI-00008	B	Indicative Stage 2 Fill - Layout	AECOM	4 February, 2019
60571292-SHT-CI-00009	B	Indicative Stage 3 Fill - Layout	AECOM	4 February, 2019
60571292-SHT-CI-000010	B	Indicative Stage 1 Fill - Catchments and Stormwater Drainage Plan	AECOM	4 February, 2019
60571292-SHT-CI-000011	B	Indicative Stage 2 Fill - Catchments and Stormwater Drainage Plan	AECOM	4 February, 2019
60571292-SHT-CI-000012	B	Indicative Stage 3 Fill - Catchments and Stormwater Drainage Plan	AECOM	4 February, 2019
60571292-SHT-CI-000013	B	Proposed Final Access Road on Proposed Final Landform	AECOM	4 February, 2019
60571292-SHT-CI-000014	B	Proposed Final Access Road - Long Section	AECOM	4 February, 2019
60571292-SHT-CI-000015	B	Post-Settlement Final Landform	AECOM	4 February, 2019
60571292-SHT-CI-000016	B	Post-Settlement Final Landform - Section Sheet 01 of 02	AECOM	4 February, 2019
60571292-SHT-CI-000017	B	Post-Settlement Final Landform - Section Sheet 02 of 02	AECOM	4 February, 2019
L01	-	Landscape Plan as amended to satisfy condition 7 of this consent	AECOM	24 June, 2019

- General Terms of Approval issued by the Environment Protection Authority, Notice Number: 1594697, dated 11 May, 2020,
- Elizabeth Drive Landfill Expansion Technical Advice prepared by GHD, dated February, 2020,
- Bushfire Risk Assessment prepared by Australian Bushfire Consulting Services, Reference No. 18-205/1, dated 3 October, 2018.
- Noise and Vibration Technical Report prepared by AECOM, Document Status: Final, dated 12 July, 2019 and Supplementary Noise and Vibration Impact Assessment prepared by AECOM, dated 12 November, 2019 and Supplementary Noise Impact Assessment prepared by AECOM, dated 25 February, 2020,

- Air Quality Impact Technical Report prepared by AECOM, Document Status: Final, dated 12 July, 2019 and Supplementary Air Quality Impact Assessment prepared by AECOM, dated 12 November, 2019 and Supplementary Air Quality Impact Assessment prepared by AECOM, dated 25 February, 2020, and
 - Greenhouse Gas Calculations prepared AECOM, Document Status: Final, dated 12 July, 2019.
- 2 The development shall comply at all times with the General Terms of Approval, Notice Number 1594697, dated 11 May, 2020 issued by the Environment Protection Authority.
 - 3 The applicant must deliver a signed 'Notice of Modification' to Penrith City Council in accordance with the requirements of Clause 97 of the Environmental Planning and Assessment Regulation 2000 within twelve (12) months of the date of this determination.

The 'Notice of Modification' is to be provided in relation to DA08/0958 (as amended) and identify that:

- a) DA08/0958 is to be limited to the geographical extent of the part of the site zoned E2 Environmental Conservation under the Penrith Local Environmental Plan 2010, and
- b) The conditions provided within DA08/0958 are to be modified so as to facilitate the integration between this Development Consent and Development Consent DA19/0470.

The provision of any 'Notice of Modification' to Penrith City Council is to be accompanied by written evidence from both Penrith City Council and the Environment Protection Authority indicating satisfaction with any amended conditions of consent, plans or documents.

- 4 Prior to altering the existing approved waste management and resource recovery facility, altering finished landform and increasing waste capacity at the premises, the applicant must apply to the Environment Protection Authority and be issued with a variation to the existing Environment Protection Licence No. 4068.

A copy of the amended Environment Protection Licence No. 4068 is to be provided to Penrith City Council prior to any works commencing as part of this Development Consent.

The proposal is to operate in accordance with the amended Environment Protection Licence No. 4068 issued by the Environment Protection Authority and the conditions of this development consent at all times.

- 5 All quarrying and waste compaction activities at the premises must only be conducted between the following hours:
 - Monday to Friday: 7.00am to 6.00pm,
 - Saturday: 7.00am to 5.00pm, and
 - Sunday and Public Holidays: 8.00am to 5.00pm.

All waste receipt activities at the premises must only be conducted between the following hours:

- Monday to Friday: 6.00am to 6.00pm,
- Saturday: 7.00am to 5.00pm, and
- Sunday and Public Holidays: 8.00am to 5.00pm.

- 6 Only non-putrescible solid wastes as defined by the Waste Classification Guidelines as provided by the NSW Environment Protection Authority are to be accepted for disposal on the site.

The maximum amount of non-putrescible solid wastes which may be imported onto the site for landfilling is 950,000 tonnes per annum.

- 7 Prior to the commencement of any works associated with this consent, the approved landscape plan as provided in Condition 1 is to be amended to the satisfaction of Penrith City Council to provide for the following;
- a) an identification of all new plant species, number of new plants to be planted and pot size to be provided (for each new species), to the existing vegetation buffers along the northern, eastern and southern perimeter of the subject site.
 - b) evidence that SUEZ have held discussions with the owners of adjacent properties along its southern boundary in regard to any new plant species and number of new plants to be provided along its southern boundary.
- 8 The development is to be carried out in three (3) stages as per approved Sheet No. 60571292-SHT-CI-00007 (Indicative Stage 1 Fill - Layout), Sheet No. 60571292-SHT-CI-00008 (Indicative Stage 2 Fill - Layout) and Sheet No. 60571292-SHT-CI-00009 (Indicative Stage 3 Fill - Layout), all prepared by AECOM, all Issue B, all dated 4 February, 2019.
- 9 Landfill gas burning within the site is to remain consistent with the current capacity and the conditions of DA12/0515. Any changes to the nature or rate of gas burning may only be implemented if approved via development application. In the event of unexpected or emergency landfill gas burning (such as for safety reasons), the applicant is to report such events immediately to the Western Sydney Airport Authority and the NSW Environment Protection Agency.
- 10 A noise complaint phone number and email address is to be provided on the SUEZ Kemps Creek Resource Recovery Park website. The details of each noise complaint received (including the person complaining, date, time and nature of complaint) are to be recorded. The actions taken to resolve the complaint and the time taken to resolve the complaint are to be recorded. The noise complaint records are to be made available to Penrith City Council on request.
- 11 The Emergency Response Plan for existing operations on the subject site is to be updated so as to also specifically address bush fires and include appropriate triggers and responses to a bush fire event onsite in accordance with *Planning for Bush Fire Protection 2006*. Details of the updated Emergency Response Plan are to show concurrence from the NSW Rural Fire Service and be provided to Penrith City Council prior to the operation of this consent.
- 12 A re-assessment of the site's restoration and bush fire protection measures is to be undertaken at the time that the site ceases to operate as an active landfill. Written evidence is to be provided from the Rural Fire Service identifying that any document prepared is in accordance with *Planning for Bush Fire Protection 2006* (or the relevant document at the time) and a copy provided to Penrith City Council at the time that the site ceases to operate.
- 13 Upon request, the applicant is to provide, or arrange provision of, any information required by, or on behalf of Council, in relation to compliance or otherwise with any conditions of this consent. Information should be furnished within 2 weeks of any request except as agreed otherwise by Council.
- 14 The applicant shall indemnify and keep indemnified the Council from and against all damages, claims, demands, proceedings, costs and expenses which arise from any aspect of the site operations.

- 15 The applicant is to provide an annual report to Council in relation to compliance or otherwise with any of the conditions of this consent. This report must also indicate the response of the applicant and/or operator to any emergencies, incidents, etc.
- 16 A separate development approval shall be obtained for the erection of any signage, other than signage listed as exempt development.
- 17 No retail sale of any materials extracted, produced or recycled on the site shall be conducted from the subject premises.
- 18 The proponent shall ensure that lighting associated with the project:
 - a) complies with the latest version of Australian Standard AS 4282 (INT) - Control of Obtrusive Effects of Outdoor Lighting;
 - b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the surrounding public road network; and
 - c) lighting and light spill does not cause distraction to aircraft pilots associated with the operations of Western Sydney Airport. Lighting is to be design in consultation with Western Sydney Airport with evidence of consultation to be provided upon request.
- 19 All conditions of this consent shall be complied with throughout the lifetime of the site operations and until such time as a Statement of Completion is issued for the site by the Environment Protection Authority as provided by Environment Protection Licence No. 4068 (as amended).
- 20 Prior to the final capping of the subject site in association with landfill operations, landscape plans associated with the future capping are to be reviewed by an ecologist (or suitably qualified person) and Western Sydney Airport authorities to identify and minimise the possibility of future impacts to operations of Western Sydney Airport in relation to the possible attraction of wildlife.
- 21 Council staff or agents of Council may enter the site at all reasonable times to inspect the works and any other operational aspects as necessary.

Environmental Matters

- 22 During operating hours, the site access road must be inspected twice per day and cleaned with a high-pressure water spray using on-site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.
- 23 The Environment Protection Authority has the right to impose any additional control or treatment measures as may, in its opinion, become necessary upon the area of site operations.
- 24 All unsealed roads on or serving the development shall be dampened by a water cart to prevent dust generation. A water cart shall be available for on-site use at all times.
- 25 Radiator fan backwash and engine exhaust gases from all mobile equipment on the site must be directed away from the ground.
- 26 All runoff, including that from truck wash-down facilities (and sediment) from within the extraction area, must be directed towards on-site sediment basins.

- 27 All water needed for dust suppression, irrigation, fire fighting, etc must be collected from runoff from the site or sources satisfactory to Council. Sufficient water must be available for these purposes. Water is not to be pumped from Badgerys Creek. Any excess surface water within site, including runoff, is to be directed towards on-site sediment basins.
- 28 The facility must not accept waste or recyclable materials from members of the general public.
- 29 All access gates are to be kept fully attended whilst the facility is operating and locked when the facility is not operating.
- 30 Burning of combustible material is not to be permitted on the site.
- 31 Operations are to comply with the NSW Smoke-free Environment Act 2000 and Smoke-free Environment Regulation 2000. Smoking is to be prohibited in proximity to any fuel storage and equipment maintenance facilities.
- 32 The following dust mitigation measures are to be actioned in the operation of the landfill at all times;
- Sealing is to be provided to waste delivery haul routes. Sealed roads are to be progressively laid moving onto the landfill towards the tipping face. Only the final 50m of the haul/turnaround area is to remain unsealed.
 - During operating hours the site access road must be inspected twice per day and cleaned with a high-pressure water spray using on-site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.
 - Shale covers are to be placed on non-active areas of the general and restricted waste cells.
 - Tarps are to be used at night on the general waste cell batters for the life of the project.
 - Hydromulch or similar products with stabilising additives are to be used on disused shale stockpiles.
- 33 A noise mitigation action plan is to be prepared within six (6) months of the date of this consent by a suitably qualified person to address future noise non-compliances or complaints as provided by Section 4.0 *'Feasible and reasonable management of impacts'*, Supplementary Noise and Vibration Impact Assessment prepared by AECOM, dated 12 November, 2019. The plan is to be to the satisfaction of Penrith City Council.

BCA Issues

- 34 Access and sanitary facilities for persons with disabilities are to be provided and maintained in accordance with the requirements of the Building Code of Australia and Australian Standard AS 1428.1-2009 "Design for Access and Mobility". Details of compliance are to be provided to Penrith City Council prior to the commencement of works associated with this consent.

Engineering

- 35 All roadworks, stormwater drainage works, associated civil works and dedications, required to effect the consented development shall be undertaken at no cost to Penrith City Council.

- 36 An Infrastructure Restoration Bond is to be lodged with Penrith City Council for development involving works around Penrith City Council's Public Infrastructure Assets. The bond is to be lodged with Penrith City Council prior to commencement of any works on site or prior to the issue of any Construction Certificate, whichever occurs first. The bond and applicable fees are in accordance with Council's adopted Fees and Charges.

An application form together with an information sheet and conditions are available on Council's website.

Contact Penrith City Council's City Works Department on (02) 4732 7777 or visit Penrith City Council's website for more information.

- 37 The stormwater management system shall be provided generally in accordance with the concept plans lodged for development approval, prepared by AECOM, sheet number 60571292-SHT-CI-00007 to sheet number 60571292-SHT-CI-000013, all revision B, all dated 4 February, 2019.

Engineering plans and supporting calculations for the stormwater management system are to be prepared by a suitably qualified person.

- 38 All vehicular access, circulation, manoeuvring and pedestrian and parking areas associated with the subject development must be in accordance with AS 2890.1, AS 2890.2, AS 2890.6 and Penrith City Council's Development Control Plan.

- 39 Sediment and erosion control measures shall be installed in accordance with the approved plans and documents and are to ensure compliance with the Protection of the Environment Operations Act 1997.

The erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

- 40 Total vehicle movements are not to exceed an average of 640 per day, measured over a calendar year, with an upper limit of 780 per day. Upon request, a vehicle movement log (or similar) is to be provided of total movements to the subject site over a calendar year.

Landscaping

- 41 All landscape works are to be constructed in accordance with the stamped approved plans and as amended by the conditions of this consent.

Landscaping shall be maintained:

- in accordance with the approved plans, and
- in a healthy state by the existing or future owners and occupiers of the property.

If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable.

Landscape plans upon preparation are to be reviewed by an ecologist (or suitably qualified person) to identify and minimise the possibility of future impacts to the airport operations in terms of the possible attraction of wildlife.

The preparation of the Landscape Plan is also to be undertaken in consultation with Western Sydney Airport with evidence of consultation made available upon request.

- 42 All trees that are required to be retained as part of the development are to be protected in accordance with the minimum tree protection standards prescribed in Section C6 'Landscape Design' of Penrith Development Control Plan 2014.
- 43 All trees and landscaping along the perimeter of the site must be maintained by the existing or future owners and occupiers of the property to enable its growth to full maturity in healthy growing conditions. This includes mature height, spread and form, consistent with the tree species. Pruning must not alter the natural form and height of any trees unless required to maintain normal operations such as access to roads and other operational facilities within the site.
- 44 No trees are to be removed, ringbarked, cut, topped or lopped or willfully destroyed along the perimeter of the landfill area without the prior consent of Penrith City Council and in accordance with Council's Tree Preservation Order and Policy.

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part B - DCP Principles

The proposal has been assessed against the applicable provisions of the Penrith Development Control Plan 2014, in particular those under Part C, City Wide Controls and is considered to be compliant. The expansion of the existing operation upon the current RU2 zoned land as well as providing for a planning mechanism to modify the existing consent over the E2 zoned parcel of land for the continued operation of the site is considered to be in line with the long term future economic and sustainability goals for this part of the Penrith local government area.

This view is derived from the proposed intensification of the use within the RU2 zoned portion of the existing waste and resource management facility being identified as a permissible land use under draft future zoning controls for the area associated with the development of the broader Aerotropolis. Furthermore, the proposal will effectively maintain the long term goal of capping the landfill site albeit in a revised engineered shape, in turn identifying a future period in which the landfill operations will cease and be provided with a long term program to provide for slope stabilisation and vegetation.

In this regard, as the proposal aligns with one of the future uses expected for the area and noting that its environmental impacts have been reviewed by the Environment Protection Authority and considered supportable, the proposal is also considered to align with the principles of the Penrith Development Control Plan 2014.

Part C - City-wide Controls

C1 Site Planning and Design Principles

The proposal has been assessed against the key aims and objectives of the Chapter and is considered to comply in that, the development is not considered to create unnecessary additional environmental impacts upon surrounding properties and has appropriately demonstrated that the ongoing operations of the subject site can be maintained in a similar manner as per current operations.

In addition, the subject application has allowed for a planning mechanism to update the existing consent in relation to operations being currently located on the E2 Environmental Conservation portion of land. The visual impact of the proposal is also considered to be of a nature so as to not create an inappropriate immediate impact upon the site's surrounds from the envisaged maximum RL 95m height comparative to the currently approved RL 80m height.

C2 Vegetation Management

The subject site is currently provided with landscape buffers to all perimeters, noting that the most significant of these buffers is provided on the western side via the location of Badgerys Creek which serves as a natural property boundary to the west and is provided under an E2 Environmental Conservation zone.

An assessment of the proposal has identified that no trees are proposed to be removed from the subject site. In this regard, it is considered that the existing landscape features to the perimeter of the site are maintained and the proposal is not contrary to the objectives of this Chapter. Any approval granted will also be conditioned to identify future plant species proposed to enhance the landscape buffering currently provided.

C3 Water Management

The proposal was accompanied by stormwater engineering plans and subsequently referred to both Council's Development Engineering and Environmental Waterways Sections. Each Section identified that as the development will take place on the existing operational footprint on the subject site, no objection is raised to the proposal subject to the provision of appropriate conditions included with any determination granted.

C4 Land Management

Consideration of key issues associated with Land Management within the Penrith local government area include erosion and sedimentation, salinity, contamination of land and landfill and leaching of contaminants which are applicable to the subject application. The NSW Environment Protection Authority (EPA) has issued Environment Protection Licences for the existing development with the proposal associated with the existing landfill operating under Environment Protection Licence No. 4068. In this regard, it is noted that the existing waste and resource management facility is a scheduled premises under the Protection of the Environment Operations Act 1997 and the NSW EPA is the appropriate regulatory body for such environmental matters.

Noting the above, correspondence has been returned from the NSW EPA providing General Terms of Approval (GTA) in relation to noise limit controls, air quality assessment and pipe loading and slope stability assessment. The recommendations provided by the NSW EPA as provided by the GTAs will be incorporated into operative conditions of consent should approval be forthcoming.

Further to the above, the environmental impacts of the proposal were considered by Council's Environmental Health Section with the following considerations provided;

Waterways

The proposed development was not considered to impact on the existing on-site sewage management system. Leachate from the proposed development was found to be captured using the existing methodology which is considered acceptable, noting also that leachate monitoring is captured in the current Environment Protection Licence.

Land Contamination

As previously discussed within this report, the existing Environment Protection Licence for the subject site is provided with a condition in relation to the provision of a closure plan to be provided to the EPA at the conclusion of landfilling operations. As no changes are proposed to this condition, it is considered that land contamination concerns have been resolved.

C10 Transport, Access and Parking

Penrith Development Control Plan 2014 does not provide a car parking rate for the proposed use or for a use which may be considered similar in nature. While so, the accompanying Environmental Impact Statement was accompanied by a traffic and transport report which provided discussions in regard to road safety, existing operations, future operations without the current proposal as at 2025, future operations with the current proposal as at 2025 as well as cumulative impacts.

It is noted that the application was referred to the Roads and Maritime Services (RMS) as required by the provisions of the State Environmental Planning Policy (Infrastructure) 2007 which raised '*no objection to the application of the proposed alterations to the existing approval*' in correspondence returned to Council on the 3 September, 2019. The application was also referred to Council's Traffic Engineering Section which raised no objection to the proposal subject to acceptance of the proposal by the RMS.

Noting that RMS concurrence has been granted, the proposal is considered acceptable in relation to the requirements of this chapter of the Penrith Development Control Plan 2014.

C12 Noise and Vibration

The application was referred to the EPA noting the existing Environment Protection Licence applicable to the subject site. Commentary returned from the EPA has been previously discussed within this report indicating that they are generally satisfied with the additional information provided by the applicant to satisfy the original concerns raised. In this regard, the EPA has provided General Terms of Approval which are to be included with any development consent granted.

Noting the above, the proposal is considered acceptable in relation to the requirements of this chapter of the Penrith Development Control Plan 2014.

C13 Infrastructure and Services

As the proposal will maintain the existing envelope associated with the current operations on the subject site's RU2 zoned land, it is not considered that the development will require an increase in the provision of infrastructure or services to allow for an orderly operation to continue. In this regard, the proposal will not require the provision of any additional built forms while trucks entering and exiting the site will continue to do so from the existing accessway off Elizabeth Drive.

D5 Other Land Uses

D5.9 Extractive Industries

It is noted that the provisions under Section D5.9 'Extractive Industries' of the Penrith Development Control Plan 2014 generally provide for requirements in relation to proposed new developments, for instance in relation to required setbacks to property boundaries, as compared to the subject proposal which has been in operation for a 30 year period (prior to these controls becoming operational) and maintains existing infrastructure upon the subject site. While so, it is considered that the subject application has identified updated operational requirements which allow the proposal to be considered in line with the social, economic and environmental issues required to be considered in the assessment of an extractive industry.

The accompanying visual impact assessment has identified that the varied landfill height will not create a significant impact upon the site's immediate surrounds or upon the area generally, primarily due to the size of the subject site which in turn assists to mitigate the proposed changes to slope gradients. Rather than the provision of awkwardly sloped gradients compacted upon a small site, the varied landfill mound is capable of facilitating less significant changes to the existing landform while noting that the scale and bulk will be increased overall by a maximum rise of 15m.

Dust and noise suppression requirements will be maintained via the existing Environment Protection Licence in place, while the increase in truck movements to dispose of the additional non-putrescible waste has been reviewed by both the Roads and Maritime Services and Council's Traffic Engineering Section and is considered to be acceptable.

The existing operations will also maintain infrastructure to allow for the continued operation of the subject site and minimise the potential for environmental impacts upon surrounding neighbouring properties, while it is also noted that the proposal will not change the existing hours of operation or workforce numbers, further maintaining the status quo with regard to impacts on surrounding uses.

For the above reason, the proposal is considered compliant with this section of the Penrith Development Control Plan 2014.

Attachment B

Sydney West City Planning Panel 'Record of Deferral' – DA19/0470 (PPSSWC-7)

DATE OF DEFERRAL	Monday, 15 June 2020
PANEL MEMBERS	Justin Doyle (Chair), Ross Fowler and Glenn McCarthy
APOLOGIES	None
DECLARATIONS OF INTEREST	<p>Nicole Gurrán: Employed by University of Sydney which is an adjoining land holder.</p> <p>Louise Camenzuli: Corrs Chambers Westgarth provides advice on unrelated matters to an objector or an affiliated entity of an objector. As a Partner of the firm, she considered that this fact, while the relevant files are unrelated to the proposal being assessed, may result in a reasonably perceived conflict of interest.</p>

Public meeting held via Teleconference Call on 15 June 2020, opened at 11:45am and closed at 2:03pm.

MATTER DEFERRED

PPSSWC-7 – Penrith City Council – DA19/0470 at 1725A Elizabeth Drive, Badgerys Creek – Alterations to existing approved waste management and resource facility (as described in Schedule 1)

REASONS FOR DEFERRAL

Determination to defer

The panel decided to defer the determination of the matter until a further determination meeting on a date to be fixed by the Secretariat in consultation with the Council.

The decision to defer the matter was unanimous, after the Panel had adjourned to deliberate.

Clause 18 WSEA SEPP

One reason for the deferral was the Panel's concern about the effect of Clause 18 of *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (WSEA SEPP) which applies to the land. It reads relevantly:

18 Requirement for development control plans

(1) **Except in such cases as the Director-General may determine by notice in writing to the consent authority or as provided by clause 19, the consent authority must not grant consent to development on any land to which this Policy applies unless a development control plan has been prepared for that land.**

(2) The requirements specified in Schedule 4 apply in relation to any such development control plan.

Further exceptions are described in clause 19 which do not seem to apply.

Schedule 4 sets out the requirements for the required DCP as follows:

1 General matters

- (1) A development control plan must make provision for or with respect to the following matters—
- (a) traffic, parking and key access points,

- (b) infrastructure services (including public transport),
- (c) **a detailed staging plan for any proposed development,**
- (d) biodiversity,
- (e) flooding,
- (f) urban design and landscaping,
- (g) subdivision layout,
- (h) heritage conservation (both indigenous and non-indigenous),
- (i) extraction and rehabilitation,
- (j) protection of the Sydney Catchment Authority Warragamba Pipelines,
- (k) protection of electricity transmission facilities,
- (l) management of the public domain,
- (m) community and retail facilities.

(2) A development control plan may include detailed analysis of the development proposed within the precinct (or part of the precinct) to which it applies.

The Council has not adopted a DCP specifically to satisfy that clause, but in its report on the development points to Penrith Development Control Plan 2014. That DCP does apply to which the SEPP applies.

However, while the DCP includes general controls concerning a number of matters listed in Schedule 4, many of the requirements (relevantly in relation to “Urban Structure and Staging”) are contained in Section E which provides specific controls for individual precincts. There is no relevant Precinct for which controls are provided including the subject site. There does not seem to be any discussion of the key issue of staging anywhere else.

The Panel referred that issue to the Department for consideration and has now been informed that the Secretary has now provided the requisite written direction to the Council that the requirements of the clause are not to apply to assessment of this application.

Other matters

The panel heard from representatives of the Applicant, and received oral representations made in relation to the DA on behalf of adjoining owners, Western Sydney Airport and the Badgerys Creek Precinct.

An important issue arising from those discussions was the compatibility of extending the operation of the facility with the planned developing future character of the area associated with the new airport.

An associated theme was the impression given at the time the present limits were set for the facility that a compromise had been struck with the local community which should not now be departed from.

The Panel invited those participating in the meeting to provide any additional response on the subjects of:

- Consistency of the proposal with the development of the Western Sydney Airport and anticipated associated development, and proposed mechanisms to impose time limits on the operation of the facility.
- The current Landfill Environmental Management Plan
- The location and sufficiency of existing groundwater monitoring wells
- The draft conditions of consent provided by Penrith City Council (PCC) in their development assessment report.

- Whether a maximum number of daily truck movements ought to be imposed (the condition proposed by Council mandated a maximum of 640), or an average daily maximum.

Correspondence received from the Applicant addressed matters which will be the subject of further consideration at the deferred meeting. One submission made in the correspondence was:

“... that any matter expressly managed within the Environment Protection Licence for the site should **not** also be included in the development consent conditions. This This ‘double up’ of conditions has the potential to lead to confusion over the management of specific elements of the site, particularly given that the EPL may be varied in consultation with the EPA from time to time in response to changing local conditions.”

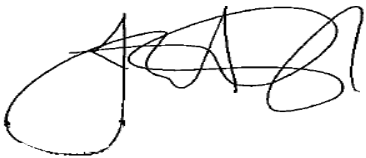


It must be remembered that the EPL and the development consent are issued under different legislation with different considerations. It may be that a condition of the EPL directed to the objectives of the Protection of the Environment Operations Act 1997 may have different relevance with reference to the considerations under the EP&A Act. The integrated operation of a development consent and an EPL is desirable, but it may well be appropriate for conditions of the two to overlap.

The submissions made in relation to the consent conditions will be considered at the adjourned meeting, after considering the comments of Council staff and taking into account the submission also received from Ethos Urban on behalf of the landowner of 1699-1732 Elizabeth Drive, and any further submissions. One matter of concern is photographs shown of windblown litter on adjoining land apparently emanating from the facility.

It might be useful if the Applicant and Ethos Urban could be provided with copies of the respective additional submissions made, and attachments.

The Panel also noted the agreement of the Applicant to consider the boundary detail to the adjoining property at 1783 Elizabeth Drive to ensure the proposal if approved would be adequately screened.

The constitution of the Panel on the day of the meeting was affected by conflicts of interest arising unusually in relation to two of the professional Panel members arising from objection letters. The meeting was advised by the Chair of the Panel’s preference for the usual 5 members (requiring 2 alternate members to review the material) to sit in determination when the Panel reconvenes, and that therefore any oral representation to be made to all of the Panel members would need to be made to the deferred meeting.

PANEL MEMBERS	
 Justin Doyle (Chair)	 Glenn McCarthy
 Ross Fowler	

SCHEDULE 1		
1	PANEL REF – LGA – DA NO.	PPSSWC-7 – Penrith City Council – DA19/0470
2	PROPOSED DEVELOPMENT	Alterations to existing approved waste management and resource recovery facility – alterations to finished landform and increase in waste capacity
3	STREET ADDRESS	1725A Elizabeth Drive, Badgerys Creek
4	APPLICANT/OWNER	Suez Recycling and Recovery Pty Ltd
5	TYPE OF REGIONAL DEVELOPMENT	Designated development - waste management facility or works
6	RELEVANT MANDATORY CONSIDERATIONS	<ul style="list-style-type: none"> Environmental planning instruments: <ul style="list-style-type: none"> Relationship to future Strategic Planning surrounding the Western Sydney Airport Relationship with the future Western Sydney Airport Environmental impact from continued use of landfill operations Visual impact Traffic and transport implications Modification of existing Development Consent DA08/0958 Draft environmental planning instruments: Nil Development control plans: Nil Planning agreements: Nil Provisions of the <i>Environmental Planning and Assessment Regulation 2000</i>: Nil Coastal zone management plan: Nil The likely impacts of the development, including environmental impacts on the natural and built environment and social and economic impacts in the locality The suitability of the site for the development Any submissions made in accordance with the <i>Environmental Planning and Assessment Act 1979</i> or regulations The public interest, including the principles of ecologically sustainable development
7	MATERIAL CONSIDERED BY THE PANEL	<ul style="list-style-type: none"> Council assessment report: 1 June 2020 Written submissions during public exhibition: 7 Verbal submissions at the public meeting: <ul style="list-style-type: none"> Melanie Aliberti, Kirk Osborne, Lange Jorstad and Paul Sims Council assessment officer - Paul Anzellotti On behalf of the applicant – Phil Carbins, Jamie McMahon and Chandra Mohan
8	MEETINGS AND SITE INSPECTIONS BY THE PANEL	<ul style="list-style-type: none"> Briefing: Monday, 18 November 2019 <ul style="list-style-type: none"> <u>Panel members</u>: Bruce McDonald (Acting Chair) and Glenn McCarthy <u>Council assessment staff</u>: Paul Anzellotti and Kathryn Saunders Final briefing to discuss council's recommendation, Monday, 15 June 2020, 10:45am. Attendees: <ul style="list-style-type: none"> <u>Panel members</u>: Justin Doyle (Chair), Ross Fowler, Glenn McCarthy <u>Council assessment staff</u>: Paul Anzellotti, Gavin Cherry and Robert Craig
9	COUNCIL RECOMMENDATION	Approval
10	DRAFT CONDITIONS	Attached to the council assessment report

Attachment C

**Response to 'Record of Deferral' prepared by Jamie McMahon on behalf of SUEZ,
dated 14 July, 2020**

14 July 2020

Paul Anzellotti
Penrith City Council

Dear Paul,

DA19/0470 - Additional information in response to Sydney Western City Planning Panel deferral letter

SUEZ are in receipt of Sydney Western City Planning Panel's (the Panel) deferral notice for DA19/0470. This deferral states that the determination of the above development application (DA) was not made on or after the public meeting of 15 June 2020 and has now been deferred to a date which is not specified. This letter seeks to provide further information in relation to the specific points raised in the deferral letter and to request that the deferred public meeting and determination for this DA be expedited, ideally at a meeting in July 2020.

The following sections provide information relevant to the points raised in the deferral letter as well as reiterate previous correspondence on this matter.

Previous correspondence

Based on the issues raised and discussed at the public meeting on 15 June 2020 SUEZ provided detailed supplementary information in relation to the following points:

- Minutes for the meeting between SUEZ and WSA Co on 13 February 2019
- The current Landfill Environmental Management Plan
- The location of existing groundwater monitoring wells
- Further comments regarding the draft conditions of consent provided by Penrith City Council (PCC) in their development assessment report.

No response has been received to this letter, which was provided to the Panel and Council on 16 June 2020. This letter is included as an attachment to this correspondence to reiterate our request that this information be duly considered.

State Environmental Planning Policy (Western Sydney Employment Area) 2009

The Panel raised an issue in relation to clause 18 of the above policy and its direction that a development control plan (DCP) must be prepared for land subject to the policy prior to development consent being granted. This clause also provides for this requirement to be waived should the Director-General provide notice in writing to the consent authority.

We understand that a waiver in this regard has been obtained and provided to the Panel. As such this matter is adequately addressed and should not prevent the future determination of the subject DA.

Consistency of the proposal with the development of Western Sydney Airport

As noted in our previous correspondence of 16 June 2020, SUEZ specifically consulted with WSA during the development of the EIS. This included a face-to-face meeting with WSA representatives on 13 February 2019. This meeting addressed all the main points raised by WSA in their verbal representations to the Panel including the burning of landfill gas, potential navigational hazards and wildlife management.

It was made clear to WSA that SUEZ would be open to further dialogue regarding these and any other specific issues. Despite this WSA Co made no effort to request any further detail or provide any further comment until they provided comment to PCC as part of the exhibition of the DA in July and August 2019.

It should be noted that the landfill, being present in this location for approximately 30 years, is an existing use. It is currently consented to operate until it reaches a cap height of RL80. As outlined in the EIS, the closure date of the landfill is wholly dependent on the rate of filling and is not limited by the current consent or any other instrument. It should also be noted that as part of the Site's existing after-care obligations the landfill gas flare is expected to be operational for approximately 30 years post-closure, regardless of the outcome of the subject DA.

SUEZ stress that it was incumbent upon WSA during the preparation of their EIS, being several years **after** the installation of the landfill gas infrastructure on site, to assess the impacts of SUEZ' lawful existing use upon the proposed airport. SUEZ confirm that at no point did WSA Co seek any dialogue with SUEZ in relation to the preparation of their EIS. Despite this SUEZ is still open to discussions with WSA in an effort to cooperatively manage issues relating to the operation of the airport.

Landfill Environmental Management Plan and groundwater monitoring well locations

As requested by the Panel SUEZ have provided, as part of the previous correspondence, the current Landfill Environmental Management Plan (LEMP) (Attachment B to the previous letter). This plan, updated in April 2020, outlines the management measures guiding environmental compliance at the site in accordance with EPL 4068, including local amenity.

The LEMP includes extracts from the site's EPL (4068), as well as a map showing the locations for the monitoring of various discharges and emissions. This includes the location of the eight groundwater monitoring locations, as requested by Mirvac during the public meeting.

The location of the above groundwater monitoring wells has been agreed with the EPA and is therefore considered to be sufficient to monitor the potential for groundwater contamination arising from the landfill.

Draft conditions of consent provided by Penrith City Council

SUEZ provided additional commentary on the draft conditions of consent in their letter of 16 June 2020. This letter outlined the original condition as well as commentary provided by both Penrith City Council and SUEZ. SUEZ maintain their request that the Panel consider SUEZ' proposed clarification of these conditions, noting that the proposed updates wholly retain the spirit and most of the specific wording of the original conditions. The updates are proposed on the basis of reducing ambiguity in the wording, retaining operations that are currently acceptable and providing reasonable, feasible and auditable commitments for ongoing environment management of the landfill.

Daily vehicle movements

This issue is discussed in the correspondence of 16 June 2020. In short, SUEZ requests that the Panel consider a revision to the draft condition of consent that restricts daily vehicle movements to 640. SUEZ maintains that the existing upper limit of 780 movements per day is appropriate in managing traffic impacts on the surrounding road network, as demonstrated by current operations which operate to this limit. Any traffic impact associated with the proposal would be further reduced by the significant expansion in capacity provided by the imminent upgrade of Elizabeth Drive and construction of the M12 Motorway.

Overlap of conditions of consent and EPL requirements

SUEZ notes the Panel's comments on the separation of the objectives of the conditions of consent and the EPL, with each being based upon separate legislation. We also note and understand the Panel's desire for any such conditions to operate in an integrated manner where possible. We confirm that we support the preparation of conditions of consent that seek to provide for this integration wherever possible and avoid unnecessary 'double up' of regulation.

Windblown litter

SUEZ acknowledge that windblown litter is a potential issue at the site, albeit one that depends on the specific nature of waste deposited at any one time. SUEZ have received only one complaint in the preceding five years in this regard, on 26 November 2019. On this day wind gusts up to 97 km/hr resulted in litter being blown onto an adjacent property. SUEZ monitors weather forecasts on a daily basis in order to manage the site's operations and mitigate any potential environmental impacts. On this particular day such high wind speeds were not forecast, however SUEZ took immediate action by

suspending landfilling operations immediately, including closing the gate to waste deliveries. On-site resources were diverted to preventing the further escape of litter including through covering of waste with stockpiled material.

Within 24 hours SUEZ deployed a team of litter pickers to the neighbour's property to manually remove all wind-blown litter.

Correspondence was received from the EPA in this regard, to which SUEZ promptly responded, including photographs showing that the relevant fields that had been cleared less than 24 hours after the high wind event.

This episode demonstrates how seriously SUEZ regards its responsibility to environmental management, both within the landfill site and surrounds. SUEZ continue to respond rapidly and appropriately to all complaints received from our neighbours, the public and the EPA.

As part of the proposed development SUEZ is committed to maintaining these high standards. SUEZ is also in the process of procuring new perimeter fencing at locations around the site that are more vulnerable to wind-blown litter. This fencing is intended to trap the majority of wind-blown litter. The fence would be monitored regularly, with litter stuck on the fence being removed periodically.

Visual screening along southern boundary

SUEZ notes the verbal representation made at the meeting by Mr Paul Sims regarding visual impact for his property to the south of the landfill site, as well as his written submission to Council. SUEZ reiterate our commitment to augmenting screening vegetation along our shared boundary in order to mitigate visual impacts to Mr Sims' property. SUEZ would also investigate the condition of the existing 5 metre bund adjacent to Mr Sims' boundary with view to augmenting this where possible through additional material or supplementary screen planting.

DA submissions

SUEZ note that the local planning process does not typically provide for the applicant to be furnished with copies of submissions made on their DA. Indeed, SUEZ was not provided any of the submissions by Council as part of the planning process.

Despite this, SUEZ has made a request to PCC under the *Government Information (Public Access) Act 2009* (GIPA Act) to obtain these submissions, which was granted. Having reviewed these submissions SUEZ confirms that all relevant issues raised have been comprehensively addressed in the EIS and through subsequent correspondence provided to PCC and the Panel.

The following table outlines the key issues identified in submissions and how they have been addressed by SUEZ:

Issue	SUEZ response
Compatibility with the Western Sydney Aerotropolis Plan (WSAP)	SUEZ have definitively demonstrated in the EIS and through subsequent correspondence with PCC the compatibility of the proposal with both the Stage 1 LUIP and WSAP. This includes both direct and indirect off-site amenity impacts on nearby land and its proposed future uses (zoning).
Obstacle limitation surface (OLS)	SUEZ has developed the proposal in full knowledge of the proposed WSA OLS, with the pre-settlement limit of RL95 being well below the relevant height. SUEZ has also committed to not placing stockpiles on the final cap to further ensure the safety of landing aircraft.
Landfill gas	SUEZ has confirmed within the EIS and within subsequent correspondence with PCC that the existing operating landfill gas system: <ul style="list-style-type: none"> a) Has been lawfully operating since 2012 under DA12/0515, prior to the development of the environmental assessment for Western Sydney Airport. b) Would continue to operate for approximately 30 years post-closure, regardless of the outcome of the subject DA c) Would not involve any increase in the rate of gas burned at the site under the subject DA.

Issue	SUEZ response
Visual impacts	SUEZ have undertaken a comprehensive assessment of the visual impacts of the proposal, outlining the overall minor nature of impacts. This has been further backed by PCC's development assessment report which agrees that such impacts would be minor. Visual impacts to the south of the site were not raised during the EIS consultation, though SUEZ will work with the relevant neighbours to ameliorate impacts in this regard.
Leachate management	SUEZ commissioned a comprehensive assessment of the landfill's structural stability under the proposed expansion, including an assessment of the integrity of the leachate management system. This demonstrated that the system would be expected to operate normally under the weight of additional load.
Odour	The proposal would not have any impact on odour at the site, as the non-putrescible landfill does not produce any appreciable odour. Any odour arising from the broader site may be generated by the SUEZ Advanced Waste Treatment (SAWT) facility, the operation of which is subject to a separate existing consent and is not part of the subject DA. Additional improvements made to this facility to mitigate the odour impacts has been working successfully, with fewer odour complaints in recent years.
Post-closure land use	SUEZ notes comments made by the previous owner of the site in the original EIS in 1989. Since this time the nature of the capped landfill has changed meaning that plans made 30 years ago may not now be appropriate. As outlined in the 2019 EIS, SUEZ is interested in exploring safe and appropriate uses of the capped area post-closure and would seek community feedback in this regard at the relevant time.
Environmental management	<p>The site is already the subject of strict environmental management under its environment protection licence issued by the EPA (4068). It is expected that this licence would be updated should the project be approved.</p> <p>SUEZ provides the following responses to specific points raised in regard to the landfill design and operation:</p> <ul style="list-style-type: none"> • The Site has been developed with fully lined landfill cells, with restricted waste cells being double-lined. All cell designs and development has been approved by EPA based on the Construction Quality Reports provided to EPA over the years. • Annual Environmental Management Reports provided to the EPA demonstrate that there has been no significant non-compliance issues including any offsite migration of gas or leachate to adjoining properties. • The EPA has reviewed the existing landfill leachate infrastructure and concluded that the additional waste material would not affect the integrity and ongoing operations of the landfill facility's environmental management systems, including the leachate infrastructure. • The proposed capping designs have been specifically updated to comply with the 2016 Solid Waste guidelines. <p>The EPA has examined the proposal in fine detail and is satisfied that the expanded landfill can meet relevant environmental management obligations, as demonstrated by their provision of their General Terms of Agreement. All environmental management obligations would be included in an updated environmental management plan for the site, a copy of which has already been provided to PCC and the Panel.</p>

SUEZ welcomes the opportunity to discuss these issues in further detail should the Panel require it.

Oral representations

The deferral letter makes reference to the need for all oral representations made at the meeting of 15 June 2020 to be repeated at the deferred meeting for the benefit of the two alternate Panel members. SUEZ suggest that this is impractical and also unnecessary given the availability of the audio recording of the 15 June meeting. Should the alternate members have any questions arising from the previous oral representations these may be dealt with at the commencement of the next meeting. This would allow the meeting to proceed without further delay, noting the extended delays this DA has experienced already, with 12 months elapsed since lodgement on 17 July 2019.

Further to this, SUEZ requests that any alternate members proposed to attend the next meeting in which this DA is to be considered are fully briefed in advance to avoid the risk of further delaying the determination of the DA.

Conclusion

As outlined above, SUEZ has applied significant effort to understand, investigate, assess, respond, mitigate and manage the broad suite of planning, environmental and amenity issues associated with the proposed development. As such it is SUEZ' view that the development would present only minor additional impacts over and above those already committed to by the operating facility. The strategic benefit of retaining and extending the operation of this critical community service in an area earmarked for significant development in the immediate future cannot be underestimated.

SUEZ reiterates their desire for this DA to be determined without further delay. SUEZ requests that the application be considered at the Panel's earliest possible convenience, preferable in a meeting in July 2020.

Should PCC or the Panel require any further clarification on any of the above detail please contact the undersigned using the details below.

Yours faithfully



Jamie McMahon
Associate Director Environment
jamie.mcmahon@aecom.com

Direct Dial: +61289341123

ATTACHMENT A: Previous corresponded provided to PCC and the Panel on 16 June 2020

ATTACHMENT A: Previous corresponded provided to PCC and the Panel on 16 June 2020

16 June 2020

Justin Doyle
Sydney Western City Planning Panel

Dear Justin,

DA 19/0470 - Elizabeth Drive Landfill Expansion

Thank you for convening the planning panel discussion today for the SUEZ Elizabeth Drive Landfill Expansion development application (DA19/0470). As discussed, please see below some clarifications regarding certain points raised during the meeting. These include:

- Minutes for the meeting between SUEZ and Western Sydney Airport Corporation (WSA Co) on 13 February 2019
- The current Landfill Environmental Management Plan
- The location of existing groundwater monitoring wells
- Further comments regarding the draft conditions of consent provided by Penrith City Council (PCC) in their development assessment report.

This additional information is provided to supplement that included alongside the original development application (DA), as well as information provided in response to subsequent requests for information from PCC and the Environment Protection Authority (EPA).

Meeting with WSA Co

SUEZ and AECOM met with WSA Co on 13 February 2019 at SUEZ' offices at Chullora. The meeting was organised with Richard Longman from WSA Co after he attended the SUEZ community information session held for the Project at the Elizabeth Drive Landfill offices in November 2018. Minutes from this meeting are included as Attachment A.

The WSA Co/SUEZ meeting was intended to introduce the Project to WSA Co and provide them with further information regarding specific elements of the expanded landfill design, as well as giving them the opportunity to ask any relevant questions. WSA Co was represented at this meeting by Kirk Osborne and Richard Longman. SUEZ was represented by Phil Carbins, Chandra Mohan and Jamie McMahon (AECOM).

SUEZ provided a general overview of the Project and this was followed by several specific questions from WSA Co relating to future aircraft operations. In particular this included the following key issues:

- combustion of landfill gas – it was noted that this would continue for several decades beyond closure and that this occurs 24/7. WSA Co specifically requested the EIS state that there would be no increase in the rate of gas flaring, only an extension in duration. It was noted that the EIS would not include a plume rise assessment as there is no change to the current gas management as part of the landfill expansion
- navigational hazards – WSA Co asked if there was any new lighting which SUEZ indicated there was not
- wildlife management – WSA Co requested clarification around waterbodies on the site and bird species. SUEZ noted there are about 100-150 Australian Ibis on the site, nearly exclusively around sediment basins. This would not change with the Project. WSA requested detail on grass species and management. SUEZ outlined that there were no strict management plans in place as yet. SUEZ agreed to discuss grass seed species with WSA Co with view to reducing congregation of birds under the future flight path.

It was generally made clear that SUEZ would be open to further dialogue with WSA Co regarding specific issues that they wished to discuss further. Despite this WSA Co made no effort to request any

further detail or provide any further comment until they provided comment to PCC as part of the exhibition of the DA in July and August 2019.

It should be noted that the landfill, being present in this location for approximately 30 years, is an existing use. It is currently consented to operate until it reaches RL80. As outlined in the EIS the closure date of the landfill is wholly dependent on the rate of filling and is not limited by the consent or any other instrument.

SUEZ considers that it is incumbent upon the EIS prepared for Western Sydney Airport, having been prepared several years **after** the installation of the landfill gas infrastructure on site, to assess the impacts of SUEZ' lawful existing use upon the proposed airport. SUEZ confirm that at no point did WSA Co seek any dialogue with SUEZ in relation to the preparation of the EIS.

Landfill Environmental Management Plan

As requested by the Planning Panel SUEZ have provided the current Landfill Environmental Management Plan (LEMP) (Attachment B). This plan, updated in April 2020, outlines the management measures guiding environmental compliance at the site, including local amenity.

The LEMP includes extracts from the site's EPL (4068), as well as a map showing the locations for the monitoring of various discharges and emissions. This includes the location of eight groundwater monitoring points, as requested by Mirvac during the Planning Panel meeting.

Draft conditions of consent

As outlined during the Planning Panel meeting, SUEZ wish to clarify and update several draft conditions of consent. These updates are proposed in order to make the consent, if granted, clearer and to reduce the administration burden for all parties during the operation of the project.

As a general point, it is SUEZ' opinion that any matter expressly managed within the Environment Protection Licence for the site should **not** also be included in the development consent conditions. This 'double up' of conditions has the potential to lead to confusion over the management of specific elements of the site, particularly given that the EPL may be varied in consultation with the EPA from time to time in response to changing local conditions. The process to change any identical development consent condition would require a costly modification and would take several months, if permitted at all by the consent authority. This has the potential to lead to a highly confusing scenario where the same environmental or amenity issue is subject to two differing performance measures.

This situation is highly impractical and inefficient for all parties involved.

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12 June 2020)	Further commentary provided by SUEZ
Condition 21: <i>Mud and soil from vehicular movements to and from the site must not be deposited on the road.</i>	Whilst we agree with the intent of this condition it is not practical in its current form in that it may be interpreted as no mud or soil whatsoever. This is simply not achievable. Instead we propose the same condition be imposed here as suggested to the EPA for internal sealed roads, being: <i>During operating hours the site access road must be inspected twice per day and cleaned with a</i>	The modification of this condition is not supported as it is considered that the proposed replacement wording is open for interpretation, for instance the requirement to not clean the road if it has been raining within a time period as well as the nature of any high pressure water spray to be used and its further impact upon the surrounding environment.	Despite the additional commentary provided by PCC, SUEZ is still concerned that the original condition is highly open to interpretation. For example, it does not specify which road. It also may be interpreted as 'no mud or soil whatsoever', which is, in practice, impossible. To address PCC's concern with regard to 'high pressure water spray', we have added detail regarding on site water carts to align this

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12 June 2020)	Further commentary provided by SUEZ
	<i>high-pressure water spray if clumps of dirt, deposited sediment or other soil or waste debris are present. This is not required if it is raining or has rained within the previous four hours.</i>		<p>condition fully with the EPA's proposed wording in their GTAs.</p> <p>Our proposed wording substantially clarifies this condition and provides a reasonable, feasible and auditable commitment for environmental management. We request that the panel further consider our amended wording for this condition as provided below:</p> <p><i>During operating hours the site access road must be inspected twice per day and cleaned with a high-pressure water spray using on-site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.</i></p>
<p>Condition 31:</p> <p><i>The following dust mitigation measures are to be actioned in the operation of the landfill at all times;</i></p> <ul style="list-style-type: none"> <i>Sealing is to be provided to waste delivery haul routes. Sealed roads are to be progressively laid moving onto the landfill towards the tipping face. Only the final 50m of the haul/turnaround area is to remain unsealed.</i> <i>Twice daily cleaning of sealed roads is to be provided using high-pressure water spray from on-site water</i> 	<ul style="list-style-type: none"> Update second dot point in line with changes requested to EPA GTAs i.e. <i>During operating hours sealed roads must be inspected twice per day and cleaned with a high-pressure water spray if clumps of dirt, deposited sediment or other soil or waste debris are present. This is not required if it is raining or has rained within the previous four hours.</i> 	<p>For the request to the second dot point, this is not supported as no commentary has been returned by the EPA supporting the change to the GTA.</p>	<p>As outlined above SUEZ is concerned that the condition relating to cleaning of sealed roads is highly impractical in its current draft. We suggest that this condition is updated in the same manner, that is:</p> <p><i>During operating hours sealed roads must be inspected twice per day and cleaned with a high-pressure water spray using on site water carts if clumps of dirt, deposited sediment or other soil or waste debris are present.</i></p>

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12 June 2020)	Further commentary provided by SUEZ
<p><i>carts.</i></p> <p>•</p> <p>Condition 40:</p> <p><i>Total vehicle movements are not to exceed 640 per day.</i></p>	<p>The body of the assessment report indicates that the proposed cap of 640 vehicles per day was derived from the traffic and transport study in the EIS. It should be noted these numbers in the EIS were based on long term averages and predictions of individual vehicle capacities, rather than on actual daily maximums. As such, even under current operations (750,000 tpa), the number of vehicle movements per day sometimes exceeds 640.</p> <p>The EIS demonstrated that traffic issues are not a problem based on the current fluctuating levels and RMS has also raised no objections to the proposal. In addition, as noted in the assessment report, the future upgrade of Elizabeth Drive and 'bypass' provided by the M12 will provide substantial additional capacity on Elizabeth Drive, hence rendering any traffic benefits from this mandated reduction in vehicle movements obsolete. Given this and the fact that we do sometimes have busier days above 640 movements, we request that the previous limit of 780 vehicle movements per day be retained.</p>	<p>The argument presented to provide for a modification of this condition is not supported.</p> <p>Section 3.1.5, 'Summary of Future Daily Heavy Vehicle Trips with Project' provided within the Traffic and Transport Impact Technical Report as part of the Environmental Impact Statement reads as follows; <i>The existing consent for the Site limits the number of daily heavy vehicle movements per day to 780. Based on the future site operation with the Project, it is expected that the forecast daily heavy vehicle movements generated by the Site will remain under 780 (Table 3.7).</i></p> <p>Table 3.7 – Forecast total daily vehicle movements of SUEZ's Elizabeth Drive Resources Recovery Park with this Project provides the following for a typical weekday;</p> <ul style="list-style-type: none"> • Number of daily heavy vehicle movements – landfill without project = 444 • Number of additional daily heavy vehicle movements – landfill with project = 116 • Number of daily heavy vehicle movements – SAWT = 80 • Total daily heavy vehicle movements = 640 <p>As the application was assessed and referred to relevant authorities based</p>	<p>SUEZ are particularly concerned that PCC have misinterpreted the traffic impact assessment outlined in the EIS. Page 10 of the traffic and Transport Technical Report (Appendix B to the EIS) outlines in several locations that the traffic assessment is based upon an average waste vehicle tonnage. As such the 640 vehicle movements per day derived from this assessment is also an average. This implies that there are times when vehicle movements are higher and times when they are lower than this number.</p> <p>PCC outline that the application was assessed and referred to relevant authorities based upon the figures provided within the Traffic and Transport Technical Report. This report clearly indicates that 640 vehicles per day is an average. As such the assessment undertaken by PCC and RMS remains valid, as it was based upon parameters stated clearly within the report. No further assessment by PCC's traffic engineer or RMS is therefore necessary.</p> <p>For this reason, SUEZ requests that the panel consider the retention of the existing limit on vehicle movements of 780 per day. SUEZ consider this limit appropriate given that traffic into and out of the</p>

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12 June 2020)	Further commentary provided by SUEZ
		upon the figures provided within the accompanying Traffic and Transport Impact Technical Report and referrals returned based upon the figures within this report, the provision of a maximum 640 vehicle movements is considered appropriate.	<p>site is demonstrably not an issue under current operating conditions, and that this traffic will be further mitigated by the imminent Elizabeth Drive upgrade and the construction of the M12 motorway.</p> <p>SUEZ propose the following revised wording for this condition:</p> <p><i>Total vehicle movements are not to exceed an average of 640 per day, measured over a calendar year, with an upper limit of 780 per day.</i></p>
<p>Condition 41:</p> <p><i>All landscape works are to be constructed in accordance with the stamped approved plans and as amended by the conditions of this consent.</i></p> <p><i>Landscaping shall be maintained:</i></p> <ul style="list-style-type: none"> <i>in accordance with the approved plans, and</i> <i>in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.</i> <p><i>If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.</i></p>	<p>We request the addition of text to time-limit the operation of this condition to the end of landfilling operations. This is because at this stage (final operations) the site will be well in its way to being fully grassed over and the need for strict vegetation management as a visual screen will become obsolete.</p>	<p>The modification of this condition is not considered acceptable. The vegetation to the perimeter of the subject site is considered to contribute the visual presentation of the landfill when viewed especially from the eastern and southern sides. As operations are not time restricted and noting the possibility for new uses adjoining the subject site with the development of the Aerotropolis, retention of this condition is considered appropriate.</p>	<p>SUEZ request that this condition is considered further by the panel. Specifically, we request that reference to 'in perpetuity' be removed here, as has been agreed to by PCC for condition 43.</p> <p>SUEZ also request the removal of references to replacing vegetation at the same maturity given that this will be impossible for any trees larger than those held in pots at commercial nurseries.</p> <p>As such we propose the following wording be considered by the panel:</p> <p><i>All landscape works are to be constructed in accordance with the stamped approved plans and as amended by the conditions of this consent.</i></p> <p><i>Landscaping shall be maintained:</i></p>

Proposed condition to be modified	Commentary provided by SUEZ (11 June 2020)	Commentary provided by PCC in response (12 June 2020)	Further commentary provided by SUEZ
			<ul style="list-style-type: none"> • <i>in accordance with the approved plans, and</i> • <i>in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.</i> <p><i>If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.</i></p>

Conclusion

SUEZ appreciates this opportunity to clarify our intent and commitment to high levels of local amenity and environmental performance and management within the Elizabeth Drive Landfill in relation to the proposed expansion. We trust that the information above provides adequate clarification in relation to the outstanding issues relating to the development application.

Based on the recommendation for approval by Penrith City Council, the provision of general terms of agreement by the EPA and the resolution of matters raised by various parties during the planning panel meeting, it is clear that this project meets all relevant environmental and social requirements for approval. As such we request that the development application is approved by the Sydney Western City Planning Panel without further delay.

Should you require any further clarification please contact the undersigned using the details below.

Yours faithfully,



Jamie McMahon
Associate Director Environment
jamie.mcmahon@aecom.com
Direct Dial: +61289341123

Attachment A – Meeting minutes between SUEZ and WSA Co, 13 February 2019

Minutes of Meeting

Elizabeth Drive Landfill Expansion

Subject	Western Sydney Airport Co/SUEZ Meeting	Page	1
Venue	Chullora Recycling & Waste Management Centre	Time	3:30pm
Participants	Phil Carbins (SUEZ), Chandra Mohan (CM), Jamie McMahon (AECOM), Richard Longman, Kirk Osborne		
Apologies	None		
File/Ref No.		Date	21-Jan-2019
Distribution	SUEZ staff, Western Sydney Airport Co		

No	Questions/Comments	Response
1.	Introductions	
2.	<p>PC</p> <ul style="list-style-type: none"> - Welcome - Outlined community meeting at at Twin Creeks - Presentation of project (powerpoint) - outlined that the site includes the SAWT. Outlined the waste that enters the SAWT and how it is managed, including use on mine sit rehabilitation until recent change in EPA policy - outlined that the main landfill accepts both general solid waste and restricted solid waste - detailed the site's landfill gas management. This meets the site's energy requirements and contributes a small amount back to the grid though some gas is still flared due to limitation on local electricity network receiving capacity 	
3.	KO – have there been any recent EPA interactions?	PC - show cause for dirt on road two weeks ago, though this was due to other developments also on this road. SUEZ wheel washing facility is still fully operating
4.	RL indicated that some asbestos management is ongoing within the WSA site	
5.	PC outlined that the SAWT operation would continue beyond final capping	
6.	KO – Will gas generation continue within the site after final capping?	PC – yes, this will continue for several decades as long as gas is produced
7.	KO – What is the planning pathway for the Elizabeth Drive landfill expansion?	JM – The project is designated development and therefore requires an EIS. The project is

No	Questions/Comments	Response
		also regionally significant and will be assessed by the Sydney City West Planning Panel, as consent authority
8.	<p>PC</p> <ul style="list-style-type: none"> - Outlined how cells are currently excavated and lined - Outlined the final state of the landfill after expansion – effectively a 'grassy knoll' - SUEZ have an aftercare obligation of 30 years for the capped landfill site. SUEZ will retain ownership of the site - Detailed the nature of the proposal including the additional height of 15 m 	
9.	<p>RL</p> <ul style="list-style-type: none"> - Does not think OLS is a big issue for the expansion of the landfill - The landfill is right under approach surface - PANS-OPS still being modelled by WSA – this might be lower than OLS - Discussed plane spotting platform on the landfill 	<p>PC</p> <ul style="list-style-type: none"> - Acknowledged ongoing work at airport on navigation procedures - Indicated that a plane spotting platform was one of several land use proposals for the final capped landfill - The EIS mentions several 'dot points' with regard to future land use but none of these form part of proposed development
10.	KO – Are SUEZ proposing and buildings on the final cap?	PC – No buildings are proposed due to settlement of the landfill and the effect on footings
11.	RL – is there any proposal to commercialise the use of the final cap?	PC – No, not currently
12.	<p>PC</p> <ul style="list-style-type: none"> - Showed visualisations of the final cap and existing views - Discussed Twin Creek's main issues, being odour and visual impact - Discussed nature of the EIS including main and other issues - What are WSA's main issues? 	<p>RL</p> <ul style="list-style-type: none"> - Main issues in relation to the landfill expansion would be landfill gas flaring and wildlife management
13.	PC – outlined that the gas facility has an exit velocity of gas of 4.3 m/s. This is only what is produced by the vacuum pump system that draws gas out of the landfill	
14.	KO – is the flaring of gas constant?	PC – Yes, this occurs 24/7
15.	RL – Potential for pilot distraction by flare	
16.	KO – Discussed wildlife hazard. Asked what type of grass species SUEZ proposed to use on the cap? Also asked how the grass would be managed e.g. what height?	PC – No current plans or knowledge of grass species. Grass would be managed to a suitable level according to rainfall etc. This may be as little as slashing twice a year.
17.	KO – asked about waterbodies on site – are birds expected to disperse or stay nearby when the landfill expansion occurs? Request to mention consultation in hazards chapter of EIS.	<p>JM – Mentioned current hazards discussion in EIS</p> <ul style="list-style-type: none"> - 100 to 150 ibis present on site - The EIS does not include a plume rise

No	Questions/Comments	Response
		<p>assessment as there is no change to the current gas management as part of the landfill expansion</p> <ul style="list-style-type: none"> - The presence of birds on site will also not change with the expansion
18.	KO – request to mention gas management in EIS i.e. no increase in rate of gas flaring only overall duration	JM – confirmed this will be mentioned in the EIS
19.	RL – indicated that nav aids for aircraft approach not immediately an issue in relation to the landfill expansion. Asked if there was any new lighting proposed as part of the landfill expansion.	PC – no new lighting as part of the expansion
20.	RL – RL and KO will ask their team about nav aids/beacons /radar reflectivity etc and communicate further with SUEZ	
21.	<p>JM – EIS will be assessed against future use as well as existing scenario</p> <ul style="list-style-type: none"> - The upgrade of Elizabeth Drive will not result in any real change to operations at the site - The proposal does not include any change to operating hours of the landfill 	
22.	JM – The EIS will state that plume rise and bird issues will be managed in consultation with WSA	

Attachment B – Elizabeth Drive Landfill Environmental Management Plan (LEMP)

Environmental Management Plan

Elizabeth Drive Landfill

Document #. PLANS004.1.4

Issue date 14 April 2020

Version 5



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1. Introduction

1.1. Purpose

The purpose of this document is to describe the environmental management of operational activities at Elizabeth Drive Landfill that have, or are likely to have, an impact on the environment. This document sets out detailed procedures and measures that must be taken to minimise and eliminate environmental impact. This document also assists internal and external stakeholders in assessing environmental performance and ensures transparency across environmental operations.

SUEZ's Environmental, Quality and Safety (EQS) Management System is structured in accordance with the requirements of the following standards:

- AS/NZS 4801:2001 Occupational Health and Safety Management Systems;
- ISO 14001:2015 Environmental Management Systems; and
- ISO 9001:2005 Quality Management System.

SUEZ is certified to the above standards by an independent third-party.



Figure 1 Aerial view of Elizabeth Drive Landfill

“SUEZ is committed to undertaking all activities in an environmentally responsible way, preventing pollution and proactively developing environmentally sustainable activities.” – *Environment Policy*

1.2. Scope

This document applies to all activities undertaken at the Elizabeth Drive Landfill.

1.3. Statutory Requirements

Elizabeth Drive Landfill operates under an Environment Protection Licence (EPL) (refer to **Appendix 1**. for further information on this EPL) issued by the New South Wales Environment Protection Authority (EPA).

The steps for ensuring legal and regulatory compliance is set out in the *Legislative and Other Requirements Procedure*. This procedure outlines key responsibilities for updating and communicating statutory requirements. Relevant statutory requirements are maintained in the *Legislative Register – Environmental*.

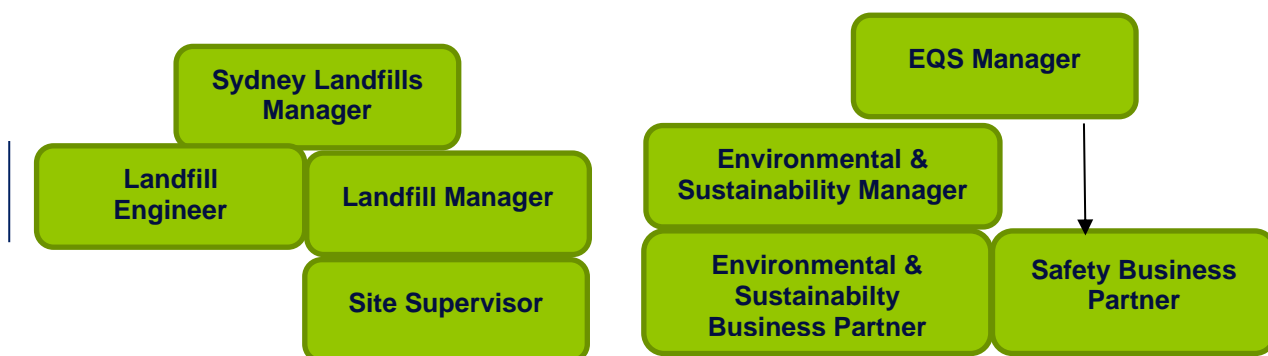
1.4. Environmental Impact Statement

An Environmental Impact Statement (EIS) was prepared prior to excavation and landfilling operations commencing. The EIS proposed that quarrying of clay, shale, sandstone and laminite over a 63 hectare area at Badgerys Creek would be undertaken with rehabilitation and backfilling with solid wastes.

1.5. Development Consent

The construction of Elizabeth Drive Landfill was granted Development Consent on 22 October 1990 by Penrith City Council and a licence was issued on 30 November 1990 with subsequent Development Consents granted for additional site operations where applicable. A summary of the various Development Consents are found in the *Site Document Manifest*.

1.6. Organisational Structure at Elizabeth Drive Landfill



1.7. Staffing and Training Requirements

The Site Manager ensures the provision of adequate training for workers on-site to ensure that all requirements described in this EMP are met. It is also the Site Manager's responsibility to provide adequate training to all workers performing critical tasks, such as inspection and direction of incoming wastes, operation of the equipment and environmental management on-site.

An environment, quality and safety (EQS) system has been prepared and implemented by SUEZ. It is designed to provide SUEZ's employees with information about their environmental responsibilities which are outlined in the specific procedure or SOP.

1.8. Environmental Auditing and Review

SUEZ evaluates the performance of Elizabeth Drive Landfill in accordance with *Management Systems Review Procedure*, *Monitoring and Measurement Procedure*, *Audit Procedure* and in conjunction with the Annual return process required of the EPL. The Annual Return records complaints received, testing and activation of the Pollution Incident Response Management Plan (PIRMP), documenting the results of environmental monitoring that has been conducted as a requirement of the EPL and recording non-compliances and remedial actions taken or proposed for the non-compliances.

1.9. Update and Version Control Requirements

This document is version controlled. All updates to this document must be made in accordance with the PROC004 - *Document Control Procedure*.

2. Site Overview

2.1. Site Description and Layout

Elizabeth Drive Landfill is located in the Penrith Local Government Area. Access to the site is from Elizabeth Drive, Kemps Creek. The site occupies an area of 81,500 square meters. Surrounding land use is predominantly rural and rural residential development. Its location and surrounding land uses are shown in Figure 2. The site is located 5km west of Kemps Creek and 41km west of the Sydney Central Business District.

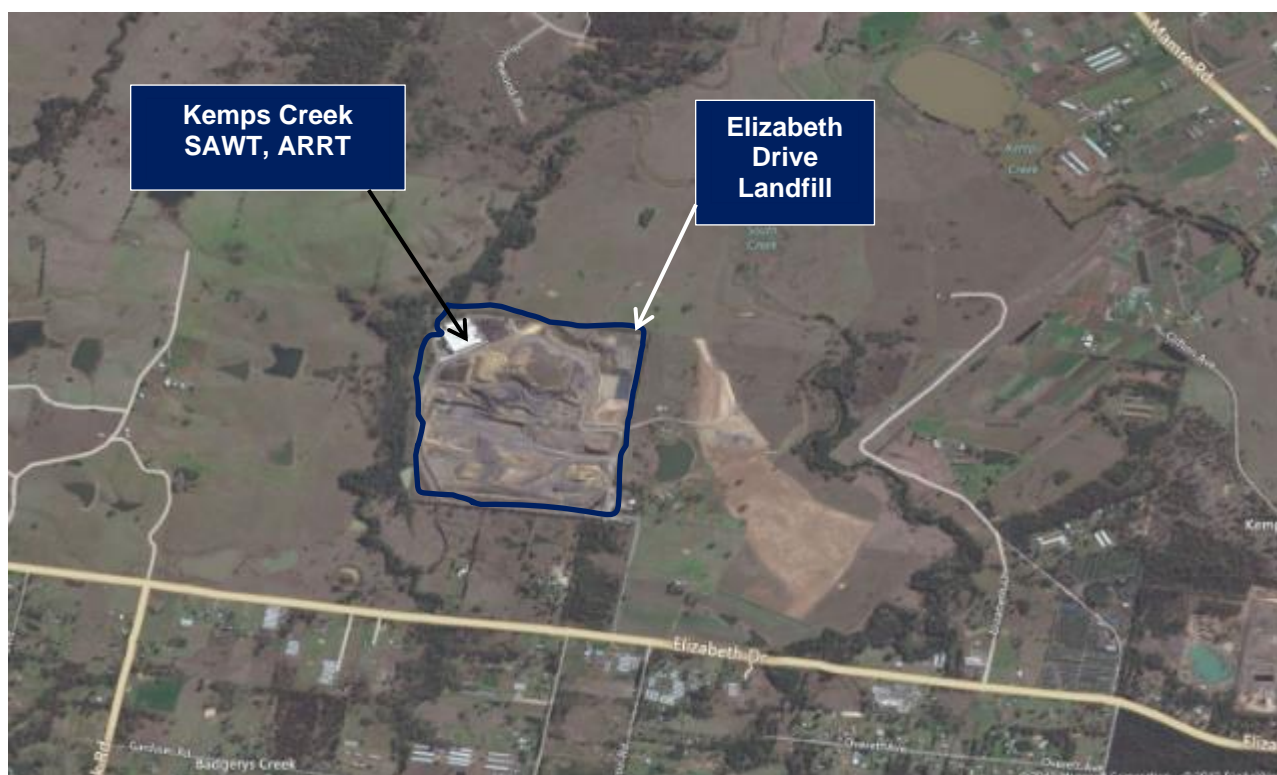


Figure 2 Elizabeth Drive Landfill and Kemps Creek SUEZ Advanced Waste Treatment (SAWT) Advanced Resource Recovery Technology Facility

2.2. Infrastructure

The main components of the Elizabeth Drive Landfill site include:

- A weighbridge;
- A Small Vehicle Drop-off area;
- Maintenance Workshops;
- Administrative Buildings;
- Truck Wheel Wash;
- Vehicle and Plant Refuelling Area;
- Parking for waste collection vehicles servicing Penrith City Council;
- Staff and Visitor Car Parking Areas.

Kemps Creek SUEZ Advanced Waste Treatment (SAWT) Advanced Resource Recovery Technology Facility (ARRT) is located in the north-east corner and operates under a separate Environment Protection Licence to Elizabeth Drive Landfill (refer to the *Environmental Management Plan*, Kemps Creek SAWT ARRT for further details).

2.2.1. Hours of operation

In accordance with the Environment Protection Licence, Elizabeth Drive Landfill operates between the hours listed in **Appendix 2**.

2.2.2. Traffic management

Vehicles entering the facility to dispose materials are required to enter / exit via a controlled weighbridge and boom gates. Vehicles disposing of materials are directed to the appropriate disposal area upon arrival at the weighbridge, by the weighbridge officer. Workers monitor waste disposal areas to ensure the correct disposal and type of waste streams using various communication methods. All vehicles entering and exiting the site must be covered except during loading and unloading. Please note that all commercial waste vehicles are required to exit via the wheel wash.

Geological materials being exported from the site (e.g. clay, shale, sandstone and laminite), exit via the weighbridge where they are weighed and the vehicle weights stored in the Mandalay system.

A range of vehicles and mobile plant are used at Elizabeth Drive Landfill to conduct operations, including the transfer and transport of materials in and around the facility. Refer to the *Traffic Management Plan* for further details of traffic types and movements.

2.2.3. Drainage

The main entrance and exit to the site and side access road for Kemps Creek SAWT ARRT, are constructed of hard paved roadways. This assists in the control of water in and around the site with water directed at the appropriate sediment dam on the site. Temporary access roads are constructed to gain access to landfilling and cell construction areas and are constructed in a manner to direct the water to the appropriate sediment dam.

All areas are constructed in a manner that directs all water runoff to one of the five sediment ponds on site. Refer to the section on Surface Water Management for further information on discharging this water to the nearby creek. Refer to **Appendix 3**. For maps which show drainage around the wheel wash area.

2.2.4. Security

A 2 meter high chain wire fence surrounds Elizabeth Drive Landfill. The weighbridge workers supervise the main entrance from Elizabeth Drive. Other entrance and exits which are not normally trafficable are locked to prevent unauthorised access and security is provided outside of operational hours. Refer to the *Site Management – Infrastructure Facilities* for further information.

2.2.5. Services

The facility is connected to mains water, telephone and power lines. Septic tank systems are adopted at the facility for the collection, treatment and disposal of effluent from the site. Disposal of solid waste collected in the septic tanks is conducted by approved contractors. For information on safely conducting work around utility services, refer to the *Utility Services SOP*.

2.3. Overview of Elizabeth Drive Landfill Activities

The landfilling process and associated activities covered by this EMP are summarised in **Appendix 32**.

3. Environmental Incident Management and Community Engagement

3.1. Environmental Incident Management

All environmental incidents are to be recorded in accordance with the *Incident Reporting and Corrective Action Procedure*. Environmental complaints are handled in accordance with *Environmental Complaints Management SOP*. Where a pollution incident occurs the Pollution Incident Response Management Plan (PIRMP) for Elizabeth Drive Landfill must be activated.

Note that all contact with a regulatory body must be approved by the relevant Site Manager or Business Line Manager.

3.2. Specific Requirements – Fire Incidents

All fire occurrences on site must be reported to the EPA as soon as practicable after workers become aware of the fire. The items identified in **Appendix 30**, must be recorded for every fire and an Environmental Incident Corrective Action Report (CAR) must be raised in accordance with the *Incident Reporting and Corrective Action Procedure*.

3.3. Community Complaints

A free call telephone line is operated on behalf of SUEZ. The telephone line, 1800 368 737, operates 24 hours a day, 7 days per week. Complaints about the site can be registered on this line. Complaints can also be lodged with the NSW EPA on 131 555 and also directly to the site management. The details of all complaints received and actions taken in response to the complaints are maintained on the SUEZ integrated management system. All complaints received are investigated and responded to within the allocated time frame set out in *Environmental Complaints Management SOP*.

3.4. Community Reference Group

Kemps Creek Advanced Resource Recovery Park (ARRP) has developed a Community Reference Group (CRG). Regular meetings of the CRG occur, where site operations and environmental reports on performance are discussed with members. Copies of CRG meeting minutes are published onto the SUEZ website.

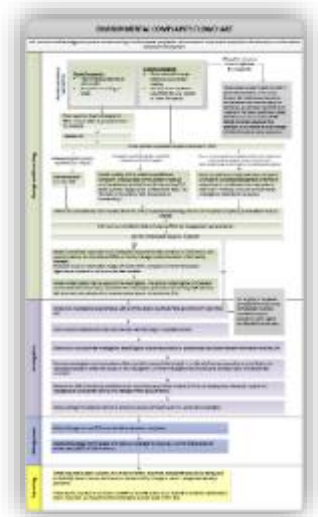
3.5. Environmental Reporting

In accordance with the *Protection of the Environment (Waste) Regulation 2014*, all environmental monitoring required by the licence is published to the [SUEZ website](#).

3.6. Emergency Preparedness

In accordance with the *Emergency Management Procedure*, an *Emergency Reponse Plan* (ERP) and PIRMP have been developed for Kemps Creek ARRP (which includes Elizabeth Drive Landfill).

Emergency drills are to be conducted in accordance with the *Emergency Management Procedure*. In the event of an emergency involving potential environmental damage the PIRMP must be activated. It is a requirement of the *Protection of the Environment Operations Act 1997* (POEO Act) that the PIRMP is tested at minimum of 12 monthly intervals.



4. Waste Acceptance, Stockpiling and Material Export

4.1. Wastes accepted at Elizabeth Drive Landfill



The EPL for Elizabeth Drive Landfill lists wastes which are acceptable for disposal. For a list of the wastes accepted at Elizabeth Drive Landfill, refer to **Appendix 4**. For information on weighbridge operation (e.g. money handling, computer systems, and contact numbers) refer to the *Weighbridge Operations SOP*.

4.2. Acceptance of Waste

Prior to delivery of waste it is a requirement that the consignor of the waste has assessed the waste in accordance with the NSW *Waste Classifications Guidelines*. On entry to the facility, the delivery driver must state the contract or consignment number to the weighbridge operator. The weighbridge operator will then record the weight of the vehicle into the Mandalay system against the contract or consignment number. The weighbridge operator will then direct the driver to the appropriate unloading area. Elizabeth Drive Landfill must only accept wastes in accordance with the EPL. Any waste that does not meet a certified waste category, contained within the EPL must not be accepted.

Restricted waste delivered to the landfill must be delivered with an EPA issued waste transport certificate. A copy of the waste transport certificate is to be provided to the site administration staff for recording into the EPA's online system. This copy is then provided to the Compliance Officer for filing in accordance with the *Records Procedure*.

All deliveries of asbestos waste received at the landfill must be recorded. The delivery driver is required to scan the QR2 code located on the inbound weighbridge upon entry to the site. Any load of asbestos waste over 100kg or 10m², that has not had the QR2 code scan undertaken is required to be recorded. The landfill operator must report all asbestos loads received that have not been scanned within 7 days after the end of each month of receipt of asbestos materials.

The landfill is not open to the general public and all waste is delivered from pre-approved providers including from other SUEZ owned facilities.

4.3. Stockpiles

There are limits on the stockpiles of waste that can be held on site. For information on these limits, refer to **Appendix 5**. Additional limitation on stockpile heights for cover material are documented in the Environmental Impact Statement (EIS) developed for the quarrying and landfilling operations.

The EIS states that *"all long-life stockpiles would not be more than 10 metres high and would be positioned in the comparatively topographically low area. As the quarrying and backfilling proceeds, the material to be stockpiled would be placed on the previously backfilled stages."*

4.4. Material Export

In accordance with the development consent Elizabeth Drive Landfill periodically extracts the following minerals prior to the construction and filling of new landfilling cells:

- Clay;
- Shale,
- Sandstone; and
- Laminite

5. Environmental Management and Monitoring

All monitoring activities set out in this section must comply with the requirements of the *Monitoring and Measuring Procedure* and the *Incident Reporting and Corrective Actions Procedure*.



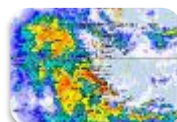
Leachate



Feedback & Complaints



Water



Weather



Landfill Gas



Dust



Operational Conditions



Litter



Pests & Vermin



Air

5.1. General

Environmental management (including operational requirements) and monitoring requirements for Elizabeth Drive Landfill are contained within the Environment Protection Licence, 4068. In line with the monitoring requirements set out in the site's licence, Elizabeth Drive Landfill conducts further monitoring (which is also outlined in this section) which may be used for management purposes on site.

Refer to **Appendix 6.** for a list of testing requirements (e.g. methods) imposed by the EPA.

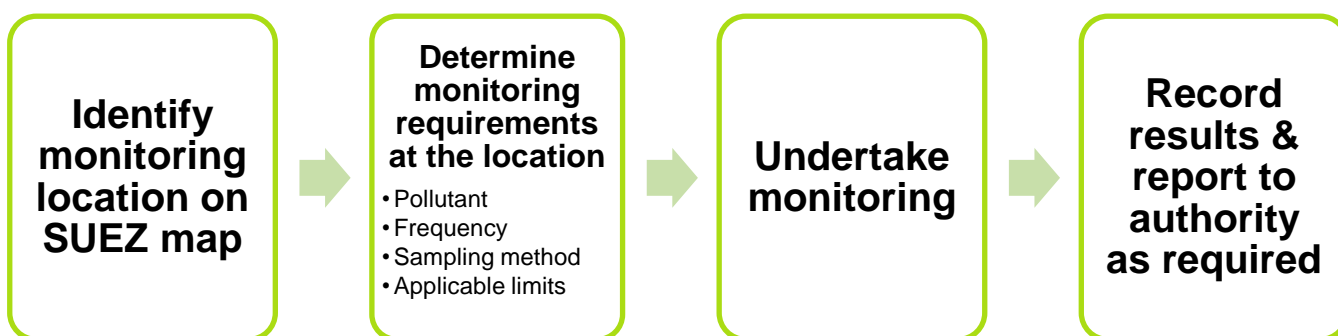


Figure 3 Summary of the monitoring process at Elizabeth Drive Landfill

The responsibilities of SUEZ workers are outlined within the relevant Standard Operating Procedures (SOPs) and Work Instructions (WIs) outlining the operations. The responsibilities of actions within this Environmental Management Plan fall to the Site Manager.

5.2. Records



All monitoring records referenced in this section must be maintained in accordance with the *Records Management Procedure* and:

- Be in a **legible form**, or in a form that can readily be reduced to a legible form;
- Kept for a least **4 years** after the monitoring or the event to which they relate took place; and
- Be able to be **produced** in a legible form **to any authorised officer of the EPA** who asks to see them.

All samples taken in this section must contain:

- The **date(s)** the sample was taken;
- The **time(s)** at which the sample was collected;
- The **point/location** at which the sample was taken; and
- The **name of the person** who collected the sample.

5.3. Monitoring Locations

All references to monitoring locations in this plan relate to the 'Monitoring Location Map' which is contained within **Appendix 33**. The Environment Protection Licence lists unique 'EPA identification numbers' for each monitoring point on the Monitoring Location Map; refer to the relevant monitoring point table for the particular activity (e.g. leachate monitoring) which sets out both the EPA identification number and the Monitoring Location Map reference for each monitoring point.

5.4. Limiting Conditions

All operations undertaken by SUEZ must **not** pollute waters (other than where permitted by the Environment Protection Licence – e.g. ammonia, total suspended solids). Refer to **Appendix 7**. for further information on what it means to pollute waters.

The Environment Protection Licence also provides for measureable limits on certain pollutants as well as limits on wastes that are permitted on site.

For details of the limiting conditions, refer to the relevant section which outlines management of that particular issue.

5.5. Operational Requirements



At SUEZ, all activities must be carried out in a competent manner. This includes:

- The processing, handling, movement and storage of materials and substances used to carry out the activity;
- The export of clay and shale; and
- The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

All the activities outlined above must be carried out in a manner that will prevent and minimise fire at the premises. For further information on operational requirements as they relate to the EPL, refer to **Appendix 13**.

5.6. Landfill Gas

The management of landfill gas is to be conducted in accordance with the requirements set out in the *Landfill Gas Management SOP*. Landfill gas monitoring includes surface gas monitoring, subsurface gas monitoring and gas accumulation monitoring of buildings and structures (e.g. service pits, weighbridge hatches).

The purpose for conducting and monitoring methane gas levels is to ensure that the effective management of landfill gases is occurring.

Surface gas monitoring is conducted quarterly with the last quarter of monitoring undertaken by an external contractor.

Subsurface gas monitoring is also conducted quarterly and is undertaken by external contractors. All requirements of the *Contractor and Visitor Control Procedure* must be followed prior to the monitoring being conducted.

Gas accumulation monitoring is conducted annually inside buildings and structures. In addition fixed indoor methane gas monitors have been installed in buildings to detect and alert occupants if the concentration of methane is reaching explosive atmospheric levels.

Gas infrastructure is maintained and monitored by the landfill gas contractors

5.6.1. Management strategy

Production of landfill gas creates a positive pressure within the landfill. This pressure acts as a driving force (convection), creating a potential for landfill gas movement beyond the disposed waste. In addition, a concentration gradient creates potential for diffusive flow of landfill gas from areas of high pressure or high concentration into areas of low pressure or concentration. The primary function of the Landfill Gas Management System is to control odorous emissions from the landfill by collecting the gas generated in the landfill, transporting it to the flare station, and incinerating it.

In addition gas collected can be used to convert to green energy that will supply electricity back to the grid which has DA approval.

5.6.1. Infrastructure and Collection

The system consists of gas extraction wells, the associated gas collection header pipe, a knock-out pot, and blower/flare station.

The gas extraction system is designed to collect landfill gas as soon as it is produced. The gas extraction system compliments the engineered containment system as it provides advective pressure relief, reducing the risk of a breach in the containment system and reducing upward migration of landfill gas prior to the construction of final capping. The active extraction coupled to a flare allows the effective destruction (in excess of 98% of NMOC and methane), or coupled to electricity generators provides the added benefit of renewable energy. Gas extraction will be conducted with the primary objective of landfill gas capture and odour control rather than energy generation.

Leachate produced in the landfill affects the ability of the gas extraction system to operate and significantly impedes the ability to control gas. Landfill gas management must be undertaken in conjunction with leachate management (refer to section 5.7).

5.6.1. Sampling Equipment and Instructions

The surface gas emissions are sampled using an Inspectra laser gas monitor which is connected to an Archer GPS tracking computer (Archer GPS). The Archer GPS automatically records readings of methane and an exported CSV file is produced for later analysis. For details on the methodology for landfill surface gas monitoring refer to the *Landfill Surface Gas Monitoring Work Instruction*.

5.6.2. Monitoring Points

The monitoring of surface gas emissions is conducted in a 20m by 20m grid patterns with results recorded into the Archer GPS.

The monitoring points for subsurface gas monitoring are located within **Appendix 15**.

5.6.3. Monitoring Requirements

For a list of the pollutants, the frequency which must be recorded, refer to **Appendix 16**.

5.6.4. Notification Requirements



If subsurface or enclosed space gas monitoring detects methane concentrations above **1% (v/v)**, Elizabeth Drive Landfill must:

- a) Notify the EPA within 24 hours;
- b) Increase the frequency of monitoring to daily until advised otherwise in writing by the EPA; and
- c) Submit a written assessment to the EPA within 14 days of the incident being realised; the report must detail the emissions, and the management controls implemented (or proposed to be implemented), to prevent further emissions.

5.7. Leachate

The management of leachate is to be conducted in accordance with the requirements set out in the *Leachate Management SOP*. The purpose of effective leachate management is to ensure that leachate does not contaminate local water courses or ground water sources.

5.7.1. Management Strategy

This site has been designed to maintain an inward groundwater hydraulic gradient, with groundwater contributing to the total leachate volume, albeit in very small quantities. Perimeter drainage control has been adopted to prevent surface water run on from adding to leachate reservoirs.

Leachate generated at Elizabeth Drive Landfill is designed to percolate down through the waste, until it reaches the landfill liner and drains down the gradient to the leachate sump.

Leachate is collected via a grid of trapezoidal shaped drains incorporated in the bottom of the liner. These drains are filled with porous material wrapped in synthetic fabric and slope to header lines leading to a collection sump within each cell.

Leachate is then removed from the sump and transferred to on-site storage tanks. From the storage tanks the leachate is then re-circulated in the landfill. Some of the leachate is lost to evaporation and remainder is retained within the solid waste. Any excess leachate is currently transported off site to a licenced facility for treatment. It is planned that while re-circulation through refuse cells and ad hoc disposal currently meets leachate generation levels in the short term, as the volume of leachate generated increases, pump and treatment infrastructure will be installed.

5.7.2. Infrastructure and Collection

Primary leachate infrastructure at Elizabeth Drive Landfill includes:

- Leachate line through cells;
- General waste tank area consisting of 4 x 20,000L tanks; and
- A restricted waste tank area consisting of 8 x 20,000L tanks.

5.7.3. Sampling Equipment and Instructions

Leachate monitoring is conducted by gathering a sample of the leachate into laboratory bottles from the points as specified in the EPL. The samples are sent to the laboratory for analyses and a report is attained. For details on the methodology for leachate sample collection refer to the *Landfill Leachate Sample Collection Work Instruction*.

5.7.4. Monitoring Points

Refer to **Appendix 17**. for a list of the leachate monitoring points.

5.7.5. Monitoring Requirements

Appendix 18. outlines the pollutants and the frequency of sampling – e.g. quarterly pollutants are required to be sampled quarterly at a minimum. All samples for regulatory compliance purposes are analysed by a National Association of Testing Authorities (NATA) accredited laboratory.

The temperature, dissolved oxygen, conductivity and redox potential of samples may be recorded on site using the applicable monitoring checklist.

The sampling method (i.e. the relevant sample bottles required) are contained within **Appendix 19**.

5.8. Water

Water is to be managed in accordance with the requirements set out in the *Water Management SOP*. The purpose in managing and monitoring water on site is to ensure that the local water courses and ground water sources are not contaminated due to landfill activities.

5.8.1. Management Strategy

Operational activities on the site can accelerate erosion processes and sediment loss. The surface water management system provides the mechanisms for controlling these processes and minimising the potential for contamination of the waterways within the site and beyond its boundaries. The environmental goals for surface water management on site are as follows:

- Minimising risk of pollution of surface waters by leachate or other contaminants;

- Minimising risk of pollution of surface waters by sediments; and
- Minimising surface water infiltration into the landfill, and subsequent leachate generation.

The surface water management system is based on the following principles:

- Reuse of surface water in operational activities as is practicable;
- All water that has been in contact with waste or contaminated by leachate is handled and treated as leachate;
- Suitably selected intermediate cover should be applied to a depth of 30 centimetres over surfaces exposed for more than 90 days;
- All completed areas are progressively revegetated;
- Runoff from disturbed and undisturbed areas is separated as much as practicable, and diverted away from the active landfilling area;
- The refuelling area and chemicals within the workshop are bunded and the latter roofed as well;
- Accidental spills are immediately cleaned up;
- Sediment basin are designed to allow settlement of solids; and to allow chemical dosing for coagulation and flow; and
- The bund wall constructed along the southern boundary of the site captures water from undisturbed areas of the site and diverts this water to Badgerys Creek.

The management strategy to ensure the proper control of water includes:

- Prevention of contamination of surface water through use of revegetation, bunding, contouring etc.;
- Minimising disturbance of vegetated areas of the site by staging works;
- Minimising stormwater from running onto disturbed areas of the site by staging the works from upstream to downstream and, where necessary, utilising stormwater diversion drains and bunds;
- Minimising erosion of disturbed areas by utilising erosion control devices;
- Ensuring all collected stormwater is treated to an acceptable standard prior to reuse or discharge off site;
- Minimising the amount of stormwater runoff discharging from the site by maximising reuse on site;
- Ensuring all erosion and sediment controls are properly maintained by implementing an inspection and monitoring schedule;
- Separating “clean” and “dirty” water to minimise the storage demand for sedimentation ponds;
- Providing stormwater devices in the trafficked impervious areas;
- Elimination of areas where ponding may occur;
- Ensuring good compaction and coverage of waste to prevent stormwater contamination via contact with wastes.

5.8.2. Infrastructure and Collection

All storm water is directed to one of five sedimentation dams located on the site, each of which are listed below:

- Main water supply dam;
- South western dam;
- North western dam;
- North eastern dam; and
- The wheel wash dam

These are designed for the collection of all storm water runoff from the landfill areas and to capture sediment that may be contained within the water prior to any offsite release.

5.8.3. Sampling Equipment and Instructions




Water monitoring is broken into three parts, namely surface water, groundwater and wet weather discharge. The difference between the three are location, method of sampling and pollutants which must be tested for – this is reflected in the Appendices.



Refer to the *Water Monitoring Work Instruction* for specific equipment and the methodology on how to conduct water monitoring for Elizabeth Drive Landfill.

5.8.4. Monitoring Requirements

Water monitoring conditions are located in the relevant Appendix as indicated below:

Appendix	Groundwater	Surface water	Wet weather discharge
Monitoring points	20. 	23. 	26. 
Monitoring requirements (Pollutant / Frequency / Method)	21. 	24. 	27. 
Sampling bottles (grab sample only)	22. 	25. 	22. 

5.9. Air and Dust

The management of dust is to be conducted in accordance with the requirements of the *Site Maintenance – Infrastructure Facilities*. The purpose of dust management is to ensure that neighbouring properties are not adversely affected by dust, from operations attributed to the landfill.

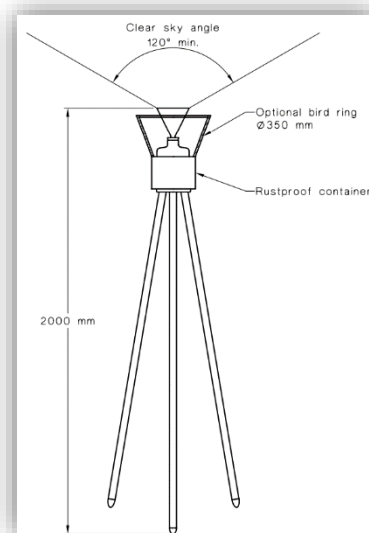
5.9.1. Management Strategy

Potential dust nuisance during dry weather is controlled by regular wetting down of unsealed access and manoeuvring areas, as required. A water truck is maintained permanently on the site for this purpose as well as for fire control. A street sweeper is maintained and utilised on site for this purpose particularly in wet weather to reduce the occurrence of “tracking” of materials off site.

The main access road and manoeuvring areas are sealed. Access roads shall be wetted down by the water truck on a needs basis to maintain minimum potential for dust generation. Automatic wheel washing is provided for all vehicles prior to leaving the landfill site and the wheel wash facility cleaned regularly and checked by the landfill manager.

All earthworks areas including stockpiles and haul roads must be operated so as to minimise dust nuisance. The requirements for stockpile rehabilitation are aimed at ensuring that outer surfaces are held together by vegetative cover to minimise wind erosion and dust. In all cases, stockpiles shall only be worked in suitable conditions and operations in stockpile areas shall cease if a nuisance is perceived or complaints clearly attributable to stockpile operation occur.

Should complaints be received from adjacent landowners then the Landfill Manager shall give consideration to watering of the working cell using the tanker. All complaints are to be recorded into the SIMS system as per the requirements of *Incident Reporting and Corrective Action Procedure*. Refer to Section 3 for further information on the receipt and handling of complaints.



5.9.2. Monitoring Sampling and Instructions

All monitoring must be undertaken in accordance with the requirements set out in *AS/NZS 3580.10.1:2003 methods for sampling and analysis of ambient air. Method 10.1: Determination of particulate matter—Deposited matter—Gravimetric method*.

5.9.3. Monitoring Points

Refer to **Appendix 28**, for a list of the Air Quality Monitoring Points.

5.9.4. Monitoring Requirements

Refer to **Appendix 29**, for a list of the monitoring requirements related to Air Quality.

5.10. Odour

The management of odour is to be conducted in accordance with the requirements set out in *Odour Management SOP*. The purpose in odour management is to prevent the degradation of local amenity from potential odour emissions or odourous activities associated with landfilling operations.

5.10.1. Management Strategy

Odours from landfill operations are significantly reduced by effective site management. The main sources of odours on a landfill site includes gas generated from refuse decomposition, recirculation of leachate, installation of new gas infrastructure, failure of existing gas infrastructure, inadequate cover of received wastes and old refuse, water ponding/pooling on landfill surfaces and excavation in old refuse:

The principal management control methods used to avoid offensive odours include:

- Ensuring the immediate deposition of waste upon delivery;
- Covering of received waste as soon as practicable;
- Regular review of gas infrastructure performance;
- Periodical maintenance of gas infrastructure, as required; and
- Sourcing of odour neutralising systems, if required.

Odour monitoring is conducted to ensure that SUEZ operates within the odour conditions set out in the EPL (see **Appendix 11**, for this requirement).

Daily odour monitoring is undertaken as per the Elizabeth Drive Landfill monitoring checklist.

If complaints are being received about odour it may be necessary to take further action which could include the following:

- Provision of improved drainage to minimise the occurrence of standing water
- Reduce the size of the active tipping face.
- Use of deodorisers
- Installation of a gas control system as early as possible
- Increasing cover thickness or using different more impermeable intermediate cover material

Refer to Section 3 for further information on the receipt and handling of complaints.

5.11. Litter

The management of litter is to be conducted in accordance with the requirements of the *Site Maintenance – Infrastructure Facilities SOP*. The purpose for control and management of litter is to ensure that local amenity is not affected from windblown litter.

5.11.1. Management Strategy

In most cases, airborne litter at Elizabeth Drive Landfill is minimised by the progressive use of cover over the active fill areas and by the provision of earth berms around the area being landfilled. During the normal operation of the landfill, the size of the working face is restricted to as small an area as practicable, dependent on traffic flow.

Additionally, a portable litter screen is used downwind of the working face to contain loose paper and other windblown refuse which might otherwise escape from the working face prior to the daily cover being applied.

The operations supervisor will be responsible for the correct placement of the portable screens to ensure they are located correctly relative to wind direction and working areas. Litter will be cleaned from the screens on a weekly basis and collected by hand prior to relocation.

Minor quantities of litter which escape and blow around the site are to be recovered by litter "pickers" who patrol the landfill workforce area and boundaries recovering such material as required.

5.12. Noise

The management of noise is to be conducted in accordance with the requirements of the *Site Maintenance – Infrastructure Facilities SOP*. The purpose of noise management is to ensure that no loss of amenity is caused to neighbours from noisy operations associated with the landfill.

5.12.1. Management Strategy

In accordance with the EPL, the site must not exceed the noise exposure levels outlined in **Appendix 10**.

The following general measures are taken to reduce noise on site:

- The use of appropriate and well-maintained machinery manufactured to appropriate design specifications.
- Incorporation of a 3 metre high bund along the southern boundary of the site.
- Re-organisation of storage stockpiles and boundary vegetation to provide acoustic shielding.

In addition, vehicles entering the site must adopt the following measures to ensure noise is minimised by:

- Restricting the number of waste transport vehicles in operation during the early hours of the day;
- All vehicles are to limit the use compression breaking;
- All vehicles are required to adhere to site sign posted speed limits;
- All vehicles are to be operated between the allowed hours of operations as specified in the EPL; and
- All landfill vehicles are fitted with 'quacker' type alarms to reduce intrusiveness of noise emissions.

Noise monitoring is required to be conducted annually in accordance with the EPL. Monitoring is required to be expressed as LA10 (15 minute) for the EPL. In accordance with development consent (CoC 75), the operations are not to cause an increase in the background L90 noise levels of more than 5db(A) to the nearest resident. For further information refer to the site specific monitoring schedule.

5.13. Pests and Vermin

The management of pests and vermin is to be conducted in accordance with the requirements of the *Site Maintenance – Infrastructure Facilities SOP*. The purpose of pest and vermin management is to reduce the impact on amenity to neighbours and the community caused from the attraction of vermin and pests to waste materials.

5.13.1. Management Strategy

These are operated as part of the overall site management strategy.

- Security fencing installed around the perimeter of the site;
- Compaction and daily cover of waste materials;
- Application of intermediate cover to exposed areas of greater than 90 days;
- Pest control contractor engaged monthly;
- Rat and mouse baiting;
- Minimising the active tipping area;
- Management of revegetated and vegetated areas via contractor;
- Revegetation of completed landfill areas.

The following items may be implemented if a pests and vermin become a continuing risk on site.

- Distress Tapes.
- Avitrol Poisoning.
- Propane Cannons.
- Racket Bombs.
- Blank .22 Calibre Shells.

- Wire Grid System.
- Mobile Cover Net

5.14. Vegetation

Vegetation Management is to be conducted in accordance with the requirements of the *Site Maintenance – Infrastructure Facilities SOP*. The purpose of appropriate vegetation management is to ensure that no weed outbreaks occur to local areas due to waste placement activities of the landfill.

5.14.1. Management Strategy

The following activities will be utilised to monitor and maintain vegetation on the landfill:

- Regular inspection of grassed areas for weed infestations;
- Regular maintenance of rehabilitated areas by contractor;
- Regular inspection and maintenance of the riparian zone by a specialist bush management contractor;
- Planted areas will be regularly inspected, where depressions are noted these will be filled, reseeded and mulched;
- Revegetation and plantings will be, where possible, indigenous climaxed species amongst established colonised species.

5.14.2. Monitoring Requirements

A combination of weekly, monthly and 6 monthly monitoring will be conducted in accordance with the *Monitoring and Measurements Procedure* and records retained on the applicable *Inspection Checklist*.

5.15. Weather



SUEZ records and monitors the following items in accordance with the conditions outlined in the EPL:

- a) The daily wind speed and direction; and
- b) Daily rainfall

All records are maintained in accordance with the *Records Management SOP*.

6. Definitions

3DGM [in relation to a concentration limit] – Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples

Act – Means the [Protection of the Environment Operations Act 1997](#)

activity – Means a scheduled or non-scheduled activity within the meaning of the *Protection of the Environment Operations Act 1997*

actual load – Has the same meaning as in the [Protection of the Environment Operations \(General\) Regulation 2009](#)

AM – Together with a number, means an ambient air monitoring method of that number prescribed by the [Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales](#).

AMG – Australian Map Grid

anniversary date – The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the [Protection of the Environment Operations Act 1997](#), the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.

Approved Methods Publication – Has the same meaning as in the [Protection of the Environment Operations \(General\) Regulation 2009](#)

Assessable pollutants – Has the same meaning as in the [Protection of the Environment Operations \(General\) Regulation 2009](#)

BOD – Means biochemical oxygen demand

CEM – Together with a number, means a continuous emission monitoring method of that number prescribed by the [Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales](#).

COD – Means chemical oxygen demand

composite sample – Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.

cond. – Means conductivity

environment – Has the same meaning as in the [Protection of the Environment Operations Act 1997](#)

environment protection legislation – Has the same meaning as in the [Protection of the Environment Administration Act 1991](#)

EPA – Means Environment Protection Authority of New South Wales.

fee-based activity classification – Means the numbered short descriptions in Schedule 1 of the [Protection of the Environment Operations \(General\) Regulation 2009](#).

general solid waste (non-putrescible) – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

flow weighted composite sample – Means a sample whose composites are sized in proportion to the flow at each composites time of collection.

general solid waste (putrescible) – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

grab sample – Means a single sample taken at a point at a single time

hazardous waste – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

licensee – Means the licence holder described at the front of EPA licence 4068.

load calculation protocol – Has the same meaning as in the [Protection of the Environment Operations \(General\) Regulation 2009](#)

local authority – Has the same meaning as in the [Protection of the Environment Operations Act 1997](#)

material harm – Has the same meaning as in section 147 [Protection of the Environment Operations Act 1997](#)

MBAS – Means methylene blue active substances

Minister – Means the Minister administering the [Protection of the Environment Operations Act 1997](#)

mobile plant – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

motor vehicle – Has the same meaning as in the [Protection of the Environment Operations Act 1997](#)

O&G – Means oil and grease

percentile [in relation to a concentration limit of a sample] – Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In the relevant licence, the specified period of time is the Reporting Period.

plant – Includes all plant within the meaning of the [Protection of the Environment Operations Act 1997](#) as well as motor vehicles.

pollution of waters [or water pollution] – see **Appendix 7**.

premises – Elizabeth Drive Landfill

public authority – Has the same meaning as in the [Protection of the Environment Operations Act 1997](#)

regional office – Means the relevant EPA office referred to in the Contacting the EPA document accompanying EPA licence 4068.

reporting period – For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the [Protection of the Environment Operations Act 1997](#), the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.

restricted solid waste – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

scheduled activity – Means an activity listed in Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

special waste – Has the same meaning as in Part 3 of Schedule 1 of the [Protection of the Environment Operations Act 1997](#)

TM – Together with a number, means a test method of that number prescribed by the [Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales](#).

TSP – Means total suspended particles

TSS – Means total suspended solids

Type 1 substance – Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements

Type 2 substance – Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements

utilisation area – Means any area shown as a utilisation area on a map submitted with the application for EPA licence 4068

waste – Has the same meaning as in the [*Protection of the Environment Operations Act 1997*](#)

waste type – Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

7. Related Documents

DOCUMENT NAME	REFERENCE
Environment Policy	POL001
Legislative and Other Requirements	PROC001
Legislative Register – Environmental	REG005
Site Document Manifest	REG013
Document Control Procedure	PROC004
Environmental Management Plan	PLANS004.2.1
Traffic Management Plan	PLANS002
Site Management – Infrastructure Facilities	SOP041
Utility Services	SOP102
Environmental Complaints Management	SOP066
Incident Reporting and Corrective Action Procedure	PROC008
Waste Acceptance Manual	MAN011
Monitoring and Measuring Procedure	PROC007
Leachate Management	SOP029
Contractor and Visitor Control Procedure	PROC013
Records Management	PROC009
Landfill Gas Management	SOP038
Contractor and Visitor Control Procedure	PROC013
Leachate Management	SOP029
Water Management	SOP069
Odour Management	SOP065
Snakes, Spiders, Ticks and Fire Ants	SOP054
Emergency Management	PROC005

Emergency Management Plan	PLANS003
Management Systems Review	PROC012
Audit Procedure	PROC010

8. Review and Document Control

VERSION	CHANGE	REVIEWED	AUTHORISED	DATE ISSUED
1	Initial Issue	-	-	20 Oct2013
2	Minor amendment – added drainage map in Appendices	N Bhugon	R Sharp	Sep 2014
3	<p>Update to new template. Redevelopment in line with legislative and licence requirements. Inclusion of additional sections:</p> <ul style="list-style-type: none"> Environmental Incident and Community Engagement Section Waste Acceptance, Stockpiling and Material Export <p>Redevelopment of Environmental Management and Monitoring section to include:</p> <ul style="list-style-type: none"> Water Air Pests and Vermin Vegetation Weather <p>Environmental Management section now includes monitoring requirements in line with the applicable EPL (i.e. integration with the <i>Environmental Monitoring Manual</i>).</p>	R Georges	-	22 Jan 2016
4	<p>Updated to reflect new variation of licence No.4068 – Issued 18-Sep-2018</p> <p>Updated document reference number</p>	Compliance Officer	Nat. EQS Manager	14 Nov 2018
5	<ul style="list-style-type: none"> Updated ISO14001 and ISO9001 management systems to current version Updated organizational structure for Elizabeth Drive Landfill Updated document reference – PROC004 Updated information on traffic management] Updated the frequency of surface gas monitoring Updated methan concentration limit for subsurface and enclosed space Updated to reflect new variation of licence No.4068 – issued 12 March 2020 Updated to delete leachate monitoring point 30 to reflect the varied license Appendix 18 updated to add a pollutant to in accordance to current varied license. 	Environmental & Sustainability BP	Nat EQS Adviser	14 April 2020

9. Appendices

APPENDIX 1. - Current environmental protection licence

Summary Licence No: 4068

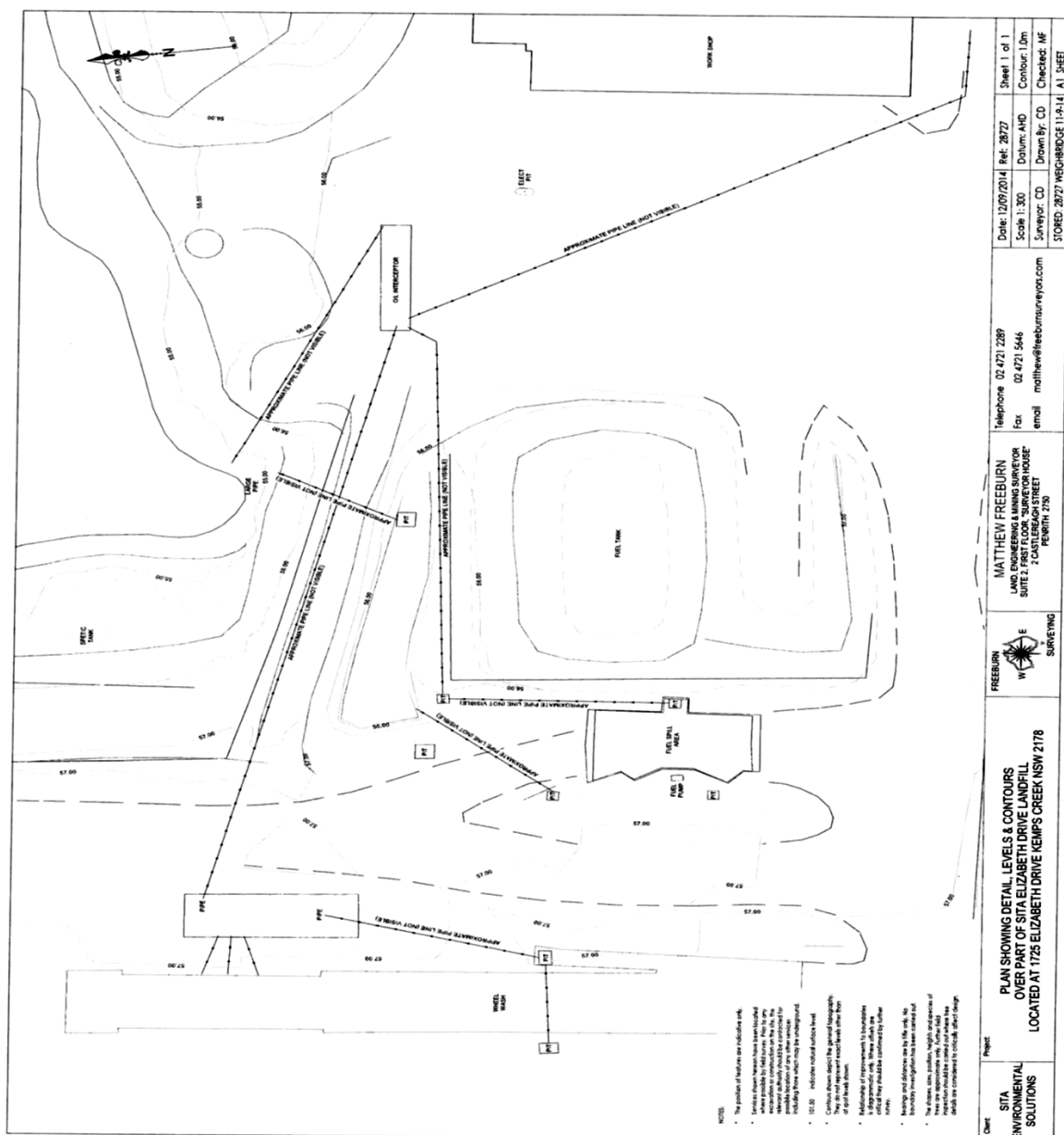
[View this licence](#) (PDF document 194 kb)

Licence holder: SUEZ RECYCLING & RECOVERY PTY LTD
Premises: ELIZABETH DRIVE LANDFILL FACILITY
 1725 ELIZABETH DRIVE, KEMPS CREEK, NSW, 2178
LGA: PENRITH **Catchment:** Hawkesbury
Administrative fee: \$4,256.00
Licence status: Issued
Activity type: Generation of electrical power from gas
 Waste storage - other types of waste
 Waste disposal by application to land
Licence review: Complete date 15 Jan 2016
 Complete date 24 Jan 2011
 Complete date 24 Jan 2006
 Complete date 02 Jun 2003
 Due date 15 Jan 2021

APPENDIX 2. - Hours of operation at Elizabeth Drive Landfill

Activity	Day	Hours
Quarrying and waste compaction activities	Monday to Friday	7:00AM to 6:00PM
	Saturday	7:00PM to 5:00PM
	Sunday to public holidays	8:00AM to 5:00PM
Waste receipt	Monday to Friday	6:00AM to 6:00PM
	Saturday	7:00AM to 5:00PM
	Sunday and public holidays	8:00AM to 5:00PM
In case of emergency	Monday to Sunday	Anytime

APPENDIX 3. - Drainage map (area surrounding wheel wash)



APPENDIX 4. - Waste accepted at Elizabeth Drive Landfill		
Waste	Description	Other limits
General solid waste (non-putrescible)	Refer to full definition in Appendix 31 .	Must only be disposed of in general solid waste (non-putrescible) landfill cells.
Asbestos waste	Any waste that contains asbestos. Source: <i>Protection of the Environment Operations Act 1997 – Schedule 1, s50.</i>	Must only be disposed of in general solid waste (non-putrescible) landfill cells.
Waste tyres	Rejected or unwanted tyres, including casings, seconds, shredded tyres or tyre pieces. Refer to Appendix 12 . Source: <i>Protection of the Environment Operations Act 1997 – Schedule 1, s50.</i>	Must only be disposed of in general solid waste (non-putrescible) landfill cells.
Restricted solid waste	Any waste (other than special waste, hazardous waste or liquid waste) that includes any of the following: (a) Anything that is classified as restricted solid waste pursuant to the Waste Classification Guidelines, (b) Anything that is classified as restricted solid waste pursuant to an EPA Gazettal notice. Source: <i>Protection of the Environment Operations Act 1997 – Schedule 1, s49</i> Refer to Step 5 of <i>Waste Classification Guidelines Part 1: Classifying waste.</i>	Must only be disposed of in restricted solid waste landfill cells.

Source: [*Environment Protection Licence, 4068*](#)

Licence version date: 12 March 2020

APPENDIX 5. - Stockpiling limits

Tyres stockpiled on the premises must:

- (a) not exceed fifty (50) tonnes of tyres at any one time; and
- (b) be located in a clearly defined area away from the tipping face; and
- (c) be managed to control vermin; and
- (d) be managed to prevent any tyres from catching fire.

The volume of unshredded and shredded garden waste and wood waste stockpiled at the Premises must not exceed 2,000 cubic metres (m³) at any one time.

The volume of demolition material, concrete, broken tiles, blast furnace slag and bricks stored or stockpiled for the purpose of landfill operations must not exceed 2,000 cubic metres at any one time.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 6. - List of testing requirements

[Approved methods for the sampling and analysis of water pollutants in NSW](#) (March 2004 edition)

[Environmental Guidelines: Solid Waste Landfill Appendix A](#) (**second** edition **2016**)

[Approved methods for the sampling and analysis of air pollutants in NSW](#) (January 2007 edition)

[Guidelines for Assessment and Management of Sites Impacted by Hazardous Ground Gases](#) (November 2012)

[Contaminated Sites: Sampling Design Guidelines](#) (September 1995)

[Guidelines for the Assessment and Management of Groundwater Contamination](#) (March 2007)

[Australia and New Zealand Guidelines for Fresh and Marine Water Quality](#) (October 2000)

APPENDIX 7. - Pollute waters and related definitions

"water pollution" or "pollution of waters" means:

- (a) placing in or on, or otherwise introducing into or onto, waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, so that the physical, chemical or biological condition of the waters is changed, or
- (b) placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any refuse, litter, debris or other matter, whether solid or liquid or gaseous, so that the change in the condition of the waters or the refuse, litter, debris or other matter, either alone or together with any other refuse, litter, debris or matter present in the waters makes, or is likely to make, the waters unclean, noxious, poisonous or impure, detrimental to the health, safety, welfare or property of persons, undrinkable for farm animals, poisonous or harmful to aquatic life, animals, birds or fish in or around the waters or unsuitable for use in irrigation, or obstructs or interferes with,

or is likely to obstruct or interfere with persons in the exercise or enjoyment of any right in relation to the waters, or

- (c) placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, that is of a prescribed nature, description or class or that does not comply with any standard prescribed in respect of that matter,

and, without affecting the generality of the foregoing, includes:

- (d) placing any matter (whether solid, liquid or gaseous) in a position where:

- i. it falls, descends, is washed, is blown or percolates, or
- ii. it is likely to fall, descend, be washed, be blown or percolate,

into any waters, onto the dry bed of any waters, or into any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted, or

- (e) placing any such matter on the dry bed of any waters, or in any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted,

if the matter would, had it been placed in any waters, have polluted or have been likely to pollute those waters.

"waters" means the whole or any part of:

- (a) any river, stream, lake, lagoon, swamp, wetlands, unconfined surface water, natural or artificial watercourse, dam or tidal waters (including the sea), or
- (b) any water stored in artificial works, any water in water mains, water pipes or water channels, or any underground or artesian water.

Source: [Protection of the Environment Operations Act 1997 – Dictionary](#)

Information retrieved at: 29 October 2015 – 6:00PM EST

APPENDIX 8. - Concentration Limits

Surface Water / Wet Weather Discharge

Pollutant	Units of Measure	100 percentile concentration limit
Ammonia [NH ₃]	Milligrams per litre	0.9
Total suspended solids (TSS)	Milligrams per litre	50

Groundwater Concentration Limits

Pollutant	Units of Measure	100 percentile concentration limit
Ammonia [NH ₃]	Milligrams per litre	15

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 9. - Blasting Limits

L5 Blasting

L5.1 The overpressure level from blasting operations on the premises must not exceed:

- a) 115 dB (Lin Peak) for more than 5% of the total number of blasts over the reporting period; and
- b) 120dB (Lin Peak) at any time.

L5.2 Noise from blasting operations at the premises is to be measured at the most affected residential property, or if this is more than 30 metres from the residence, at the most affected point 30 metres from the residence, or other noise sensitive, or other noise sensitive areas in the vicinity of the premises, to determine compliance with condition L5.1.

L5.3 All blasting at the premises must only be conducted between the following hours: 9:00am to 4:00pm Monday to Friday, and at no time on Saturdays, Sundays or Public Holidays.

Ground vibration

L5.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five percent of the total number of blasts over a reporting period of this licence; and 10mm/s at one time.

L5.5 Vibration from blasting operations at the premises is to be measured at the most affected point residential property boundary; or if this is more than 30 metres from the residence, at the most affected point 30 metres from the residence or other noise sensitive area in the vicinity of the premises, to determine compliance with L5.4.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 10. - Noise Limits

L4	Noise limits
L4.1	<p>Noise from the premises must not exceed:</p> <p>a) an LA10(15 minute) noise emission criterion of 50 dB(A) during the day (7am to 10pm);</p> <p>b) an LA10(15 minute) noise emission criterion of 45 dB(A) during the night (10pm to 7am);</p> <p>except as expressly provided by this licence.</p>
L4.2	Noise from the premises is to be measured at the most affected point on or within the residential property boundary to determine compliance with condition L4.1. If the most affected residential property boundary is greater than 30 metres from the premises, then the noise is to be measured at any point 30 metres from the nearest residence or noise sensitive area within the vicinity of the premises to determine compliance with condition
L4.1.	If the noise is substantially tonal, repetitive, frequency varying, or impulsive in character, 5 dB(A) must be added to the measured level for each characteristic, up to a maximum of 10dB(A)

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 11. - Odour Limits

L7	Potentially offensive odour
L7.1	No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the <i>Protection of the Environment Operations Act 1997</i> .
Note:	Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant Environment Protection Licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 12. - Tyre Limits

In addition to the limits on stockpiles contained in **Appendix 5**, SUEZ must not:

- L3.2** For the purposes of this condition:
- a) tyres are taken to be shredded only if the tyres are in pieces measuring no more than 250 mm in any direction; and
 - b) domestic load means a load containing no more than 5 tyres having a diameter of less than 1.2 metres.
- L3.3** The licensee must not dispose of any tyre at the premises unless:
- a) the tyre has a diameter of 1.2 metres or more; and/or
 - b) the tyre has been shredded or had its walls removed; and/or
 - c) the tyre was delivered to the premises as part of a domestic load.
- L3.4** Tyres stockpiled on the premises must:
- a) not exceed fifty (50) tonnes of tyres at any one time; and
 - b) be located in a clearly defined area away from the tipping face; and
 - c) be managed to control vermin; and
 - d) be managed to prevent any tyres from catching fire.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 13. - Activities must be carried out in a competent manner

As outlined in Part 4, Clause O1 of the Environment Protection Licence:

- O1 Activities must be carried out in a competent manner**
- O1.1** Licensed activities must be carried out in a competent manner.
- This includes:
- a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.
- O1.2** All operations and activities occurring at the premises must be carried out in a manner that will prevent and minimise fire at the premises.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 14. - Surface gas monitoring points

Monitoring points are identified by applying a 20m by 20m grid, on top of the site map (refer to **Appendix 33.**). The monitoring results are automatically logged into the Archer GPS tracking computer and exported as a csv file for later analyses.

Quarterly surface gas monitoring should be conducted when the wind is less than 10km/hr. Recordings must be made 5cm above landfill surface and an anemometer must be used to observe the readings.

APPENDIX 15. - Landfill gas subsurface monitoring points

EPA Identification No.	SUEZ Reference	Description of Location (all references are to the map contained in Appendix 33.)
45	SG1	Located western boundary of Premises
46	SG2	Located on SW boundary of Premises
47	SG3	Located on SW boundary of Premises
48	SG4	Located on SW boundary of Premises
49	SG5	Located on eastern boundary of Premises
50	SG6	Located on eastern boundary of Premises
51	SG7	Located on eastern boundary of Premises

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 16. - Monitoring requirements

Methane	Quarterly
Carbon Dioxide	Quarterly

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 17. - Leachate monitoring points

EPA Identification No.	SUEZ reference	Description of location
	(All references are to the map contained in Appendix 33.)	
26	L7	NW corner of Cell C1
27	L10	Leachate sump in NW corner of Restricted Waste Cell (monocell)
28 (continuous monitoring installed)	A2L1	Industrial Cell's A2 Leachate Collection and Conveyance Systems (LCCS) primary layer
29 (continuous monitoring installed)	A2L2	Industrial Cell's A2 LCCS secondary layer
36	A5L1	Industrial Cell's A5 stage 1 LCCS primary layer
37	A5L2	Industrial Cell's A5 stage 1 LCCS secondary layer
38	A4L1	Industrial Cell's A4 stage 1 LCCS primary layer
39	A4L2	Industrial Cell's A4 stage 1 LCCS secondary layer
40	L11	W boundary of Restricted Waste Cell A4 (currently inactive)
41	A3L1	Located on N boundary of General Solid Waste Cell
43	L9	Located on N boundary of General Solid Waste Cell
44	L12	Located on NW corner of General Solid Waste Cell
52	A5BL1	Located W corner of Cell A5B
53	A5BL2	Located W corner of Cell A5B
55	L13	Located NW of F2B Cell

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 18. - Monitoring requirements (all leachate monitoring points)

Pollutants	Units of Measure	Frequency of Sampling	Method
Standing Water Level	metres	Continuous	Continuously
Absorbable Organic Halogens	milligrams per Litre	Quarterly	Grab sample
Alkalinity (as calcium carbonate)	milligrams per Litre	Quarterly	Grab sample
Aluminium	milligrams per Litre	Quarterly	Grab sample
Arsenic	milligrams per Litre	Quarterly	Grab sample
Barium	milligrams per Litre	Quarterly	Grab sample
Bicarbonate	milligrams per Litre	Quarterly	Grab sample
Biochemical oxygen demand	milligrams per Litre	Quarterly	Grab sample
Cadmium	milligrams per Litre	Quarterly	Grab sample
Calcium	milligrams per Litre	Quarterly	Grab sample
Chloride	milligrams per Litre	Quarterly	Grab sample
Chromium	milligrams per Litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Grab sample
Copper	milligrams per Litre	Quarterly	Grab sample
Dissolved Oxygen	milligrams per Litre	Quarterly	Grab sample
Fluoride	milligrams per Litre	Quarterly	Grab sample
Lead	milligrams per Litre	Quarterly	Grab sample
Magnesium	milligrams per Litre	Quarterly	Grab sample
Manganese	milligrams per Litre	Quarterly	Grab sample
Mercury	milligrams per Litre	Quarterly	Grab sample
Nitrate	milligrams per Litre	Quarterly	Grab sample
Nitrite	milligrams per Litre	Quarterly	Grab sample
Nitrogen (ammonia)	milligrams per Litre	Quarterly	Grab sample
Nitrogen (total)	milligrams per Litre	Quarterly	Grab sample
Organotin Compounds (MBT, DBT, TBT)	milligrams per Litre	Quarterly	Grab sample
pH	pH	Quarterly	Grab sample
Phosphorus (total)	milligrams per Litre	Quarterly	Grab sample
Potassium	milligrams per Litre	Quarterly	Grab sample
Redox potential	millivolts	Quarterly	Grab sample
Sodium	milligrams per Litre	Quarterly	Grab sample
Sulfate	milligrams per Litre	Quarterly	Grab sample
Total dissolved solids	milligrams per Litre	Quarterly	Grab sample
Total organic carbon	milligrams per Litre	Quarterly	Grab sample
Total Phenolics	milligrams per Litre	Quarterly	Grab sample
Zinc	milligrams per Litre	Quarterly	Grab sample
Benzene	milligrams per Litre	Every 6 months	Grab sample

Chlorinated Hydrocarbons	milligrams per Litre	Every 6 months	Grab sample
Nickel	milligrams per Litre	Every 6 months	Grab sample
Polycyclic aromatic hydrocarbons (PAHs)	milligrams per Litre	Every 6 months	Grab sample
Tin	milligrams per Litre	Every 6 months	Grab sample
Chemical oxygen demand	milligrams per Litre	Yearly	Grab sample
Selenium	milligrams per Litre	Yearly	Grab sample
Silica	milligrams per Litre	Yearly	Grab sample
Silver	milligrams per Litre	Yearly	Grab sample

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 19. - Leachate Sampling Bottles (corresponds to 'grab samples' in Appendix 18.)

Pollutant	Bottle Required for NATA laboratory (e.g. ALS)
Aluminium, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Manganese, Magnesium, Mercury, Nickel, Selenium, Silver, Tin, Zinc	125ml red bottle (Field Filtered)
Alkalinity, Bicarbonate, BOD, Calcium, Chloride, Fluoride, Nitrate, Nitrite, Potassium, Silica, Sodium, Sulfate, pH	2x1000ml natural bottles
Ammonia, Total Nitrogen, Total Phosphorous, Total Phenols	250ml purple bottle
Absorbable Organic Halogens	250ml natural bottle
TOC, COD	2 x 40ml purple vials
Benzene	2 x 40ml maroon vials
PAHs	500ml amber bottle

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 20. - Groundwater monitoring points

Ground water monitoring boreholes are located along the perimeter of Elizabeth Drive Landfill.

EPA Identification No.	SUEZ Reference	Description of Location (all references are to the map contained in Appendix 33.)	
16	G1a	Eastern boundary of premises	<p>Note if the concentration of ammonia exceeds 15mg/L at any of these points, the EPA Waste Operations Manager must be notified within 14 days of the results becoming available</p>
17	G3a	Western boundary of premises	
18	G4a	NW boundary of premises	
19	G5	Northern boundary of premises	
20	G6	SW boundary of premises	
21	G7	SE boundary of premises	
22	G9	Western boundary of premises	
Not identified in licence	G10	NE boundary of premises	

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 21. - Groundwater monitoring requirements

The pollutants below must be monitored at **all** groundwater bores (groundwater bores are identified in **Appendix 20.**).

Pollutants	Units of Measure	Frequency of Sampling	Method
Alkalinity (as calcium carbonate)	milligrams per litre	Every 6 months	Grab sample
Aluminium	milligrams per litre	Yearly	Grab sample
Arsenic	milligrams per litre	Yearly	Grab sample
Barium	milligrams per litre	Yearly	Grab sample
Benzene	milligrams per litre	Yearly	Grab sample
Cadmium	milligrams per litre	Yearly	Grab sample
Calcium	milligrams per litre	Every 6 months	Grab sample
Chloride	milligrams per litre	Every 6 months	Grab sample
Chromium	milligrams per litre	Yearly	Grab sample
Conductivity	microsiemens per centimetre	Every 6 months	Grab sample
Copper	milligrams per litre	Yearly	Grab sample
Dissolved Oxygen	milligrams per litre	Every 6 months	Grab sample
Fluoride	milligrams per litre	Every 6 months	Grab sample

Iron	milligrams per litre	Yearly	Grab sample
Lead	milligrams per litre	Yearly	Grab sample
Magnesium	milligrams per litre	Every 6 months	Grab sample
Manganese	milligrams per litre	Yearly	Grab sample
Mercury	milligrams per litre	Yearly	Grab sample
Nickel	milligrams per litre	Yearly	Grab sample
Nitrate	milligrams per litre	Every 6 months	Grab sample
Nitrite	milligrams per litre	Every 6 months	Grab sample
Nitrogen (ammonia)	milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	milligrams per litre	Every 6 months	Grab sample
Phosphorus (total)	milligrams per litre	Every 6 months	Grab sample
Polycyclic aromatic hydrocarbons	milligrams per litre	Every 6 months	Grab sample
Potassium	milligrams per litre	Every 6 months	Grab sample
Redox potential	millivolts	Every 6 months	Grab sample
Selenium	milligrams per litre	Every 6 months	Grab sample
Silver	milligrams per litre	Every 6 months	Grab sample
Sodium	milligrams per litre	Every 6 months	Grab sample
Standing Water Level	metres	Quarterly	In situ
Sulfate	milligrams per litre	Every 6 months	Grab sample
Total organic carbon	milligrams per litre	Quarterly	Grab sample
Total Petroleum Hydrocarbon	milligrams per litre	Every 6 months	Grab sample
Zinc	milligrams per litre	Every 6 months	Grab sample
pH	pH	Every 6 months	Grab sample
Phenols	milligrams per litre	Every 6 months	Grab sample

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 22. - Groundwater sampling bottles (for grab samples)

Pollutant	Bottle Required for NATA laboratory (e.g. ALS)
Aluminium, Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Manganese, Magnesium, Mercury, Nickel, Selenium, Silver, Tin, Zinc	125ml red bottle (Field Filtered)
Alkalinity, Bicarbonate, BOD, Calcium, Chloride, Fluoride, Nitrate, Nitrite, Potassium, Silica, Sodium, Sulfate, pH	2x1000ml natural bottles

Ammonia, Total Nitrogen, Total Phosphorous, Total Phenols	250ml purple bottle
Absorbable Organic Halogens	250ml natural bottle
TOC, COD	2 x 40ml purple vials
Benzene	2 x 40ml maroon vials
PAHs	500ml amber bottle

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 23. - Surface water monitoring points

EPA Identification No.	SUEZ Reference	Description of Location (all references are to the map contained in Appendix 33.)
23	S1	Located in Badgerys Creek upstream, SW of Premises
24	S2	Located in Badgerys Creek midstream, west of Premises
25	S3	Located in Badgerys Creek downstream, NW of Premises
31	S9	Located in Dam 1 waters, SE boundary of Premises
33	S10	Located in Dam 3 waters, SW boundary of Premises
59	S5	Located in Dam 5 waters, NW boundary of Premises
61	S19	Located in Dam 19 waters, W boundary of Premises

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 24. - Surface water monitoring requirements

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Grab sample
Nitrogen (ammonia)	milligrams per litre	Quarterly	Grab sample
Total organic carbon	milligrams per litre	Quarterly	Grab sample
Total suspended solids	milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	Grab sample

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 25. - Surface water sampling bottles (for grab samples)

Pollutant	Bottle Required for NATA laboratory (e.g. ALS)
BOD, TSS, pH	1000ml Green Natural Bottle
Nitrogen (ammonia)	125ml Bottle
Total Organic Carbon	40ml Maroon Vial
Conductivity	[for site to fill out]

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 26. - Wet weather discharge points

EPA Identification No.	SUEZ Reference	Description of Location (all references are to the map contained in Appendix 33.)
13	ADP002	Overflow from Dam No.1 on SE boundary
15	ADP003	Overflow from Dam No. 2 on SE boundary
34	S19	Located downstream of western boundary of Premises
35	ADP001	Located on northern boundary of Premises

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 27. - Wet weather discharge monitoring requirements

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	On the first day of an authorised discharge and calendar month after	Grab sample
Conductivity	microsiemens per centimetre	On the first day of an authorised discharge and calendar month after	Grab sample
Nitrogen (ammonia)	milligrams per litre	On the first day of an authorised discharge and calendar month after	Grab sample
Total organic carbon	milligrams per litre	On the first day of an authorised discharge and calendar month after	Grab sample
Total suspended solids	milligrams per litre	On the first day of an authorised discharge and calendar month after	Grab sample
pH	pH	On the first day of an authorised discharge and calendar month after	Grab sample

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 28. - Air Quality Monitoring Points

EPA Identification No.	SUEZ Reference	Description of Location (all references are to the map contained in Appendix 33.)
5	D6	Located on northern boundary of Premises
6	D8	Located on eastern boundary of Premises
7	D10	Located on south-western boundary of Premises
8	D17	Located on south-eastern boundary of Premises
9	D20	Located on north-eastern boundary of Premises
10	D21	Located on north-west corner of Premises

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 29. - Air Quality Monitoring Requirements (all points)

Pollutant	Units of measure	Frequency	Sampling Method
Particulates – Deposited Matter	Grams per square metre	Quarterly	<i>Australian Standard 3580.10.1:2003</i>

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 30. - Incident data that must be recorded following a fire.

Recording of fires

- M7.1** The licensee or its employees or agents must notify the EPA of the occurrence of all fires on the premises as soon as practical after becoming aware of the fire.
- M7.2** The licensee must record the following data for every fire at the premises:
- time and date that the fire was started;
 - time and date that the fire was either burnt-out or extinguished;
 - location of the fire;
 - prevailing weather conditions; and
 - observations made with regard to smoke detection and dispersion.

Source: [Environment Protection Licence, 4068](#)

Licence version date: 12 March 2020

APPENDIX 31. - General solid waste (non-putrescible) definition

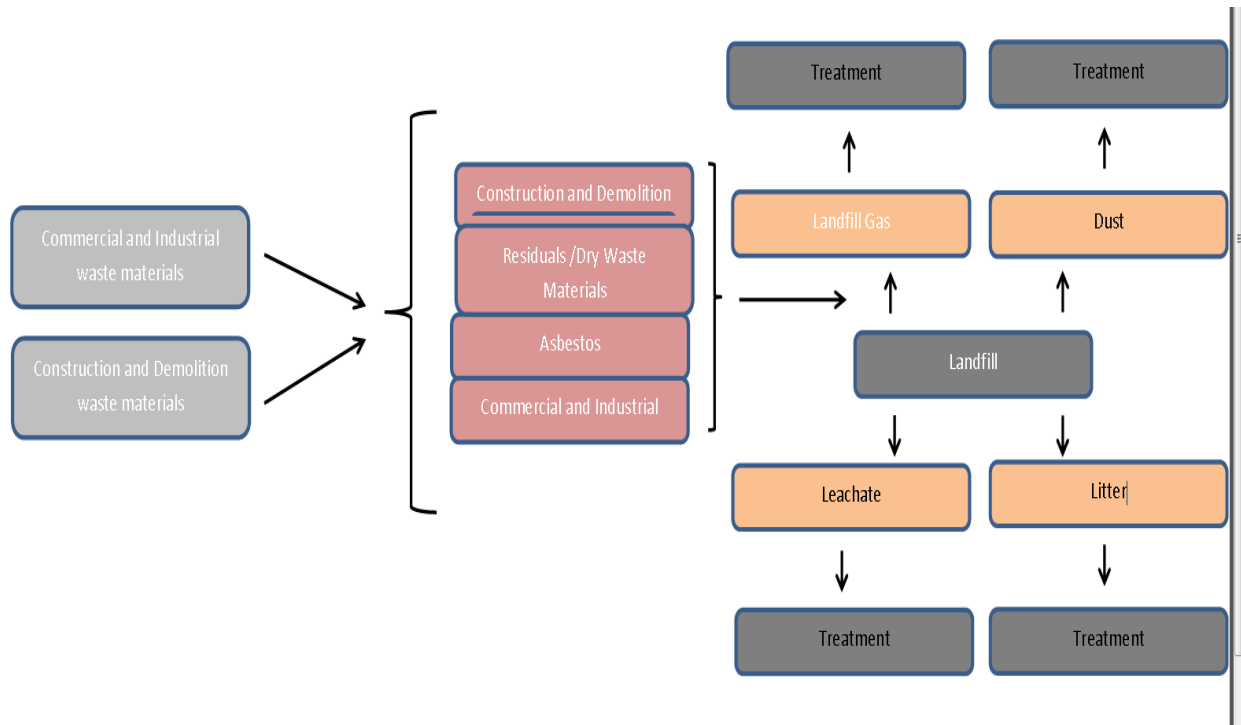
"general solid waste (non-putrescible)" means waste (other than special waste, hazardous waste, restricted solid waste, general solid waste (putrescible) or liquid waste) that includes any of the following:

- (a) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal,
- (b) paper or cardboard,
- (c) household waste from municipal clean-up that does not contain food waste,
- (d) waste collected by or on behalf of local councils from street sweeping,
- (e) grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices or stormwater management systems, that has been dewatered so that it does not contain free liquids,
- (f) grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids,
- (g) garden waste,
- (h) wood waste,
- (i) waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions,
- (j) containers, having previously contained dangerous goods, from which residues have been removed by washing or vacuuming,
- (k) drained oil filters (mechanically crushed), rags and oil absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids,
- (l) drained motor oil containers that do not contain free liquids,
- (m) non-putrescible vegetative waste from agriculture, silviculture or horticulture,
- (n) building cavity dust waste removed from residential premises, or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact,
- (o) synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste,
- (p) virgin excavated natural material,
- (q) building and demolition waste,
- (r) asphalt waste (including asphalt resulting from road construction and waterproofing works),
- (s) biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the Biosolids Guidelines ,
- (t) cured concrete waste from a batch plant,
- (u) fully cured and set thermosetting polymers and fibre reinforcing resins,
- (v) fully cured and dried residues of resins, glues, paints, coatings and inks,
- (w) anything that is classified as general solid waste (non-putrescible) pursuant to an EPA Gazettal notice,
- (x) anything that is classified as general solid waste (non-putrescible) pursuant to the Waste Classification Guidelines,
- (y) any mixture of anything referred to in paragraphs (a)-(x).

Source: [Protection of the Environment Operations Act 1997 – Schedule 1, s49](#)

Information retrieved at: 28 October 2015 – 4:30PM EST

APPENDIX 32. - Summary of landfill activities



APPENDIX 33. - Monitoring locations – reference map



- Surface Water Quality monitoring Location
- ◆ Ground Water Quality monitoring Location
- ▶ Dust Monitoring Location
- ✦ Surface Water Discharge Location
- Leachate Monitoring Location
- Noise Monitoring Location
- ⬡ Subsurface Gas Monitoring Location

Attachment D

Letter from NSW Department of Planning, Industry & Environment granting an exemption for the preparation of a DCP as required by Clause 18(1) of the State Environmental Planning Policy (Western Sydney Employment Area) 2009



Mr Warwick Winn
General Manager
Penrith City Council
PO Box 60
PENRITH NSW 2751

Dear Mr Winn

I refer to Council's request for an exemption from the preparation of a Development Control Plan (DCP) for a proposed development on land within the Western Sydney Employment Area (WSEA), under State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP).

The development application (DA19/0470) is for alterations to existing approved waste management and resource recovery facility, including alterations to finished landform and increase in waste capacity at 1725A Elizabeth Drive, Badgerys Creek.

Exemption is granted for this development from the requirement to prepare a DCP as set out in Clause 18(1) of the WSEA SEPP. The exemption is granted on the basis on that the site was removed from the WSEA SEPP by the State Environmental Planning Policy (Western Sydney Employment Area) Amendment 2020, made on 11 June 2020.

If you have any more questions, please contact Melissa Rassack, Acting Manager WSEA and Greater Penrith to Eastern Creek, at the Department on 8837 6345.

Yours sincerely

Jim Betts
Secretary

30/6/2020