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Submission: Submission on the Western Sydney Aerotropolis Planning Package with reference to [REDACTED]
Luddenham requesting revisions to the proposed Aerotropolis SEPP zoning.

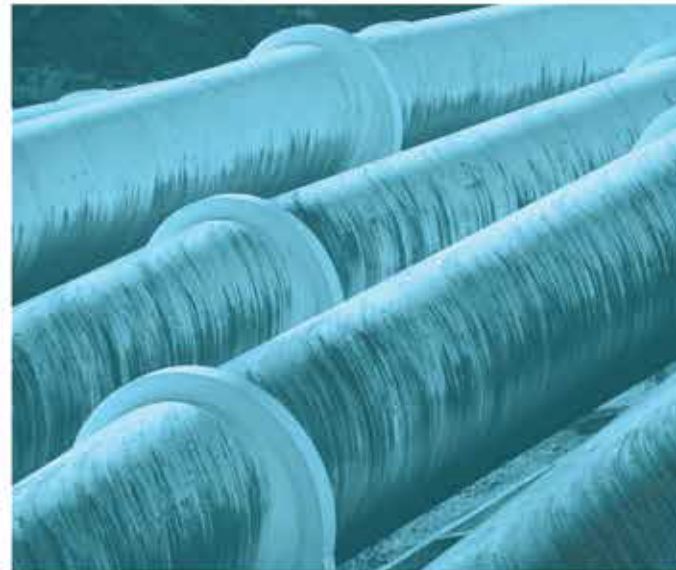
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Submission on the Western Sydney Aerotropolis Planning Package

with reference to [REDACTED], Luddenham

Prepared for Coombes Property Group/KLF Holdings Pty Ltd
February 2020





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Submission on the Western Sydney Aerotropolis Planning Package

with reference to [REDACTED]

Report Number

J190749 RP8

Client

Coombes Property Group/KLF Holdings Pty Ltd

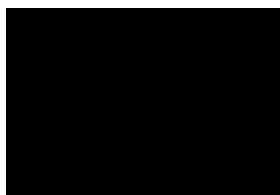
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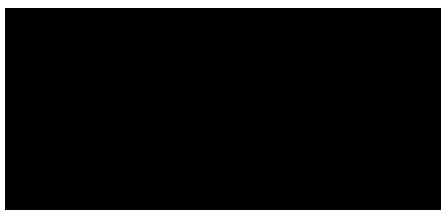
v1 Final

Prepared by



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27 February 2020

Approved by



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27 February 2020

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1 Introduction

CFT No. 13 Pty Ltd (CFT) has recently purchased [REDACTED], Luddenham, legally described as [REDACTED] (the site). There is an existing clay/shale quarry¹ on the site approved under [REDACTED] as modified (the consent). The quarry is currently inactive. Coombes Property Group (CPG) in partnership with KLF Holdings Pty Ltd (KLF) propose to reactivate quarrying operations in the short term through a modification of existing consent SSD [REDACTED] (the proposed modification). In parallel, CPG and KLF are progressing a new State significant development (SSD) application to establish a construction and demolition (C&D) resource recovery centre on the site with the intention of further modifying [REDACTED] to enable landfilling of unrecyclable materials into the quarry void. This will ultimately fill the void, allowing for the complete rehabilitation of the quarry area and a future land use consistent with the vision of the *Draft Western Sydney Aerotropolis Plan* (Western Sydney Planning Partnership 2019) (the draft Aerotropolis Plan). The Aerotropolis Plan will be implemented through a statutory planning framework that includes a new Aerotropolis State Environmental Planning Policy (Aerotropolis SEPP).

The site is currently zoned RU1 Primary production under the Liverpool Local Environmental Plan 2008 (Liverpool LEP) and the proposed resource recovery centre is currently a permissible use pursuant to Division 23 of the State Environmental Planning Policy (Infrastructure) 2007 (the Infrastructure SEPP). However, the Western Sydney Aerotropolis Planning Package, currently on exhibition, shows the site falling predominately within the proposed 'Agribusiness' zoning of the proposed Aerotropolis SEPP. Land along the eastern boundary of the site is shown as Environment and Recreation zoning. As such, the proposed resource recovery centre may not be a permissible use under the proposed Aerotropolis SEPP based on the existing proposal.

As an existing quarry, the unique attributes of the site are not currently captured by the proposed objectives and vision of the proposed Agribusiness zoning. This may be explained in part by the fact that there are few commercially viable development options to fill and rehabilitate the quarry void to a land use consistent with the vision of the Aerotropolis plan. The proposed Resource Recovery Centre and associated landfilling of non-recyclables represent such an option to allow the site to fulfil the proposed objectives. In combination, these will not only rehabilitate the site for future commercial land use but will support the realisation of the Aerotropolis as a sustainable circular economy.

It is important to also consider that the site is in immediate proximity to the Northern Gateway Precinct and proposed 'Enterprise' zoned land to the north of Elizabeth Drive. The reason this fact is important is because the existing extractive land use and future potential land use opportunities available to the site are more aligned to the proposed Enterprise zone, in which waste or resource management facilities are proposed to be permissible.

This submission argues that the appropriate solution to ensure that the site is rehabilitated and operational in a manner consistent with the objectives of the Aerotropolis Plan and proposed Aerotropolis SEPP mapping is to amend these instruments to recognise the unique condition of the site (Lot 3 DP 623799). In particular, this solution will involve either adjusting the southern boundary of the Northern Gateway Precinct and adjusting the boundary of a small portion of land earmarked for Environment and Recreation zoning, or alternatively by making a special provision that a waste or resource management facility is permissible within the site.

Either approach would permit, with consent, the development of the Resource Recovery Centre and provide a commercially viable path to completely filling the quarry void to achieve a site suitable for the range of uses envisaged by the draft Aerotropolis Plan.

Importantly, it is noted that the likely alternative, absent the carrying out of either of the above solutions, is that the void will remain unfilled as envisaged during the approval of the quarry's current consent (State significant

¹ Shale and clay are extracted from the void. These are defined as 'minerals' and therefore the 'quarry' is legally a 'mine' regulated under the *Mining Act 1992*. However, this submission uses the term 'quarry' as the community would generally recognise it as such.

development (SSD) consent [REDACTED]). This undesirable outcome is not in the interest of any of the parties.

1.1 Alignment with strategic planning instruments

The Greater Sydney Region Plan and the Western City District Plan are both prepared in accordance with Section 3.3 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and form the basis of strategic planning, having regard to the region's economic, social and environmental needs.

Both plans include provisions which point to the need to safeguard the continued economic contribution of resource extraction activity (ie quarrying) and the capacity of the suitable lands to provide urban services, such as waste management, recycling and landfill, into the future.

For example, the Western City District Plan (at p 75) specifically identifies the aim *"to support and protect...mineral resources"* and that land *"use planning can respond to the life cycle of the mineral resources by adopting a multiple or sequential approach to the location of compatible activities on or near mineral resources land."*

Strategic plans made under Division 3.1 of the EP&A Act – including the Greater Sydney Region Plan – are intended to guide the making of future State environmental planning policies.

Given the existing quarry, the proposed zoning of the site under the draft Aerotropolis SEPP would constrain the implementation of the Greater Sydney Region Plan, and the Western City District Plan.

The objectives and actions under the Greater Sydney Region Plan and the Western City District Plan unambiguously point to the need to safeguard the continuation of sites for resource extraction and urban services (such as waste management and recycling facilities), and in particular to ensure zoning schemes do not compromise the capacity for such services to continue to serve the needs of a growing city. Chapter 4 of this submission provides a detailed analysis on this point.

1.2 Objectives and intended outcomes of the submission

EMM Consulting Pty Limited (EMM) on behalf of CPG and KLF provide this formal submission on the Western Sydney Aerotropolis Planning Package, cordially requesting:

1. a revision of the Aerotropolis Plan and proposed Aerotropolis SEPP mapping to include the site within the Northern Gateway Precinct and proposed Enterprise zoning; and
2. a revision of a small portion of land earmarked for Environment and Recreation zoning within existing disturbed areas of the site to Enterprise zoning. The requested revisions are illustrated in Figure 1.1;

or

3. that site-specific provisions be applied to the site that would provide for the establishment of a resource recovery centre, compatible with Western Sydney Airport operations, to allow filling of the quarry void in the short- to medium-term.

This submission highlights that, as an existing quarry immediately adjacent to Western Sydney Airport, the site is unique. The current attributes of the site are not adequately contemplated in the values the Aerotropolis Plan within the Agribusiness precinct.

The submission describes the strategic merit of revising the proposed Aerotropolis SEPP zoning of the site from Agribusiness to Enterprise by including the site within the Northern Gateway Precinct to enable the establishment of a resource recovery centre and associated landfill to infill and completely rehabilitate the quarry void. This will

facilitate the long-term commercial use of the site to complement Western Sydney Airport operations and contribute to the realisation of the objectives of the Aerotropolis Plan.

The site has the capacity to achieve the highest and best use if future development is not restricted to the permissible land uses proposed under the Agribusiness zone. The site's proposed land use will provide significant environmental, social and economic benefits to the Western Sydney Aerotropolis. However, these benefits are only achievable commercially by permitting the development of a waste or resource management facility on the site.

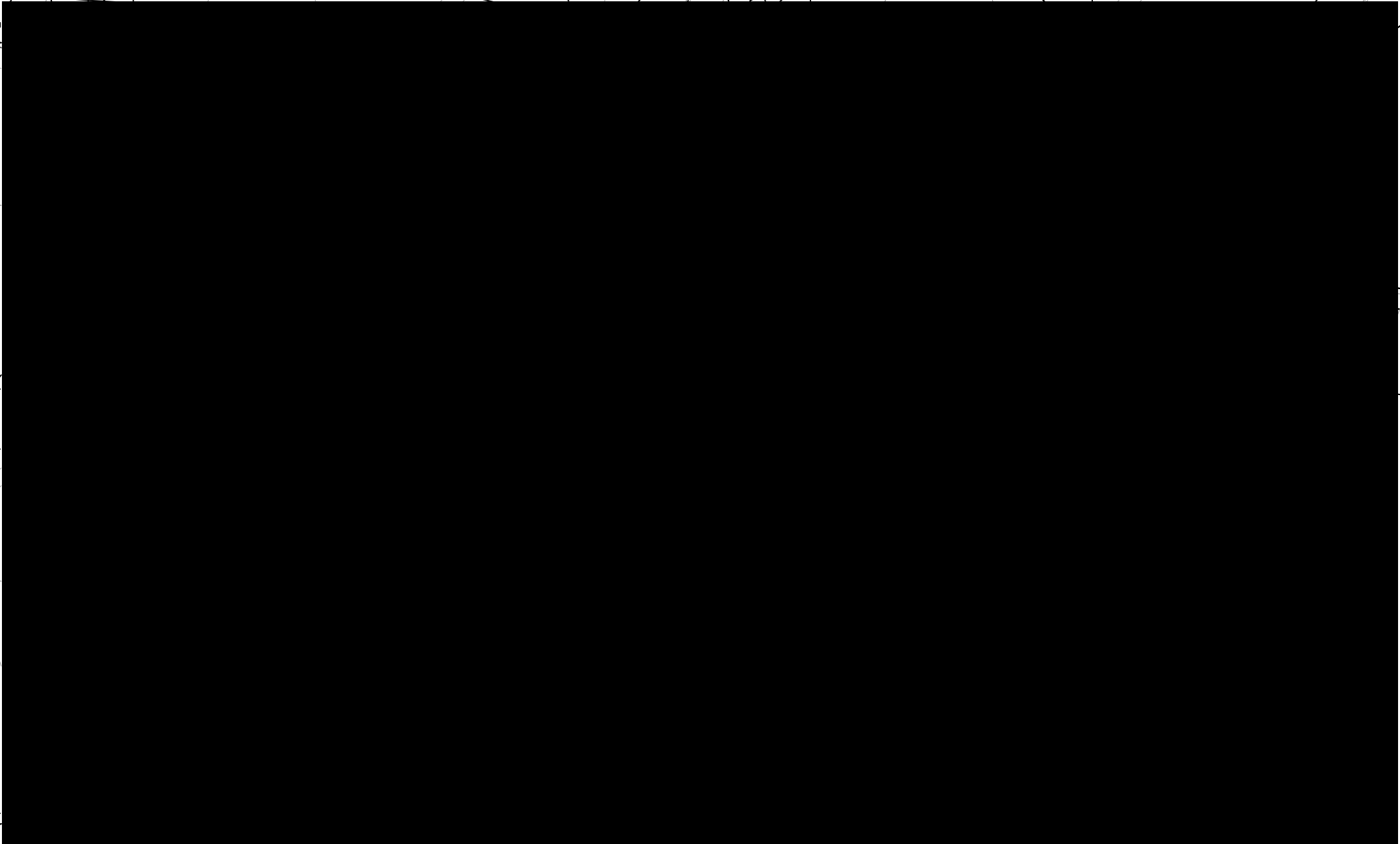
Ultimately, the benefit of this solution is not only that it ensures the commercial viability of the site. Nor is it simply that the proposed solution allows the site to be developed in a manner that is more in line with the future use of the Aerotropolis and surrounding area (as outlined in the Aerotropolis Planning Package). In addition to these benefits, the proposed solution allows the planning regime for the area to recognise the unique features of the site and ensures that the likely alternative based on the status quo, namely that the void will remain unfilled as envisaged during the approval of the quarry's existing development consent, is avoided.

1.3 Timeline

Key dates relevant to this submission's request for a revision of the proposed Aerotropolis SEPP zonings are:

- completion of the public exhibition of the Western Sydney Aerotropolis Planning Package – 28 February 2020;
- proposed modification application submitted to reactivate quarry – March 2020;
- State significant development application submitted to establish a resource recovery centre – June 2020;
- commencement of the Aerotropolis SEPP – mid-2020;
- proposed modification application submitted to rehabilitate/infill quarry void – November 2020; and
- planning application for final commercial land use of rehabilitated quarry area 2034.

This submission seeks for the requested revisions to be made to the proposed zoning of the site prior to the commencement of the Aerotropolis SEPP.



1.4 Structure of this submission

This submission is prepared generally in accordance with the NSW Department of Planning, Industry and Environment's (DPIE) *A Guide to Preparing Planning Proposals* to demonstrate the strategic merit of revising the Aerotropolis Plan and proposed Aerotropolis SEPP mapping to include the site within the Northern Gateway precinct and rezone the site as Enterprise.

The submission includes the following key components:

- Chapter 1: overview, objectives and intended outcomes of this submission;
- Chapter 2: description of the site, current land use and benefits of intended future land use;
- Chapter 3: compatibility of the intended future land use of the site with the vision and objectives of the Aerotropolis Plan;
- Chapter 4: analysis of the NSW Government's strategic plans to inform the strategic merit of intended future land use;
- Chapter 5: consultation with key stakeholders to support this submission;
- Chapter 6: site-specific merit test to prove why we believe our client's site is not suitable to be rezoned to the 'Agribusiness' zone under the proposed provisions; and
- Chapter 7: conclusion.

2 The site

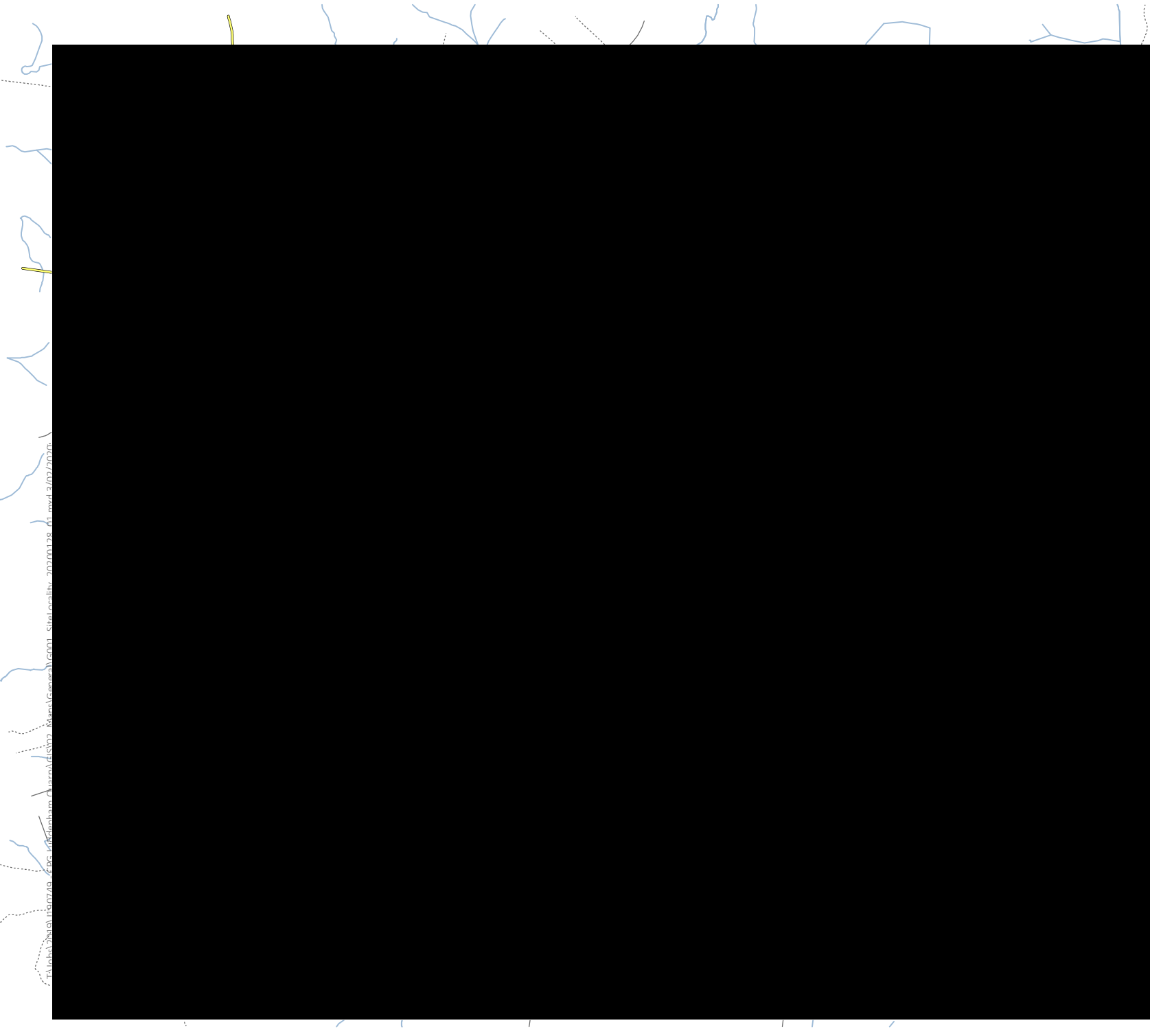
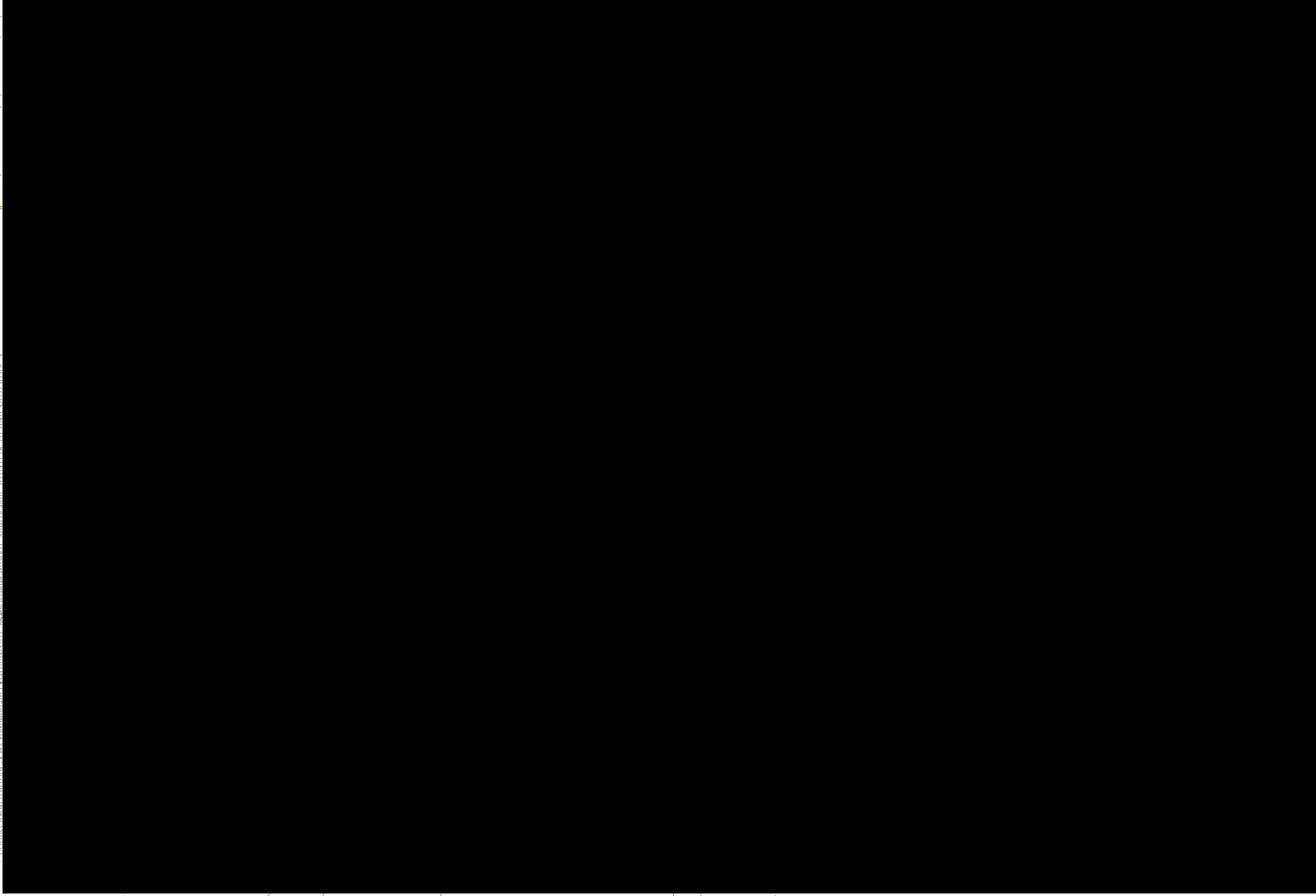
2.1 Overview

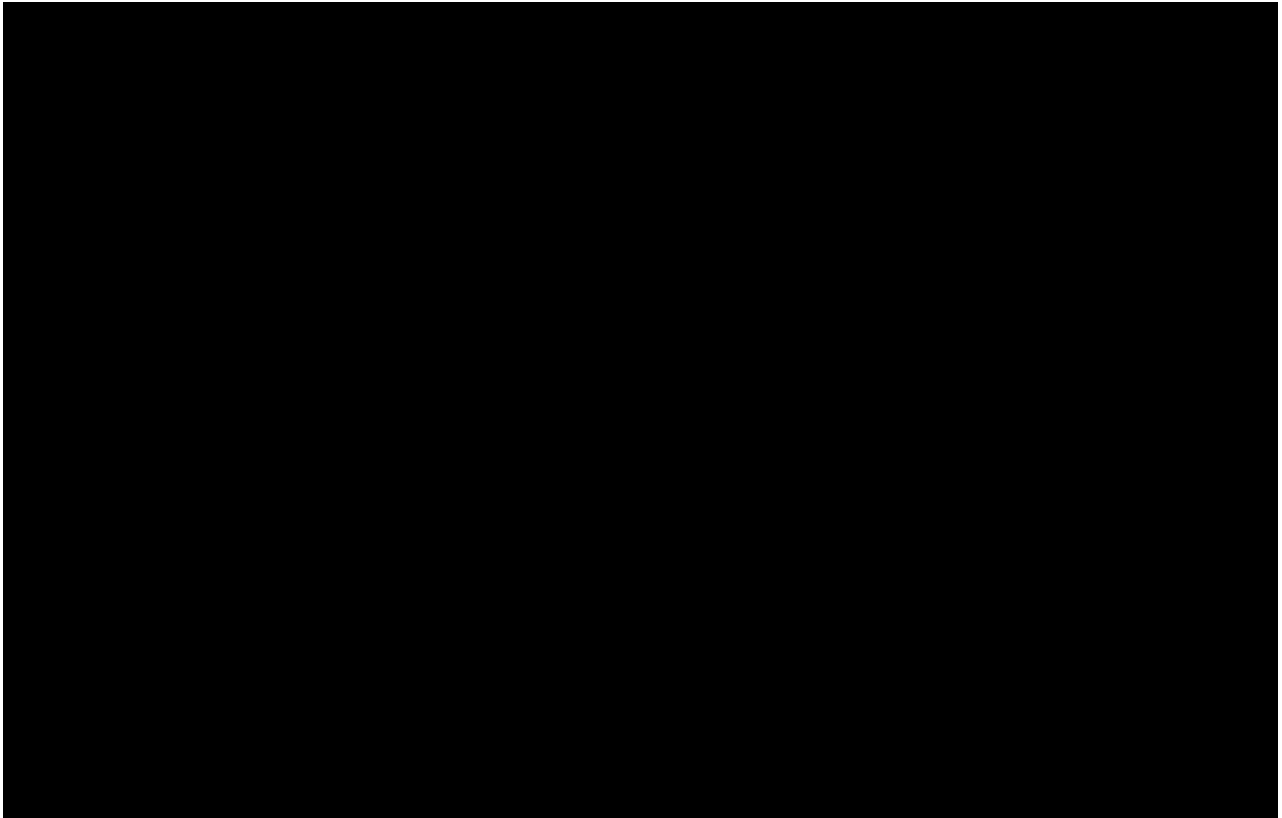
The site is located at [REDACTED], Luddenham NSW, legally described as [REDACTED], in Liverpool City Council local government area (LGA). The site is approximately 19 hectares (ha) and is currently zoned as RU1 Primary Production under the Liverpool LEP.

The site can be characterised as follows:

- much of the site is disturbed by the quarry and stockpiles;
- the lot is a 'battle axe' with a narrow strip connecting the bulk of the site to Adams Road;
- the northern parts of the site are substantially grassed;
- there are small vegetation patches in the northern portion of the site and more extensive vegetation along Oaky Creek on the eastern part of the site;
- there is a residence and agricultural sheds within the site;
- there are noise bunds to the west the north of the quarry void;
- the site access road is unsealed and there is no constructed intersection at Adams Road; and
- there is an existing surface water management system on-site, including three sediment basins within the northeast part of the site.

The site in the context of the surrounding locality is shown in Figure 2.1 and an aerial view of the existing quarry is shown in Figure 2.2. The view of the quarry towards the Western Sydney Airport development site is shown in Photograph 2.1.





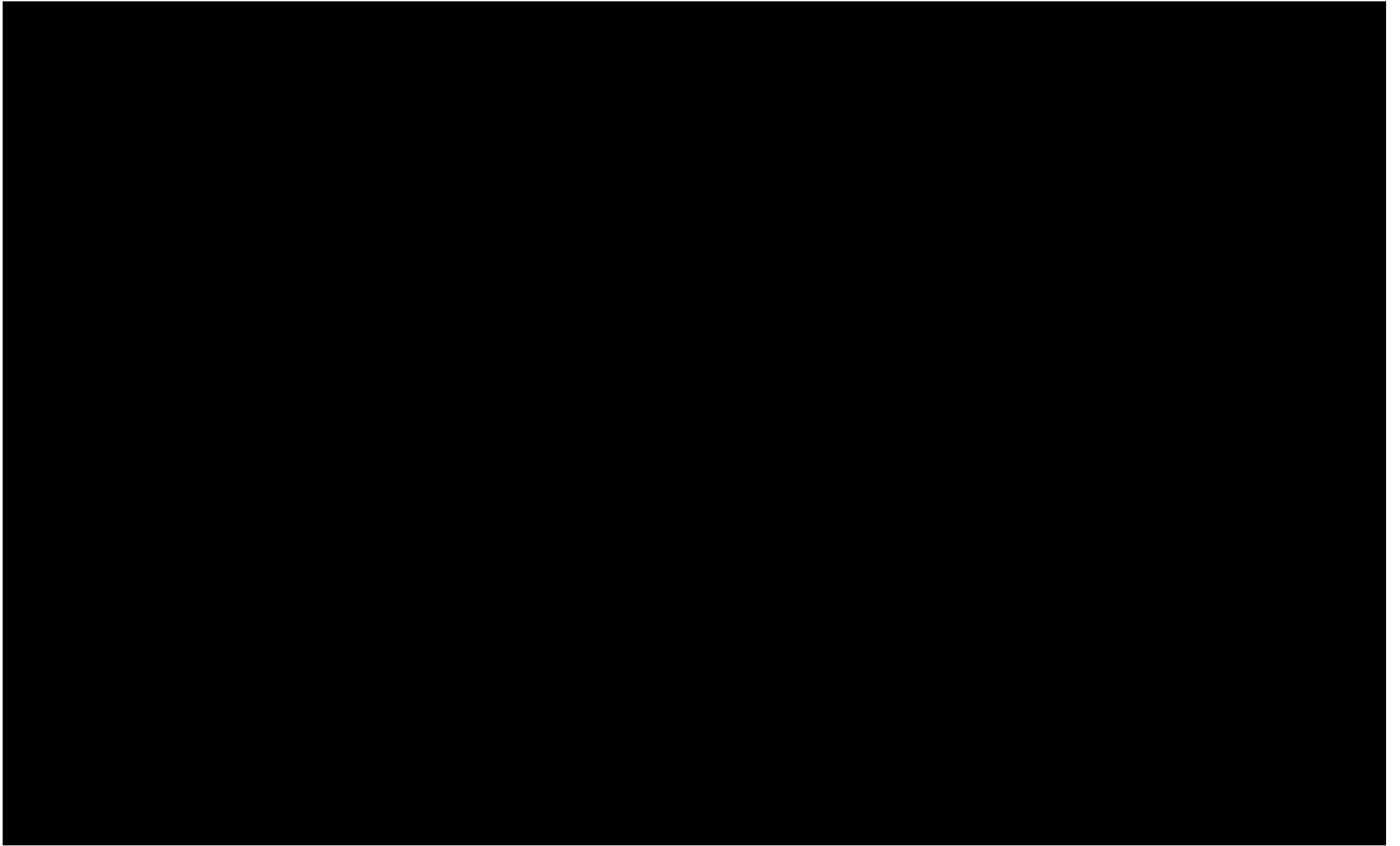
Photograph 2.1 Existing quarry – view to the south towards Western Sydney Airport development site

Under the draft Aerotropolis SEPP, the site is proposed to be zoned predominately as Agribusiness. A portion along the eastern boundary of the site, associated with the riparian zone of Oakey Creek, is proposed to be zoned Environment and Recreation. The draft Aerotropolis SEPP zoning for the site and surrounds is shown in

Figure 2.3.

Commonwealth-owned land which will form part of the Western Sydney Airport, bounds the eastern and southern boundary of the site. The airport site fuel farm will be to the immediate south of the site and the ground-based augmentation systems to the immediate east of the site. The site is located within the ANEC/ANEF 20 and 25 contours and as such is not suitable for noise sensitive development.

Due to the location of the site, any rezoning proposal needs to consider how the site fits in the overall Western Sydney Aerotropolis and undertake a review the site's suitability for such rezoning.



2.2 Existing land use

The quarry has been inactive for approximately 18 months. It was purchased by CFT No. 13 Pty Ltd in December 2019. The new site owners CFT, and proposed developers of the site, CPG and KLF (or any associated companies), have not had any previous involvement with the site.

The existing quarry on the site is approved by SSD consent [REDACTED], issued by the NSW Minister for Planning under the EP&A Act. This consent has been modified three times. The consent allows quarrying with a production rate of 300,000 tonnes per annum (tpa). The Schedule 4, Condition 36 of the consent states:

Prior to 5 years of the estimated completion of extractive activities at the site, the Applicant shall submit a report to the Department identifying the final land use of the site and method of treatment for the final void.

The previous site operators have not submitted this report to DPIE and the final land use of the site or method of treatment for the final void has not been approved.

2.3 Intended future land use

The ultimate intended site land use is a complete rehabilitation of the quarry area to allow future commercial/light industrial land use consistent with the vision of the draft Aerotropolis Plan. A concept master plan of the final land use is presented in Figure 2.4 with the staging of the realisation of this final land use shown in

Figure 2.5.

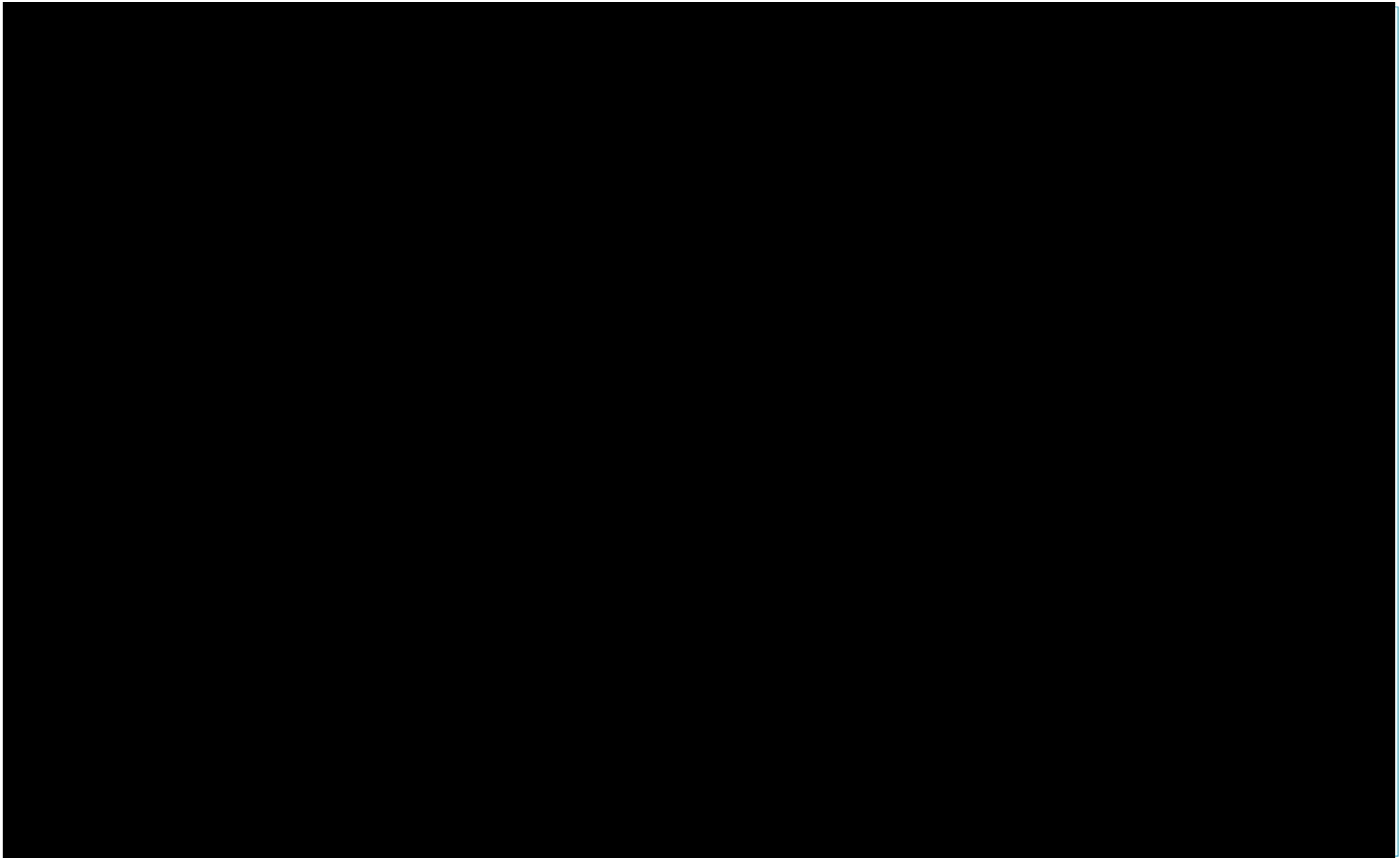
An indicative timeframe for the development and operation of the site components is shown in Figure 2.6 with the timeframes for these components summarised as follows:

- reactivation and continued extraction of quarry – 2021 to 2029;
- establishment and operation of a resource recovery centre – 2021 to be continued as part of final commercial land use;
- infilling of quarry void with unrecyclable material (10–20% of processed material); prior to commencement of this stage, unrecyclable material from the resource recovery centre will be disposed of offsite at an appropriately licensed facility – 2026 to 2035; and
- establishment of long-term commercial/light industrial land use on the filled and rehabilitated former quarry void – 2036.

2.3.1 Continued quarry operations in the short- to medium-term

CPG and KLF propose to reactive quarrying operations in the short- to medium-term (ie until 2029) through a modification of the existing consent thereby avoiding the sterilisation of a regionally significant resource as identified in SREP No 9 – Extractive Industries. A recent resource appraisal estimates approximately 2 million tonnes of resource remains within the approved extraction footprint. The reactivation of the quarry would involve the extraction of up to 300,000 tonnes per annum of clay/shale resource, consistent with currently approved extraction rates.

Reactivation of the quarry is aligned with the Greater Sydney Region Plan and the Western City District Plan which both include provisions which point to the need to safeguard the continued economic contribution of resource extraction activity (ie quarrying).





	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039+
Quarry	Not operating	Application to reactivate quarry (MOD 5)	Extraction									No extraction									
Quarry rehabilitation/land-fill	Not approved	Application for rehab/land-fill (MOD 6)			No filling			Rehabilitation/land-fill (non-recyclables/ACM/ENM/VENM)									Site rehabilitation completed				
Resource recovery centre	Not approved	Application for recycling facility	Recycling (offsite disposal of non-recyclables)				Recycling (onsite landfill of non-recyclables)									Recycling (offsite disposal of non-recyclables) - ongoing					
Commercial/light industrial development	Not approved	Site design to accommodate final land use						Progressive rehabilitation to provide final landform								Application(s) for final commercial	Commercial uses complimenting WSA				
Airport	Construction							Airport operations													

2.3.2 Proposed resource recovery centre

CPG and KLF propose to establish a resource recovery centre on the site. The resource recovery centre operations would be fully enclosed, with some inert materials stockpiled within an external walled yard. The resource recovery centre will be designed to meet the requirements of Western Sydney Airport to ensure onsite activities will not impact airport operations.

The resource recovery centre will accept construction and demolition waste and will not accept putrescibles, liquid or hazardous waste. It is proposed to process up to 600,000 tonnes per annum subject to the findings of detailed environmental assessments and ongoing consultation with stakeholders.

The site is currently zoned as RU1 Primary Production under the Liverpool LEP. While the resource recovery centre is not permissible under the Liverpool LEP, clause 121(1) of the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) permits the development of a waste recovery centre within an RU1 zone. Therefore, the current zoning allows for the development of a waste or resource management facility.

i Need for recycling

Recycling provides a wide variety of tangible and measurable environmental benefits compared to landfill disposal. These include energy savings, avoidance of greenhouse gas emissions, water savings, avoidance of waste, and significant reductions in natural resource use. Environmental benefits are most apparent in the two significant stages of the waste process which are avoided: extraction of raw materials and disposal of waste to landfill.

The NSW Government has announced the extension of the Waste Less, Recycle More initiative with a further \$337 million over four years from 2017 to 2021. It aims to transform the waste and recycling sector and deliver economic and environmental benefits in NSW by responding to the targets set in the NSW Waste Avoidance and Resource Recovery Strategy 2014-21. These targets include:

- reduce the rate of waste generation per capita;
- increase recycling rates across all waste streams; and
- increase the proportion of waste diverted from landfill to 75%.

The intended use for the site supports these strategies and their ongoing implementation. The proposed resource recovery centre will assist the NSW Government in meeting waste reduction targets and increase the recovery and reuse of material.

ii Economic needs analysis

CPG and KLF engaged MRA Consulting group (MRA) to carry out high-level economic needs analysis to support this submission. This analysis report is contained in Appendix A of this submission.

The analysis found that the site is in a strategic location to take advantage of the expected construction and demolition waste generated from the developing Aerotropolis and the South West Growth Area, whilst providing ongoing operational and construction jobs throughout the different development phases of the site.

The projected inert waste volumes to be disposed in Sydney Metropolitan Area inert landfills is predicted to increase by the historical compound annual growth rate of 4.1% based on the latest NSW EPA construction and demolition waste data, with 23.7 million tonnes generated by 2040.

With a maximum throughput of 600,000 tonnes per annum, the proposed construction and demolition resource recovery facility would only provide 20% of the required additional processing capacity required in the Sydney Metropolitan Area.

Based on MRA's estimates (see Appendix A), the demand for inert landfill will exceed the available landfill capacity by at least 1.5 million tonnes per annum, when Suez's landfill at Kemps Creek closes in 2030. The proposed 300,000 tonnes per annum landfill at the site will only provide 20% of the estimated landfill capacity required in 2030.

2.3.3 Infill of quarry void

Following the extraction of the shale/clay resource (which has been approved for extraction under the existing development consent for the site), the quarry void will be engineered into a lined landfill complete with leachate collection and treatment systems. This will allow for the landfilling of unrecyclables (ie plastics, cardboard, treated timber) from the resource recovery centre as well as the direct landfilling of waste containing asbestos, ENM/VENM and contaminated soils.

The infilling will provide a commercially viable means to infill the quarry void and achieve a stable, non-polluting developable final landform which will support the ongoing development of the Aerotropolis.

The infilling of the quarry void will also cater for the increased demand for inert waste disposal in the Sydney region since the introduction of the Queensland waste levy in July 2019. Prior to the introduction of the Queensland waste levy, 800,000 tonnes per annum of inert waste was sent to Queensland. There has been a significant decrease in tonnes of waste sent to Queensland since the introduction of this levy.

2.3.4 Commercial estate

As shown in the concept masterplan (Figure 2.4) the rehabilitated quarry, will allow for the long-term commercial use of the site providing additional developable land for long-term employment and commercial opportunities in the immediate vicinity of the Western Sydney Airport in alignment with the draft Aerotropolis Plan. The Resource recovery centre would continue operations as part of this commercial estate, providing ongoing waste and recycling services to developing urban areas within the Aerotropolis.

2.3.5 Public infrastructure to support intended future land use

This section of the submission considers whether there is adequate public infrastructure to justify the requested revisions to the proposed Aerotropolis SEPP zoning for [REDACTED] from predominately Agribusiness zoning to Enterprise zoning.

The key public infrastructure relevant to the intended future land use is the road network. The site is in an ideal location to service Western Sydney Airport and the developing urban areas within the Aerotropolis. It is well connected to existing arterial roads such as Elizabeth Drive, connecting to the M7, and the Northern Road. The site is also in a central location to access the proposed M12 motorway and the earmarked Outer Sydney Orbital.

The existing road network can accommodate traffic movements associated with the reactivation of the quarry. Preliminary traffic analysis indicates that the existing capacity at the Elizabeth Drive/Adams Drive, Elizabeth Drive/Luddenham Road and Northern Road/Adams Road intersections can accommodate proposed traffic movements associated with the resource recovery centre and infilling of the quarry void. Potential impacts on the existing road network will be assessed through detailed traffic impact assessments which will accompany the respective planning approval applications. Consultation with Transport for NSW has commenced in relation to the proposed developments.

3 Western Sydney Aerotropolis Planning Package

On 6 December 2019, DPIE placed the Western Sydney Aerotropolis Planning Package on exhibition on the NSW Planning Portal. The planning package includes:

- Draft Western Sydney Aerotropolis Plan;
- Draft Western Sydney Aerotropolis DCP;
- Western Sydney Aerotropolis proposed SEPP Discussion Paper;
- Western Sydney Aerotropolis Summary; and
- Draft Aerotropolis SEPP mappings.

3.1 Draft Western Sydney Aerotropolis Plan

The Draft Western Sydney Aerotropolis Plan (the draft Aerotropolis Plan) establishes a vision, objectives and principles. The draft Aerotropolis Plan sets precinct boundaries around the Aerotropolis and identifies land use zoning and permissible land use under each precinct.

The Aerotropolis-shaping objectives relevant to this submission are:

- Objective 2: High-value jobs growth is enabled, and existing employment enhanced;
- Objective 3: Safeguarded airport operations;
- Objective 5: A sustainable, low carbon Aerotropolis that embeds the circular economy; and
- Objective 6: A resilient and adaptable Aerotropolis.

As described in Section 2.4 of the draft Aerotropolis Plan, land uses and urban forms will evolve as the Aerotropolis changes. This will require flexibility given the uncertain nature of future land uses, especially in non-residential areas. Land uses, buildings and structures will change from short- to medium-term uses to longer-term advanced and creative industry uses. The draft Aerotropolis Plan acknowledges that new enabling industries such as building materials production, to facilitate construction of the Aerotropolis, may be permitted subject to interface mitigation treatments and an ability for the site to transition to higher order uses compatible with airport operations over time.

The intended future land use of a resource recovery centre with associated filling of the quarry void to achieve a stable non-polluting and landform that can be developed for commercial or light industrial uses is consistent with the draft Aerotropolis Plan of transitioning land use to a higher order light industrial and commercial use asset compatible with future airport operations.

The proposed resource recovery facility has many benefits from an environmental, economic and social perspective. Specifically, the facility would:

- provide a commercially viable means of infilling the quarry allowing its complete rehabilitation and the use of the quarry area for commercial and industrial uses consistent with the wider objectives of the draft Aerotropolis Plan; and
- provide a C&D resource recycling centre in a central location within the Western Sydney Aerotropolis to:
 - divert recyclable and re-usable wastes from lower-order uses or landfill;
 - help to achieve State and Local Government's waste recycling objectives; and
 - provide direct and indirect employment opportunity for the area.

3.1.1 Compatibility with Western Sydney Airport

Section 5 of the draft Aerotropolis Plan outlines planning requirements to safeguard the proposed 24/7 airport operations. An assessment of each safeguard planning requirements against the intended future land use for the site is presented in Table 3.1.

Table 3.1 Safeguard planning requirements for 24-hour airport – resource recovery facility

Safeguard planning	Assessment of the site against safeguard planning
• preventing the encroachment of noise-sensitive land uses into areas affected by aircraft noise and operational airspace	The proposed resource recovery facility will not be a noise sensitive land use.
• locating buildings to avoid wind shear and turbulence	The proposed resource recovery facility will be strategically positioned and designed to avoid wind shear and turbulence.
• managing wildlife attraction	The proposed resource recovery facility will not attract wildlife as only non-putrescible waste will be permitted to be accepted on site.
• locating wind turbines appropriately	No wind turbines are proposed.
• ensuring lighting does not distract/confuse pilots	While 24-hour operations are proposed, lighting will be designed to comply with lighting requirements for airport operation.
• maintaining an obstacle free operational airspace	The proposed resource recovery facility will be designed to comply with height requirements for airport operation.
• ensuring off-airport development does not impact the communication, navigation and surveillance (CNS) equipment	The proposed resource recovery facility will be designed to ensure the communication, navigation and surveillance (CNS) equipment at the airport will not be impacted.
• managing land uses in public safety areas	The proposed resource recovery facility will be designed in accordance with ecologically sustainable development (ESD).

3.1.2 Contribution to a circular economy

Section 6.1 of the draft Aerotropolis Plan acknowledges the *NSW Circular Economy Policy Statement* and the *Circular Economy Innovation Network Guide*. A circular economy changes the way products are produced, assembled, sold and used to minimise waste and to reduce environmental impact. By getting as much use out of product and materials as possible, waste is reduced. This can be achieved by recycling products and materials (for example concrete or timber) for reuse, rather than waste going to landfill. The *NSW Waste Avoidance and Resource Recovery Strategy* mentioned in Section 2.3.2i set out targets to achieve NSW Government's waste targets. The

proposed resource recovery centre is aligned with Objective 5 of the draft Aerotropolis Plan, contributing to the realisation of a circular economy.

3.2 Proposed Western Sydney Aerotropolis SEPP

The site is included in the Agribusiness Precinct and is intended to be zoned predominately Agribusiness under the proposed SEPP. A small portion of the site along the eastern boundary of the site, associated with the Oakey Creek riparian zone is intended to be zoned Environment and Recreation. As noted in Section 2.3, although the resource recovery centre is currently a permissible land use pursuant to the ISEPP, waste and/or resource recovery activities are not permissible under the proposed Agribusiness or Environmental and Recreation zone land use tables.

The Northern Gateway Precinct boundary (Elizabeth Drive) is immediately to the north of the site. Land within this precinct is predominantly proposed to be zoned 'Enterprise' and 'Mixed Use' zone land. Resource recovery activities are a permissible use under the proposed Enterprise zone land use table.

3.2.1 Current and intended future land use's compatibility with Enterprise zoning

This submission requests first and foremost a revision of the Aerotropolis Plan and proposed Aerotropolis SEPP mapping to include the site within the Northern Gateway Precinct and proposed Enterprise zoning. The Greater Sydney Region Plan and the Western City District Plan include provisions which point to the need to safeguard the continued economic contribution of resource extraction activity (ie quarrying) and the capacity of the suitable lands to provide urban services, such as waste management, recycling and landfill, into the future (refer Chapter 4 for further consideration of these plans). The site's unique characteristics as an existing quarry combined with its proximity to Elizabeth Drive and shared boundaries with the airport (which will preclude many uses) indicate that the site is the best location for these needs to be met and Enterprise zoning is the most appropriate zoning to reflect the current land use and future land use opportunities for the site.

The compatibility of current and intended future land use with the objectives of the Enterprise zone is demonstrated in Table 3.2. The compatibility of the quarry void being left unfilled (the 'do nothing' alternative) is provided for comparison. In this case, the footprint of the quarry would remain as it is currently (see Figure 2.2), although continued extraction would increase the depth of parts of the void. Continued quarrying operations in the short term and the development of the resource recovery centre and associated landfilling would enable the commercially viable infilling of the quarry void, once the approved extraction footprint is achieved. This will provide stable developable land available for high technology commercial enterprise/industry, warehousing and logistics land uses aligned with the objective of the Enterprise zone.

Table 3.2 Compatibility with the Enterprise zone objectives

Objectives	Development of resource recovery centre allowing complete void infill	'Do nothing' alternative (quarry void retained)
To ensure a range of uses that enable successful aerospace and defence industries.	Rehabilitation of the quarry void associated with the RRC would increase the land available in the immediate vicinity of the Western Sydney Airport for development aligned with this objective.	The unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective.

Table 3.2 Compatibility with the Enterprise zone objectives

Objectives	Development of resource recovery centre allowing complete void infill	'Do nothing' alternative (quarry void retained)
To manage the transition of land from non-urban uses to employment uses	The continuation of quarrying activities in the short term and establishment of the RRC is aligned with this objective. The RRC will provide a commercially viable means to infill the quarry void and enable the transition of the quarry area to long-term employment uses.	The unfilled quarry void would constrain the realisation of this objective with more than 50% of the site sterilised from potential future employment uses.
To support the development of well-planned and serviced new urban communities in accordance with the Precinct Indicative Layout Plan.	The continuing of quarrying activities in the short term and development of an RRC on the site would service developing urban areas within the Aerotropolis	The 'do nothing' alternative of retaining the quarry void is not aligned with this objective as it would not contribute to well-planned and serviced communities.
To safeguard land used for non-urban purposes from development that could prejudice the use of the land for future commercial land use purposes.	The development of the RRC and infilling of the void would increase the beneficial use of the site for commercial land use purposes and would not constrain the use of surrounding land for commercial purposes.	The unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective
To encourage a precinct built around professional services, high technology, food production and processing, health and education and creative industries.	Rehabilitation of the quarry void associated with the RRC would increase the land available in the immediate vicinity of the Western Sydney Airport for development aligned with this objective.	The unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective.
To ensure that land which has the potential to impact environmental conservation areas is developed appropriately and enhance biodiversity outcomes for the Precinct.	Biodiversity values associated with Oakey Creek have been retained on site as part of the overall Master Planning for the site in accordance with this objective	The 'Do nothing' alternative will maintain the status quo in relation to biodiversity values on site.
To protect the operations of the Airport, including 24-hour operations, and provide appropriate protections for the community.	The resource recovery facility would be fully enclosed, would not accept putrescible waste and would be designed to meet WSA corporation's requirements. The intended land use is compatible with this objective.	Retention of the unfilled quarry void would attract birdlife and represent a long-term legacy in terms of visual impact when viewed from aircraft.
Ensure there are no sensitive land uses (such as residential, aged care, early education and childcare, educational establishments and hospital amongst other uses) located within the ANEC 20 and above contours.	Not applicable.	Not applicable.
Ensure that land uses up to the ANEC 20 contour are subject to appropriate design and construction standards to reduce any potential for airport noise impacts.	The intended land use is compatible with a high-noise level environment.	Not applicable.

Table 3.2 **Compatibility with the Enterprise zone objectives**

Objectives	Development of resource recovery centre allowing complete void infill	'Do nothing' alternative (quarry void retained)
Prevent potential conflicts between airport operations and land use/development outcomes.	The resource recovery centre will be designed in an enclosed, appropriately screened facility which would avoid land use conflict with the airport and other surrounding land uses. The intended land use is compatible with this objective.	Even with rehabilitation, the unfilled quarry void would be permanently visible and not in keeping with other long-term land uses. It is expected that the base of the quarry would fill with water and attract bird life and other wildlife which will conflict with airport operations.

3.2.2 Current and intended future land use's compatibility with Agribusiness zoning

The compatibility of the resource recovery centre (and associated landfilling) with the objectives of the proposed Agribusiness zoning is demonstrated in Table 3.3. The compatibility of the quarry void being left unfilled (the 'do nothing' alternative) is provided for comparison. The site as an existing quarry immediately adjacent to Western Sydney Airport, is not representative of the values the Aerotropolis Plan is seeking to enhance within the Agribusiness precinct is demonstrated in Table 3.3.

In its present condition or in the absence of filling the quarry void, the site is not considered to be compatible with the objectives of Agribusiness zoning.

As outlined in Section 1.2 of this submission, an alternative permissibility pathway which would enable the establishment of the resource recovery centre on the site would be the application site-specific special provisions in the Aerotropolis SEPP to the site in recognition of its unique attributes and location. Such provisions would permit the establishment of a resource recovery centre, compatible with Western Sydney Airport operations, to enable the commercially viable infilling of the quarry void to provide stable developable land available for high technology Agribusiness.

It is also demonstrated in Table 3.3, that the development of a resource recovery centre on the site would not result in land use conflicts that would constrain the realisation of the objectives of the Agribusiness zone.

Table 3.3 Compatibility with the Agribusiness zone objectives

Objective	Development of resource recovery centre allowing complete void infill	'Do nothing' alternative (quarry void retained)
To encourage sustainable and high technology Agribusiness and Agricultural production with links to food production and processing	Development of the RRC would enable a commercially viable infilling of the quarry void to provide stable developable land which could be developed to meet this objective.	The unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective.
To encourage diversity in Agricultural and Agribusiness enterprises and systems appropriate for the area.	There is no existing agricultural or Agribusiness activity conducted on the site however rehabilitation of the quarry void associated with the RRC would provide land available for development aligned with this objective.	Traditional agricultural activities may attract wildlife and would therefore not be compatible with the site's proximity to the airport. The unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective.
To encourage the development of integrated food and supply chain related industries	Development of the RRC would enable a commercially viable infilling of the quarry void to provide stable developable land which could be developed to meet this objective.	As above, the unfilled quarry void would constrain the realisation of this objective with less than 50% of the site available for development aligned with this objective.
To minimise conflict between land uses within this zone and land uses within adjoining zones.	The resource recovery centre will be designed in an enclosed, appropriately screened facility which would avoid land use conflict with the airport and other surrounding land uses. The intended land use is compatible with this objective.	Even with rehabilitation, the unfilled quarry void would be permanently visible and not in keeping with other long-term land uses. It is expected that the base of the quarry would fill with water and attract bird life and other wildlife which will conflict with airport operations.
To maintain and enhance natural rural character, biodiversity and sustainability of the area.	There is limited natural rural character on the site due to the existing quarrying land use. Biodiversity values associated with Oakey Creek would be retained in accordance with this objective.	The unfilled quarry void would not enhance natural rural character, biodiversity and sustainability of the area. Biodiversity values associated with Oakey Creek would be retained in accordance with this objective.
To allow for non-agricultural land uses that will not restrict the use of the land in the locality for agricultural purposes.	Development of the resource recovery facility would not restrict the use of surrounding land for agricultural purposes.	The unfilled quarry void would not restrict agricultural use in the locality other than within the void.
To allow for the sustainable and holistic development of agritourism product and experiences.	The proposed resource recovery centre would not represent a land use conflict or constrain development aligned with this objective in the surrounding locality.	The unfilled quarry void would not restrict agritourism in the locality other than around the void.
To protect the operations of the Airport, including 24-hour operations, and provide appropriate protections for the community.	The resource recovery facility would be fully enclosed, would not accept putrescible waste and would be designed to meet WSA corporation's requirements. The intended land use is compatible with this objective.	Retention of the unfilled quarry void would attract birdlife and represent a long-term legacy in terms of visual impact when viewed from aircraft.

Table 3.3 Compatibility with the Agribusiness zone objectives

Objective	Development of resource recovery centre allowing complete void infill	'Do nothing' alternative (quarry void retained)
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.	Not applicable.	Not applicable.
Ensure that land uses up to the ANEC 20 contour are subject to appropriate design and construction standards to reduce any potential for airport noise impacts.	The intended land use is compatible with a high-noise level environment.	Not applicable.

3.2.3 Current and intended future land use's compatibility with Environment and Recreation zone

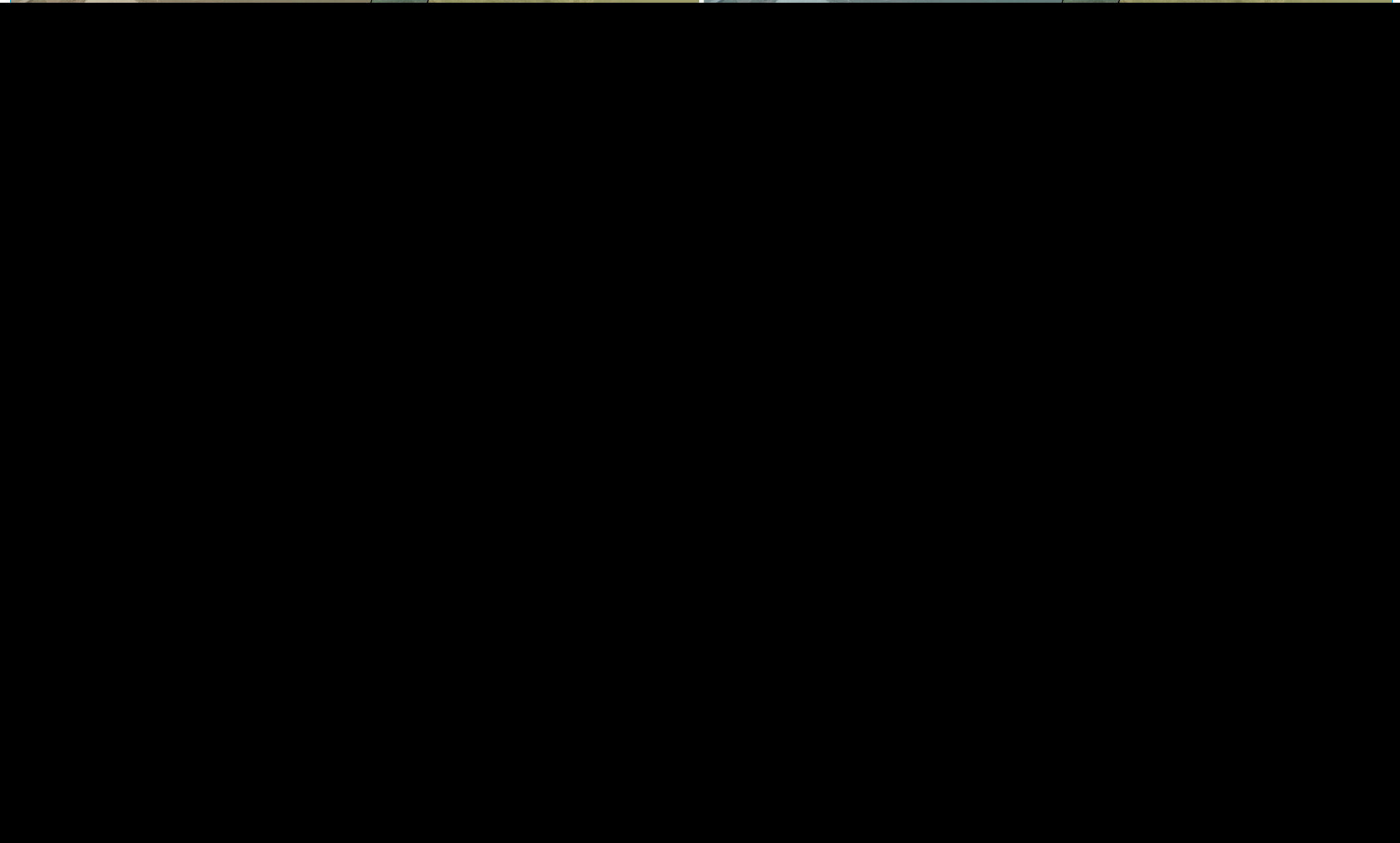
The second objective of this submission as outlined in Section 1.2 is to request a revision of a small portion of land earmarked for Environment and Recreation zoning within existing disturbed areas of the site to Enterprise zoning. The requested revision is illustrated in

Figure 3.1. The identified portion of the site is currently disturbed by the quarry footprint and ancillary quarrying development and does not contain biodiversity or conservation values. The absence of compatibility with the objectives of the proposed Environment and Conservation zone for this small portion of the site is demonstrated in Table 3.4.

The remaining portion of the site earmarked for the Environment and Recreation zone contains biodiversity values associated with the riparian zone of Oakey Creek, the intended future land use will not disturb directly or indirectly on these values.

Table 3.4 Identified site portion's compatibility with Environment and Recreation zone objectives

Objective	Compatibility
To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values	The identified portion does not contain ecological, scientific, cultural or aesthetic values and therefore this objective is not applicable. Development on this portion will not indirectly impact ecological values associated with the adjacent Oakey Creek riparian zone.
To prevent development that could destroy, damage or otherwise have an adverse effect on ecological or recreational values.	The identified portion does not contain ecological or recreational values. Development on this portion will not indirectly impact ecological values associated with the adjacent Oakey Creek riparian zone.
To enable land to be used for public open space or recreational purposes.	There identified portion is not in or in the vicinity of public open space or recreational land and is not suitable for development for such purposes.
To provide a range of recreational settings and activities and compatible land uses	Not applicable.
To ensure that development is secondary and complementary to the use of land as public open space, and enhances public use, and access to, the open space.	There identified portion is not in or in the vicinity of public open space or and is not suitable for development for such purposes.
To encourage, where appropriate key regional pedestrian and cycle connections.	As privately-owned land, the site is not appropriate for such land use.



4 Strategic context

4.1 Greater Sydney Region Plan: A Metropolis of Three Cities

The Greater Sydney Region Plan, *A Metropolis of Three Cities* is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities and services. To meet the needs of a growing and changing population, the vision seeks to transform Greater Sydney into a metropolis of three cities:

- the Western Parkland City;
- the Central River City; and
- the Eastern Harbour City.

The Western Sydney Airport and Badgerys Creek Aerotropolis is identified in the Plan as being the strength of connecting established centres and potentially connecting the Western Parkland City and the Central River City.

One of the objectives articulated within the Greater Sydney Region Plan is particularly relevant. Objective 23 is that industrial and urban services land is planned, retained and managed. The term ‘urban services’ is used to describe a range of industries that enable cities to develop and operate, such as waste management, landfill, concrete batching plants and utilities. These are recognised in the Plan as high value, not because they are major employers, but because they are essential to the economic functioning of the cities they serve.

The Plan importantly notes that the locational needs of urban services are often constrained. There are clear physical limits to where, for example, quarries and landfill sites can be located. These are not ‘footloose’ industries.

The Plan states (p 133) that:

All existing industrial and urban services land should be safeguarded from competing pressures, especially residential and mixed-use zones. This approach retains this land for economic activities required for Greater Sydney’s operation, such as urban services. Specifically, these industrial lands are required for economic and employment purposes. Therefore, the number of jobs should not be the primary objective – rather a mix of economic outcomes that support the city and population.

The Western Parkland City will include expansive industrial and urban services lands to the north and east of the Western Sydney Airport. Supported by a freight link, these lands will provide for Greater Sydney’s long-term freight and logistics and industrial needs.

The site, being located at the northern end of the future Western Sydney Airport is in close proximity to the main transport corridor of Elizabeth Drive via a 250-m-long section of Adams Road. The currently approved land use of the site will support brick manufacturing and future development in the area. The proposed development of a resource recovery centre on site will provides recycling service to the foreseeable demand associated with future development activities within the Aerotropolis and will provides a commercially-viable option to fill the quarry void, with appropriate engineering controls, to allow the use of the quarry area for commercial and/or industrial uses.

This can be best achieved by permitting a waste or resource management facility on the site.

4.2 Western City District Plan

The Western City District Plan provides a 20-year plan to manage growth and achieve the 40-year vision, while enhancing Greater Sydney’s liveability, productivity and sustainability into the future.

Planning priorities outlined in the Western City District Plan that are relevant to the site's current and desirable future land uses are:

- Planning Priority W8 – Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis;
- Planning Priority W10 – Maximising freight and logistics opportunities and planning and managing industrial and urban services land; and
- Planning Priority W19 – Reducing carbon emissions and managing energy, water and waste efficiently.

4.2.1 Planning Priority W8

The Western City District Plan includes Planning Priority W8 – Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis – and this is the mechanism by which the overarching objectives of the Greater Sydney Region Plan are to be implemented.

The District Plan notes that the Western District contains State and regionally significant mineral and energy resources, such as construction material resources, such as clay and shale extracted from the quarry on the site.

It is important to understand the approach articulated in the District Plan on how best to protect the resource extraction locations such that the production of raw materials is able to continue as a driver of economic development. The District Plan states [underlining added]:

These resources have potential to drive regional economic development by generating employment and supporting infrastructure, housing, jobs creation and other development needed for a growing population. Land use planning can respond to the life cycle of the mineral resources by adopting a multiple or sequential approach to the location of compatible activities on or near mineral resources land. Land uses will need to be carefully considered to ensure a balanced approach to managing growth and development in this region, including economic, social and environmental considerations.

The provisions in the Western City District Plan align with the proposed retention of quarrying activity and point to the need to find a balanced approach to land-use planning.

4.2.2 Planning Priority W10

The aim of maximising long-term freight and logistics opportunities on the site and planning and managing industrial and urban services land supports Objective 23 in the Greater Sydney Region Plan to plan, retain and manage urban services land.

The District Plan correctly notes that existing industrial and urban services sites face pressure to be rezoned, and that it is therefore important to retain the existing sites. Safeguarding the sites can facilitate essential services such as waste management and recycling. Specifically, the District Plan states:

All existing industrial and urban services land should be safeguarded from competing pressures, especially residential and mixed-use zones. This approach retains this land for economic activities required for Greater Sydney's operation, such as urban services. Specifically, these industrial lands are required for economic and employment purposes. Therefore, the number of jobs should not be the primary objective – rather a mix of economic outcomes that support the city and population.

4.2.3 Planning Priority W19

Planning Priority 19 ‘Reducing carbon emissions and managing energy, water and waste efficiently’, can only be achieved through the provision of urban services sites which enable activities such as waste transfer and recycling to occur. This is reflected in Action 83 of the District Plan to “protect existing and identify new locations for waste recycling and management”.

There are efficiencies in co-locating waste recycling facilities and landfill sites, partly because the processing of recyclable material generally produces a by-product of non-recyclable material which requires disposal to landfill. The corollary to this is the limited availability of suitable landfill sites and the fact that as existing landfills close, they are generally replaced by sites further away from waste-generation activities (such as infrastructure and building projects). This increases the costs and externalities of waste management through the expanded transportation and handling requirements. The need to preserve potential waste recycling and landfill sites (which are generally end-of-life quarries) is therefore becoming more acute as Sydney grows.

The benefits of developing a resource recovery facility on site, from environmental, economic and social perspectives, are presented in Table 4.1.

Table 4.1 Benefits of developing a resource recovery facility

Environmental benefits	Economic benefits	Social benefits
<ul style="list-style-type: none">• Achieving the highest and best land use for the current site.• Diverting waste away from landfill, aligning with State and Council’s waste strategy and recycling target.• Accepting waste from the construction and operation of Western Sydney Airport.• Filling the quarry void using non-recyclable material.	<ul style="list-style-type: none">• Providing a commercial return, contributing to the State and local economy.• Providing a commercial incentive to fill the quarry void.• Providing direct and indirect employment opportunity for the area.	<ul style="list-style-type: none">• Providing much-needed recycling services in a central location of the Western Sydney Aerotropolis.• Providing employment in the area.

In summary, the benefits of allowing a resource recovery facility to be developed on-site are compelling. The benefits can only be achieved by either rezoning the site to the ‘Enterprise’ zone, or allowing a waste or resource management facility as a permissible land use on the site. The advantages of allowing a resource recovery facility to be developed also aligns with Planning Priorities W8, W10 and W19 in the Western City District Plan.

4.3 Aerotropolis-specific strategic context

4.3.1 Stage 1 Land Use and Infrastructure Implementation Plan

The *Stage 1 Land Use and Infrastructure Implementation Plan* (Stage 1 Plan) for the Western Sydney Aerotropolis was released in August 2018. The Stage 1 Plan provides an overview of future land uses and the proposed sequence of development to ensure new jobs and homes are delivered in time with infrastructure. The Stage 1 Plan was public exhibited from 21 August 2018 to 2 November 2018, a summary of community submissions was collated to inform the development of the Western Sydney Aerotropolis Planning Package, which includes the Draft Aerotropolis SEPP and the draft Aerotropolis SEPP mapping.

Particularly relevant to the future development of the site are the submissions made under the old ‘Agriculture and Agribusiness Precinct’ which include:

- suitability of land:

- some land within the precinct was considered unsuitable for agricultural purposes; and
- concerns with land use conflicts such as health, noise, height, reflectivity, 24/7 operations and bird attraction;
- precinct boundary:
 - submissions suggested changes to the southern, western and northern precinct boundaries due to existing land uses or additional opportunities; and
- land zoning:
 - suggested changes to the zoning and broadening of permitted land uses for residential, business and industrial purposes.

As part of the response to public submissions for Stage 1 Plan, the Western Sydney Planning Partnership made a commitment that the precinct boundary would be examined and consideration of the request for the creation of new precincts or the inclusion of some areas in adjoining precincts. Further, an analysis of the existing zoning arrangements to identify potential amendments to allow for other permitted land uses to support the development of the precinct.

The developers proposing to develop the site, CPG and KLF, concur with the submissions for Stage 1 Plan for the following reasons:

- the portion of the site covered with exotic vegetation is too small for traditional agricultural purposes;
- given the site's proximity to the future Western Sydney Airport site, the potential impact from 24/7 airport operation restricts the following types of development:
 - farming activities;
 - development/operation that would result in bird attraction;
 - development/operation that is sensitive to noise;
 - development/operation that is sensitive to night-time light spill; and
- the site should allow for additional land use opportunities given its prime location next to the future Western Sydney Airport to achieve its highest and best land use.

4.4 Summary of strategic context

The Greater Sydney Region Plan and the Western City District Plan are both prepared in accordance with Section 3.3 of the EP&A Act and form the basis of strategic planning, having regard to the region's economic, social and environmental needs.

Both plans include provisions which point to the need to safeguard the continued economic contribution of resource extraction activity (ie quarrying) and the capacity of the suitable lands to provide urban services, such as waste management, recycling and landfill, into the future.

Further, it is noted that Division 3.3 of the EP&A Act, which provides for the making of State environmental planning policies, stipulates at Subsection 3.30(2) that:

Before recommending the making of an environmental planning instrument by the Governor, the Minister must consult with the Greater Sydney Commission if—

- (a) the proposed instrument relates to land within the Greater Sydney Region, and
- (b) the Minister is of the opinion that the proposed instrument is likely to significantly affect the implementation of a strategic plan affecting that Region.

This indicates the need to ensure that the draft Aerotropolis SEPP does not materially constrain the implementation of the Greater Sydney Region Plan, and the Western City District Plan, though its proposed provisions, including land-use zoning.

The objectives and actions under the Greater Sydney Region Plan and the Western City District Plan unambiguously point to the need to safeguard the continuation of sites for resource extraction and urban services, and in particular to ensure zoning schemes do not compromise the capacity for such services to continue to serve the needs of a growing city. The site's unique characteristics – ie the existing quarry, its proximity to Elizabeth Drive and its boundaries shared with the airport (precluding many uses) – all indicate that the site is the best location for these needs to be met. The inclusion of the site within the Northern Gateway Precinct and application of Enterprise zoning will meet the objectives and actions of the Greater Sydney Region Plan and the Western City District Plan.

5 Consultation

CPG and KLF, have started to consult agencies regarding the proposed development of the site. This consultation is outlined below. None of the agencies consulted to date have expressed an in-principle opposition to the proposed resource recovery centre. Rather, agencies have noted that permissibility issues need to be resolved, that the development application carefully assesses the potential impacts of developing the centre on the site, and that the centre is suitably designed and operated with consideration of its location, and current and future land uses.

5.1 Western Sydney Aerotropolis Authority

CPG and KLF met with the Western Sydney Aerotropolis Authority (Aerotropolis Authority) on 19 December 2019. The Aerotropolis Authority was not opposed to continued quarrying in the short-term and the establishment of a resource recovery centre, particularly in the context that the Agribusiness precinct will be developed over a 50-year timeframe. It was noted that a resource recovery centre was not a permitted land use within the Agribusiness zone in the draft plan.

5.2 Western Sydney Planning Partnership Office

CPG and KLF met with the Western Sydney Planning Partnership Office (PPO) at Mulgoa Hall on Tuesday 4 February 2020 and subsequently in a combined meeting with WSA, DPIE and Liverpool City Council on Tuesday 18 February (see below).

During both meetings, the PPO noted the uniqueness of the site and its proximity to Enterprise land to the north of Elizabeth Drive. The PPO office encouraged CPG and KLF to prepare a submission in response to the exhibition of the Aerotropolis Planning Package. They noted that this could request a revision of the proposed zoning to reflect the unique site characteristics and to facilitate its transition to a long-term land use consistent with the vision of the draft Aerotropolis Plan. The PPO also noted that land uses which would not meet the objectives of the Agribusiness zoning would represent an opportunity cost to the land-uses that would. While not discussed at the meetings, it is noted that filling the void to form a developable land surface, as enabled by development of a recycling facility, would result in a net increase in the land within the site available to meet these objectives.

5.3 Western Sydney Airport Corporation

CPG and KLF met with WSA at the combined meeting with PPO, DPIE and Liverpool City Council on Tuesday 18 February 2020. Western Sydney Airport raised concerns regarding the establishment of a resource recovery centre on the site but noted that an enclosed and appropriately screened resource recovery facility (as proposed) would substantially reduce/eliminate dust generation. The requirements to safeguard 24-hour operations, as described in Section 5 of the draft Aerotropolis Plan, were discussed. These include preventing wildlife strike, generation of wind shear/turbulence, preventing lighting impacts on pilots and maintaining a safe airspace were discussed. It was agreed that the development application for the resource recovery facility would need to address these issues but that there are likely to be feasible measures that can address any issues that could impact airport operations.

5.4 Liverpool City Council

At the combined meeting with WSA, DPIE, PPO and Liverpool City Council, the Council noted that the application for the resource recovery facility would need to address the matters raised by the other meeting attendees. The Council also noted that a range of other potential impacts, such as transport- and noise-related impacts, will need to be assessed.

5.5 Department of Planning, Infrastructure and Environment

CPG and KLF met with DPIE at the combined meeting with WSA, PPO and Liverpool City Council on Tuesday 18 February and subsequently in Parramatta on Friday 21 February 2020. Topics discussed included the planning pathways for the respective development components and the assessment of potential environmental impacts for each of the site components.

6 Site-specific merit test

The permissible uses proposed under both Enterprise zone and Agribusiness zone are listed in Table 6.1. Consideration has been given to each permissible land use against the site itself in terms of its unique attributes as an existing quarry and location adjacent to the Western Sydney Airport. Potential impacts from the airport include, but are not limited to, noise and vibration, air quality and night-time light spills. Future land use suitability is rated against each permissible land use.

The results show that the 'Enterprise' zone allows for a wide range of permissible land uses that are compatible with the uniqueness of the site context and prime location of the site, whereas 'agricultural and related land use' is significantly constrained due to the future 24/7 airport operation adjacent to the site.

Table 6.1 Future land use suitability for the site under different zonings

'Enterprise' zone		'Agribusiness' zone	
Permissible land use	Suitability of the site	Permissible land use	Suitability of the site
• Animal boarding or training establishment	No – due to noise impact	• Animal boarding or training establishment	No – due to noise impact
• Building identification sign	Yes	• Business premises	Yes
• Car park	Yes	• Car park	Yes
• Centre-based child care facility	No – due to noise impact	• Community facility	No – due to noise impact
• Commercial premises	Yes	• Earthworks	Yes
• Community facility	No – due to noise impact	• Educational establishment	No – due to noise impact
• Depot	Yes	• Eco-tourist facility	No – due to noise impact
• Educational establishment	No – due to noise impact	• Electricity generating works	No – due to height restriction
• Electricity generating works	No – due to height restriction	• Environmental protection works	Yes
• Emergency services facility	Yes	• Environmental facility	No – due to noise impact
• Entertainment facility	No – due to noise impact	• Farm building	No – due to noise impact
• Environmental protection works	Yes	• Farm stay accommodation	No – due to noise impact
• Flood mitigation works	Yes	• Flood mitigation work	Yes
• Freight transport facility	Yes	• Food and drink premises	Yes
• Function centre	No – due to noise impact	• Freight transport facility	Yes
• Funeral home	Yes	• Function centre	No – due to noise impact
• Garden centre	No – due to noise impact, night time light spill and possible bird attraction	• Garden centre	No – due to noise impact, night time light spill and possible bird attraction
• General industry	Yes	• Health services facility	No – due to noise impact
• Hardware and building supplies	Yes	• Industrial training facility	Yes

Table 6.1 Future land use suitability for the site under different zonings

'Enterprise' zone		'Agribusiness' zone	
• Hazardous industries	Yes	• Information and education facility	No – due to noise impact
• Health services facility	No – due to noise impact	• Intensive plant agriculture	No – due to noise impact, night time light spill and possible bird attraction
• Hotel or motel accommodation	Yes	• Landscaping material supplies	Yes
• Industrial retail outlet	Yes	• Light industry	Yes
• Industrial training facility	Yes	• Market	Yes
• Information and education facility	No – due to noise impact	• Places of public worship	No – due to noise impact
• Landscape material supplies	Yes	• Plant nursery	No – due to noise impact, night time light spill and possible bird attraction
• Light industry	Yes	• Recreation area	Yes
• Liquid fuel depot	Yes	• Research station	Yes
• Neighbourhood shop	Yes	• Roadside stall	Yes
• Passenger transport facility	Yes	• Rural industry	Yes
• Places of public worship	No – due to noise impact	• Rural supplies	Yes
• Public administration building	Yes	• Rural workers' dwelling	No – due to noise impact
• Pubs	Yes	• Service station	Yes
• Recreation area	Yes	• Telecommunications facility	No – due to height restriction
• Recreation facility (indoor)	Yes	• Warehouse or distribution centre	Yes
• Recreation facility (major)	Yes	• Water recycling facility	Maybe
• Registered club	Yes	• Water supply system	Maybe
• Research station	Yes		
• Restricted premises	Yes		
• Road	Yes		
• Service station	Yes		
• Serviced apartment	No – due to noise impact		
• Sex services premises	Yes		
• Signage	Yes		
• Storage premises	Yes		
• Telecommunications facility	No – due to height restriction		
• Transport depot	Yes		
• Truck depot	Yes		

Table 6.1 **Future land use suitability for the site under different zonings**

'Enterprise' zone		'Agribusiness' zone
• Vehicle body repair station	Yes	
• Vehicle body repair workshop	Yes	
• Vehicle sales or hire premises	Yes	
• Veterinary hospital	No – due to noise impact	
• Warehouse or distribution centre	Yes	
• Waste or resource management facility	Yes	
• Water supply system	Maybe	
• Water treatment facility	Maybe	
• Wholesale supplies	Yes	

7 Conclusion

There is an existing clay/shale quarry at [REDACTED], Luddenham, legally described as [REDACTED] (the site). The quarry has been inactive for about 18 months. Coombes Property Group (CPG) in partnership with KLF Holdings Pty Ltd (KLF) propose to develop the site in three stages:

1. reactivate the quarry, to extract a regionally significant resource as previously approved;
2. development of a resource recovery facility (primarily accepting C&D waste, ie general solid waste (non-putrescible)) with unrecyclable material used to fill the quarry void to leave a rehabilitated landform; and
3. commercial/light industrial development of the final landform across the site with uses consistent with the vision of the draft Aerotropolis Plan.

The draft Aerotropolis Plan includes the site within the Agribusiness Zone. The proposed land use table for the Agribusiness Zone would not permit the development of a resource recovery facility.

We cordially request:

1. a revision of the Aerotropolis Plan and proposed Aerotropolis SEPP mapping to include the site within the Northern Gateway Precinct and proposed Enterprise zoning; and
2. a revision of a small portion of land earmarked for Environment and Recreation zoning within existing disturbed areas of the site to Enterprise zoning.

or

3. that site-specific provisions be applied to the site that would provide for the establishment of a resource recovery centre, compatible with Western Sydney Airport operations, to allow filling of the quarry void in the short- to medium-term.

Either approach would permit, with consent, the development of the Resource Recovery Centre and provide a commercially viable path to completely filling the quarry void to achieve a site suitable for the range of uses envisaged by the draft Aerotropolis Plan. This also would ensure that the most likely alternative outcome, that the void remains unfilled (an outcome that would be incompatible with the draft Aerotropolis Plan) is avoided.



Appendix A

Economic Needs Analysis



, Luddenham: Economic Needs Analysis

A submission to Coombes Property Group &
KLF Holdings

27 February 2020



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Disclaimer

This report has been prepared by Mike Ritchie and Associates Pty Ltd (trading as MRA Consulting Group (MRA)). MRA (ABN 13 143 273 812) cannot accept any responsibility for any use of or reliance on the contents of this document by any third party.

Executive Summary

MRA was engaged by Coombes Property Group and KLF Holdings to undertake a high-level economic needs analysis to support their submission to the Western Sydney Aerotropolis Planning Package for the proposed development of a construction and demolition (C&D) waste resource recovery facility and inert landfill at [REDACTED], Luddenham.

Proposed development overview

The proposed development will involve four key operations:

- Further excavation of construction and landscaping materials from the quarry;
- Development of a 600,000 tonne per annum construction and demolition resource recovery facility with an aim to divert 90% of waste from landfill; and
- Development of a 300,000 tonne per annum landfill for non-recyclable materials from the resource recovery facility and external sources as well as low-level contaminated soil, excavated natural material and asbestos containing material.
- Rehabilitation of the landfill site to allow for development of commercial buildings to compliment the Western Sydney Aerotropolis region (2034 to beyond 2040).

Appendix A provides a draft project timeline for the above developments from 2020 to 2039.

Alignment with NSW Government policy and targets

The proposed development will be completed using best practice methodologies to maximise resource recovery, mitigate environmental impacts and provide sustainable employment and is in accordance with the following NSW Government's waste management policies and targets:

- Waste Avoidance and Resource Recovery Act 2001;
- NSW Waste Avoidance and Resource Recovery Strategy 2014–21;
- State Environmental Planning Policy (Infrastructure) 2007; and
- State Environmental Planning Policy (Western Sydney Employment Area) 2009.

The proposed development is in a strategic location to take advantage of the expected C&D waste generation from the Western Sydney Aerotropolis precinct and the South West Growth Area, whilst providing ongoing operational and construction jobs throughout the four development phases of the project.

Needs analysis

The projected inert waste volumes to be disposed in Sydney Metropolitan Area (SMA) inert landfills is predicted to increase by the historical compound annual growth rate of 4.1%, based on the latest NSW EPA C&D waste data¹. The projected volumes of C&D waste generated is estimated to reach 23.7 million tonnes by 2040.

Based on MRA's estimates, when Suez's landfill at Kemps Creek closes in 2030 the demand for inert landfill will exceed the available landfill capacity by at least 1.5 million tonnes per annum (Figure 3). The proposed 300,000 tonnes per annum landfill will only provide 20% of the estimated additional landfill capacity required in 2030.

Therefore, the proposed 600,000 tonnes per annum C&D resource recovery facility is needed to fill the required 1 million tonnes of C&D waste processing capacity in FY 2020 and the additional processing capacity required will only increase as C&D generations grows to 23.7 million tonnes per annum in FY 2040 (Table 1).

Conclusion

On the basis of the results of the analyses in this needs analysis report, MRA is of the view that the proposed C&D resource recovery facility and adjacent C&D landfill is needed so as a provide key waste management infrastructure for the Greater Sydney region.

¹ <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/warr-strategy/performance-against-strategy>

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1 Site overview

The site at [REDACTED], Luddenham NSW, was established as a clay/shale quarry in 2004. Operations on the site continued until 2018. The site has an estimated 2,035,000 tonnes of remaining material which can be quarried to offer a maximum landfill capacity of 3,492,000 tonnes².

It is defined as [REDACTED] and is within the Liverpool City Council Local Government Area (LGA).

The site is located in an agricultural area in the western suburbs of Sydney and is surrounded by agricultural land. Land to the south and east is to be developed into the Western Sydney Airport (WSA).

The proposed development will involve four key operations:

- Further excavation of construction and landscaping materials from the quarry (upon approval to approximately 2029);
- Development of a 600,000 tonne per annum construction and demolition resource recovery facility with an aim to divert 90% of waste from landfill (upon approval to beyond 2039);
- Development of a 300,000 tonne per annum landfill for non-recyclable materials from the resource recovery facility, low-level contaminated soil, excavated natural material and asbestos containing material (upon approval circa 2025/2026 to 2036); and
- Rehabilitation of the landfill site to allow for development of commercial buildings to compliment the Western Sydney Aerotropolis region (2034 to beyond 2040).

Appendix A provides a draft project timeline for the four works detailed above from 2020 to beyond 2039.

The site is well located to operate as a C&D resource recovery operation and inert landfill, with development of the adjacent WSA and associated commercial and industrial infrastructure expected to continue until the mid-2030s. Further stages of the airport development (including addition of a second runway) is anticipated to commence circa 2050.

The NSW Government has prepared a strategic plan for the South West Growth Area (Liverpool, Camden and Campbelltown Councils) which includes large land releases and rezoning for large-scale residential developments which will produce significant amounts of construction and demolition waste.

Domain published in 2017 that approximately 140,000 houses will be built in the South West Growth Area³. Based on extensive experience in developing waste management plans for residential developments, MRA has estimated that each house generates approximately 10 tonnes of waste during construction. Therefore, the residential development in the surrounding region will alone produce approximately 1.4 million tonnes of construction waste by 2035 that will need to either be recycled or landfilled where there is no other alternative. [REDACTED]

² Source: Stonebridge Property Report for 257 Adams Road Luddenham

³ <https://www.domain.com.au/news/predicting-south-west-sydney-what-will-the-region-look-like-in-2027-20171114-gzks57/>

2 NSW government waste management objectives

The development of the proposed C&D resource recovery facility and adjacent landfill supports the following key waste management objectives of the NSW Government:

- Waste Avoidance and Resource Recovery Act 2001 (WARR Act);
- NSW Waste Avoidance and Resource Recovery Strategy 2014–21 (WARR Strategy);
- State Environmental Planning Policy (Infrastructure) 2007; and
- State Environmental Planning Policy (Western Sydney Employment Area) 2009.

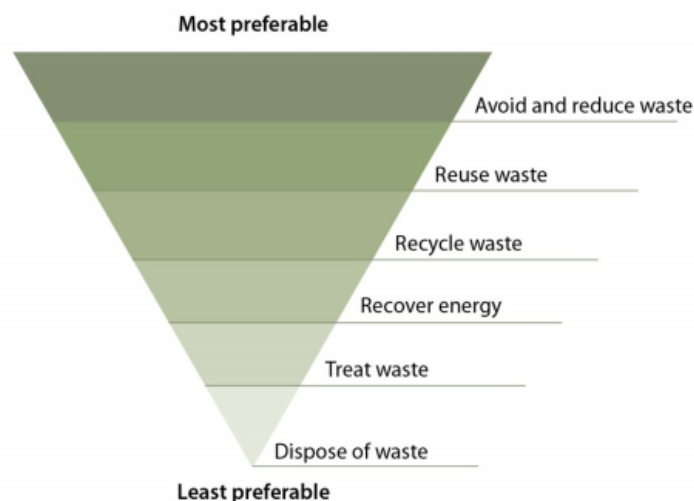
2.1 Waste Avoidance and Resource Recovery Act 2001

The WARR Act aims to encourage the efficient use of resources and reduce environmental harm in accordance with the principles of ecologically sustainable development. The WARR Act serves the following functions:

- Promotes waste avoidance and resource recovery;
- Provides for the development of the WARR Strategy; and
- Defines the functions of the EPA.

The WARR Strategy proposes priority areas and actions for the minimisation of environmental harm from waste disposal and through the conservation and efficient use of resources. It outlines a waste hierarchy that prioritises reuse and recycling over disposal, as shown in Figure 1, below.

Figure 1: The Waste Hierarchy



The proposed C&D waste resource recovery facility in conjunction with a landfill for non-recyclable materials is aligned with the objectives of the waste hierarchy and diversion targets of the NSW government. KLF Holdings' current operations are in accordance with the waste hierarchy and currently dispose of only 20% of waste to landfill. KLF Holdings' ongoing investments in these operations will continue to reduce the percentage of waste to landfill.

2.2 NSW Waste Avoidance and Resource Recovery Strategy 2014–21

The NSW Waste Avoidance and Resource Recovery Strategy 2014–21 (WARR Strategy) provides a framework and targets for waste management in NSW.

The following relevant targets have been set to be achieved by 2021/22:

- Avoiding and reducing the amount of waste generated per person in NSW;
- Increasing recycling rates to 80% for construction and demolition waste; and
- Increasing waste diverted from landfill overall to 75%.

The latest available data (2017-18) from the NSW EPA shows that NSW has not yet reached the 80% C&D waste target and is currently recycling 77% of all C&D waste generated. The proposed development will provide an additional 600,000 tonnes per annum of C&D waste recycling processing capacity and achieve 540,000 tonnes per annum diverted from landfill to the NSW economy.

2.3 State Environmental Planning Policy (Infrastructure) 2007

The *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) lists a number of factors to consider when determining the suitability of waste or resource management facilities for approval.

These include:

1. Whether there is a suitable level of waste recovery;

The proposed development will ensure that the resource recovery facility will achieve a suitable level of resource recovery of C&D waste, with a goal of 80% resource recovery in accordance with the WARR Strategy targets. KLF's current operations currently achieve a resource recovery rate of 80%. KLF have operated similar C&D waste resource recovery facilities for 20 years.

2. Whether best practice landfill design and operation will be followed;

The proposed development will employ best practice landfill design and operations to maximise resource recovery, optimise the rehabilitation and economic potential of the quarry void and mitigate environmental impacts. All activities will be conducted in accordance with the relevant environmental legislation and work in consultation with the NSW EPA.

3. Whether a development relating to a new or expanded landfill is located on degraded land such as a disused mine site and the location avoids land use conflicts;

The development will be utilising an abandoned quarry site which requires rehabilitation. The development of a resource recovery park in conjunction with the landfill with the long-term goal to **redevelop** the rehabilitated quarry into commercial or industrial developments, provides a development option with strong environmental, economic and social benefits.

4. Whether transport links to the landfill are optimised to reduce environmental and social impacts associated with waste transportation.

There are currently sufficient transport links to the proposed site which is optimally placed to not only receive C&D waste from the upcoming Western Sydney Aerotropolis and associated infrastructure but also C&D waste from the Greater Sydney Area. The transport links to the site will only be improved as the area is further developed and transport links such as road upgrades and rail links are established.

2.4 Western Sydney Employment Area

The proposed development site falls within the Western Sydney Employment Area *is subject to the State Environmental Planning Policy (Western Sydney Employment Area) 2009*. The main aim of the Western Sydney Employment Area SEPP is to promote economic development and create jobs.

The proposed development, once the resource recovery facility and landfill are both operational, is estimated to provide 60 full time equivalent positions ranging from administration staff to operational managers for the Western Sydney community.

The construction stages of the proposed development, including the construction of the resource recovery facility, construction of the landfill cells, rehabilitation of the landfill cells and construction of the commercial/industrial estate, will provide additional employment opportunities from 2021 to beyond 2040.

3 Sydney C&D waste market

The following analyses were undertaken to determine the need for an additional C&D resource recovery facility and C&D landfill in Sydney:

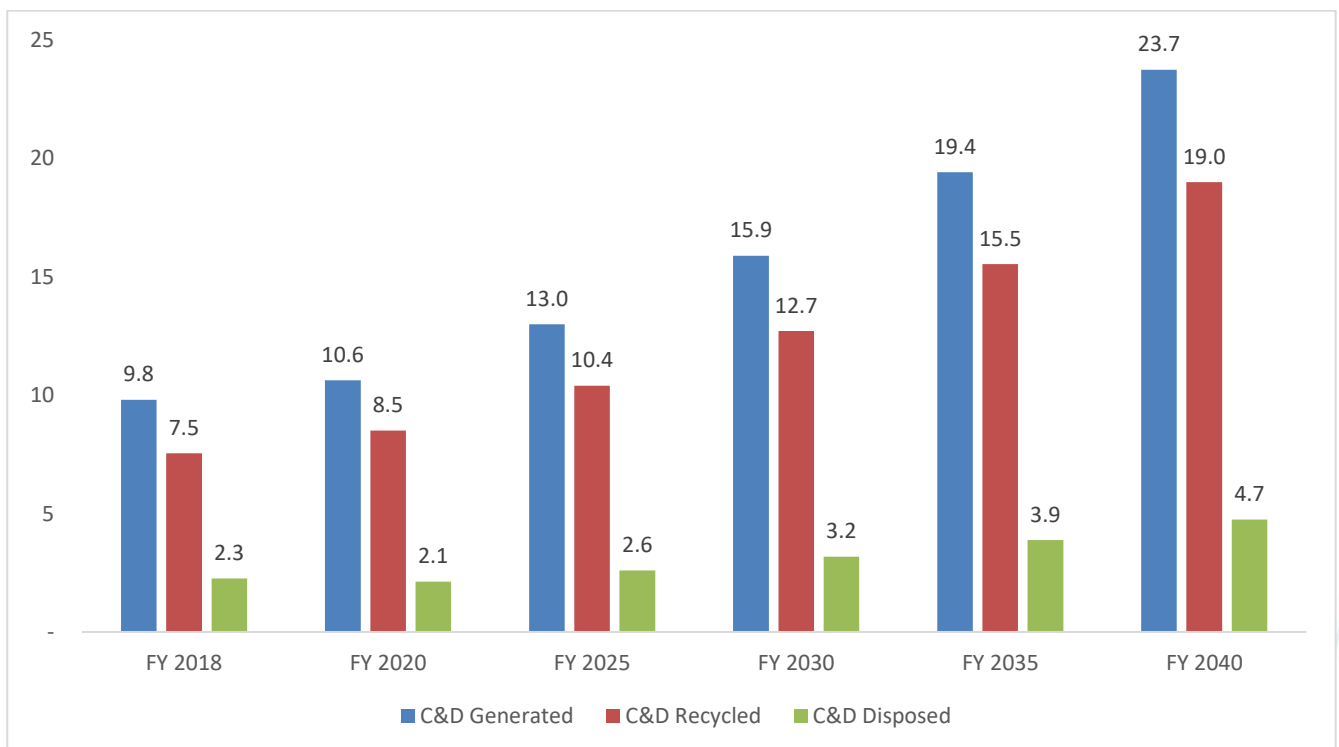
1. Forecast of C&D generation growth rate in Sydney to 2040;
2. Analysis of the increased waste generation from major infrastructure projects;
3. Assessment of the expected reduction of landfill capacity as they are filled; and
4. Evaluation of the additional recycling capacity required to reach NSW government landfill diversion targets.

3.1 C&D waste market in Sydney

When forecasting future C&D waste generation (including recycling and disposal volumes), the historical growth rate, which is most influenced by subjective elements such as the impact of potential legislative changes and economic factors, has been found to be a dependable baseline.

The projected inert waste volumes to be disposed in Sydney Metropolitan Area (SMA) inert landfills was projected using the historical compound annual growth rate of 4.1% (based on the latest NSW EPA data on C&D waste data⁴) and SMA population data. The projected volumes of C&D waste generated was estimated to reach 23.7 million tonnes by 2040 (Figure 2). Note that the current C&D waste resource recovery rate of 77% has been assumed to increase to the WARR Strategy C&D recovery target of 80% for the projections to 2040.

Figure 2: Sydney Metropolitan Area - C&D Waste Market



⁴ <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/warr-strategy/performance-against-strategy>

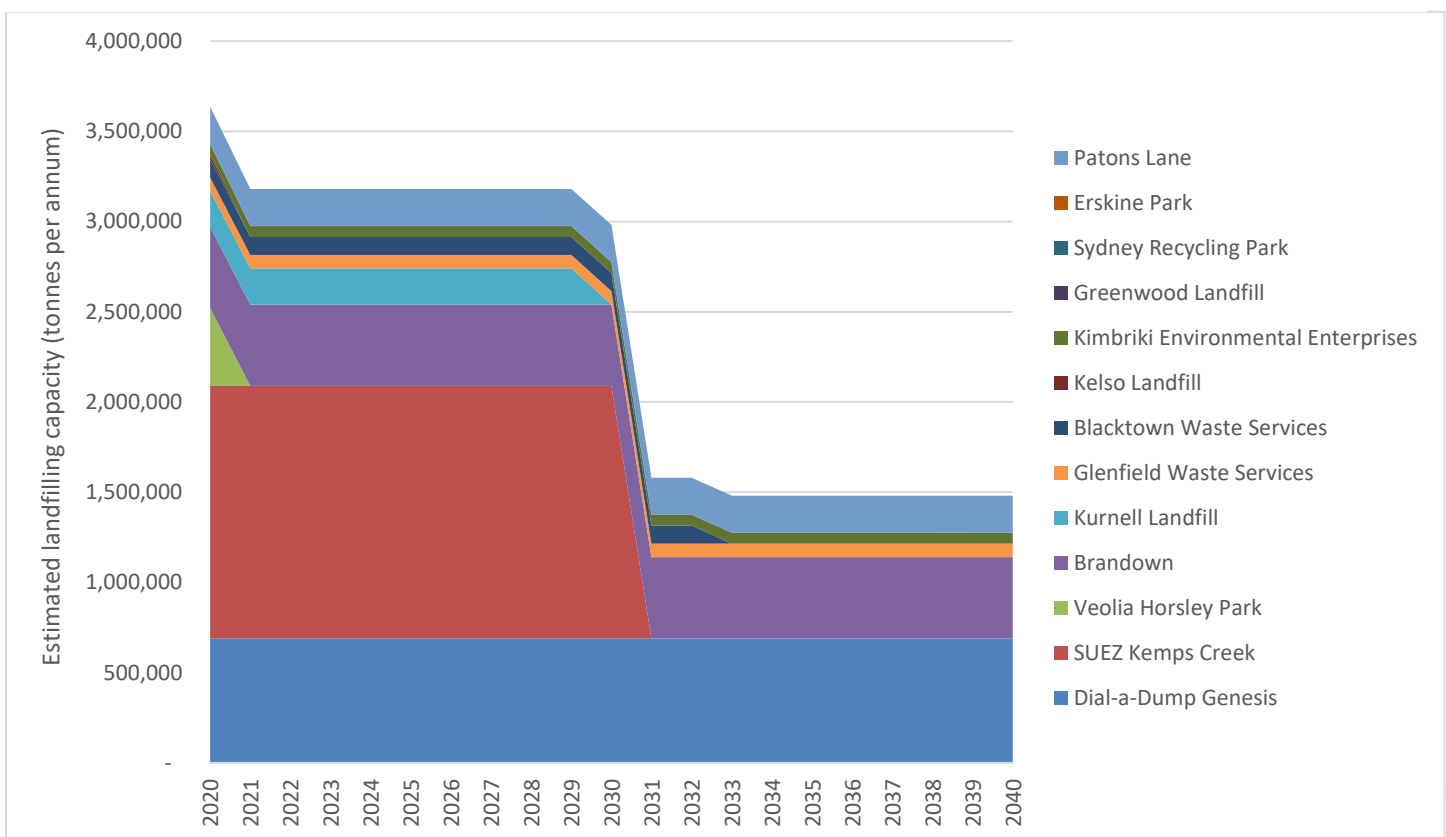
The forecast generation, recycling and disposal volumes for C&D wastes will require significant investment in C&D resource recovery and landfill infrastructure by 2040. The disposal projections in Figure 2 do not include the impact of reduced C&D waste disposal in Queensland and C&D waste produced by major infrastructure projects. Therefore, the estimates provided above are considered to be conservative.

The need for additional C&D recycling and landfill capacity is described below, the reduction in inert landfill capacity is detailed in Section 3.2 and the requirement for C&D recycling capacity is explored in Section 3.3.

3.2 Reduction of landfill capacity in Sydney

MRA expects the future inert waste market to involve a significant ramp-up in processing capacity. There are currently 13 inert landfills servicing the SMA which compete for tonnages, many of which are not expected to close until 2040 (Appendix B). The expected filling rates and closure dates as listed in Appendix B are presented in Figure 3 below to provide an overview of available landfill capacity from 2020 to 2040.

Figure 3: Sydney inert landfill capacity



Based on MRA's estimates in Appendix B, Sydney will lose approximately 1.5 million tonnes of inert landfill capacity around 2030, with the major impact due to the closure of Suez's facility at Kemps Creek. When Suez's facility closes in 2030, the estimated demand for inert landfill (3.2 million - Figure 2) will exceed the estimated available inert landfill capacity of 1.5 million (Figure 3).

3.3 Required infrastructure to reach C&D WARR recovery targets

In 2019, the NSW Government stated that approximately 12.77 million tonnes of C&D waste were generated in NSW in 2017-18. Based on the population of the SMA, MRA estimates that 9.8 million tonnes of C&D waste were generated in the SMA in 2017-18. Of the 9.8 million tonnes generated, MRA estimates that 7.5 million tonnes were recycled in the SMA.

According to the estimates of C&D waste generation growth in the SMA (4.1% compound annual growth rate), MRA estimates that 10.6 million tonnes of C&D waste will be generated in FY 2020. To achieve the NSW Government's C&D recycling target of 80% (see Section 2.2), approximately 8.5 million tonnes of C&D waste will need to be recycled in FY 2020.

Assuming the C&D waste processing capacity facilities in the SMA were operating with no spare capacity, MRA estimates an additional 1 million tonnes of C&D waste processing capacity is needed by FY 2020. The need for additional C&D processing capacity is expected to increase significantly, with approximately 19 million tonnes of C&D waste required to be recycled to meet the 80% target in FY 2040 (Table 1).

Table 1: Additional C&D processing capacity required

Year	C&D Generated (tpa – millions)	C&D Recycled (tpa – millions)	Additional processing capacity required 80% target ⁵ (tpa – millions)
FY 2020	10.6	8.5	1.0
FY 2025	13.0	10.4	2.9
FY 2030	15.9	12.7	5.2
FY 2035	19.4	15.5	8.0
FY 2040	23.7	19.0	11.5

Therefore, the proposed 600,000 tonnes per annum C&D resource recovery facility is needed to help fill the required 1 million tonnes of C&D waste processing capacity in FY 2020, and the expected need for additional C&D processing capacity will only increase as C&D generations grows to 23.7 million tonnes per annum in FY 2040. Note that according the draft timeline (Appendix A), the proposed C&D resource recovery facility would be operational in 2021, which fits into the timeline when additional C&D processing capacity is required.

⁵ Measured against the estimated available 2017-18 C&D waste processing capacity of 7.5 million tonnes as calculated in Figure 2.

4 Conclusions

On the basis of the results of the analyses above, MRA is of the view that the need for the proposed C&D resource recovery facility and adjacent C&D landfill is justified in order to provide key waste management infrastructure for the Greater Sydney economy.

C&D waste generation is expected to continue to increase by a compound annual growth rate of 4.1% with the potential for major infrastructure projects and potential waste returning from Queensland to further increase C&D waste infrastructure demands for short periods.

Based on MRA's estimates, when Suez's landfill at Kemps Creek closes in 2030 the demand for inert landfill will exceed the available landfill capacity by at least 1.5 million tonnes per annum (Figure 3). The proposed 300,000 tonnes per annum landfill will only provide 20% of the estimated landfill capacity required in 2030.

Therefore, the proposed 600,000 tonnes per annum C&D resource recovery facility is needed to fill the required 1 million tonnes of C&D waste processing capacity in FY 2020 and the additional processing capacity required will only increase as C&D generations grows to 23.7 million tonnes per annum in FY 2040 (Table 1).

The proposed development is in a strategic location to take advantage of the expected C&D waste generation from the Western Sydney Aerotropolis precinct and the South West Growth Area, whilst providing ongoing operational jobs and construction jobs throughout the four development phases of the project.

Appendix A Project Timeline



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Luddenham Quarry development timeline (v2)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039+	
Quarry	Not operating	Application to reactivate quarry (MOD 5)	Extraction								No extraction											
Quarry rehabilitation/land-fill	Not approved	Application for rehab/land-fill (MOD 6)	No filling			Rehabilitation/land-fill (non-recyclables/ACM/ENM/VENM)										Site rehabilitation completed						
Recycling facility	Not approved	Application for recycling facility	Recycling (offsite disposal of non-recyclables)				Recycling (onsite landfill of non-recyclables)										Recycling (offsite disposal of non-recyclables) - ongoing					
Commercial development	Not approved	Site design to accommodate final land use					Progressive rehabilitation to provide final landform								Application(s) for final commercial	Commercial uses complimenting WSA						
Airport	Construction							Airport operations														
Road network	TBD																					

Draft project timeline (January 2020)

Appendix B Sydney Inert Landfill Summary

Dry Landfill	Expected filling rate (tpa)	Expected closure year (based on MRA assumptions)	Notes
Dial-a-Dump Genesis	690,000	2033	Main landfill for all inert Bingo waste streams
SUEZ Kemps Creek	1,400,000	2030	SUEZ application for landfill extension likely to be approved
Veolia Horsley Park	430,000	2019	Veolia have stated they will transport to Woodlawn Bio Reactor once full
Brandown	450,000	2040	Was sending 250,000 tpa to QLD prior to levy introduction, current operations unclear
Kurnell Landfill	200,000	2029	Current application to increase the height of the landfill void under consideration
Glenfield Waste Services	75,000	2040	-
Blacktown Waste Services	100,000	2032	-
Kelso Landfill	25,000	2020	Closed to the public, only receives council waste.
Kimbriki Environmental Enterprises	60,000	2040	-
Greenwood Landfill	1,000	2038	-
Sydney Recycling Park	-	2025	Was sending 150,000 tpa to QLD prior to levy introduction, current operations unclear
Erskine Park	-	2022	MRA understands that this site is being prepared for closure
Patons Lane	205,000	2040	Opened in late 2019 and is able to undertake extractive activities to extend the landfill void
TOTAL	3.64 million tonnes		



