



Planning

MAJOR PROJECT ASSESSMENT
Orchard Hills Waste Facility
MP 09_0074



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

September 2010

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Published September 2010
NSW Department of Planning
www.planning.nsw.gov.au

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EXECUTIVE SUMMARY

Dellara Pty Ltd proposes to construct and operate a waste and resource recovery facility on the site of a former clay/shale quarry at Orchard Hills, in the Penrith local government area.

Penrith Council administer a development consent that allows the extraction of clay from the site. The Department of Environment, Climate Change and Water similarly administers a licence (although, currently suspended) for the extraction of 130,000 tonnes of clay per annum.

The new proposal principally involves recycling and resource recovery of construction and demolition (C&D) waste, landfilling non putrescible waste in the former quarry void, a waste transfer station, continued clay/shale extraction, and site rehabilitation.

The proposed facility would accept up to 450,000 tonnes of non-putrescible waste each year and up to 400,000 tonnes per annum of clay would be extracted for an estimated 25 years. Clay would be extracted for approximately 20 years.

The proposal would provide full-time employment for five to ten people during construction, and for 20 people once fully operational. The proposal has a capital investment value of \$12,336,800.

The project constitutes a “major project” under Part 3A of the *Environmental Planning and Assessment Act 1979*, and consequently requires the Minister’s approval.

The Department had a significant response to the exhibition of the proposal and received 3,768 submissions, including: seven from public authorities (DECCW, Industry & Investment NSW, Integral Energy, NOW, Penrith City Council, RTA and the Sydney West Area Health Service); four from special interest groups (including the Orchard Hills Community Association and Dogs NSW); and 3,757 from the community.

The Department of Environment, Climate Change and Water (DECCW) do not object to the project, however, DECCW has outstanding concerns in relation to the Proponent’s ability to manage noise and dust impacts. Penrith City Council objects to the proposal on a number of grounds, specifically the need for the project and a lack of alternatives considered. The RTA recommends certain conditions be imposed to manage the additional traffic likely to be generated by the proposal.

All but one of the submissions from the general public opposed the project. The issues raised most frequently in community submissions included dust and air quality impacts, a lack of justifiable demand for the project, a lack of consideration given to alternatives, noise impacts, visual impacts, and water quality impacts.

The Department has assessed the merits of the project in detail and contracted independent waste expert, Mr Tony Wright, to assist in the review of key issues. The Department’s assessment concluded:

- There is no demonstrable need for a proposal of this scale and at this location in terms of landfill capacity given the concentration of landfill capacity in Western Sydney;
- The planning setting of the proposal in close proximity to residential areas would inevitably introduce land use conflicts which would necessitate ongoing and onerous management. The project, at this scale is fundamentally and strategically inconsistent with good land use planning;
- There is an unacceptable level of risk associated the project’s ability to meet relevant noise criteria throughout the life of the proposal;
- The proposal is inconsistent with the objectives of key strategic planning instruments in relation to maintaining the scenic qualities and rural landscape character of the area; and
- The proposal will result in unacceptable long term visual impacts.

The Department acknowledges the legacy issues associated with the site including the illegally dumped waste contained within some of the bund walls surrounding the quarry void. There is clearly a need to rehabilitate the site and the Department further acknowledges a certain level of commercially viable activity should be supported in this respect.

However, on balance, the Department does not consider in this instance that the wider benefits of the proposal in terms of resource recovery and clay extraction outweigh the short, medium and long term impacts and risks associated with the proposal. Subsequently, the Department is of the view that the proposal is not in the public interest and should be refused.

The Department encourages any future application for rehabilitation and development of the site to be undertaken in close consultation with the community, DECCW and Penrith Council.

1. BACKGROUND

1.1 Project Setting

The site comprises Lot 40, DP 738126 and is located at 123-179 Patons Lane, Orchard Hills, in the Penrith City local government area, approximately 50 kilometres west of the Sydney CBD. The lot is 60 hectares in size.

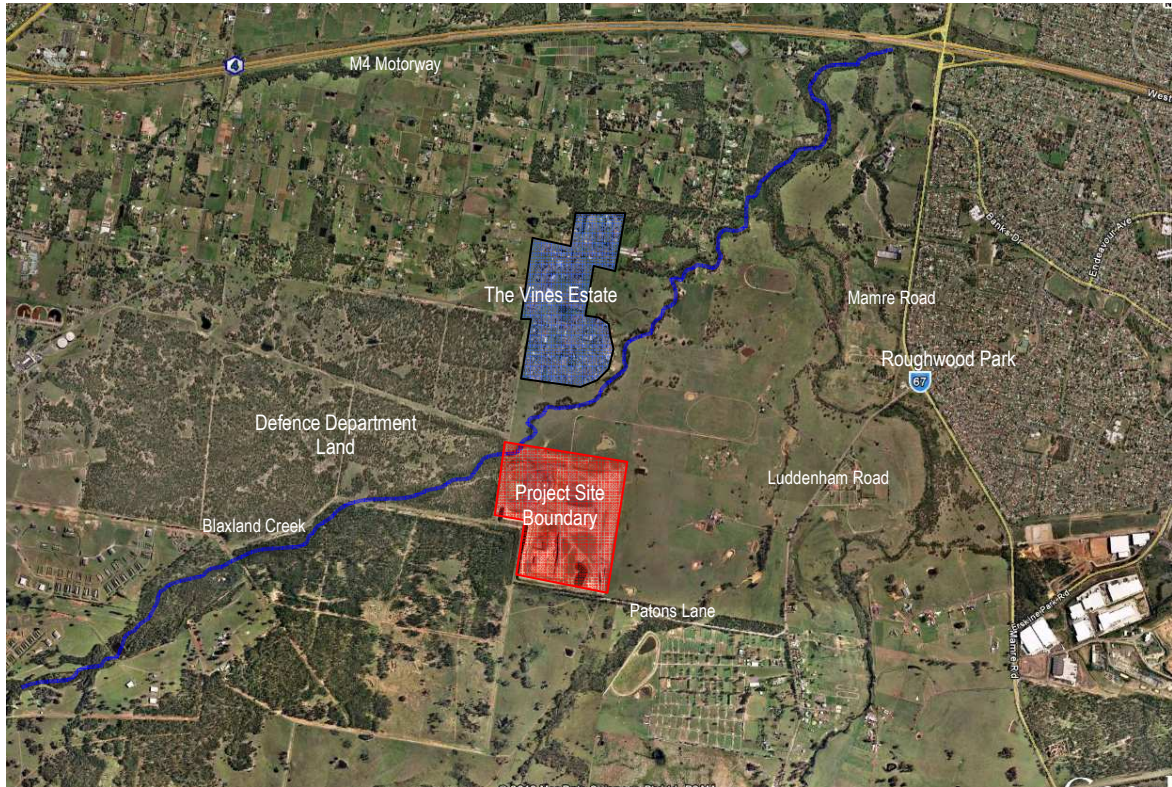


Figure 1: Site Location, Orchard Hills

The project site has been operated intermittently as a quarry since 1981. Quarrying operations have resulted in disturbance across the bulk of the site. The main areas of disturbance consist of two extraction areas, four dams and a sump, and perimeter bund walls. The site also includes an internal road network and various buildings. A series of bund walls varying in height from 5m to 19m and totalling approximately 1 900m in length are located around the perimeter of the project site.

Access to the project site is via Patons Lane, which runs off Luddenham Road. Patons Lane is a public road, however it is currently unsealed and locked by gates. Luddenham Road connects at the east with Mamre Road, which ultimately provides access to the M4 Motorway. The M4 Western Motorway is approximately 5 km to the north of the site.

A residential subdivision known as “The Vines” is located within 500 metres from the northern boundary of the site. The Vines estate has a gradual rise in elevation as you head further north. There are 117 allotments within the Vines estate many of which are double storey dwellings on large lots (approximately 800 – 1000 square metres), with elevated views back across the site. Further to the north (approximately 2-3km), the land also comprises low density residential dwellings on large allotments, with this area extending north to and bounded by the M4 Motorway.

Other nearby residences are located to the east of the site, including the rural property “Roughwood Park” and rural residential properties along Luddenham Road.

Immediately to the west of the site, there are large tracts of land owned by the Defence Department, which contain significant stands of vegetation. To the south of the Project Site and south of Patons

Lane, the land accommodates buildings and other facilities associated with an existing horse stud. The Twin Creeks housing estate is further south again. Land uses immediately east of the Project Site consist of open grazing land and ancillary buildings including rural housing. Further to the east (approximately 3km) are the established residential suburbs of St Clair and Erskine Park.

Blaxland Creek runs through the north western corner of the site.

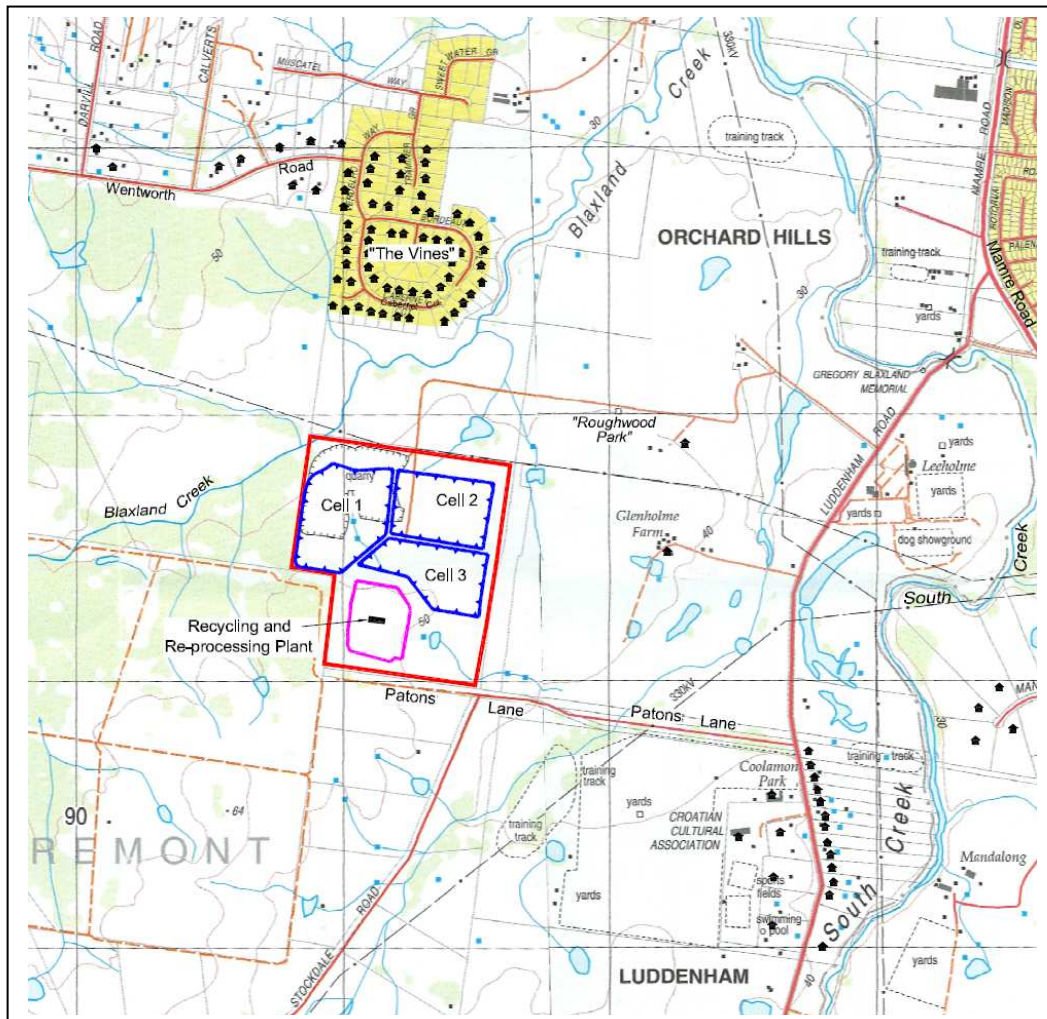


Figure 2: Site Location, Orchard Hills

1.2 Background

Between 1981 and 1989, Vacik Pty Ltd carried out clay/shale extraction operations on the site under development consent DA 116/80 granted by Penrith City Council on 23 November 1981.

The consent provides for the eventual rehabilitation of the site. The approved rehabilitation plan contemplates a dish type final landform with a couple of dams, and the site overall being returned to a rural / residential landscape.

In 1989, Vacik sought to modify DA 116/80 to permit the rehabilitation of the site using non-putrescible industrial and building waste. Council refused this application and, in 1992, its refusal was upheld on appeal to the NSW Land and Environment Court on the grounds that the proposed modification was not substantially the same development as originally approved.

Vacik subsequently sold the site to Erskine Park Quarry (NSW) Pty Ltd, who continued to operate the quarry.

During this period, DECCW suspended the Environmental Protection Licence governing the site on the grounds that unauthorised construction and demolition wastes – including asbestos – were being

brought onto the site and incorporated into the northern and north-eastern bund walls at a height exceeding the 3 metre height limit Council has advised are permitted under DA 116/80.

In their submission DECCW notes the breakdown of the approximate 900,000 tonnes of legacy material in the bunds (5-19 metres). Of this 900,000 tonnes:

- Approximately 540,000 tonnes(60%) comprises excavated natural material;
- Approximately 355,000 tonnes (40%) comprises general solid waste (construction and demolition); and
- Approximately 5,000 tonnes (< 0.01%) comprises special waste (asbestos).

The site was purchased by Dellara Pty Ltd (the Proponent) in August 2008 and has been in a state of “care and maintenance” since that time.

In terms of the resources on site, the most sought after resource is light-firing shale. This resource is used by the brick industry to manufacture light ('blonde') coloured bricks. The remaining resources on site are said to be suitable for the manufacture of darker bricks and fill at construction sites.

For the Project, the Proponent estimates within cell 1, approximately 490,000m³ of clay / shale needs to be removed to '*optimise the cell's storage capacity*', to an average depth of 28 metres. Cell 3 is described as the optimum shale/clay extraction area, yielding approximately 900,000 tonnes of light firing clay / shale.

In summary, the proponent predicts that a total of approximately 3.8 million tonnes, or an average of 200,000 tonnes per annum could be extracted and sold off site during the first 20 years of the project, after which time, the Project would be exclusively a resource recovery facility and non-putrescible landfill. The Proponent indicates a maximum of 400,000 tonnes per annum would be extracted and sold off site. The sequence of extraction would follow the staged 'emplacement' cells.



Figure 3: The current state of the site and evidence of unauthorised fill (photo courtesy Penrith City Council)

2. PROPOSED DEVELOPMENT

The major components of the proposal are summarised in Table 1, depicted in Figures 4, 5 and 6, and described in detail in the Environmental Assessment for the proposal (see Appendix B), and the Preferred Project Report dated 30 July 2010 (see Appendix D).

Table 1: Major Components of the Project

Aspect	Description
Project Summary	Construction and operation of a waste recovery facility at the former Erskine Park Quarry site at Patons Lane, Orchard Hills
<i>Landfill Area</i>	<ul style="list-style-type: none"> • <u>Total Capacity</u>: 6.3 million tonnes • <u>Operational Life</u>: 25 years • <u>Final Landform Elevation</u>: 58 m AHD • <u>Staging</u>: The landfill will consist of three cells with a fourth and final cell to be created within the recycling and re-processing area.
<i>Waste</i>	<ul style="list-style-type: none"> • <u>Total Throughput</u>: up to 450,000 tonnes per annum • <u>Waste Recycled</u>: up to 160,000 tonnes per annum • <u>Waste Landfilled</u>: up to 450,000 tonnes per annum • <u>Types of Waste Received</u>: general solid (non-putrescible) waste, including up to 100,000 tpa of contaminated soil and small quantities of asbestos-contaminated waste. Waste will predominantly comprise construction & demolition waste and commercial & industrial waste. • <u>Types of Waste Recycled</u>: C&D waste such as concrete, bitumen, bricks and roofing tiles; C&I waste such as metals, wood, plastics and cardboard. • <u>Types of Waste Landfilled</u>: low level contaminated soil from remediation sites such as petrol stations and ex-commercial or industrial sites; small quantities of mixed C&D waste which is unable to be economically separated.
<i>Site Access</i>	<ul style="list-style-type: none"> • Site access would be via Patons Lane. The Proponent proposes to complete the construction and sealing of the 1.1 km section of Patons Lane between Luddenham Road and the project site.
<i>Recycling and re-processing plant</i>	<ul style="list-style-type: none"> • <u>Area</u>: approx. 5.6 ha • <u>Components</u>: warehouse, product bays, storage shed, office, mobile recycling equipment
<i>Ancillary infrastructure</i>	<ul style="list-style-type: none"> • Existing weighbridges and offices to be refurbished • New site office, truck wheel wash, workshop and water management structures • Dams for collecting and storing leachate • Internal road network
<i>Clay/shale extraction</i>	<p>Total resources proposed to be extracted from Cells 1, 2 and 3 (following the same sequence as the emplacement cells) to an average depth of 28 m AHD</p> <ul style="list-style-type: none"> • <u>Clay</u>: 1,940,000 t • <u>Light-firing shale</u>: 1,180,000 t • <u>Red-firing shale</u>: 2,530,000 t
<i>Amenity Bund Walls</i>	<p>Bund walls around the perimeter of the operational area will provide audio-visual screening. Details of the bund walls are as follows:</p> <ul style="list-style-type: none"> • Northern bund wall (up to 55 m AHD) • Eastern bund wall (up to 58 m AHD) • Southern bund wall (up to 65 m AHD) • Southwestern bund wall (up to 64 m AHD)
<i>Employment</i>	<ul style="list-style-type: none"> • <u>Construction</u>: 5 - 10 people • <u>Operation</u>: 20 people full time + up to 10 part-time contractors
<i>Hours of Operation</i>	<p><u>Construction</u>:</p> <ul style="list-style-type: none"> • Monday to Friday 7am to 6pm; and • Saturday 8am to 5pm <p><u>Operation</u>:</p> <ul style="list-style-type: none"> • Monday to Friday 7am to 6pm; and • Saturday 8am to 5pm
<i>Heavy vehicle movements</i>	280 vehicle movements per day
<i>Capital Investment Value</i>	\$12,336,800

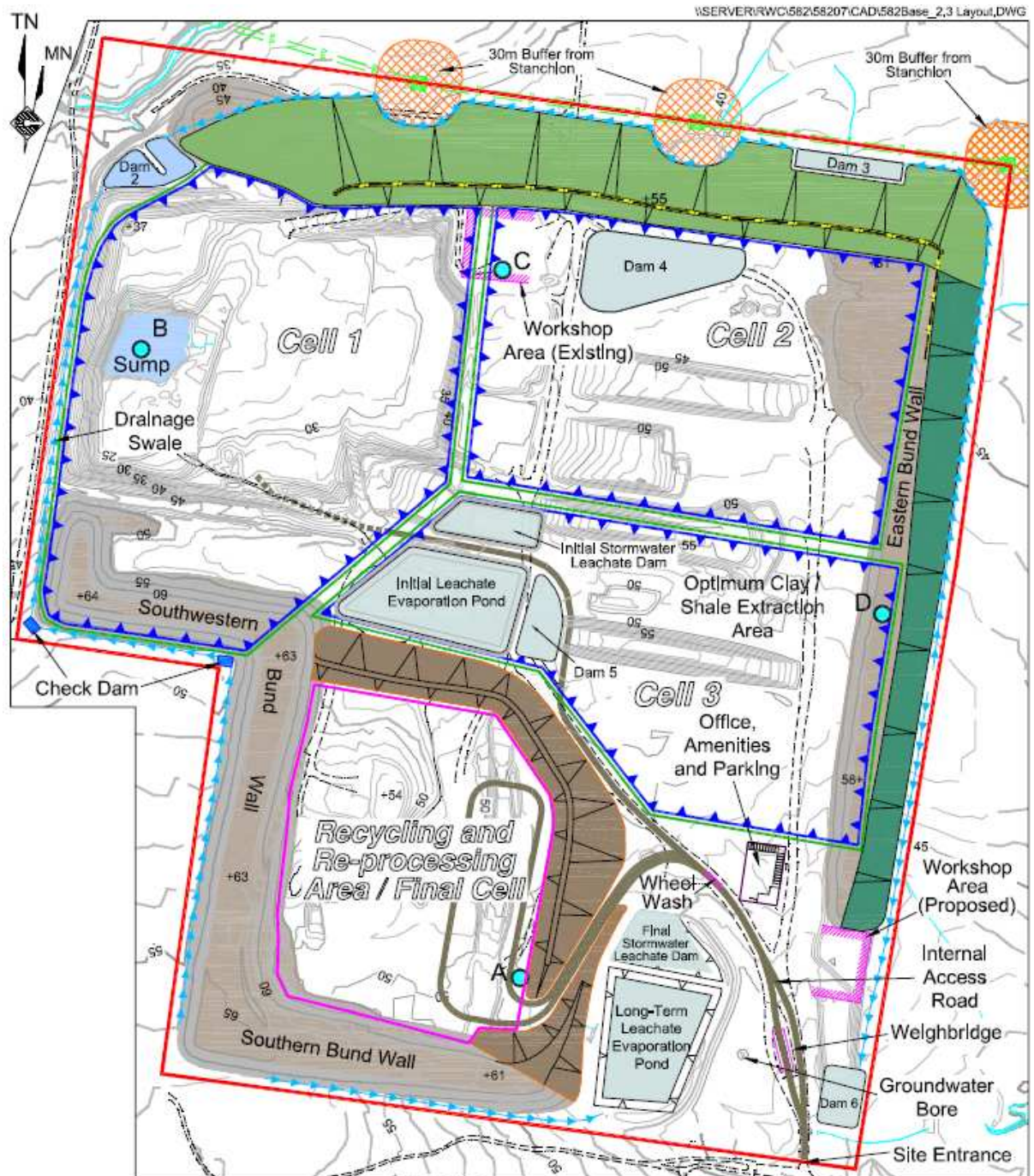


Figure 4: Proposed Site Layout

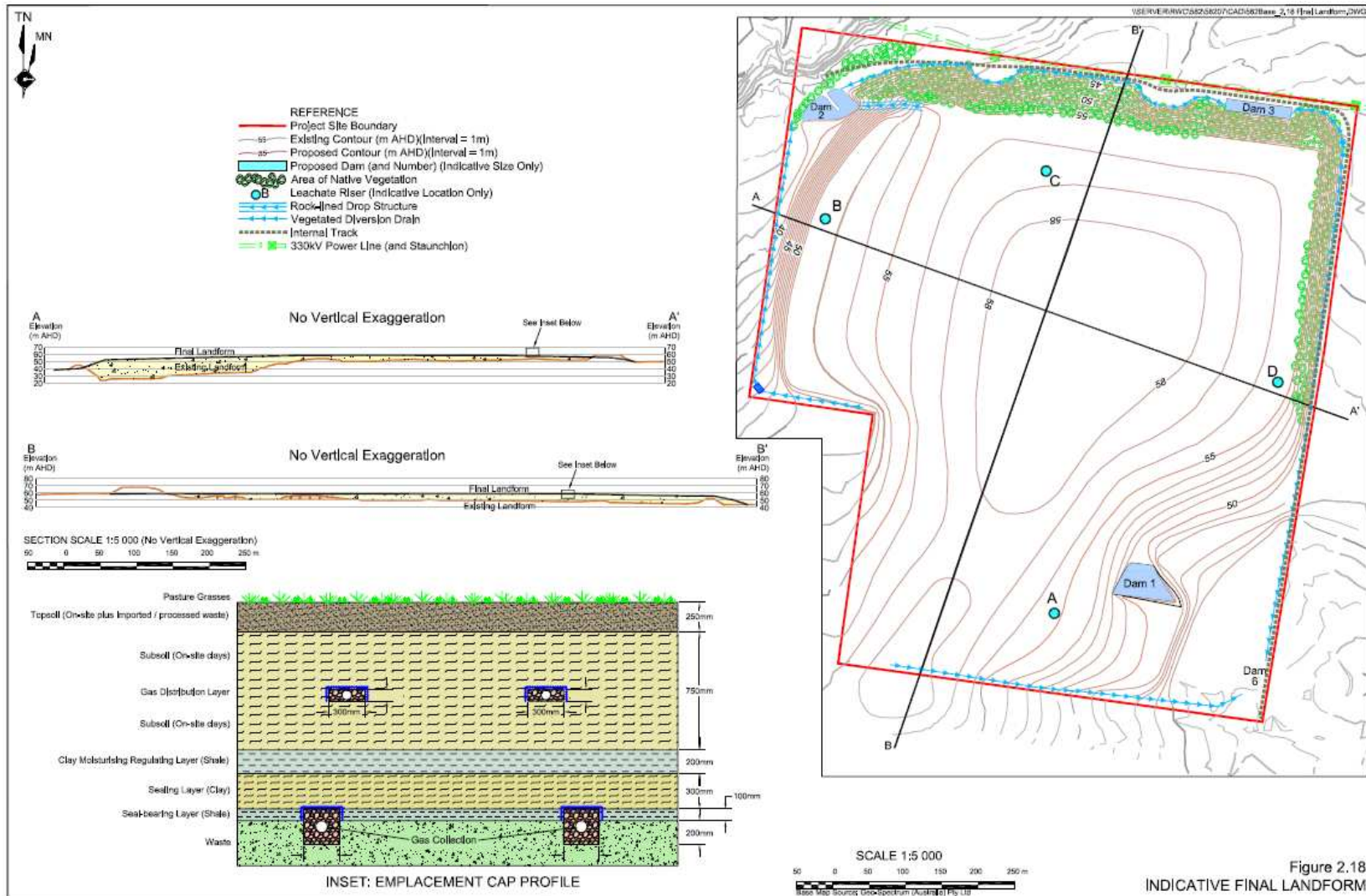


Figure 6: Proposed Final Landform

3. STATUTORY CONTEXT

3.1 Major Project

The project is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is development for the purpose of resource recovery or recycling facilities that handle more than 75,000 tonnes per year of waste and therefore triggers the criteria in Schedule 1, Clause 27(a) of *State Environmental Planning Policy (Major Development) 2005*.

Consequently, the Minister is the approval authority for the project.

3.2 Other Approvals

In addition to a Part 3A approval, the Proponent would be required to obtain:

- an environment protection licence(s) (EPL) from the Department of Environment, Climate Change and Water (DECCW) under the *Protection of the Environment Operations Act 1997* (POEO Act) for the waste facility and clay extraction; and
- consents from both the RTA and Penrith Council under *Section 138* of the *Roads Act* for the road works that are considered to be necessary for carrying out the project.

3.3 Permissibility

The project is located on land that is zoned RU2 Rural Landscape under the *Penrith Local Environmental Plan 2010* (Penrith LEP 2010), gazetted on 22 September 2010. The proposal is prohibited in this zone. A small corner of the site is zoned E2 Environmental Conservation around Blaxland Creek, however no works are proposed in this area.

Notwithstanding the zoning regime established under the local environmental planning instrument, Clause 121(1) in the Infrastructure SEPP permits 'any person' to carry out development for the purposes of a 'waste or resource management facility' in a 'prescribed zone'.

A 'prescribed zone' for the purposes of Waste or Resource Management Facilities in the Infrastructure SEPP includes the RU2 Rural Landscape (RU2 Zone). The RU2 Zone is the predominant new zoning for the site under Penrith LEP 2010, therefore, the proposal is permissible with consent and the application can be determined by the Minister.

3.4 Other Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General's report is to include a copy of or reference to the provisions of any:

- *State Environmental Planning Policy* (SEPP) that substantially govern the carrying out of the project; and
- environmental planning instrument that would (but for Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project.

The Department has considered the project against the relevant provisions of several environmental planning instruments (including the Infrastructure SEPP, SEPP 33, SEPP 55, the Mining, Petroleum and extractive Industries SEPP, SREP 25 Orchard Hills, SREP 9 Extractive Industries, SREP 20 Hawkesbury Nepean River (all deemed SEPPs), the *Penrith Local Environmental Plan 2010*. The Department's assessment concludes that the project is not consistent with the aims of SREP 25 or the zone objectives of the Penrith LEP 2010. Refer to Section 5. Consideration of other environmental planning instruments is provided in Appendix E.

3.5 Public Exhibition

Under Section 75(3) of the EP&A Act, the Director-General is required to make the environmental assessment of a project publicly available for at least 30 days.

After accepting the environmental assessment for the project, the Department:

- made it publicly available from **30 April 2010** until **30 June 2010**:
 - on the Department's website, and
 - at the Department's Information Centre, Penrith City Council, and the Nature Conservation Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Penrith City Council by letter; and
- advertised the exhibition in the Penrith City Star and the Penrith Press.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

During the assessment process the Department also made a number of documents available for download on the Department's website. These documents included the:

- project application;
- Director-General's requirements for the environmental assessment of the project;
- EA; and
- The Proponent's Response to Submissions / Preferred Project Report

3.6 Objects of the Environmental Planning and Assessment Act 1979

The Minister is required to consider the objects of the EP&A Act when he makes decisions under the Act. These objects are detailed in Section 5 of the Act, and include:

'The objects of this Act are:

- (a) *to encourage:*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (iii) *the protection, provision and co-ordination of communication and utility services,*
 - (iv) *the provision of land for public purposes,*
 - (v) *the provision and co-ordination of community services and facilities, and*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
 - (vii) *ecologically sustainable development, and*
 - (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.'*

The objects of most relevance to the Minister's decision on whether or not to approve this project are those under Section 5(a)(i), (ii), (iii) and (vii).

With respect to ecologically sustainable development (ESD), the EP&A Act adopts the definition in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD 'requires the effective integration of economic and environmental considerations in decision-making processes' and that ESD 'can be achieved through' the implementation of the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD, in its assessment of the Orchard Hills Waste Project.

Whilst the Project represents an economic use of the site and offers a form of rehabilitation to the quarry void, the Department considers the Project represents a significant intensification of use for the

site, and is an over-development of the land. As discussed in Sections 5, the project is not consistent with the strategic planning objectives for the area. In addition, the Department considers that approval of the project would result in adverse amenity impacts (visual) and an unacceptable risk (in terms of noise), to the amenity of neighbouring land users. This is not consistent with ESD principles of inter-generational and intra-generational equity.

3.7 Statement of Compliance

For the purpose of section 75(2)(g) of the EP&A Act, the Department is satisfied that, the environmental assessment requirements with respect to the project have been complied with.

4. ISSUES RAISED IN SUBMISSIONS

During the exhibition period, the Department received 3,768 submissions on the project, including: seven from public authorities (DECCW, I&I NSW, Integral Energy, NOW, Penrith City Council, RTA and the Sydney West Area Health Service); four from special interest groups (including the Orchard Hills Community Association and Dogs NSW); and 3,757 from the community (see Appendix C). Dellara provided a response to these submissions & Preferred Project report on 30 July 2010 (see Appendix D).

The Department considers this a significant community response to a Project, by any standards.

A summary of the submissions is provided below.

Public Authorities

The **Department of Environment, Climate Change and Water** (DECCW) do not object to the proposal, however remain concerned regarding the Proponent's ability to manage noise and dust impacts.

Penrith City Council objects to the proposal on a number of grounds, specifically the need for the project and a lack of alternatives.

The **Roads and Traffic Authority** (RTA) recommends a number of conditions be imposed to manage the additional traffic likely to be generated by the proposal.

Integral Energy are concerned about potential obstruction of their easements and assets on the proposal site.

The **NSW Office of Water** (NOW) recommended a number of conditions be imposed to enhance and protect the riparian zone adjacent to Blaxland Creek. The recommended conditions include establishing a 50 metre wide riparian corridor along the extent of the creek passing through the site, rehabilitating existing stream bank erosion, and removing a section of the north-western bund wall which currently encroaches upon the riparian corridor. The NOW also recommended that a groundwater monitoring program be implemented.

The **Sydney West Area Health Service** (SWAHS) raised concerns about the potential health impacts on surrounding residents of dust emissions and noise from the site. SWAHS recommended a number of conditions be imposed to mitigate these impacts, including revegetation of exposed soil and the use of water sprays to reduce dust, and that operating hours be revised to reduce the impact of noise from heavy vehicle movements.

In its submission SWAHS also recommended that the proponent be required to give an assurance in relation to all asbestos waste that may arrive at the site to the effect that the Proponent will either reject such waste, or extract and appropriately store it for disposal at an appropriate licensed facility.

Special Interest Groups & General Public

All but one of the submissions from the general public and special interest groups opposed the project.

Around 95 per cent of the submissions from the general public and special interest groups were form letters. Five different formats of form letter were received, with one of these five formats accounting for around 95 per cent of the total number of form letters received. The issues raised in this form letter – and thus the issues that were raised most frequently overall – were;

- Noise;
- water quality impacts;
- dust and air quality impacts;
- visual impacts;
- a lack of justifiable demand for a landfill; and
- a lack of consideration given to alternative proposals for the use of the site.

Noise, water quality impacts, dust and air quality impacts also featured prominently among the issues raised in those submissions that were not form letters. Concerns about traffic, health and odour

impacts were also raised frequently in these submissions, as were concerns about the proximity of the proposal to residences and the risks associated with existing asbestos contamination on the site.

The four special interest groups which made submissions on the proposal were the Orchard Hills Community Association, Dogs NSW, Penrith Anglican College and the Croatian Cultural Association.

The Orchard Hills Community Association raised a wide range of issues in its submission, including a lack of justifiable demand for the proposal, a loss of biodiversity, a failure to consider project alternatives, water, noise and dust pollution, and increased heavy vehicle traffic associated with the proposed site operations.

Dogs NSW objected primarily on the grounds that the increased traffic volume associated with the proposal would pose a risk to their members using the showground facility located on Luddenham Road.

Penrith Anglican College raised concerns about the potential health hazard to its students associated with airborne dust particles emanating from the proposed operations on the site.

The Croatia Cultural Association submitted a form letter objecting to the proposal on the grounds of traffic, noise and the potential pollution of Blaxland Creek by stormwater runoff.

Figure 7 below illustrates the frequency with which individual issues were raised in the submissions received from the general public and special interest groups.

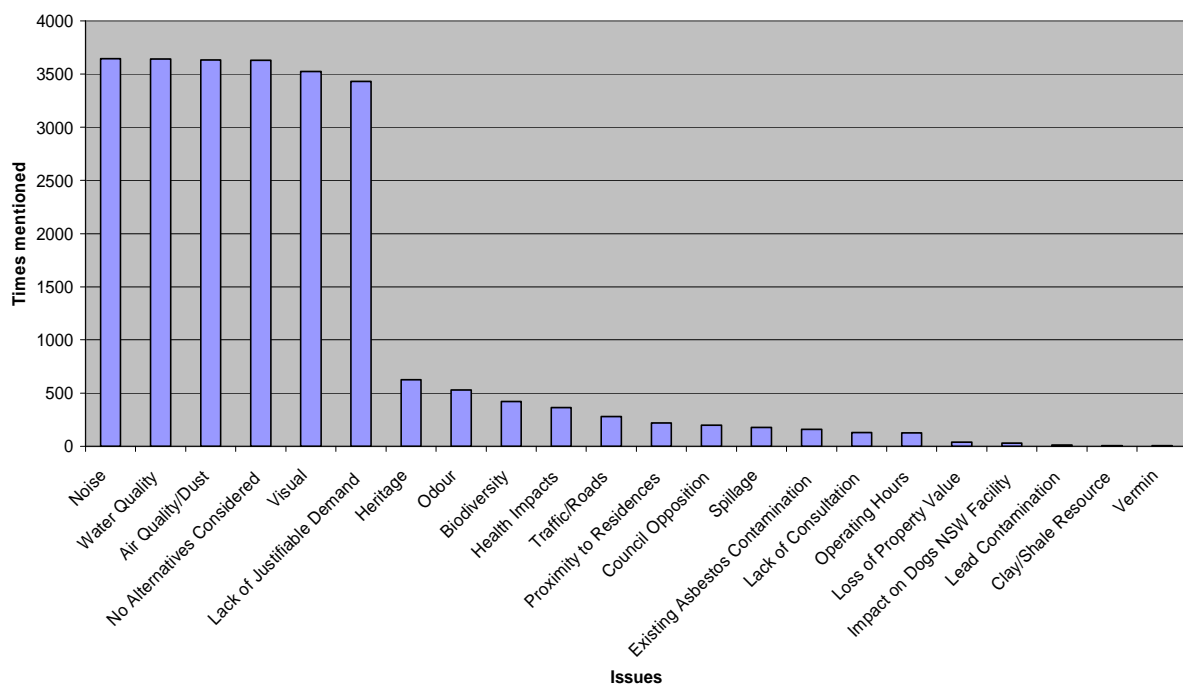


Figure 7: Issues Raised in Submissions from the General Public and Special Interest Groups

The one submission which expressed support for the project was in regard to an interest in the clay/shale resource available on the project site. Other submitters raised the concern that the Proponent’s intended staging of the proposal would leave insufficient room to stockpile the clay/shale on site, particularly in the latter stages of the project’s operational life. In their view this would result in a significant volume of the resource being sacrificed.

5. ASSESSMENT OF KEY ISSUES

In assessing the merits of the project, the Department has considered:

- the environmental assessment, submissions and the proponent's preferred project / response to submissions on the project (see Appendices B to D);
- the relevant environmental planning instruments, guidelines and policies;
- the objects of the EP&A Act, including the object to encourage ecologically sustainable development; and
- the relevant statutory requirements of the EP&A Act & Regulation.

The Department considers the key issues relate to the need for the project; the visual impacts of the project; the proposal's consistency with key strategic instrument and policies in terms of maintaining the rural character and scenic qualities of the area; the project's ability to meet the relevant noise criteria throughout the life of the proposal; the planning setting of the proposal (and land use conflicts); and the public interest.

5.1 The Need for the Project

Issue

Clause 123 of the Infrastructure SEPP does not apply to Part 3A projects being a provision that only applies to consent authorities that determine development applications under Part 4 of the EP&A Act. Notwithstanding this, the Minister is entitled to consider any matters he considers relevant to the environmental assessment of the project. In this case, clause 123 provides an appropriate mechanism by which to assess the project and is but one of many matters that the Minister will consider when determining the project application for this project.

Until recently, under clause 123(a) of the Infrastructure SEPP, an approval authority for any new landfill was required to consider whether 'justifiable demand' existed for the landfill. However, during the course of the assessment of the Orchard Hills Waste Project the Infrastructure SEPP was amended as a result of changing government policy, which has incorporated new criteria by which a consent authority must consider landfill proposals.

Notwithstanding the amendment (and the comments above regarding the applicability of clause 123), the Department considers the overall principle of justifying demand for new landfill space or 'the need' for such a project is an appropriate merit consideration, particularly when weighing the need for the project against the impacts likely to result from the proposal.

Consideration

The Department commissioned independent waste expert Mr Tony Wright to both evaluate the project against the new criteria contained in the recently amended Infrastructure SEPP, and determine the need for the proposal.

Under the new landfill assessment criteria the Department has carefully consider whether the proposed facility will adopt important principles such as waste minimisation, best practice design & technologies to capture gas, whether it has been sited appropriately, whether it serves to rehabilitate a degraded site and whether or not it optimises transport links.

Of particular note, the Proponent must demonstrate appropriate measures to reduce waste going to landfill, thereby clearly demonstrating that any residual demand for landfill is genuine.

The Department initially had serious concerns regarding the Proponent's commitment to resource recovery and recycling, as there was very little detail in the EA regarding how the stated resource recovery targets would be achieved. However, the Preferred Project Report presented a clearer picture of technology and equipment, waste receipts and recycling quantities, and a fairly comprehensive description of the plans to achieve the resource recovery proposed was presented.

In terms of non-putrescible landfill capacity, in the assessment report for a similar waste proposal at Eastern Creek known as 'Light Horse', (on which Mr Tony Wright also provided advice), Mr Wright and

the Department stated that it is prudent to have around 10 years reserve capacity to cater for disposal demand. At the same time, the Department maintains the principle that granting excessive amounts of landfill space should be avoided. These principles are supported by independent expert advice and other Government agencies including DECCW.

With regard to landfill capacity, Mr Wright's assessment found the total Sydney Metropolitan Area ((SMA) i.e. the Sydney basin) capacity at the end December 2009 was estimated as 43.2 million tonnes, and combined SMA and DECCW's 'Extended Regulated Area' ((ERA) i.e. the Illawarra and Hunters regions) capacity was 47.6 million tonnes. This would equate to around 45 million tonnes as at July 2010.

Importantly, it should be noted that disposal demand is declining as significant progress is being made each year toward the resource recovery targets set out in the NSW Government's *Waste Avoidance & Resource Recovery Strategy 2007* (WARR Strategy). Taking into account the identified decline in disposal demand, Mr Wright concluded that the additional capacity that would be created by the Orchard Hills facility would bring total Sydney Metropolitan Area / Extended Regulated Area (i.e. the Illawarra and Hunter regions) capacity to a level sufficient to accommodate around 19.5 years of demand.

Despite a great deal of ambiguity about how facts and figures were derived in the Proponent's Preferred Project Report, the Proponent's assessment arrived at a similar conclusion, suggesting that available capacity (in the SMA alone) is sufficient to accommodate 15.7 years of demand.

The Project would add a significant amount of capacity to an already healthy reserve of landfill space, and importantly would add additional capacity to the already high deployment of landfill capacity in Western Sydney. As indicated in the graph below, more than 90% of SMA capacity is deployed in Western Sydney. This would result in substantial inter-region transfers of waste, and add to the sense of 'geographic inequity' developing, where the majority of non-putrescible landfills are concentrated in Western Sydney, instead of being dispersed equitably across the Sydney Metropolitan Area.

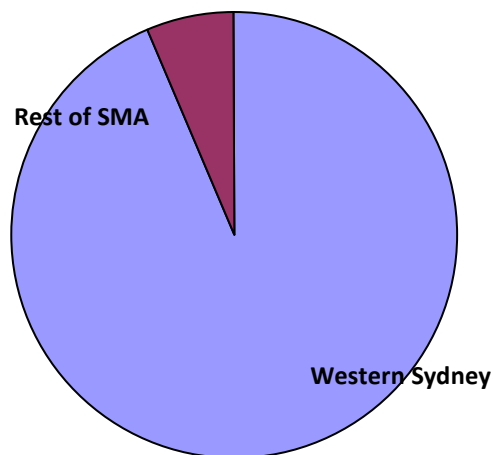


Figure 8: Sydney Landfill Capacity Centred in Western Sydney

Conclusion

While the Department acknowledges that the Project is generally consistent with the State Government's waste policies in terms of resource recovery and recycling, given there is already a concentration of landfill capacity in Western Sydney, the Department does not consider there is a demonstrable need for a project of this scale, in this particular area at this time.

5.2 Visual Impacts

Issue

The proposal will result in unacceptable visual impacts.

Consideration

Due to previous quarrying activities and the waste legacy issues mentioned previously, the site currently presents a highly disturbed landscape with significant alterations to the underlying rural character of the area. The bund walls in particular stand out from the otherwise undulating, rural character of the surrounding landscape.

Since quarrying operations commenced in the 1980's, residential encroachment has occurred in the form of the 'The Vines' rural residential estate located approximately 500m to the north of the site. The Vines has predominantly large, double storey dwellings on large lots. The estate's topography rises to the north such that many of the homes have elevated views over the site. See Figure 9 below. Within 1km to the south-west of the site, along Luddenham Road, there are private rural-residential landholdings.

The potential visual impact of the proposal was one of the key issues raised in submissions received by the Department. Around 3,500 submissions raised visual impacts as a reason for objecting to the proposal. The Department sought expert opinion on the visual impacts of the proposal.



Figure 9: Current view to the Project site taken from No: 62 Muscatel Way, Orchard Hills (Department of Planning)

When the EA was first exhibited the proponent described the final landform as “a landscaped, gently sloping knoll”, although the proposed landform was at that time up to 21 metres (approximately 7 storeys) higher than the pre-quarrying landform, 840 metres long and 750 metres wide (in the order of 6 city blocks).

The Preferred Project report resulted in:

- a reduction in the final landform from 65m AHD to 58m AHD, a 7 metre reduction so that the final landform will stand at 14 metres (approximately 4-5 storeys) above natural ground level instead of 21 metres; and
- the width and length of the final landform (i.e. it's visual bulk, or mass) remaining unchanged.

The Proponent's Visual Assessment

The Department has reviewed the visual assessment in detail and considers that both the Environmental Assessment and Preferred Project reports have grossly understated the potential visual impacts of the Project, and are fundamentally flawed.

The Department's assessment revealed the Proponent's visual assessment lacked rigorous site analysis, methodologies and applications. In particular, key analytical material, such as a matrix identifying number of viewers, period of view, distance of view, location of viewer to determine visual impact, were not considered by the Proponent. As described in 5.3, a thorough visual assessment is

required to determine the proposals consistency with the key strategic planning objectives for the area.

In addition, the assessment:

- failed to provide an easily comprehensible visual representation of proposed final landform;
- did not tailor the visual catchment to the surrounding topography, and excluded housing on high points beyond 1km of the site;
- lacks clarity regarding the location of, and reason for choosing particular viewpoints, and only examines a limited number of viewpoints;
- lacks a definition for categories of views, or even photos from representative view categories plotted on a map;
- applies vertical exaggeration in some cross-sections which appears to 'flatten' and diminish the impact of the proposed final land form; and
- provides only very limited consideration of the proposal in relation to the local context.



Figure 10: Current view to the Project site taken near the bend of Homestead Road, Orchard Hills, approximately 1.7 km from the site (Department of Planning)

Of primary concern is that the visual assessment is based on the current site conditions which are beyond the remit of both the planning consent and environmental protection licence applicable to the site, for example the existing bund walls, which are acknowledged to be steep, prominent and having an adverse impact on the surrounding rural landscape. The bund walls are already over their permissible height; and are remnant waste features intended to be temporary rather than permanent features of the landscape.

The visual assessment would be more appropriately undertaken in relation to the surrounding landforms and the underlying, or pre-quarrying, landscape, and the quarrying development approval conditions and approved rehabilitation plan, which required returning the site to a lower, dish shape.

In addition, the proposed mobile noise barriers, up to 150 metres in length and up to 4 metres high, are a significant visual impost of the project over a sustained period, which have only had a cursory mention by the Proponent. The Department considers that the bulk and continued linear nature of these barriers represents a significant visual impact, which given the projected and uncertain duration of the project, represents a significant visual impact on the residential area of the Vines for a long period.

Department's Assessment

The Department concludes that when considered within the appropriate context, e.g the approved rehabilitation plan, the visual impact of the facility, given its substantial size, height and mass, as described in the Preferred Project report, is unacceptable.

The Department considers the final landform as proposed constitutes a considerable alteration to the landscape by the introduction of a large, unnaturally shaped landform that would be moderated to a minor degree only by landscaping and sloping of the bund walls.

The Department further considers the curtilage of the impact has been grossly underestimated by the Proponent. From Figure 10 above, it is evident that the site is significant in the regional landscape, even at a distance. The unnatural landform proposed would have a negative impact to those vistas.

Conclusion

The Department's assessment has concluded that the Proponent's visual impact assessment is inadequate and fundamentally flawed. Further, the assessment flaws were not rectified at Preferred Project stage. The Proponent has failed to demonstrate the acceptability of the visual impacts of the proposal.

Furthermore, given the scale of the final landform which would reflect a mesa type shape of around 6 city blocks in footprint, and between 4-5 stories high (14m), the visual impacts of the proposal are considered unacceptable. This is directly related to the scale of the proposal as discussed in Section 5.5 below.

5.3 Consistency with Strategic Planning Instruments

Issue

The proposal is inconsistent with the objectives of several key strategic planning instruments in relation to scenic quality and rural landscape.

Consideration

In terms of Strategic Planning for the area, there is a key State and local plan which place an emphasis on retention of scenic quality, rural landscape character, the cultural landscape and views and vistas within the Orchard Hills area.

The Department concludes that the proposal is inconsistent with current Strategic planning for the area, in particular:

- *Sydney Regional Environmental Plan No. 25 ~ Orchard Hills* – SREP 25 aims to ensure that development does not compromise the agricultural or scenic qualities of Orchard Hills; that Orchard Hills is promoted as a rural landscape buffer area both along the F4 Freeway and between the various residential areas of Penrith; and to permit the carrying out of development which promotes the agricultural and scenic qualities of Orchard Hills. The SREP applies to the land immediately north of the site and the adjoining rural-residential areas including the Vines.
- *Penrith Local Environmental Plan no 2010* - The objectives of the RU2 Rural landscape zone that applies to the site include: maintaining the rural landscape character of the land. In addition, the broad objectives of the LEP include; protecting views and vistas from main roads and other public vantage points. The Penrith LEP 2010 places further emphasis on the protection of scenic and landscape values with specific clauses that apply to the land immediately east and north east of the site.

Both of these strategic planning instruments place significant emphasis on the protection of the scenic quality, rural landscape character, and vistas within the Orchard Hills area. The recent gazettal of the Penrith LEP 2010 has only reaffirmed and strengthened both State Government and Penrith Council's strategic intent to preserve the scenic and landscape values. The proposal, at this scale, is contrary to those intentions.

Penrith City Council in its submission to the Department stated that the final landform "*is not conducive to its setting, and is a complete contrast to the rehabilitation plan which has been approved for the extractive industry. The end landform to the extractive industry was a rural / residential*

landform ...the proposed final landform.... must be seen as the worst possible outcome in landscape terms for existing and future generations”. The Department agrees that the final landform is not conducive to its setting.

As presented in Section 5.2, the proponent has failed to demonstrate that proposal does not compromise the visual qualities that these instruments seek to protect.

Conclusion

The Department concludes that the proposal is inconsistent with key strategic planning documents in relation scenic quality and rural landscape, in particular failing to maintain relevant scenic qualities.

5.4 Noise

Issue

The potential noise impacts from the proposal were a key issue raised in submissions received by the Department. The view was advanced that the proposal would lead to an unacceptable risk in terms of noise and amenity.

Consideration

The principal noise-generating sources of the Project would include the crushers and shredders at the hub of its waste re-processing facility, and mobile plant such as dozers, compactors and haul trucks related to the clay and shale extraction and emplacement activities planned for the site over its 25 year lifespan.

The residences potentially most affected by noise from the Project include:

- 55 residences within “The Vines” Estate located approximately 0.5-1.5km north of the Project Site;
- two isolated, rural residences immediately east of the site (the Bates and Newham residences, A and B respectively), and
- 13 residences located south-east of the intersection of Luddenham Road and Patons Lane.

The Proponent engaged Wilkinson Murray to undertake the noise impact assessment for the Project. Both DECCW and the Department initially had serious concerns regarding the noise assessment and associated impacts, particularly in regard to the morning shoulder period (6 am – 7 am). However, at Preferred Project stage, the Proponent indicated that they would no longer seek to operate in the morning shoulder period.

Table 3 below details the Proponent’s predicted ‘Project Criteria for Operational Noise’ (at Preferred Project Stage).

Table 3: *The Proponent’s Project Criteria for Operational Noise*

Time Period	Project Noise Criteria, $L_{Aeq,15min}$ (dBA)		
	The Vines	Bates Residence	Luddenham Rd
Day	39	39	42

Note: (1) Daytime 7.00am-6.00pm.

The Proponent’s noise assessment has predicted that noise generated by the Project would marginally comply with the applicable noise criteria. However, to ensure compliance with the criteria, the proponent must rely upon movable noise barriers. The barriers would be up to 150 metres long and 4 metres high and moved around the site throughout the life of the project. The barriers would be used more intensively at different periods / stages of the development. The Proponent suggests that the barriers would be moved using a single franna crane.

Both the Department and DECCW have residual concerns that the predicted noise emissions from the proposal are unlikely to be achieved by the Proponent. DECCW also state that the Proponent’s noise assessment lacked sufficient detail which made it difficult to assess whether the noise barriers would be practical to construct and operate, and therefore ensure compliance with the criteria.

Whilst movable barriers can provide effective mitigation against noise it is known that their use is problematic and susceptible to failure such as when leakage of noise occurs between or under the barriers when placed incorrectly. The Department considers that the project and the use of the barriers to meet the relevant noise criteria is likely to result in ongoing complaints and places an unreasonable regulatory burden on government over the life of the proposal.

Alternatives to the mobile noise barriers may include increasing the height of the bund walls for increased noise attenuation. However, this would only exacerbate the already unacceptable visual impacts of the proposal discussed above.

Even if very stringent operating and management practices were placed as conditions of approval, the Department is not satisfied that the Project as proposed could be operated at all times with an appropriate level of risk to the amenity of the surrounding residents.

Further, the Department asserts that given the Project's reliance on intensive management measures, it is likely that over the 25 year operational life of the project, that unacceptable operating incidents will occur. Whilst such incidents may not result in environmental harm or seriously exceed the predicted noise criteria for the project, the Department considers that the Project has a high propensity to affect the general amenity of surrounding residents and elevate the level of public concern for the Project, which is unacceptable.

Conclusion

Given the close proximity of the residents of the Vines Estate, the Department considers that there is an unacceptable level of uncertainty and risk as to whether the noise impacts can be adequately managed over the life of the proposal.

5.5 Broad Land Use Planning Considerations

Issue

The Department considers that the proposal, at this scale, represents a significant intensification of industrial uses on a rural site, introducing inconsistent land use outcomes.

Consideration

The strategic objectives of the LEPs include an objective to ensure land uses are compatible with the environmental capabilities of the land.

As mentioned earlier, there is development consent over the land for clay / shale extraction that has been in place since 1981. There is also an existing Environment Protection Licence No: 11706 that the liquidators from the previous landowner hold.

The EPL (whilst suspended) allows for land based extractive industries of up to **130,000 tpa** of materials. The current consent has been established within the strategic planning context for the area. However, the application before the Minister is for the receipt of up to **450,000 tpa** of waste, and extraction of up to **400,000 tpa** of clay / shale, with up to **600,000** tonnes of material moved through the site annually, over 4 times the annual movement of materials currently permitted.

Since the quarrying activities commenced on the site in the 1980's, the residential subdivision called the Vines has been established a short distance from the site. Should the proposal be approved, it would mark a significant shift in the focus of the land use planning away from rural landuses to intensive resource recovery, landfilling and shale extraction. The Project would also result in an extension to the life of industrial uses on the site (for at least another 25 years). Extractive industries have already been going for some decades.

The objectives of the RU2 zone under the recently gazetted Penrith LEP 2010 include: "minimize conflict between land uses within the zone and land uses within adjoining zones"; and "to provide for a range of compatible landuses, including extensive agriculture". Whilst the past extractive industries have been accommodated next to the adjoining residential area, the Department considers that the

project, at the scale proposed, can not be accommodated in the same way without exacerbating land use conflicts given the noise issues and visual impacts discussed above. Further, from the submissions received, the intensification of land use and extension to the life of industrial uses on the site appear in direct contradiction to both the community's and Penrith Council's expectations regarding the use and rehabilitation of the land.

Conclusion

The Department accepts that some form of economically viable development is required to facilitate the rehabilitation of the site. However, the Department considers that the proposal, at this scale, does not strike the appropriate balance between development and protection of the visual environment or amenity of surrounding residents. To the contrary, the Department considers the proposal could lead to increased potential for land use conflict and result in both unacceptable visual impacts and unacceptable risks to the amenity surrounding residents (in terms of noise).

5.6 The Public Interest

Issue

Whether or not the proposal is in the public interest.

Consideration

Under the Act, the public interest is a mandatory consideration for the Director General in his report to the Minister. The Department has considered the issue of the public interest in relation to the proposal. In doing so, the Department has read and assessed the 3760 submissions from the community in opposition to the project, along with the letter of support.

Departmental officers have conducted multiple inspections of the project site and the areas surrounding the site, including various vantage points within the Vines housing estate. Officers have also attended a community meeting held in relation to the proposal and the full meeting of Penrith Council where the proposal was debated in detail, in an effort to understand the issues raised by the public.

Generally, the 'public interest' relates to the overall welfare of the community as a result of a proposal. The Department considers there are two levels of public interest to assess in relation to this project. Firstly, the interest of the broader community of Sydney and NSW in relation to resource recovery, and secondly, the welfare of the community surrounding the site.

The Project involves recycling and resource recovery of significant amounts of waste that would otherwise go directly to landfill. The Department acknowledges that the proposal is generally consistent with the State Government's waste policies in this regard, and would serve the broad public interest by diverting waste away from landfill for the majority of the project's life.

However, as discussed earlier in 'project need', the Department does not agree with the Proponent's claims that a non-putrescible landfill of this scale is needed in this particular region, at this time. Therefore the Department does not consider this particular project, at this scale, serves the broader public interest in this regard.

The submissions reveal that the community surrounding the site believe that there is insufficient justification for a landfill / waste facility of this scale at Patons Lane Orchard Hills, and the project is 'not in their interest'. Further, the proposal under consideration has been unanimously opposed by the community's own Council and Council staff.

Following submission of the Preferred Project report, the Environmental Assessment predicts that the Project would comply with all necessary amenity criteria (e.g. noise and air quality, with the exception of one exceedance). The Department acknowledges the efforts the proponent made following the public exhibition to address potential exceedances. Whilst accepting the technical findings of the assessment, as explained above, the Department is still not confident that the Project will operate without incident, particularly in relation to noise. The risk is high. In addition, if approved, the project would require close regulatory scrutiny over a sustained period, which is a significant impost on government at both a State and local level.

The Department further acknowledges that it is in the public interest to rehabilitate the site, and that there are a number of unfortunate legacy issues to deal with on the site as well. However, whilst the project represents a particular means of rehabilitating the site, as discussed above, the Project would result in an unsightly final landform, inconsistent with the surrounding landscape, which is unacceptable. As discussed in section 5.2, this is a negative outcome of the project that the community would have to endure in perpetuity.

Conclusion

The Department has considered the issue of the public interest closely. The assessment reveals there are no obvious amenity benefits to the surrounding residents as a result of the Project, only impacts in the short, mid and long term. On balance, the Department does not consider the public benefit of an additional resource recovery facility outweighs the impacts that the proposal would have on the surrounding community. As a consequence, the Department does not consider the Project is in the public interest.

6. CONCLUSION

The Department has assessed the EA and submissions on the project in accordance with the requirements of the *Environmental Planning and Assessment Regulation*.

The Department considers the key issues relate to the need for the project: the associated visual impacts, the proposal's consistency with key strategic instrument and policies; and the industrial intensification of the proposal and the resultant visual impacts and unacceptable risk relating to noise outcomes and management.

The Department has assessed these concerns in detail having regard to the objects of the EP&A Act, and the principles of ecologically sustainable development and has concluded that:

- There is no demonstrable need for a proposal of this scale and at this location in terms of landfill capacity given the concentration of landfill capacity in Western Sydney;
- The proposal will result in unacceptable long term visual impacts;
- The proposal is inconsistent with the objectives of several key strategic planning instruments in relation to maintaining the scenic qualities and rural landscape character of the area;
- There is an unacceptable level of risk associated the project's ability to meet relevant noise criteria throughout the life of the proposal; and
- The planning setting of the proposal in close proximity to residential areas would inevitably introduce land use conflicts which would necessitate ongoing and onerous management. The project, at this scale is fundamentally and strategically inconsistent with good land use planning.

It is considered that these concerns and impacts cannot be appropriately dealt with by conditions of project approval.

The Department acknowledges the legacy issues associated with the site including the illegally dumped waste contained within some of the bund walls surrounding the quarry void. There is clearly a need to rehabilitate the site and the Department further acknowledges a certain level of commercially viable activity should be supported in this respect.

However, on balance, the Department does not consider in this instance that the wider benefits of the proposal in terms of resource recovery outweigh short, medium and long term impacts and risks associated with the proposal. Subsequently, the Department is of the view that the proposal is not in the public interest and should be refused.

7. RECOMMENDATION

It is recommended that the Minister:

- **consider** the Director-General's report;
- **refuse** to approve the project application; and
- **sign** the attached notice of refusal (tagged B)

Signed 24/9/2010

Richard Pearson
Deputy Director General

Signed 25/9/2010

Sam Haddad
Director-General

APPENDIX A – NOTICE OF REFUSAL

APPENDIX B – ENVIRONMENTAL ASESMENT

APPENDIX C – SUBMISSIONS

**APPENDIX D – RESPONSE TO SUBMISSIONS &
PREFERRED PROJECT REPORT**

APPENDIX E – CONSIDERATION OF OTHER ENVIRONMENTAL PLANNING INSTRUMENTS

Section 75(2) of the *Environmental Planning and Assessment Act 1979* requires that reference be made to the provisions of any environmental planning instrument that would (but for Part 3A of the Act) substantially govern the carrying out of the project.

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) commenced in January 2008, consolidating and updating a number of State planning instruments. Until recently, under clause 123(a) of the Infrastructure SEPP, an approval authority for any new landfill was required to consider whether 'justifiable demand' existed for the landfill. However, during the course of the assessment of the Orchard Hills Waste Project the Infrastructure SEPP was amended to incorporate new criteria by which a consent authority must consider landfill proposals. The Department has reviewed the project against the criteria and acknowledges that it is generally consistent with the criteria, particularly in relation to resource recovery.

State Environmental Planning Policy (Mining, Petroleum and Extractive Industries) 2007

Part 3 of the Mining SEPP lists a number of matters that a consent authority must consider before determining an application for consent for development for the purposes of extractive industries, including:

- compatibility with other land uses;
- natural resource management and environmental management;
- resource recovery;
- transport; and
- rehabilitation.

The Department has considered these matters in its assessment of the proposal, but for the reasons outlined in the body of the report, does not support the project

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/ or offence (odour, noise etc). A development is defined as potentially hazardous and/ or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/ or offence impact on off-site receptors. SEPP 33 is likely to apply to the facility as a potentially offensive industry.

State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 applies to the project. SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. Whilst the proposal offers a form of rehabilitation for the site and deals with the legacy waste and asbestos contamination, the Department does not consider the proposal strikes the appropriate balance between the competing objectives for the area.

State Regional Environmental Plan 9 - Extractive Industries

SREP 9 aims to identify land containing extractive material of regional significance, in proximity to the Sydney Metropolitan Area and protect the ability for extractive industries to realise their full potential. The instrument promotes the extraction of resources to be undertaken in an environmentally acceptable manner and prohibits the development of an extractive industry on environmentally sensitive land. The Department has considered the proposal against these provisions, but for the reasons outlined in the body of the report, does not support the project.

State Regional Environmental Plan 20 – Hawkesbury Nepean River

The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The Department has considered the proposal in this regional context, but for the reasons outlined in the body of the report, does not support the project.