THE UNIVERSITY OF SYDNEY

David Bennett
Associate Director, Portfolio Properties
Investment and Capital Management

14 June 2013

Our Ref.: 2010 / 4545

Ms Christine Chapman
Development Assessment Systems and Approvals
Department of Planning & Infrastructure
23-33 Bridge Street
SYDNEY NSW 2000

Dear Christine,

Matter: **SITA Kemps Creek AWT Facility Expansion Project (SSD - 5275)**
Property: **Elizabeth Drive, Kemps Creek NSW**

I refer to my previous correspondence of 31 May 2013 and your subsequent extension of time to lodge additional information concerning the University's objection to certain aspects of the above proposal.

Our submission reflects the fact that the University is the owner of a significant land holding (344 ha) being Lots 62 & 63 in DP 1087838, Lot 3 DP 164242, Lot 1 DP74574, Lot 21 DP258414 and Lot 1 DP 88836 known as McGarvie Smith and 'Fleurs' Farms which bound the northern and western boundaries of the existing SAWT Facility.

The University appreciates that the expansion of the SWAT Facility has been declared a State Significant Development (SSD) and is supportive of the NSW Government's recycling of waste targets and the minimisation of waste going landfill but it comes at the expense of the University and other nearby owners, especially in the form of odours from the facility.

The clear strategic direction for the locality surrounding the SITA facility has not been adequately addressed in the EIS, particularly with regard to odour impacts. The Department is currently preparing a Structure Plan for the Broader Western Sydney Employment Area with stated timetable of public exhibition of the document in mid-2013. The Structure Plan will provide a strategic framework for the future development, infrastructure requirements and development staging for the area; and coordinate the strategic planning and timely delivery of essential infrastructure. As such, it will facilitate a significant change in land use from a predominantly rural and rural residential area to an urban land use, principally to facilitate industrial and other employment uses.

A change in land use in the locality would significantly increase the population surrounding the facility from the current situation. This would in turn significantly increase

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the sensitivity to odour impacts and warrant a lower criteria for odour emissions from the site. Clearly, based on the EIS assessment, the cumulative odour impacts of the AWT development, together with the existing landfill facility, would exceed the odour criteria across substantial parts of the University's lands in the future with employment uses. It is therefore recommended that the Department of Planning and Infrastructure, in undertaking its assessment of the facility, consider the future strategic land use direction of the surrounding locality as proposed through the Broader WSEA Structure Planning Process, particularly given it's imminent release and the ability for this issue to be addressed in the proponent's response to submissions.

The current environmental performance of the precinct, particularly with regard to odour management, has been poor and there are significant adverse environmental impacts on tenants of the University with regard to foul odours emanating from the SITA site. Based on this experience, it is of great concern to the University that the EIS fails to adequately acknowledge or assess the current environmental performance of the Resource Recovery Precinct in terms of cumulative impacts, making it difficult to accept the modelling results in the EIS with any confidence. While it is acknowledged that this application only directly relates to an upgrade of the Advanced Waste Treatment Facility, any assessment needs to address the on-going cumulative environmental performance of the whole waste recovery precinct, including the landfill.

The University therefore requests that the odour assessment should be revised to assess the cumulative impact of the development in the context of an urban, employment locality and adopt the corresponding criteria (2OU) as a medium to long term goal to ensure the environmental performance of the site, particularly with regard to odour, transitions to be compatible with surrounding future land uses. This should be achieved through requiring the proponent to enter into a pollution reduction program to monitor, manage and mitigate cumulative odour emissions from the entire Kemps Creek Resource Recovery Precinct.

The proponent has committed to such a process for noise management across the site, it would therefore be imperative that this future management and mitigation approach be adopted for odour emissions as well.

These issues are addressed in greater detail in the attached Memorandum prepared by JBA which undertook a desktop assessment of the proposed development.

Yours sincerely,

David G Bennett
Associate Director, Portfolio Property

Memo

COMPANY NAME: University of Sydney

TO: David Bennett

FROM: Gordon Kirkby

DATE: 13 June 2013

RE: Expansion of Kemps Creek Resource Recovery Precinct

JBA has undertaken a desktop review of the Environmental impact statement (EIS) for the proposed expansion of the SITA Advanced Waste Treatment (SAWT) Facility in the Kemps Creek Resource Recovery Precinct. In particular, the review has focused on the following issues with regard to the potential environmental impacts of the proposal on adjoining land owned by the University:

- Strategic planning and future land use;
- Odour impacts;
- Noise impacts;
- Stormwater management.

1.0 BACKGROUND

The University of Sydney is the owner of approximately 344 hectares of land located on Elizabeth Drive Kemps Creek within the Penrith Local Government Area. The land owned by the University is described as Lots 62 & 63 in DP 1087838, Lot 3 DP 164242, Lot 1 DP 74574, Lot 21 DP 258414 and Lot 1 DP 88836. The properties are known as McGarvie Smith and 'Fleurs' Farms and are shown in **Figure 1**. The properties form the northern and western boundaries of the SITA land and also extend to the north east and south east of the SITA site.

The University of Sydney landholdings are currently largely zoned RU2 Rural Landscape under *Penrith Local Environmental Plan 2010*. A small slither of land zoned E2 Environmental Management adjoins Badgerys Creek. The land is currently used for rural purposes including grazing. There are currently two occupied dwellings located on the site. They are located adjacent to each other within Lot 63 DP 1087838 and are located approximately 1.25km from the proposed SITA Advanced Waste treatment (SAWT) facility and 750m from the resource recovery precinct boundary. The dwellings are identified as Sensitive Receiver No.17 in the EIS assessment.

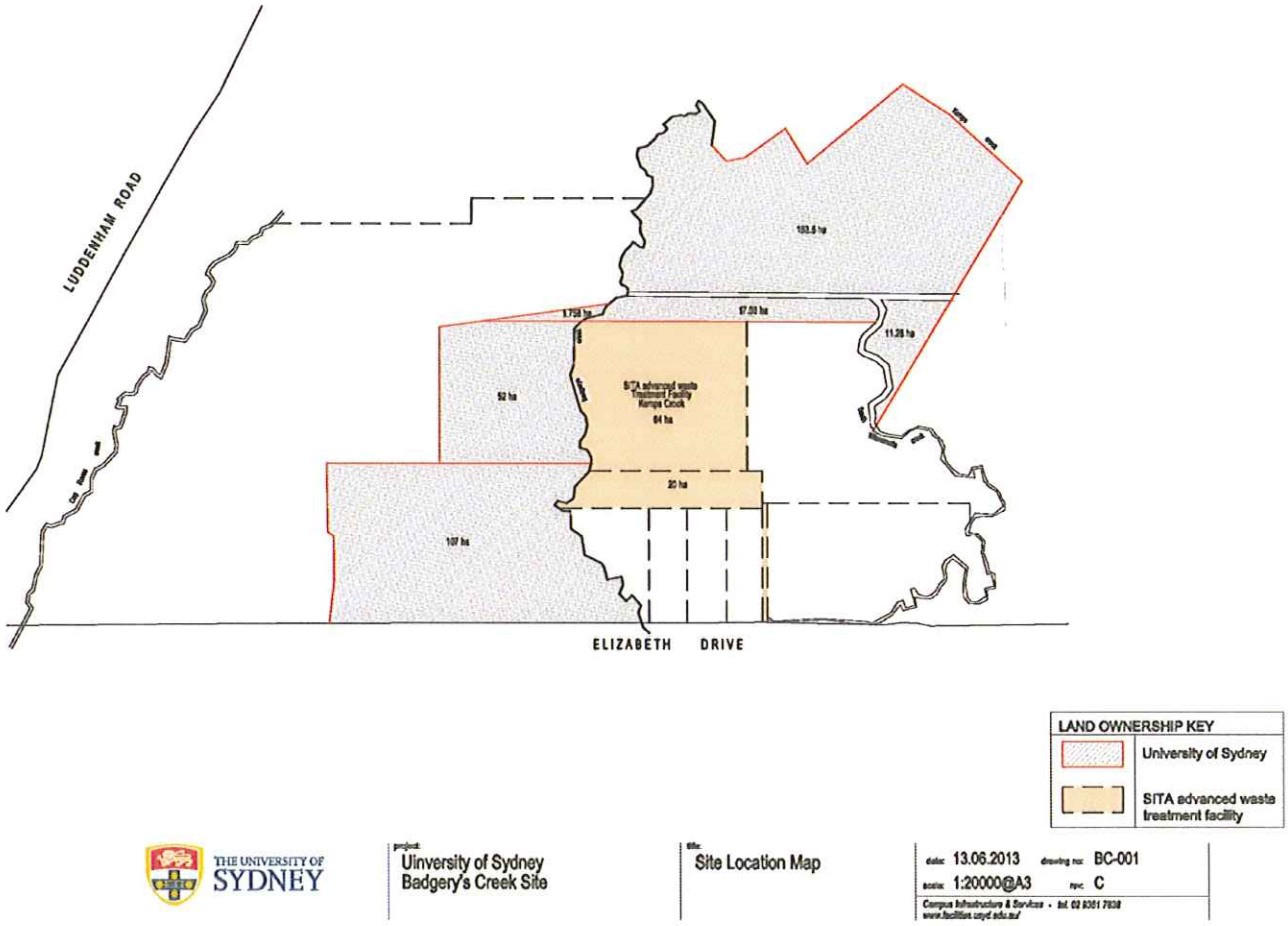

Figure 1 - University of Sydney Badgery's Creek Site and Context

2.0 STRATEGIC CONTEXT

The University of Sydney landholding forms part of a larger area that has been identified by the NSW Government as the Broader Western Sydney Employment Area (Broader WSEA). The Broader WSEA extends from the M4 / M7 hub south west to Badgerys Creek. The study area covers approximately 10,000 hectares.

The NSW Government has commenced structure planning activities for the Broader WSEA Area in accordance with the objectives of the NSW 2021 State Plan aim of improving the performance of the NSW economy. In addition, the structure planning responds to key actions from the Metropolitan Strategy and Employment Lands Taskforce 2011 February report. This area had previously been identified as the Western Sydney Employment Lands Investigation Area in the Metropolitan Strategy *Sydney Towards 2036* and is identified as part of the Western Sydney Employment Area in the current draft Metropolitan Plan.

The NSW Government's vision for Broader WSEA is to provide the appropriate supply of well-located, serviced employment lands to secure the State's future productivity and economic growth, whilst meeting environmental, social and economic sustainability targets. The Structure Plan will provide a strategic framework for the future development, infrastructure requirements and development staging for the area; and coordinate the strategic planning and timely delivery of essential infrastructure, such as roads, water, sewer, energy, gas and telecommunications.

The Structure Plan will facilitate a significant change in land use from a predominantly rural and rural residential area to an urban land use, principally to facilitate industrial and other employment uses.

The draft Structure Plan has yet to be released however is proposed to be exhibited in mid - 2013. Following on from the public exhibition, the Department of Planning and Infrastructure will consider issues raised in submissions before finalising the structure plan and implementing it through an amendment to the existing *State Environmental Planning Policy (Western Sydney Employment Area) 2009* or alternatively through non-statutory strategic guidance.

3.0 PROPOSED SITA DEVELOPMENT

SITA currently operate a solid waste landfill and an advanced waste treatment facility (SAWT) within the Kemps Creek resource Recovery Precinct. The landfill component occupies most of the site with the SAWT Facility being developed in the north west of the site and commencing operations in 2009. The facility receives mixed solid waste (MSW) and source separated organic (SSO) material from local Councils.

The proposed development will involve extensions to the existing SAWT facility to:

- Increase the capacity of the facility from 120,000tpa of SSO and MSW to 220,000tpa
- Modify the current layout of the operations on the existing SAWT site end enhance management of the composted material, including internalising composting within an enclosure; and
- Increase operating hours to 24 hour per day.

It is expected that the development would progressively ramp up to full operation sometime in 2016.

4.0 KEY ISSUES:

The University of Sydney has asked JBA to undertake a desktop review of the assessment of key environmental issues associated with the proposed development that may have the potential to impact on the adjoining land owned by the University. In particular, the University is seeking to verify whether the proposed expansion of the facility would have the potential to impact on future non-rural uses on the site that may be facilitated by the Broader WSEA Structure Plan process. JBA's analysis and findings / recommendations are outlined in the sections below:

4.1 Odour

- The odour assessment is generally comprehensive and addresses OEH / EPA requirements.
- The EIS odour assessment concludes that the proposed upgrade to the SAWT facility will decrease cumulative odour emissions from the SITA site, notwithstanding that the development will increase the capacity of the SAWT component.
- This is largely due to proposed upgrades to the SAWT facility including a number of key design elements that are predicted to improve odour management at the site:
  - Undertaking all composting operations within a fully enclosed environment for both source separated organic matter (SSO) and mixed solid waste (MSW) derived material;
  - All refining to be undertaken internally;
  - Construction of three new biofilters to service the additional composting activities, which, with the existing biofilters, would be fully enclosed and vented to improve odour dispersion;
  - Reduction in the size of the MSW and SSO compost storage areas; and
  - Collection of composting leachate in enclosed storage tanks prior to reuse within the processing system.
- The assessment concludes that when modelled individually and cumulatively, the landfill and the SAWT facility (as upgraded) comply with relevant criteria for a rural locality (4 odour units (OU))

for all receivers on the University land. The cumulative assessment identifies non-compliance at two sensitive receivers located on land not owned by the University on the eastern site of the SITA precinct.

- The modelling however omits to present the existing cumulative odour emissions from the SITA operations, rather it asserts that the proposed SAWT upgrade will reduce cumulative odour. It is therefore difficult to understand the performance of the current SAWT Facility in terms of odour emissions and it is difficult to quantify the odour reductions attributable to the proposed upgrade to the facility.
- This is important given that the predicted odour emissions from the approved SAWT facility and landfill appear to have been exceeded since the SAWT facility commenced operations and the veracity of the initial assessment is questioned. This casts an element of doubt over the accuracy of the modelling results for the proposed upgrade.
- The criteria used in the air quality assessment for odour of 4OU reflects the current rural character of the area surrounding the facility, including the University land. The criteria is applied to off-site sensitive receptors, usually dwellings. This criteria is appropriate and consistent with the NSW EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (2005)* when taken in the context of current land use and known sensitive receptors.
- However, the EPA's *Approved Methods* requires that air quality assessment not only consider sensitive receptors but also *likely future* sensitive receptors. This has not been considered in the EIS Air Quality Assessment.
- As outlined in Section 2 above, the Department of Planning and Infrastructure is currently in the process of preparing a structure plan for the Broader WSEA. The structure planning process is designed to provide a strategic framework for the future development, infrastructure requirements and development staging for employment lands. Both the proposed development (and SITA operations) as well as the university lands are located within this structure plan area and there is a clear direction form the NSW Government to facilitate the zoning and infrastructure planning process for these areas to enable future employment uses.
- This will have a significant effect on the future land use of the locality surrounding the development that has not been considered in the air quality assessment, particularly with regard to odour. Rezoning of this land for employment purposes would convert it to urban use and significantly increase the surrounding population and therefore sensitivity to odour. In this vein, the conversion of the University lands to an industry or employment zone, will see the number of sensitive receptors increase across the university lands as well as see a larger number of sensitive receptors located in close proximity to the SITA boundary.
- With an urban land use in the future, the impact assessment criteria for odour should be 2 OU at sensitive receptors. Based on the modelling undertaken in the EIS, this criterion would not be met from the cumulative operations at Receptor 20 (2.2 OU) which is located on the western boundary of the University land.
- Further, if a 2 OU criterion were applied to the development, in line with future urban use in the locality, the proposed development would be responsible for causing exceedances (cumulative) of this criteria across significant parts of the university lands effectively relegating significant sections of the university land to being the "buffer area" for the SITA operations and potentially limiting future land use on the university lands..
- Finally, empirical evidence from occupiers of the surrounding land indicates that the dispersion modelling results used to inform the odour impact assessment do not reflect actual odour impacts experienced from the facility. This is, in part, why an analysis of the existing odour impacts associated with the current operations should be modelled and validated against actual complaints. We note that the dispersion modelling relies on the use of a TAPM meteorological data set. Whilst we understand that this is routinely accepted by the EPA where no actual meteorological data is available, we consider that the absence of a meteorological data in this

circumstance is unacceptable and simply results in ongoing uncertainty surrounding the actual impacts of the landfill facility.

- With consideration of the above, it is clearly unacceptable that the university land be effectively used by SITA as an odour buffer area thereby limiting future land uses and development potential on these lands. It is also unacceptable for such a facility to be subject of ongoing uncertainty regarding its actual environmental performance and the degree of its contribution to known odour impacts. As such, it is proposed that a pollution reduction program be imposed for odour (similar to that proposed for noise). The pollution reduction program for odour should focus on understanding the existing odour impacts from the broader landfill facility, with a view to improving the overall odour performance of the Kemps Creek Resource Recovery Precinct over time. The pollution reduction program should also include a detailed monitoring program which includes correlation of complainant data, monitoring data and measures meteorological data. For this reason we suggest that a meteorological station located at the SITA site is a necessary installation to support the odour monitoring program and the pollution reduction program for odour. This would afford the University some comfort that the odour situation will actually improve, rather than the currently undefined and unsubstantiated claims of the proponent that things will improve.

4.2 Noise

- The odour assessment is generally comprehensive and addresses OEH / EPA requirements under the *Interim Construction Noise Guideline (ICNG)* (DECC, 2009) and the *NSW Industrial Noise Policy* (INP) (EPA, 2000). The EIS also assessed the proposed development against the EPL Licence limits for the existing SAWT Facility.
- As with the air quality assessment, the noise assessment modelled both the proposed SAWT Facility expansion in isolation as well as cumulative noise of the expanded facility with the existing landfill operations.
- The only sensitive receiver located within the University lands is R17 which is two dwellings located in the south west section of the University lands. Notwithstanding this, R20 is located immediately to the west of the University lands and adjacent to the boundary and is therefore relevant to the University lands.
- The assessment found that the proposed development was generally within accepted criteria at the relevant sensitive noise receivers on or adjacent to the University lands. During construction, minor exceedences of up to 3dB(A) over the EPL limit at R20 during day, evening and shoulder periods during adverse meteorological conditions. During operation, cumulative noise from the expanded facility and the landfill would produce a 1dB(A) exceedence at R20 during adverse conditions.
- As part of the proposed mitigation measures, it is proposed that noise monitoring be conducted at both R17 and R20.
- With regard to the potential impact of noise emissions on the potential future development of the University lands for employment purposes, the criteria applied to non-urban areas under the INP is more stringent than for urban zoned land, particularly employment / industrial zoned land. Therefore proposed noise emissions from the operation of the development both on itself and cumulatively with the landfill are likely to easily comply with relevant noise criteria should the University land be rezoned for employment purposes.

4.3 Future Land Use

- As discussed in Section 2 above, the imminent release of the Broader WSEA Structure Plan will provide greater certainty with regard to future land use in the locality surrounding the proposed development as well as the broader Kemps Creek Resource Recovery Precinct.

- It is expected that the Structure Plan will provide the blueprint for the conversion of rural and rural residential land into urban employment uses to satisfy the growth of Sydney and provide employment for Western Sydney.
- The future conversion of the Broader WSEA into employment uses has not been factored in any detail into the environmental impact assessment for the proposed expansion. Chapter 14 of the EIS refers briefly to the Broader WSEA structure plan process however concludes that a change of land use to employment uses in the locality would be more compatible with the Kemps Creek Facility than the current rural uses. This may be true for issues such as noise, where EPA criteria would be less stringent and traffic where road infrastructure upgrades would be expected with any major land use change. The conclusion however I seriously flawed with regard to dour impacts which are the key environmental issue of concern for the University lands.
- A change in land use would significantly increase the population in the locality surrounding the facility from the current state. This would in turn significantly increase the sensitivity to dour impacts and warrant a lower criteria for odour emissions from the site of 2OU rather than the 4OU for rural uses.
- Clearly based on the EIS assessment, the cumulative odour impacts of the development with the existing landfill facility would exceed the odour criteria across substantial parts of the University lands.
- It is therefore recommended that the Department of Planning and infrastructure, in undertaking its assessment of the facility, consider the future strategic land use direction of the surrounding locality in the structure planning process currently being undertaken the Department.
- Given the imminent release of the draft structure plan for comment, it is recommended that any determination of the facility should be delayed until the draft Structure Plan has been released and the future strategic context of the locality confirmed. The proponent should be required to revise its assessment to respond to the likely future land use that will surround the development, particularly with regard to odour emissions.
- Should the structure planning process indicate that conversion of surrounding land to employment uses is a longer term proposition, the proponent should be required, through conditions of consent , to prepare pollution reduction programs for the entire Kemps Creek Resource Recovery Precinct with the objective of ensuring that emissions from the site, particularly odour (see section 4.1 above) are progressively managed and reduced to meet criteria for future land use under the structure plan when implemented.
- The EIS currently proposes a pollution reduction program for noise emissions for the cumulative Kemps Creek operations, including the landfill operations. It does not propose the same measure for cumulative odour emissions. This is critical if the facility is to be able to transition into being a compatible neighbour with the surrounding future employment land uses.

5.0 CONCLUSION AND RECOMMENDATIONS

- The environmental impact statement for the expansion of the advanced waste treatment facility is generally comprehensive with regard to the assessment of environmental impacts, particularly noise and odour emissions, on the current surrounding locality.
- The EIS however is deficient with regard to consideration of the impacts of the development on the likely future employment land uses surrounding the development and the broader Kemps Creek Precinct. The designation of this locality and the Broader WSEA for employment land use has been well documented and investigated for several years . The Department of Planning and Infrastructure has been preparing a structure plan which will further articulate the conversion of this area from rural to urban/employment land uses with regard to staging and infrastructure planning and provision. This structure plan is proposed to be released for public comment shortly and should inform, and be addressed in the assessment of the proposed SAWT upgrade to ensure land use conflicts in the future can be avoided or managed. An assessment of the development

against the Broader WSEA Structure Plan should be undertaken prior to any determination of the development.

- With regard to odour, the cumulative impacts of activities within the Kemps Creek Resource recovery Precinct have the potential to significantly impact future development of the University lands for employment purposes. The odour assessment should be revised to assess the cumulative impact of the development in the context of an urban, employment locality and adopt the corresponding criteria (2OU) as a medium to long term goal to ensure the environmental performance of the site, particularly with regard to odour, transitions to be compatible with surrounding future land uses. This should be achieved through requiring the proponent to enter into pollution reduction program to manage and mitigate cumulative odour emissions from the entire Kemps Creek Resource recovery Precinct.

Gordon Kirkby
Director