



MACARTHUR RESOURCE RECOVERY PARK

**APPLICATION UNDER S.75W OF THE *ENVIRONMENTAL
PLANNING AND ASSESSMENT ACT 1979* TO MODIFY THE
MINISTERS CONSENT NO. 05/0098 DATED 7 SEPTEMBER 2006**

ENVIRONMENTAL ASSESSMENT

September 2010

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1.0 INTRODUCTION

WSN Environmental Solutions (**WSN**) operates the Macarthur Resource Recovery Park (**MRRP**) (formerly Jacks Gully Waste and Recycling Centre) at Richardson Road, Narellan. The MRRP currently supports a Materials Recycling Facility, a waste landfill, a landfill gas to power generator platform and an Alternative Waste Technology (**AWT**) facility, which itself incorporates an 'ArrowBio' AWT plant, a Garden Organics Plant (**GOP**) and a series of gas to power generators.

The **AWT** complex operates under the Minister's consent No. 05/0098 (7 September 2006), granted under Part 3A of the *Environmental Planning and Assessment Act 1979* (**the Act**). In turn, the GOP operates under this consent.

Conditions 2.8 and 2.9 of the Consent both effectively limit tonnages received in the GOP to 25,000 tonnes per annum (**tpa**) of garden waste and 5,000 tpa of biosolids. In the 08/09 financial year, the GOP received approximately 28,000 tonnes of garden waste and 0 tonnes of biosolids. This minor overrun of the quantities permitted by the consent occurred in response to a growing local demand for garden organics processing.

The purpose of this application is to regulate this non-compliance with quantities and to provide a modified consent that will permit the GOP facility to address local demands that have been consistently above the approved quantities and are expected to remain so. In particular, the application seeks to modify the existing consent under Section 75W of the Act in order to:

- Retain the limit of 25,000 tpa of garden organics that is imposed by the current Conditions; and
- Modify Conditions 2.8 and 2.9 to allow the option of receiving and processing 5,000 tonnes of **either** biosolids **or** garden wastes.

Effectively, the modification would permit the option to process 30,000 tpa of garden organics in the facility, bringing the consent to a level where it is consistent with current local demands.

Section 75W of the Act sets out the parameters within which the Minister's approval of a Major Project Application may be modified. It provides that the proponent may request the Minister to modify a project approval where the proponent intends to modify the project so it would be inconsistent with that approval. "Modification of approval" means changing the terms of the Minister's approval, including:

- (a) revoking or varying a condition of the approval or imposing an additional condition of the approval, and*
- (b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval..*

Under subclause 3 of Section 75W, The Director-General may notify the proponent of EA requirements with respect to the Proposed Modification.

The objectives of this report are to:

- Make an assessment as to whether the proposal is suitable for determination under S.75W of the Act;
- Assess the environmental impacts of the proposed modification to the satisfaction of the Director General of the Department of Planning; and
- Assure compliance of the proposal with all relevant statutory requirements.

2.0 SITE PARTICULARS

The subject site is located on Lot 35 DP 1098588, Lot 21 DP 1125616, Lot 2 DP 1076817 and Lot 33 DP 1096463 at Richardson Road, Narellan and is known as the Macarthur Resource Recovery Park (MRRP). The site is located within the Camden Local Government Area (**LGA**) and is bounded by Narellan Vale to the North, Mount Annan to the East and South and Spring Farm to the West. The main entrance to the site is off Richardson Road, via a private access road located at the southern end of Richardson Road. Figure 1 indicates the site in its geographical context.

The MRRP currently comprises a weighbridge, materials recycling facility (**MRF**), landfill gas power generation plant (operated by EDL Operations Pty Ltd) (**EDL**), a small vehicle drop-off facility, remediated former mixed waste and AWT residual landfill and the AWT facility including the ArrowBio Plant, AWT Biological Pant and Garden Organics Plant (GOP). Figure 2 shows the layout of the site.



Figure 1: MRRP Site location

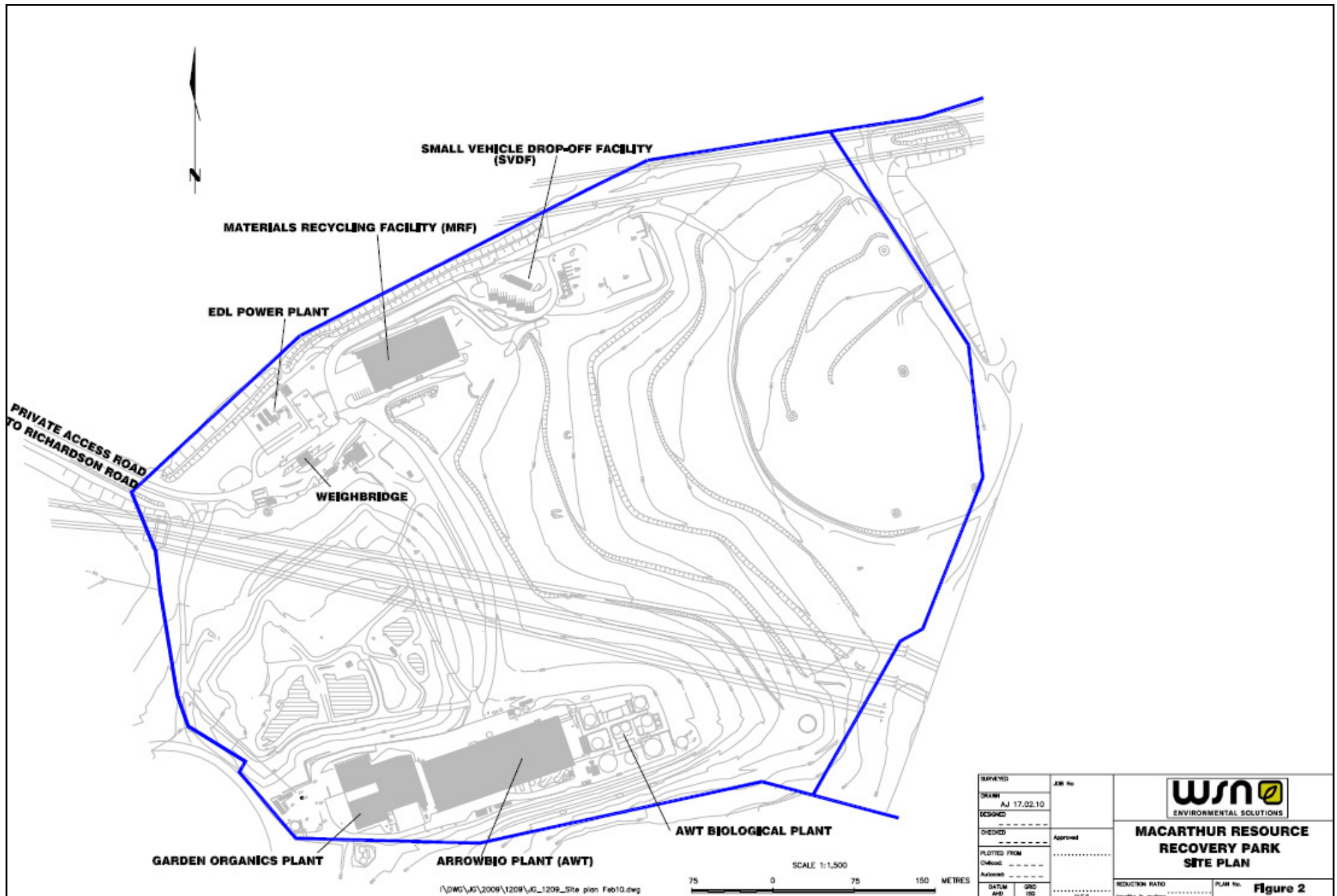


Figure 2: MRRP Site layout

3.0 CONSENT HISTORY

The former Jacks Gully Waste and Recycling Centre was operated as a local garbage tip by Camden Council until 1975 when WSN took control. Council subsequently granted consent to WSN (89/95; 27 July 1995) for a Materials Recycling Centre (MRF), a Gas Power Station (6128/98; 19 April 1999) and a composting facility (67/97; 11 October 1999). WSN approved a Part 5 modification of the inflow of waste tonnages (WSN-JH-04; 8 November 2004).

In 2006, the Minister for Planning granted consent to the AWT facility. The consent and all Modifications to date include:

- Original Consent – Ministers approval under Part 3A of the Act, 05/0098 (7 September 2006) for the Jacks Gully Alternative Waste Treatment Facility.
- Modification for new titles (06_0098; 27 November 2006).
- Modification for new titles (05_0098; 3 April 2009).
- Modification to connect landfill gas collection system to AWT gas holder (05_0098; 20 August 2010)

The original consent included the construction of an anaerobic digestion type plant (ArrowBio Plant) to process up to 90,000 tonnes per annum of municipal solid waste plus a tunnel composting plant (Garden Organics Plant) to process up to 30,000 tonnes per annum of separated garden organics and biosolids.

The ArrowBio Plant building receives and processes solid municipal waste, through:

- Material separation and removal of recyclables from the domestic waste stream;
- Extraction of the organic component of the domestic waste;
- Biological treatment of the organic component to produce biogas; and
- Production of stabilised sludge/soil conditioner with market potential.

The GOP converts separately collected garden organics to high grade compost, in twelve fully enclosed composting tunnels. End compost products are then transported off site.

Subsequent modifications related to lodgement of new land titles reflective of boundary adjustments to the site. Recently a modification was approved to connect the existing landfill gas collection system to the AWT gas holder in order to permit the transfer and utilisation of excess landfill gas to generate additional renewable energy.

The proposed alteration to GOP material inflow limits requires modification of the original AWT consent (05/0098; 7 September 2006). As this consent was granted under Part 3A, it is appropriate to seek modification under Section 75W of the Act.

4.0 PROPOSED MODIFICATION

The GOP is a fully enclosed, environmentally controlled system that utilises tunnel composting technology to process organic material into high grade compost and mulch products. The tunnel composting system uses natural decomposition processes in an enclosed, controlled environment.

The original consent for the AWT facility restricted the amount of waste received and processed as follows:

Condition 2.8

Except as provided by a condition of an EPL, the Proponent shall restrict the waste received at the site to the following:

- a) 130,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997;
- b) 25,000 tonnes per year of garden waste; and
- c) 5,000 tonnes per year of biosolids.

Condition 2.9

Except as provided by a condition of an EPL, the Proponent shall ensure that the only wastes that are processed at the site are:

- a) 90,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997 at the ArrowBio Plant;
- b) 25,000 tonnes per year of garden waste at the Garden Organics Plant; and
- c) 5,000 tonnes per year of biosolids at the Garden Organics Plant.

Under the above conditions, a total of 30,000 tonnes of organics (i.e. 25,000 tonnes of garden waste and 5,000 tonnes of biosolids) may be received and processed at the facility annually.

Currently the facility processes only straight greenwaste from council collections.

A summary of the approved, operating and proposed tonnages is in the table below:

	Approved tonnes	Currently Receiving/Processing	Proposed tonnes
Inputs			
Garden waste	25,000	Approx 28,000	25,000 + option for additional 5,000
Biosolids	5,000	0	5,000 tonnes of biosolids only if garden waste quantities are not greater than 25,000 tonnes
Total	30,000	28,000	30,000

The proposal seeks to modify both Condition 2.8(c) and 2.9(c) in the following manner:

Condition 2.8

Except as provided by a condition of an EPL, the Proponent shall restrict the waste received at the site to the following:

- a) 130,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997;
- b) 25,000 tonnes per year of garden waste; and
- c) **An additional 5,000 tonnes per year of garden waste or biosolids.**

Condition 2.9

Except as provided by a condition of an EPL, the Proponent shall ensure that the only wastes that are processed at the site are:

- a) 90,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997 at the ArrowBio Plant;*
- b) 25,000 tonnes per year of garden waste at the Garden Organics Plant; and*
- c) **An additional 5,000 tonnes per year of garden waste or biosolids at the Garden Organics Plant.***

In summary the proposed modification will permit the receipt and processing of a total of 25,000 tpa of garden wastes plus an option of receiving / processing an additional 5,000 tpa of garden wastes or biosolids.

5.0 JUSTIFICATION FOR THE PROPOSAL

The GOP has been in operation since July 2008. Current sources of greenwaste through the facility include local council, contractors, diversion from transfer stations and occasionally material from the small vehicle drop off facility.

Contracts for the receipt of garden organics are currently in place with four local councils. The demand generated by these alone is approximately 25,000 tonnes, at the limit placed on garden organics by the current consent. As noted previously, the GOP currently receives approximately 28,000 tonnes of garden waste per annum. Aside from the guaranteed demand from current contracts, WSN is of the opinion that additional demand for use of the facility will result from strong regional population growth, improved local government green waste community education and increased green waste collection services.

The existing GOP has surplus capacity to process substantial additional quantities of garden organics materials with minimal additional impacts on the local environment. The variation to received and processed material limits applied for in this application will allow the facility to better fulfil its functions and address the growing demand for the processing of organic waste materials in the Sydney Metropolitan Area.

Moreover, the maximum annual tonnage of 25,000 tonnes of garden wastes as originally proposed (and approved) for the facility was a nominal figure, adopted until thorough trials of the facility could be undertaken.

Through such trials and the day to day operation of the facility, it has been determined that processing of organics through the tunnels can be undertaken within shorter timeframes than originally anticipated to produce 'fit for market' materials.

As such the facility is able to accept and process additional tonnes of garden wastes with minimal impact to current operational and management procedures because accepted organics materials will be processed at a quicker rate through the tunnels than was anticipated in the original EIS.

Currently the GOP does not receive or process biosolids but receives approximately 28,000 tonnes of garden waste. In this regard, notwithstanding that the throughput quantities of garden waste are marginally in excess of the current consented amount of 25,000 tpa, they are below the consented total throughput quantities of 30,000 tpa of

garden organics and biosolids. Thus, modification of condition 2.8(c) and 2.9(c) to allow the GOP to receive / process 5,000 tonnes of garden waste or biosolids would enable the flexibility to meet current demands for garden waste processing without raising the overall total permissible quantity of material through the facility.

The additional tonnages of garden waste received will be processed and reused in a sustainable manner, increasing resource recovery and resulting in increased landfill diversion with minimal environmental impacts.

6.0 ENVIRONMENTAL IMPACTS

6.1. General

The Environmental Assessment for the AWT and Garden Organics Plant (WSN / GHD, March 2006) assessed the impact of the proposal under the following headings:

- Water and groundwater
- Traffic
- Dust
- Odour
- Noise
- Flora / fauna
- Visual quality
- Heritage
- Bushfires
- Landfill Gas
- Social / economic
- Waste minimisation and demand on resources
- Greenhouse gas emissions
- Cumulative effects.

It is to be noted that in general terms, given that the proposed Modification will not result in overall throughput quantities in excess of the current approval, the impacts of the Modification with regard to each of these elements will be negligible. Notwithstanding this, and for the sake of consistency, the potential impacts of this Modification have been assessed against each of these previously assessed elements.

6.2. Water and groundwater

The EA concluded that the AWT and GOP would have no negative impacts on water and groundwater. The process remains unchanged as a result of the proposed modification and impacts on water and groundwater would also not change.

6.3 Traffic

The only potential impact of the proposal on traffic would result from truck movements generated by the receipt of increased tonnages into the GOP. Given, however, that no net increase in tonnage is proposed, it can be concluded that no additional truck movements would occur and the additional impacts on local traffic would be nil.

6.4 Dust

The GOP will remain as a contained operation with all unloading, loading and processing occurring within purpose built enclosed structures. Dust emissions will not change as a result of the proposal and impacts will remain acceptable.

6.5 Odour

WSN is currently carrying out a comprehensive site wide odour audit at the MRRP to ensure that odour levels generated by the facility are within the limits set by the relevant planning consents. Under the Environmental Planning Licence for the site, WSN will be bound to adhere to the recommendations of the Odour Audit to address local odour impacts. Moreover, WSN has recently carried out extensive work to address potential odour impacts from the MRRP. In this suite of work, actions of direct relevance to potential odours generated by the Garden Organics Plant include installation of an 'odour control fence' to part of the perimeter of the site, including the boundary adjacent to the GOP. The 'odour fence' will supplement the odour oppressing effects of an existing biofilter system currently operating within the GOP.

Given that the proposed Modification will not alter the overall quantity of throughputs or intensity of the existing operation at the GOP, and in light of the original and recently installed odour suppression devices operating in and around the GOP, it is clear that the proposal will have no additional impact with regard to odour production. Added assurance of future compliance is provided by the EPL requirement to undertake and abide by the recommendations of a comprehensive site wide odour audit.

6.6. Noise

Truck movements and the intensity or duration of the operation will not be changed as a result of the proposed modification. Accordingly, the modification will result in no additional noise impacts.

6.7 Flora / fauna

The proposed modification will not have any effect on flora or fauna.

6.8 Visual quality

The proposal includes no new structures and will have a nil effect on visual quality.

6.9 Heritage

Indigenous and non-indigenous heritage values will not be affected by the proposal.

6.10 Bushfires

The existing development complies with the principles of *Planning for Bushfire Protection* (Planning NSW 2001). The proposed modification will not change the status of the development in this regard.

6.11 Landfill Gas

There will be no change to the existing landfill gas collection system on site.

6.12 Social / economic

The MRRP currently produces significant social and economic benefits in the locality and region through employment, provision of a sustainable and convenient waste management facility and diversion of regionally generated waste from landfill. The proposed modification would further these regional benefits through amplification of waste management services.

6.13 Waste minimisation and demand on resources

By definition, the GOP and AWT facility minimise waste and demand on resources through a process of resource recovery and utilisation. The proposed modification would enhance waste minimisation while utilising existing resources.

6.14 Greenhouse gas emissions

The proposed modification would contribute positively to the already substantial beneficial effects of the existing GOP facility on greenhouse gas emissions.

6.15 Cumulative effects.

Operation of the current facilities creates positive cumulative impacts at social, economic and environmental levels. The proposed modification will have no negative impacts and will contribute substantially to these existing positive impacts.

6.16 Construction Impacts

There is no construction associated with the proposed modification.

7.0 STATUTORY CONSIDERATIONS

An assessment of the facility against the provisions of relevant Environmental Planning Instruments and policies follows:

- Section 75W of the Act - Modification of Minister's Approval

The approval for the Jacks Gully AWT, Ministers consent no 05/0098, was granted in accordance with Part 3A of the Act. Section 75W(2) of the Act provides that a proponent may request the Minister to modify his approval of a project. The Minister's approval is not required if a change to the project is proposed that would be consistent with the original approval.

The proposed modification to material receiving and processing limits at the GOP, seek to alter the terms of the Ministers determination through varying the conditions of the above consent. Accordingly the proposed modifications are inconsistent with the current terms of the Ministers approval and as such require an application under section 75W.

The Act includes no specific test to verify whether a proposal can be determined as a modification of an existing consent under S.75W. However, the generally accepted test under Case Law is whether or not a proposal would constitute a 'radical transformation' of the development as consented (Barrick Australia Ltd v Williams [2009] NSW CA 275). The proposed modification, with illustrated minimal environmental impact, is considered to fall well short of a 'radical transformation' of the existing consented development. It is thus considered that the Minister is able to determine the application as a Modification under S75W(4) of the Act.

- State Environmental Planning Policy (Infrastructure) 2007

This SEPP provides a consistent planning regime for infrastructure and the provision of services across NSW.

Division 23 of the SEPP applies to waste or resource management facilities. The subject facility falls under the definition of resource recovery facility as follows:

"Resource recovery facility means a facility for the recovery of resources from waste, including such works or activities as separating and sorting, processing or treating waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from waste gases and water treatment, but not including re-manufacture of material or goods or disposal of the material by landfill or incineration."

In addition a 'waste or resource management facility' *means a waste or resource transfer station, a resource recovery facility or a waste disposal facility.*

Clause 121(1) provides that development for the purpose of waste or resource management facilities may be carried out by any person with consent on land in a

prescribed zone. The site is zoned 5(a) Special Uses – Waste Management Centre under Camden Local Environmental Plan No.48 and is considered a prescribed zone under Clause 120 of this SEPP.

However, as previously noted, the GOP facility is a previously approved use on the site and the proposed modification is not considered to significantly alter the approved use of the site. As such SEPP (Infrastructure) 2007 does not affect the proposal.

- State Environmental Planning Policy No. 33 – Potentially Hazardous or Offensive Developments:

The operation of the AWT facility is considered potentially offensive as the composting related activities could potentially impact on the surrounding locality.

However the AWT facility is not considered hazardous as environmental management controls incorporated within the facility limit the potential health risk to workers and surrounding residents and risk to the biophysical environment.

The proposed modification does not alter the environmental management of the AWT facility and as such there would be no creation of a potentially hazardous operation.

- State Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2 – 1997)

This policy applies to the Camden Local Government Area and aims to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in the regional context.

The proposed modification does not create any additional matters for consideration under this policy.

- Camden Local Environmental Plan No.48

The Camden Local Environmental Plan No. 48 (LEP 48) is the principal environmental planning instrument that applies to the site and surrounding locality. The site is zoned 5(a) Special Uses - Waste Management Centre, under this Plan. The proposed modification is consistent with the aims of the Plan and would not result in any non-compliance with its development controls.

- Draft Camden Local Environmental Plan 2009

The Draft Camden Local Environmental Plan 2009 (draft LEP 2009) was adopted by Camden Council as a draft instrument on 24 November 2009 and outlines the proposed planning controls for the Camden Local Government Area. The site is zoned SP2 Infrastructure (Waste or Resource Management Facility) under this Plan. The proposed modification is consistent with the proposed objectives for this zone and, again, would not result in non-compliance with its controls.

8.0 CONCLUSION

The proposed modification is required to maximise the capability of the approved Garden Organics Plant. The proposal to allow the option of accepting 5,000 tonnes of garden waste, in lieu of biosolids is in response to current demand for the receipt and processing of garden waste. The modification will allow the flexibility to continue to receive additional tonnes of garden waste as required by current market demand.

In particular the proposal seeks to modify Condition 2.8 and 2.9 of Consent No. 05/0098 dated 7 September 2006 in the following manner:

Condition 2.8

Except as provided by a condition of an EPL, the Proponent shall restrict the waste received at the site to the following:

- a) 130,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997;*
- b) 25,000 tonnes per year of garden waste; and*
- c) **An additional 5,000 tonnes per year of garden waste or biosolids.***

Condition 2.9

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- a) 90,000 tonnes per year of mixed municipal waste classified as inert or solid waste under Schedule 1 of the Protection of the Environment Operations Act 1997 at the ArrowBio Plant;*
- b) 25,000 tonnes per year of garden waste at the Garden Organics Plant; and*
- c) **An additional 5,000 tonnes per year of garden waste or biosolids at the Garden Organics Plant.***

This Statement demonstrates that the proposed modification is consistent with the terms of the original approval and is suitable for determination by the Minister under S.75W of the Act in that it does not constitute a 'radical transformation' of the originally approved development. The Statement also illustrates that there will be no substantive negative environmental impacts as a result of the proposed modifications and that real benefits will result for the local and regional community and the environment. In this regard it is considered that the Modification application warrants the Minister's consent.