

Appendix R

Consultation



Office
of Water

AECOM
Level 8
17 York Street
SYDNEY NSW 2000

2 September 2009

Attention: Natasha Mavlian

Contact: Peter Johns
Phone: 02 4904 2538
Fax: 02 4904 2501
Email: peter.johns@dnr.nsw.gov.au
Our ref: ER20018

EDAW	
Project:	
7 SEP 2009	
Initials:	
Actioned:	

Dear Madam

**MP08_0079 – Consultation for Civilake Construction and Green Waste Recycling Facility
Lots 42, 43, 53 and 54 DP 16062 The Weir Road, Teralba**

I refer to your letter of 20 August 2009 seeking comment during the preparation of the Environmental Assessment (EA) for the project proposal. The former Department of Water and Energy provided assessment requirements for the proposal. (Refer to attached copy of letter dated 18 April 2008).

In July 2009 the NSW Office of Water (NOW) became a separate office within the newly established Department of Environment, Climate Change and Water. In addition to the previous advice (viz. 18 April 2008) NOW requires that the EA address the following:

- The size, capacity and depth of excavation for the stormwater retention ponds and if the ponds are to have impermeable liners.
- Details for water supply, use of recycled water, sewerage services and/or treatment of effluent (if applicable).
- Licence details and the location of the ten (10) groundwater bores.

If you require further information please contact me on 4904 2538 at the Newcastle office.

Yours sincerely

Peter Johns
Planning and Assessment Coordinator
Major Projects and Assessment
NSW Office of Water
Newcastle

Department of
Environment, Climate Change and Water NSW





NSW Government
Department of Water & Energy

Contact: Peter Johns

Phone: 4904 2538

Fax: 49042503

Email: Peter.Johns@dnr.nsw.gov.au

Department of Planning
GPO Box 39
SYDNEY NSW 2001

Our ER Ref: ER20018

18 April 2008

Attention: Megan Webb

Dear Madam

Request for Key Issues and Assessment Requirements
Proposed Development of a Construction and Green Waste Recycling Facility Lots 42, 43
53, & 54 DP 16062 The Weir Road, Teralba

I refer to your letter of 11 April 2008 requesting key issues and assessment requirements for the project proposal. The Department of Water and Energy (DWE) provides the following advice for consideration:

Relevant Legislation

The assessment is required to take into account the objectives and regulatory requirements of the following legislation (administered by DWE), as applicable:

- *Water Act 1912*
- *Water Management Act 2000 (WMA)*

Relevant Policies

The assessment is required to take into account the following NSW Government policies, as applicable:

- NSW Groundwater Policy Framework Document - General
- NSW Groundwater Quality Protection Policy
- NSW Groundwater Dependent Ecosystem Policy
- NSW State Rivers and Estuaries Policy
- NSW Wetlands Management Policy
- NSW Farm Dams Policy

Groundwater

DWE is responsible for the management of the groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- Details of any works likely to intercept, connect with or infiltrate the groundwater sources.
- Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- Details on preventing groundwater pollution so that remediation is not required.
- Details on protective measures for any groundwater dependent ecosystems (GDEs).
- Details of proposed methods of the disposal of waste water and approval from the relevant

authority.

- Assessment of the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC guidelines).

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Details of any proposed monitoring programs.
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Licensing

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from DWE prior to their installation.

Groundwater Dependent Ecosystems

The assessment is required to identify any impacts on GDEs.

GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment. GDEs occur across both the surface and subsurface landscapes. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/ rivers dependent on the input of groundwater to base flows.
- Wetlands.
- Estuarine and near-shore marine discharge ecosystems.
- Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The NSW Groundwater Dependent Ecosystem Policy provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- Ensure the most vulnerable and valuable ecosystems are protected.
- Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes.

Surface Waters

DWE is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains.

Watercourse/Riparian

The assessment is required to consider the impact of the proposal on any watercourses and associated riparian vegetation, as applicable and provide the following:

- An evaluation of the proposed methods of excavation, construction and material placement.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime.
- A description of the design features and measures to be incorporated into any proposed development to guard against long term actual and potential environmental disturbances and the identification of riparian buffers. (See note below)
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

The *Rivers and Foreshores Improvement Act 1948 (RFIA)* has now been repealed and the controlled activity provisions in the *WMA* have commenced. The provisions relating to controlled activities replaced the *RFIA* from 4 February 2008.

Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events.

Although Part 3A Major Projects are exempt from requiring a controlled activity approval (s91 of WMA), the assessment is required to take into account the objectives and provisions of relevant legislation and guidelines.

Note: Recommended Core Riparian Zones (as applicable):

- Minimum of 10m for any intermittently flowing 1st order watercourse;
- 20m for any permanently flowing 1st order watercourse or any 2nd order watercourse;
- 20m – 40m (merit based assessment) for any 3rd order or greater watercourse.

[Refer to DWE Guidelines for Controlled Activities (February 2008) – Riparian Corridors].

Water Management Structures/Dams

If the proposal includes proposed water management structures/dams, the assessment is required to provide information on the following:

- Details of the purpose, location and design specifications for the structure/s.
- Size and storage capacity of the structure/s.
- Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- Details if the structure/s is affected by flood flows.

Sustainable Water Supply

The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources.

Should there be any further enquiry in this matter please contact me on 4904 2538 (or Peter.Johns@dnr.nsw.gov.au).



Peter Johns
Project Officer
Major Projects and Planning
Newcastle

All communications to be addressed to:

Headquarters
NSW Rural Fire Service
Locked Mail Bag 17
GRANVILLE NSW 2142

Headquarters
NSW Rural Fire Service
15 Carter Street
HOMEBUSH BAY NSW 2127

Telephone: (02) 8741 5555
e-mail: development.assessment@rfs.nsw.gov.au

Facsimile: (02) 8741 5550



AECOM
Level 8
17 York Street
SYDNEY NSW 2000

Attention: Natasha Mavlian

EDAW - SYDNEY			
Project:			
Received			
10 SEP 2009			
Initials:			
Actioned:			

Your Ref: MP08_0079

Our Ref: S09/0032
HQ09/0871

4 September 2009

Dear Ms Mavlian,

Green Waste Recycling Facility – The Weir Road, Teralba NSW

I refer to your letter dated 20 August 2009 seeking comment from the NSW Rural Fire Service (RFS) on the proposed development.

The RFS notes that the subject site has been mapped as bush fire prone land and accordingly the aims and objectives of *Planning for Bush Fire Protection 2006* must be considered in the design and layout of this type of development, including:

1. afford occupants of any building adequate protection from exposure to a bush fire;
2. provide a defendable space around buildings;
3. provide appropriate separation between the bush fire hazard and buildings to prevent flame contact and material ignition;
4. ensure that safe operational access and egress for emergency service personnel and occupants is available;
5. provide for the ongoing management of asset protection zones;
6. ensure that utility services are adequate to meet the needs of firefighters and others assisting in bush fire fighting.

For any enquiries regarding this correspondence please contact Garth Bladwell.

Yours faithfully,

Corey Shackleton
A/Team Leader
Development Assessment & Planning

For information on *Planning for Bush Fire Protection 2006* visit the RFS web page www.rfs.nsw.gov.au

252DA184;1
09/1609
MD



The General Manager
AECOM
Level 8
17 York Street
SYDNEY NSW 2000

EDAW - SYDNEY	
Project:	
Received	
14 SEP 2009	
Initials:	
Actioned:	

Attention: Ms Natasha Mavlian

PROPOSED CIVILAKE RECYCLING FACILITY, LOTS 42, 43, 54 & 53 DP 16062, WEIR ROAD, TERALBA

Dear Ms Mavlian

I refer to your letter dated 20 August 2009 requesting comment from the Roads and Traffic Authority (RTA) regarding the Environmental Assessment for the subject concept application.

The RTA has reviewed the information provided and notes that the subject site gains primary access off the local road network, with indirect access to / from the nearby classified road network in both directions. It is also noted that the proposal is estimated to produce approximately 265 heavy vehicle movements per day, the majority of which will require the use of classified roads.

The RTA offers the following comments for consideration:

- A Traffic Impact Study should be undertaken to identify likely traffic impacts and subsequent road upgrade requirements. The study should be prepared in accordance with the RTA's *Guide to Traffic Generating Developments* and is to include, but not be limited to, the following:

- Identify all relevant vehicular traffic routes and intersections for access to / from the subject area

Comment: Anzac Parade has a load limit of 5 tonnes. Therefore, no heavy vehicles are permitted to use this as a thoroughfare between William Street and Five Islands Road

- Current traffic counts for all of the above traffic routes and intersections
- The anticipated additional vehicular traffic generated from the proposed development
- Consideration of the traffic impacts on the existing intersection of Main Road / Northville Drive and the roundabout at Toronto Road / Five Islands Road and the capacity of these intersections to safely and efficiently cater for the additional vehicular traffic generated. The intersection analysis shall include (but not be limited to) the following:
 - Current traffic and 10 year traffic growth projections
 - With and without development scenarios considered
 - 95th percentile back of queue lengths
 - Delays and level of service on all legs for the relevant intersections
 - Use of SIDRA or similar traffic model

Roads and Traffic Authority ABN 64 480 155 253

- Electronic data for RTA review.
- The cumulative traffic impacts of the subject proposal and other major developments in the area should be included in the above-mentioned network and intersection analysis. This cumulative analysis will allow for adequate identification of road network and intersection upgrades.

The RTA considers the Traffic Impact Study a minimum requirement to assess the impact of the proposed development on the classified road network.

The RTA will make further recommendations when the Traffic Impact Study is completed.

Should you require any further advice, please contact Natasha Waeger on 49240 240.

Yours sincerely



Natasha Waeger
A/Manager, Land Use Development
Hunter Operations & Engineering Services

10 September 2009

Cc Megan Webb
Department of Planning

Our reference : DOC10/6378

Mr Chris Ritchie
Manager Major Industry
Department of Planning
GPO BOX 39
SYDNEY NSW 2001

Attention: Ms Felicity Greenway

11 February 2010

FACSMILE & STANDARD POST

Dear Sir

Adequacy Review of draft Environmental Assessment – Proposed Waste Processing Facility – Weir Rd, Teralba – Lake Macquarie Council - Part 3A Environmental Planning & Assessment Act 1979

I refer to your letter and draft Environmental Assessment ("EA") provided under the provisions of part 3A of the *Environmental Planning and Assessment Act, 1997*, outlining the proposed construction and operation of a waste processing and storage facility ("the Proposal") by CivilLake, a business unit of Lake Macquarie City Council ("the Proponent") at Lots 42, 43, 53 and 54 in DP 16062 also known as Wier Rd, Teralba, NSW ("the Premises").

Please note that, although the Environment Protection Authority ("EPA") is now a part of the Department of Environment, Climate Change and Water ("DECCW"), certain statutory functions and powers continue to be exercised in the name of the EPA.

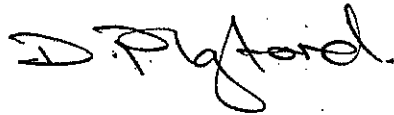
On 11 December 2009 the Department of Environment, Climate Change and Water ("DECCW") received correspondence dated 8 December 2009 from the NSW Department of Planning requesting the DECCW review the adequacy of the Proposal.

The DECCW advises the Department of Planning that the Proposal does not contain adequate information to assess the adequacy of the Proposal, and requests further information be provided. The DECCW has outlined the further information that is required in Attachment A (enclosed)



If you have any further questions regarding this matter or wish to meet with the DECCW to discuss this matter please do not hesitate to contact myself on (02) 4908 6890 or Rebecca Small on (02) 4908 6892.

Yours sincerely

A handwritten signature in black ink, appearing to read 'D. Playford'.

DANIELLE PLAYFORD
Unit Head Waste Operations
Department of Environment, Climate Change and Water

Enclosed:

Attachment A: Further Information Request

ATTACHMENT A

FURTHER INFORMATION REQUEST

Adequacy Review of draft Environmental Assessment – Proposed Waste Processing Facility – Weir Rd, Teralba – Lake Macquarie Council - Part 3A Environmental Planning & Assessment Act 1979

THE PROPOSAL

CivilLake, a business unit of Lake Macquarie City Council ("the Proponent") has completed a draft Environmental Assessment ("EA") that has been provided to the NSW Department of Planning under the provisions of part 3A of the *Environmental Planning and Assessment Act, 1997*. The EA outlines the proposed construction and operation of a waste processing and storage facility ("the Proposal") at Lots 42, 43, 53 and 54 in DP 16062 also known as Wier Rd, Teralba, NSW ("the Premises").

The Proposal includes the acceptance of up to 200 000 tonnes per annum of waste for processing and storage at the Premises, specifically concrete, asphalt, RAP, road base, green waste, bricks, tiles and soil waste.

The Proposal includes the undertaking by the Proponent that waste will be processed at the Premises for reuse off site in compliance with the relevant Department of Environment, Climate Change and Water's ("the DECCW") Resource Recovery Exceptions.

The Premises is located approximately 2 kilometres north of Teralba on a floodplain within Cockle Creek, with Cockle Creek located approximately 200 metres from the Premises. The Premises is also adjacent to a SEPP 14 wetland to the south east of the Premises, and vegetation in the surrounding buffer area contains tree species for Koala habitats listed under SEPP 44.

The Premises was previously used for the disposal of biosolids and other fill.

FURTHER INFORMATION REQUIRED

The DECCW advises that further information is required in the Proposal in regards to construction, waste, water management and leachate, air and threatened species. The DECCW outlines its requirements below:

A. CONSTRUCTION

Capping Layer

The Proponent has advised that the site will be raised 1.5 to 2.5 metres above the existing levels with an estimated 200 000 tonne of capping materials, which will take approximately three years. The Proponent has noted also that the base of the capping layer will be clearly marked to ensure it doesn't become exposed.

The DECCW advises that should the capping material not meet the conditions of a relevant DECCW Resource Recovery Exemptions, then the material would be classified as waste, and therefore be subject to the EPA's Waste and Environment Levy for the landfilling of that waste.

The DECCW requires the following further information to be included in the Proposal:

1. The particular specification of the capping material that the Proponent intends to use at the Premises,

This should include the nature of the capping material, details which support the suitability of the material for use as a capping material, and details in terms of permeability to prevent infiltration of surface water and leachate into groundwater (for example whether the capping layer will be a re-compacted clay or modified soil layer that is at least 60 centimetres thick and has an in situ coefficient of permeability of less than 1×10^{-7} m/s, or some other suitable liner approved by the DECCW; and drains to the leachate dams at a minimum gradient of 5%),

2. Details of how the Proponent will ensure all capping material (each load) meets an approved specification or conditions of a relevant DECCW Resource Recovery Exemptions (for example will there be policies or procedures on site, testing regime for each load),
3. How the base of the capping will be "clearly marked",
4. How the depth of the capping layer will be measured and monitored, particularly while capping work is occurring, in terms of height and tonnages,
5. Clarification as to whether the Premises will be fully capped prior to any waste being accepted at the Premises for waste processing purposes,
6. Advice as to what will be included in the site validation report, which the Proponent has advised will be completed once the cap is completely installed, and

This advice should include whether a construction quality assurance program (including as constructed drawings, testing of capping material and verifying the integrity of the cap) is to be incorporated in the validation report.

B. WASTE

The DECCW advises that further information is required in the Proposal in regards to waste processing (compost), and waste stockpile management. The DECCW outlines its requirements below;

Composting

The DECCW requires the following information to be included in the Proposal:

1. Further details about the composting activities in the Proposal (including handling, processes for processing compost, storage, leachate management, and related activities at the Premises),
2. Proposed stockpile management of compost, including stockpile dimensions, number and type of stockpiles,
3. Fire mitigation measures,
4. Advise as to what, if any, management guidelines will be incorporated into the Proposal for composted related activities (for example Australian Standard 4454-2003: Composts, Soil Conditioners and Mulches, Appendix N, Best Practice Guidelines for Composting Systems),
5. How the Proponents will prevent the introduction of weed species at and outside the Premises, and
6. The predicted quality of outputs from the composting activities, including predicted quality and contaminant levels of the outputs and intended final use of the compost outside the Premises (for example will the Proposal produce compost in accordance with *Australian Standard AS 4454-2003: Composts, Soil Conditioners and Mulches* and comply with the limits for physical contaminants set out in table 3.1 of *Australian Standard AS 4454-2003*, or reused in accordance with the *Protection of the Environment Operations Act, 1997* and Regulations).

Waste Management

The DECCW requires the following information be included in the Proposal:

7. Further information regarding how the stockpile dimensions will be maintained and managed (i.e. will there be height markers installed, will there be daily checks), and
8. Processes to check incoming waste for lawfulness, apart from visual viewing.

C. WATER MANAGEMENT & LEACHATE

The DECCW advises that further information is required in the Proposal in regards to the proposed water detention basins and water treatment within the Proposal. The DECCW outlines its requirements below;

Construction of water detention basins

The DECCW requires the following information be included in the Proposal:

1. Further information about the exact specifications of water detention lining systems referred to in the Proposal as "suitable clay lining or plastic geomembrane" to ensure minimal infiltration of possibly contaminated water into groundwater (for example will the water retention basins have a re-compacted clay or modified soil layer that is at least 90 centimetres thick and an in situ coefficient of permeability of less than 1×10^{-9} m/s), and
2. Clarification of whether the water detention basins will be installed prior to waste processing operations occurring at the Premises to ensure appropriate water management systems are in place at the Premises.

Water Discharge Point

The DECCW has concerns about the proposed water management system, and the potential for water to cause pollution if released from the Premises from the proposed discharge point on the northern boundary of the Premises. The DECCW notes its concern, amongst other things, about the impacts of a discharge point onto the surrounding environment at the Premises. Including the impact water discharging would have on the adjacent SEPP 14 wetland to the south east of the Premises, the vegetation in the surrounding buffer area containing tree species for Koala habitats listed under SEPP 44, and in close proximity of the Premises to Cockle Creek.

The DECCW notes *Figure 2.3 Stormwater drainage* shows runoff from roadways and operational areas at the Premises into clean water detention basins which may contain waste contaminants and therefore be leachate. The DECCW also has concerns about water flow from dirty to clean water detention basins as part of the Proposal. The DECCW notes that although some water treatment options are outlined in the Proposal, it remains concerned about the possibility of contaminants leaving the Premises and the potential to cause pollution.

The DECCW requires the following information be included in the Proposal:

3. Further information about the likely impacts from the proposed water discharge point on the surrounding environment,

This should include, but not be limited to, further information about:

- I. the impacts on the catchment and effects of altered hydrology,
- II. sediment and erosion impacts,
- III. impacts on habitat, flora and fauna, and

- IV. impacts from changed water quality and possible contaminants in the water compared to the surrounding environment including (including, but not limited to total suspended solids, pH, and all contaminants contained within incoming waste including heavy metals, nutrients, oils and greases, pesticides and herbicides etc),
4. A list of specific contaminants which may be found within each waste type being received at the Premises,
 5. Details of a water quality testing regime to detect contaminants within water prior to all water discharging off the Premises. This should include the contaminants listed (in response to C. 4) above, and
 6. Details of how waste water will be managed at the Premises, should the findings of the water quality testing regime show that the detected contaminants within waste water be above the approved trigger values for discharge off the Premises (in response to C. 5 above).

D. AIR ASSESSMENT

The DECCW advises that the air quality impact assessment in the Proposal does not adequately assess the impacts on air. A qualitative impact assessment is not considered appropriate for the proposal due to the potential for significant odour and dust emissions and the proximity of nearby sensitive receptors.

The DECCW requires the following information in the Proposal:

1. Further details and justification about the odour unit criteria and reassessment of odour modelling,
2. Inclusion of air modelling assessment from all odour sources,
3. Inclusion of air modelling assessment based on cumulative odour sources,
4. Inclusion of a quantitative modelling assessment of the all odour sources included in the proposal (air dispersion modelling of all potential odour and dust sources at the site),
5. Inclusion of predicted dust emissions associated with the operational phase of the proposal, and
6. Assessment to quantify potential dust emissions from the proposal and nominate specific dust control strategies that will be implemented.

Odour Assessment

The Proponent adopts a ground level concentration (glc) criteria of 3 odour units ("OU") for the Proposal. No explanation is provided in the Proposal to justify the selected criteria. The DECCW advises that a criteria of 3 OU is not appropriate based on the urban land-uses surrounding the project site. Table 7.5 of the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (AMMAAP) specifies that 2 OU is the appropriate impact assessment criteria for proposals in urban areas. The Proposal should be revised and should adopt a criteria of 2 OU.

The Proposal has assumed one potential odour source associated with the operation of the Proposal. The DECCW believes this assumption to be unrealistic. The Proposal discusses the 'green waste area' and references emissions rates used by Holmes (2007). The Proposal should be revised to identify and assess potential odour impacts from all odour sources at the Premises. This could include, but not be limited to, the green waste area, leachate storage, composting windrows, receivals and sorting area.

The Proponent uses a generic odour decay function presented in *Good Practice and Regulatory Guidance on Composting and Odour Control for Local Authorities* (DEFRA, March 2009) in the Proposal. The Proposal does not provide background discussion on the applicability of the decay

function, which was developed for the United Kingdom, to be applied to the Proposal. Additionally, DEFRA (2009) states that *"It is now common and accepted practice for planning applications for such composting plant to be supported by detailed odour impact assessments. These assessments are typically based on computer models which predict odour dispersion from the proposed development, based on local weather records and estimated or predicted odour emissions from the proposed development"*. The Proposal does not contain such an assessment.

The Proposal should be revised to include a quantitative modelling assessment of the all odour sources included in the Proposal. Modelling predictions should be assessed against a glc criteria of 2 OU. Where odour emissions are assumed to be controlled in the modelling assessment, a detailed explanation of mitigation measures that will be employed by the Proposal must be included in the assessment.

Dust Assessment

The assessment in the Proposal does not quantify dust emissions associated with the operational phase of the Proposal. Based on the description of proposed activities provided in the Proposal, the Proposal has the potential to emit large quantities of dust (particles). The Proposal should be revised to quantify potential dust emissions from the Proposal and nominate specific dust control strategies to be implemented.

E. THREATENED SPECIES & BIODIVERSITY CONSERVATION

The DECCW advises that further information is required in the Proposal in regards to the provision of offsets and complementary habitat, weed management and revegetation within the Proposal.

The DECCW requires the following information in the Proposal;

1. The DECCW requires the Proponent to provide clear justification as to why the development footprint cannot remain within the boundaries of the cleared / disturbed land. This should include details as to why the site layout cannot be modified to remain with the cleared / disturbed footprint,
2. Should the Proponent be unable to ensure the development footprint remains within the cleared / disturbed land, the DECCW requires further details of an appropriate offsets / compensatory habitat to compensate the impacts of the proposed development, including but not limited to:
 - I. Details of the appropriateness of the offset / compensatory habitat proposed to compensate the impacts of the proposed development,
 - II. How the proposed biodiversity offset will meet the DECCW's guidelines,
 - III. Details of how the proposed offset lands will be conserved and managed in perpetuity, to ensure that any proposed offsets are conserved and managed in perpetuity, consistent with DECCW offsetting principles, and
 - IV. An appropriate Management Plan be developed and implemented as a key amelioration measure. The DECCW recommends that this plan be developed prior to any consent being issued for the development, and although acknowledges the proponent's commitment to develop such a plan, the DECCW does not support the development of such a plan after 'approval',
3. Details about the specific "professional bush regeneration and weed management will occur in the existing vegetation remnants",

4. Details of whether proposed revegetation will be in accordance with best practice measures, specifications and principles as outlined in nationally accepted guidelines and revegetation manuals, and
5. Details of whether the Proponent intends to collect seeds and/or vegetative material from a threatened species or taxa that constitute an endangered ecological community that is outside the approved development footprint, then a licence is required to be held under s91 of the *Threatened Species Conservation Act 1995*.

The DECCW provides the following detailed comments regarding the information required to be included in the Proposal;

Adequate Provision of Offsets / Compensatory Habitat

The DECCW acknowledges that the majority of the subject development site comprises of cleared land dominated by open, weedy pasture (with occasional trees); with natural vegetation primarily restricted to the 30m buffer zone: - Ball Honeymyrtle Swamp Forest, Scribbly Gum / Swamp Mahogany / Paperbark Transitional Forest and Scribbly Gum / Swamp Mahogany / Paperbark Transitional Forest. As such DECCW concurs with the Proposal that the majority of the development is unlikely to directly impact on threatened species, ecological communities and/or their habitat.

However the Proposal indicates that part of the proposed Teralba Sustainable Resource Centre will involve the clearing or modification of (e.g. parts of the buffer zone may be modified for the construction of a bund wall) approximately 0.23 ha of *'Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions endangered ecological community (EEC) and the possible removal of a few individuals of the threatened (vulnerable) tree - Angophora inopina (i.e. the Proposal indicates up to 7 individuals).*

Furthermore the site is surrounded by significant endangered ecological communities (e.g. Swamp sclerophyll forest on coastal floodplains) and known habitat for a variety of threatened flora (e.g. *Angophora inopina*) and fauna (e.g. Eastern Bent-wing Bat, Eastern Freetail Bat, Grey-headed Flying-fox, Large-eared Pied Bat, Little Bent-wing Bat, Masked Owl and Squirrel Glider); which could be subjected to indirect impacts (such as hydrological changes, noise, dust etc). The subject may also provide limited foraging habitat for some of these more mobile species.

Given that the Proposal implies that the Proponent can not avoid and/or mitigate against the proposed clearing of threatened species and the EEC, the DECCW is of the opinion that appropriate offsets / compensatory habitat are required to compensate the impacts of the proposed development. The DECCW requires justification as to why the development footprint cannot stay within the boundaries of the cleared / disturbed land, in the first instance, and provide sufficient justification as to why the site layout cannot be modified to remain with the cleared / disturbed footprint. Should the Proponent be able to provide acceptable justification and the footprint not remain within the cleared / disturbed land, then appropriate offsets will need to be required by the DECCW.

The Proposal's 'statement of commitments' indicates that offsetting will be used as the strategy to compensate the impacts on threatened species; stating *'To compensate for the small area of EEC habitat cleared or modified, and the possible removal of a few individual threatened trees, appropriate offsets would be provided onsite in two areas of retained natural vegetation in the south-western and south-eastern corners of the site'*. The Proposal further states *'the loss or modification of this small area of habitat would be offset within the site both by restoration of a weedy open pasture area and management / weed control of the EEC in the south-western corner of the property which is outside the subject site. The total offset area would amount to 1.07 hectares of habitat for the EEC, comprising 0.83 hectares of retained, managed habitat and 0.24 hectares of restored, revegetated habitat. This represents a total offset ratio of 4.6:1.* The DECCW acknowledges the Proponents commitment to provide an offset package but is of the

opinion it lacks the appropriate details to determine whether it is consistent with the 'maintain or improve' requirements of the Part 3A process or the DECCW off-setting principles.

As such the DECCW requires the Proponent provide further details indicating how the proposed biodiversity offsets meet the DECCW's guidelines. To determine the adequacy of the proposed biodiversity offsets the DECCW recommends either one (or both) of the following methodologies could be used:

- DECC 'offsetting principles', as outlined in Appendix 2 – Principles for the use of biodiversity offsets in NSW *Draft Guidelines for Biodiversity Certification of Environmental Planning Instruments* (DECC 2007) can be used as general guide for offsetting and compensatory habitat requirements,
- a voluntary biodiversity assessment using BioBanking Assessment Methodology under Biodiversity Banking and Offsets Scheme, as outlined in the '*BioBanking Assessment Methodology and Credit Calculator Operational Manual*' (DECC 2009). This would provide a quantitative assessment of the required ecosystem and species (threatened) credits that need to be retired to offset the impacts of the development.

The DECCW is of the opinion that a biodiversity assessment using BioBanking Assessment Methodology under Biodiversity Banking and Offsets Scheme, would provide a transparent framework and a quantitative alternative to the principles-based approach (i.e. 'offset provision' principles as outlined in the biodiversity accreditation guideline - DECC 2007). It is highly likely that this methodology would indicate a greater conservation package would be required with respect to area to be conserved. The DECCW acknowledges that this is a voluntary process and not a requirement under Part 3A, but believes it provides a valuable insight and quantitative appraisal into what would be an acceptable offset package to compensate the likely impacts of the development. Nevertheless, the DECCW is of the opinion that regardless of which methodology the proponent uses to determine the type, scale and size of an offset package, they should be consistent between the two. The environmental attributes, including vegetation communities, threatened species and potential habitat present should be clearly described, as well as how they compare to those being removed on the proposed development site.

The DECCW notes that the Proposal suggests the potential loss of *Angophora inopina* on site could be offset by the replanting of the species elsewhere. The DECCW does not support replanting as a suitable offsetting measure, given that there is no long-term guarantee of its success or the species survival. Similarly, the DECCW does not consider revegetation measures to be an appropriate offset to compensate the loss of native vegetation which is an EEC or may support threatened species.

Conservation in Perpetuity of Offset Lands

The Proposal does not provide details of how the proposed offset lands will be conserved and managed in perpetuity. The DECCW requests further detail to ensure that any proposed offsets are conserved and managed in perpetuity, consistent with the DECCW offsetting principles.

Under the 'offset principles' the DECCW requires the proponent indicate up front the mechanism to be used to achieve conservation in perpetuity, appropriate management regimes (including other habitat enhancement or mitigation measures) and financial security with respect to ongoing management.

The DECCW would typically consider suitable measures to ensure conservation in perpetuity, such as (but not limited to) a Conservation Agreement under the *National Parks and Wildlife (NP&W) Act 1974*, a bio-banking agreement under the *Threatened Species Conservation Act 1995*, reservation of land under Part 4 of the *NP&W Act 1974*, and/or Section 88B-E covenant of the *Conveyancing Act 1919* (Note: that a covenant under the *Conveyancing Act 1919* will require

such an instrument to be lodged for registration under a new deposited plan or a plan of survey [refer to: <http://rgdirections.lands.nsw.gov.au/plans/easementsandcovenants>]).

Management Plan for Offset Area and retained habitat features

To appropriately manage the offset / compensatory habitat lands, and any retained habitat enhancement features within the proposed development area, the DECCW requires that an appropriate Management Plan (such as vegetation or habitat) be developed and implemented as a key amelioration measure. The DECCW recommends that this plan be developed prior to any consent being issued for the development.

Although the DECCW acknowledges the proponent's commitment to such a plan, the Department does not support the development of such a plan after 'approval'. The DECCW contends that an appropriate plan can be developed at the start of the development (i.e. prior to development approval) which highlights the management issues on site and the appropriate management measures / mechanisms that will be used to manage these. The DECCW would expect that any such plan would underpinned by an appropriate monitoring program and adaptive management regime to ensure ongoing success.

The management plan should clearly document how the offset area, any retained vegetated areas or habitat features and proposed habitat management within the development footprint (e.g. buffer zones, habitat trees and nest boxes) will be managed and implemented with respect to long-term conservation and viability, including clear details on how they will be funded. The plan should cover, but not be limited to, the following issues:

- weed management (both control and suppression) and monitoring,
- management of retained native vegetation and habitat (including buffer zones),
- feral animal control,
- fire management (including asset protection zones [APZs]),
- public access (including restriction of, increased traffic, and associated impacts, such as increased refuse and pets),
- size and management of buffer zones,
- minimisation of edge effects and fragmentation,
- stormwater control and changes to hydrology (including stormwater / runoff control and sediment / erosion control measures),
- management of specific habitat enhancement measures (e.g. hollow / habitat trees, animal fencing to facilitate movement [e.g. Koala 'floppy-top fencing'], artificial hollows and nest boxes etc.),
- fauna displacement and if appropriate translocation (including any licence requirements),
- proposed surveys, such as pre-extraction baseline, pre-clearance and rehabilitation surveys,
- details of long-term monitoring (including proposed timing),
- details of any rehabilitation program, including details of timing (including proposed staging details), rehabilitation measures (including details of proposed revegetation and species mix), and post-rehabilitation monitoring,
- measures to ensure conservation in perpetuity (e.g. transfer to DECCW estate, conservation agreements or covenants), and
- funding details of long-term financial commitment to any proposed conservation measures, including any mechanisms to be implemented to achieve this.

The Proposal states that a Landscape Plan will be developed for the proposal, but the DECCW is unsure whether or not it will incorporate the above details. If not, it may be feasible to cover such details in this plan, or alternatively a separate plan be produced prior to the any approval.

Weed Management

The Proposal states that professional bush regeneration and weed management will occur in the existing vegetation remnants, and as such the DECCW would expect such operations will employ non-invasive methods that will not lead to further disturbance of remnant communities, such as the 'Bradley Method'. The DECCW notes that the 'Bradley Method of Bush Regeneration' (as per Bradley 1988) inherently utilises and promotes non-invasion methods, and would be a suitable method. It primarily focuses on hand weeding, without herbicides, but may also include the following principles which are permissible providing they do not adversely impact on the threatened species or their habitat:

- the judicious and minimal use of herbicides, to facilitate where appropriate, less soil disturbance where hand removal of roots may cause significant habitat damage;
- less dependence on mulching, which may discourage native plant regeneration (e.g. many natives species require bare soil and sufficient light conditions to germinate); and
- replanting of native species in situations where natural regeneration is not achieved. This should be in accordance with best practice measures, specifications and principles as outlined Nationally accepted guidelines - *Flora Bank Guidelines* (1998-2000), *Germplasm conservation guidelines for Australia* (Germplasm Working Group 1997), *Guidelines for the Translocation of Threatened Plants in Australia* (Vallee *et al.* 2004) and revegetation manuals (e.g. Corr & Whyte 2003), using suitably qualified and experienced bush regenerators.

The DECCW requires the Proponent provide details of such methods to be employed. This could be provided in a vegetation management plan for the site.

Revegetation

The DECCW notes that revegetation has been recommended as one of the mitigation measures in the Proposal. Although the DECCW supports the proposed revegetation strategies, including the use of locally collected seed from the development site, it does not consider these measures to be an appropriate offset to compensate the loss of native vegetation which is an EEC or may support threatened species.

Any proposed revegetation must be in accordance with best practice measures, specifications and principles as outlined Nationally accepted guidelines (where appropriate) - *Flora Bank Guidelines* (1998-2000), *Germplasm conservation guidelines for Australia* (Germplasm Working Group 1997) and revegetation manuals (e.g. Corr & Whyte 2003), using suitably qualified and experienced bush regenerators.

The DECCW advises that if the Proponent wishes to collect seeds and/or vegetative material from a threatened species or taxa that constitute an endangered ecological community that is outside the approved development footprint, then a licence is required to be held under s91 of the *Threatened Species Conservation Act 1995*.

11 February 2010



**Environment,
Climate Change
& Water**

Our reference
Previous DECCW Correspondence

DOC10/22427
DOC10/6378

Mr Chris Ritchie
Manager Major Industry
Department of Planning
GPO BOX 39
SYDNEY NSW 2001

Attention: Ms Felicity Greenway

FACSMILE & STANDARD POST

28 May 2010

Dear Sir

Second Adequacy Review - Draft Environmental Assessment – Proposed Waste Processing Facility – Weir Rd, Teralba – Lake Macquarie Council - Part 3A Environmental Planning & Assessment Act 1979

I refer to a draft Environmental Assessment ("EA") submitted by CiviLake, a business unit of Lake Macquarie City Council ("the Proponent") at Lots 42, 43, 53 and 54 in DP 16062 also known as Wier Rd, Teralba, NSW ("the Premises").

The Proposal was provided under the provisions of part 3A of the *Environmental Planning and Assessment Act, 1997*, and includes the proposed construction and operation of a waste processing and storage facility ("the Proposal").

Please note that, although the Environment Protection Authority ("EPA") is now a part of the Department of Environment, Climate Change and Water ("DECCW"), certain statutory functions and powers continue to be exercised in the name of the EPA.

On 11 December 2009 the Department of Environment, Climate Change and Water ("DECCW") received correspondence dated 8 December 2009 from the NSW Department of Planning requesting the DECCW review the adequacy of the draft EA for the Proposal ("the draft EA").

On 11 February 2010 the DECCW advised the NSW Department of Planning that it had completed an initial review and found that the draft EA did not contain adequate information to adequately assess the Proposal, and requested supplementary information be provided.

On 24 March 2010 representatives of the DECCW and the Proponent's consultant (AECOM Australia Pty Ltd) met regarding the Proposal. The DECCW provided clarification on the supplementary information requested ("the Meeting").

On 6 May 2010 the DECCW received correspondence dated 5 May 2010 submitted by AECOM Australia Pty Ltd, on behalf of the Proponent, regarding the supplementary information requested by DECCW.

Second Adequacy Review draft EA

The DECCW has reviewed the supplementary information submitted and has completed a second review of the draft EA.

The DECCW advises some further information be included in the EA to assess the adequacy of the Proposal, and requests clarification be provided on certain areas of the Proposal. The DECCW has outlined the requirements in Attachment A (enclosed). The DECCW has also provided other comments in regards to other aspects of the Proposal in Attachment A, and invites the Proponent to review this information and provide comments if necessary.

Please provide the further information and any comments in writing to the DECCW addressed to *Unit Head, Waste Operations Section (Hunter), PO Box 488G, Newcastle, NSW 2300*. The DECCW requests one hard copy and two electronic copies of the information required for its review.

If you have any further questions regarding this matter please do not hesitate to contact myself on (02) 4908 6890 or Rebecca Small on (02) 4908 6892.

Yours sincerely



DANIELLE PLAYFORD
Unit Head Waste Operations
Department of Environment, Climate Change and Water

Enclosed: Attachment A: Further Information Request
Cc: AECOM Australia Pty Ltd consultants for Lake Macquarie Council

ATTACHMENT A

FURTHER INFORMATION REQUEST

Part of DOC10/22427

Second Adequacy Review of draft Environmental Assessment – Proposed Waste Processing Facility – Weir Rd, Teralba – Lake Macquarie Council - Part 3A Environmental Planning & Assessment Act 1979

THE PROPOSAL

CiviLake, a business unit of Lake Macquarie City Council ("the Proponent") has completed a draft Environmental Assessment ("EA") and provided further supplementary information to the NSW Department of Planning under the provisions of part 3A of the *Environmental Planning and Assessment Act, 1997*.

The EA outlines the proposed construction and operation of a waste processing and storage facility ("the Proposal") at Lots 42, 43, 53 and 54 in DP 16062 also known as Wier Rd, Teralba, NSW ("the Premises").

The Proposal includes the acceptance of up to 200 000 tonnes per annum of waste for processing and storage at the Premises, specifically concrete, asphalt, road base, green waste, bricks, tiles and soil.

The Proposal includes the undertaking by the Proponent that waste will be processed at the Premises for reuse off site in compliance with the Protection of the Environment Operations Act 1997 and the relevant Department of Environment, Climate Change and Water's ("the DECCW") Resource Recovery Exemptions.

The Premises is located approximately 2 kilometres north of Teralba on a floodplain within Cockle Creek, with Cockle Creek located approximately 200 metres from the Premises. A SEPP 14 wetland is located to the south east of the Premises, and vegetation in the surrounding buffer area contains tree species for Koala habitats listed under SEPP 44.

The Premises was previously used for the disposal of biosolids and other fill.

FURTHER INFORMATION REQUIRED

The DECCW advises that further information is required in the Proposal, and outlines the further information requested below;

1. Stockpile Management & Waste Management

The DECCW requires further information regarding stockpile dimensions, stockpiling under transmission line easement, and waste management of stockpiles at the Premises.

In previous correspondence the DECCW requested further details relating to stockpile dimensions at the Premises. The DECCW based this request on concerns regarding the environmental and visual impacts of storing large stockpiles of waste at the Premises (dust, odour, fire management and visual amenity issues); particularly given the Proposal is to raise the Premises approximately 2 metres above the natural ground level.

The DECCW highlighted some concerns at the Meeting relating to stockpiling of waste under transmission lines. In particular timber and green waste, given the high combustibility of timber and green waste and the potential risk of fire. The DECCW notes the Proponent has addressed some of these concerns and provided the undertaking that no green waste stockpiles are to be

located under transmission lines at the Premises. Further the Proponent advises that under transmission lines *"PVC height markers will be installed to ensure that stockpiles do not extend above the Energy Australia height limits."*

The Proponent has further provided the advice that in areas other than under transmission lines, *"stockpile heights will be regularly checked using a laser distance measurer."*

The DECCW requires the following information to be included in the Proposal:

- a. specific details of the maximum stockpile dimension limits specified from Energy Australia in relation to the stockpiles located under the transmission lines, (for example 2 metres high by 2 metres wide by 4 metres long);
- b. a copy of any policy, procedure, or correspondence from Energy Australia which outline any restrictions for operations and/or stockpile limits within transmission line easements;
- c. clear details and/or a map depicting the "transmission line easement" area;
- d. specific details of maximum waste stockpile dimensions at the Premises for all types of waste, accounting for visual amenity and environmental impacts (for example 2 metres high by 2 metres wide by 4 metres long);
- e. a copy of any procedures or policies outlining how stockpiles will be managed.

2. Air Assessment

The DECCW requires further information about air quality assessment, including construction and operational dust emissions at the Premises.

The DECCW requires the following information in the Proposal:

Dust

- a. Inclusion of an emissions inventory for all significant dust generation activities for the construction and preparation of the Premises. Specifically, the inventory should include all bulk earthworks activities associated with the 'filling' of or 'capping' the Premises;
- b. Inclusion of a revised emissions inventory for all significant dust generating emission sources for operational activities at the Premises. Specifically, the revised emissions inventory should detail all parameters and assumptions used to calculate the emission rates modelled. E.g. the total number of vehicle kilometres travelled by trucks on unsealed roads and the expected number of truck movements per day at the Premises etc.
- c. Provide a detailed explanation of how the pug mills will vent to atmosphere. It appears that the assessment modelled the pug mill as a volume source. However the assessment also states that *"the pug mill is enclosed and serviced by 2 dust extractors with filters"*. Based on the description of the pug mill operations, the pug mill will vent to atmosphere as a point source (vent/stack). On this basis, the pug mill vent should have an emission limit of 20 mg/m³ pursuant to the requirements of the *POEO (Clean Air) Regulation, 2002*;

Modelling

- d. The TAPM generated meteorology used for the modelling assessment includes 0.0% of calm hours. The Bureau of Meteorology data presented to validate the TAPM predicted meteorology shows 8% and 3% of observed calm hours at 9 am and 3 pm respectively. The assessment should be revised to justify the use of the TAPM predicted meteorological dataset, with 0% of calm hours, noting that adverse odour impacts generally occur under calm stable atmospheric conditions. The DECCW notes that the assessment used the Ausplume model and as such, the term 'calm' should be interpreted

as wind speeds less than 0.5 m/s. Additionally, assessment figure C3 – Frequency Distribution of Stability Class, should be fixed. At present the figure shows no data; and

- e. Provide the Ausplume model input/output file for dust and odour scenarios.

OTHER COMMENTS

The DECCW takes this opportunity to provide comments relating to other aspects of the Proposal and invites the Proponent to review this information and provide comments if necessary.

Capping Layer

The DECCW does not require further information, however makes the following comments.

The DECCW notes that the Proponent has advised that the Premises will be raised 1.5 to 2.5 metres above the existing levels with an estimated 200 000 tonne of Virgin Excavated Natural Material ("VENM") and/or Excavated Natural Material ("ENM"). The DECCW notes that the Proponent has advised that the VENM and/or ENM will be sourced from multiple sources from Council road works and drainage works.

The DECCW again formally reminds the Proponent that waste received at the Premises should be classified in accordance with the DECCW's *Waste Classification Guidelines, 2008* in the first instance. The Proponent can determine if that waste meets all conditions within a VENM or ENM DECCW Resource Recovery Exemption, and that waste is suitable for reuse as capping material in accordance with all conditions of that relevant DECCW Resource Recovery Exemption.

Should the waste proposed for reuse at the Premises not meet all conditions of a relevant ENM and/or VENM Resource Recovery Exemption, then material would be classified as waste, and landfilling of that waste (in proposed capping activities) may be an unlawful activity and may incur the EPA's Waste and Environment Levy.

Waste Processing

The DECCW does not require further information, however makes the following comments.

The DECCW notes that contradictory information has been provided advising that the capping layer "*will be fully constructed prior to waste being accepted at the Premises*", however "*waste may be accepted at the Premises for stockpiling prior to capping works (being) completed*".

The DECCW assumes that the Proponent is advising that the capping layer will not be completed in the first instance prior to any other scheduled activities being undertaken at the Premises. Rather that the capping works will be partially completed and simultaneously waste will be stockpiled for waste processing at the Premises.

Although the DECCW notes the Proponents commitment to ensuring ENM and/or VENM will be used for capping purposes at the Premises, and that other waste accepted at the Premises for processing will be stockpiled and managed separately, the DECCW remains concerned about this aspect of the Proposal.

Composting

The DECCW does not require further information, however makes the following comments..

The DECCW notes information provided clarifies that composting activities are not proposed at the Premises and the only activity proposed is mulching of green waste to make wood chip.

Fire Mitigation Measures

The DECCW does not require further information, however makes the following comments.

The DECCW notes the Proponent has committed to locating stockpiles a minimum of 20 metres from bushfire prone vegetation and at least 20 metres away from buildings and other flammable items. The DECCW notes *Figure 7 Extract of the Lake Macquarie Bushfire Prone Land Map* within *Appendix K Bushfire Protection Assessment*.

This figure depicts bushfire prone land surrounding the entire Premises, meaning that all waste stockpiles would be required to be located at least 20 metres from the Premises boundary amongst other things, in accordance with the Proponent's commitments.

Construction of water detention basins & Water Discharge Point

The DECCW does not require further information, however makes the following comments.

The DECCW understands from the Meeting that the intention is to install sediment and erosion pollution control measures prior to accepting any waste at the Premises; and that construct of water detention basins will be conducted prior to accepting waste for reprocessing at the Premises.

Further the Proponent has advised of a testing regime for any discharges from the Premises and that the design of the water detention basins will include a shut off valve to prevent a discharge that has the potential to pollution waters.

Threatened Species & Biodiversity Conservation

The DECCW does not require further information, however makes the following comments.

The DECCW notes that the Proponent has amended the development footprint so that the Proposal will predominantly remain within the boundaries of the cleared / disturbed land. This involved adjustments to the site layout away from a portion of an Endangered Ecological Community in the south eastern location of the Premises. The Proponent also amended the locations of an earth bund that is proposed to be installed along the western boundary of the Premises so as not to impact on important tree species. The DECCW commends the Proponent for these actions.