

David Mooney - RE: Armidale Regional Landfill, MP06_0220

From: Lewis Michael <Michael.Lewis@environment.nsw.gov.au>
To: David Mooney <David.Mooney@planning.nsw.gov.au>
Date: 8/09/2011 2:59 PM
Subject: RE: Armidale Regional Landfill, MP06_0220

Hi David

As mentioned earlier this morning I have reviewed the draft approval conditions some time back and neglected to advise you. As you have mentioned OEH will have a significant consultation role but given the history of the site and the level of interest this was to be expected and the various management plans/systems are areas that OEH would normally be involved with so every thing looks ok to me.

Regards

Michael Lewis

Michael Lewis | Regional Operations Officer | Office of Environment and Heritage | Department of Premier and Cabinet | PO Box 494 (85 Faulkner Street) | ARMIDALE NSW 2350 |

Phone: (02) 6773 7000 | Fax: (02) 6772 2336 Mobile: 0418 208 635 |

E-mail: michael.lewis@environment.nsw.gov.au

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From: David Mooney [mailto:David.Mooney@planning.nsw.gov.au]
Sent: Tuesday, 19 July 2011 2:28 PM
To: Lewis Michael
Subject: Armidale Regional Landfill, MP06_0220

Hello Michael,

I've attached to this email a copy of our proposed approval conditions for the Armidale landfill. This is our first draft and has not been signed-off by management. Could you review and provide feedback in the next week or two. In many conditions there is quite a significant consultation role for the OEH in the preparation of management plans and design specifications.

Please feel welcome to 'phone or email me if you have any questions.

Regards,

David Mooney
Planning Officer, Mining and Industry Projects

Department of Planning and Infrastructure
p. 02 9228 2040

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David Mooney - Interim comments on the proposed approval conditions for Armidale regional landfill
[SEC=UNCLASSIFIED]

From: "Jenkins, Mark" <Mark.Jenkins@environment.gov.au>
To: "David Mooney" <David.Mooney@planning.nsw.gov.au>
Date: 25/08/2011 3:53 PM
Subject: Interim comments on the proposed approval conditions for Armidale regional landfill
[SEC=UNCLASSIFIED]
CC: "Beynon, Fiona" <Fiona.Beynon@environment.gov.au>

David

Thank you for the opportunity to provide interim comments on the draft NSW approval conditions for the proposed Armidale regional landfill.

As you are aware our primary concern is the potential for contaminated leachate to escape from the landfill contaminating groundwater and waterways and ultimately impacting on the Gondwana Rainforests of Australia World Heritage Area downstream of the landfill.

The department notes and supports the NSW government's requirement for zero discharge from the site and is satisfied with the intent and nature of the draft approval conditions at this stage. These comments are interim comments only and the department will provide formal comment on the proposed approval conditions after considering the information in the draft NSW assessment report.

You have indicated that you will be looking for evidence that leachate can be contained on-site and not released into the groundwater or the surrounding environment and I look forward to reviewing this information in the draft assessment report when it is provided for our comment.

Regards

Mark Jenkins

6274 1558

From: David Mooney [mailto:David.Mooney@planning.nsw.gov.au]
Sent: Tuesday, 23 August 2011 10:35 AM
To: Jenkins, Mark
Subject: Proposed approval conditions for Armidale regional landfill

Hello Mark,

Thank you for your time on the telephone this morning. I have attached our proposed conditions of approval for the Armidale regional landfill. I draw your attention in particular to our specific requirements for the leachate containment system, groundwater monitoring, and soil and water management (Schedule 4, Conditions 5 to 14).

We will forward a copy of our assessment report for your review when it is drafted to a suitable standard. Among other things, we're looking for evidence to establish that leachate can be contained on-site and not released into the groundwater or surrounding environment at all (thereby preventing impacts additional to the pollution and sediment loads already experienced by the Gara and its tributaries).

Could provide interim comments on our proposed approval conditions?

Regards,

David Mooney

Planning Officer, Mining and Industry Projects
Department of Planning and Infrastructure
p. 02 9228 2040

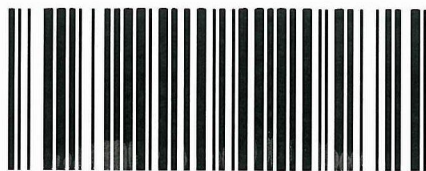
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Mr David Mooney
Planning Officer
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Date: 24 June 2011



gov.au

PCU023720

Dear Mr Mooney

**Armidale Dumaresq Landfill Project, NSW - EPBC 2007/3646
Comments on Proponent's Response to Public Submissions on the
Environmental Assessment**

Thank you for your invitation to comment on the proponent's response to public submissions received during the exhibition of the Environmental Assessment (EA) report for the proposed construction and operation of a regional waste facility at Armidale, NSW (2007/3646).

Please find below the department's comments, as requested. This advice is provided on a without prejudice basis to assist with the drafting of the State Environment Assessment Report, and should not be used for any other purpose. In particular, these comments should not be made publicly available.

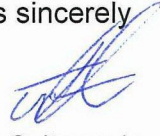
The department notes that a number of submissions, in particular those from the NSW Office of Water (NOW) and the NSW Office of Environment and Heritage (NOEH) raised concerns about the management of leachate, surface water (including storm water), groundwater management and water quality monitoring.

The proposed construction of the landfill close to the Gondwana Rainforests of Australia World Heritage Area means that mitigation measures will need to be of the highest standard and rigorously implemented and monitored to avoid significant impacts on World Heritage values. The department notes that NOW and NOEH submitted a number of recommended licence conditions that are likely to meet this requirement. In addition they seek further consultation regarding development of the Landfill Environment Management Plan and associated plans such as the Water and Leachate Management Plan. The department acknowledges these proposed mitigation measures and supports further consultation with relevant agencies regarding the development of environmental management plans.

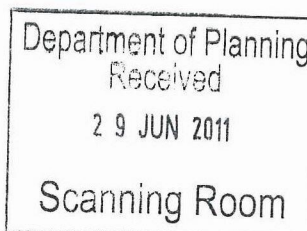
The department notes that additional leachate modelling has been conducted since the EA was released for public comment and the proponent has agreed to prepare a Closure Management Plan to manage leachate towards the end of the landfill's life and after its closure. The department requests that this undertaking be added to the proponent's Statement of Commitments and that the modelling be made publicly available.

If you have any questions on the above advice, please contact Mark Jenkins on (02) 6274 1558 or email mark.jenkins@environment.gov.au.

Yours sincerely


Chris Cvitanovic
Acting Director
NSW Section
Environment Assessment Branch

24 June 2011





Office of
Environment
& Heritage



Our Reference
Contact
Date

LIC08/1681:DOC11/24861
Michael Lewis (02) 6773 7000
25 May 2011

Ms Felicity Greenway
Team Leader - Industry Mining & Industry Project
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

30th MAY 2011

Attention: David Mooney

Dear Ms Greenway

PROPOSED ARMIDALE REGIONAL LANDFILL (MP 06_0220) – REVIEW OF SUBMISSIONS REPORT

I refer to the proposed Armidale Regional Landfill and the Submissions report, and accompanying information received by the Office of Environment and Heritage (OEH) on 10 May 2011.

OEH has reviewed the information provided within the submissions report by the proponent. **Attachment 1** provides further OEH comment with respect to the proponent's response to its submission made following the public exhibition of the Environmental Assessment.

The proponent appears to have addressed the issues raised within the submissions. The OEH would appreciate an opportunity to review any draft conditions of approval prior to the project being determined.

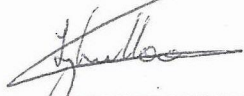
In summary, from the information presented in the EA, the OEH is still of the opinion that the most significant environmental issues are:

- Construction and management of appropriate leachate barrier and collection systems in accordance with Benchmark Techniques defined in "*Environmental Guidelines : Solid Waste Landfills*"
- Ensuring construction and operations meet noise criterion defined in the Interim Noise Construction Guideline and NSW Industrial Noise Policy; and
- Minimising impacts on biodiversity and further development of an adequate secure biodiversity offset.

The Department of Environment, Climate Change and Water is now known as the Office of Environment and Heritage, Department of Premier and Cabinet

If you have any questions, or wish to discuss this matter further please contact Michael Lewis in the Armidale office on 6773 7000.

Yours sincerely



LINDSAY FULLOON

**Acting Head Regional Operations –Armidale
Environment Protection & Regulation
Office of Environment and Heritage
Department of Premier and Cabinet**

Enclosures: *Attachment 1 – OEH review of submissions report for proposed Armidale Regional Landfill*

ATTACHMENT 1 – OEH Review of Submission Report for Proposed Armidale Regional Landfill

A. LEACHATE MANAGEMENT

Issue 1: Leachate management/ water balance sizing of leachate pond

Recommendations from OEH submission dated 9 August 2011:

1. *The Environment Protection Licence will not include a formal discharge point for the leachate collection system but will be managed under s120 of the Protection of the Environment Operations Act – that is there will be no defence in the licence for pollution of waters as a result of leachate discharge to surface waters.*
 - No comment made by the proponent. It is assumed therefore that the proponent has accepted this position.
2. *Provide additional clarification/ advice on the issues raised above prior to determination.*
 - Additional Information/clarification has been provided by the proponent.
3. *That annual monitoring and reporting of leachate volumes held in the pond, leachate volumes injected or irrigated be undertaken.*
 - The proponent has advised that this will be included in the Water and Leachate Management Plan and LEMP
4. *The leachate pond incorporate a gauge board to accurately determine leachate volumes held in the pond.*
 - The proponent has agreed to this request.
5. *That a detailed review of the water balance and additional modelling be undertaken when the capacity in the leachate pond exceeds 5 ML (5,000 m³) to assess performance against modelled predictions. The review should recommend additional mitigation measures as required if leachate management design is below that predicted in the proponent's environmental assessment report.*
 - The proponent has noted the recommendation and indicated that this would be included in the LEMP and Water and Leachate management Plan.

Issue 2: Leachate barrier system design

6. *The Department requires design to Environmental Guidelines: Solid Waste Landfills Benchmark Technique BT1 performance or better or alternative as approved by the Department in the final design prior to placement of waste in landfill cells. Please refer to **Attachment B** for details of recommended licence conditions for design and installation of the leachate barrier and collection system.*
 - The proponent has clarified that the leachate barrier will be based on design incorporating 90 cm thick clay with in-situ coefficient of permeability of less than 10^{-9} m/s overlain by a flexible membrane liner (HDPE) with a minimum thickness of 1.5mm and permeability of 10^{-14} m/s.

Construction to these standards will exceed the design requirements of Benchmark Technique BT1.

7. *The proponent should clarify the intended design for the leachate barrier system and leachate pond and provide firm commitments in the final statement of commitments for the proposed design.*

- The proponent has firstly confirmed that the leachate pond will be built to the same standard as the landfill liner but then appears to potentially contradict this by stating that “...both liners (pond and landfill) will comply with the NSW Solid Waste Benchmark Techniques, specifically Bench Mark 2: Leachate Collection systems.” Benchmark 2 does not apply to the landfill liner (Benchmark Technique 1: Leachate Barrier System does) and does not necessarily require the pond liner to be constructed to the same standard as the landfill liner (i.e. it states the pond liner should be lined “...to a similar standard to the landfill liner...”).

Given the sensitivities around this particular site, its position in the catchment and the hydraulic head that the pond liner is likely to be continually subjected to, the OEH contends that the pond liner should match or exceed the specification of the landfill liner proposed by the proponent. This issue will need to be resolved at the final detailed design stage.

- The manner in which the proponent has addressed the OEH's concerns with respect to the potential for deterioration of any HDPE liner as a result of UV radiation is also unclear and potentially contradicts with earlier statements. For example the statement “If a HDPE liner is designed for the leachate pond...” appears contradictory to the initial statement made by the proponent that indicated the “...leachate pond would be built to the same standard as the landfill liner...”.

The proponent's response offers two design alternatives (i.e. using UV stable liner products or a sacrificial protection cover layer) to address the OEHs concerns with regard to the effect of UV radiation on the liner. The proponent also indicates that if the “...liner of the leachate pond has deteriorated then it will be replaced as part of the site's LEMP.” While this would be necessary and expected, the proponent should not allow for the planned deterioration and replacement/repair of the liner as part of any standard maintenance or life expectancy of the liner through uncontrolled UV exposure and build this short term life into the LEMP. The LEMP should still incorporate any necessary UV exposure controls are maintained, incorporate liner integrity monitoring and replacement/repair procedures to ensure unpredicted liner failures are dealt with in a timely and appropriate manner.

B. NOISE IMPACT ASSESSMENT

Issue 3: Operating hours

Recommendations from OEH submission dated 9 August 2011:

8. *Proponent must clarify proposed operating hours in the Statement of Commitments.*

- The proponent has clarified both the Construction and hours of Operation.

9. *The Department does not support landfill operations in the night time period and any operations including entry into the landfill for waste activity operations must be restricted to the day time period only as defined in the Industrial Noise Policy.*

- No comment by the proponent however clarification of Construction and Operational hours does not include night period operations.

Issue 4: Predicted noise impacts and potential receptors

10. *Residence 2 (Sherraloy) and property be considered project related as the property owners are subdividing the land to allow the landfill construction and operation. To prevent subsequent land use conflict as a result of resale, covenants on the title of the sub-divided blocks should identify that increased noise levels are predicted to occur as a result of landfill operations.*

- Proponent has indicated they will seek this approach with the current owners of Sherraloy and is the preferred option for the OEH in case of the subsequent sale of the property to a third party or the future further subdivision of the property. Again Armidale Dumaresq Council will need to be aware of any potential for further sub-division of adjoining properties (Strathaven, Edington and Sherraloy) and additional residential receptors which have not been discussed in the report. Any further residential development in this area will need to be situated to ensure it is outside the predicted landfill operation $L_{Aeq(15 \text{ minute})}$ 35dB(A) noise impact zone. Any future development within this zone may create unnecessary future land use conflict and potentially limit the facilities future operations.

11. *Alternatively, a noise limit of $L_{Aeq(15 \text{ minute})}$ 38dB(A) at the residence Sherraloy should be prescribed in the conditions of approval and environment protection licence.*

- Noted by the proponent.

C. THREATENED SPECIES / BIODIVERSITY OFFSETS

Issue 5: Clarification of issues required

Recommendations from OEH submission dated 9 August 2011:

12. *For information only, consideration and acknowledgement in final determination report, and incorporated into the development of final management plans for the construction and operation of the landfill.*

- The additional information provided by OEH has been noted by the proponent and the issues raised will be incorporated in the final management plans for the site. These plans must address the difficulties in restoring the endemic woodland communities, the management of Koalas and the access road, and the retention of coarse woody debris (log piles) within the offset areas.

Issue 6: In perpetuity security of proposed biodiversity offsets

13. *Conditions of approval require proponent to identify and implement mechanism for in-perpetuity security of proposed biodiversity offset area.*

- The proponent has provided an undertaking to implement before commencement of construction but has not agreed on the proposed mechanism.

D. WATER MANAGEMENT AND MONITORING

Issue 7: Operation and integration of sediment basin and dry detention basin

14. *Confirmation that the stormwater management design summarised above is how surface water runoff will be managed from the premises.*

- The proponent has confirmed that the only uncontrolled stormwater discharge from the site would be from the dry detention basin, (proposed 19ML capacity) when its storage capacity is exceeded following a 1 in 100 year, 24 hour duration storm event.

Issue 8: Groundwater and surface water monitoring

15. The proponent is required to prepare a final groundwater and surface water monitoring program in consultation with the Department. It is noted that preparation of Environmental Management Plans including monitoring programs is generally a standard requirement of Department of Planning.

- The initial recommendation by the proponent for ground water monitoring was insufficient and the proponent has now given an undertaking to include an additional three ground water monitoring locations in the final Water Quality Monitoring Program and Management Plan.

16. The proponent be required to prepare and submit an Annual Environmental Monitoring Report to the appropriate Government Agencies that provides a summary of environmental performance against commitments in the EAR, conditions of approval and environment protection licence.

- The proponent has noted this requirement.



Office of Water

Major Development Assessments
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

26 May 2011

c: Jodie Dabovic
t: 02 4904 2571
f: 02 4904 2503
e: jodie.dabovic@water.nsw.gov.au

Our ref : ER20333
Your ref: 10/10388

Attention: Felicity Greenway

Dear Felicity

SUBJECT: ARMIDALE REGIONAL LANDFILL (MP06_0220) SUBMISSIONS REPORT

I refer to your letter dated 5 May 2011 seeking any additional comments and recommended conditions for the Armidale Regional Landfill Project.

The NSW Office of Water (NOW) provides the following advice on the basis that the existing legislative provisions under Part 3A of the *Environmental Planning and Assessment Act 1979* apply to this proposal.

NOW has reviewed the submissions report and is satisfied with the response to NOWs comments. NOW has no further conditions to add to NOWs current recommended conditions stated in environmental assessment review letter dated 30 July 2010.

If you require further information please contact Jodie Dabovic, Planning and Assessment Coordinator on (02) 4904 2571.

Yours sincerely

Mark Mignanelli
Manager Major Projects and Assessment



PCU013049

File 333
RBP:rfk

27 July 2010

Chris Ritchie
GPO Box 39
SYDNEY NSW 2001

Attention: Chris Ritchie – Manager Industry, Mining & Industry Projects

Dear Chris

Armidale Dumaresq Landfill Project (06_0220) – Exhibition of Environmental Assessment

Kempsey Shire Council wishes to advise NSW Planning, that Council has reviewed the Environmental Assessment associated with the Part 3A Application submitted by Armidale Dumaresq Council for the construction of the Armidale Dumaresq Landfill Project (06_0220).

Kempsey Shire Council further advises that Council raises no objection to the Part 3A Application provided all mitigation and management measures are employed.

Should you wish to discuss this matter further, please contact Ron Kemsley – Senior Natural Resources Officer on (02) 6566 3200 or email ron.kemsley@kempsey.nsw.gov.au

Yours sincerely

Philip Carroll
Manager Planning & Natural Resources
SUSTAINABLE ENVIRONMENT

