



Office of
Environment
& Heritage

Bundjalung National Park Review of Environmental Factors: Proposed ilmenite stockpile removal and site rehabilitation

Review of public submissions

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ISBN 978-1-76039-185-0

OEH 2015/0814

July 2016

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Section One: Introduction and public exhibition

1.1 Introduction

The NSW National Parks and Wildlife Service (NPWS) awarded tender OEH-496-2013 to Flagship Commodities on 5 July 2013 requiring them to undertake the Ilmenite Stockpile Removal and Site Rehabilitation Proposal at Jerusalem Creek in Bundjalung National Park.

The NSW Office of Environment and Heritage (OEH) Regional Operations Group (ROG) will be determining the proposal on behalf of the NPWS as an activity under Part 5 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). Section 111 of the Act states:

‘For the purpose of attaining the objects of this Act relating to the protection and enhancement of the environment, a determining authority in its consideration of an activity shall, notwithstanding any other provisions of this Act or the provisions of any other Act or of any instrument made under this or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity’.

Guidelines provided by the Department of Planning and Environment (Is an EIS required – the blue book) and the OEH (Determination Guidelines), and the tender documents, require a Review of Environmental Factors (REF) to be prepared that addresses Section 111 above.

Although there is no legal requirement to publicly exhibit a REF, it is the policy of the OEH to do so generally for major projects, proposals that have a high level of public interest, and those which may impact significantly upon neighbours. In such cases, 28 days is the minimum period recommended for exhibition.

The REF to be determined by the OEH ROG is limited to assessing potential environmental impacts within the NPWS estate and whether, if those impacts are deemed significant, an Environmental Impact Statement would be required under the provisions of the EP&A Act.

The REF itself is not required to address socio-economic factors or other factors that can be considered as “non-environmental”. Consequently determination of a REF is not an approval to commence work. In this case, the approval is issued by the NPWS, after consideration of the REF determination and other factors, under *the National Parks and Wildlife Act 1974* (NPW Act) and the National Parks and Wildlife Regulation 2009 (NPW Regulation) and should refer to any conditions that may be recommended by the REF determination.

Approvals from, or consultation with, other authorities may be required, for example, from the Environment Protection Authority for potential matters related to the *Protection of the Environment Operations Act 1997* or from the local Council with respect to potential impact on local roads under Clause 13 of State Environmental Planning Policy (Infrastructure) 2007.

Flagship Commodities prepared the REF in accordance with directions given by the NPWS and the OEH ROG, which placed the REF and associated supporting documents on public exhibition from 23 November to 24 December 2014. A copy of the formal exhibition notice is provided below. The notice was advertised in the Sydney Morning Herald and Daily Telegraph (state circulation), the Northern Star (regional circulation) and the Rivertown Times (local circulation).

Review of public submissions

In response to requests from the local community, the OEH extended the deadline for submissions until 30 January 2015 by further advertisement meaning the total period for exhibition was 68 days.

Copies of the REF and associated supporting documents including a cover letter (refer below) were provided on CD to NPWS for circulation to the following stakeholders:

- North Coast Area Health Service
- Roads and Maritime Services (Pacific Highway)
- Richmond Valley Council
- RAAF (Evans Head)
- Department of Primary Industries (Fisheries)
- Environment Protection Authority
- Native Title Services Corporation
- Bundjalung Aboriginal Corporation
- Minyumai Land Holding Aboriginal Corporation
- Ballina 4WD Club
- Ballina Angling Club
- Grafton District Angling Club
- Residents of The Gap Road
- Residents of Korinderie Ridge

Hard copies of the REF were also available for public perusal at the following locations:

OEH	Coffs Harbour
EPA	Grafton
Richmond Valley Council	Casino
Woodburn Post Office	Woodburn
Evans Head public library	Evans Head
NPWS	Alstonville

and at the following websites:

OEH 'Engage'	https://engage.environment.nsw.gov.au/consult
NSW government 'Have Your Say'	http://www.haveyoursay.nsw.gov.au/consultations
Flagship Commodities rehabilitation	http://www.flagshipcommodities.com/bundjalung-rehabilitation

1.2 Public exhibition advertisement

PUBLIC NOTICE

ASSESSMENT OF ENVIRONMENTAL IMPACT – ILMENITE SAND STOCKPILE REMOVAL AND SITE REHABILITATION, BUNDJALUNG NATIONAL PARK - REVIEW OF ENVIRONMENTAL FACTORS— PUBLIC EXHIBITION

The NSW Office of Environment and Heritage (OEH) has received a request from Flagship Commodities Pty Ltd under contract to the National Parks and Wildlife Service (NPWS) for approval to undertake the removal of an Ilmenite sand stockpile and subsequent site rehabilitation works adjacent to Gap Road near Jerusalem Creek in Bundjalung National Park. OEH will be determining the works on behalf of NPWS as an activity under Part 5 of the NSW *Environmental Planning and Assessment Act 1979*.

Review of public submissions

Consent to commence the works will be granted by NPWS under Clause 31 of the *National Parks and Wildlife Regulation 2009* and/or s151A of the *National Parks and Wildlife Act 1979* subject to any conditions imposed under the REF Determination.

The works proposed to be undertaken by Flagship Commodities will remove an unwanted waste legacy from previous sandmining and restore the site to its original condition in accordance with the adopted Plan of Management for the park. The removed material will be disposed of on the open market. The project is expected to take up to five years to complete.

The documents accompanying the proposal, including a Review of Environmental Factors, Aboriginal Cultural Heritage Assessment, Communication Plan, Environmental Management Plan, Flora and Fauna Assessment, Road Haulage and Safety Plan, Radiological Assessment, Remediation Plan, Work Health and Safety Plan and Works Program may be viewed online at:

NSW Gov't 'Have your say' website: <http://www.haveyoursay.nsw.gov.au/consultations>

OEH website: <https://engage.environment.nsw.gov.au/consult>

Flagship Commodities website: <http://www.flagshipcommodities.com/bundjalung-rehabilitation>

and may be inspected for 30 days at the following locations between 9:00 am and 4:30 pm from **23 November 2014 to 24 December 2014**.

- National Parks and Wildlife Service. 75 Main Street, Alstonville NSW 2480
- Richmond Valley Council. Cnr Walker St and Graham Place, Casino NSW 2470
- Environment Protection Authority. 49 Victoria Street, Grafton NSW 2460
- Office of Environment and Heritage 24 Moonee Street, Coffs Harbour NSW 2450
- Flagship Commodities P/L 10 Nambucca Street, Turrumurra NSW 2074
- Woodburn Post Office 85 River Street Woodburn NSW 2472
- Evans Head Public Library Woodburn Street Evans Head 2473

Copies on CD will be provided to relevant public and community stakeholders including residents along Gap Road and Korinderie Ridge. They are also available on request from the Office of Environment and Heritage, Locked Bag 914, Coffs Harbour NSW 2452 (02 6659 8200), the National Parks and Wildlife Service, PO Box 856, Alstonville NSW 2477 (02 6627 0200) and Flagship Commodities (02 9440 2035).

Any person may make a written submission on the proposal during the exhibition period to Dimitri Young, Senior Team Leader, Planning North East Region, NSW Office of Environment and Heritage, Locked Bag 914, Coffs Harbour NSW 2450, fax: (02) 6651 6187, e-mail: dimitri.young@environment.nsw.gov.au

1.3 Cover letter to stakeholders



Office of
Environment
& Heritage

Your reference:
Our reference: DOC140268899
Contact: Dimitri Young 02 6659 8272

Dear Stakeholder

**Re: Public Consultation and Exhibition of Review of Environmental Factors
Proposed Ilmenite sand stockpile removal and site rehabilitation
Bundjalung National Park**

Your comments are invited on the Review of Environmental Factors (REF) and associated documents for the above proposal which are contained on the enclosed CD. Alternatively, an electronic version of the REF can be found at the following links:

NSW Gov't "Have your say" website: <http://www.haveyoursay.nsw.gov.au/consultations>
OEH website: <https://engage.environment.nsw.gov.au/consult>
Flagship Commodities website: <http://www.flagshipcommodities.com/bundjalung-rehabilitation>

Copies of the REF may also be inspected during the exhibition period at the following locations between 9:00am and 4:30pm:

- | | |
|--|---|
| • National Parks and Wildlife Service. | 75 Main Street, ALSTONVILLE NSW 2480 |
| • Richmond Valley Council. | Car Walker St and Graham Place, CASINO NSW 2470 |
| • Environment Protection Authority. | 40 Victoria Street, GRAFTON NSW 2460 |
| • Office of Environment and Heritage | 24 Mounsee Street, COFFS HARBOUR NSW 2450 |
| • Flagship Commodities P/L | 10 Nambucca Street, TURRAMURRA NSW 2074 |
| • Woodburn Post Office | 65 River Street WOODBURN NSW 2472 |
| • Evans Head Public Library | Woodburn Street EVANS HEAD 2473 |

The REF will be on exhibition for 30 days from **23 November 2014 to 24 December 2014**.

Please address your written submission on the proposal during the exhibition period to Mr Dimitri Young, Senior Team Leader Planning, North East Region, NSW Office of Environment and Heritage, Locked Bag 914, Coffs Harbour NSW 2450, e-mail: dimitri.young@environment.nsw.gov.au, fax: (02) 6651 6187.

If you require further information or clarification on the REF or the proposed works, please contact me on telephone 02 6659 8272.

Yours sincerely

Dimitri Young 17 November 2014

DIMITRI YOUNG
Senior Team Leader Planning, North East Region
Regional Operations

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Coffs Harbour NSW 2450
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Section Two: Discussion of issues raised

2.1 Number of submissions and attitudes according to stakeholder group

A total of 98 submissions were received by OEH. 92 submissions were received by email, some with attached letters, and six submissions were received by standard mail to the Minister for the Environment.

Two submissions were subsequently withdrawn. One submission from a key stakeholder was accepted for valid reasons after the closing date following prior notice from the stakeholder that it would be submitted late.

One submission was received two weeks after the exhibition deadline and was rejected because the exhibition period had closed. This submission raised no additional issues than those already identified in the submissions received.

Of the six submissions made directly to the Minister for the Environment, some requested extensions in the time frame for response that were acknowledged and acted on by OEH whilst others contained comments of direct relevance to the determination of the REF.

Table 1 summarises the number of valid submissions (95) according to their stakeholder group and their attitude to the proposal.

Table 1: Number of submissions by location or organisation

Stakeholder Group	Number of submissions	Attitude		
		For	Against	Neutral
Public submissions	58		54	4
Government organisations	3			3
Non-government organisations	14	3	9	2
Other un-addressed submissions	20		20	
Total (including ministerial submissions)	95	3	83	9

Most submissions came from local and regional residents and the majority of these were opposed to the proposal. Those with neutral comments related generally to requests for additional information prior to making a further submission. Neutral comments from government organisations and non-government organisations were also conditional on a number of recommendations regarding determination conditions. Only three submissions supported the proposal with one acknowledging a caveat on its support due to lack of information.

Conclusion

The majority of submissions received (87%) were opposed to the proposal.

2.2 Issues raised by submissions

OEH identified 43 issues that were raised in 633 comments within the 95 submissions received. The number of submissions that raised each issue is shown in Table 2 below. Full copies of submissions and other relevant personal identification information cannot be released by OEH without the express approval of the submission authors due to privacy legislation.

Table 2: Issues raised by submissions

Issue		Number of submissions raising this issue as comments
1	Activity constitutes mining that is prohibited in national parks. Misleading information. Previous court case.	21
2	No mining in national park under guise of rehabilitation.	57
3	Previous assessment concludes leave in situ and rehabilitate.	33
4	Site is already covered and rehabilitating. Effect of fire not significant. Leave it alone.	35
5	Plan of Management out of date. Low priority. Should be updated.	11
6	Price of Ilmenite is economic imperative. Profit to private company. Is a resource not waste.	44
7	No payment of royalty to NSW people. Compensation to Flagship if not approved.	10
8	Impact of truck numbers, frequency and duration on site and users of The Gap Road.	55
9	Noise and monitoring.	20
10	Dust and monitoring.	22
11	Health.	8
12	Road suitability and safety. Speed limits –GPS. The Gap Road and Pacific Highway. Liability to Minister and NPWS. Closures inconvenient.	51
13	Removal of radioactive material. Monitoring of contaminated site. Public not advised of previous hazard.	7
14	Impact on ecology, flora/fauna including Koala and Emu population.	40
15	Use of water from Jerusalem Creek.	2
16	Stormwater and ilmenite contaminating the creek and nearby wetlands. Why not clean creek as well as stockpile?	11
17	What if project stops due changes in economic circumstances. Diligence test. Explanation needed.	5
18	Impact on future generations.	7
19	Compensation to residents of The Gap Road and the local region. Get road sealed. Would encourage development however.	9

Review of public submissions

Issue		Number of submissions raising this issue as comments
20	Precedent elsewhere. Government guarantee not to.	17
21	Commitment to road maintenance and enforcement of rules and conditions.	8
22	Greenhouse gases from diesel exhaust not considered. Global sustainability.	5
23	Impact on public amenity, tourism, fishing and campers at Black Rock by nearby heavy equipment.	19
24	There is no or inadequate environmental gain or cost benefit analysis. Are options discussed?	24
25	Impact on Oxleyan Pigmy Perch. Submission of test of significance.	2
26	Site considered degraded. Current rehabilitation not successful. Erosion. Various conditions suggested.	4
27	Rehabilitation does not restore diversity of flora and fauna. Disrupts ecosystem.	6
28	Stockpile not waste bur tailings uneconomic at the time. Interpret for mining cultural heritage.	2
29	Readvertise any amended or expanded proposal under statutory timeframes.	3
30	Sand not radioactive or contaminated according to EPA and earlier NPWS report .Away from campers.	11
31	Use of clean sand will require revegetating.	3
32	Original vegetation unknown. How then to rehabilitate to original condition?	2
33	Short term adverse impact is demonstrated but not long term benefit.	1
34	Aboriginal perspective. Consultation inadequate.	13
35	1980, 1989–90 L&E Court ruling is contrary. Refer David McConchie.	3
36	Government corruption. Investigate. Conflict of interest OEH and NPWS. Refer to independent authority. Improper process. Part 3A.	10
37	Are federal export approvals in place? Keep locally.	2
38	What is the remediation budget? Auditing requirements. Validation of reports. Timeframes. Bond.	8
39	Consultation inadequate especially NPWS and need for ongoing consultation. Access to RAC and Dimitri Young. Request extension in time.	22
40	Loss of visual amenity.	3
41	REF contrary to tender documents.	2

Review of public submissions

Issue		Number of submissions raising this issue as comments
42	Monitoring inadequate. Consider all impact on environment. Provision of baseline data. Inadequate complaints process.	6
43	Suggests sustained and noisy protests if approved. Emotional appeals. Flagship web legal threats. Media campaign. Public relations nightmare.	9
Total comments		633

2.3 Summary of themes within issues

The 633 comments received on the 43 issues identified within the submissions were classified into 23 themes by OEH as shown in Table 3 in descending order of frequency.

Table 3: Summary of themes

Theme	Issue number	Number of comments per issue (respectively)	Total number of comments	%
Permissibility and justification	1,2,3,4,35,41	21,59,31,35,3,2	151	24
Economic imperative, cost/benefit analysis	6,7,24,33	44,10,24,1	79	12
Impact on local residents, compensation	8,19	55,9	64	10
Road safety	12	51	51	8
Noise, dust, resident's health	9,10,11	20,22,8	50	8
Flora and fauna	14	40	40	6
Future generations and precedents	18,20	7,17	24	4
Public amenity	23,40	19,3	22	3
Consultation	39	22	22	3
Radiation and contamination	13,30	7,11	18	3
Rehabilitation, ecosystem function	26,27,31,32	4,7,3,2	16	3
Jerusalem Creek and wetlands	15,16	2,11	13	2
Financial bond, budgets and timeframes	17,38	5,8	13	2
Governance and process	29,36	3,10	13	2
Aboriginal cultural heritage	34	13	13	2
Plan of Management	5	11	11	2
Public relations	43	8	8	1
Road maintenance	21	8	8	1
Monitoring and complaint process	42	6	6	1
Greenhouse gas	22	5	5	1
Oxleyan Pygmy Perch	25	2	2	<1
Cultural heritage (mining)	28	2	2	<1
Other approvals	37	2	2	<1
Total			633	100

Where themes overlap with impact on local residents then the more detailed theme was used in the count to minimise duplication and bias. For example, where a resident had voiced specific comment on noise, then that was counted against the 'noise' theme rather than the 'impact on local residents' theme. However, where a resident's comment was more general in nature then the latter was counted instead.

Review of public submissions

A detailed analysis of comments relating to each of the above themes is provided in Section Three of this Submissions Report.

Conclusion

There was substantial concern in the community relating to the permissibility and the economic justification for the proposal, and the impact on local residents. Fewer submissions were concerned about environmental impacts of the proposal.

Section Three: Thematic analysis

3.1 Permissibility and justification

There were 151 comments from 72 submissions relating to the views that:

- Mining for minerals is prohibited in national parks under s41 of the *National Parks and Wildlife Act 1974* (NPW Act) unless authorised by an Act of Parliament.
- Mining under the guise of rehabilitation is deceptive.
- Previous NPWS assessments concluded the stockpile should be left *in situ*. One submission referred to previous legal opinion given to NPWS in the early to mid-2000s that concluded the proposal was non permissible.
- The site is already rehabilitating and its disturbance is insufficiently justified.
- The tender documents relating to the contract are inconsistent with the recommendations in the REF.
- There may be an earlier court decision in the late 1980s or early 1990s ruling a proposal to remove mineral sands from a national park is illegal. This was raised in three submissions.

OEH Response:

OEH ROG has received written confirmation from the NPWS that the proposal is permissible.

The NPWS has advised that the proposal is justified because it is identified as an action under the Plan of Management (pages 12 and 15) for the national park and is in accordance with the management principles listed in section 30E of the NPW Act.

An earlier review of the proposal by Environmental and Earth Sciences in 2002 recommended (page 20) that the ilmenite stockpile be left in situ and remediated. Reasons given were that the economic value of the ilmenite stockpile made the proposal unviable at the time, the site was remediating, and the levels of radioactivity were lower than previously thought and below public health triggers. However, recent changes in the economic value of the ilmenite stockpile have now made the proposal viable and provided the NPWS with an opportunity to remediate this part of the national park at neutral cost to the NSW Government.

It is appropriate that legal permissibility and justification are considered by the NPWS as part of its consent, lease or licence for works under the National Parks and Wildlife Act 1974 and the National Parks and Wildlife Regulation 2009, and/or in the signing of the contract. It is emphasised that the role of a REF is to assess the impact of a proposal on the environment in accordance with s111 of the EP&A Act.

3.2 Economic imperative, cost/benefit analysis

There were 79 comments from 49 submissions relating to the views that:

- The ilmenite stockpile is a resource with a financial value up to \$30 million.
- The profits from its sale do not benefit the taxpayer.
- There is no economic cost/benefit analysis.
- There is a demonstrated short term adverse impact but no long term benefit.
- Compensation may be payable to the contractor should the proposal be not approved.

OEH Response:

OEH acknowledges the financial/commercial issues raised in the submissions. Consideration of such issues is beyond the scope of the REF. The role of a REF is to assess environmental impacts and not pecuniary matters.

With respect to long-term benefits, provided the REF concludes there will be a long term improvement to the environment and the proposal proceeds to completion, OEH considers there is likely to be a demonstrable benefit to the community that is achieved without cost to the NSW Government.

3.3 Impact on local residents, compensation

There were 64 comments from 56 submissions relating generally to the view that:

- The impact of the number of trucks, frequency and duration would have unacceptable impacts on local residents along The Gap Road.
- Residents should be compensated by the sealing of the road (nine submissions).
- Sealing would increase potential for further development of the area (one submission).

OEH Response:

OEH recognises the impacts of increased truck usage on residents and traffic along The Gap Road. Although OEH ROG, as the determining authority, is unable to directly impose traffic related conditions on the road outside the national park it can indirectly influence the impact via REF conditions imposed inside the park.

As required under the provisions of c13 of the State Environmental Planning Policy (Infrastructure) OEH has consulted with the Richmond Valley Council and the Roads and Maritime Services (RMS) about impact on local roads resulting from the proposal. OEH will ensure that any issues raised by the Council and the RMS, and in the Ilmenite Stockpile Haulage Traffic Safety Plan, that apply to the impacts of the proposal on roads within the national park are addressed where possible by conditions imposed by the REF determination for work inside the national park, should the determination conclude that the proposal can proceed.

Although such conditions may indirectly mitigate road impacts on residents outside the national park, the management of roads outside the national park is beyond the jurisdiction of OEH in administering the NPW Act and NPW Regulation. The NPW Regulation enables OEH to manage the use of roads within the national park. The management of roads outside the national park is a matter for the Council or, where relevant, the RMS.

OEH cannot require the road to be sealed by the contractor outside the national park. This issue and the maintenance of Council road infrastructure may be considered by the Council and the contractor.

OEH acknowledges that, if road sealing were to occur, then development pressure on the local area outside the park and thus indirectly on public amenity within the park may be likely to increase. However regulation of development is a matter for the Council to consider under the provisions of its Local Environmental Plan. The Council may consult with OEH on any future development or rezoning applications for land adjoining or impacting the national park.

3.4 Road safety

Of the 56 submissions raising general concerns about the potential impact on local residents discussed in Section 3.3 above, 51 provided specific comment on road safety and suitability.

These comments referred to the following points:

- The weekly number of truck loads (50 to 60) proposed to be using The Gap Road over the duration (2.5 to 3 years) of the proposal (refer page 11 of the Traffic Safety Plan) is considered completely unacceptable as it means about 20 daily movements both ways.
- The road has multiple uses including access to the national park, horse-riding, school buses, commuting to work, walking and cycling however no survey of actual current usage was provided in the REF Traffic Safety Plan making assessment of additional impact difficult.
- The road has numerous locations that are likely to pose specific safety hazards. One submission provided a detailed report identifying 12 hazard locations resulting from an inspection in May 2014 involving local residents and the Council of that part of the road outside the park boundary.
- One submission raised the possibility of the Council and the NPWS being exposed to liability in the event of an accident involving trucks and other equipment associated with any approval of the proposal.
- Three submissions suggested that current experience with trucks along The Gap Road is that speed limits are not obeyed and cars are forced to one side. The use of real time GPS tracking devices to ensure driver compliance was recommended. A speed limit of 40 kilometres per hour was considered too fast in the vicinity of residential entrances to The Gap Road.
- One submission expressed concern about truck turn around and overtaking bays being located in the vicinity of recognised school bus stops.
- If the proposal is to proceed at all, a number of specific mitigation measures could be implemented including limits on truck loads and speed and restrictions on movements during peak usage times such as, school bus times, commuter times and school or public holidays coinciding with tourist usage of the national park.
- One submission suggested that if the road were to be completely closed to traffic at certain times excepting that relating to the proposal then any improvement in safety would be at considerable inconvenience to both the public and local residents.

OEH Response:

OEH acknowledges the concerns raised in submissions regarding potential traffic impacts on the local community. As part of its assessment of the proposal, OEH will consider the suggestions raised about impact mitigation and the recommendations made in the Ilmenite Stockpile Haulage Traffic Safety Plan to minimise the risk to public safety as far as possible within the national park. Although OEH ROG, as the determining authority, is unable to directly impose traffic related conditions on the road outside the national park it can indirectly influence the impact via REF conditions imposed inside the park.

OEH will ensure that any issues raised by the Council and the RMS and in the Ilmenite Stockpile Haulage Traffic Safety Plan that apply to the impacts of the proposal on road safety within the national park are addressed where possible by conditions imposed by the REF determination for work inside the national park, should the determination conclude that the proposal can proceed.

Although such conditions may indirectly mitigate road safety impacts outside the national park, the management of road safety outside the national park is beyond the jurisdiction of OEH in administering the NPW Act and NPW Regulation. The NPW Regulation enables

OEH to manage the use of roads within the national park. The use of roads outside the national park is a matter for the Council or, where relevant, the RMS.

Enforcement of road rules on public roads is the responsibility of the Police and the RMS and it is expected that this will continue to apply as usual along The Gap Road both outside and inside the national park.

The REF determination may also consider the establishment of a public complaints register regarding road impacts. The NPWS may investigate complaints regarding on-park road issues in the context of compliance with any determination conditions. Matters raised for roads outside the national park would be forwarded promptly to the local Council and/or the RMS for appropriate action.

Please note specific matters relating to road maintenance are dealt with in Section 3.18 below and may be limited by contract terms.

3.5 Noise, dust, residents' health

There were 27 submissions raising 50 comments about noise, dust and health matters relating mainly to trucks and other earthmoving equipment. Most comments expressed concern about a lack of specific information in the REF relating to potential impacts on residents along The Gap Road whilst some referred to the impacts on workers at the loading site itself.

Eight submissions raised concerns about the impact of radioactivity within any fugitive dust emissions from the sand loaded on the trucks as distinct to dust raised from the road itself.

Specific questions raised were as follows:

- Which authority is responsible for monitoring noise and dust levels?
- Have studies been done to establish existing base levels of noise along The Gap Road?
- What are the acceptable health limits for noise and dust both on the work site and adjacent to residences?
- Which authority is responsible for enforcing regulatory action in the event that acceptable limits are exceeded?
- What is the level of radioactivity in dust and is it likely to pose a health hazard?
- What steps will be taken to reduce noise and dust levels?

OEH Response:

Noise

The REF (page 21) refers to compliance with the Environment Protection Authority (EPA) 'Environmental Criteria for Road Traffic Noise' (ECRTN) however OEH acknowledges that discussion of this issue is brief and refers to an obsolete document produced in 1999. It is also acknowledged that no baseline noise monitoring has been provided in the REF.

The ECRTN was replaced by the NSW Road Noise Policy (RNP) in 2011 that provides quantifiable noise limits considered acceptable at various receivers including residences. The limits relate to both absolute limits and relative limits above ambient.

OEH will ensure that the proposal complies with the RNP with respect to those components of the proposal occurring on roads within the national park. It will also ensure that on site noise is managed in accordance with the EPA Industrial Noise Policy 2000 and the EPA Interim Construction Noise Guidelines and that noise levels within the national park are appropriately monitored and measured.

The Appropriate Regulatory Authority (ARA) on national park estate will investigate any breach under the provisions of the Protection of the Environment Operations Act 1997

(POEO Act). However, OEH is unable to directly regulate noise outside the park boundary. In these areas, as is the case with any local or public road, the ARA under the POEO Act and the Protection of the Environment Operations (Noise Control) Regulation 2008 would be responsible.

The REF determination may also consider the establishment of a public complaints register regarding noise impacts. The NPWS may investigate complaints regarding on-park noise issues in the context of compliance with any determination conditions. Matters raised for noise outside the national park would be forwarded promptly to the EPA, local Council and/or the RMS for appropriate action.

OEH may also condition the REF to require compliance with the recommendations made in the Environmental Management Plan and the Work Operations Plan with respect to noise within the national park should the determination conclude that the proposal can proceed.

Dust

The REF (page 20) and the Work Operation Plan provide mitigation measures relating to air quality and dust. However, the REF makes no reference to the regulatory aspects of these matters under the POEO Act 1997 other than, as general non-putrescible solid waste; transport of the Ilmenite sand is non-trackable under the Waste Regulation 2005. Nonetheless, the Environmental Management Plan (page 27) does commit to keeping emissions (including dust) within statutory or required limits.

As well as requiring compliance with the listed mitigation measures, OEH will liaise with the EPA regarding the inclusion of specific statutory limits in the REF conditions with respect to the on-park component of the work. As with noise above, off-park matters relating to dust could be enforced by the ARA under the POEO Act.

Statutory limits that may be required by OEH can be found in the Protection of the Environment Operations (Clean Air) Regulation 2010 and the Local Government Air Quality Toolkit on the EPA website at <http://www.epa.nsw.gov.au/air/lgaqt.htm>. Module 2 deals specifically with the regulatory framework.

OEH may require water for dust suppression and other purposes to be sourced and approved where necessary from locations outside the national park. No water will be drawn from within the national park unless approved by the NPWS Richmond River Area Manager.

The REF determination may also consider the establishment of a public complaints register regarding dust impacts. The NPWS may investigate complaints regarding on-park dust issues in the context of compliance with any determination conditions. Matters raised for dust outside the national park would be forwarded promptly to the EPA, local Council and/or the RMS for appropriate action.

Residents' health

OEH is aware that the NPWS Plan of Management for Bundjalung National Park considered the potential for radiation to affect public health as one reason for advocating the removal of the stockpile.

Detailed and expert independent reports by Environmental and Earth Sciences 2002, the Australian Nuclear Science and Technology Organisation 2014 and another (JRHC Enterprises January 2015 - commissioned and included in a public submission) have all concluded that, although the stockpile was slightly radioactive, average limits were well below those that would trigger specific public health requirements in both NSW and Australian Government legislation.

OEH may consider the recommendations made in the above reports and impose precautionary conditions relating to the monitoring and dilution of radioactivity at the stockpile and in the trucks to promote the protection and health of workers, local residents and the public.

These matters are discussed in more detail in Section 3.10 (Radiation and Contamination) below, but it should be noted that the Traffic Safety Plan requires the transport of the majority (85%) of the ilmenite stockpile in sealed containers and the balance (15%) in covered trucks and dogs. Under these circumstances, OEH considers it unlikely that radioactivity from fugitive dust loads would impact on local residents along The Gap Road.

3.6 Flora and fauna

There were 40 submissions relating to the potential impact of the proposal on the ecology and flora and fauna occurring in the vicinity of the stockpile and along The Gap Road.

Specific concerns mentioned include:

- At least 10 threatened species are known from the site including the koala.
- The listed endangered population of the emu is known from the immediate vicinity.
- The site holds important habitat for a high diversity of other species including the echidna, macropods and birds.
- Removal of about 2.84 hectares of native vegetation could be considered significant.
- Potential for fauna road kills along The Gap Road.
- The ability of local fauna populations to recover from further loss following the 2013 fires.

OEH Response:

OEH acknowledges that the Flora and Fauna Assessment by Landmark Ecological Services concludes on pages 19 and 23 that the locality contains known, likely or potential habitat for 31 threatened fauna species and five threatened flora species.

However, the assessment also considers that, with respect to fauna, only 11 species plus the endangered population of emu are considered likely or known to occur on or in the immediate vicinity of the site.

OEH notes the following points in the assessment that are considered to be of particular relevance to fauna:

- *Appendix Three of the Assessment presents an assessment of significance for these species in accordance with Section 5A of the EP&A Act. It concludes that the proposal, including its proposed mitigation measures, is unlikely to have a significant effect on threatened fauna species.*
- *There are no records of the koala within five kilometres of the site and the native vegetation to be removed (regenerating drier Blackbutt and Black She-oak) is not preferred by this species. In contrast the adjacent moist Swamp Mahogany swales and Paperbark forest along Jerusalem Creek which is considered suitable koala habitat will not be affected by the proposal.*
- *After removal of the stockpile, rehabilitation of the site should return the vegetation to that more closely resembling the natural condition, namely coastal heath intersected by wetter Swamp Mahogany swales and Paperbark forest, thereby resulting in an increase in koala habitat in the longer term (refer page 5 of the Assessment).*
- *Swamp Mahogany and Paperbark also comprise habitat for the Wallum Froglet, Olongburra Frog and Common Planigale which should likewise benefit in the longer term from rehabilitation.*
- *The remaining threatened fauna species considered likely or known to occur are those that are highly mobile and range widely throughout the national park and the north coast region. These include microbats, Grey-headed Flying-fox, Little Lorikeet and the Red-backed Button-quail. OEH acknowledges that there may be some short term loss of foraging and roosting habitat for these species in the regenerating Blackbutts and*

disturbed grassland proposed for removal however a number of the largest trees containing hollows are recommended for retention (page 22 of the Assessment) and nest boxes will be installed elsewhere to offset any impact.

- *OEH recognises that individuals of the endangered emu population have been recorded occasionally both in the immediate vicinity of the site and along The Gap Road and it is accepted that the species may wander onto the site at times. However, OEH considers the mitigation measures recommended in the Assessment (page 28) should be sufficient to prevent significant impacts on this species.*

With respect to flora, OEH notes that although 2.84 hectares of Blackbutt and Black She-oak forest is proposed for removal, a number of submissions have suggested that compared to the natural condition of surrounding vegetation, regeneration on site is poor in places with areas of active wind and water erosion apparent and a demonstrated lack of mid-storey species. Other submissions have concluded that existing rehabilitation has proceeded to the point where it is stable, provides habitat for certain fauna and produces sufficient fuel loads to sustain wildfire as evidenced in 2013.

Of the five threatened flora species considered to have potential to occur, four are supported primarily by the moist Swamp Mahogany/Paperbark association that will remain unaffected by the proposal and later increased in extent by rehabilitation.

The remaining species, Heath Wrinklewort, has potential to occur across the site, however detailed surveys have not recorded the presence of any individuals there. This species is known to occur along roadsides elsewhere in the national park where it conceivably benefits from disturbance. It is also thought to be fire-adapted given the fire-prone nature of coastal heath. No impacts are anticipated on this species arising from the proposal as it was not recorded on the site.

OEH may condition the REF determination to ensure that all mitigation measures recommended in the Flora and Fauna Assessment and the REF itself with respect to flora and fauna protection are adopted and complied with should the determination conclude that the proposal can proceed. These are likely to include speed limits, road signage, vegetation trimming to improve visibility, driver education, avoidance of critical movement times, preclearance surveys, retention of hollow bearing trees, protection of Swamp Mahogany and Paperbarks, installation of nest boxes etc. As a relevant mitigation measure, Section 3.11 below provides a discussion of the rehabilitation program in more detail.

OEH does not consider the removal of 2.84 hectares of regenerating native vegetation to be significant compared to the broader area of undisturbed vegetation in the national park particularly given the poor regeneration that has occurred and the erosion apparent across some areas of the site.

Although there may be some short term minor impacts on flora and fauna, OEH considers that, these can be adequately mitigated. In the longer term, this is likely to result in habitats that more closely resemble the original condition in this part of the national park and sustainably support a greater diversity of flora and fauna. This is the main justification for the proposal.

3.7 Future generations and precedents

There were 22 submissions about the potential impact of the proposal on future generations (five comments) and the precedents that approval of this activity may have for other mineral sand stockpiles (approx. 30) in national parks on the north coast (17 comments).

The submissions contend that the activity is mining and should be banned from national parks for the sake of future generations and that any approval in this instance could allow similar activities in future that do not benefit the taxpayer or the environment.

One submission demands that the NSW government provide an unequivocal guarantee that similar proposals will not be allowed in national parks in the future. Others allege that the NPWS is not protecting the park for the Australian people.

OEH Response:

OEH acknowledges and appreciates that the proposal has resulted in responses and appeals from a large number of people about precedents. These appear to be directed towards general concerns about the environment as much as they are towards the proposal in particular.

The aim of the proposal is to improve the environment for future generations in the long term and one role of the REF is to ensure this aim is justified and adequately assessed. While there may be a number of short term adverse impacts, it is expected that an improvement in the biodiversity values of the area is likely to be achieved for the benefit of future generations.

With respect to any precedents that may be set, future proposals will be considered by the NPWS on their individual merits in accordance with the statutory requirements and processes applying at the time. It is beyond the scope of this REF to pre-empt the findings of any further proposals that may arise.

The issue of mining has been addressed in section 3.1 of this Submissions Report.

3.8 Public amenity

There were 19 submissions raising 22 concerns about public amenity and visual amenity. These concerns related to potential impacts on:

- Tourism to Bundjalung National Park and on existing or potential indigenous tourist ventures based in the Black Rocks area.
- Inconvenience and degradation of experiences for campers at Black Rocks Camping Ground through road closures and noise or dust.
- Access for fishermen.
- Interruption to passive recreation such as bushwalking and cycling inside the park.
- Interruption to leisure pursuits off park along The Gap Road such as horse riding.
- Visual amenity due to the removal of native vegetation both at the rehabilitation site and along The Gap Road for safety, the scarring of the horizon visible from the camping ground, the sealing of The Gap Road increasing traffic levels and the presence of works compounds etc. close to the entrance road and Jerusalem Creek bridge.

OEH Response:

OEH acknowledges there may be some short term adverse impact on public and visual amenity. However, mitigation measures such as restricting the proposed works to dates and daily times outside peak visitor usage and implementing conditions relating to truck movements, noise reduction and dust suppression should minimise such impacts.

It is not envisaged that any prolonged periods of national park closure will be required to implement the proposal although it is possible that some temporary road closure inside the national park may be necessary while earthmoving equipment is brought to the site. Consequently OEH considers that the impacts of the proposal on access to the camping ground and/or for fishermen or tourist ventures to the park should be minimal.

Management of traffic along The Gap Road outside the national park is the responsibility of the Richmond Valley Council but may be influenced by the requirements of the RMS

associated with the Pacific Highway upgrade or the NPWS inside the national park by virtue of any relevant REF conditions.

In the short term visual amenity could be reduced both from the road and from a distance as the stockpile is cleared of vegetation and reduced in height. However, in the longer term rehabilitation should result in a return to the natural undisturbed coastal heathland condition and a permanent improvement in visual amenity.

OEH accepts there may be a reduction in the visual experience resulting from the necessary removal of vegetation along The Gap Road to improve road safety inside the national park. However, although this will be minimised, it cannot be avoided if the proposal proceeds since road safety must be addressed both inside and outside the national park. Further, the OEH is unable to require the removal of vegetation or otherwise outside the national park boundary.

As discussed earlier, bitumen sealing of The Gap Road within the national park will not occur under the conditions of this REF and OEH is unable to require this on public roads outside the national park boundary.

3.9 Consultation

There were 22 submissions expressing concern about inadequacies in the OEH/NPWS REF consultation process. These concerns related to:

- Non-appearance of the NPWS staff at public meetings convened by the Contractor.
- Follow up public meetings with the Contractor did not eventuate.
- Failure of the NPWS to circulate CDs containing the REF and supporting documents until after exhibition had started.
- The timing of exhibition near Christmas made consideration of the contents of the REF difficult within the exhibited timeframe.
- Difficulty in contacting the nominated OEH officers in the exhibition advertisement.
- Inability to gain details of individual contact addresses from OEH including the local National Parks Regional Advisory Committee.
- The need for ongoing consultation with local residents as the work proceeds.
- Consultation via the media.

OEH Response:

OEH acknowledges there were some difficulties with the exhibition and public consultation process for the proposal and the REF documents. Although there is no mandatory requirement for OEH to exhibit REFs, it has a policy to do so where a proposal is contentious or has potential to impact on local communities. Nonetheless, in response to community concerns OEH extended the period for exhibition to cover a period of 68 days. This is well in excess of normal exhibition times for such proposals unless they are designated under the EP&A Act and/or require an Environmental Impact Statement.

OEH is required to comply with Information Protection Principles set out in the Privacy and Personal Information Protection Act 1998 relating to the collection, storage, access, amendment, use and disclosure of personal information. OEH advises that it is unable to divulge the identity or address of people making submissions about this REF.

Requests for copies of individual submissions may be made under the Government Information (Public Access) Act 2009 (GIPA Act). However, the consent of submission authors is usually required prior to any public release of submissions.

The list of stakeholders in Section 1.1 of this report was developed in consultation with NPWS and is considered adequate. A total of 95 valid submissions were received and 43 issues/themes were raised. This suggests that consultation was sufficient to adequately

canvas the community's views and inform the determination of the REF. Consequently although the remaining concerns above are acknowledged, resolution of them is considered beyond the scope of the REF determination and is unlikely to have affected the overall outcome of the consultation process as summarised in this report.

OEH will consider whether REF conditions should be imposed to require ongoing consultation between the NPWS, the Contractor and the local community as is acknowledged in the REF Communications Plan, should the proposal proceed.

3.10 Radiation and contamination

There were 18 submissions relating to the potential radioactivity of the site and its impact on public health. These submissions referred to:

- The fact that three independent studies by acknowledged experts have concluded that, although the site is slightly radioactive, levels are below those recommended by State and Australian legislation as triggers for public health consideration.
- Radioactivity levels are therefore not sufficient justification for the proposal proceeding and it should be rehabilitated in situ. It does not detract from natural values.
- If the site was sufficiently radioactive to trigger public health concerns why the public and local users weren't notified of this by government authorities a long time ago? Can the government guarantee people including long term visitors and children playing on the dune and in Jerusalem Creek have not been exposed?
- The levels are still above background levels in some samples and so the sand should be removed as a precaution.
- Both the NPWS and the EPA reports conclude the sand is not regarded as a hazard to public health and does not need to be dealt with as contaminated material. So why remove it?
- Moving the sand could result in inhalation by workers and local residents of alpha particles through dust inhalation. Protective measures will be required.
- There are some samples holding thorium and uranium that exceed public health exemption criteria. There is a risk that needs to be managed, for example, by individual monitoring badges.
- The area of most concern near the creek will not be moved but it is not visited by the public in any case.
- There needs to be independent auditing and monitoring of the radioactivity levels as the proposal proceeds under s105 of the *Contaminated Land Management Act 1997* (CLM Act).

OEH Response:

OEH acknowledges that all studies into radioactivity on site have concluded that average levels do not constitute a hazard to public health and that radiation levels do not appear to adequately justify the proposal as originally suggested in the Plan of Management for the national park.

The Environment Protection Authority has advised OEH that regulation of radiation under the NSW Radiation Control Amendment Act 2010 (RCA Act) and of contaminated soils under the POEO Act 1997 and CLM Act 1997 would not be required.

However, according to the Radiological Report, there are some radiation hot spots within the stockpile that do exceed relevant State and Australian public health exemption criteria. These should be diluted within non-radioactive sands and removed given the proposal may be justified for other reasons such as returning the area to its natural state and achieving long term biodiversity gains.

In any case, OEH considers a precautionary approach to potential radioactivity is prudent as there may be some potential for levels to be greater at depths beyond the current sampling even though a low level of radioactivity is known to be present towards the surface. Consequently OEH may impose REF determination conditions that reflect the mitigation measures provided in the Radiological Assessment.

These measures may include active dust suppression, use of personal protection equipment by workers, covering of truck loads, wash down of vehicles and dilution of radiation hot spots. OEH may also require ongoing monitoring of radiation levels throughout the stockpile as work progresses and the use of cumulative dose meters on site workers and truck drivers.

Should levels be shown to be increasing towards legislative triggers provided in the National Directory for Radiation Protection 2011 published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the RCA Act, work may be deferred and an independent audit of results implemented. If confirmed, the Environment Protection Authority would be contacted to obtain further advice and any licencing requirements. This could involve conditions relating to the tracking of truck loads and limits on exposure times for onsite workers and drivers. An EPA approval to restart work may also be needed.

With regard to the removal of sands in the immediate vicinity of Jerusalem Creek, OEH agrees that this would be desirable and consistent with the aims of the proposal. However, the REF determination may need to carefully weigh this up against the potential for adverse impact on other environmental values such as downstream water quality, threatened flora and fauna and habitat for the endangered Oxleyan Pygmy Perch (refer Section 3.21 below). OEH has also been advised by the NPWS that a contract variation may be required to accomplish this. It is likely that work associated with the proposal will not be permitted in the immediate vicinity of Jerusalem Creek.

OEH is unaware of any evidence that radioactivity levels in the stockpile or anywhere else in the park have affected public health.

3.11 Rehabilitation and ecosystem function

There were 14 submissions raising 16 comments about rehabilitation and restoration of ecosystem functioning. These comments related to:

- The site is degraded and current rehabilitation is not successful. A number of rehabilitation measures will be required.
- The site is rehabilitated and its removal will impact on current ecosystem functioning.
- Revegetating of clean sand used as capping could be difficult.
- How can the original condition be re-established given the REF states that this is unknown?

These comments appear to relate to the perception that previous efforts to rehabilitate sand mining along the north coast by mining companies have met with varying success and that earlier efforts were more directed towards soil stabilisation using non-endemic species than towards restoration of the natural condition.

OEH Response:

OEH notes that some comments suggest rehabilitation using current best practice is required whereas other suggest disruption of current ecosystem functioning is unwarranted.

OEH considers that current best practice, albeit requiring additional effort and follow up, has potential to result in better long term outcomes when applied to existing sites of disturbance or those subject to previous efforts that were not adequately monitored and followed up.

Whilst the 'original' condition of the area before sand mining can probably never be truly recreated, OEH considers that detailed comparison of undisturbed vegetation associations in close proximity to the proposed site can provide the best guide to the ideal soil and drainage profile and native species to be used in establishing a return to the natural land form in the area. This is expected to benefit a greater diversity of flora and fauna in the long term than is currently present on site despite the latter now providing some ecosystem function that is somewhat artificial due to the elevation and soil profile of the stockpile.

The above approach is reflected in the Ecological Restoration Plan prepared by Tein McDonald and Associates and OEH may require the procedures and protocols it recommends to be implemented via the REF determination conditions if the proposal proceeds. One of these procedures requires mixing clean sands with existing topsoils within the site to promote revegetation of the capping material.

In addition to these measures, OEH may require specific timeframes for rehabilitation over two years and monitoring over five years and a statement of funding commitment over this timeframe to be supplied by the contractor to, and agreed with, the NPWS.

3.12 Jerusalem Creek and wetlands

There were 12 submissions providing 13 comments on the potential impact of the proposal on the adjacent Jerusalem Creek and wetlands. These comments related to:

- Erosion and contamination from stormwater runoff and wash down water.
- Erosion and runoff is already apparent and impacting adversely on the creek.
- Leaching of pollutants through the sand into the water table below.
- Behaviour of flood waters and changes to flow patterns through the site.
- Use of water within the creek to control dust both on site and along the road.
- Release of radioactivity and waste hydrocarbons into the creek and wetlands.
- Use of more effective sediment and erosion control measures.
- Spread of weeds.
- The proposal intends to leave ilmenite sand in the vicinity of the creek anyway.
- Hydrology of nearby open heath will be affected.

It is noted that three submissions have mentioned that erosion and stormwater runoff from the stockpile occurs at present and is uncontrolled thus contributing to continued sedimentation of the creek. This is exacerbated by occasional flood waters in the creek distributing sediments further downstream.

In contrast, most submissions consider that the proposal has potential to make things worse particularly since it is proposed to leave the heavier ilmenite sand nearest to the creek in place where it can continue to slump under its own weight.

OEH Response:

OEH acknowledges the high conservation value of Jerusalem Creek and the adjacent wetlands and heaths and that a major aim of the proposal is to halt any further deterioration of these values in the longer term. This is one of the justifications for the proposal but there may be short term environmental risks. The REF Operations Plan (pages 13 and 14) recommends a number of mitigation measures to minimise these risks.

These measures may be imposed by OEH under specific REF determination conditions should the determination conclude that the proposal can proceed and could include:

- *Use of covering mulch, installation of erosion and sedimentation control devices.*
- *Proactive monitoring and maintenance of these devices.*

- *Sampling for acid sulphate soils.*
- *All storage of fuels for onsite plant to be via mobile tanker.*
- *All refuelling of trucks to be off site.*
- *Timely removal of waste materials.*

Despite the REF proposing to source water from a spear point within the national park, OEH will not allow water to be obtained for the proposal from within the national park boundaries without the approval of the NPWS Richmond River Area Manager.

In addition to the measures identified in the REF, OEH may require the following:

- *Evidence submitted to the NPWS of any approvals needed for water sourced from outside the national park.*
- *Use of formalised vehicle wash down facilities.*
- *Additional use of geotextile fences in the vicinity of the creek and other relevant measures recommended by the Department of Primary Industries (Fisheries).*
- *Final landform to reflect original contoured flow paths and flood behaviour.*
- *Sedimentation and radiation monitoring stations to be established downstream along Jerusalem Creek with baseline data to be established to allow comparison and early detection of any deterioration in water quality.*

OEH appreciates the potential for impacts on the local water table. OEH considers removal of the stockpile would reduce the impact of any existing pollutants entering the water table although the actual volume of water may be relatively unaltered given the surface area for rainfall is much the same. Consequently surface hydrology is unlikely to be affected.

As the underlying 'coffee rock' acts as a barrier to surface water moving into deeper aquifers it is considered unlikely that the hydrology of nearby heaths will be affected. However, it should be noted that it is currently unknown to what depth the stockpile extends below the natural surface or to what extent the coffee rock layer has been disturbed previously by sand mining. Compared to previous activities, the impact on the local hydrology from the proposal is considered to be insignificant. However, as a precaution, OEH may require further investigation and consultation with NPWS and EPA should the stockpile extend below ground level as is acknowledged in the REF (page 25).

As discussed in Section 3.10 of this Submissions Report, the OEH will carefully consider the merits of removing the ilmenite sand from the immediate vicinity of Jerusalem Creek but it is likely that work associated with the proposal will not be permitted in the immediate vicinity of the creek.

3.13 Financial bond, budgets and timeframes

There were 10 submissions providing 13 comments relating to the imposition of a financial bond, the budgetary allocations and the proposed timeframes for the proposal. Detailed concerns were as follows:

- *What happens if the proposed works cease due to changes in economic circumstances?*
- *Did the NPWS perform a financial diligence test on the successful tenderer?*
- *An audit of the allocated budget for each component of work including rehabilitation is needed.*
- *A substantial financial bond is required to cover rehabilitation costs in the event the contractor ceases operation.*
- *The timeframes for the work are unclear and could extend to five years under the contract. This could allow the Contractor to defer work to take advantage of increasing ilmenite prices but also prolong impact on local residents.*

OEH Response:

These concerns are outside the scope of the REF determination. However, it may be appropriate that these matters are considered by the NPWS as part of its approval for works under the NPW Act and the NPW Regulation should the determination conclude that the proposal can proceed, and/or in the signing of the contract.

NPWS has not required a financial bond or bank guarantee as a condition of the contract.

Removal of the stockpile and remediation of the site in the national park will be undertaken by the Contractor at no financial cost to the NSW Government.

In accordance with the timeframes set out in the REF (pages 24 – 27) and consistent with the contract, OEH may require the removal of sand to be generally completed within two and a half years and for rehabilitation work, apart from ongoing maintenance and monitoring, to be commenced progressively as soon as practicable and completed within another three years.

OEH appreciates the desirability to limit the inconvenience caused to residents along The Gap Road. While managing the impact on residents is outside the scope of the REF, it is desirable from an environmental perspective to ensure the removal occurs as quickly and as safely as possible should the determination conclude that the proposal can proceed.

3.14 Governance and process

There were 12 submissions relating to governance and the legislative approval process followed by the NPWS and the OEH. The concerns raised related to:

- The need to readvertise the REF for transparency in accordance with normal statutory timeframes if substantial amendments are made to the proposal.
- Exhibition timeframes.
- Perceived government corruption should be investigated. Appearance of pressure being applied to approve because of private profit.
- Conflict of interest between the NPWS as the proponent and OEH ROG as the determining authority could lead to an appeal.
- Should be referred to an independent authority to determine.
- Should be assessed under Part 3A of the EP&A Act as a major project and exhibited as such given there are more than 25 objections and it is considered contentious.
- A belief that the national park is false and is incorrectly named.
- The REF documents are prepared by the Contractor.

OEH response:

Most of these concerns do not fall within the scope of REF considerations relating to potential environmental impact.

The REF will be determined under Part 5 of the EP&A Act. The OEH, as the responsible land management authority for national parks, is the determining authority by law and this power cannot be delegated to independent parties.

It is not uncommon for public authorities to require the preparation of REF documents by suitably qualified outside parties.

Although a national park could be considered as an 'environmental area of State significance' under the State Environmental Planning Policy (State and Regional Development) (SEPP) 2011, the proposal does not satisfy the criteria for State Significant Development (Schedule 1). This is because it is not considered mining (refer Section 3.1 of this Submissions Report) or an extractive industry (500,000 tonnes per annum), does not

have a capital investment value exceeding \$30 million and will not remove in excess of 100,000 tonnes of 'waste' per annum. The OEH concludes that neither Part 3A nor the SEPP apply to the proposal.

3.15 Aboriginal cultural heritage

There were 13 submissions relating to potential impact on Aboriginal cultural heritage. Comments raised were as follows:

- The original owners of the land understand responsibility. A lot of white fellas do not.
- There is no respect for 'mother earth'.
- Consultation appears incomplete. Were Elders and custodians informed?
- Black Rocks area is very special and sacred.
- Do not disturb the ancestors who are still there, there could be consequences.
- A strong local Aboriginal community will prevent the proposal proceeding.
- The national park is named after the Aboriginal people in the area.
- Some Aboriginal entities do not oppose the proposal provided recommendations of the Aboriginal cultural heritage assessment including enforcement are adopted.
- Proposal is unacceptable in a park with exceptional Aboriginal cultural heritage values.
- Employment of local Aboriginal people is overstated.
- Impact on Aboriginal tourism ventures at Black Rock.
- The national park and the native title over it are false.

OEH Response:

OEH is aware of the importance of the area and the national park in general to Aboriginal people and celebrated the declaration in 2013 of Native Title across most of the national park with the determinants.

According to the Aboriginal Cultural Heritage Assessment prepared by J P Collins (Consultant Archaeologist) consultation with the local community was undertaken in accordance with the OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.

In the case of Native Title areas, consultation is required with the Prescribed Body Corporate and consequently was conducted in conjunction with the Directors of the Bandjalang Aboriginal Corporation (the Prescribed Body Corporate) and the Native Title Services Corporation. These corporations coordinated the consultation process with the family members in accordance with OEH requirements.

The consultation and field inspection concluded that:

- *The area of most significance to the Aboriginal people occurs in the vicinity of Black Rocks which will be unaffected by the proposal.*
- *The sand stockpile proposed for removal and the land on which it sits are already heavily disturbed by previous sand mining and are unlikely to contain Aboriginal objects.*
- *The proposal is a positive step towards returning the area to its traditional natural condition.*

OEH also notes that a number of submissions referred to content that is outside the scope of the REF to assess. There appears to be divergence in views with some Aboriginal groups expressing support for the proposal and some individuals that oppose it.

OEH supports the conclusions of the assessment completed by J P Collins and may include its recommendations in any REF determination conditions should the determination conclude

that the proposal can proceed. These may include relevant cultural induction of workers, precautionary stop work conditions and avoiding impact on the Black Rocks area.

OEH considers impact on tourism ventures in the Black Rocks area would be minimal since the proposal will be halted during peak visitation times (refer Section 3.8 of this Submissions Report).

3.16 Plan of Management

There were 11 submissions providing the following comments on the Plan of Management for Bundjalung National Park that was adopted in August 1997.

- The Plan is twenty years old and seriously out of date. It fails to acknowledge the extent of regeneration that has occurred since it was written and the increase in traffic volumes along The Gap Road.
- The Plan is being followed by the NPWS contrary to more recent assessments recommending the sand be left *in situ*.
- Why has NPWS ignored the 2002 Earth Sciences assessment?
- Environmental impacts have changed and sustainability principles including adaptive management are better understood these days.
- The Plan fails to reflect current day attitudes towards the environment and previous reviews of it have been 'rubber stamped'.
- The 1997 Plan lists the proposal as low priority and does not provide a meaningful justification for it.
- The local Regional Advisory Committee recommends the Plan should be updated.

OEH Response:

OEH accepts that the Plan of Management for the national park states that the removal of the stockpile is of low priority due to its remoteness and low levels of radioactivity.

*However, one of the reasons for the 2002 Earth Sciences assessment concluding that the stockpile should remain *in situ* was because at that time it was not financially viable for external contractors to remove it with minimal cost to government because of depressed prices for Ilmenite. This appears to no longer be the case.*

Further consideration of these factors is outside the scope of the REF in assessing the environmental impact of the proposal. However, they are matters that may be considered by the NPWS as part of its approval should the determination conclude that the proposal can proceed, and as part of the NPWS tendering/contract process. These matters will be forwarded to NPWS accordingly.

3.17 Public relations

There were eight submissions referring to public relations matters associated with exhibition of the REF. These related to:

- The possibility of sustained and vocal protests if the proposal proceeds from the Aboriginal community, local families and others from near and far who use the park.
- Media campaigns and road blockades.
- Emotive appeals for the proposal to be abandoned.
- Threats of legal action on the Contractor's website.
- Proposal is a political and public relations nightmare.

OEH Response:

These matters do not directly relate to the scope of the REF which is to provide an assessment of the impact on the environment. OEH will notify NPWS of the matters raised.

3.18 Road maintenance

Eight submissions referred directly to commitments towards road maintenance and responsibility for enforcement of approval conditions. Matters raised include:

- The Gap Road is unsuitable for large trucks and will require substantial works to ameliorate the situation.
- The road is narrow with many blind corners, steep shoulders, potholes, corrugations and narrow bridges.
- The intersection with the Pacific Highway is unsuitable.
- The Korinderie Ridge entrance is concealed.
- How will speed limits be enforced? Real time GPS monitors should be used.
- Will police enforce road rules?
- Truck passing bays should not be adjacent to private driveways.
- Trucks should not use school bus bays, especially that at the Pacific Highway intersection.
- Who maintains the road, the NPWS and/or the Richmond Valley Council?
- Truck drivers must be held accountable.
- The Gap Road should be sealed to reduce future maintenance issues and improve safety.

OEH Response:

OEH may require implementation of all the maintenance and regulatory amelioration measures recommended in the Ilmenite Stockpile Haulage Traffic Safety Plan inside the national park should the determination conclude that the proposal can proceed. These measures may be sufficient to address road maintenance and safety requirements therein.

However, OEH is unable to implement or directly regulate the maintenance recommendations relating to the Council controlled road outside the national park boundary. Although REF determination conditions may indirectly mitigate road maintenance impacts outside the national park, the maintenance of roads outside the national park is beyond the jurisdiction of OEH in administering the NPW Act and NPW Regulation.

Enforcement of road rules on all public roads is the responsibility of the Police and the RMS.

OEH will ensure that any issues raised by the Council and the RMS and in the Ilmenite Stockpile Haulage Traffic Safety Plan that apply to the impacts of the proposal on road maintenance and road safety within the national park are addressed where possible by conditions imposed by the REF determination for work inside the national park, should the determination conclude that the proposal can proceed.

Sealing of the road within the national park is not proposed as part of this proposal.

3.19 Monitoring and complaint process

There were six submissions dealing directly with monitoring and the complaints process as follows:

- Proposed monitoring is insufficient to detect deleterious impacts and baseline data is lacking.

- How is dust to be monitored outside the park?
- The complaint process is inadequate. Who are complaints sent to? How are trucks identified?
- Are complaints kept confidential?
- Will the results of monitoring be made public?
- Who will monitor truck compliance with approval conditions?
- Self-monitoring of compliance is unacceptable and it is beyond the resources of the EPA/NPWS to monitor such activities across the state. There is no reference to the use of independent environmental monitoring or auditing.
- Adequate monitoring will be expensive.

OEH Response:

Effective monitoring of the proposal is essential and it is noted that the Environment Management Plan (EMP) (page 3) commits to continual improvement including monitoring and review of performance. OEH may ensure that this commitment is reflected in appropriate REF conditions should the determination conclude that the proposal can proceed.

Although Table 2 of the Environmental Management Plan (page 36) provides some detail of the monitoring proposed, more specific requirements may be imposed under REF determination conditions with respect to baseline data and any subsequent timeframes for collection. These may include issues such as noise and dust on-park. Trucks will be identifiable using their registered number plates and by comparison to travel logs kept by law and referred to in the Work, Health and Safety Plan (WHSE 018).

The REF (page 20) commits to the implementation of a complaints register and investigation system and Section 5 of the Work Plan and page 9 of the Environmental Management Plan and Table 2 (page 36) identify relevant factors to be considered. Table 2 also identifies the Work Manager, Project Manager and OEH principal as the responsible contact. Contact details are provided in the Communications Plan.

While the Work, Health and Safety Plan provides a number of templates to be used in documenting various aspects of the proposal, it is noted that WHSE12 – Consultation (as referred to in Table 2 for investigation and complaints about significant environmental events) appears to relate to employees only.

Consequently, OEH may require a specific confidential complaints register to be kept at the NPWS office in Alstonville. The NPWS Richmond River Area Manager would be required to liaise weekly with the Contractor or more frequently if complaints raised require more urgent resolution.

As acknowledged in the EMP, the results of monitoring by the Contractor and any incident reports would be submitted to NPWS at any time as required. NPWS may also be able to use independent auditors or monitors if considered necessary due to resourcing restraints or for other reasons. However, this may require negotiation of a contract variation where additional costs are involved.

A REF determination condition may require a monitoring review report to be submitted by the Contractor to NPWS at particular intervals and to be discussed with the local community as part of the commitment to regular and ongoing consultation.

3.20 Greenhouse gas

Five submissions questioned the impact on greenhouse gases the proposal would have through the emission of truck and plant exhausts as follows:

- The REF does not discuss the impact on greenhouse gas over the next three to five years.
- Have relevant studies been conducted about the impact of innumerable trucks travelling 600 kilometres to Brisbane and back?
- The emissions by the ships conveying the sand to China should be also considered.
- This conflicts with claims that the Contractor supports ecologically sustainable development.
- What additional impact does the processing of sand overseas have?
- The sands should be processed in Australia.

OEH Response:

The REF does not address the impact of greenhouse gas emissions caused by the exhaust emissions from trucks and machinery. However, these are likely to be negligible in the context of other machinery and trucks both travelling along the Pacific Highway and associated with the Pacific Highway upgrade. The OEH acknowledges the relevance of this issue to an assessment of environmental impact but notes that many of the issues raised are beyond the scope of the REF.

3.21 Oxleyan Pygmy Perch

Two submissions have raised the potential for the proposal to impact the Oxleyan Pygmy Perch which is listed as endangered under the NSW *Fisheries Management Act 1994* (FM Act).

- There is no test of significance (seven-part test) under the EP&A Act provided in the REF as there is for other threatened fauna.
- The Flora and Fauna Assessment does not consider this species.
- Additional mitigation measures may be needed to protect the habitat for this species especially during the breeding season.
- There is potential for the site itself to support this species under the re-establishment of appropriate hydrology and riparian flow paths.

OEH Response:

Although it has been mentioned briefly on page 10 of the REF, the proposal will not directly or indirectly impact habitat for the Oxleyan Pygmy Perch as the mitigation measures and exclusion zones for the activity will avoid such habitat. Under these circumstances, an assessment of significance under Section 5A of the EP&A Act is not required for this species.

3.22 Historic heritage (mining)

There were two submissions suggesting that the stockpile site should either be left *in situ* and/or interpreted with respect to historic heritage as it represents one of the earliest examples of commercial sand mining in NSW.

OEH Response:

OEH appreciates the history associated with sand mining in Bundjalung National Park and acknowledges submissions suggesting that a portion of the site should be set aside, developed for visitor amenities and interpreted as an example of the contemporary history of the park. Given the proposal, the site may also have potential to demonstrate how best practice rehabilitation of such areas can be successfully achieved.

OEH will discuss the proposal to document the history of the site with NPWS.

3.23 Other approvals

Two submissions asked whether federal export approvals were required for this proposal and whether it was economically feasible to process the sand locally in Australia.

OEH Response:

These matters are outside the scope of the REF determination.

Section Four: Submissions that were neutral or in favour of the proposal

There were nine neutral submissions and three submissions in favour of the proposal. Apart from those simply requesting additional information or additional time to respond, these submissions were conditional on consideration of the following recommendations.

- Adequate control of stormwater and sedimentation in Jerusalem Creek.
- Protection and enhancement of habitat for the Oxleyan Pygmy Perch.
- Removal of sand with high radioactivity levels above background.
- Protection of riparian rainforest along Jerusalem Creek.
- Further safeguards relating to the management of radioactivity per JRHC technical note.
- The removal of sand completed within three years.
- Commencement of restoration work if work is delayed for longer than three months.
- A requirement for a significant financial bond.
- Further truck movement mitigation including GPS and use of convoys.
- More effective engagement with the local community.
- A categorical assurance from government that the proposal does not set a precedent.
- The Plan of Management to be updated.
- External auditing of management and site conditions.
- Compliance with the recommendations of the Aboriginal Cultural Heritage Assessment.
- Safety concerns raised in an inspection of The Gap Road by residents and Council are addressed.

OEH Response:

These matters are noted and will be addressed in the REF determination where relevant.

Section Five: Next Steps

The issues raised by each submission have been identified, categorised and responded to by OEH in this Submission Report. OEH will also consider these matters in its determination of the REF for the proposal.

A copy of this Submissions Report will be made available on the OEH website once the proposal has been determined.