

Ms Joanna Russell
Holcim Australia
Unit 1 18 Brodie-Hall Drive
BENTLEY WA 6102

Your Ref:
Our Ref: CMS15306
Enquiries: Ben Miles, 6145 0800
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Dear Ms Russell

NOTICE UNDER SECTION 39A(3)
Environmental Protection Act 1986

PROPOSAL: Jandabup Sand Operation Mining Proposal
LOCATION: Hawkins Road Jandabup - City of Wanneroo
PROPONENT: Holcim Australia
DECISION: Not Assessed: Public Advice Given

The Environmental Protection Authority (EPA) understands that you wish to undertake the above proposal which has been referred to the EPA for consideration of its potential environmental impact.

This proposal raises a number of environmental issues. However, the overall environmental impact of the proposal is not so significant as to require assessment by the EPA, and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the *Environmental Protection Act 1986*. Accordingly, the EPA has determined not to assess this proposal.

Nevertheless, the EPA has provided the attached advice to you as the proponent, and other relevant authorities, on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 29 February 2016, during which, on payment of the appeal fee, an appellant may ask the Minister to consider directing the EPA to reconsider this decision or conduct a formal assessment.

Information on the outcome of the appeals process is available through the Appeals Convenor's website, www.appealsconvenor.wa.gov.au, or by telephoning 6467 5190 after the closing date of appeals.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Sutton', with a horizontal line extending to the right.

Anthony Sutton
Director
Assessment and Compliance Division

Delegate of the Chairman of the Environmental Protection Authority
Under Notice of Delegation No. 33 published 17 December 2013

15 February 2016

Encl: Public Advice

**PUBLIC ADVICE UNDER SECTION 39A(7)
ENVIRONMENTAL PROTECTION ACT 1986**

JANDABUP SAND OPERATION MINING PROPOSAL

Summary

Holcim (Australia) Pty Ltd proposes to develop a sand quarry on tenements M70/1248 and M70/1250, located in Jandabup north of Perth, approximately 8 km north east of Wanneroo and within the Local Government Area of Wanneroo (Attachment 1). The site falls within the Gnangara Pine Plantation, which has been progressively harvested since 2003 until the current time. The site is in a cleared state from a recent harvest of pine. The project site is on the Gnangara Mound within the Gnangara Underground Water Pollution Control Area and is a Priority 1 Public Drinking Water Source Area (PDWSA). The proposal would have a project life of approximately 25 years with a total disturbance footprint of 357.8 hectares (ha). The development envelope which shows the maximum limit of excavation provided for in the proposal referred is shown in Attachment 1.

The proposal was advertised for public comment and the Environmental Protection Authority (EPA) notes that one public comment was received. The submission requested the proposal be assessed through a public environmental review process to ensure matters relating to groundwater impacts, heritage and fauna species/habitat protection were addressed.

The EPA has considered the proposal in accordance with the requirements of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*. In making its decision on whether to assess the proposal, the EPA considered the 10 aspects of the significance test as set out in clause 7 of the *Environmental Impact Assessment Administrative Procedures 2012*:

1. values, sensitivity and quality of the environment which is likely to be impacted;
2. extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;
3. consequence of the likely impacts (or change);
4. resilience of the environment to cope with the impacts or change;
5. cumulative impacts with other projects;
6. level of confidence in the prediction of impacts and the success of proposed mitigation;
7. objects of the Act, policies, guidelines, procedures and standards against which a proposal can be assessed;
8. presence of strategic planning policy framework;
9. presence of other statutory decision-making processes which regulate the mitigation of the potential effects on the environment to meet the EPA's objectives and principles for EIA; and
10. public concern about the likely effects of the proposal, if implemented, on the environment.

In considering the potential direct and indirect impacts of the proposal on Inland Waters Environmental Quality, Flora and Vegetation, and Rehabilitation and Decommissioning, the EPA has had particular regard to:

- advice from Department of Water (DoW) noting that the land use is compatible with the priority 1 public drinking water resource area;
- the mitigation strategies proposed by the proponent in the Water Management Plan for the proposal. Key strategies included but not limited to:
 - excavation depth is limited to 3m above maximum groundwater level;
 - all hydrocarbons (grease, fuel, oils and lubricants) will be contained within bunds according to the requirements of Australian Standard 1940; and
 - a mine closure plan consistent with the Department of Mines and Petroleum (DMP) and EPA guidelines,
- the impacts to flora and vegetation, which are not likely pose a significant impact due to:
 - the development envelope occurring in a previously cleared pine plantation;
 - future rehabilitation of the site in accordance with Department of Parks and Wildlife requirements; and
 - a 50 m buffer to Bush Forever Sites.
- The impacts to amenity in the form of noise and visual amenity, which are not likely to pose a significant impact due to:
 - the development envelope for the proposal which includes a suitable buffer to residential areas;
 - the presence of vegetation in the buffer to screen the site; and
 - the cumulative noise assessment for the site which met the requirements of the *Environmental Protection (Noise) Regulations 1997*,
- the site having been previously identified in the Draft Perth Peel Green Growth Plan (2015) as a site for future raw material extraction.

In summary, although the proposal raises a number of environmental issues, the EPA considers that the likely environmental effects of the proposal are not so significant as to warrant formal assessment. The EPA is of the view that the potential impacts of the proposal can be adequately managed by the proponent's mitigation and management measures.

It is also noted that other statutory processes can be used to regulate and implement the mitigation and management measures in the referral documentation, including the requirement to have approval to clear vegetation through a Part V Division 2 Clearing Permit and the development of a Mining Proposal under the *Mining Act 1978*. The requirements of the *Metropolitan, Water Supply, Sewerage and Drainage Act 1909* and planning processes associated with the Gngangara Underground Water Pollution Control Area would also apply to this proposal.

1. Environmental Factors

Based on the proposal activities and the potential environmental impacts, the EPA has identified the following preliminary environmental factors relevant to this proposal:

- a) Inland Waters Environmental Quality;
- b) Flora and Vegetation;
- c) Amenity (noise and visual); and
- d) Rehabilitation and Decommissioning.

There were no environmental factors, including the interaction between the environmental factors, that were determined to have significant environmental impacts that would require formal assessment under Part IV of the EP Act. The EPA considers that the mitigation of the potential effects on the environment can be regulated by other statutory decision-making processes and through the implementation of proponent commitments and best practice measures in accordance with this advice.

2. Relevant Policy and Guidance

The EPA has given due consideration to the following relevant published EPA policies and guidelines, noting that other published policies and guidelines pertaining to this proposal were considered but not determined to be relevant:

a) Inland waters environmental quality

- Guidance Statement (GS) 33 – *Environmental Guidance for Planning and Development*, May 2008, Environmental Protection Authority Western Australia

b) Flora and Vegetation

- Guidance Statement (GS) 10 – *Level of Assessment for Proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 region*, June 2006, Environmental Protection Authority Western Australia
- Guidance Statement (GS) 51 – *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*. June 2004. Environmental Protection Authority, Western Australia.

c) Amenity

- Environmental Assessment Guideline (EAG) 13 - *Consideration of environmental impacts from noise*, September 2014, Environmental Protection Authority Western Australia
- Guidance Statement (GS) 3 - *Separation Distances between Industrial and Sensitive Land Uses*, June 2005, Environmental Protection Authority Western Australia

d) Rehabilitation and Decommissioning

- *Joint Guidelines for Preparing Mine Closure Plans (EPA/DMP)*, May 2015, Department of Mines and Petroleum and Environmental Protection Authority Western Australia

- Guidance Statement (GS) 6 – *Rehabilitation of Terrestrial Ecosystems*, June 2006, Environmental Protection Authority Western Australia
- Environmental Protection Bulletin (EPB) 19 – *EPA involvement in mine closure*, July 2013, Environmental Protection Authority Western Australia

3. Advice and Recommendations regarding Environmental Issues

a. Inland Waters Environmental Quality

The EPA's objective for this factor is to maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected.

The project area is located in a Priority 1 (P1) PDWSA within the Gnamangara Underground Water Pollution Control Area. Wellhead protection zones (WHPZ) are also located within the proposal area.

Consistent with GS 33 the EPA has identified and received advice from the DoW a key decision making authority regarding the PDWSA. DoW has advised that P1 PDWSA are defined to ensure there is no degradation of the water resource, and are managed consistent with the principle of risk avoidance. Under the Gnamangara Land Use and Water Management Strategy and State Planning Policy 2.2 *Gnamangara Groundwater Protection*, mineral exploration and extractive industries (including sand quarries) are considered a compatible land use in P1 areas provided the suitable conditions are applied to the proposal to protect the water resource.

The DoW recommends that a Water Management Plan (WMP) be prepared as a condition of mining to support the mining proposal. Consistent with GS 33, the EPA notes that future work requirements need to be outlined for the WMP. The DoW has advised that the WMP should address groundwater levels, depth of excavation/clearance above water table, buffers to production bores, water requirements and supply, fuel and chemical management, storm water management, wastewater management, waste management, pre and post development monitoring, site rehabilitation and decommissioning.

The DoW has produced a number of documents to guide how the WMP can address these issues, particularly *Statewide Policy No. 1 - Policy and Guidelines for Construction and Silica Sand Mining in Public Drinking Water Source Areas* and *Water Quality Protection Note No. 15 – Extractive Industries Near Sensitive Water Resources*. The proponent has taken these documents into consideration in its referral documentation.

The EPA notes that in its referral documentation the company has provided a WMP that outlines a number of management actions and commitments for protection of water quality. The EPA considers that the management actions and commitments have also given regard to the advice provided by DoW to ensure groundwater quality is protected. Importantly, the DMP has provided advice to the EPA confirming that they are consulting with DoW as part of the finalisation of the WMP that supports the mining proposal to ensure water quality is protected.

Summary

Having regard to:

- the location of the proposal in a priority 1 PDWSA;
- the advice from DoW regarding the compatibility of the land use with the PDWSA for the proposal;
- the advice from DoW regarding the development of the WMP and the requirements for the WMP;
- the actions and commitments made by the proponent in the WMP,

the EPA considers that the proposal can meet the EPA's objectives for Inland Waters Environmental Quality and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with a WMP. It is noted that DMP is consulting with DoW as part of the finalisation of the WMP that supports the mining proposal to ensure water quality is protection.

b. Flora and Vegetation

The EPA's objective for this factor is to maintain representation, diversity, viability and ecological function at the species, population and community level.

The proposal occurs within State Forest 65 in an area of the Gnangara pine plantation. The proposal does not require clearing of remnant native vegetation as the project occurs within cleared pine plantations. However, a clearing permit is still required as the proposal area has been identified to be within a non-permitted area (defined under Schedule 1, Section 4(1)(f) Water Supply Area of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*). The proponent has advised that a clearing permit for exploration drilling on the site has been approved (Native Vegetation Clearing Permit 6617/1) which was granted on 6 August 2015. A clearing permit is still required to be obtained from DMP for the remainder of the proposal, and is currently under assessment.

Bush Forever Site 326 is located outside the southern section of the development envelope for the proposal. Bush Forever Site 141 is located to the north of the development envelope. The proponent has committed to maintaining a minimum buffer of 50m around the proposal, as indicated by the development envelope, (which is maximum limit of excavation provided for in the proposal referred, to ensure there are no impacts to the Bush Forever sites from the development. The EPA points out that should the proponent wish to extract minerals outside of the development envelope it is likely to be required to submit a further referral to the EPA.

The EPA has identified that the proponent is still required to obtain a clearing permit from the DMP for clearing outside of exploration areas. The EPA considers that the clearing permit (if approved by DMP) should contain a 50m buffer to the Bush Forever sites. This is consistent with the outcomes of the Draft Perth Peel Green Growth Plan (PPGGP) which is discussed further below. The DMP has advised that the 50m buffer can be enforced through the conditions of the Mining Proposal under the provisions of the *Mining Act 1978*.

Summary

Having regard to:

- the use of the site historically as a pine plantation and the recent clearing of the site;
- the commitment to maintain a 50m buffer to Bush Forever Sites;
- the development envelope for this referral which contains a 50m buffer to Bush Forever Sites;
- the requirement to refer future proposals if they could be significant and if they occur outside the development envelope,

the EPA considers that the proposal can meet the EPA's objectives for Flora and Vegetation and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with the referral documentation and the proponent's mitigation measures. It is noted that the potential impacts on Bush Forever Sites can also be managed under Pt V Division 2 (Clearing) of the EP Act and conditions under the provisions of the *Mining Act 1978*.

c. Amenity (noise and visual)

The EPA's objective for this factor is to ensure that impacts to amenity are reduced as low as reasonably practicable.

The proponent has undertaken a cumulative noise assessment at the nearest sensitive receptors consistent with EAG 13. The assessment took into consideration cumulative noise from two neighbouring sand extraction operations. It concluded that the proposal would comply with the *Environmental Protection (Noise) Regulations 1997* at the nearest sensitive receptor.

The proponent has committed to maintain a 300m buffer between the excavated areas and all residents. The EPA confirms that the buffer is consistent with the recommended buffer for sand mining within GS 3. The EPA advises that the development envelope for the proposal is 300m away from residential areas and a further referral to the EPA would be required if resource extraction which could be significant in nature was proposed outside of the development envelope.

The EPA advises that a 200m vegetation buffer occurs between nearby residences and what would be operational aspects of the proposal. The EPA considers that the vegetation buffer would provide a suitable visual screen to ensure visual amenity in the area is reasonably maintained.

Summary

Having particular regard to:

- the cumulative noise assessment which confirms that the proposal would comply with *Environmental Protection (Noise) Regulations 1997*;
- the proponent's commitment to maintain at least a 300 m separation distance from sensitive receptors in accordance with GS 3;
- the development envelope for the proposal which maintains the 300m buffer and includes a 200m visual screen of vegetation; and
- the requirement to refer future proposals if they could be significant and if they occur outside the development envelope,

the EPA considers that the proposal can meet the EPA's objectives for Amenity (noise and visual) and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with the referral documentation.

d. Rehabilitation and Decommissioning

The EPA's objective for this factor is to ensure that premises are decommissioned and rehabilitated in an ecologically sustainable manner.

The site is located within a PDWSA and was originally a pine plantation that has been subsequently cleared. The EPA advises that under the Inland Waters Environmental Quality preliminary environmental factor that the proponent has undertaken adequate provisions and considered relevant guidance to ensure impacts to water quality are not likely to be significant.

The EPA considers that the proponent has prepared a closure plan in accordance with the Guidelines for Preparing Mine Closure Plans and the DMP's Quarry Closure Guidelines. The EPA advises that the proponent has also committed to progressively rehabilitate mined areas in accordance with the Department of Parks and Wildlife (Parks and Wildlife) requirements.

The EPA advises that at the conclusion of mining, the proposal as defined and referred to the EPA requires the proponent to:

- remove all buildings and infrastructure;
- register and remediate any contaminated sites as a result of the projects operations;
- rehabilitate roads;
- remove hard stand and lay down surfaces and re-contour the landscape; and
- rehabilitate all remaining open spaces.

The EPA points out that DMP, as outlined in EPB 19, is the lead agency for mine closure on sites regulated under the *Mining Act 1978*.

Summary

Having regard to:

- the historical use of the site as a pine plantation and the recent clearing of the site;
- the provisions for protection of water quality;
- the procedures outlined by the proponent to decommission and rehabilitate the site;
- the provision of a mine closure plan that is consistent with the Guidelines for Preparing Mine Closure Plans;
- the commitments to rehabilitate in accordance with Parks and Wildlife requirements; and
- the EPA's position on mine closure (EPB 19),

the EPA considers that the proposal can meet the EPA's objectives for Rehabilitation and Decommissioning and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with the referral documentation. The EPA advises that

consistent with EPB 19, DMP would be the lead agency for mine closure under the *Mining Act 1978*.

Draft Perth Peel Green Growth Plan

The majority of the tenement has been designated for and is acceptable for basic raw materials extraction under the draft PPGGP. The proposed disturbance area does not contain EPA biodiversity values 1, 2 and 3 which were used as part of the PPGGP master planning (Attachment 1). EPA biodiversity value 1 covers Bush Forever Sites, Peel Regionally Significant Natural Areas and Redbook areas. EPA biodiversity value 2 covers Conservation Category Wetlands and Environmental Protection Policy Western Swamp Tortoise boundary. EPA biodiversity value 3 relates to poorly represented and poorly reserved vegetation complexes from the percentage remaining within the GS 10 boundary (i.e. vegetation complexes less than 30% and less than 10% on the Swan Coastal Plain).

Area to the south and north of the development envelope Bush Forever Sites. Under PPGGP, development of these sites would not be supported because of its environmental values. As discussed under Flora and Vegetation, the proponent has committed to maintain a 50m buffer to avoid any impacts to the Bush Forever sites. The EPA notes that the development envelope for the referral is 50m away from the Bush Forever sites. The EPA advises that any clearing or resource extraction outside of the current development envelope would need to be referred to the EPA if it could be significant in nature. The EPA has been advised that DMP can enforce the 50m buffer through the Mining Proposal, which is required under the *Mining Act 1978*.

Attachment 1

