

# Secretary's Environmental Assessment Requirements

## State Significant Development

Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*  
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

<b>Application Number</b>	SSD 17_8471
<b>Proposal</b>	<p>The Chinderah Sand Quarry Project, which involves:</p> <ul style="list-style-type: none"> <li>• establishing a quarry to extract and process up to 300,000 tonnes of sand per annum for up to 30 years;</li> <li>• constructing associated site infrastructure and amenities;</li> <li>• transporting material off-site via public roads; and</li> <li>• progressively rehabilitating the site.</li> </ul>
<b>Location</b>	Lot 18 DP 1168455 and Lot 57 DP 755701, Pacific Highway, Chinderah
<b>Applicant</b>	Carbrook Sands Pty Ltd
<b>Date of Issue</b>	19 June 2017
<b>General Requirements</b>	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> <li>• a stand-alone executive summary;</li> <li>• a full description of the development, including: <ul style="list-style-type: none"> <li>– the resource to be extracted, including the amount, type and composition;</li> <li>– the site layout and extraction plan, including cross-sectional plans;</li> <li>– the production process and processing activities, including the in-flow and out-flow of materials and points of discharge to the environment;</li> <li>– surface infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process);</li> <li>– a waste (overburden, rejects, tailings etc) management strategy;</li> <li>– a water management strategy;</li> <li>– a rehabilitation strategy to apply during, and after completion of, extraction operations, and proposed final use of site; and</li> <li>– the likely interactions between the development and any existing, approved or proposed development in the vicinity of the site;</li> </ul> </li> <li>• a strategic justification of the development focusing on site selection and the suitability of the proposed site;</li> <li>• a list of any approvals that must be obtained before the development may commence;</li> <li>• an assessment of the likely impacts of the development on the environment, focussing on the key issues identified below, including: <ul style="list-style-type: none"> <li>– a description of the existing environment likely to be affected by the development, using sufficient baseline data;</li> <li>– an assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice;</li> <li>– a description of the measures that would be implemented to avoid, minimise, mitigate and/or offset the likely impacts of the development, and an assessment of: <ul style="list-style-type: none"> <li>○ whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation</li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>measures that could be implemented; <ul style="list-style-type: none"> <li>○ the likely effectiveness of these measures; and</li> <li>○ whether contingency measures would be necessary to manage any residual risks; and</li> </ul> </li> <li>– a description of the measures that would be implemented to monitor and report on the environmental performance of the development;</li> <li>• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS;</li> <li>• consideration of the development against all relevant environmental planning instruments (including Part 3 of the <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>);</li> <li>• the reasons why the development should be approved, having regard to: <ul style="list-style-type: none"> <li>– relevant matters for consideration under the <i>Environmental Planning and Assessment Act 1979</i>, including the objects of the Act;</li> <li>– the biophysical, economic and social impacts of the project, including the principles of ecologically sustainable development;</li> <li>– the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses;</li> <li>– feasible alternatives to the development (and its key components), including the consequences of not carrying out the development;</li> </ul> </li> <li>• a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.</li> </ul> <p>While not exhaustive, Attachment 1 contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p> <p>In addition to the matters set out in Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>, the development application must be accompanied by a signed report from a suitably qualified expert that includes an accurate estimate of the capital investment value (as defined in Clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the development, including details of all the assumptions and components from which the capital investment value calculation is derived.</p>
<b>Key Issues</b>	<p>The EIS must address the following key issues:</p> <ul style="list-style-type: none"> <li>• <b>Water</b> – including: <ul style="list-style-type: none"> <li>- a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;</li> <li>- identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>;</li> <li>- demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);</li> <li>- a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo;</li> <li>- a detailed assessment of potential flooding impacts;</li> <li>- an assessment of the likely impacts on the quality and quantity of existing surface and ground water resources, including a detailed assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives, and paying particular attention to potential flood-related nutrient transfers, including algal blooms;</li> <li>- an assessment of proposed interactions with groundwater, and the likely impacts of the development on aquifers, watercourses, riparian land, water-related infrastructure, and other water users; and</li> <li>- a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate and manage surface and groundwater impacts;</li> </ul> </li> <li>• <b>Noise</b> – including: <ul style="list-style-type: none"> <li>- a detailed assessment of the likely construction, operational and off-site</li> </ul> </li> </ul>

	<p>transport noise impacts of the development in accordance with the <i>Interim Construction Noise Guideline</i>, <i>NSW Industrial Noise Policy</i> and the <i>NSW Road Noise Policy</i> respectively, and having regard to the <i>Voluntary Land Acquisition and Mitigation Policy</i>;</p> <ul style="list-style-type: none"> <li>- reasonable and feasible mitigation measures to minimise noise emissions; and</li> <li>- monitoring and management measures, in particular real-time and attended noise monitoring;</li> </ul> <ul style="list-style-type: none"> <li>• <b>Air Quality</b> – including a quantitative assessment of potential: <ul style="list-style-type: none"> <li>- construction and operational impacts, in accordance with the <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i>, and with a particular focus on dust emissions including PM<sub>2.5</sub> and PM<sub>10</sub>, and having regard to the <i>Voluntary Land Acquisition and Mitigation Policy</i>;</li> <li>- dust and other emissions generated from blasting, processing, operational activities and transportation of quarry products;</li> <li>- reasonable and feasible mitigation measures to minimise dust and emissions; and</li> <li>- monitoring and management measures, in particular, real-time air quality monitoring;</li> </ul> </li> <li>• <b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>- accurate predictions of any vegetation clearing on site;</li> <li>- a detailed assessment of the likely biodiversity impacts of the development, paying particular attention to threatened species, populations and ecological communities and groundwater dependent ecosystems, and having regard to the <i>NSW Biodiversity Offsets Policy for Major Projects</i> and the <i>Framework for Biodiversity Assessment</i>; and</li> <li>- a strategy to offset any residual impacts of the development in accordance with the <i>NSW Biodiversity Offsets Policy for Major Projects</i>, including evidence that the appropriate type and quantum of offsets will be available;</li> </ul> </li> <li>• <b>Heritage</b> – including: <ul style="list-style-type: none"> <li>- an assessment of the potential impacts on Aboriginal heritage (cultural and archaeological), including evidence of appropriate consultation with relevant Aboriginal communities/parties and documentation of the views of these stakeholders regarding the likely impact of the development on their cultural heritage; and</li> <li>- identification of historic heritage in the vicinity of the development and an assessment of the likelihood and significance of impacts on heritage items, having regard to the relevant policies and guidelines listed in Attachment 1;</li> </ul> </li> <li>• <b>Traffic &amp; Transport</b> – including: <ul style="list-style-type: none"> <li>- accurate predictions of the road traffic generated by the construction and operation of the development, including a description of the types of vehicles likely to be used for transportation of quarry products;</li> <li>- a detailed assessment of potential traffic impacts on the capacity, condition, safety and efficiency of the local and State road network (as identified above), including a road safety audit; and</li> <li>- a description of the measures that would be implemented to mitigate any impacts, including concept plans of any proposed upgrades, developed in consultation with the relevant road and rail authorities (if required);</li> </ul> </li> <li>• <b>Land Resources</b> – including a detailed assessment of: <ul style="list-style-type: none"> <li>- potential impacts on soils and land capability (paying particular attention to potential acid sulphate soils, erosion and land contamination) and the proposed mitigation, management and remedial measures (as appropriate);</li> <li>- an assessment of the agricultural impacts of the development, paying particular attention to any identified areas of strategic agricultural land;</li> <li>- potential impacts on landforms (topography), paying particular attention to the long term geotechnical stability of any new landforms (such as overburden dumps, bunds etc); and</li> <li>- the compatibility of the development with other land uses in the vicinity of the development in accordance with the requirements in Clause 12 of <i>State Environmental Planning Policy (Mining, Petroleum Production and</i></li> </ul> </li> </ul>
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	<p><i>Extractive Industries</i>) 2007, paying particular attention to the agricultural land use in the region;</p> <ul style="list-style-type: none"> <li>• <b>Waste</b> – including estimates of the quantity and nature of the waste streams that would be generated or received by the development and any measures that would be implemented to minimise, manage or dispose of these waste streams;</li> <li>• <b>Hazards</b> – including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks and the transport, handling and use of any hazardous or dangerous goods;</li> <li>• <b>Visual</b> – including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, including any new landforms and potential lighting impacts;</li> <li>• <b>Social &amp; Economic</b> – including: <ul style="list-style-type: none"> <li>- a detailed assessment of the likely social impacts of the development on the local and regional community; and</li> <li>- a detailed assessment of the likely economic impacts of the development, paying particular attention to: <ul style="list-style-type: none"> <li>o the significance of the resource;</li> <li>o the costs and benefits of the project; identifying whether the development as a whole would result in a net benefit to NSW, including consideration of fluctuation in commodity markets and exchange rates; and</li> <li>o the demand for the provision of local infrastructure and services;</li> </ul> </li> </ul> </li> <li>• <b>Cumulative Impacts</b> – including an assessment of likely cumulative impacts of the proposed quarry operating in combination with other established quarries in the locality, paying particular attention to likely impacts on water resources, land capability and potential implications for strategic land use planning in the region; and</li> <li>• <b>Rehabilitation</b> – including the proposed rehabilitation strategy for the site having regard to the key principles in the <i>Strategic Framework for Mine Closure</i>, including: <ul style="list-style-type: none"> <li>- rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;</li> <li>- nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and</li> <li>- the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.</li> </ul> </li> </ul>
<p><b>Consultation</b></p>	<p>During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, Aboriginal stakeholders, community groups and affected landowners.</p> <p>You must:</p> <ul style="list-style-type: none"> <li>• consult with: <ul style="list-style-type: none"> <li>- affected landowners;</li> <li>- community groups;</li> <li>- Tweed Shire Council;</li> <li>- Office of Environment and Heritage (including the Heritage Branch);</li> <li>- Environment Protection Authority;</li> <li>- Division of Resources and Geoscience within the Department;</li> <li>- Department of Primary Industries (including the DPI Water, NSW Forestry, Agriculture and Fisheries sections and Crown Lands division);</li> <li>- North Coast Local Land Services;</li> <li>- Roads and Maritime Services; and</li> <li>- NSW Rural Fire Service.</li> </ul> </li> </ul> <p>The EIS must:</p> <ul style="list-style-type: none"> <li>• describe the consultation process used and demonstrate that effective consultation has occurred;</li> <li>• describe the issues raised by public authorities, service providers, community groups and landowners;</li> <li>• identify where the design of the development has been amended in response</li> </ul>

	to issues raised; and otherwise demonstrate that issues raised have been appropriately addressed in the assessment.
<b>Further consultation after 2 years</b>	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these requirements, you must consult further with the Secretary in relation to the preparation of the EIS.

## ATTACHMENT 1

### Environmental Planning Instruments, Policies, Guidelines & Plans

<b>Air</b>	
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)
	National Greenhouse Accounts Factors (Commonwealth)
<b>Noise</b>	
	Voluntary Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (DP&E)
	NSW Industrial Noise Policy (EPA)
	Interim Construction Noise Guideline (DECC)
	NSW Road Noise Policy (EPA)
<b>Water</b>	
Groundwater	NSW State Groundwater Policy Framework Document (NOW)
	NSW State Groundwater Quality Protection Policy (NOW)
	NSW State Groundwater Quantity Management Policy (NOW)
	NSW Aquifer Interference Policy 2012 (NOW)
	Office of Water Guidelines for Controlled Activities (2012)
	Groundwater Monitoring and Modelling Plans – Information for prospective mining and petroleum exploration activities (NOW)
	Australian Groundwater Modelling Guidelines 2012 (Commonwealth)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	Guidelines for the Assessment & Management of Groundwater Contamination (EPA)
	NSW Government Water Quality and River Flow Objectives (EPA)
Surface Water	Using the ANZECC Guideline and Water Quality Objectives in NSW (EPA)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC)
	NSW Water Conservation Strategy (2000)
	State Water Management Outcomes Plan
	NSW State Rivers and Estuary Policy (1993)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries (EPA)
	Managing Urban Stormwater: Treatment Techniques (EPA)
	Managing Urban Stormwater: Source Control (EPA)
	Technical Guidelines: Bunding & Spill Management (EPA)
	Environmental Guidelines: Use of Effluent by Irrigation (EPA)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW)
<b>Land</b>	
	State Environmental Planning Policy No. 71 – Coastal Protection
	Soil and Landscape Issues in Environmental Impact Assessment (NOW)
	Agfact AC.25: Agricultural Land Classification (NSW Agriculture)

	Agricultural Issues for Extractive Industries (NSW Trade and Investment)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
<b>Traffic</b>	
	Guide to Traffic Generating Development (RMS)
	Road Design Guide (RMS) & relevant Austroads Standards
<b>Biodiversity</b>	
	Framework for Biodiversity Assessment (OEH)
	NSW Biodiversity Offsets Policy for Major Projects (OEH)
	Guidelines for Threatened Species Assessment (DP&E)
	NSW State Groundwater Dependent Ecosystem Policy (NOW)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
<b>Heritage</b>	
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DP&E)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
	Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH)
	NSW Heritage Manual (OEH)
	Statements of Heritage Impact (OEH)
	Tweed Local Environmental Plan 2014
<b>Hazards</b>	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines – Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
<b>Waste</b>	
	Waste Classification Guidelines (EPA)
<b>Rehabilitation</b>	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth)
	Strategic Framework for Mine Closure (ANZMEC-MCA)
<b>Environmental Planning Instruments - General</b>	
	State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
	State Environmental Planning Policy (State and Regional Development) 2011
	State Environmental Planning Policy (Infrastructure) 2007
	Tweed Local Environmental Plan 2014

**ATTACHMENT 2**

**Agency Correspondence**