



8d Extractive industry

Explanatory outline

Section 8d outlines assessment criteria relating to extractive industry.

Note that this part DOES NOT apply to mining proposals.

This part should be read in conjunction with *State Environmental Planning Policy (Resources and Energy) 2021*.

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8d.1 Application of this section

This section applies to development described in Column 1 when carried out on land described in Column 2.

Column 1: Type of development

Development that involves establishment or modification of an extractive industry (not including mining)

Column 2: Applicable land

Land zoned RU1 Primary Production, and any other land zone under *Upper Hunter Local Environmental Plan 2013* or another environmental planning instrument where extractive industry is a permissible use; or
On land where an existing use right for extractive industry has been established

8d.2 Objectives

The objective of this part is to enable the establishment and operation of extractive industries to efficiently extract deposits of extractive materials where:

1. the agricultural production potential of adjacent and surrounding land will not be significantly adversely affected; and
2. the development is compatible with existing and likely future uses on the surrounding land; and
3. surface and groundwater resources are managed to minimise off-site impacts as a result of changes in water quantity, flow or quality; and
4. no significant adverse impacts on biodiversity, biodiversity connectivity, native vegetation or riparian vegetation arise as a result of the development, and any impacts are mitigated or suitably offset; and
5. noise, vibration and dust levels are managed to minimise adverse impacts on local amenity; and
6. the extractive industry does not visually intrude into its surroundings, unless it is mitigated by suitable screening; and
7. the transportation of quarry product is within the capability of the local road network and transportation amenity issues are effectively managed; and



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8. impacts on flood behaviour are minimised in accordance with the *NSW Floodplain Development Manual 2005*.

8d.3 Relevant planning instruments, legislation & other policies

The following environmental planning instruments and other legislation (or instruments under the legislation) may be relevant to development to which this section applies:

- *Upper Hunter Local Environmental Plan 2013*
- *State Environmental Planning (Resources and Energy) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *Water Management Act 2000* (regulates water planning and licensing)
- *Protection of the Environment Operations Act 1997*
- *Local Government Act 1993*
- *Local Government (General) Regulation 2005*

Additional permits or approvals may be required from relevant State agencies that administer the above, and other, legislation.

Further planning instruments and legislation may also be relevant. In the event of any inconsistency, the above listed instruments and legislation will prevail over requirements or criteria contained in this section.

The *NSW Noise Policy for Industry (2017)* is also relevant.

8d.4 Definitions

There may be words used in this Part that are defined in the *Environmental Planning and Assessment Act, 1979*, as amended, or within *Upper Hunter Local Environmental Plan 2013*, as amended. The Dictionary to this DCP provides additional definitions that are relevant to this Part.

8d.5 Developer Contributions

Sections 7.11 and 7.12 of the *EP&A Act* permit Council to levy certain developer contributions towards the cost of facilities and amenities in the LGA. These are applicable to extractive industry.

Details relating to the amount of a monetary contribution, other forms it may take and when the contribution is required are contained in *Upper Hunter Section 94 Contribution Plan 2017*.

Depending upon the likely demand for public services or facilities that a development proposal is likely to generate, Council may also require preparation of a specific Contributions Plan, or may enter into a Voluntary Planning Agreement with the developer prior to determining a particular development proposal.

8d.6 Relationship to engineering specifications

Council's *Engineering Guidelines for Subdivision and Development* as amended may be relevant to the development, depending on its circumstances.

Where there is an inconsistency between the DCP and the *Guidelines*, the provisions of this DCP will prevail.

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8d.7 Supporting plans & documentation

Development applications that are subject to this section should be supported by the following plans and documentation.

The applicant should consult with Council staff to determine any other additional information that may be required in addition to this section.

All plans and documentation required by the table below must cover the whole site that the extractive industry is located on and adjacent transportation corridor, as relevant to the issue, and not be solely restricted to the proposed area of extraction or area of immediate impact.

Item	When required	Plans or information to be provided
A. General requirements	All applications	Refer to Part 2 Preparing & lodging a development application .
B. Site Plan	All applications	<p>A specific site plan (prepared by a registered surveyor) that shows:</p> <ul style="list-style-type: none"> • Location of the land • Boundary dimensions • Site area • Existing extraction areas and other disturbed area(s) (if relevant) • Proposed extraction area(s) • Existing vegetation and trees on the land • Location of existing buildings on the land • Proposed location of waste/rehabilitation material stockpiles • Existing levels (contours and spot levels) • Watercourses <p>The plan must be clear and legible and drawn to a suitable scale (eg 1:100 or 1:200)</p>
C. Environmental impact statement (EIS)	Designated development identified in the <i>Environmental Planning and Assessment Act 1979</i> , regulations and State environmental planning policies.	<p>The EIS must be prepared by a suitably qualified person and contain all information complying with the <i>Environmental Planning and Assessment Regulation 2000</i> and any accompanying guidelines.</p> <p>The EIS must include all information required in the Regulation and any guidelines, as well as all information specified in other parts of this table</p>
D. Statement of Environmental Effects (SEE)	Development Application for extractive industries that is not identified as Designated development.	<p>The SEE must be prepared by a suitably qualified environmental specialist in accordance with the requirements of the <i>Environmental Planning and Assessment Regulation 2000</i> and include:</p> <ul style="list-style-type: none"> • Description of the proposed development • Statutory requirements

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Item	When required	Plans or information to be provided
E. Sustainability assessment	A development with a development footprint of 1,500 square metres or greater	<ul style="list-style-type: none"> • Description of the environment • Likely impacts of the development • Mitigation measures <p>The key issues and recommendations identified in the relevant supplementary reports (specified in this table) must be summarised in the SEE.</p>
F. Social and economic impact assessment	As required by Council	<p>A report, prepared by a suitably qualified and experienced professional, including as a minimum the following:</p> <ul style="list-style-type: none"> • Hours of operation, tonnages per year and daily truck movements and expected life of the development • evidence of consultation with neighbouring residents, landholders and relevant community groups • potential impacts on the community such as emissions and haulage route impacts • employment sources • resource markets • costs and benefits to the local community <p>The report should cross reference and analyse the social impacts of information given in other specialist reports submitted as part of the Development Application.</p>
G. List of other approvals required	All applications	<p>A list of all licences, permits or approvals required by other agencies</p> <p>A list of all licences, permits or approvals currently held for the operation (if an existing development exists on site).</p>
H. Extraction program	All applications	<p>Plans and reports, prepared by a suitably qualified professional, showing the extraction programs in an orderly sequence which provides for the progressive rehabilitation of extracted areas and where possible the minimisation of disturbed areas.</p> <p>As a minimum, the application should show the area(s) planned for extraction over the term of the approval period. Where extraction is planned to move over the approval period, the area of the extraction should be identified in regular periods, reflective of the speed the extraction area is moving. Where the extraction plan allows, areas where no further extraction is planned are to be rehabilitated and the rehabilitation areas identified in plan, with indicative times the rehabilitation occurs.</p>

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Item	When required	Plans or information to be provided
I. Haulage and road network impacts assessment	All applications	<p>A report and plans, prepared by a suitably qualified and experienced professional detailing the extraction and transportation of material to and from the proposed site, including as a minimum:</p> <ul style="list-style-type: none"> • a traffic survey and study undertaken by a suitably qualified person regarding any potential impacts of the proposed development; • proposed methods of haulage of material within the site; • proposed haulage routes of material from the site to markets within and outside the Shire, including a map; • specifications of the internal haulage road and access intersection to be established and/ or maintained, including a site plan drawn to scale; • method of extraction and stockpiling of material; • maximum capacity of haulage vehicles; • frequency of heavy vehicle movements to and from the site; • proposed safety controls to be implemented on the local road network; • proposed method and location of a weighbridge or similarly suitable weighing device. <p>Include also any other matters required under part 12a Access & vehicle parking. Actual requirements will depend on the expected level and type of traffic generation from the site.</p>
J. Riparian land assessment	Applications subject to part 11c Riparian land and watercourses	Include the matters required under part 11c Riparian land and watercourses
K. Water strategy, surface and groundwater assessment	All applications	<p>A report and plans, prepared by a suitably qualified and experienced professional detailing the management of water resources (including ground and surface) within and around the site, including as a minimum:</p> <ul style="list-style-type: none"> • the drainage patterns of water before and those expected after the development of the proposal; • any requirements of the <i>Water Management Act 2000</i> • water quality parameters of the groundwater and surface water located on or adjacent to the site prior to the development of the site; • the effect on the proposed development on flooding and this is to include any predicted changes to flood heights or the flow path of flood waters. • any proposed capture devices such as dams, tanks etc including the associated capacity and use; • calculations of the surface water catchment associated with the site and the proposed management of this flow;

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Item	When required	Plans or information to be provided
		<ul style="list-style-type: none"> any proposals to extract or discharge surface or ground water; any additional information required by part 11d Groundwater protection; any additional information in relation to water required by part 11f Soil and water management; controls to be implemented to ensure the maximisation of water reuse onsite, maintenance of water quality and the ongoing provision of water resources to users which are located down stream from the proposed extractive industry site. risks, safeguards and contingency plans for extreme climatic conditions or operational hazards including breach or contamination any further applicable information as required by Council as required by part 11f Soil & water management.
L. Erosion and soil management report	All applications (refer to section 11f Soil & water management)	Prepare applicable soil management plans or reports, as specified in part 11f Soil & water management .
M. Geotechnical hazard & salinity assessment	Applications potentially subject to geotechnical hazards (refer to part 10c Geotechnical hazards)	Include the matters required under part 10c Geotechnical hazards .
N. Flood information	Applications that relate to flood prone land	A Minor or Major Flood Assessment Report, as required by part 10a Floodplain management .
O. Vegetation (including trees) reports	Applications affecting vegetation (including trees), as specified in section 11a Vegetation (including trees) .	Applicable reports or plans, prepared by a suitably qualified person, as specified in section 11a Vegetation (including trees) . These must be consistent with other elements of the development application, including Site plans, Bushfire assessment report and Landscaping plans. Depending on the site circumstances, these may include: <ul style="list-style-type: none"> written description and plans arborist's report ecological report heritage report safety or biosecurity risk report
P. Biodiversity and native vegetation reports, plans or assessments	Applications for which biodiversity and/or native vegetation reports, plans or assessments are required (refer to	Applicable reports, plans or assessments, prepared by a suitably qualified person, as specified in section 11b Biodiversity conservation . These may include: <ul style="list-style-type: none"> Native vegetation clearing threshold report, and/or Biodiversity (flora & fauna) assessment report, and/or

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Item	When required	Plans or information to be provided
<p>section 11b Biodiversity conservation)</p> <p>These will be required for development on land with high biodiversity values, or proposals that require significant disturbance to, or clearing of, native vegetation or potential habitat for native species</p>		<ul style="list-style-type: none"> • Biodiversity development assessment report (BDAR), and/or • Biodiversity management plan, and/or <p>Biodiversity offset information, strategy or plan</p>
Q. Landscaping plan	All applications	<p>A report and plans, prepared by a suitably qualified and experienced professional containing adequate landscaping detail to demonstrate how the visual aspects of the proposal are to be managed. The following is to be included, as a minimum:</p> <ul style="list-style-type: none"> • A site plan for the entire site drawn to scale indicating set backs, visual screens and landscaping areas • Description and location of any site lighting, identifying any possible nearby receivers that could be affected and processes for mitigation • Location and height of any earthen bunds to screen the development • Location of proposed vegetated screens to address all identified sight lines • Proposed species list • Proposed planting density • Proposed method of maintenance • Time line as to the planting of screens and their expected period of establishment • Consistency with any requirements required in sections 11a Vegetation (including trees) and/or 11b Biodiversity
R. Bushfire assessment report	Applications that relate to Bush Fire Prone Land	Prepare a Bushfire Assessment Report in accordance with the current version of <i>Planning for Bush Fire Protection</i> , as specified in section 10b Bushfire risk
S. Acoustic assessment report	Applications involving the potential for noise impacts, in the opinion of Council, on adjoining or nearby development	<p>A report, prepared by a relevant qualified and experienced professional containing the requirements as set out in the <i>NSW Noise Policy for Industry (2017)</i>, or any subsequent updated reference document.</p> <p>Include the matters required under section 11i Buffer areas & separation distances.</p> <p>Information must include at a minimum:</p>

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Item	When required	Plans or information to be provided
T. Blasting report	All applications where blasting activities are proposed	<ul style="list-style-type: none"> An impact assessment of the identified noise sources and modelled noise emissions the proposed measures which may be introduced to address the acoustic amenity of the area.
U. Air quality and dust management report	All applications as required by Council	A report, prepared by a relevant qualified and experienced professional, to the standards required by the relevant NSW State Government legislation and guidelines, containing as a minimum, identification of the sources and potential impacts of emissions to the atmosphere
V. Heritage, aboriginal cultural heritage or archaeological plans & reports	<p>Applications that in the opinion of Council, will potentially impact on land that is listed as or contains:</p> <ul style="list-style-type: none"> a heritage item a heritage conservation area an archaeological site an Aboriginal object an Aboriginal place of heritage significance. 	<p>Include the matters required under part 9 Heritage.</p> <p>The plans and report must encompass the entire site of the proposed extractive industry and not be limited to the proposed area of extraction.</p>
W. Due Diligence Assessment Report	All applications	In accordance with the <i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales</i> (NSW Department of Environment, Climate Change and Water, 2010) or relevant updated version.
X. Rehabilitation strategy	All applications	<p>A report and plans, prepared by a relevant qualified and experienced professional containing (as a minimum) the rehabilitation objectives and general approach to be taken in rehabilitating the site, including:</p> <ul style="list-style-type: none"> outcomes expected land shapes visual expectations monitoring and maintenance approach nomination of post-closure land use

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Item	When required	Plans or information to be provided
		to ensure that the objectives are achieved/ This strategy should have some commonality with the landscaping plan required at Q. above.
Y. Post-extraction uses		A report and plans, prepared by a relevant qualified and experienced professional containing as a minimum: <ul style="list-style-type: none"> the closure objectives for the site the potential post-extraction uses of the site

8d.8 Assessment criteria

A performance-based approach will be adopted in the assessment of development applications. Applications will be assessed according to the extent to which the outcomes specified in the left-hand column of the following table will be satisfied or achieved by the design, construction or operation of the proposal.

The design guidelines specified in the right-hand column indicate design and best practice solutions by which the required outcomes can be met. They do not preclude other solutions that may be suitable under particular local circumstances. All proposals will be considered on merit.

This section is structured in the following way:

A	Compatibility with and relationship to surrounding land uses
B	Access, transport and haulage
C	Erosion and soil management
D	Visual amenity and landscaping
E	Water management
F	Riparian land
G	Groundwater
H	Flood prone land
I	Biodiversity
J	Vegetation (including trees)
K	Bushfire
L	Acoustic Management
M	Blasting
N	Air quality and dust management
O	Waste
P	Rehabilitation
Q	Closure and post-extraction land use

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Outcomes to be achieved

Design guidelines

A. Compatibility with and relationship to surrounding land uses

- The development is compatible with surrounding existing or proposed land uses, particularly any residential, special uses (such as schools, hospitals, community buildings) and any sites of outstanding natural or environmental value or high tech industries
- The proposal is designed to accommodate the following:
 - provision of habitat and corridors for the movement of wildlife throughout the Shire (in accordance with the part **11b Biodiversity conservation**);
 - maintenance or enhancement of the visual and acoustic amenity within the local area;
 - setbacks to roads and adjacent property boundaries capable of maintaining a landscape buffer to enhance the visual environment of road users and residents;
 - provision of setbacks to electricity transmission lines capable of maintaining an effective buffer for safety and access for maintenance purposes
- The development meets the provisions of part **11i Buffer areas and separation distances**

B. Access, transport and haulage

- All access and vehicle parking must meet the requirements of part **12a Access and vehicle parking**
 - The design and development of access and haulage roads must be consistent with the relevant requirements of the following standards:
 - *Austroad - Guide to Traffic Engineering Practice;*
 - *Transport for NSW - Road Design Guide;*
 - *Transport for NSW - Guide to Traffic Generating Developments;*
 - Or other designs agreed to by Transport for NSW
 - Internal access and haulage routes must be set back no less than:
 - 10m from adjoining property boundaries;
 - 50m from environmentally sensitive areas including water courses and habitats of threatened species;
 - 100m from residences not associated with the extraction.
- The location of any internal haulage or access routes may be flexible and may be subject to change depending upon alternative routes, environmental and physical constraints and the nature & value of the underlying resource.

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Outcomes to be achieved

Design guidelines

C. Erosion and soil management

- The conservation of soil resources is adequately managed, in particular those soil resources which are not the extraction material
- The basic elements of the conservation of soil resources are met, which are to minimise the extent of cleared areas, implement controls on those areas which are cleared or disturbed and rehabilitate all areas as soon as possible.
- Haulage roads and site access points are managed so as to minimise the opportunity for erosion and dust nuisance to occur, including adequate maintenance and sealing and/or wetting down to ensure that dust and soil does not migrate from the site
- The development meets the provisions of part 11f **Soil and water management** and *Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries*

D. Visual amenity and landscaping

- The development meets the provisions of part 11i **Buffers areas and separation distances.**
 - The visual impact of the extractive industry is minimised or effectively mitigated.
- Mitigation measures should be relevant to the distance of the visual receiver.
 - Setbacks and buffers can assist in minimising the visual impact of extraction and processing sites, particularly when viewed from surrounding private and public places.
 - In some areas the setbacks must be adequately landscaped/vegetated to the satisfaction of Council in order to maintain or enhance the visual amenity of the surrounding area, in particular to nearby properties and road users. This landscaping should utilise native plant species that must be established and maintained by the proponent.

E. Water management

- The development meets the provisions of part 11f **Soil and water management**

F. Riparian land

- The development meets the provisions of part 11c **Riparian land and watercourses**

G. Groundwater

- The development meets the provisions of part 11d **Groundwater protection.**

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Outcomes to be achieved

Design guidelines

H. Flood prone land

- The development meets the provisions of part 10a
Floodplain management

I. Biodiversity

- The subdivision avoids and minimises impacts on biodiversity
- The development meets the provisions of part 11b
Biodiversity conservation.

- In avoiding impacts on biodiversity, refer to the *Biodiversity Conservation Act 2016* and regulatory requirements under that Act, as discussed in part 11b **Biodiversity conservation.**

J. Vegetation (including trees)

- The subdivision maximises the retention of vegetation, including trees.
- The development meets the provisions of part 11a
Vegetation (including trees).

K. Bushfire risk

- The development meets the provisions of part 10b
Bushfire risk.

L. Acoustic Management

- Noise emissions from the proposed operations should achieve minimum acoustic criteria and standards as contained in the *NSW Noise Policy for Industry (2017)*
 - The proposal meets the requirements of part 11i
Buffer areas and separation distances
- Measures for noise mitigation may include but are not limited to the following (in priority order):
 1. effective noise control measures where noise emissions exceed maximum average background noise level
 2. use of noise attenuated equipment
 3. appropriate noise barriers to address equipment noise emissions
 4. limitation of the hours of operation between 7.00 am and 6.00 pm Monday to Friday and 7:00am to 12noon Saturday, with no operations to occur on Sundays or public holidays (this may be flexible depending on suitable site details)
 5. effective acoustic buffers to residences and public places not associated with the operation
 - Consideration should be given to the use of noise monitoring equipment for the use of management and/or compliance

M. Blasting

- The proposal meets the requirements of *Australian and New Zealand Environment Council: Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (Sept.*
- Measures to limit the effect of blasting should include but is not limited to:

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Outcomes to be achieved

1990) (or any updated document) and any other requirements contained in an Environment Protection Licence issued by the EPA.

Design guidelines

- A buffer is to be provided of not less than 500m from any non-quarry owned property to protect against the risk of fly rock;
- Blasting is to be designed to protect against overpressure or vibration damage to property not owned by the development including both private property and public infrastructure.
- The timing of blasting is to be chosen to avoid adverse atmospheric conditions and times that may cause unnecessary concern to nearby residents. Blasting should generally only occur between the hours of 9:00am to 5:00pm Monday to Friday. Blasting should not take place on Public Holidays.
- Blast design and timing should be designed to minimise the generation of dust off site.

N. Air quality and dust management

- The proposal meets the requirements of the *Protection of the Environment Operations Act 1997*.
- The proposal meets the objectives of NEPM (Federal Government's *National Environmental Protection Measures*).
- Potential sources of air emissions may include but are not limited to:
 - blasting;
 - removal of overburden;
 - site clearing;
 - extraction and haulage;
 - stockpiles;
 - mobile earthmoving equipment;
 - loading and transport vehicles;
 - crushing and screening operations
- Effective measures must be implemented, capable of controlling air pollution caused by dust, particularly during dry and windy weather conditions and machinery emissions. These controls must also be extended to the transportation of material from the site, requiring the coverage of all loads leaving the operation.
- Consideration should be given to the use of air monitoring equipment for the assessment of dust generated by the development for management and/or compliance purposes

O. Waste

- The proposal meets the requirements of part 11h **Waste minimisation and management**

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Outcomes to be achieved

Design guidelines

P. Rehabilitation

- The rehabilitation of extraction areas are undertaken progressively throughout the life of an operation.
 - Rehabilitation is integrated with the surrounding area, incorporating shape, form, contour, land use, drainage characteristics, topography, landscape quality and biodiversity.
 - Rehabilitation activities are commenced as soon as an area becomes available for stabilisation and revegetation
- Where possible the quarry should be designed to allow progressive rehabilitation.
 - During the preparation of a site prior to extraction, the topsoil must be stripped and stockpiled for use during rehabilitation works. Permanent ground cover should be established on areas (including stockpiles) which are proposed to be disturbed for more than 30 days.
 - No waste material is to be used for backfilling of voids without NSW EPA approval

Q. Closure and post-extraction land use

- The final landform proposed to remain following the completion of extraction activities must be consistent with the surrounding landform and proposed land use.
- The final landform is consistent with the biodiversity of the surrounding landscape having regard to the proposed post- extraction land use.
- The site is suitably operated, managed, rehabilitated and designed to be usable for other permissible post-development land uses.
- Post extractive land uses do not sterilise or conflict with any possible extraction operations on adjoining lands.

8d.9 Post-approval advice

If Council consents to the development, a range of conditions may be placed on the consent, which could include any of the following, or additional items as Council sees fit:

- Community Consultative Committee
- Environmental Management Strategy, including but not limited to the following issues:
 - Water Management
 - Landscaping
 - Rehabilitation
 - Soil and water management
 - Noise and blasting impacts
 - Extraction management program
 - Air quality and dust management
 - Waste management
 - Post extraction land use



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- Biodiversity
- Heritage management

These may also be required by other approval agencies.

8d.10 Supplementary guidance

The following documents or reference materials provide further advice or information that is relevant to this section.

- NSW Department of Primary industries, 2012: *Agriculture Industry Issues for Extractive Industry Development Factsheet*
http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0005/367763/Agriculture-issues-for-extractive-industry-development.pdf
- NSW Office of Water, 2014: Quarrying and extractive industries – NSW Aquifer Interference Policy Fact Sheet 7
http://www.water.nsw.gov.au/_data/assets/pdf_file/0010/549163/law_key_aquifer_interference_factsheet_7_quarries-extractive-industries.pdf
- NSW Department of Urban Affairs and Planning, 1996: *Extractive Industries – Quarries –EIS Guideline*
- NSW Department of Environment, Conservation and Climate Change (2008): *Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries* <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Water-quality/managing-urban-stormwater-soils-construction-volume-2e-mines-quarries-08208.pdf>
- National Environment Protection Measures (NEPMs)
<http://www.nepc.gov.au/nepms>
- NSW *Noise Policy for Industry (2017)* and related technical guidelines [https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-\(2017\)](https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017))