



ESG5: Assessment requirements for exploration activities

Guideline for the assessment and determination of exploration activities



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More information

This **guideline** forms part of a suite of guidelines that provide assistance to explorers:

- ESG2: Guideline for Preparing a Review of Environmental Factors
- ESG4: Guideline for Preparing an Environmental and Rehabilitation Compliance Report for Exploration
- **ESG5: Assessment Requirements for Exploration Activities**
- Exploration and Production Guideline: Drilling and Integrity of Boreholes and Wells
- Exploration Guideline: Work Programs for Prospecting Titles
- Exploration Guideline: Petroleum Land Access
- Exploration and Production Guideline: Petroleum Drilling and Well Servicing – Competencies
- Exploration Guideline: Annual Activity Reporting for Prospecting Titles
- Guideline for Agricultural Impact Statements at the Exploration Stage

The following **codes of practice** may also provide assistance to explorers:

- Exploration Code of Practice: Community Consultation
- Exploration Code of Practice: Environmental Management
- Exploration Code of Practice: Produced Water Management, Storage and Transfer
- Exploration Code of Practice: Rehabilitation

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July 2015	1.0	First published
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May 2018	3.0	Updated hyperlinks to SEED environmental mapping portal; update to legislative changes being: <i>Environmental Planning & Assessment Act 1979</i> ; <i>State Environmental Planning Policy (Coastal Management) 2018</i> ; <i>Coastal Management Act 2016</i> and <i>Biodiversity Conservation Act 2016</i>

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Planning and Environment or the user's independent advisor.

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Part A: Assessment requirements

1. Introduction

This guideline has been prepared by the Resources Regulator within the NSW Department of Planning and Environment (the Department), to assist title holders in understanding the assessment and approval requirements for different prospecting operations (exploration activities).

This guideline is structured in four parts:

- **Part A** sets out the assessment requirements for different exploration activities and contains general information about the application and assessment process for activities that require approval before they can be carried out
- **Part B** contains specific guidance on 'complying exploration activities' or CEAs, which are exploration activities which qualify for the CEA assessment pathway
- **Part C** contains other Departmental information relevant to the assessment and determination of exploration activities, including requirements for security deposits, service delivery standards and contact information
- **Part D** contains reference material relevant to the environmental assessment processes and a dictionary of technical terms used in this guideline.

Appendix 1 contains a checklist to assist title holders determine whether their activity meets the criteria for assessment under the CEA Assessment Pathway. This checklist is discussed further in **Part B**.

2. Is approval required?

2.1 Overview

A prospecting title (such as an exploration licence) granted under the *Mining Act 1992* or the *Petroleum (Onshore) Act 1991* is subject to a statutory condition that the title holder must not carry out an assessable prospecting operation unless an exploration activity approval has been obtained.

The approval process for assessable prospecting operations has been designed around the environmental assessment requirements under [Part 5](#)

of the *Environmental Planning and Assessment Act 1979*.

Note: Prior to 1 March 2016, the obligation to obtain an activity approval before conducting certain exploration activities was a condition of prospecting titles. From 1 March 2016, it is a statutory requirement of the *Mining Act 1992* (sections 23A and 44A) or the *Petroleum (Onshore) Act 1991* (sections 31A and 36A).

2.2 Exempt development

Certain exploration activities with minimal environmental impact have been identified as exempt development under *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP). These minimal impact activities do not require further environmental assessment or approval prior to being carried out.

Under the Mining SEPP, the following activities are exempt development, provided they are of minimal environmental impact:

- low intensity exploration activities, including:
 - geological mapping and airborne surveying
 - sampling and coring using hand-held equipment
 - geophysical (but not seismic) surveying and downhole logging¹, and
 - accessing of areas by vehicle that does not involve the construction of an access way, such as a track or road.

These activities can be undertaken without approval provided that they are on land that:

- is not within an environmentally sensitive area of state significance, or
- is within a state conservation area, but is not otherwise on land referred to in section 3 of the Mining SEPP as being an environmentally sensitive area of state significance.

2.3 Assessable prospecting operations

All other exploration activities require further approval from the Minister (or delegate) before they can be carried out. These exploration activities are defined as assessable prospecting operations under the *Mining Act 1992* and *Petroleum (Onshore) Act 1991*.

¹ The construction of the borehole to facilitate downhole logging is not exempt development under the Mining SEPP.

3. Activities in exempted areas and state conservation areas

3.1 Exempted areas

Exempted areas are defined in the *Mining Act 1992* and *Petroleum (Onshore) Act 1991* as lands set aside for public purposes. They include travelling stock routes, road reserves, state forests, state conservation areas, public reserves/commons and land held under a lease for water supply.

Under the *Mining Act 1992* and *Petroleum (Onshore) Act 1991*, the consent of the Minister is required prior to exploration in an exempted area. This applies regardless of the type of exploration activity.

Consent to prospect in an exempted area is required prior to the Department granting approval for exploration activities.

Requests for consent to prospect in an exempted area are to be submitted to the [Titles Branch of the Department](mailto:titles.services@planning.nsw.gov.au) at titles.services@planning.nsw.gov.au. Applications should include a plan of the proposed activity within the exempted area, as well as the views and requirements of the agency or council controlling the exempted area.

3.2 State conservation areas

The [Office of Environment and Heritage \(OEH\)](#) is responsible for management of [state conservation areas](#) (SCAs) under the *National Parks and Wildlife Act 1974*.

Under section 47J(7) of the *National Parks and Wildlife Act 1974*, approval from the Minister for the Environment is required prior to exploration in an SCA. This applies regardless of the type of exploration activity.

Requests for approval to prospect in an SCA are to be submitted to the relevant regional office of the [National Parks and Wildlife Service](#).

Approval to prospect in an SCA must be obtained from the OEH prior to the Department granting approval for exploration activities. OEH will undertake an environmental assessment of the exploration activity according to the provision of Part 5 of the *Environmental Planning and Assessment Act 1979*. The Department will then not be required to carry out its own environmental assessment prior to granting any subsequent approval for the exploration activities under

the *Mining Act 1992* or *Petroleum (Onshore) Act 1991* (as relevant).²

Special note: activities relating to, or adjoining, land reserved or acquired under the *National Parks and Wildlife Act 1974*

The OEH is responsible for management of lands reserved or acquired under the *National Parks and Wildlife Act 1974*. SCAs are the only category of reserved land where mining and petroleum activities are legally permissible, subject to approval from the OEH or the Minister for the Environment.

- A review of environmental factors (REF) will need to accompany applications relating to **land within SCAs and** must be prepared in accordance with the appropriate OEH guidelines and template. Proponents should liaise with the relevant [OEH regional office](#) prior to commencing the REF.
- REFs for activities on land **adjoining land** administered by the OEH must have regard to the OEH publication, [Guidelines for developments adjoining land and water managed by the Department of Environment Climate Change and Water](#).

As outlined in **Section 3.2**, the OEH is responsible for assessing REFs for exploration activities in SCAs. The OEH may require additional information during the review process.

If the approval of the Minister for the Environment is required for an activity, the OEH will assess the REF and submit a determination report for consideration of that minister.

4. Application and assessment process

4.1 Application form and lodgement

Applications for exploration activity approvals must be made using the Department's [Form ESF4: Application to Conduct Exploration Activities](#) (Application Form ESF4).

² Section 5.4 (c) of the EP&A Act exempts certain activities from a Part 5 Assessment where the activity (or part of the activity) has been approved, or is to be carried out, by another determining authority following a Part 5 environmental assessment.

Applications may be submitted online using *Form ESF4: Application to Conduct Exploration Activities*

OR

in hardcopy, by submitting an Application Form ESF4 to the address shown on the Application Form.

Note: For the purposes of conditions of prospecting titles issued prior to 1 July 2015, the Department's Application Form ESF4 replaces the requirement to lodge a surface disturbance notice (SDN) prior to the commencement of exploration activities.

4.2 Environmental assessment of exploration activities

The assessment process for exploration activities which require further approval from the Department has been designed to satisfy the environmental assessment requirements of Part 5 of the *Environmental Planning and Assessment Act 1979*.*

**Note:* The Part 5 requirements do not apply to exploration activities that have previously been approved under Parts 3A or 4 or assessed by another agency under Part 5³ of the *Environmental Planning and Assessment Act 1979*.

In assessing these applications, section 5.5 of the *Environmental Planning and Assessment Act 1979* requires the Department to 'examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity'.

If, in assessing the activity, the Department forms the opinion that the activity is likely to significantly affect the environment, an EIS must be prepared (section 5.7(1) of the *Environmental Planning and Assessment Act 1979*).

Additionally, the Department is required to examine and consider a species impact statement (SIS) where an activity is likely to significantly affect threatened species or ecological communities (or their habitats), or impact on land that is a declared area of outstanding biodiversity value/critical habitat. (Refer to **Section 4.4**).

³ Section 5.4 of the EP&A Act exempts certain activities from a Part 5 Assessment where the activity (or part of the activity) has been approved, or is to be carried out, by another determining authority following a Part 5 environmental assessment.

4.2.1 Complying exploration activities

All assessable prospecting activities require an activity approval. In order to streamline the assessment process, a subset of these activities has been identified as being unlikely to have a significant environmental impact if carried out in a particular manner. These activities are referred to as complying exploration activities (CEAs). A streamlined assessment pathway has been developed for these activities.

These activities can be assessed under the streamlined CEAs assessment pathway if they:

1. satisfy location requirements set out in this guideline
2. satisfy the impact thresholds and criteria set out in this guideline
3. can be carried out in accordance with the [Department's exploration codes of practice](#) (refer to **Section 7.3** for a complete list of the relevant codes).

The location restrictions, impact thresholds and criteria and management controls that must be satisfied for an assessable prospecting operation to be a CEA are discussed further in **Part B** of this guideline.

Any mineral (including coal) exploration activity satisfying those criteria may be assessed under the CEA assessment pathway if it meets the CEA criteria.

Petroleum exploration exclusion

Petroleum exploration activities are not eligible to be assessed under the CEA assessment pathway. Details regarding the non-CEA assessment pathway are provided in **Section 4.3.2**.

4.2.2 Non-complying exploration activities

Applications to undertake activities which do not meet the CEA criteria must be accompanied by additional environmental impact assessment information. Details regarding the non-CEA assessment pathway are provided in **Section 4.3.2**.

4.3 Application and assessment process for exploration activities

The application process for exploration activities is summarised in **Flowchart 1** at the end of **Section 4**.

Title holders may apply for approval to carry out assessable prospecting operations by submitting a completed Application Form ESF4 to the Department.

The Application Form ESF4 asks specific questions about the proposed activity, with the answers identifying whether an activity is a CEA or a non-CEA. The Application Form ESF4 also identifies when additional supporting information must be submitted to satisfy relevant statutory requirements.

The questions in the Application Form ESF4 align with the CEA checklist contained in **Appendix 1**.

This checklist should be completed before attempting to complete an Application Form ESF4, as a completed checklist will:

- identify whether the activity will be assessable via the CEA pathway or non-CEA pathway
- enable proponents to complete the form quickly by having all relevant information on hand.

Note: For the purposes of conditions of prospecting titles issued prior to 1 July 2015, the Department's Application Form ESF4 replaces the requirement to lodge a surface disturbance notice (SDN) prior to commencement of exploration activities.

4.3.1 CEA assessment pathway

Applications to undertake CEAs will require less supporting information than applications for non-CEA activities, meaning the assessment process for these activities can be streamlined. The Department will consider the environmental impact of the proposed activity based on the information provided in the Application Form ESF4 and its own assessment of the likely environmental impacts of that activity.

Therefore, proponents who maximise the use of CEAs in their exploration programs may benefit from significant time and cost savings due to the reduced documentation requirements and shorter processing periods.

Part B of this guideline assists proponents to design activities and exploration programs to meet the CEA criteria and maximise the administrative benefits of the CEA assessment pathway.

Note: The information regarding an activity provided in an Application Form ESF4 which meets the CEA criteria will be taken to be a review of environmental factors (REF) for the purposes of any title conditions requiring the submission of a REF.

4.3.2 Non-CEA assessment pathway

Applications to carry out assessable prospecting operations which do not meet CEA criteria will require proponents to provide additional information about how the environmental impacts of the activity will be controlled.

The Application Form ESF4 is structured to identify the specific additional supporting information required by the Department to facilitate the environmental assessment.

The additional information can be provided in the form:

- a Targeted REF#. The preparation of a Targeted REF comprises the completion of all questions in *Form ESF4: Application to Conduct Exploration Activities*. A Targeted REF would generally be more suitable for activities that only slightly deviate from one or more of the CEA criteria. The information in a Targeted REF only needs to specify the potential environmental impacts associated with the departure(s) from the relevant CEA location restriction, impact criteria, or management control
- a Guideline REF# prepared in accordance with the Department's [ESG2: Guideline for Preparing a Review of Environmental Factors](#) (DPE, 2015). This may be appropriate for activities which significantly depart from the CEA criteria, but are not likely to have a significant impact on the environment. A Guideline REF is required for all petroleum exploration activities
- an EIS or SIS. An EIS will be required for activities likely to significantly affect the environment. A SIS will be required where an activity is likely to significantly affect threatened species or ecological communities (or their habitats), or impact on land that is a declared area of outstanding biodiversity value/critical habitat (refer to **Section 4.4**).

#Note: The NSW Strategic Regional Land Use Policy may also require an agricultural impact statement (AIS) to accompany a REF (see **Section 5**). In preparing an AIS, proponents should refer to [Guideline for Agricultural Impact Statements at the Exploration Stage](#).

Special note: all petroleum exploration activities will require a Guideline REF

Applications for approval to carry out petroleum exploration activities must be in the form of a Guideline REF in accordance with *ESG2: Guideline for Preparing a Review of Environmental Factors* (DPE, 2015). An EIS will be required for activities likely to significantly affect the environment. A SIS will be required where an activity is likely to significantly affect threatened species or ecological communities (or their habitats), or impact on land that is a declared area of outstanding biodiversity value/critical habitat (refer to **Section 4.4**).

These applications are determined by the Department and have prescribed public exhibition periods. The assessment timeframe is considerably longer than for other assessable prospecting operations with less significant impacts.

4.4 Exploration activities likely to significantly affect the environment

Any application for an exploration activity which is likely to significantly affect the environment must be accompanied by an EIS prepared in accordance with the requirements of Part 5 of the *Environmental Planning and Assessment Act 1979*. A SIS is required where an activity is likely to significantly affect threatened species or ecological communities (or their habitats), or impact on land that is a declared area of outstanding biodiversity value/critical habitat.

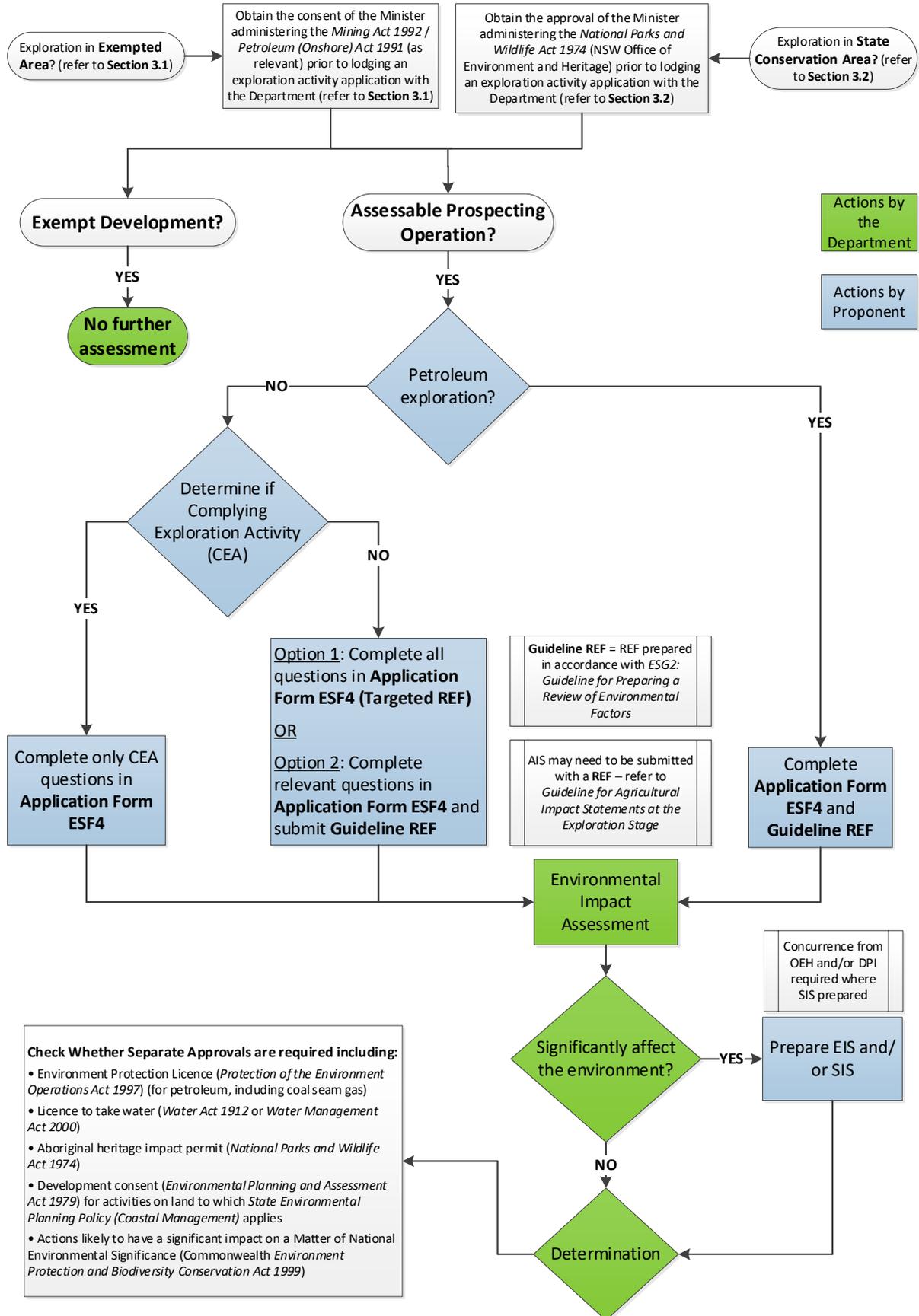
The information required to be included in the EIS is set out in the *Environmental Planning and Assessment Regulation 2000* and must also include specific assessment requirements identified by the Department of Planning and Environment (DPE).

The form, content and process for preparing a SIS are set out in the *Biodiversity Conservation Act 2016* or the *Fisheries Management Act 1994* (as applicable to the impacted species). The SIS must also address the specific assessment requirements identified by the OEH or the Department of Primary Industries (DPI) (as applicable to the impacted species).

Preparation of the EIS/SIS itself may also take some time, particularly if the potential impacts associated with the activities require detailed environmental studies to be completed.

If the title holder is of the view that an EIS or SIS may be required, they should contact the Department to discuss the proposed activity prior to seeking environmental assessment requirements from the DPE, OEH or DPI (as relevant).

Flowchart 1. Summary of exploration activity environmental assessment by the Department



5. When is an agricultural impact statement required?

The NSW Strategic Regional Land Use Policy requires an agricultural impact statement (AIS) to accompany certain exploration activity applications. An AIS is required for exploration activities that:

- are assessable prospecting operations that require further approval under the *Mining Act 1992* or *Petroleum (Onshore) Act 1991*, and
- require submission of an REF[#] for assessment under Part 5 of the *Environmental Planning and Assessment Act 1979*, and
- may impact on agricultural resources or industries.

Notwithstanding the above, an AIS is not required if the entire project area is located:

1. within a state forest, nature reserve or SCA, or
2. on existing residential, village, business or industrial zoned land under a local environmental plan (LEP), or
3. within an existing mining lease, or
4. on Land and Soil Capability Classes 7 or 8.

AND is completely located 500 metres or further, inside the boundary of the areas listed 1–4 above.

Explorers should refer to the [Guideline for Agricultural Impact Statements at the Exploration Stage](#) for further details, including when an AIS is required and how to prepare an AIS. An AIS may be included as a chapter in, or an Appendix to, a REF.

[#]*Note:* An AIS is not required where submission of a REF is not required. This applies to assessable prospecting operations which are CEAs (refer to **Sections 4.2.1** and **4.3.1**).

6. Other approvals

The assessment and approval of an activity under the *Mining Act 1992* or *Petroleum (Onshore) Act 1991* does not affect any obligation to comply with the requirements (including any requirement to obtain an approval) under other legislation. Examples of legislation imposing such requirements include the *Fisheries Management Act 1994*, *Forestry Act 2012*, *Heritage Act 1977*, *National Parks and Wildlife Act 1974*, *Protection of the Environment Operations Act 1997*, *Roads Act 1993*, *Rural Fires Act 1997*, *Water Act 1912* and *Water Management Act 2000*. Accordingly, the REF may be drafted to cover assessment requirements for a number of different approvals and government agencies.

Note: To find the relevant legislation, visit www.legislation.nsw.gov.au (NSW) or www.legislation.gov.au (Commonwealth).

Approvals required under other legislation

Exploration activities may trigger approval requirements under other legislation, including:

- an Environment Protection Licence (*Protection of the Environment Operations Act 1997*) (for petroleum, including coal seam gas)
- a licence to take water (*Water Act 1912* or *Water Management Act 2000*)
- an Aboriginal heritage impact permit (*National Parks and Wildlife Act 1974*)
- development consent (*Environmental Planning and Assessment Act 1979*) for activities on land to which *State Environmental Planning Policy (Coastal Management) 2018* applies
- actions likely to have a significant impact on a matter of national environmental significance (*Commonwealth Environment Protection and Biodiversity Conservation Act 1999*).

Part B: Complying exploration activities

7. Complying exploration activities (CEA)

CEAs are assessable prospecting operations which the Department has determined will be unlikely to have a significant impact on the environment. In order for an assessable prospecting operation to be a CEA, it must satisfy the following three tiers of criteria:

- **Tier 1 — Location restrictions**

The activity (or activities) must not be undertaken within locations identified as having high environmental, heritage and social sensitivities. These restrictions are discussed further in **Section 7.1**.

- **Tier 2 — Impact thresholds and criteria**

The activity, when considered cumulatively with other activities already approved under the title, must be carried out in a manner which does not exceed the identified impact thresholds or criteria. These are discussed further in **Section 7.2**.

- **Tier 3 — Management controls**

All Exploration Codes of Practice and/or title conditions relevant to the activity (activities) being undertaken must be complied with. The Codes of Practice and title conditions require the implementation of specific management controls to eliminate or mitigate potential environmental risks caused by exploration activities. These management controls are discussed further in **Section 7.3**.

All three Tiers must be satisfied for an activity to be assessed under the CEA assessment pathway.

Appendix 1 of this guideline contains a checklist for CEA criteria which aligns with questions asked in Application Form ESF4 (refer to **Section 4.1**). It includes references to **Part B** of this guideline which explains the criteria being assessed. The checklist has been designed to enable title holders to quickly identify whether or not a proposed exploration activity will be able to be processed under the CEA assessment pathway and, if not, where the design of the proposed activity needs to be modified to make it compliant with the CEA criteria.

The checklist is split into four tables which align with the CEA criteria:

- **Checklist 1** relates to the Tier 1 — Location Restrictions
- **Checklists 2A and 2B** relate to the Tier 2 — Impact Thresholds and Criteria
- **Checklist 3** relates to the Tier 3 — Management Controls.

7.1 Tier 1 — Location restrictions

The following section details the location restrictions that apply to CEAs. An activity cannot be assessed under the CEA assessment pathway unless all Tier 1 location restrictions can be satisfied. Explanatory notes are provided to assist proponents in identifying land to which these location restrictions apply.

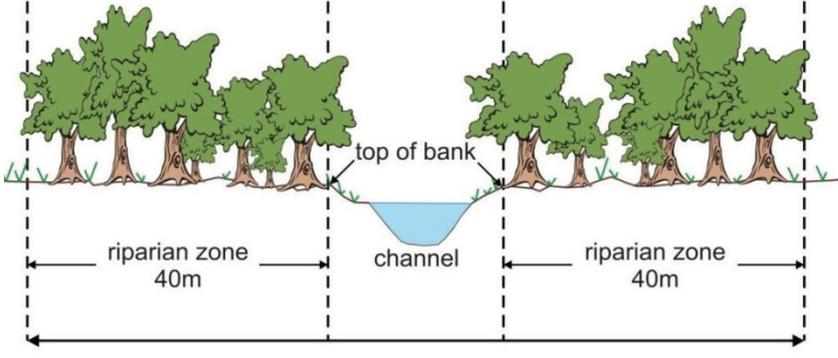
The proponent should obtain an up-to-date copy of the certificate of title for all land on which it intends to carry out exploration activities in order to comply with all notification and land access requirements under the *Mining Act 1992* or *Petroleum (Onshore) Act 1991*. Certificates of title can be obtained from [NSW Land and Property Information](#). Information on the certificates of title will also assist in confirming whether a proposed activity meets some of the location restriction criteria for CEAs.

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
Location restrictions — conservation areas		
Land reserved under <i>National Parks and Wildlife Act 1974</i>	CEAs must not occur on land reserved as a national park, nature reserve, karst conservation reserve, historic site, regional park or SCA under the <i>National Parks and Wildlife Act 1974</i> .	<p>Land reserved as national park, nature reserve, karst conservation reserve, historic site, regional park or SCA is mapped by the OEH. Basic mapping of the areas is available at the OEH website, with more detailed mapping available on the OEH spatial data portal and the NSW SEED environmental data portal.</p> <p>If the preliminary mapping of the boundaries of a title identifies that reserved lands are located within those boundaries, the proponent should obtain geo-referenced data to identify the precise location of those lands in relation to any proposed exploration activities.</p> <p><i>Note:</i> Exploration activities are typically prohibited in all of these areas, other than SCAs.</p>
<i>National Parks and Wildlife Act 1974 Part 11 Land</i>	CEAs must not occur on land acquired by the Minister for the Environment under Part 11 of the <i>National Parks and Wildlife Act 1974</i> .	<p>Under Part 11 of the <i>National Parks and Wildlife Act 1974</i>, the Minister for the Environment can acquire and hold land which is not reserved under the <i>National Parks and Wildlife Act 1974</i>.</p> <p>The Minister for the Environment will be identified as the land owner on the certificate of title for all land acquired under Part 11.</p> <p>Discussions with the OEH will also identify whether or not land owned by or vested in the Minister for the Environment is Part 11 land.</p>
Conservation agreements	CEAs must not occur on land subject to a 'conservation agreement' under the <i>National Parks and Wildlife Act 1974</i> .	A conservation agreement is a joint voluntary agreement between landholders and the Minister for the Environment, entered into under Division 12 Part 4 of the <i>National Parks and Wildlife Act 1974</i> . If an area is subject to a conservation agreement, it will be registered and identified on the certificate of title for that land.
Aquatic reserves	CEAs must not occur on land declared as an aquatic reserve under the <i>Marine Estate Management Act 2014</i> .	<p>Aquatic reserves are part of the marine protected areas system declared under the <i>Marine Estate Management Act 2014</i>. Information relating to the location of aquatic reserves is available from the DPI protecting habitats webpage.</p> <p>Spatial information on aquatic reserves is available as part of the NSW SEED environmental data portal. Spatial information is also available for download in ESRI shape files format as part of the Collaborative Australian Protected Areas Database.</p> <p>If the available mapping identifies that an aquatic reserve is located within the title, the proponent should obtain geo-referenced data identifying the location of the aquatic reserve in relation to the proposed exploration activities.</p>

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
<p>Marine parks</p>	<p>CEAs must not occur on land declared as a marine park under the <i>Marine Estate Management Act 2014</i>.</p>	<p>Marine Parks are declared under the <i>Marine Estate Management Act 2014</i>. Information relating to the location of marine parks is available from the DPI protecting habitats webpage.</p> <p>Spatial information on marine parks is available as part of the NSW SEED environmental data portal. Spatial information is also available for download in ESRI shape files format as part of the Collaborative Australian Protected Areas Database.</p> <p>If the available mapping identifies that a marine park is located within the title, the proponent should obtain geo-referenced data identifying the location of the marine park in relation to the proposed exploration activities.</p>
<p>Forestry conservation areas</p>	<p>CEAs must not occur on land within a state forest set aside under the <i>Forestry Act 2012</i> for conservation values including:</p> <ul style="list-style-type: none"> • flora Reserves • special management (and other) zones. 	<p>Forestry management zones are provided for under the <i>Forestry Act 2012</i>, including the declaration of special management zones. The mapping of forestry management zones is currently provided for by the Forestry Corporation Ecologically Sustainable Forest Management Plans.</p> <p>Spatial information on State Forests is available as part of the NSW SEED environmental data portal.</p> <p>Proponents should consult with Forestry Corporation NSW to obtain more detailed mapping and information regarding the location of flora reserves and special management zones that may be located within the title area.</p>
<p>Crown reserves for environmental protection purposes</p>	<p>CEAs must not occur on land reserved or dedicated under the <i>Crown Lands Act 1989/Crown Lands Management Act 2016 (as applicable)</i> for the preservation of flora, fauna, geological formations, or for other environmental protection purposes.</p>	<p>Areas of Crown land are identified by cadastral information available from the DPI — Crown Land Division.</p> <p>Spatial information on Crown Lands is available as part of the NSW SEED environmental data portal.</p> <p>The proponent should contact DPI Crown Land Division regarding the presence of Crown land reserves within the title.</p>
<p>Wilderness</p>	<p>CEAs must not occur on land identified as wilderness or declared a wilderness area under the <i>Wilderness Act 1987</i>.</p>	<p>Areas identified as wilderness or declared as a wilderness area under the <i>Wilderness Act 1987</i> are mapped by the OEH spatial data portal and the NSW SEED environmental data portal.</p> <p>If the available mapping identifies that a wilderness area is located within the title, the proponent should obtain geo-referenced data identifying the location of the wilderness area in relation to the proposed exploration activities.</p>
<p>Biodiversity banking and offsets scheme</p>	<p>CEAs must not occur on land subject to a biodiversity banking and offsets scheme established under the <i>Biodiversity Conservation Act 2016</i> or <i>Threatened Species Conservation Act 1995</i> (now repealed).</p>	<p>BioBanking agreements are established between a landowner and the Minister for the Environment (under the now repealed <i>Threatened Species Conservation Act 1995</i>). A biobanking agreement is a conservation covenant that is attached to the land title. It runs with the land and generally has effect in perpetuity so as to offset the impacts of development on biodiversity values.</p> <p>The existence of a biobanking agreement will be identified on the certificate of title to the land and on the OEH website.</p>

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
Location restrictions — drinking water catchment protection areas		
Drinking water catchment protection areas	CEAs must not occur on land declared to be a 'controlled area' or a 'special area' under the <i>Water NSW Act 2014</i> , or a 'special area' under the <i>Water Management Act 2000</i> or <i>Hunter Water Act 1991</i> .	<p>Access to land within catchment management areas, particularly surrounding drinking water dam catchment areas, can be restricted by the relevant controlling water authority. For example, areas surrounding Warragamba Dam are special and controlled areas declared under the <i>Water NSW Act 2014</i>, and areas around Grahamstown Dam are special areas under the <i>Hunter Water Regulation 2010</i>.</p> <p>The proponent is required to contact the relevant water management authority responsible for the regulation of water storage facilities in relation to areas of restricted access within the title. Further information regarding catchments managed by WaterNSW is available at www.waternsw.com.au/water-quality/catchment.</p> <p>Spatial information on drinking water catchments is available as part of the NSW SEED environmental data portal.</p>
Location restrictions – environmentally sensitive areas		
Area of outstanding biodiversity value/critical habitat	CEAs must not occur on land declared as areas of outstanding biodiversity value under the <i>Biodiversity Conservation Act 2016</i> or critical habitat under Part 7A of the <i>Fisheries Management Act 1994</i> .	<p>Declared areas of outstanding biodiversity value under the Biodiversity Conservation Act 2016 are listed in the Register maintained by the OEH.</p> <p>Areas declared as critical habitat under the <i>Fisheries Management Act 1994</i> are recorded in the DPI register of critical habitat.</p> <p>If the available mapping identifies that an area of outstanding biodiversity value/critical habitat is located within the title, the proponent should obtain geo-referenced data identifying the location of the area in relation to the proposed exploration activities.</p>
Ramsar wetlands	CEAs must not occur on land designated as a wetland of international significance under the Ramsar Convention on Wetlands.	<p>Information relating to the Ramsar Wetlands located within Australia can be obtained from the Australian Wetlands Database provided by the Australian Government Department of Environment and the NSW SEED environmental database.</p> <p>If a Ramsar wetland is located within a title, the proponent should obtain geo-referenced data to accurately identify the location of the Ramsar wetland in relation to the proposed exploration activities. Exploration activities cannot be undertaken within a Ramsar wetland without further approvals under the relevant legislation.</p> <p>Ramsar wetlands are also recognised as a matter of national environmental significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>, and activities located in close proximity to a Ramsar wetland may also require approval under the Commonwealth <i>Environment Protection Biodiversity Conservation Act 1999</i>.</p>
Nationally important wetlands	CEAs must not occur on land designated as a nationally important wetland in the Directory of Important Wetlands of Australia.	Information relating to nationally important wetlands can be obtained from the Australian Wetlands Database provided by the Australian Government Department of Environment and the NSW SEED environmental database .

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
Coastal wetlands	CEAs must not occur on land identified as Coastal Wetlands under <i>State Environmental Planning Policy (Coastal Management) 2018</i> .	<p>Land identified as coastal wetlands by <i>State Environmental Planning Policy (Coastal Management) 2018</i> is mapped by the OEH spatial data portal and the NSW SEED environmental database.</p> <p>Coastal wetlands declared under the SEPP are also typically mapped by local councils. Mapping may be available from the development planning or environment sections of the local council relevant to the location of the authority. Mapping may also be available via the council website.</p> <p>Should the available mapping identify that the title may contain coastal wetlands declared under the SEPP, the proponent should obtain geo-referenced data to accurately identify the location of the wetlands in relation to the proposed exploration activities.</p>
Littoral rainforests	CEAs must not occur on land identified as Littoral Rainforests under <i>State Environmental Planning Policy (Coastal Management) 2018</i> .	<p><i>State Environmental Planning Policy (Coastal Management) 2018</i> applies to littoral rainforests, which are rainforests which occur in coastal areas. Broad scale mapping of littoral rainforests is contained in the OEH spatial data portal (refer to coastal wetlands above for further details) and the NSW SEED environmental database.</p> <p>Local councils may also have more detailed mapping of littoral rainforests within their local government areas.</p> <p>Should the available information identify that littoral rainforest may be located within or near to the title, the proponent should obtain geo-referenced data to accurately identify the location of the littoral rainforest in relation to the proposed exploration activities.</p>
Coastal zone	CEAs must not occur within the coastal zone as defined in the <i>Coastal Management Act 2016</i> .	<p>The Coastal Zone includes the Coastal Waters of the State. The Coastal Waters of the State are defined by the <i>Interpretation Act 1987</i> as being:</p> <ul style="list-style-type: none"> • the part or parts of the territorial sea of Australia that is or are within the adjacent area in respect of the state, other than any part referred to in section 4 (2) of the <i>Coastal Waters (State Powers) Act 1980</i> of the Commonwealth • any sea that is on the landward side of any part of the territorial sea of Australia and is within the adjacent area in respect of the state, but is not within the limits of the state. <p>The Coastal Waters of the State generally extend up to three nautical miles from the NSW coastline.</p>
Areas of biodiversity or conservation significance	CEAs must not occur on land identified in an environmental planning instrument as being of biodiversity significance or zoned for environmental conservation.	<p>Environmental planning instruments (such as local environmental plans, regional environmental plans and state environmental planning policies) relevant to the title may identify land as being of biodiversity significance or zoned for environmental conservation. Land identified as such is considered to be environmentally sensitive.</p> <p>Relevant environmental planning instruments should be referred to in determining whether the title contains an area of biodiversity significance or environmental conservation.</p> <p>Spatial information on land use zoning is available as part of the NSW SEED environmental data portal.</p> <p>Environmental planning instruments which apply in NSW can be found at NSW Legislation.</p>

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
<p>Waterfront land</p>	<p>CEAs must not occur on waterfront land as defined under the <i>Water Management Act 2000</i>.</p> <p><i>Note:</i> This does not apply to the use of existing access tracks and upgrading existing access tracks to satisfy the requirements of the <i>Managing Urban Stormwater: Soils and Construction, Volume 2C, Unsealed Roads</i> (DECC 2008a) and <i>Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI 2013).</p>	<p>The <i>Water Management Act 2000</i> defines waterfront land as the bed of any river, lake or estuary and any land within 40 metres of the river banks, lake shore or estuary mean high water mark. Rivers, lakes or estuaries can be identified with reference to the NSW SEED environmental data portal.</p> <p>Waterfront land forms a transition zone between the land, also known as the terrestrial environment, and the river or watercourse or aquatic environment (NOW 2012). The waterfront land consists of:</p> <ul style="list-style-type: none"> the channel which comprises the bed and banks of the watercourse (to the highest bank) the vegetated riparian zone adjoining the channel. <p>Figure 1 provides a representation of waterfront land.</p> <p style="text-align: center;">Figure 1. Waterfront land</p>  <p>CEAs are not permitted within waterfront land, being 40 metres from the top of the bank of a watercourse (refer to Figure 1).</p> <p>Only works ancillary to exploration activities for the purpose of using and/or upgrading an existing access track are permitted on waterfront land for the purpose of a CEA. Upgrade works are only permitted within waterfront land if the works are undertaken in accordance with the <i>Managing Urban Stormwater: Soils and Construction Requirements: Volume 2C Unsealed Roads</i> (DECC, 2008a) (Blue Book: Unsealed Roads) and the <i>Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI, Update 2013).</p> <p>Where exploration activities are located near to waterfront land, it is recommended that the proponent obtains geo-referenced data which will provide accurate mapping of the riparian areas and assist in communicating the exclusion zones with the relevant contractors and staff.</p> <p>New access tracks on waterfront land are not CEAs.</p>

LOCATION RESTRICTIONS	EXPLANATORY NOTES	
<p>Steep slopes</p>	<p>CEAs must not occur on slopes greater than 18 degrees from horizontal.</p>	<p>Vegetation removal on steep slopes can contribute to slope instability or erosion.</p> <p>Only works ancillary to exploration activities for the purposes of upgrading existing access tracks to satisfy the requirements of the Blue Book: Unsealed Roads are permitted on slopes greater than 18 degrees.</p> <p>The proponent is to identify areas within the title where slopes are likely to be greater than 18 degrees from horizontal. The identification of these areas can be undertaken using topographic mapping or geographic information systems. These areas can also be identified in the field using a clinometer or similar instrument.</p> <p>Spatial information on slope of land/contours is available as part of the SEED environmental database.</p> <p>The upgrade of existing access tracks can be undertaken in areas where the slope is greater than 18 degrees provided that the existing access tracks are upgraded in accordance with Blue Book: Unsealed Roads requirements and appropriate drainage controls are installed. Access track upgrade works must not remove shrubs or trees on slopes greater than 18 degrees.</p>
<p>Location restrictions — Land with potential for soil and water contamination</p>		
<p>Acid sulfate soils</p>	<p>CEAs must not include excavations (other than drill holes) in potential acid sulfate soils or actual acid sulfate soils as defined by the OEH Acid Sulfate Soils Risk Maps.</p>	<p>Acid sulfate soils occur in two forms — potential acid sulfate soils (PASS) and actual acid sulfate soils (AASS). Both PASS and AASS are formed from sediments containing iron sulfides which were formed in anaerobic and water logged conditions. In-situ, PASS pose no threat to the environment as the material has not been exposed to air and oxidised.</p> <p>The field pH of these soils in their undisturbed state can be pH 4 or more, and may be neutral or slightly alkaline.</p> <p>AASS are PASS which have been exposed to oxygen as a result of drainage or disturbance. The sulphides in the soil mix with oxygen when exposed to air and produce sulfuric acid which makes the soil more acidic with a pH of below 4.0. AASS often release toxic quantities of iron, aluminium and heavy metals. PASS and AASS are often found in the same soil profile with AASS typically overlying PASS.</p> <p>Acid sulfate soils risk maps for NSW are managed by the OEH. Acid sulfate soils risk mapping is also available at the OEH spatial data portal and the NSW SEED environmental database.</p> <p>The proponent is to determine whether acid sulfate soils are mapped as being present within the title and whether the proposed activities are to be undertaken within these areas.</p>
<p>Location restrictions — Aboriginal heritage protection areas</p>		
<p>Aboriginal places under the National Parks and Wildlife Act 1974</p>	<p>CEAs must not occur on land declared as an Aboriginal place under the <i>National Parks and Wildlife Act 1974</i>.</p>	<p>Under section 84 of the <i>National Parks and Wildlife Act 1974</i>, the Minister may, by order published in the Gazette, declare any place specified or described in the order, being a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture, to be an Aboriginal place.</p> <p>Information regarding Aboriginal places is available through the OEH statutory Aboriginal Heritage Information Management System database.</p> <p>If an Aboriginal place is located within the title, the proponent should obtain geo-referenced data identifying the location of the Aboriginal place in relation</p>

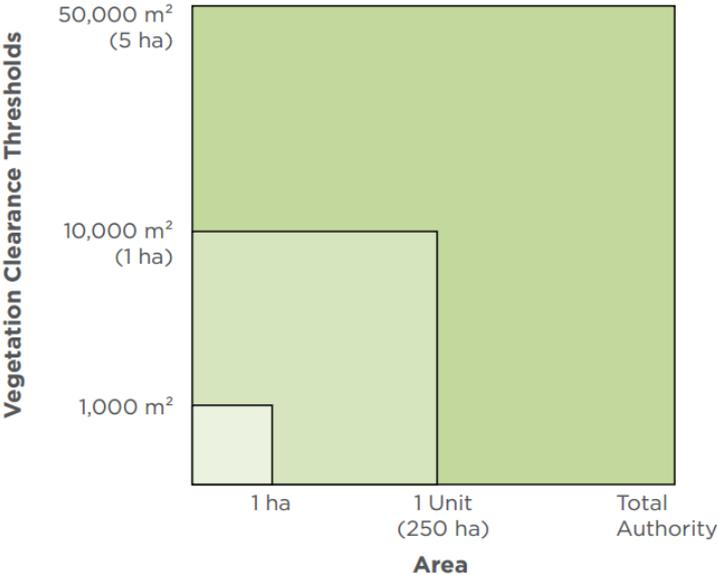
LOCATION RESTRICTIONS	EXPLANATORY NOTES	
		to the proposed exploration activities.
Areas of Aboriginal cultural significance	CEAs must not occur on land identified in an environmental planning instrument as being of Aboriginal cultural significance.	<p>Environmental planning instruments (such as local environmental plans, regional environmental plans and state environmental planning policies) relevant to the title may identify land as being of Aboriginal cultural significance.</p> <p>Spatial information on land identified in an environmental planning instrument as being of Aboriginal cultural significance is available as part of the SEED environmental database.</p> <p>The proponent is required to refer to the relevant environmental planning instruments and determine whether the title contains an area of Aboriginal cultural heritage.</p> <p>Environmental planning instruments which apply in NSW can be found at NSW Legislation.</p>
Location restrictions — historic or natural heritage protection areas		
Nationally and internationally recognised heritage sites	CEAs must not occur on land identified on the World Heritage List, National Heritage List or Commonwealth Heritage List.	<p>A full list of world heritage sites located within Australia is maintained by the Australian Government Department of Environment. The online listing can be viewed at World Heritage Sites within Australia and the NSW SEED environmental database.</p> <p>The Australian Government Department of Environment also maintains the National Heritage List.</p> <p>The Commonwealth Heritage List is a list of natural, Indigenous and historic heritage places owned or controlled by the Australian Government.</p>
Items listed on State Heritage Register	CEAs must not occur on land, places, buildings or structures listed on the State Heritage Register.	<p>The State Heritage Register is a list of places and objects which are legally protected under the <i>Heritage Act 1977</i>.</p> <p>This spatial information can also be viewed on the NSW SEED environmental database.</p>
Heritage items identified in an environmental planning instrument	CEAs must not occur on land identified in an environmental planning instrument as being of heritage significance.	<p>Environmental planning instruments (such as local environmental plans, regional environmental plans and state environmental planning policies) relevant to the title may identify land as being or containing a heritage item or heritage conservation area.</p> <p>This spatial information can be viewed on the NSW SEED environmental database.</p> <p>The proponent is required to refer to the relevant environmental planning instruments and determine whether it contains any heritage items.</p> <p>Environmental planning instruments which apply in NSW can be found at NSW Legislation.</p>
Location restrictions — critical industry clusters		
Critical industry clusters	CEAs must not occur on land identified as a critical industry cluster land under a strategic regional land use plan and state environmental planning policy.	<p>The Mining SEPP provides for the classification of certain land as critical industry cluster (CIC) land under a strategic regional land use plan (SRLUP). CICs are concentrations of highly productive rural industries within a region that are related to each other, contribute to the identity of that region, and provide employment opportunities.</p> <p>The SRLUP prepared for the Upper Hunter includes mapping of land identified as CIC land; two types of CIC land, equine and viticulture, have been mapped to date. The SRLUP for New England North West does not</p>

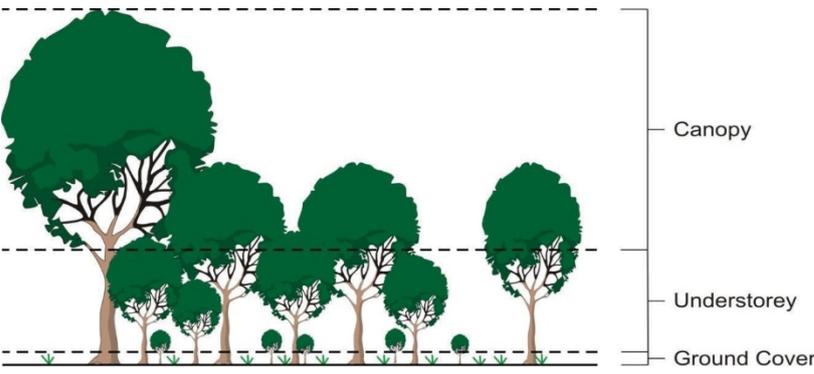
LOCATION RESTRICTIONS	EXPLANATORY NOTES	
		<p>include CIC land.</p> <p>CIC land is identified on the strategic agricultural land maps in the Mining SEPP.</p> <p>This spatial information can be viewed on the NSW SEED environmental database.</p>
Location restrictions — community land		
Community land	<p>CEAs must not occur on public land classified as community land under the <i>Local Government Act 1993</i>.</p>	<p>Local councils are responsible for the management of public land classified as community land. All community land must be managed in line with a plan of management prepared in accordance with the <i>Local Government Act 1993</i>. Councils are also required under the <i>Local Government Act 1993</i> to keep a register of all land vested in it or under its control.</p> <p>Areas classified as community land are identified by the relevant local environmental plan (which can be found at NSW Legislation) and by reviewing the Council Land Register.</p>
Location Restrictions — Other areas		
Other areas	<p>CEAs must not occur on any other land identified as environmentally sensitive land by the title.</p>	<p>Refer to the conditions of the title for details of any other land identified as being environmentally sensitive.</p>

7.2 Tier 2 — Impact thresholds

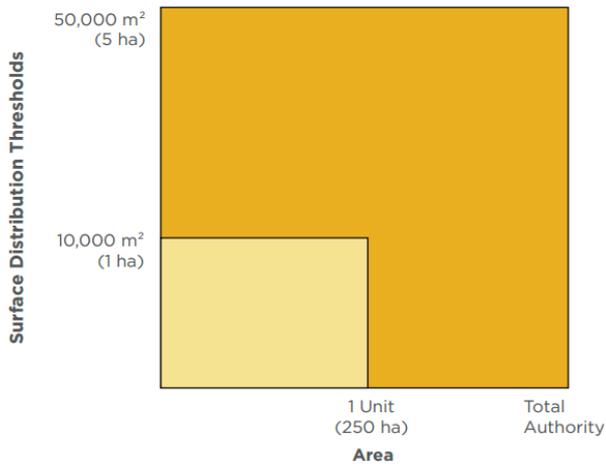
All Tier 2 thresholds must be satisfied before an activity can be assessed under the CEA assessment pathway. These include cumulative impact thresholds and encompass impacts from existing approved activities that have not yet been rehabilitated to the satisfaction of the Department (or have not yet been undertaken), as well as the impacts from the proposed CEA. Rehabilitation must only be reported as completed in cases where the Department has acknowledged in writing that the area has been satisfactorily rehabilitated, following the receipt and assessment of *Form ESF2: Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate*.

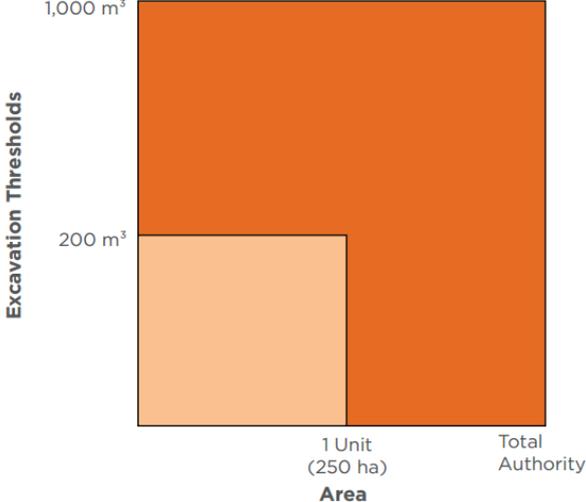
The following sections provide details of the Tier 2 impact thresholds and criteria. For the activity to be assessed under the CEA assessment pathway, the following impact thresholds must not be exceeded.

IMPACT THRESHOLDS	EXPLANATORY NOTES
Cumulative impact thresholds (existing approved + proposed) — vegetation clearing	
<p>Cumulative vegetation clearing and/or removal of tree canopy, must not exceed 1,000 square metres in any single hectare.</p> <p>Note: Explorers should use a grid overlay of 1 hectare cells over the unit/title area to assist with this calculation.</p>	<p>The vegetation clearing thresholds which apply to CEAs are presented in Figure 2. The vegetation clearing threshold is cumulative and includes disturbance associated with other approved exploration activities that have not yet been rehabilitated to the satisfaction of the Department. (<i>Note: Rehabilitation must only be reported as completed in cases where the Department has acknowledged in writing that the area has been satisfactorily rehabilitated, following the receipt and assessment of Form ESF2: Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate.</i>)</p>
<p>Cumulative vegetation clearing and/or removal of tree canopy, must not exceed 1 hectare in any single unit of the title (or every 250 hectares in the case of authorities which do not align to unit boundaries).</p>	<p>Figure 2. Vegetation clearing thresholds</p>  <p>The vegetation clearing thresholds apply to surface disturbing activities that will remove vegetation cover.</p> <p>Exceptions are prescribed for noxious weeds, crops and non-native species dominant grasslands discussed below. Figure 3 provides a basic understanding of vegetation structure and the canopy component for the purposes of the calculations required to understand the vegetation clearing thresholds for CEAs.</p> <p>The removal of vegetation cover in a partly vegetated location is considered to constitute groundcover removal, even where groundcover density is less than 100%</p>

IMPACT THRESHOLDS	EXPLANATORY NOTES
<p>Cumulative vegetation clearing and/or removal of tree canopy must not exceed 5 hectares within any single title.</p>	<p style="text-align: center;">Figure 3. Vegetation strata</p>  <p>Canopy cover is defined as the upper canopy where the upper canopy is greater than 1.5 metres in height. The actual height of the boundary between the understorey and the canopy is variable, depending on the vegetation community present. The removal of any vegetation greater than 1.5 metres in height which forms part of the canopy is to be counted in vegetation clearing calculations. The clearing of heath land with a canopy height above 1.5 metres is also subject to the vegetation clearing thresholds.</p> <p>The canopy cover to be removed within any stand of trees can be estimated with reasonable accuracy through the use of aerial photography and satellite imagery by identifying the crowns of trees that will be removed.</p> <p>Non-native species, crops and grasslands dominated by introduced species</p> <p>The vegetation clearing thresholds do not apply to the removal of crops, non-native groundcover species or other non-native species declared to be noxious under the <i>Noxious Weeds Act 1993</i>.</p> <p>The vegetation clearing thresholds also do not apply to the clearing of grassland communities that contain a groundcover of less than 50% native (endemic) species (surface disturbance thresholds do however apply).</p> <p>The nature of the grassland can be determined by:</p> <ul style="list-style-type: none"> • using existing background information, such as previous environmental assessments, management plans or vegetation mapping undertaken for the area • survey of the area by a suitably qualified ecologist or other competent person (such as a local council vegetation/weed officer). <p>If background information is not available for the area and the location of exploration activities has no ongoing disturbance (such as farming and/or pasture improvement), the proponent should assume that the grassland is native unless the area has been surveyed by a suitably qualified ecologist or other competent person (such as a local council vegetation/weed officer).</p> <p>Access tracks</p> <p>Vegetation clearing thresholds apply to works associated with the construction of new access tracks, realigned sections of existing access tracks, or sections of upgraded access tracks. Existing access tracks should be used wherever possible and upgrading existing access tracks to meet <i>Blue Book: Unsealed Roads</i> requirements is encouraged.</p> <p>Maintenance works on access tracks (such as the cleaning of drains, grading or vegetation clearing) which remove or disturb vegetation previously impacted by the original development of the access track, are not counted in</p>

IMPACT THRESHOLDS	EXPLANATORY NOTES
	<p>vegetation clearing calculations.</p> <p>Access track upgrade works permitted in waterfront land must not result in the removal of any trees or shrubs. Removal of groundcover, where necessary for access track upgrade works along the access track alignment in accordance with <i>Blue Book: Unsealed Roads</i>, does not count towards clearance thresholds.</p> <p>Rehabilitated sites and calculating cumulative impacts</p> <p>For the purpose of cumulative calculations, an area is not to be counted as being cleared if the Department has acknowledged in writing that the site has been satisfactorily rehabilitated. (<i>Note: Rehabilitation must only be reported as completed in cases where the Department has acknowledged in writing that the area has been satisfactorily rehabilitated, following the receipt and assessment of Form ESF2: Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate.</i>)</p>
Cumulative impact thresholds (existing approved + proposed) — surface disturbance	
<p>Cumulative surface disturbance must not exceed a total of 1 hectare within any single unit of a title (or every 250 hectares in the case of authorities which do not align to unit boundaries).</p>	<p>Surface disturbance limits</p> <p>The surface disturbance thresholds which apply to CEAs are summarised graphically in Figure 4.</p> <p>Surface disturbance is defined as being:</p> <ul style="list-style-type: none"> • disturbance of the soil or surface rock layer, or • degradation or deterioration in any manner of the physical surface of land. <p>Determining the areas of surface disturbance</p>
<p>Cumulative surface disturbance must not exceed a total of 5 hectares within any title.</p>	<p>Cumulative surface disturbance needs to be calculated for each single unit within the title. The cumulative surface disturbance can be estimated on an activity basis. Estimations can be made by determining typical disturbance areas associated with exploration activities, mapping of larger scale exploration activities, or area calculations of known disturbance areas such as access tracks.</p> <p>Examples of activities that disturb the surface include:</p> <ul style="list-style-type: none"> • excavation • drilling and the associated drilling infrastructure • bulk sampling activities • seismic activities • construction of new access tracks. <p>Examples of activities that may result in the loss of surface cover include:</p> <ul style="list-style-type: none"> • the activities listed above • erosion and sediment controls • vegetation clearing • soil and vegetation stockpiles. <p>The calculation of cumulative surface disturbance from the exploration activities must consider all phases of the activities, including:</p> <ul style="list-style-type: none"> • construction • operation • rehabilitation (all un-rehabilitated sites are to be included in cumulative surface disturbance calculations).

IMPACT THRESHOLDS	EXPLANATORY NOTES						
	<p data-bbox="798 228 1273 259">Figure 4. Surface disturbance thresholds</p>  <table border="1" data-bbox="734 286 1340 750"> <caption>Data for Figure 4: Surface disturbance thresholds</caption> <thead> <tr> <th>Area</th> <th>Surface Distribution Threshold</th> </tr> </thead> <tbody> <tr> <td>1 Unit (250 ha)</td> <td>10,000 m² (1 ha)</td> </tr> <tr> <td>Total Authority</td> <td>50,000 m² (5 ha)</td> </tr> </tbody> </table> <p data-bbox="622 772 790 801">Access tracks</p> <p data-bbox="622 817 1412 1008">Any surface disturbance associated with upgrading existing access tracks carried out to comply with the requirements of the Blue Book: Unsealed Roads is not included in threshold calculations, provided the surface disturbance is no wider than 6 metres (excluding drainage works). Any surface disturbance outside a 6 metre wide corridor is to be included in threshold calculations.</p> <p data-bbox="622 1025 1444 1216"><i>Note:</i> Excavated material (and stockpile areas of excavated material) counts towards surface disturbance and excavation threshold calculations unless the excavated material is used as part of the access track upgrade works (e.g. excavated material used in cut and fill or creation of rollover banks, drains, etc., does not count towards surface disturbance or excavation calculations, even if temporarily stockpiled prior to use).</p>	Area	Surface Distribution Threshold	1 Unit (250 ha)	10,000 m ² (1 ha)	Total Authority	50,000 m ² (5 ha)
Area	Surface Distribution Threshold						
1 Unit (250 ha)	10,000 m ² (1 ha)						
Total Authority	50,000 m ² (5 ha)						

IMPACT THRESHOLDS	EXPLANATORY NOTES
Cumulative impact thresholds (existing approved + proposed) — excavations	
<p>Cumulative excavations must not exceed 200 cubic metres within any single unit of a title (or every 250 hectares in the case of authorities which do not align to unit boundaries), or 1,000 cubic metres within any single title.</p>	<p>Excavation limits</p> <p>The excavation thresholds which apply to CEAs are summarised graphically in Figure 5. To calculate the cumulative total of excavations, the proponent should identify all excavation activities to be undertaken within each single unit of the title, as well as across the whole title.</p> <p style="text-align: center;">Figure 5. Excavation thresholds</p>  <p style="text-align: center;">Access track upgrades</p> <p>Excavation associated with upgrading existing access tracks to comply with the requirements of the <i>Blue Book: Unsealed Roads</i> is not included in threshold calculations, provided the excavation is located within the 6 metre road corridor (excludes drainage works). Excavations outside the 6 metre wide corridor are to be included in threshold calculations.</p> <p><i>Note:</i> Excavated material (and stockpile areas of excavated material) counts towards surface disturbance and excavation threshold calculations unless the excavated material is used as part of the access track upgrade works (e.g. excavated material used in cut and fill or creation of rollover banks, drains, etc., does not count towards surface disturbance or excavation calculations, even if temporarily stockpiled (less than one week) prior to use).</p> <p>Rehabilitated sites</p> <p>All excavations are to be filled following completion of the exploration activity. For the purpose of cumulative calculations, excavations are to be counted in the excavation threshold, unless the Department has acknowledged in writing that the site has been satisfactorily rehabilitated. (<i>Note:</i> Rehabilitation must only be reported as completed in cases where the Department has acknowledged in writing that the area has been satisfactorily rehabilitated, following the receipt and assessment of <i>Form ESF2: Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate</i>).</p>

IMPACT THRESHOLDS	EXPLANATORY NOTES
Cumulative impact thresholds (existing approved + proposed) — extraction of groundwater (produced water)	
<p>Cumulative extraction of groundwater from all exploration activities within the title does not exceed a total of 3 ML per year.</p>	<p>The cumulative groundwater extraction from all exploration activities within the title area must not exceed 3 ML per year.</p> <p>The Water Management (General) Regulation 2011 provides an exemption that allows for a fossicker to take up to 3 ML of water per year without the need for approval. CEAs which may result in the taking of groundwater include:</p> <ul style="list-style-type: none"> • drilling • excavations (including bulk samples). <p>The proponent is required to determine the total groundwater use/withdrawal for all activities within the title for each year that the CEAs will be undertaken. The proponent will need to have a clear understanding of the groundwater sources within the title which may be intercepted by the proposed activities.</p>
Impact thresholds — ecology	
<p>Activity must not have a significant effect on any threatened species or ecological communities, or their habitats.</p>	<p>To determine a proposed activity's likely impact on threatened species or ecological communities, or their habitats, a search of relevant state and Commonwealth databases should be undertaken. These searches should identify any threatened species or communities that have been recorded within the vicinity that may be affected by the proposed activity.</p> <ul style="list-style-type: none"> • NSW Bionet or the NSW SEED environmental database • Commonwealth Protected Matters Search Tool <p>In addition to a database search, a site inspection by a qualified ecologist or other competent person should be undertaken for all sites located partly or wholly in areas that have not been subject to surface disturbance or cropped within the past five years and/or do not contain improved pastures comprising more than 50% of the ground cover. Access tracks should also be inspected unless no upgrade works are proposed. This site inspection should assess the site for the presence of any threatened ecological communities and identify any threatened species that may be present in the proposed disturbance area and the immediate vicinity.</p> <p>An assessment of significance must be undertaken in accordance with Section 7.3 of the <i>Biodiversity Conservation Act 2016</i> for all threatened flora and fauna species identified through the desktop searches and site inspection that are likely to or have real potential to be impacted by the proposed activities. If the activity is located in a threatened ecological community or a threatened ecological community has real potential of being impacted by the activity, an assessment of significance must also be undertaken to assess the likely significance of the proposed activities impact on the community. Only activities identified as being unlikely to have a significant effect on threatened species or ecological communities, or their habitats, can be classified as CEAs.</p> <p>Guidance for the preparation of assessments of significance for flora and fauna is provided by the Department of Environment and Climate Change's Threatened Species Assessment Guidelines: The Assessment of Significance (DECC, 2007b). For threatened fish species, guidance is provided by the Threatened Species Assessment Guidelines (DPI, 2008).</p> <p>A copy of the results of the database searches and details of any threatened species or ecological communities identified during the site inspection should accompany the application for approval of the activity. A copy of any assessments of significance undertaken, together with an explanation of why any species or communities identified in either the site inspection or</p>

IMPACT THRESHOLDS	EXPLANATORY NOTES
	<p>database searches were not, must accompany the application. This will enable the determining authority to confirm the adequacy of the assessment of potential impacts.</p> <p>(See also the Explanatory Notes regarding vegetation clearing thresholds and access tracks).</p>
Impact thresholds — heritage	
<p>Activity must not harm Aboriginal objects.</p>	<p>An Aboriginal object is defined under the <i>National Parks and Wildlife Act 1974</i> as:</p> <p><i>any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.</i></p> <p>Aboriginal objects include artefacts, culturally modified trees, grinding grooves and artwork sites.</p> <p>The proponent is to undertake an Aboriginal archaeological due diligence assessment in accordance with the requirements of the NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects (NSW Minerals Council Ltd, 2010).</p> <p>Checking the Aboriginal Heritage Information Management System (AHIMS), which includes information about Aboriginal objects, is a part of the due diligence process.</p> <p>Previously disturbed areas where Aboriginal objects have previously been identified should be inspected as part of the due diligence process, minimising the risk of activities being delayed if an object is identified during the undertaking of the activity.</p> <p>The due diligence assessment is to consider all activities, including the upgrade of existing access tracks. If an Aboriginal object is located near to and within the land where exploration activities are to be conducted, appropriate measures must be put in place to prevent harm. This could include demarcation with flagging tape or fencing.</p> <p>Surface disturbing activities associated with upgrading existing access tracks are subject to this restriction.</p> <p><i>Note:</i> Any activity that is likely to occur on land that is declared as an Aboriginal place is not eligible for consideration under the CEA assessment pathway. Refer to the Tier 1 location restrictions outlined in Section 7.1.</p>
<p>Activity must not damage heritage items.</p>	<p>The proponent is required to avoid any impacts to a heritage item. An item means a place, building, work, relic, moveable object or precinct. The presence of a heritage item can be identified by using the following registers and instruments:</p> <ul style="list-style-type: none"> • World Heritage List • Commonwealth Heritage List • National Heritage List • State Heritage Register • relevant environmental planning instrument (local environment plan, regional environmental plan or state environmental planning policy). <p>This spatial information can be viewed on the NSW SEED environmental database.</p>

7.3 Tier 3 — Management controls

Specific management controls have been identified in the [Department's exploration codes of practice](#) that eliminate or mitigate potential environmental risks presented by exploration activities.

All codes of practice relevant to the activities being undertaken must be implemented to qualify for the CEA assessment pathway.

MANAGEMENT CONTROLS	EXPLANATORY NOTES
Exploration Code of Practice: Environmental Management	
Activity must be undertaken in accordance with the <i>Exploration Code of Practice: Environmental Management</i> .	The <i>Exploration Code of Practice: Environmental Management</i> can be found at the Department's Exploration Codes of Practice .
Exploration Code of Practice: Rehabilitation	
Activity must be undertaken in accordance with the <i>Exploration Code of Practice: Rehabilitation</i> .	The <i>Exploration Code of Practice: Rehabilitation</i> can be found at the Department's Exploration Codes of Practice .
Exploration Code of Practice: Produced Water Management, Storage and Transfer	
Activity must be undertaken in accordance with the <i>Exploration Code of Practice: Produced Water Management, Storage and Transfer</i> .	The <i>Exploration Code of Practice: Produced Water Management, Storage and Transfer</i> can be found at the Department's Exploration Codes of Practice .

Part C: Departmental information

8. Rehabilitation security deposits

All title holders are required to lodge a security deposit with the Department. Departmental policy [ESP1: Rehabilitation Security Deposits](#) states that the security deposit must cover the government's full costs in undertaking rehabilitation in the event of default by the title holder. This requirement is intended to minimise potential liabilities to the state in the event that the title holder defaults on their rehabilitation obligations.

On receipt of each application for approval of an exploration activity, the Department will review the adequacy of the security deposit. Holders of titles under the *Mining Act 1992* or the *Petroleum (Onshore) Act 1991* will be required to submit a rehabilitation cost estimate (RCE) with the Application Form ESF4 to facilitate this review. The RCE is used by the Department to assist in determining the amount of the security, including when a potential change in rehabilitation liability occurs.

Refer to [ESG1: Rehabilitation Cost Estimate Guidelines](#) and [Rehabilitation Cost Estimation Tool](#) for more information.

9. Auditing

The Department may conduct inspections and audits at any time to determine whether the activities being carried out by the title holder comply with the conditions of approval, and that the actual impacts are consistent with those described in the application. Failure to comply with conditions may trigger enforcement action.

From 1 July 2015, under the [NSW Gas Plan](#), the NSW Environment Protection Authority is the lead authority to regulate compliance with and enforcement of all conditions (excluding work health and safety) contained within petroleum titles and associated activity approvals.

10. Service delivery standards

Applications will be assessed according to the Department's assessment procedures.

Service delivery standards have been implemented for the processing of certain applications under the *Mining Act 1992*. Further information is provided on the [Department's website](#).

In order to efficiently process and report on applications, a process has been implemented that includes 'stop the clock' provisions. The processing clock starts when a complete application, including all required supporting material, is received. The processing clock stops when additional supporting information is sought and re-commences once adequate information is received. Processing is complete when the proponent is notified of the result of the decision.

Note: Activity applications accompanied by an EIS/SIS have prescribed public exhibition periods and an assessment timeframe which is considerably longer than for other assessable prospecting operations with less significant impacts.

11. Privacy statement

The Department may make the information on the Application Form ESF4 and any supporting information available for inspection by members of the public, including by publication on the Department's website or by displaying the information at any of its offices. If you consider any part of your application to be confidential, please provide that part in a separate addendum clearly marked 'Confidential'.

The Department may also provide the information to other government agencies for the purposes of its assessment. You may access or correct your information by contacting the Department.

12. More information

Department of Planning and Environment
Resources Regulator
Environmental Sustainability Unit
516 High Street Maitland NSW 2320
PO Box 344, Hunter Region Mail Centre NSW 2310
Telephone 1300 814 609 (toll free) 02 4063 6666
Fax 02 4063 6977
Email minres.environment@planning.nsw.gov.au
Website www.resourcesandenergy.nsw.gov.au

Part D: Resources

13. Dictionary⁴

Aboriginal object	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i>
Aboriginal place	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i>
Access track	All unsealed routes that will be traversed multiple times, but does not include single pass (ingress and egress) routes or seismic shot and receiver lines
Acid Sulfate Soils	Sediments and soils containing iron sulfides which, when exposed to oxygen, generate sulfuric acid Acid sulfate soils include actual acid sulfate soils (AASS) or potential acid sulfate soils (PASS).
Activity	Any activity carried out in connection with exploration, including: <ul style="list-style-type: none"> • the use of land • means of accessing land • the carrying out of a work
Activity approval	An approval to carry out assessable prospecting operations granted under the <i>Mining Act 1992</i> or the <i>Petroleum (Onshore) Act 1991</i>
Actual Acid Sulfate Soils (AASS)	Sediments and soils containing highly acidic soil horizons or layers resulting from the aeration of sediments and soils that are rich in iron sulfides, primarily sulfide
Aquatic reserve	Has the same meaning as it has in the <i>Marine Estate Management Act 2014</i>
Aquifer	Has the same meaning as it has in the <i>Water Management Act 2000</i>
Areas of Outstanding Biodiversity Value (AOBVs)	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> (<u>Note</u> : Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i>)
Assessable prospecting operation	Any prospecting operation that is not exempt development within the meaning of clause 10 of <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
Authority	An exploration licence or assessment lease granted under the <i>Mining Act 1992</i>
Blue Book	In relation to access track construction, refers to <i>Managing Urban Stormwater: Soils and Construction, Volume 2C, Unsealed Roads</i> (DECC 2008a) In relation to the management of disturbed areas other than access tracks, refers to <i>Managing Urban Stormwater: Soils and Construction Volume 2E: Mines and Quarries</i> (DECC 2008b)
Borehole	A hole made by drilling or boring, but excludes: <ul style="list-style-type: none"> • sampling and coring using hand held equipment • petroleum wells

⁴ Note: To search for NSW legislation, visit www.legislation.nsw.gov.au. Commonwealth legislation can be found at www.legislation.gov.au.

Canopy cover	The upper tree canopy, where the upper canopy is greater than 1.5 metres in height above ground level
Clearing of vegetation	Any one or more of the following: <ul style="list-style-type: none"> • cutting down, felling, thinning, lopping, logging or removing vegetation • killing, destroying, poisoning, ringbarking, uprooting or burning vegetation
Complying exploration activities (CEA)	Exploration activities that are considered unlikely to significantly affect the environment
Critical habitat	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i>
Department	The Resources Regulator within the Department of Planning and Environment
Determining authority	Has the same meaning as it has in the <i>Environmental Planning and Assessment Act 1979</i>
Drilling	The perforation of the earth's surface crust by mechanical means to form a hole, whether the hole caused by the perforation is vertical, inclined or horizontal, and includes all operations for preventing collapse of the sides of any such hole or for preventing it from being filled with extraneous materials including water
Drilling fluid	Any liquid or gaseous fluid, or mixture of fluids and solids (as solid suspensions, mixtures and emulsions of liquids, gases and solids) used in operations to drill boreholes into the earth
Environment	Has the same meaning as it has in the <i>Mining Act 1992</i>
Environmentally sensitive area of state significance	Has the same meaning as it has in <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
Excavation	The removal of the surface layer to a depth greater than 500 mm from the natural surface level
Exempt development	Has the same meaning as it has in <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
Exploration	Has the same meaning as it has in <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
Fauna	Has the same meaning as it has in <i>National Parks and Wildlife Act 1974</i>
Forestry Management Zone	The management zones identified by the relevant Ecologically Sustainable Forest Management Plan prepared by Forestry Corporation
Fracture stimulation	The process by which target hydrocarbon bearing formations are 'stimulated' when fluids or gases are forced at high pressure to create a conductive flow path, resulting in enhanced flow of hydrocarbons to the wellhead (also known as 'hydraulic fracturing', 'fracking' or 'fracking')
Geological mapping	The non-intrusive field recording of the surface distribution of rock types, age relationships and structural features, in order to create a map of these features allowing interpretation of the sub-surface geology
Groundwater	Water that occurs beneath the ground surface in the saturated zone

Habitat	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> or the <i>Fisheries Management Act 1994</i> (as relevant)
Harm	<p>In relation to matters of national environmental significance, has the same meaning as 'significant impact' as provided by the Significant Impact Guidelines used to determine whether assessment and approval is required under the <i>Commonwealth Environment Protection & Biodiversity Conservation Act 1999</i></p> <p>In relation to the environment, has the same meaning as it has in the <i>Protection of the Environment Operations Act 1997</i></p> <p>In relation to threatened species or ecological communities, has the same meaning as:</p> <ul style="list-style-type: none"> • 'harm an animal' in the National Parks and Wildlife Act 1974 • 'pick a native plant' in the National Parks and Wildlife Act 1974 • 'harm' in the Fisheries Management Act 1994 <p>In relation to an aquifer or waterfront land, has the same meaning as it has in the <i>Water Management Act 2000</i></p> <p>In relation to Aboriginal places or Aboriginal objects has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i></p> <p>In relation to items of heritage significance, has the same meaning as it has in the <i>Heritage Act 1977</i></p> <p>In relation to protected marine vegetation, has the same meaning as it has in the <i>Fisheries Management Act 1994</i></p>
Items of heritage significance	<p>Means:</p> <ul style="list-style-type: none"> • any heritage items listed in one or more of the following: <ul style="list-style-type: none"> – the Commonwealth Heritage List – the World Heritage List – the National Heritage List – the State Heritage Register – an Environmental Planning Instrument • any relic (being any deposit, object or material evidence which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and which is 50 or more years old) • within State Conservation Areas: <ul style="list-style-type: none"> – items that are listed on the DECC Historic Heritage Information Management System – any deposit, object or material evidence relating to the settlement or occupation of New South Wales or a part of New South Wales (not being Aboriginal settlement or occupation) if the deposit, object or material evidence is more than 25 years old at the date of the interference or removal
Land	<p>Includes:</p> <ul style="list-style-type: none"> • the sea or an arm of the sea; • a bay, inlet, lagoon, lake or body of water, whether inland or not and whether tidal or non-tidal; • a river, stream or watercourse, whether tidal or non-tidal; and • a building erected on the land
Marine vegetation	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i>

Matters of national environmental significance	Matters of national environmental significance' protected under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
Minister	The Minister administering the <i>Mining Act 1992</i> or <i>Petroleum (Onshore) Act 1991</i> , as relevant
Native grassland	Any grassland community that contains a groundcover of greater than 50% native (endemic) species
Native vegetation	Has the same meaning as it has in the <i>Local Land Services Act 2013</i> .
Petroleum title	Has the same meaning as it has in the <i>Petroleum (Onshore) Act 1991</i> .
Petroleum well	A hole made by drilling or boring in connection with prospecting for petroleum or operations for the recovery of petroleum, but excludes: <ul style="list-style-type: none"> • sampling and coring using hand held equipment • a hole constructed and operated for the following purposes where the operation of that hole does not involve fracture stimulation or the recovery of petroleum: <ul style="list-style-type: none"> – stratigraphic definition – seismic (for example shot holes, geophone, tilt meters bores) – water monitoring – environmental assessment
Potential acid sulphate soils (PASS)	Sediments and soils which contain iron sulfides or sulfidic material which have not been exposed to air and oxidised
Produced water	Any form of groundwater that is actively extracted from a borehole, petroleum well or excavation, excluding incidental groundwater mixed with drilling fluids
Proponent	In relation to an exploration activity, the title holder, or the person proposing to carry out the exploration activity on behalf of the title holder
Prospect	Has the same meaning as it has in the <i>Mining Act 1992</i> and the <i>Petroleum (Onshore) Act 1991</i> (as relevant)
Prospecting title	An exploration licence, assessment lease or special prospecting authority granted under the <i>Mining Act 1992</i> or the <i>Petroleum (Onshore) Act 1991</i>
Rehabilitation	Has the same meaning as it has in the <i>Mining Act 1992</i>
River	Has the same meaning as it has in the <i>Water Management Act 2000</i>
Riparian zone	The area identified in Figure 1
Seismic survey	The use of shock waves (generated in the ground using either small explosive charges detonated below the surface, hand-held mechanical hammers or vehicle-mounted hammers) and an array of geophones, which are connected to measuring instruments, to differentiate the geophysical properties of the subsurface of the earth
Site	The land on which an activity is located
State conservation area	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i>
Surface disturbance	Means: <ul style="list-style-type: none"> • disturbance or exposure of the soil or surface rock layer • degradation or deterioration in any manner of the physical surface of land

Threatened species or ecological communities	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> or <i>Fisheries Management Act 1994</i> (as relevant)
Title	An authority under the <i>Mining Act 1992</i> or a petroleum title under the <i>Petroleum (Onshore) Act 1991</i>
Title holder	A person or company to whom a title has been issued
Track	All unsealed routes that will be traversed multiple times, but does not include single pass (ingress and egress) routes or seismic shot and receiver lines
Understorey	The layer of vegetation located beneath the main canopy of a stand of vegetation
Unit	Has the same meaning as it has in the <i>Mining Regulation 2016</i> (being approximately 3 km ² or 300 ha)
Unrehabilitated sites	Sites disturbed by exploration activities which have not been acknowledged in writing by the Department as being rehabilitated
Upper canopy	The layer of vegetation that is formed by the tree crowns
Watercourse	A river, estuary or lake, as defined in the <i>Water Management Act 2000</i>
Waterfront land	Has the same meaning as it has in the <i>Water Management Act 2000</i>
Well	Has the same meaning as it has in the <i>Petroleum (Onshore) Act 1991</i>
Wetlands	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i>
Wilderness	Lands identified as wilderness under the <i>Wilderness Act 1987</i>
Wilderness area	Lands (including subterranean lands) declared to be a wilderness area under the <i>Wilderness Act 1987</i> or the <i>National Parks and Wildlife Act 1974</i>

14. Abbreviations

AASS	Actual acid sulphate soils
AHIMS	Aboriginal Heritage Information Management System
AIS	Agricultural impact statement
CEA	Complying exploration activity
CIC	Critical industry cluster
DECC	Former NSW Department of Environment and Climate Change
DPE	NSW Department of Planning and Environment
DPI	NSW Department of Primary Industries
EIS	Environmental impact statement
Ha	hectare
km²	square kilometre
m²	square metre
m³	cubic metre
ML	million litres or mega litre
Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extensive Industries) 2007</i>
NOW	NSW Office of Water (now DPI Water)
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
PASS	Potential acid sulphate soils
RCE	Rehabilitation cost estimate
REF	Review of environmental factors
SDN	Surface disturbance notice
SEPP	State environmental planning policy
SIS	Species impact statement
SRLUP	Strategic regional land use plan

15. References

Department of Land and Water Conservation (1998) *Acid Sulfate Soils Management Advisory Committee Guidelines for the Use of Acid Sulfate Soil Risk Maps*

Department of Environment and Climate Change (2007) *Threatened Species Assessment Guidelines – The Assessment of Significance*

Department of Environment, Climate Change and Water (2010) *Due Diligence Code of Practice for Protection of Aboriginal Objects in New South Wales*

Department of Environment and Climate Change (DECC) (2008b) *Managing Urban Stormwater: Soils and Construction Volume 2E: Mines and Quarries*

Department of Environment and Climate Change (DECC) (2008a) *Managing Urban Stormwater: Soils and Construction, Volume 2C, Unsealed Roads*

Department of Environment and Climate Change (2010) *Guide to NSW Karst and Caves*

Department of Primary Industries (Update 2013) *Policy and Guidelines for Fish Habitat Conservation and Management*

Department of Primary Industries (2008) *Threatened Species Assessment Guidelines*

NSW Minerals Council Ltd. (2010) *NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects*

NSW Office of Water (NOW) (2012) *Riparian Corridors on Waterfront Land*

NSW Trade and Investment, Division of Resources and Energy (DRE) (2012), *ESG2: Environmental Impact Assessment Guidelines*

Soil Conservation Commission (1991) *Soils – their properties and management: A soil conservation handbook for New South Wales*

Appendix 1: Complying exploration activities checklist

Provided below is a checklist for CEA criteria. This checklist aligns with questions asked in the Application Form ESF4 (refer to **Section 4.1**).

The checklist will assist in completion of the Application Form ESF4. The checklist has been designed to enable title holders to quickly identify whether or not a proposed exploration activity will be able to be processed under the CEA assessment pathway and, if not, where the design of the proposed activity needs to be modified to make it compliant with the CEA criteria.

The checklist is split into four tables which align with the CEA criteria:

- **Checklist 1** relates to the Tier 1 Location Restrictions
- **Checklists 2A** and **2B** relate to the Tier 2 Impact Thresholds and Criteria
- **Checklist 3** relates to the Tier 3 Management Controls.

A completed checklist should speed up the process of completing the Application Form ESF4.

A single checklist can be used for multiple exploration activities (e.g. an entire work program involving more than one drill site can be covered by a single checklist) or can be completed independently.

Tier 1 Location restrictions

Checklist 1

To be a CEA, the activity and associated development must meet the following location restriction criteria. **All of the following must be answered 'No' for the activity to qualify for the CEA assessment pathway.** Further information on these location restrictions is provided in **Section 7.1** of the guideline.

LOCATION	GUIDELINES SECTION	NO	YES
Conservation areas			
Will the activity occur in areas reserved under the <i>National Parks and Wildlife Act 1974</i> ?	Section 7.1		
Will the activity occur on land acquired by the Minister for the Environment under the <i>National Parks and Wildlife Act 1974</i> ?			
Will the activity occur on land subject to a 'conservation agreement' under the <i>National Parks and Wildlife Act 1974</i> ?			
Will the activity occur on land declared as an aquatic reserve under the <i>Marine Estate Management Act 2014</i> ?			
Will the activity occur on land declared as a marine park under the <i>Marine Estate Management Act 2014</i> ?			
Will the activity occur in areas of State Forest set aside under the <i>Forestry Act 2012</i> for conservation values?			
Will the activity occur on land reserved or dedicated under the <i>Crown Lands Act 1989 / Crown Lands Management Act 2016</i> (as applicable) for the preservation of flora, fauna, geological formations or for other environmental protection purposes?			

LOCATION	GUIDELINES SECTION	NO	YES
Will the activity occur on land identified as wilderness or declared a wilderness area under the <i>Wilderness Act 1987</i> ?			
Will the activity occur on land subject to a biodiversity banking and offsets scheme under the <i>Biodiversity Conservation Act 2016</i> or former <i>Threatened Species Conservation Act 1995</i> ?			
Drinking water catchment protection areas			
Will the activity occur on land declared to be a 'controlled area' or a 'special area' under the <i>Water NSW Act 2014</i> ?	Section 7.1		
Will the activity occur on land declared to be a 'special area' under the <i>Water Management Act 2000</i> or <i>Hunter Water Act 1991</i> ?			
Environmentally sensitive areas			
Will the activity occur on land declared as an area of outstanding biodiversity value under the <i>Biodiversity Conservation Act 2016</i> or critical habitat under Part 7A of the <i>Fisheries Management Act 1994</i> ?	Section 7.1		
Will the activity occur on wetlands of international significance declared under the Ramsar Convention on Wetlands?			
Will the activity occur on land identified as a nationally important wetland in the Directory of Important Wetlands of Australia?			
Will the activity occur on coastal wetlands to which the <i>State Environmental Planning Policy (Coastal Management) 2018</i> applies?			
Will the activity occur on littoral rainforests to which <i>State Environmental Planning Policy (Coastal Management) 2018</i> applies?			
Will the activity occur in the Coastal Zone under the <i>Coastal Management Act 2016</i> (including coastal waters of the State)?			
Will the activity occur on land identified in an environmental planning instrument as being of biodiversity significance or zoned for environmental conservation?	Section 7.1		
Will the activity occur on waterfront land as defined under the <i>Water Management Act 2000</i> ? (Note: This does not include the upgrade or use of existing access tracks.)			
Will the activity occur on land with a slope greater than 18 degrees? (Note: This does not include the upgrade or use of existing access tracks.)			
Sites with potential for soil and water contamination			
Will the activity include excavations in Potential Acid Sulfate Soils (PASS) or Actual Acid Sulfate Soils (AASS)?	Section 7.1		

LOCATION	GUIDELINES SECTION	NO	YES
Heritage protection areas (Aboriginal and European)			
Will the activity occur in an Aboriginal Place declared under the <i>National Parks and Wildlife Act 1974</i> ?	Section 7.1		
Will the activity occur on land identified in an environmental planning instrument as being of Aboriginal cultural significance?			
Will the activity occur on land identified on the World Heritage List, National Heritage List, or Commonwealth Heritage List?			
Will the activity occur on or affect land, places, buildings or structures on the State Heritage Register?			
Will the activity occur on land identified in an environmental planning instrument as being of heritage significance?			
Critical industry clusters			
Will the activity occur on land identified as a critical industry cluster land identified by a strategic regional land use plan and state environmental planning policy?	Section 7.1		
Community land			
Will the activity occur on public land classified as community land under the <i>Local Government Act 1993</i> (for which a plan of management has been prepared)?	Section 7.1		
Other areas			
Will the activity occur on land identified as environmentally sensitive land by the title?	Section 7.1		

Tier 2 Impact Thresholds

Tier 2 impact thresholds and criteria which apply to proposed CEAs are detailed in Checklists 2A and 2B below.

An activity cannot be assessed under the CEA if it will result in the impact thresholds in Checklist 2A being exceeded or if the impact criteria in Checklist 2B cannot be met.

Checklist 2A — Cumulative Impact Thresholds

The cumulative impact thresholds in Checklist 2A include impacts from existing approved activities that have not yet been rehabilitated to the satisfaction of the Department (or have not yet been undertaken) as well as the impacts from the proposed CEA.

Further information on these criteria and how the areas of impact are calculated are discussed in **Section 7.2** of the guideline.

(Note: Rehabilitation must only be reported as completed in cases where the Department has acknowledged in writing that the area has been satisfactorily rehabilitated, following the receipt and assessment of *Form ESF2: Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate*.)

CRITERIA	EXISTING APPROVED	PROPOSED	Total (Existing + Proposed)	TIER 2 CRITERIA	GUIDELINES SECTION	CRITERIA SATISFIED?	
						YES	NO
Vegetation Clearing							
Total area of clearing/removal of tree canopy within any single hectare.				1,000 m ²	Section 7.2		
Total area of clearing/removal of tree canopy within any single unit (or 250 ha) of title.				10,000 m ²			
Total area of clearing/removal of tree canopy within any single title.				50,000 m ²			
Surface Disturbance and Excavations							
Maximum area of surface disturbance within any single unit (or 250 ha) of title.				10,000 m ²	Section 7.2		
Total area of surface disturbance within title.				50,000 m ²			
Maximum size of excavations within any single unit (or 250 ha) of title.				200 m ³			
Total size of excavations within title.				1,000 m ³			
Groundwater Make							
Cumulative extraction of groundwater from all exploration activities within the title.				3 ML/year	Section 7.2		

Checklist 2B — Impact Criteria

CEAs must be carried out in a manner such that certain impact criteria are not exceeded. All CEAs must be able to satisfy the following impact criteria when carried out:

CRITERIA	GUIDELINES SECTION	CRITERIA SATISFIED?	
		YES	NO
Ecology			
Activity must not have a significant impact on any Threatened Species, or their habitats.	Section 7.2		
Activity must not have a significant impact on any Threatened Ecological Community, or their habitats.			
Activity must not remove any vegetation or marine vegetation for an access track upgrade works in waterfront land.			
Aboriginal Cultural Heritage			
Activity must not harm Aboriginal objects.	Section 7.2		
European Heritage			
Activity must not damage heritage items.	Section 7.2		

Tier 3 — Management Controls

Checklist 3 — General Management Controls

The following management controls must be implemented (where relevant) for all CEAs.

MANAGEMENT CONTROL	GUIDELINES SECTION	WILL THE CONTROL BE IMPLEMENTED?	
		YES	N/A
Exploration Code of Practice: Environmental Management			
Activity will be undertaken in accordance with the <i>Exploration Code of Practice: Environmental Management</i> .	Section 7.3		
Exploration Code of Practice: Rehabilitation			
Activity will be undertaken in accordance with the <i>Exploration Code of Practice: Rehabilitation</i> .	Section 7.3		
Exploration Code of Practice: Produced Water Management, Storage and Transfer			
Activity will be undertaken in accordance with the <i>Exploration Code of Practice: Produced Water Management, Storage and Transfer</i> .	Section 7.3		