APPENDIX 1 – GUIDELINES FOR THE CONTENT OF A DRAFT PUBLIC ENVIRONMENT REPORT

NEW LENTON COAL PTY LTD

NEW LENTON COAL PROJECT

Australian Government

Department of Climate Change, Energy, the Environment and Water

GUIDELINES FOR THE CONTENT OF A DRAFT PUBLIC ENVIRONMENT REPORT

New Lenton Coal Project, north of Moranbah, Queensland

(Reference: 2020/8778)

Environment Protection and Biodiversity Conservation Act 1999

Contents

GUIDELINES FOR A DRAFT PUBLIC ENVIRONMENT REPORT/ENVIRONMENT IMPACT STATEMENT FOR

New Lenton Coal Project, north of Moranbah, Queensland

New Lenton Coal Pty Ltd

PREAMBLE

New Lenton Coal Pty Ltd proposes to construct and operate an open-cut coal mine, and associated infrastructure, 65 kilometres north of Moranbah, Queensland.

The proposal was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) to the Minister for the Environment on 23 September 2020. On 22 October 2020, the delegate of the Minister determined that approval is required as the action has the potential to have a significant impact on the following matters of national environmental significance (NES) that are protected under Part 3 of the EPBC Act:

- Listed threatened species and communities (sections 18 and 18A); and
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E).

On that same date, the delegate of the Minister made the decision that the proposed action be assessed by Public Environment Report (PER).

Information about the action and its relevant impacts, as outlined below, is to be provided in the PER. This information should be sufficient to allow the Minister to make an informed decision on whether or not to approve, under Part 9 of the EPBC Act, the taking of the action for the purposes of each controlling provision.

GENERAL ADVICE ON GUIDELINES

1 GENERAL CONTENT

The PER should be a stand-alone document that primarily focuses on the matters of NES listed above. It should contain sufficient information to avoid the need to search out previous or supplementary reports. The PER should take into consideration the EPBC Act Significant Impact Guidelines that can be downloaded from the following web site: http://www.dcceew.gov.au/environment/epbc/publications. It should also consider other relevant policy statements that can be downloaded from the following web site: http://www.dceew.gov.au/environment/epbc/policy-statements.

The PER should enable interested stakeholders and the Minister to understand the environmental consequences of the proposed development. Information provided in the PER should be objective, clear, and succinct and, where appropriate, be supported by maps, plans, diagrams or other descriptive detail. The body of the PER is to be written in a clear and concise style that is easily understood by the general reader. Technical jargon should be avoided wherever possible. Cross-referencing should be used to avoid unnecessary duplication of text but must be specific (e.g. section 1.1.1).

Detailed technical information, studies or investigations necessary to support the main text should be included as appendices to the PER. It is recommended that any additional supporting documentation and studies, reports or literature not normally available to the public from which information has been extracted be made available at appropriate locations during the period of public display of the PER.

After receiving the Ministers approval to publish the report, the Proponent is required to make the draft PER available for a period of public comment. Specific instructions regarding publication requirements will be provided as part of the Minister's direction to publish.

If it is necessary to make use of material that is considered to be of a confidential nature, the Proponent should consult with the department on the preferred presentation of that material, before submitting it to the Minister for approval for publication.

The level of analysis and detail in the PER should reflect the level of significance of the expected impacts on the environment. Any and all unknown variables or assumptions made in the assessment must be clearly stated and discussed. The extent to which the limitations, if any, of available information may influence the conclusions of the environmental assessment should be discussed.

The proponent should ensure that the PER assesses compliance of the action with principles of Ecological Sustainable Development as set out in the EPBC Act, and the objects of the Act at Attachment 1. A copy of Schedule 4 of the EPBC Regulations, *Matters to be addressed by draft public environment report and environmental impact statement* is at Attachment 2.

2 FORMAT AND STYLE

The PER should comprise three elements, namely:

- the executive summary;
- the main text of the document, and
- appendices containing detailed technical information and other information that can be made publicly available.

The guidelines have been set out in a manner that may be adopted as the format for the PER. This format need not be followed where the required information can be more effectively presented in an alternative way. However, each of the elements must be addressed to meet the requirements of the EPBC Act and Regulations.

The PER should be written so that any conclusions reached can be independently assessed. To this end all sources must be appropriately referenced using the Harvard standard. The reference list should include the address of any Internet "web" pages used as data sources.

The main text of the PER should include a list of abbreviations, a glossary of terms and appendices containing:

- a copy of these guidelines;
- a list of persons and agencies consulted during the PER;
- contact details for the Proponent; and
- the names of the persons involved in preparing the PER and work done by each of these persons.

Maps, diagrams and other illustrative material should be included in the PER. The PER should be produced on A4 size paper capable of being photocopied, with maps and diagrams on A4 or A3 size and in colour where possible.

The proponent is to provide a table identifying where each section of the PER has been addressed within the document. Page numbers and paragraph numbers would be required for each section.

The proponent should consider the format and style of the document appropriate for publication on the Internet. The capacity of the website to store data and display the material may have some bearing on how the document is constructed.

3 SPECIFIC CONTENT

3.1 General Information

This should provide the background and context of the action including:

(a) the title of the action;

(b) the full name and postal address of the designated Proponent;

(c) a clear outline of the objective of the action;

(d) the location of the action;

(e) the background to the development of the action;

(f) how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;

(g) the current status of the action; and

(h) the consequences of not proceeding with the action.

3.2 Description of the Action

This section must describe the proposal in sufficient detail to allow an understanding of all stages (including interdependencies between stages) and components of the proposal, and to determine potential environmental impacts associated with the proposal.

All construction, operational and decommissioning components of the action should be described in detail. This should include the precise location (including coordinates) of all works to be undertaken, structures to be built or elements of the action that may have impacts on matters of National Environmental Significance.

The description of the action must also include details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

Provide the total size (in hectares) of the project site and the total size (in hectares) of the disturbance footprint. If the disturbance footprint is the same as the project site this should be clearly stated.

The various elements of the project must be described in the text and illustrated with maps, diagrams, plans (at a suitable scale) and other information as required to provide sufficient context and basis for the identification and assessment of impacts.

Include updated information if any changes have been made to the project since the referral documentation was submitted.

3.3 Feasible Alternatives

Any feasible alternatives to the action to the extent reasonably practicable, including:

(a) if relevant, the alternative of taking no action;
(b) alternatives to the planned diversion of Ti-Tree creek and construction of associated levees;
(c) a comparative description of the impacts of each alternative on the MNES protected by controlling provisions of Part 3 of the EPBC Act for the action; and
(d) sufficient detail to make clear why any alternative is preferred to another.

Short, medium and long-term advantages and disadvantages of the options should be discussed. If there are no feasible alternatives, provide sufficient information as to why this is the case.

4 DESCRIPTION OF THE ENVIRONMENT

A description of the existing environment of the project site and the surrounding areas that may be affected by the action (this may include downstream of the project site). This should include details of the current and historical land use of the area.

5 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

In relation to the MNES listed as controlling provisions for the proposal, an inventory of surveys, both office-based and field-based, must be provided. These may be provided as appendices but must at least be fully referenced and must be made publicly available unless the department is provided with compelling reasons not to do so. Any anticipated future surveys to be conducted in relation to MNES, whether office-based or field-based, must also be discussed.

Output from the protected matters search tool must also be included as an appendix. This can be accessed at the following website: http://dcceew.gov.au/environment/epbc/protected-matters-search-tool.

The results, indicating the presence of MNES, must also be provided. Any species or values considered likely or known to occur in areas impacted by the controlled action must be addressed. The description of MNES should focus on the following controlling provisions:

- Listed threatened species and ecological communities (sections 18 & 18A); and
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24)

5.1 Listed threatened species and ecological communities

This section must address, at a minimum, the following listed threatened species and ecological communities:

- Poplar Box Grassy Woodland on Alluvial Plains (Poplar Box TEC)- Endangered
- Greater Gilder (*Petauroides volans*)- Vulnerable
- Koala (*Phascolarctos cinereus*) (combined populations of Queensland, New South Wales and the Australian Capital Territory) - Vulnerable
- Squatter Pigeon (Southern) (*Geophaps scripta scripta*) – Vulnerable
- Ornamental Snake (*Denisonia maculata*) – Vulnerable
- Bluegrass (*Dichanthium setosum*) – Vulnerable
- King Bluegrass (*Dichanthium queenslandiscum*) – Endangered

The above list may not be a complete list of listed threatened species and ecological communities that will or are likely to be impacted by the proposed action. It is the proponent's responsibility to ensure that any listed threatened species and ecological communities at the time of the controlled action decision, which will or are likely to be impacted by the project, are assessed for the Minister's consideration. If a listing or up-listing event occurs for a species or ecological community after a referral decision is made, the listing status for that species or ecological community does not change, however, consideration of any new guidance documents may apply.

Note: Recent uplisting events have occurred for the Koala and Greater Glider. While uplistings are not taken into account after a referral decision has been made (section 158A of the EPBC Act), the Minister is required to consider all current conservation advices and recovery plans in deciding whether or not to approve a proposed action (section 139 of the EPBC Act). This means that, for this project, while the Koala and Greater Glider will still be assessed as 'vulnerable', you must still consider the information in the new conservation advice for the Koala (published 12 February 2022) and the new Recovery Plan (published 8 April 2022), and the new conservation advice for the Greater Glider (published 5 July 2022), as these new documents will be taken into account during decision making.

5.1.1 Description

Describe each listed threatened species and ecological community listed above (including EPBC Act listing status, distribution, life history, etc.).

5.1.2 Desktop analysis

Describe the desktop assessment methodology used to inform the field surveys within and/or adjacent to the project site.

This section must provide context to the proposed action area by discussing known historical records of listed threatened species and ecological communities in the broader region.

5.1.3 Survey effort

Provide details of the scope, methodology, timing and effort of field surveys (undertaken by qualified species experts with demonstrated experienced in detecting the above species) within and/or adjacent to the project site. Provide details of:

- how surveys were undertaken in accordance with relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys; and
- if relevant, the justification for divergence from relevant Commonwealth, State guidelines or best practice survey guidelines at the time of the surveys.

5.1.4 Survey outcomes

State the total number of records (individuals and evidence of presence) of listed threatened species and ecological communities within and/or adjacent the project site identified during surveys.

Note: Data from field surveys will be required for the Poplar Box TEC.

5.1.5 Habitat assessment

Provide a robust assessment of the potential habitat available within, adjacent to and downstream of the project site for listed threatened species and ecological communities. Habitat assessments must be derived from information obtained from:

- field surveys and vegetation assessments;
- the Species Profile and Threats (SPRAT) Database;
- relevant departmental documents (e.g. approved conservation advices, recovery plans, listing advices, draft referral guidelines, etc.); and
- published research and other relevant sources (where relevant).

The SPRAT Database can be accessed from the following website: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.

The habitat assessment must not just consider Queensland Regional Ecosystem (RE) mapping to determine habitat for listed threatened species. The habitat assessments must consider the information in the SPRAT Database and relevant departmental documents. Where habitat assessments depart from departmental information, adequate justification must be provided to substantiate their suitability to the assessment.

Please note where habitat for other listed threatened species and communities not listed at 5.1 is identified on site, an assessment must be undertaken regardless of whether or not the species was recorded. As such, the potential for occurrence of listed threatened species and communities must also be considered and assessed.

At a minimum the habitat assessment for each listed threatened species and ecological community above must:

- identify any specific habitat requirement/s (e.g. breeding, foraging, dispersal, known important habitat, suitable habitats, roosting, etc);
- discuss existing threats (e.g. feral predators, traffic, etc.);
- consider the regional context, describing the connectivity of habitat in the broader landscape; and
- provide the total amount of each type of habitat (in hectares) in the project site.

The total amount of each type of habitat must also be presented on a map for each listed threatened species and ecological community. Each map must:

- include an appropriate basemap that provides the geographical context of the project area in the surrounding environment (i.e. aerial imagery);
- be specific to the habitat assessment undertaken for each listed threatened species and ecological community (i.e. not illustrate relevant Queensland REs only);
- include an overlay of the proposed project disturbance footprint; and
- include known records of individuals (or evidence of individuals) derived from desktop analysis and/or field surveys.

5.1.6 Impact assessment

Describe and assess the impacts (direct and indirect) to listed threatened species and communities giving consideration to the SPRAT Database and relevant departmental policies and guidelines, including the *Significant Impact Guidelines 1.1: Environment Protection and Biodiversity Conservation Act 1999* (2013). These guidelines can be found at the following website: http://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance.

5.1.7 Mitigation measures

The PER must include detailed descriptions of measures proposed to be undertaken by the proponent to avoid, mitigate and manage relevant impacts of all stages of the action on listed threatened species and communities. Please note the SPRAT Database may provide some relevant mitigation measures for listed threatened species and ecological communities.

Further guidance on mitigation measures is provided in section 6 of these PER guidelines.

5.1.8 Residual significant impact assessment

After consideration of all proposed avoidance, mitigation and management measures, provide an assessment of the likelihood of residual significant impacts on relevant listed threatened species and ecological communities.

The PER must provide a clear and definitive conclusion of residual significant impacts on relevant listed threatened species and ecological communities to align with the *EPBC Act Environmental Offsets Policy* (2012).

Further guidance on environmental offsets is provided in section 7 of these PER guidelines.

5.2 A water resource in relation to coal seam gas development and large coal mining development

Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development

This project will require submission to the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC), which is a statutory body under the EPBC Act. The IESC provides advice to the Commonwealth Environment Minister on coal seam gas and large coal mining development proposals that are likely to have a significant impact on water resources.

The information guidelines for IESC advice on coal seam gas and large coal mining development proposals (IESC guidelines) outlining the requirements for submission to the IESC can be found at the following website: http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas.

The information provided in the draft PER will form part of the IESC submission. You must complete the checklist in the IESC guidelines to ensure that the information requirements for the IESC review have been addressed in the PER. The IESC will provide advice to the department and the department will forward the advice to you.

You must include the IESC advice and your response to that advice in the PER package for public comment.

The IESC provides a number of publications and resources, including the *IESC explanatory notes*, which can be used as guidance material in drafting the PER. These publications can be found at the following website: http://iesc.environment.gov.au/publications.

When updating the PER with IESC advice, please provide a detailed table clarifying where each section has been addressed within the PER, (provide page numbers).

The hydrology relevant to the proposed action area, including surface water and groundwater

Provide a regional overview of the project area, including a description of the geological basin, coal resource, surface water catchments, groundwater systems and water-dependent assets.

Describe any potential third-party users of water in areas potentially affected by the proposed project, including municipal, agricultural, industrial, recreational and environmental uses of water. Noting the proposed action has the potential to utilise existing infrastructure from the Burton Mine, the impacts on water resources and water-dependent assets from the transfer of mine affected water to or from Burton mine should be described.

The PER must include a description and assessment of the impacts to water resources giving consideration to relevant departmental policies and guidelines, including the *Significant Impact Guidelines 1.3: Coal seam gas and large coal mining developments – impacts on water resources* (2013). These guidelines can be found at the following website: http://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-13-coal-seam-gas-and-large-coal-mining-developments-impacts.

The PER must provide robust scientific information and supporting evidence for every assertion, assumption and/or conclusion made in the assessment of potential impacts, or lack of impacts, on water resources.

The PER should refer to water quality objectives approved in the State environmental authority for the proposal where they are relevant to the assessment, and management and mitigation of impacts on EPBC protected matters.

5.2.1 Groundwater

The PER must identify and describe the occurrence of groundwater in the project area and its vicinity, including the relevant groundwater-bearing units and groundwater levels.

The groundwater assessment must include a groundwater risk assessment, to identify and quantify potential groundwater impacts. Where groundwater models are used, they (including conceptual models) must be constructed at a suitable spatial and temporal scale to be able to assess both site-specific and regional cumulative impacts. Any assumptions should be clearly described and justified.

Where faults are likely to be intercepted by mining or drawdown, resulting variable drawdown and groundwater flow should be considered.

The groundwater impact information provided should allow an independent reviewer to consider the appropriateness of the underlying assumptions and conceptual models on which the risk assessment (and numerical/analytical models where relevant) are based.

It is important for the risk assessment/modelling to clearly distinguish between impacts from the proposed project and other neighbouring mines or activities which may be impacting groundwater. For example, the PER must clearly identify the absolute amount of drawdown due to the proposal and the total predicted cumulative drawdown values. This must include details on how the estimated contributions to cumulative drawdown have been derived. Where available, data from other operations should be used in modelling for the proposal.

The PER must provide a discussion on the number and location of groundwater monitoring bores (both within and adjacent to the project site) to ensure there is adequate spatial coverage in all aquifers. Provide clear justification as to the representativeness of the bore sites chosen and whether any other monitoring bores may be required. Please note that any new monitoring bores must be located where they are unlikely to be removed for future mining activities.

Site-specific data for all relevant hydraulic properties for each groundwater unit must be captured from the proposed monitoring network for input into the groundwater models.

The water resources assessment must consider climate change in modelling scenarios and in the water balance (e.g. through the use of the Climate Futures Tool), particularly if the action will require external water sources and/or has a long lifetime. Where climate change predictions have not been incorporated into the modelling, the PER must provide a discussion as to why it is not necessary for the proposed action.

The PER must include an assessment of the direct, indirect and consequential impacts to all groundwater resources as a result of groundwater drawdown, as well as impacts to groundwater and surface water connectivity. Impacts to groundwater due to the proposed Ti-tree creek diversion is to be included.

The proponent must provide a draft groundwater management plan and comprehensive risk assessment to assess impacts of groundwater drawdown. The management plan and risk assessment should also account for the cumulative risk of drawdown from neighbouring mines.

Considering groundwater drawdown and aquifer drainage may have impacts to groundwater quality, please include a discussion on potential changes to salinity and pH, and the introduction of toxic levels of metals, metaloids and ammonia resulting from blasting activities.

5.2.2 Final voids

The PER must provide details on the final voids, including:

- The precise location of the proposed final voids.
- An assessment of the design of the final voids and how the design will minimise impacts, as well as an assessment of the water quality of those voids.
- Information in the referral documentation noted that the final voids will remain groundwater sinks post-mining. Provide details on the predicted water levels in the final voids, along with the expected groundwater level at which the voids will cease to be sinks and begin recharging local groundwater. Please provide and fully explain the reasoning behind the identified levels at which groundwater flows change.
- A discussion on whether through-flow groundwater conditions could be established. As the void water is predicted to become hyper-saline, provide discussion on whether this water has any potential to leave the pit lakes.

5.2.3 Waste material

The PER must provide details on the capacity of the proposed out of pit waste dumps and the expected volumes of waste to be generated by the proposed action. This must include a discussion on the reshaping and backfilling of the Lenton east and Lenton west pits.

The PER must provide details on whether the adjacent Burton mine has the capacity to store the tailings from the proposed action.

The PER must also provide details on rehabilitation of the out of pit waste dumps, addressing any potential indirect impacts to EPBC matters and how this will be mitigated.

5.2.4 Groundwater dependent ecosystems

Under the EPBC Act, you must consider impacts to all groundwater dependent ecosystems (GDEs), whether they are partially or wholly dependent on groundwater. The PER must include an assessment of direct, indirect and consequential impacts to GDEs, including potential GDEs in the vicinity. You must consider both surface water and groundwater impacts to GDEs within the proposed action area and within the zone of potential drawdown (e.g. impacts due to groundwater drawdown, reduction in surface water flow, etc.).

The presence of GDEs in and adjacent to the project site must be tested, with the GDE assessment comprising both:

- desktop assessments (e.g. searches of the Queensland Government's *Springs database*, the Bureau of Meteorology's *GDEs Atlas* and Geoscience Australia's *Water observations from space*, etc.) used to identify potential GDEs for field assessment; and
- field assessments (e.g. soil moisture testing, leaf moisture testing, root depth drilling, etc.) to confirm the outcomes of the desktop assessments.

The above databases can be found at the following websites:

- https://www.data.qld.gov.au/dataset/springs.
- http://www.bom.gov.au/water/groundwater/gde/.
- https://www.ga.gov.au/scientific-topics/community-safety/flood/wofs.

The desktop and field assessments must consider the *Australian GDE toolbox* (2011) and the *IESC GDE explanatory note*. If GDE field verification surveys are not undertaken, the department is likely to apply a precautionary approach to the presence of GDEs and the assessment of potential impacts.

Provide the details and results of the above database searches and field studies, including observations of the vegetation present in the area and descriptions of the soil/geology encountered. A time series of satellite imagery of the potential GDEs in the vicinity may be able to be provided. Observing the state of the vegetation over time, given the neighbouring mining operations and corresponding groundwater drawdown, may help to demonstrate whether impacts to GDEs have occurred as a result of previous mining operations.

Field studies should consider the depth to the groundwater table when determining the extent of GDE occurrence. Provide the observations used to determine the depth to groundwater.

Sufficient evidence needs to be provided to support any conclusion that particular ecosystems are not groundwater dependent.

5.2.5 Stygofauna

Provide details of field investigations undertaken (and any relevant previous published and/or unpublished studies) to determine the presence and composition of stygofauna communities in the region and proposed action area.

Include the full results of any groundwater bores sampled (e.g. levels and water quality). Justification must be provided regarding the representativeness of the samples taken.

The PER must provide an assessment of the suitability of local habitat for subterranean aquatic fauna. This assessment must be based on local geological, hydrological and other information, including the distribution of alluvium present in the proposed action area and likely hydrological connectivity with geological formations targeted for development.

Stygofauna assessment guidance is available through the Queensland Government's *Background information on sampling bores and stygofauna* and *Guideline for the environmental assessment of subterranean aquatic fauna*. These documents can be found at the following websites:

- https://environment.des.qld.gov.au/__data/assets/pdf_file/0029/90767/biological-assessment-background-information-on-sampling-bores-for-stygofauna.pdf.
- https://www.publications.qld.gov.au/dataset/subterranean-aquatic-fauna/resource/ba880910-5117-433a-b90d-2c131874a8e6.

5.2.6 Surface water

The PER must provide details on surface water, including, but not limited to:

- A description of the surface water values of the project area and surrounding vicinity, including a discussion of the regional water quality and the local receiving environment. Further, a discussion of existing flood conditions must be provided.
- Provide flood modelling that demonstrates the flooding system for existing Ti-tree Creek and for the projected diversion channel.
- A description of the impacts to surface water, in relation to the Ti-Tree creek diversion, Isaac River and associated levees.
- Water quality monitoring data, including baseline data and when and where samples have been obtained. The monitoring data must be provided in full in the PER to show the temporal and spatial trends in water quality.
- Quantify current surface water flow regimes, both within and adjacent to the project site, to ensure there is sufficient baseline information to assess how the location, volume, velocity and timing of flows may change as a result of the proposed action.
- A discussion on changes to surface water flows and quality from proposed controlled and uncontrolled water releases.
- Information on the potential increase in soil instability and erosion resulting from construction and potential subsequent impacts on downstream water quality.

5.2.7 Cumulative impacts

The PER must identify and address potential and likely cumulative impacts on groundwater and surface water from the proposed action, Burton Mine and other nearby resource projects. Discussion should include cumulative impact considerations of impacts to water quality and quantity, and potential impacts to Groundwater Dependent Ecosystems in the region.

6 PROPOSED SAFEGUARDS AND MITIGATION MEASURES

The PER must provide information on proposed avoidance, safeguards and mitigation measures to deal with the relevant impacts of the proposed action on MNES, including those required by other Commonwealth, State and local government approvals. Committed language (e.g. 'will') rather than non-committal language (e.g. 'may', 'where possible', 'if required', etc.) must be used.

The proposed measures must consider the 'S.M.A.R.T' principle:

- S – Specific (what and how);
- M – Measurable (baseline information, number/value, auditable);
- A – Achievable (timeframe, money, personnel);
- R – Relevant (conservation advices, recovery plans, threat abatement plans); and
- T – Time-bound (specific timeframe to complete).

Specific and detailed descriptions of proposed measures must be provided and substantiated, based on best available practices, and must include the following elements:

- an assessment of the predicted effectiveness and environmental outcomes of the proposed measures, including details of any baseline data or proposed monitoring required to demonstrate progress towards achieving these outcomes;
- any statutory or policy basis for the proposed measures, including reference to the SPRAT Database and relevant approved conservation advices, and a discussion on whether the proposed measures are consistent with relevant recovery plans and threat abatement plans;
- details of ongoing management, including monitoring programs to support an adaptive management approach and determine the effectiveness of the proposed measures;
- information on the timing, frequency and duration of the measures to be implemented; and
- the name of the agency responsible for endorsing or approving each measure or monitoring program.

The PER must include a copy of the amended EA issued by the Queensland Department of Environment and Science for the New Lenton Coal Project. Provide discussion, where applicable, as to how the requirements of the EA may mitigate potential impacts to water resources, noting any relevant management or monitoring plans (e.g. Receiving Environment Monitoring Program, Water Management Plan, Groundwater Management and Monitoring Plan).

An outline of any management plans beyond those required through the State assessment process, must be provided that sets out the framework for management, mitigation and monitoring of relevant impacts of the proposed action, including any provisions for independent environmental auditing.

The outline of management plans must state the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing for each relevant MNES environmental issue.

Please note the IESC will consider whether the PER has demonstrated that the risks to water resources can be either avoided or suitably mitigated and may suggest further actions to mitigate or manage residual risks.

7 ENVIRONMENTAL OFFSETS

The PER must include an assessment of the likelihood of residual significant impacts occurring on MNES after avoidance, mitigation and management measures relating to the proposed action have been applied. If it is determined that a residual significant impact is likely, then environmental offsets will be required to be provided.

Environmental offsets are measures to compensate for residual significant impacts to MNES. Offsets do not reduce the impacts of an action and are not intended to make proposals with unacceptable impacts acceptable. They provide an additional tool that can be considered during project design and the PER process.

The PER must include a draft Biodiversity Offset Strategy (BOS) or a draft Offset Area Management Plan (OAMP) for any MNES for which a residual significant impact is likely. Noting the information in the referral, the department considers a residual significant impact is likely and recommends a BOS or OAMP be provided for the following listed threatened community:

- Poplar Box Grassy Woodland on Alluvial Plains (Poplar Box TEC) ecological community

Note: The department has been made aware of problems with obtaining adequate offset areas for the Poplar Box TEC. In light of this information, the department will require detailed information on proposed offsets for Poplar Box TEC.

The following species may also result in residual significant impacts depending on the results of further analysis (see section 5.1 above):

- Greater Gilder (*Petauroides volans*)

- Koala (*Phascolarctos cinereus*) (combined populations of Queensland, New South Wales and the Australian Capital Territory)
- Squatter Pigeon (Southern) (*Geophaps scripta scripta*)
- Ornamental Snake (*Denisonia maculata*)
- Bluegrass (*Dichanthium setosum*)
- King Bluegrass (*Dichanthium queenslandiscum*)

Where offset area/s have not yet been identified, include a draft BOS. Where offset area/s have been nominated, include a draft OAMP. The draft BOS or OAMP must include information to demonstrate how the environmental offset/s compensate for residual significant impacts of the proposed action on relevant MNES, and/or their habitat, in accordance with the principles of the *EPBC Act Environmental Offsets Policy* and all requirements of the *Offsets assessment guide*.

Please note, the department is likely to require that an OAMP be approved and implemented prior to the commencement of the action to align with the *EPBC Act Environmental Offsets Policy*. Legal security of the offset area is generally required within 12 months of the date of approval of the OAMP.

The BOS must provide, at a minimum:

- details of the proposed environmental offsets for residual significant impacts on each of the above listed threatened species and their habitat;

- details of how the environmental offset/s meets the requirements of the department's *EPBC Act Environmental Offsets Policy* (2012), including the *Offsets assessment guide* (2012), available at: https://www.awe.gov.au/environment/epbc/publications/epbc-act-environmental-offsets-policy;

- details of potential offset areas (including a map to indicate the potential location and boundaries) to compensate for the residual significant impact on each of the above listed threatened species and their habitat;

- information about how the potential offset/s area provides connectivity with other relevant habitats and biodiversity corridors;

- the methodology, with justification and supporting evidence, used to inform the inputs of the *Offsets assessment guide* in relation to the impact site for each relevant MNES, including:

    - total area of habitat (in hectares)
    - habitat quality (e.g. using the Queensland Government *Guide to determining terrestrial habitat quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy* (2020)). This guide can be found at the following website: https://environment.des.qld.gov.au/__data/assets/pdf_file/0017/102833/habitat-quality-assessment-guide-v1-3.pdf

- the methodology, with justification and supporting evidence, used to inform the inputs of the *Offsets assessment guide* in relation to each potential offset area for each relevant MNES, including:
    - time over which loss is averted (max. 20 years)
    - time until ecological benefit
    - risk of loss (%) without offset
    - risk of loss (%) with offset
    - confidence in result (%)

- evidence that the relevant MNES, and/or their habitat, is present in the potential offset area/s; and

- details of the mechanism to legally secure the environmental offset/s (under Queensland legislation or equivalent) to provide enduring protection for the offset area/s against development incompatible with conservation.

The draft OAMP must include, at a minimum:

- a description of the offset area/s, including location, size, condition, environmental values present and surrounding land uses;

- baseline data and other supporting evidence, including the ecological field data, that documents the presence of the relevant MNES, and the quality of their habitat within the offset area/s;

- an assessment of the site habitat quality for the offset area/s using an appropriate methodology, with justification and supporting evidence, (e.g. using the *Queensland Guide to determining terrestrial habitat quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy*;

- details of how the offset area/s will provide connectivity with other habitats and biodiversity corridors and/or will contribute to a larger strategic offset for the relevant listed threatened species and communities;

- maps and shapefiles to clearly define the location and boundaries of the offset area/s, accompanied by the offset attributes (e.g. physical address of the offset area/s, coordinates of the boundary points in decimal degrees, the listed threatened species and communities that the environmental offset/s compensates for, and the size of the environmental offset/s in hectares);

- specific offset completion criteria derived from the site’s habitat quality to demonstrate the improvement in the quality of habitat in the offset area/s over a 20-year period;

- details of the management actions, and timeframes for implementation, to be carried out to meet the offset completion criteria;

- interim milestones that set targets at 5-yearly intervals for progress towards achieving the offset completion criteria;

- details of the nature, timing and frequency of monitoring to inform progress against achieving the 5-yearly interim milestones (the frequency of monitoring must be sufficient to track progress towards each set of milestones, and sufficient to determine whether the offset area/s are likely to achieve those milestones in adequate time to implement all necessary corrective actions);
- proposed timing for the submission of monitoring reports which provide evidence demonstrating whether the interim milestones have been achieved;
- timing for the implementation of corrective actions if monitoring activities indicate the interim milestones have not been achieved;
- risk analysis and a risk management and mitigation strategy for all risks to the successful implementation of the OAMP and timely achievement of the offset completion criteria, including a rating of all initial and post-mitigation residual risks in accordance with a risk assessment matrix;
- if proposed for listed threatened species and communities, evidence of how the management actions and corrective actions take into account relevant approved conservation advices and are consistent with the objectives of relevant recovery plans and threat abatement plans; and
- details of the legal mechanism for legally securing the proposed offset area/s, such that legal security remains in force over the offset area/s for a minimum of 20 years to provide enduring protection for the offset area/s against development incompatible with conservation.

The draft OAMP must be prepared by a suitably qualified person and in accordance with the department's *Environmental Management Plan Guidelines* (2014), available at: https://www.awe.gov.au/environment/epbc/publications/environmental-management-plan-guidelines.

Please note, the department expects that an EPBC Act protected matter is present in the proposed offset area/s if it is present in the project site to align with the *EPBC Act Environmental Offsets Policy*.

Supporting evidence must be included in the draft OAMP to justify how proposed management action/s are additional to the existing requirements of the landholder in managing their land (e.g. weed and pest management requirements under the *Biosecurity Act 2014* (Qld), existing grazing regimes, etc.) as required by the *EPBC Act Environmental Offsets Policy*.

The draft OAMP must include robust scientific evidence (e.g. published research, pilot studies, previously successful projects/programs, etc.) to demonstrate how the proposed measures will successfully create, revegetate, regenerate and/or improve habitat (e.g. tree planting, nest boxes, artificial hollows, etc.) in the proposed offset area/s for a listed threatened species or ecological community.

Where the proposed offset area/s supports an environmental offset for multiple MNES, proposed management action/s for one protected matter must not be detrimental (i.e. have an impact) to other protected matters.

Where an offset is proposed, with a completed *Offsets assessment guide* calculation, all inputs must be supported by robust scientific evidence and/or supporting evidence (e.g. historical grazing regimes, satellite imagery, statements from landholders, etc.).

Please note, it is the department's expectation that the agreed inputs into the *Offsets assessment guide* are specified in the conditions of approval where the action is approved, subject to conditions, under the EPBC Act.

8 OTHER APPROVALS AND CONDITIONS

The PER must include information on any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. This must include:

(a) details of any local or State Government planning scheme, or plan or policy under any local or State Government planning system that deals with the proposed action, including:

- what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
- how the scheme provides for the prevention, minimisation and management of any relevant impacts;

(b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;

(c) a statement identifying any additional approval that is required; and

(d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

9 CONSULTATION

The PER must include details of any consultation about the action, including:

(a) any consultation that has already taken place;

(b) proposed consultation about relevant impacts of the action;

(c) if there has been consultation about the proposed action, any documented response to, or result of, the consultation; and

(d) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

Specific mention should be made of consultation with Traditional Owners.

10 ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION

The PER must include the environmental record of the proponent. This must include details of any past or proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

(a) the person proposing to take the action; and

(b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

11 ECONOMIC AND SOCIAL MATTERS

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest may include:

- details of any public consultation activities undertaken, and their outcomes;
- overview of the economic costs and benefits of the project; and
- employment opportunities expected to be generated by the project (including construction and operational phases).

Details of the relevant cost and benefits of alternative options to the proposed action, as identified in section 3 above, should also be included.

12 INFORMATION SOURCES PROVIDED IN THE PER/EIS

For information given in a draft Public Environment Report, the draft must state:

(a) the source of the information;

(b) how recent the information is;

(c) how the reliability of the information was tested; and

(d) what uncertainties (if any) are in the information.

13 CONCLUSION

An overall conclusion as to the environmental acceptability of the proposal should be provided, including discussion on compliance with principles of ESD and the objects and requirements of the EPBC Act. Reasons justifying undertaking the proposal in the manner proposed should also be outlined.

Measures proposed or required by way of offset for any unavoidable impacts on MNES matters, and the relative degree of compensation, should be restated here.

ATTACHMENT 1

THE OBJECTS AND PRINCIPLES OF THE ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999 SECTIONS 3 AND 3A

3 Objects of the Act

(a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;

(b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;

(c) to promote the conservation of biodiversity;

(d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples;

(e) to assist in the co-operative implementation of Australia's international environmental responsibilities;

(f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and

(g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.

3A Principles of Ecologically Sustainable Development

The following principles are principles of ecologically sustainable development.

(a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.

(b) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

(c) The principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

(d) The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.

(e) Improved valuation, pricing and incentive mechanisms should be promoted.

ATTACHMENT 2

MATTERS THAT MUST BE ADDRESSED IN A PER AND EIS (SCHEDULE 4 OF THE EPBC REGULATIONS 2000)

1 General information

1.01 The background of the action including:

(a) the title of the action;

(b) the full name and postal address of the designated Proponent;

(c) a clear outline of the objective of the action;

(d) the location of the action;

(e) the background to the development of the action;

(f) how the action relates to any other actions (of which the Proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;

(g) the current status of the action; and

(h) the consequences of not proceeding with the action.

2 Description

2.01 A description of the action, including:

(a) all the components of the action;

(b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;

(c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;

(d) relevant impacts of the action;

(e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;

(f) any other requirements for approval or conditions that apply, or that the Proponent reasonably believes are likely to apply, to the proposed action;

(g) to the extent reasonably practicable, any feasible alternatives to the action, including:

(i) if relevant, the alternative of taking no action;

(ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; and

(iii) sufficient detail to make clear why any alternative is preferred to another;

(h) any consultation about the action, including:

(i) any consultation that has already taken place;

(ii) proposed consultation about relevant impacts of the action; and

(iii) if there has been consultation about the proposed action — any documented response to, or result of, the consultation; and

(i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

3 Relevant impacts

3.01 Information given under paragraph 2.01(d) must include

(a) a description of the relevant impacts of the action;

(b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;

(c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;

(d) analysis of the significance of the relevant impacts; and

(e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

4 Proposed safeguards and mitigation measures

4.01 Information given under paragraph 2.01(e) must include:

(a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;

(b) any statutory or policy basis for the mitigation measures;

(c) the cost of the mitigation measures;

(d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;

(e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; and

(f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the Proponent.

5 Other Approvals and Conditions

5.01 Information given under paragraph 2.01(f) must include:

(a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:

(i) what environmental assessment of the proposed action has been, or is being carried out under the scheme, plan or policy; and

(ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;

(b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;

(c) a statement identifying any additional approval that is required; and

(d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

6 Environmental record of person proposing to take the action

6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

(a) the person proposing to take the action; and

(b) for an action for which a person has applied for a permit, the person making the application.

6.02 If the person proposing to take the action is a corporation — details of the corporation's environmental policy and planning framework.

7 Information sources

7.01 For information given the PER must state:

(a) the source of the information; and

(b) how recent the information is; and

(c) how the reliability of the information was tested; and

(d) what uncertainties (if any) are in the information.