

# Preliminary Offset Strategy

Coopers Gap Wind Farm



# **Preliminary Offset Strategy**

Coopers Gap Wind Farm

Client: AGL Energy Limited

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## Prepared by

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# **Executive Summary**

Coopers Gap Wind Farm Pty Ltd, a subsidiary company of AGL Energy Limited (AGL), proposes to develop the Coopers Gap Wind Farm (the Project) with an installed capacity of up to 460 megawatts (MW) and a maximum of 115 wind turbines. The Project is located approximately 180 km north-west of Brisbane, between Dalby and Kingaroy, near Cooranga North.

The Project has been declared a 'coordinated project' by the Coordinator-General for which an environmental impact statement (EIS) is required under section 26(1)(a) of the *State Development and Public Works*Organisation Act 1971 (SDPWO Act). The scope and purpose of this Preliminary Offset Strategy is to provide an overview of the potential for offset requirements by the Project under relevant legislation, planning and policy, and to support the assessment and approval process of the EIS.

Offsets can be applied at a Commonwealth, State and local level. As a result of the Project being declared 'Not a Controlled Action' the Commonwealth Environmental Offsets Policy does not apply and therefore there is no requirement for the Project to provide offsets under the *Environment Protection and Biodiversity Conservation Act 1999*. The Queensland *Environmental Offsets Act 2014* outlines the framework for environmental offsets and how they should be provided. Under the framework, an environmental offset may be required as a condition of an authority when:

- an activity has been identified as a 'prescribed activity'; and
- the activity will have an impact on a 'prescribed environmental matter'; and
- despite undertaking all reasonable avoidance and mitigation measures, that activity will have a 'significant residual impact' on the prescribed environmental matter; and
- an environmental offset is a suitable outcome.

The relevant potential prescribed activities for the Project include:

- a prescribed Environmentally Relevant Activity (ERA) under the Environmental Protection Act 1994
- development for which an environmental offset may be required under any of the following modules of the State development assessment provisions:
  - (a) module 4 (environmentally relevant activities)
  - (c) module 8 (native vegetation clearing).
- development for which an environmental offset may be required under any of the following:
  - (a) a local planning instrument.

The design of the Project has been optimised in order to produce a layout that maximises the use of the land available for wind power generation, balanced against the overall environmental impact of the development. Where possible, impacts to environmental matters and values have been avoided or minimised as the layout was progressed. Mitigation and management measures have been adopted for any remaining significant impacts.

Despite efforts to avoid, minimise and mitigate impacts, the Project is likely to still have an impact on Matters of State Environmental Significance (MSES) and potentially on Matters of Local Environmental Significance (MLES). MSES that are found within the Study Area and have the potential to be impacted are Regulated Vegetation and Connectivity Areas. To determine if an offset is required for these impacts a Significance Residual Impact (SRI) assessment has been undertaken. This determined that the Project, in its current design, is likely to have an SRI on Regulated Vegetation only. Further refinement of the Project during detailed design will seek to reduce these impacts where possible.

Determination of whether offsets are a suitable outcome will be undertaken by the administrating authority that assesses the authority application for the prescribed activity. Additionally, the Project may be exempt from the assessment of clearing of native vegetation if the clearing is under a development approval where the chief executive is a concurrence agency. The delivery of offsets (if required) will be determined at a later stage when then actual 'on-ground' extents of SRI's are known. This will likely be during the detailed design phase of the Project. The authority assessing an application will need to consider the proposed rehabilitation for the Project, which currently involves re-instating the land after the operational life of the Project has ended (expected to be 20-25 years).

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# 1.0 Introduction

# 1.1 Scope

Coopers Gap Wind Farm Pty Ltd, a subsidiary company of AGL Energy Limited (AGL), proposes to develop the Coopers Gap Wind Farm (the Project) with an installed capacity of up to 400 megawatts (MW) and a maximum of 115 wind turbines, although the final number of turbines will be dependent on the generation capacity of the particular wind turbine selected.

The Project has been declared a 'coordinated project' by the Coordinator-General for which an environmental impact statement (EIS) is required under section 26(1)(a) of the *State Development and Public Works*Organisation Act 1971 (SDPWO Act). The scope and purpose of this Preliminary Offset Strategy is to provide an overview of the potential for offset requirements by the Project under relevant legislation, planning and policy, and to support the assessment and approval process of the EIS.

This is provided as preliminary advice and does not detail the exact offset requirements of the Project. A final Offsets Approval Strategy and relevant Offset Plans (if required) will be produced following acceptance of the EIS; receipt of the Coordinator-General assessment report (with relevant offset conditions, if applicable); determination of the detailed design with actual 'on-ground' extent of impacts; and confirmation of the prescribed activities the Project will entail (i.e. what authority applications are required).

#### 1.1.1 Structure of this strategy

The content of this strategy is structured as follows:

- Chapter 1 Introduction including description of the Project
- Chapter 2 The legislative framework under which offsets may apply and what activities may trigger an authority that prescribes an offset requirement for a significant residual impact (SRI)
- Chapter 3 How the Project has sought to avoid and mitigate its potential impacts
- Chapter 4 The prescribed matters that are potentially impacted by the Project
- Chapter 5 An initial assessment of the significance of the potential impacts by the Project
- Chapter 6 Discussion on the process of determining whether an offset is a suitable outcome
- Chapter 7 Discussion on the potential offset delivery options that may be available, should an offset be required
- Chapter 8 A summary of the strategy and conclusions on the requirement for offsets and next steps in the Project assessment process for offsets.

## 1.2 Project description

The Project is located approximately 180 km north-west of Brisbane, between Dalby and Kingaroy, near Cooranga North. The Project falls within the jurisdiction of the South Burnett Regional Council and the Western Downs Regional Council Local Government Areas (LGAs).

AGL is seeking approval to install a maximum of 115 turbines and ancillary infrastructure. The Project will connect directly into Queensland's energy grid through the Western Downs to Halys 275 kilovolt (kV) transmission line. The capital expenditure for the Project is estimated to be around \$500 million.

The major stages of the Project are as follows:

- Development Approvals Process
- Detailed Design Following financial commitment and receiving conditions of approval from the Coordinator-General's report on the EIS
- Construction Construction of the Project is expected to take approximately two to two and a half years
- Operation The Project is expected to have a design life of 20-25 years, after which time the site may be repowered or decommissioned

 Decommissioning and rehabilitation – The Project will be decommissioned and the site rehabilitated after wind farm operations.

Details on the construction, operation and decommissioning of the Project and the potential environmental impacts are provided in Chapter 2 Project Description of the EIS (AECOM, 2016).

# 2.0 Legislative framework

Offsets can be applied at a Commonwealth, State and local level. The legislation and policy that are relevant to the assessment and provision of potential offsets by a project are described in the following sections.

## 2.1 Commonwealth

## 2.1.1 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) establishes a process for environmental assessment and approval of proposed actions that have, will have or are likely to have a significant impact on Matters of National Environmental Significance (MNES) or on Commonwealth land.

A development that is likely to have a significant impact on any MNES is defined as a "controlled action" for which an assessment must be prepared under the EPBC Act. An offset may be required where impacts are thought to be significant or cannot be reasonably avoided or mitigated.

Previous advice from the former Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) relating to the Project (in response to three referrals submitted between 2008 – 2011) was that the Project did not constitute a controlled action. As some Project details have altered since 2011, the assessment of impacts has been revisited in the EIS and no significant impacts to MNES were identified.

As a result of the Project being declared 'Not a Controlled Action' the Commonwealth Environmental Offsets Policy does not apply (DSEWPC, 2012) and there is no requirement for offsets under the EPBC Act.

## 2.2 State

#### 2.2.1 Environmental Offsets Act 2014

The Queensland *Environmental Offsets Act 2014* (the EO Act) outlines the framework for environmental offsets and how they should be provided. It supports assessment legislation by coordinating the delivery of environmental offsets across jurisdictions, and placing limits on when an environmental offset condition may be imposed. It also provides for the subsequent assessment, delivery, and compliance with offset conditions once imposed.

The EO Act is supported by the Environmental Offsets Regulation 2014 (the EO Regulation) and the Queensland Environmental Offsets Policy (the Policy). The EO Regulation provides further detail on a number of elements of the EO Act, including details of the activities and environmental matters to which the EO Act applies. The Policy provides a decision-support tool to enable administering agencies to assess offsets proposals to ensure they meet the requirements of the EO Act.

The EO Act, the EO Regulation, and the Policy form Queensland's environmental offsets framework.

However, the environmental offsets framework does not limit the functions or powers of the Coordinator-General under the *State Development and Public Works Organisation Act 1971* (SDPWOA). In making decisions about environmental offset requirements under the SDPWOA, the Coordinator-General may consider the environmental offsets framework but is not bound by its requirements.

Under Queensland's environmental offsets framework, an environmental offset may be required as a condition of an authority when:

- an activity has been identified as a 'prescribed activity'; and
- the activity will have an impact on a 'prescribed environmental matter'; and
- despite undertaking all reasonable avoidance and mitigation measures, that activity will have a 'significant residual impact' on the prescribed environmental matter; and
- an environmental offset is a suitable outcome.

These elements must be considered during the assessment of an application for an authority for a prescribed activity to identify whether an offset will be required.

#### 2.2.1.1 Prescribed activities

Activities for which an offset may be a consideration are called 'prescribed activities'. These are identified in section 9 of the EO Act, and in section 4 and Schedule 1 of the EO Regulation and are triggered for assessment under other legislation that requires an application for an authority. The other legislation that may require an authority, the prescribed matters under that legislation, and the relevance to the Project are provided within Table 1.

The relevant potential prescribed activities for the Project include:

- A prescribed Environmentally Relevant Activity (ERA) under the Environmental Protection Act 1994
- Development for which an environmental offset may be required under any of the following modules of the State development assessment provisions:
  - (a) module 4 (environmentally relevant activities)
  - (c) module 8 (native vegetation clearing).
- development for which an environmental offset may be required under any of the following:
- (a) a local planning instrument.

#### 2.2.2 Sustainable Planning Act 2009 - Queensland Wind Farm State Code

The Queensland Wind Farm State Code was published in July 2016 and is contained in the State Development Assessment Provisions (SDAP). The intension of the code is to regulate the development of new wind farms or the expansion of existing wind farms; and to mitigate potential adverse impacts on the community and environment during the construction and operation of a wind farm.

The State Assessment and Referral Agency (SARA) is responsible for all development applications for wind farms where the state has a jurisdiction under the *Sustainable Planning Act 2009* (SP Act). As a result, under the SP Act responsibility for assessing wind farm developments will shift from local governments to the State.

At the time of writing this document the activity of wind farm development is not identified within the EO Act as a prescribed activity and there are no offset requirements detailed within the Code.

## 2.3 Local government

Local government can provide for environmental offsets where the local planning scheme:

- identifies matters of local environmental significance (MLES)
- includes provisions for environmental offsets consistent with the EO Act.

The interim development assessment requirements provide that where a local government has existing provisions relating to environmental offsets in their local planning scheme, the application of an environmental offset condition must be in accordance with the EO Act. If a local planning scheme does not already contain provisions for environmental offsets, an environmental offset condition cannot be imposed.

Matters relevant to prescribed activities Table 1

Legislation	Prescribed activity	Prescribed Environmental Matters to be assessed	Relevance to the Project
Sustainable Planning Act 2009	As identified under a Planning Scheme	- Any relevant Matters of Local Environmental Significance (MLES) under the Scheme	Potentially applicable. The current local planning schemes (South Burnett Regional Council and Western Downs Regional Council) do not show any MLES within the Project Site. However, the Draft Western Downs Planning Scheme does identify Areas of Ecological Significance which if impacted may require offsetting
	As identified under a Planning Scheme and the SPRP is a relevant consideration	Any relevant MLES under the Scheme; and     A non-juvenile koala habitat tree located in an area shown as bushland habitat, high value rehabilitation habitat or medium value rehabilitation habitat on the map called 'Map of Assessable Development Area Koala Habitat Values' that applies under the SEQ Koala SPRP	Not applicable. The SPRP does not apply to the Study Area
	An activity assessed under any of the following modules of the State Development Assessment Provisions: - module 4 (environmentally relevant activities) - module 10 (coastal protection) - module 11 (wetland protection and wild river areas)	Module 4     Any matter listed in Schedule 2 of the EO Regulation     Modules 10 and 11     Any matter listed in Schedule 2, with exception of wetlands or watercourses in high ecological value waters (refer to section 1.2.1 of the Policy)	<ul> <li>The proposed quarry is likely to be an ERA and will require an environmental authority (EA). Depending on the location and impacts of the quarry, offsets may be required.</li> <li>The Study Area is not within a coastal area that would trigger assessment under Module 10</li> <li>The Study Area is not within a wetland area or watercourse of high ecological value that would trigger assessment under Module 11</li> </ul>
	An activity assessed under module 5 (fisheries resources) of the SDAP	Declared fish habitat areas, fish habitats, fish passage, and an existing legally secured offset area (Schedule 2, items 9 to 11 of the EO Regulation)	<ul> <li>It is assumed at this stage that all creek crossing will be designed in accordance with the Self Assessable Codes under the Fisheries Act 1994 and will not trigger assessment</li> <li>The Study Area is not within a declared fish habitat area</li> </ul>
	An activity assessed under module 8 (vegetation clearing) of the SDAP	<ul> <li>An existing legally secured offset area</li> <li>Regulated vegetation (Schedule 2, item 2 of the EO Regulation)</li> <li>Connectivity areas (Schedule 2, item 3 of the EO</li> </ul>	<ul> <li>The Project will require the clearing of regulated vegetation</li> <li>The Project may potentially impact a connectivity area</li> </ul>

Legislation	Prescribed activity	Prescribed Environmental Matters to be assessed	Relevance to the Project
		Regulation)	The Project may be exempt from the assessment of clearing of native vegetation if the clearing is under a development approval for a material change of use or reconfiguring a lot, if the approval is given for a development application for which the chief executive is a concurrence agency
Environmental Protection Act 1994	A resource activity for which an amendment application, site-specific application or variation application was made	- Any matter listed in Schedule 2 of the EO Regulation, with the exception of wetlands or watercourses in high ecological value waters (refer to section 1.2.1 of the Policy)	- Not applicable. The Project is not a resource activity
	A prescribed ERA	- Any matter listed in Schedule 2 of the Environmental Protection Act 1994	<ul> <li>As discussed above, the proposed borrow pit may constitute a Prescribed ERA 16 for Extractive and screening activities. Depending on the impacts for this activity, offsets may be required</li> </ul>
Nature Conservation Act	Taking a protected plant under a protected plant clearing permit	- Protected wildlife habitat for flora (Schedule 2, item 6(1) and (2) of the EO Regulation)	The Project will not require taking a protected plant under a protected plant clearing permit
1992	An activity conducted under an authority granted, made, issued or given under section 34, 35, 38, 42AD or 42AE of the <i>Nature Conservation Act 1992</i> in a protected area	<ul> <li>Protected areas (Schedule 2, Item 7 of the EO Regulation)</li> <li>Any matter listed in Schedule 2 of the EO Regulation on the protected area</li> </ul>	- The Study Area is not within a protected area
Marine Parks Act 2004	The carrying out of works authorised under the <i>Marine Parks Act 2004</i> in a marine park	<ul> <li>Highly protected zones of marine parks         (Schedule 2, Item 8 of the EO Regulation)</li> <li>Any matter listed in Schedule 2 of the EO Regulation in the highly protected zone of the marine park</li> </ul>	Not applicable. The Study Area is not within a marine park

# 3.0 Avoidance and mitigation

Under the EO Act, an environmental offset cannot be considered as a condition of authority until it has been demonstrated that all reasonable avoidance and mitigation measures have been, or will be, undertaken.

The Project has undertaken a design development and assessment process that has included for the avoidance of environmentally sensitive areas and where this has not been possible, appropriate mitigation and management has been proposed to lessen the potential for a residual impact. The avoidance and mitigation process and its outcomes are described in the following sections.

#### 3.1 Avoidance and minimisation

The design of the Project has been optimised in order to produce a layout that maximises the use of the land available for wind power generation, balanced against the overall environmental impact of the development. The optimal layout of a wind farm is influenced by a range of technical, economic and environmental criteria as follows:

- Local topography affecting wind flow across the Project Site and therefore detrimentally affecting turbine performance. Site topography must be carefully considered in the layout design process to ensure any detrimental effects are minimised
- Ground conditions must be suitable for the installation of wind turbines, access tracks and cables, for example avoiding areas of unstable ground or steep slope gradients
- Turbines must be separated by specific distances to minimise turbulent interaction between the wind turbines which can reduce turbine performance. Spacing requirements vary between turbine manufacturers and are also subject to wind conditions
- Wind turbines have to be located in accordance with the amenity requirements of the Queensland Wind Farm State Code and supporting Planning Guideline
- The implications of locating turbines near environmentally sensitive features and areas (ecology, archaeology, hydrology, etc.) need to be carefully considered
- Landscape and visual design considerations also need to be taken into account
- Planning guidance and discussion with statutory and non-statutory consultees, the local communities and the landowners influence the evolution of the design.

In addition to the design criteria, a number of maximum specification criteria for the Project have been used for the purposes of assessing potential impacts (e.g. energy generation, turbine size). These are based on the historical development of the Project, potential environmental impacts and maintaining a degree of flexibility for the construction of the Project. Further details of the Project refinement and specifications are provided within Chapter 2 of the EIS.

Recognised environmental matters and values that have been considered within the Project's design and development (using avoidance and minimisation where possible) include:

- Waterways
- Regulated vegetation (i.e. remnant vegetation)
- Regrowth vegetation
- Threatened Ecological Communities
- Potential habitat for threatened fauna species.

# 3.2 Mitigation and management

The assessment within the EIS reflects a Project layout where all reasonable avoidance measures have been undertaken (as described in Section 3.1). The assessment then proposes mitigation and management measures for any remaining potentially significant impacts. These measures are provided to minimise the adverse impacts of the Project on environmental matters and are summarised within Table 2.

The summary of mitigation and management measures has been structured to highlight approaches to prevent, mitigate, and monitor potential impacts during the design, construction, and operational phases of the Project. This information can then be reviewed and adopted at each phase of the Project. These mitigation and management measures will be further refined during the detailed design stage of the Project so that site and location-specific issues can be captured and be fully relevant to the final design of the Project. It will be at this stage that a detailed Construction Environmental Management Plan (CEMP) can be prepared to manage the potential impacts associated with the construction phase.

Responsibilities associated with mitigation and management measures rest with the Project proponent, and other organisations involved with each Project stage, including design consultants and Engineering, Procurement, Construction (EPC) contractor. Each person engaged to work on the Project, during any phase, will be required to comply with the CEMP. To this end, an environmental induction program will be necessary to ensure all site workers (involved in construction or operation) are inducted into the CEMP program prior to their commencement of duties.

Table 2 Potential Project impacts and mitigation and management measures

Potential impact	Management objective						
	Design		Construction	Operation			
Direct loss of endangered Semi- Evergreen Vine Thicket (SEVT) vegetation community	Prevention	<ul> <li>Avoid all SEVT for wind turbines and other infrastructure unless there is no suitable alternative</li> <li>Co-locate access roads and underground electrical reticulation to reduce area of vegetation clearing required</li> </ul>	<ul> <li>Minimise construction activities within remnant vegetation</li> <li>Locate all construction sites, such as site office, soil stockpiles, machinery/ equipment storage within existing cleared areas or disturbed area</li> <li>Impose strict no-go zones for construction workers and machinery within endangered vegetation</li> <li>Micro-siting will be used to minimise impacts on the areas of remnant vegetation and regrowth vegetation.</li> </ul>	- N/A			
	Contingency measures	- Prior to clearing, collection of seeds from local trees for propagation and use in seed mixes	<ul> <li>All vegetation to be removed is clearly marked and clearing contractors briefed on clearing requirements</li> <li>Educate all contractors on the importance of the vegetation and ensure no encroachment on surrounding vegetation</li> <li>Implement a SEVT management and rehabilitation plan in accordance with the SEVT Recovery Plan (McDonald, 2007).</li> </ul>	- N/A			
	Monitoring	- N/A	- Daily visual inspection of vegetation clearing boundaries.	- N/A			
Direct loss of 'Of Concern' Regional Ecosystem	Prevention	<ul> <li>Avoid all Of Concern RE unless there is no suitable alternative</li> <li>Detailed design of the Project to promote the retention of remnant vegetation within the Study Area</li> <li>Co-locate infrastructure to reduce area of vegetation clearing required</li> </ul>	<ul> <li>Minimise construction activities within remnant vegetation</li> <li>Locate all construction sites, such as site office, soil stockpiles, machinery/ equipment storage within existing cleared areas or disturbed area</li> <li>Impose strict no-go zones for construction workers and machinery within remnant vegetation.</li> </ul>	- N/A			

Potential impact	Management o			
		Design	Construction	Operation
	Contingency measures	<ul> <li>Research viability of compensatory planting</li> <li>Develop a management and rehabilitation plan.</li> </ul>	<ul> <li>All vegetation to be removed is clearly marked and clearing contractors briefed on clearing requirements</li> <li>Educate all contractors on the importance of the vegetation and ensure no encroachment on surrounding vegetation</li> <li>Implement the management and rehabilitation plan.</li> </ul>	- N/A
	Monitoring	- N/A	- Daily visual inspection of vegetation clearing boundaries	- N/A
Direct loss of regrowth vegetation	Prevention	<ul> <li>Avoid all regrowth         vegetation unless there         is no suitable         alternative</li> <li>Detailed design of the         Project to promote the         retention of regrowth         vegetation within the         Study Area</li> <li>Co-locate infrastructure         to reduce area of         vegetation clearing         required.</li> </ul>	<ul> <li>Minimise construction activities within regrowth vegetation</li> <li>Locate all construction sites, such as site office, soil stockpiles, machinery/ equipment storage within existing cleared areas or disturbed area</li> <li>Impose strict no-go zones for construction workers and machinery within regrowth vegetation.</li> </ul>	- N/A
	Contingency measures	Research viability of compensatory planting     Develop a management and rehabilitation plan.  N/A	All vegetation to be removed is clearly marked and clearing contractors briefed on clearing requirements     Educate all contractors on the importance of the vegetation and ensure no encroachment on surrounding vegetation Implement the management and rehabilitation plan.      Deliverious lines extremely account to the surrounding services are surrounded.	- N/A
D 1	Monitoring	- N/A	- Daily visual inspection of vegetation clearing boundaries.	- N/A
Degradation of vegetation communities and habitats through indirect impacts, including edge effects, spread of	Prevention	<ul> <li>Avoid further fragmentation of existing small patches (&lt;5 ha)</li> <li>Maintain, as far as practicable, existing surface drainage paths.</li> </ul>	<ul> <li>Minimise construction activities within remnant vegetation</li> <li>Install washdown facilities at main site entry/exit points to remove soil and weeds</li> <li>Develop and implement a Weed Management Plan that includes specific controls for environmental and noxious weeds</li> </ul>	Revegetate disturbed     areas as soon as     practicable after works     with appropriate native     and locally endemic     species that have high     habitat value

Potential impact	Management objective					
	Design		Construction	Operation		
weeds, introduced pests, modified surface water	Contingency measures	- N/A	- Maintain activities as set out in the Weed Management Plan.	- Maintain activities as set out in the Weed Management Plan.		
drainage, light and noise intrusion	Monitoring	- N/A	<ul> <li>Imported topsoils/mulches to be weed-free prior to material arriving onsite</li> <li>Visual inspections in accordance with the requirements set out in the Weed Management Plan.</li> </ul>	Visual inspections in accordance with the requirements set out in the Weed Management Plan.		
Removal of prescribed environmental matters that are regulated vegetation communities	Contingency measures	Determination of offsets     (if required)     Confirmation on     delivery of offsets	- Delivery of agreed offset (if required)	- Management of offset (if required)		
Mortality of native fauna	Prevention	- Avoid the removal of large hollow-bearing trees or dead trees wherever possible.	<ul> <li>Ensure that speed limits are enforced on access roads and roads during construction and highlight known crossing points with signage</li> <li>Avoid travelling on roads during dusk and dawn, where possible.</li> <li>Removal and translocation of hollows containing wildlife from habitat trees shall be conducted using a cherry picker, arborist and spotter/catcher</li> <li>All nests and dreys shall be safely removed from trees prior to any trees being felled</li> <li>All native fauna are protected (including snakes) and shall not be intentionally harmed as a result of the works or workers actions</li> <li>All site personnel shall be made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas</li> </ul>	Maintenance of fauna exclusion systems and structures designed for safe fauna passage to enable these systems to function effectively.		

Potential impact	Management ol	Management objective						
		Design	Construction	Operation				
			<ul> <li>Fauna exclusion devices shall be implemented where practical to discourage fauna from entering the construction site</li> <li>In accordance with statutory obligations/ policies, construction activities to be monitored in accordance with a standardised Flora and Fauna Monitoring Program</li> <li>Avoid disturbing, removing or breaking up fallen timber (especially larger logs) wherever possible</li> <li>Wherever it is unavoidable to disturb fallen timber, relocate them adjacent to the turbine footprint or road.</li> </ul>					
	Contingency measures	- N/A	<ul> <li>Investigate the cause of any fauna injury or death</li> <li>Information gained through investigations to be applied in adaptive management to prevent or minimise further losses or injuries where possible and practical and/or implement compensatory actions.</li> </ul>	- N/A				

Potential impact	Management objective					
		Design	Construction	Operation		
	Monitoring	- Develop a pre- construction and post- construction monitoring plan for bats and birds.	<ul> <li>Prepare a Flora and Fauna Monitoring Program that includes assessment of mortality of native fauna and adaptive management processes to prevent or minimise further losses or injuries and/or identifies measures to be implemented as compensatory actions</li> <li>Visual inspections in accordance with the Flora and Fauna Monitoring Program.</li> </ul>	<ul> <li>Continued visual inspection of Project Site for fauna mortality in conjunction with scheduled maintenance works and according to the requirements established in the Flora and Fauna Monitoring Program</li> <li>Flora and Fauna Monitoring Program to include targeted monitoring of bats and birds</li> <li>Records of all mortalities should be kept to ensure that mortality rates are kept to an acceptable level.</li> </ul>		
Impediment to movement of at risk wildlife (birds and bats) through natural wildlife corridors, particularly when travelling between Diamondy State Forest and Bunya	Prevention	Any turbine lighting is to be minimised, and red lights used to prevent the attraction of insects.	<ul> <li>Where possible, construction, and clearing of vegetation, should be staged to allow for continued wildlife movement outside the immediate danger of the construction site</li> <li>All construction activities, e.g. site offices, stockpiles etc. should be located in existing disturbed or cleared areas to minimise disruption of wildlife habitat</li> <li>In accordance with statutory obligations, spotter/catchers will be present at all vegetation clearing to ensure minimal disturbance to onsite fauna and recover and rescue any injured or orphaned fauna during construction.</li> </ul>	- N/A		

Potential impact	Management ol	lanagement objective					
		Design	Construction	Operation			
Mountains National Park	Contingency measures	- N/A	<ul> <li>In accordance with statutory obligations, spotter/catchers will be present at all vegetation clearing to ensure minimal disturbance to onsite fauna and recover and rescue any injured or orphaned fauna during construction.</li> </ul>	- N/A			
	Monitoring	- N/A	Visual inspections in accordance with the Flora and Fauna Monitoring Program.	- Continued visual inspection of wind farm for fauna mortality in conjunction with scheduled maintenance works and according to the requirements established in the Flora and Fauna Monitoring Program with input from Queensland Parks and Wildlife Service (QPWS).			

# 4.0 Prescribed matters

Prescribed environmental matters are outlined in section 10 of the EO Act, and in section 5 and Schedule 2 of the EO Regulation. These matters are:

- Matters of National Environmental Significance (MNES)
- Matters of State Environmental Significance (MSES)
- Matters of Local Environmental Significance (MLES).

# 4.1 Matters of National Environmental Significance

These are matters that are protected and regulated under the Commonwealth's EPBC Act. Environmental offsets are required where SRI impacts on MNES occur from the proposed Project activities.

The Project has undertaken an assessment and referral process which determined that the Project will not result in a significant impact on MNES and is declared 'Not a Controlled Action' (refer to Section 2.1.1).

# 4.2 Matters of State Environmental Significance

MSES are matters protected and regulated under Queensland legislation, and are listed in Schedule 2 of the EO Regulation.

The trigger for identifying whether an offset may be required, for some matters (e.g. regional ecosystems), is the relevant map. However, the assessment will take into consideration the on-ground presence or absence of the prescribed environmental matter.

This applies, for instance, to all matters that are under Schedule 2, section 2 'Regulated vegetation' of the EO Regulation. These matters are defined in such a way that the map is the 'trigger' point to determine whether further investigation of the presence of the environmental matter is required. However, an environmental offset will not be required to the extent the map is incorrect, if the matter is determined by a suitably qualified person through field verification such that:

- The matter does not exist
- The extent of the matter is less than that which is mapped, or
- The on-ground extent does not meet the stated requirements for the prescribed environmental matter.

Schedule 2, section 1 of the EO Regulation needs to be read in conjunction with section 2 in order to understand the stated requirements for each matter.

Prescribed environmental matters also include certain marine park zones under the *Marine Parks Act 2004* and the following protected area categories under the *Nature Conservation Act 1992*:

- National park
- National park (Aboriginal)
- National park (Torres Strait Islander land)
- National park (Cape York Peninsula Aboriginal Land)
- Regional park
- Nature refuge.

The MSES that are found within the Study Area and have the potential to be impacted are Regulated Vegetation and Connectivity Areas. These are discussed in further detail in the following sections.

#### 4.2.1 Regulated vegetation

Regulated vegetation excludes regrowth vegetation and has been defined as Category B areas on the regulated vegetation map that are:

- 'Endangered' or 'of concern' regional ecosystems (REs)
- Remnant vegetation within the defined distance of a watercourse identified on the vegetation management watercourses map
- Remnant vegetation that intersects with an area shown as a wetland on the vegetation management wetlands map
- Essential habitat (EH) as identified on the essential habitat map.

The Project Site contains 'endangered' or 'of concern' REs and remnant vegetation within the defined distance of a watercourse identified on the vegetation management watercourses map.

#### 4.2.2 Connectivity areas

Connectivity areas are areas of remnant vegetation outside urban areas containing prescribed regional ecosystems that are required for ecosystem functioning (a connectivity area).

As the Project Site contains areas of remnant vegetation that are outside of an urban area and that are over one hectare (ha) in size, it has been determined that the Project has the potential to impact on connectivity areas.

# 4.3 Matters of Local Environmental Significance

MLES is a matter that is prescribed under a local planning instrument as a prescribed environmental matter. An MLES cannot be the same or substantially the same as an MNES or MSES. This includes MSES that are not prescribed environmental matters in urban areas (for example, remnant 'of concern' regional ecosystems). However, a local government may identify MLES on land that also has MSES or MNES - provided that the MLES is not the same or substantially the same as a value that is MNES or MSES.

Local government has jurisdiction over MLES. However, it must be identified in a local planning instrument made under the SP Act, and be consistent with the Statutory Guideline 04/14: Making and amending local planning instruments.

#### 4.3.1 Kingaroy Shire Planning Scheme

The Kingaroy Planning Scheme was gazetted in July 2006 and is the relevant planning scheme for the Project Site within the South Burnett Regional Council LGA.

The Kingaroy Planning Scheme does not identify any prescribed environmental matters that are a MLES.

#### 4.3.2 Wambo Shire Planning Scheme

Wambo Shire Planning Scheme came into effect in April 2005 and remains the planning scheme for the former Wambo Shire Council local government area within the Western Downs Regional Council.

The Wambo Shire Planning Scheme does not identify any prescribed environmental matters that are a MLES.

### 4.3.3 Draft Western Downs Planning Scheme

The Draft Western Downs Planning Scheme was released for public comment in mid-2012. An Amended Draft Western Downs Planning Scheme was released for public notification in late 2016 following State Government review. Once finalised, the plan will replace the six planning schemes for the former local government areas of Chinchilla, Dalby, Murilla, Tara, Taroom and Wambo.

The Draft Western Downs Planning Scheme does identify Areas of Ecological Significance and Local Ecological Significance on its Biodiversity Areas Overlay Map (OM-002). The Project Site does fall within Areas of Ecological Significance that are identified as General Ecological Significance (GES), High Ecological Significance (HES) and High Ecological Significance 100 m Buffer.

Further consultation with Western Downs Regional Council will be required to confirm the adoption of the scheme and its application to the Project.

#### 4.3.4 Draft South Burnett Planning Scheme

The Draft South Burnett Planning Scheme was published for public review and comment in August 2016. Once finalised, the plan will replace the planning schemes for the former local government areas of Kingaroy, Murgon, Nanango and Wondai Shires. The policy direction for the scheme is set by the strategic framework which is comprised of six themes. One of the themes relates to Natural Systems and Sustainability which lists a number of specific outcomes relating to biodiversity. These are:

- 1) Environmentally significant areas and values, particularly local components of the Southeast Queensland and Brigalow Belt Bioregions, are identified, protected, maintained and enhanced.
- 2) The impacts of development on habitat fragmentation and biodiversity are minimised and opportunities for the establishment, protection, management, rehabilitation and enhancement of environmentally significant areas and values, including movement corridors and interface treatments, are accommodated.
- New development does not necessitate clearing of significant vegetation, significant landscape modification or management practices within National Parks or State Forests to manage bushfire hazard on development sites.
- 4) The riparian amenity and habitat of the Region's waterways and wetlands are protected from inappropriate development.

Further consultation with South Burnett Regional Council will be required to confirm the adoption of the scheme and its application to the Project.

# 5.0 Significance of impact

# 5.1 Significant residual impact assessment

An environmental offset may be required as a condition of approval where, following consideration of avoidance and mitigation measures, the activity is likely to result in an SRI on prescribed environmental matters.

More specifically, section 8 of the EO Act defines an SRI as:

- Generally, an SRI is an adverse impact, whether direct or indirect, of a prescribed activity on all or part of a
  prescribed environmental matter that:
  - remains, or will or is likely to remain, (whether temporarily or permanently) despite on-site mitigation measures for the prescribed activity; and
  - is, or will or is likely to be, significant.

The EO Act also defines significant impacts to protected areas and to legally secure offset – neither of which apply to this Project.

Significant Impact Guidelines are available to determine if a residual impact from a prescribed activity is significant. A summary of the methodologies to determine SRI on MLES and MSES are presented in Section 5.1.1 and Section 5.1.2. The preliminary SRI assessment on prescribed environmental matters impacted by the Project is then presented in Section 5.2 and Section 5.3.

In-situ rehabilitation works can mitigate an impact to the extent that it would not be considered to be significant and then an offset may not be required. Section 5.4 describes the proposed rehabilitation for the Project.

## 5.1.1 Matters of Local Environmental Significance

To support local decision making processes and ensure transparency, a local government may develop their own, more specific criteria for SRI on MLES. Any criteria developed by local government for MLES should be made publicly available within their local planning instruments.

The current local planning schemes do not provide guidance on the assessment of significant impacts and the potential offset requirements. The Draft Western Downs Planning Scheme states that the loss of reduction in HES should be minimised and any residual impacts are to be offset. However, it recognises the potential for a net benefit to be achieved through the delivery of offsets under State policy. Further consultation with the local authorities may be required if assessment against the planning scheme is required to obtain an authority.

## 5.1.2 Matters of State Environmental Significance

There are currently two guidelines for assessing SRI on MSES. The Queensland Environmental Offsets Policy – Significant Residual Impact Guideline (DEHP, 2014) is used for consideration of all potential MSES offset requirements for applications made under the *Nature Conservation Act 1992*, *Environmental Protection Act 1994*, and *Marine Parks Act 2004*. The Project may require an environmental authority for the proposed borrow pit, if impacts to MSES are likely for this activity, this guideline may apply.

The second guideline is provided by the Department of State Development, Infrastructure and Planning (DSDIP) (now DILGP) and is used for applications made under the SP Act. As the Project will require authorities under this Act, the tools and methods within the Significant Residual Impact Guideline (DSDIP, 2014) have been used to help determine what is, and is not, likely to constitute a SRI.

The guideline is non-statutory and applies to development that requires an approval in relation to MSES under any of the following modules of the State development assessment provisions under the SP Act:

- Module 4 (environmentally relevant activities)
- Module 5 (fisheries resources)
- Module 8 (native vegetation clearing)
- Module 10 (coastal protection)
- Module 11 (wetland protection and wild river areas).

The guideline states that where an activity is proposed on land containing multiple prescribed environmental matters, the significance of the residual impact on each environmental matter will need to be identified and individually assessed. The nature and scale of impacts on each environmental matter may be different and require a different response.

The Project (at this stage) is likely to require approval in relation to Module 4 and Module 8.

While it is likely that an approval under Module 4 (environmentally relevant activity) may be required for the potential borrow pit, the site location is currently unknown and as such the impacts to MSES cannot be defined at this stage.

The DSDIP Significant Residual Impact Guideline has been used to assess the MSES under Module 8 that are likely to be impacted which are regulated vegetation (in Section 5.2) and connectivity areas (in Section 5.3). The Project may be exempt from the assessment of clearing of native vegetation if the clearing is under a development approval for a material change of use or reconfiguring a lot, if the approval is given for a development application for which the chief executive is a concurrence agency. In this situation, an assessment of SRI, application against Module 8 and offsetting would not be required.

# 5.2 Regulated vegetation

#### 5.2.1 Endangered or Of Concern regional ecosystem

The Project Site intersects approximately 1912 ha of non-remnant vegetation and cleared paddocks and intersects approximately 50 ha of remnant vegetation. The area of remnant vegetation to be removed is estimated within Table 3. This presents a worse-case as it accounts for all vegetation within the Project Site to be removed.

Table 3 Estimated area of remnant vegetation within the Project Site

	S	tatus <sup>#</sup>			Area (ha)	% to be
RE*	VM Status	Biodiversity Status	Area (ha) in Study Area	Area (ha) within Project Site	remaining in the Eastern Darling Downs Subregion	removed from the Eastern Darling Downs Subregion
11.10.1	LC	NC	375.18	21.42	34949.63	0.06%
11.3.25	LC	ОС	20.24	2.50	10432.90	0.02%
11.8.3	ОС	ОС	170.24	12.42	7617.51	0.16%

	S	tatus <sup>#</sup>			Area (ha)	% to be
RE*	VM Status	Biodiversity Status	Area (ha) in Study Area	Area (ha) within Project Site	remaining in the Eastern Darling Downs Subregion	removed from the Eastern Darling Downs Subregion
11.9.4a	ОС	E	22.59	2.79	1106.31	0.25%
11.9.5	Е	E	14.85	N/A	1800.60	N/A
12.8.16	ОС	ОС	271.45	11.33	4857.02	0.23%

<sup>\*</sup> Status: OC= Of Concern, LC=Least Concern, NC=No Concern

In accordance with the Significant Residual Impact Guideline tool, the actions which are LIKELY to have an SRI on an 'endangered' or 'of concern' RE are presented in Table 4 with an assessment against potential clearing impacts of the Project. This assessment indicates that the Project is likely to have an SRI and will require offsetting. The guideline does provide a list of actions that are unlikely to have an SRI however it is assumed at this stage that these do not apply to the Project. This will be reviewed during the detailed design phase when clearing width requirements are known.

Table 4 Endangered or Of Concern regional ecosystem SRI assessment

An action is LIKELY to have an SRI	Project assessment
Clearing of more than 5 ha of 'endangered' or 'of concern' RE vegetation.	The Project is <b>likely</b> to require the clearing of over 5 ha of 'of concern' RE vegetation in any one area.  The Project is <b>unlikely</b> to require the clearing of over 5 ha of 'endangered' RE vegetation in any one area.
Clearing that results in an overall area (not confined to property boundaries) of 'endangered' or 'of concern' RE vegetation of less than 5 ha.	The Project is <b>likely</b> to require the overall clearing of over 5 ha of 'of concern' RE vegetation.  The Project is <b>unlikely</b> to require the overall clearing of over 5 ha of 'endangered' RE vegetation.
Clearing that results in the physical separation <sup>1</sup> of 'endangered' and 'of concern' RE communities within and on adjoining sites.	The Project has the potential to require clearing that separates an 'of concern' RE community.  The project is unlikely to require clearing that separates an 'endangered' RE community.

<sup>&</sup>lt;sup>1</sup> Physical separation refers to any clearing that would result in the separation of an otherwise intact area of vegetation.

#### 5.2.2 Remnant vegetation within the defined distance of a watercourse

The Project Site has watercourses (that are identified on the regulated vegetation management watercourse and drainage map) that flow through and adjacent to remnant vegetation (within the defined distances found in Table 2 of the module 8 SDAP (DILGP, 2016)).

The actions which are likely to have an SRI on remnant vegetation within the defined distance of a watercourse are presented in Table 5 with an assessment against potential clearing impacts of the Project.

The guideline does provide a list of actions that are unlikely to have an SRI however it is assumed at this stage that the only relevant action under this list is that of clearing 'least concern' RE not containing Essential Habitat for up to 1 ha for lineal infrastructure (e.g. roads and rail) applies to the Project. This will be reviewed during the detailed design phase when clearing width requirements are known.

<sup>\*</sup> Taken from the field verified Regional Ecosystem mapping undertaken as part of the flora and fauna EIS, Volume 1, Chapter 12

Table 5 Remnant vegetation within the defined distance of a watercourse SRI assessment

An action is LIKELY to have an SRI	Project assessment
Permanent removal of vegetation within the defined distance of a stream order 2 or higher where no rehabilitation is proposed.*	The Project is <b>likely</b> to require the permanent clearing of remnant vegetation within the defined distance of streams with orders 1 and 3.
Building of an online detention basin greater than 1 ha in size or other similar works that result in the clearing of vegetation which fragments up and downstream remnant areas on any stream order.	The project is <b>unlikely</b> to require an online detention basin or other similar works that will result in fragmentation of remnant areas on a watercourse.
Permanent clearing of more than 0.5 ha of an endangered or of concern RE, within the defined distance of a watercourse.	The project <b>has the potential</b> to require clearing of over 0.5 ha 'of concern' remnant vegetation within the defined distance of a watercourse.

<sup>\*</sup> Stream orders are based on the Strahler stream order classification which considers the hierarchy of tributaries, starting at the top of a catchment where headwater flow paths are assigned first order. Where two first-order streams join, the downstream section is referred to as a second-order stream and so on. Stream order 2 or higher means stream order 2, 3, 4 etc. It does not include stream order 1.

# 5.3 Connectivity areas

Connectivity areas are areas of remnant vegetation outside urban areas containing prescribed regional ecosystems that are required for ecosystem functioning (a connectivity area).

In deciding if an SRI is likely to occur on a connectivity area, the significance of the vegetation in the context of the local and the regional landscape is determined. The measure of impact significance is based on how the prescribed activity will change the size and configuration of remnant vegetation areas and the level of fragmentation that will result at the local scale (5 km radius) given regard to the regional scale (20 km radius). Impact significance is measured by the reduction in the extent of remnant vegetation and increase in patchiness at the local scale.

In highly fragmented landscapes at the regional scale, an SRI on connectivity areas will be associated with smaller impacts compared to impacts within regionally intact landscapes, as the extent and configuration of existing connectivity areas in fragmented landscapes is limited.

If the prescribed activity will have an SRI on connectivity areas, then offsets will be required at a multiplier of one and will need to be located in fragmented subregions to ensure that any lost connectivity is replaced in another fragmented landscape.

The Landscape Fragmentation and Connectivity Tool (DEHP, 2016) (LFC) enables a decision to be made on the significance of an impact on connectivity areas containing remnant vegetation Category B. It performs a desktop assessment of development impacts on connectivity areas containing remnant vegetation (classed as Category B on the Regulated Vegetation Management Map).

The tool determines the significance of a development impact on connectivity areas by assessing:

- 1) Whether the change in the core ecosystem extent at the local scale (post impacts) is greater than a threshold determined by the level of fragmentation at the regional scale; or
- If any core area (greater than or equal to 1 ha) is lost or reduced to patch fragments (core to non-core).

This tool has been used on the Project and the outputs from the tool are provided in the following section.

## 5.3.1 Landscape fragmentation and connectivity tool assessment

#### Change in core remnant ecosystem at the local scale

The regional area that the LFC undertook its assessment within is 221,229.46 ha in size. Within this area it calculated that the regional extent of core remnant is 43,706.50 ha which makes up 19.76% of the regional area.

This level of regional fragmentation sets a local impact threshold of 5%.

Table 6 lists the local impact thresholds for categories of regional core remnant extent.

Table 6 Impact thresholds

Regional Core Category (%)	Local Impact Threshold (%)		
< 10	2.0		
10 - 30	5.0		
30 - 50	10.0		
50 - 70	20.0		
70 - 90	30.0		
>90	50.0		

The area of core remnant at the local scale pre impact is 5,269.72 ha. The area of core at the local scale post impact is 5,212.67 ha. This equates to a percent change of core at the local scale (post impact) of 1.08%.

#### Loss or fragmentation of core remnant ecosystem at the site scale

The LFC counted the number of core remnant areas (greater or equal to 1 hectare) occurring on the site to be 9. The number of core remnant areas remaining on the site post impact was 9, giving no loss of core remnant area.

#### 5.3.2 Analysis result

The output of the Landscape Fragmentation and Connectivity Tool analysis has determined that in consideration of the change in core remnant ecosystem and/or the loss or fragmentation of core remnant ecosystem at the site scale; the Project will not result in a significant impact on connectivity areas.

#### 5.4 Rehabilitation

During the assessment of an authority application and a review of the potential SRI, the proposed in-situ rehabilitation works are considered where they can mitigate an impact to a particular prescribed environmental matter to the extent that it would not be considered to be significant and therefore offsets would not be required.

Consideration is given to:

- Extent and duration of the impact on the matter
- Timeframe for rehabilitation relative to the impact occurring
- Likely success of rehabilitation works to return the impacted matter to an equivalent pre-impact condition
- Time-lag effect on the matter's viability between impact and rehabilitation successfully delivering the original condition for the matter (i.e. ensuring there is no net loss).

At the end of the operational life of the Project (expected to be 20-25 years) the Project is planned to be decommissioned, which will involve the turbines and all other above-ground infrastructure on-site being dismantled and removed from the Project Site. This includes all the interconnection and substation infrastructure unless the infrastructure which, as at the relevant date, is owned by a network operator. The tower bases will be cut back to below ploughing level or top soil built up over the foundation to achieve a similar result. The land will be returned to prior condition and use.

The access roads, if not required for farming purposes or fire access, will be removed and the site reinstated to original condition and use. Access gates, if not required for farming purposes, will also be removed.

The underground cables occur below ploughing depth and contain no harmful substances. They can be recovered if economically attractive, or left in the ground. Terminal connections will be cut back to below ploughing levels.

All such refurbishment and decommissioning work will be the responsibility of AGL. An alternative scenario is that AGL may repower the wind farm (replace the wind turbines) or replace the wind turbine components, such as the gearbox and generator. The likelihood of this at this stage is unknown.

# 6.0 Offset is a suitable outcome

A remaining SRI does not necessarily always warrant an offset and an offset is not always a suitable solution for the impact on a matter. Determination on whether an offset is a suitable outcome is undertaken by the administrating authority for the application for the prescribed activity.

The assessment undertaken by the administrating authority will consider the potential benefits from the prescribed activity, including the improvement in social and economic values the Project may bring to the local and regional environment.

The EIS for the Project details the extent of the potential impacts and benefits that the Project will entail, and will be a key document used by referral agencies and administrating authorities in the offset determination.

# 7.0 Offset delivery options

The approach for delivery of offsets can be proposed by the proponent as part of the authority application, or after the authority has been issued. Under the EO Act, environmental offsets must achieve a conservation outcome for the impacted matter which is achieved by an environmental offset if the offset is selected, designed, and managed to maintain the viability of the matter.

The EO Act and Policy provide flexibility in delivering a conservation outcome through the following offset delivery options:

- Financial settlement offset
- Proponent-driven offset, or
- A combination of proponent-driven offset and financial settlement offset.

The Project approach to delivery of offsets will not be determined until the EIS has been approved and Conditions have been received from the Coordinator-General. Following this, the detailed design will be developed which will then determine the actual 'on-ground' extent of the impacts and the actual SRI.

The Project may require a number of authorities post approval of the EIS by the Coordinator-General (refer to Section 2.2.1.1). Following the approval of the EIS, consultation with the relevant authorities will be undertaken to agree an offset approach, and this strategy will be updated prior to the application of the authority (e.g. prior to a Development Approval for Operational Works that is the clearing of native vegetation).

# 8.0 Summary and conclusion

This Preliminary Offset Strategy has been produced to provide an overview of the potential offset requirements that the Project may require under current legislation, planning and policy.

The Project is declared a 'coordinated project' under the SDPWO Act for which an EIS is required to be submitted to the Coordinator-General. The Coordinator-General has the ability to condition environmental offsets as part of the EIS evaluation, and there is the requirement under the EO Act to potentially provide offsets when obtaining an authority for a prescribed activity that has an SRI on a prescribed matter.

This strategy has identified that at this stage, and considering the worst case scenario:

- No MNES are likely to be significantly impacted
- It is likely that MSES will have SRI and require offsetting if a development approval for native vegetation clearing is required
- There is the potential for MLES to be impacted. However, determination on whether there is a SRI to MLES depends on the adoption of the Draft Western Downs Planning Scheme and consultation with Council.

A summary of the likely prescribed activities that the Project will require and the impacted prescribed environmental matters that may result in an SRI are presented in Table 7. The assessment of SRI's will need to be undertaken again at the detailed design stage to fully understand the nature of offset requirements and exemptions applied to the Project by the chief executive. However, the Project is likely to result in a reduction of significance to that which has been addressed in this strategy and the EIS.

Determination of whether offsets are a suitable outcome will be undertaken by the administrating authority that assesses the authority application for the prescribed activity. The delivery of offsets (if required) will be determined at a later stage when the actual extents of SRI's are known following the detailed design phase. The authority assessing an application will need to consider the proposed rehabilitation for the Project, which currently involves re-instating the land after the operational life of the Project has ended (expected to be 20-25 years).

Table 7 Summary of potential offset requirements

Prescribed activity	Prescribed environmental matter	Administrating authority	Commentary
Coordinated Project <sup>1</sup>	To be determined by the Coordinator General within the evaluation report.	Coordinator General	The offset requirement under the coordinated project process is unknown until the evaluation of the EIS by the Coordinator General is undertaken.
Prescribed ERA under the EP Act: ERA 16 Extractive and screening activities.	To be confirmed depending on the location of the potential borrow pit.	DEHP	Offset potential is unknown at this stage as the location and sizing of the borrow pit is yet to be determined.
Development under State Development Assessment Provision: Module 8 (native vegetation clearing) <sup>2</sup> .	MSES: - Regulated vegetation: • Regional ecosystem	DILGP (with advice from DNRM)	An SRI on this matter is likely at this stage with the potential for an environmental offset to be required.
Development under the local planning instrument <sup>3</sup> :  - Draft Western Downs Planning Scheme.	MLES: - General Ecological Significance High Ecological Significance - High Ecological Significance 100 m Buffer.	Local Council	The planned adoption of the Draft Western Downs Planning Scheme is unknown at this stage. There are currently no published guidelines on assessing significance of impacts on MLES.

<sup>&</sup>lt;sup>1</sup> Potential offsets to be required by the Coordinator-General fall outside of the EO Act but have been included within this table for completeness

## 9.0 References

AECOM. (2016). Coopers Gap Wind Farm Environmental Impact Statement.

- DEHP. (2014). Queensland Environmental Offsets Policy Significant Residual Impact Guideline. State of Queensland.
- DEHP. (2016). Landscape Fragmentation and Connectivity (LFC) Tool and Manual, Version 1.5. State of Queensland.
- DILGP. (2016). State Development Assessment Provisions (SDAP), Module 8. Native vegetation clearing, Version 1.8. State of Queensland.
- DSDIP. (2014). Significant Residual Impact Guideline, For matters of state environmental significance and prescribed activities assessable under the Sustainable Planning Act 2009. State of Queensland.
- DSEWPC. (2012). Environment Protection and Biodiversity Conservation Act 1999, Environmental Offsets Policy. Australian Government.

<sup>&</sup>lt;sup>2</sup> Project may be exempt from the assessment of clearing of native vegetation if the clearing is under a development approval for a material change of use or reconfiguring a lot, if the approval is given for a development application for which the chief executive is a concurrence agency

<sup>&</sup>lt;sup>3</sup> Further consultation will be required to determine offsets should the planning scheme be adopted.