

7 March 2014

Ref: 201012

Mr Mark Kelly
Assistant Director
Queensland 2 Section
Environment Assessment and Compliance Division
Department of the Environment
Australian Government
GPO Box 787
Canberra ACT 2601

Dear Mr Kelly,

Arrow Bowen Pipeline Project – Responses to Additional Comments (EPBC 2012/6459)

Arrow CSG (Australia) Pty Ltd (Arrow) is pleased to provide responses to the additional comments from the Department of Environment as received by Arrow on 7 February 2014. The responses are detailed in Annexure A – responses to comments.

Should you have any queries regarding the above, please do not hesitate to contact Mr Ian Bridge – Manager Approvals and Compliance on 07 3012 4957.

Yours sincerely,

Paul Neilson
EIS Manager

Annexures

Annexure A - responses to comments_20140703



<p style="text-align: center;">Arrow Bowen Pipeline project Preliminary Documentation (January 2014) (EPBC 2012/6459)</p>	<p style="text-align: center;">Arrow Energy (Arrow) Response</p>
<p>Document: Arrow Bowen Pipeline project – EPBC referral – supporting documentation (December 2013) Date of Review: January 2014 Reviewer: Department of the Environment (the Department)</p> <p>These comments have been provided to ensure the Minister has enough information to make an informed decision on whether or not to approve the taking of the action under Part 9 of the EPBC Act.</p>	
<p>The Department of the Environment comments on Preliminary Documentation (January 2014)</p> <p>Thank you for addressing the majority of the Department’s previous comments on the preliminary documentation. Some further issues require addressing before the Department of the Environment can determine that the preliminary documentation is adequate.</p> <p>Commitment to trenchless drilling technologies</p> <p>It still remains unclear whether Arrow is committing to trenchless drilling for the Fitzroy and Isaac Rivers, and Twelve Mile, Raglan and Inkerman Creeks.</p> <p>For example, statements such as “Table 21 summarises potential direct and indirect impacts of the project on Dawson Yellow Chat populations and proposed measures to mitigate potential impacts. It is likely that trenchless crossing techniques will be used on Raglan, Twelve Mile and Inkerman Creeks. Traditional techniques will be used for the remainder of Yellow Chat habitat” (Page 111, Ecosure Arrow Bowen Pipeline, EPBC MNES Threatened Species Dossiers, November 2013). In addition “This management plan outlines the management measures to be implemented should trenching be required upstream of potential Yellow Chat habitat on Inkerman, Twelve Mile and Raglan Creeks in the unlikely event that trenchless techniques cannot be utilised due to geotechnical constraints” (page 1 – Ecosure Management Plan for Yellow Chat – trenching of the Arrow Bowen Pipeline, November 2013).</p> <p>In addition “This management plan outlines the management measures to be implemented should trenching be required upstream of potential Water Mouse habitat on Inkerman and Raglan Creeks in the unlikely event that trenchless techniques cannot be utilised due to geotechnical constraints. It will be further developed prior to the commencement of construction should trenching be required “ (page 1 – Ecosure Management Plan for Water Mouse – trenching of the Arrow Bowen Pipeline, November 2013).</p> <p>The Department acknowledges these management plans identify direct and indirect impacts for these species including mitigation measures, corrective action and monitoring and reporting. If trenchless drilling cannot be undertaken this proposed action is likely to have a significant impact on a critically endangered species (Yellow Chat) and other identified species within the Right of Way for the proposed action. In these plans there are also no details of alternative crossing methods and the potential impacts and mitigation measures that would be needed to address impacts from conventional trenching.</p> <p>If trenchless drilling cannot be undertaken, and as part of the agreed assessment conditions for this project, the Department would require the proponent to produce a revised significant species management plan together with ground truthed surveys which will assess the potential impacts of alternative crossing methods for all identified species and detail mitigation measures to reduce these impacts. These revised plans would be presented to the Department for review and approval before pipeline construction in these specified areas to be impacted could commence. It is noted that on page 113 (Ecosure Arrow Bowen Pipeline, EPBC MNES Threatened</p>	<p>Commitment to trenchless crossing techniques</p> <p>Arrow Energy (Arrow) has clearly committed to the use of trenchless crossing techniques to cross Fitzroy and Isaac Rivers, and Twelve Mile, Raglan and Inkerman Creeks. Arrow has not changed this commitment.</p> <p>The management plans submitted to the Commonwealth on 16 December 2013 were developed in response to a specific request from the Department of Environment (DoE formerly known as DSEWPaC) to address a contingency in the event that trenchless crossing techniques could not be utilised in the crossings.</p>



Species Dossiers, November 2013) that it states “In the unlikely event that crossing using these trenchless techniques is not possible, Arrow will produce a revised significant species management plan which will assess the potential impacts of alternative crossing methods to this species and detail mitigation measures to reduce these impacts”.

Disturbance

As stated previously, the Department notes that as a result of route revision, the Natural Grasslands of the Queensland Central Highlands and the Northern Fitzroy Basin can be avoided. The department anticipates that, should the project be approved, it is likely that conditions of approval would reflect a zero disturbance limit on species and communities that are identified as not being impacted.

Surveys

Thank you for providing more detail around surveys undertaken for listed threatened species and communities. It is noted that some of the survey efforts are not consistent with the Department’s guidelines. For example on page 88 for the Yakka Skink (Ecosure Arrow Bowen Pipeline, EPBC MNES Threatened Species Dossiers, November 2013) it was reported that only 47 hours of spotlighting was conducted where the guidelines recommend 381 hours and active search hours conducted were 80 hours where the guidelines suggest 381 hours. This inconsistency also applies to the amount of trap effort (trap nights) conducted for this species.

Please briefly discuss in a summary table how these surveys are consistent with the Department’s survey guidelines for relevant listed threatened species and communities.

The Department expects pre-clearance surveys to be undertaken in accordance with relevant Department survey guidelines (where they exist).

Critical habitat

As stated previously, habitat critical to the survival of a species is not restricted to habitat identified in the Register of Critical habitat under the EPBC Act or referral guidelines. The definition of critical habitat in the Significant Impact Guidelines should be used – this includes areas that are necessary for activities such as foraging, breeding, roosting or dispersal, for the long-term maintenance of the species, to maintain genetic diversity or for the reintroduction of populations or recovery of the species.

Rehabilitation

As noted previously that where rehabilitation for a listed threatened species or community is unsuccessful, and has been relied upon to reduce the level of impact, offsets may be required.

It is still unclear how rehabilitation will benefit the Koala when the species relies on large established trees, and rehabilitation (at least in the short term) will target natural grass species. Any impact to Koala habitat from clearing is likely to be long term.

Yellow Chat

Can you please confirm whether Mr Wayne Houston from the Central Queensland University has also contributed to the assessment of impacts and mitigation measures proposed for this species, and that the Capricorn Conservation Council was consulted in preparing the specific species management plan for the Yellow Chat ?

Offsets

As stated previously, the Department notes that offsets are proposed for some species and communities in the event that they cannot be avoided (e.g. Black Ironbox, Weeping Myall). This is consistent with the Department’s view that offsets may be required for species or populations (particularly breeding populations) found during pre-clearance surveys (e.g. Yakka Skink, Dunmall’s Snake, Squatter Pigeon, Grey-headed Flying Fox) where impacts cannot be adequately addressed through avoidance, mitigation and management measures.

A large amount of habitat will be cleared for some listed threatened species (e.g. Yakka Skink, Dunmall’s Snake, Squatter Pigeon and

Disturbance

Noted. Arrow understands that DoE will be basing its assessment, along with any potential conditions, on the amended application submitted on 16 December.

Surveys

The DoE survey guidelines (DSEWPac 2011) do not specify a minimum search effort for Yakka Skink, only a range of survey methods that may be adopted (i.e. diurnal active searches, nocturnal spotlighting and Elliot trapping), and that searching for burrow systems and communal defecation sites (latrines) is the most reliable method of detection. Arrow note that these guidelines are recommendations only and that surveys, particularly pre-clearance surveys, are ongoing along the Arrow Bowen Pipeline Right of Way (ROW).

From the technical perspective, although there are 15 vegetation communities, the potential Yakka Skink habitat within the ROW is relatively uniform with only 5 Land Zones (3, 5, 7, 8 and 9) and two main vegetation types (*Acacia* open forest and *Eucalyptus* woodland). The assessment involved selected sampling sites across the project site and stratified them to give adequate coverage and representation. No Yakka Skink or signs of them (e.g. burrows, latrines) were found over 127.4 hours of search time and 72 trap nights. Furthermore, there were only two records for Yakka Skink from the Wildnet search area within the 5 km buffer and no Queensland Museum records found in close proximity to the project site.

Yakka Skink are sedentary and searching for their burrows and/or latrine sites is the best method of detection. No evidence of Yakka Skink after 127 hours of targeted searches was identified and consequently there is a low probability that Yakka Skink inhabit the ROW. Reptiles have been shown to recolonise regrowth vegetation relatively quickly (Bruton *et al.* 2013), and with large areas of remnant vegetation adjacent to the ROW the Yakka Skink, if inhabiting the area, will have ample habitat to retreat to during and recolonise from after construction of the ROW.

Arrow has adopted a conservative approach by assuming that a species is present in a particular area regardless of the results of field surveys. Arrow has applied this philosophy to critical and potential habitat within the ROW. Arrow’s has also presented mitigation measures within species dossiers and management plans to mitigate the risk of any impacts to species regardless of the results of pre-clearance surveys.

Arrow notes that the presence or absence of a particular species is not a



Koala).
The Department is of the view that offsets should be proposed for residual significant impacts to the Koala. Offsets must comply with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (October 2012) and accompanying Offsets assessment guide, accessible from: www.environment.gov.au/epbc/publications/environmental-offsets-policy.html. The Department may require offsets for other listed threatened species and communities, in accordance with the EPBC Act offsets policy.

measure of potential impact.

Arrow's assumption of presence of a species results in the implementation of management actions to avoid impact and is independent of the survey effort..

Critical Habitat

Noted. As previously stated, Arrow has used the register of Critical habitat as a guide. However, the areas used by some MNES (e.g. Squatter Pigeon) for foraging, breeding, roosting and dispersal can include highly modified environments (such as introduced pasture grazing lands).

Whilst Arrow conducts species surveys across these environments, land disturbance for the pipeline will immediately be followed by progressive rehabilitation once constructed and will not affect the population dynamics of MNES in already modified environments.

Rehabilitation

Arrow proposes to rehabilitate the pipeline RoW back to a condition consistent with adjacent analogue sites. This will apply for the majority of the construction disturbance and the only exception will be a narrow strip approximately 10 metres wide or less. To permit large trees to re-establish over the centerline of the pipeline may result in an elevated level of risk of damage to the pipeline. Arrow is committed, and also compelled by Queensland legislation, to not compromise the safety and integrity of the pipeline.

Arrow does not propose to clear large established trees where clearance can be avoided. One function of the pre-clearance surveys is to identify these trees and exclude these from disturbance. Where disturbance is not possible Arrow will retain rootstock to facilitate rapid regrowth.

Arrow does not accept that the likely level of impact to Koala habitat will be long term from the construction of a narrow corridor linear infrastructure.

Yellow Chat

Arrow engaged Mr. Houston within his acknowledged area of expertise. Arrow has previously identified that the engagement of Mr. Houston (or any consultant) outside their area of expertise increases their exposure to their professional indemnity. As far as Arrow is aware, Mr. Houston's expertise does not extend to impact assessment associated with construction of linear infrastructure.

Arrow has engaged with the Capricorn Conservation Council regarding its concerns.



	<p>Offsets</p> <p>Arrow acknowledges the Commonwealth Offsets Policy. Where Arrow is unable to rehabilitate the ROW to a level consistent with analogue sites Arrow will offset the residual disturbance from construction activities. With respect to the Koala offsets Arrow notes the Interim Koala referral advice (DSEWPaC2012) and will use this as a basis for determining habitat critical to the survival of the Koala and guidance for determination of residual significant impacts post construction.</p>
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