



Appeals Convenor
Environmental Protection Act 1986

**REPORT TO THE
MINISTER FOR ENVIRONMENT**

**APPEALS IN OBJECTION TO THE REPORT AND RECOMMENDATIONS OF THE
ENVIRONMENTAL PROTECTION AUTHORITY (REPORT 1499)**

**GORGON GAS DEVELOPMENT
ADDITIONAL CONSTRUCTION LAYDOWN AND OPERATIONS
SUPPORT AREA**

PROPONENT: CHEVRON AUSTRALIA PTY LTD

Appeal Numbers 014 and 015 of 2014

February 2014

Appeal summary

This report addresses appeals in objection to the content of, and recommendations in, the report of the Environmental Protection Authority (EPA) in relation to the proposal to undertake clearing and earthworks of up to 32 hectares (ha) of uncleared land within a 36 ha development envelop on Barrow Island. The clearing is for the purpose of an additional construction laydown and operations support area, to support the construction and operation of the approved Gorgon Gas Development.

In January 2014, the EPA published its Report and Recommendations (EPA Report 1499) on its assessment of the proposal. The EPA concluded the proposal can be managed to meet its environmental objectives provided the proposal is implemented consistent with the existing management plans established under the implementation conditions of Ministerial Statement No. 800, with the addition of a condition related to offsets and an administrative conditions relating to monitoring and reporting.

The appellants raised concerns in respect to the loss of habitat on Barrow Island and impacts on the Island's biodiversity, impacts on Barrow Island terrestrial fauna (including subterranean fauna) and the introduction of non-indigenous species.

In responding to the grounds of appeal, the EPA advised that in making its recommendations on the proposal, it took into account the measures taken by the proponent to avoid and minimise the impacts to conservation significant habitat on Barrow Island through its site selection process. It is understood that the proposal will result in the unavoidable loss of a small proportion of habitat, but that the habitat that was to be lost is widely distributed across the Island. It is also understood that through the avoidance and minimisation of impacts to conservation significant habitat, the proposal is not expected to threaten the biodiversity of the Island and the proposal was considered to meet the EPA's environmental objectives.

The EPA advised that in recognition that there will be an unavoidable loss of 32 ha of habitat, particularly habitat for specially protected fauna under the *Wildlife Conservation Act 1950*, it considered that there was a significant residual impact that required an offset. The EPA recommended that an appropriate offset is the extension of the existing *Threatened Species Translocation and Reintroduction Program* for two years consistent with existing funding arrangements. This represents a 10% increase in the contribution which is commensurate with the approximately 10% increase in the project footprint.

The EPA noted that the proposal will result in the consolidation of existing operations on Barrow Island into one location. This will result in a reduction in vehicle movements across the Island which is predicted to result in fewer casualties of threatened fauna during the construction period and during operation of the Gorgon Gas Development. It is understood that the proposal will reduce the quarantine risks and chance of quarantine breaches by reducing the amount of equipment and materials needed to be taken off Barrow Island and then brought back onto the Island when it is required again.

Recommendation

Considering the advice of the EPA and the proponent and noting the EPA's recommendation that the existing conditions of Ministerial Statement No. 800 (as amended by Ministerial Statement No. 865), together with a new condition on offsets and an administrative condition relating to monitoring and reporting, it is considered that the EPA's assessment of the proposal did appropriately consider the environmental impacts raised by the appellants. It is therefore recommended that the appeals be dismissed.

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INTRODUCTION

This report relates to two appeals lodged by Mr Graham Green (014/14) and Ms Lucinda Marty (015/14) (**the appellants**) in objection to the content of, and recommendations in, the report of the Environmental Protection Authority (**EPA**) in relation to the proposal by Chevron Australia Pty Ltd (**the proponent**) to undertake clearing and earthworks of up to 32 hectares (ha) of uncleared land on Barrow Island. The additional clearing is for the purpose of an additional construction laydown and operations support area required to support the construction and operation of the approved Gorgon Gas Development (**the proposal**).

This document is the Appeals Convenor's formal report to the Minister for Environment under section 109(3) of the *Environmental Protection Act 1986* (**the EP Act**).

BACKGROUND

The proponent is proposing to undertake clearing and earthworks (including 'cut and fill' activities to provide a level surface) over up to 32 ha of land on Barrow Island within a 36 ha development envelope. The development envelope is located south of, and adjacent to, the approved Gorgon Gas Development Gas Treatment Plant site at Town Point on the east coast of Barrow Island. Barrow Island is located in State Waters, approximately 55 kilometres (km) off the north-west coast of Western Australia. Figure 1 shows the proposal in a regional and Barrow Island context.

The additional area will be used for activities/facilities associated with the approved Gorgon Gas Development:

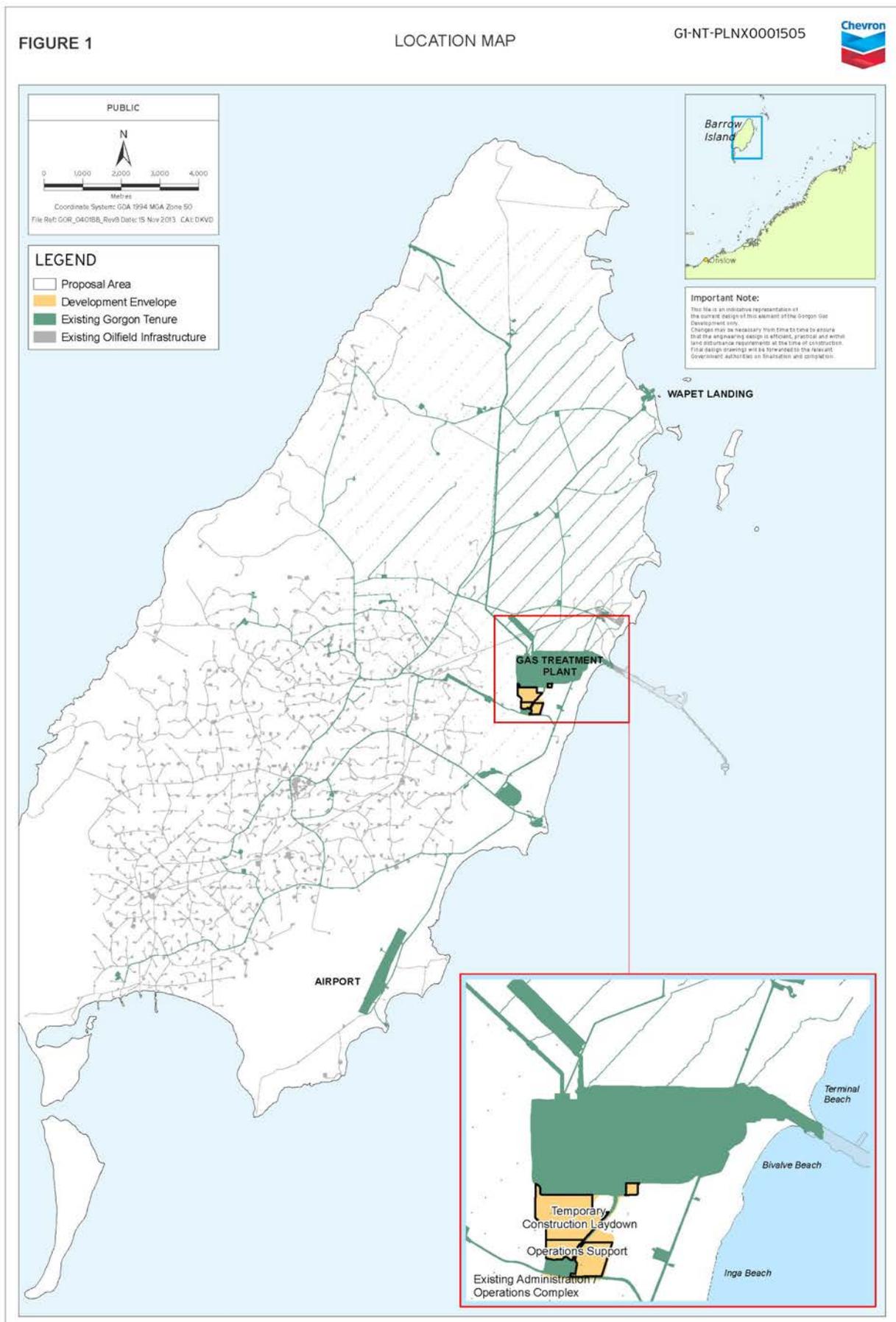
- **Construction Support Area:** Approximately 20 ha within two areas immediately south of the existing Gas Treatment Plant site are proposed to be used for construction support activities and facilities, including temporary offices, workshop, storage, laydown, equipment staging facilities, and rock crushing and screening plant. Approximately 1 ha of the construction support area will be subsequently retained for longer term operations maintenance activities.
- **Operations Support Area:** The operations support area is an expansion of the approved Gorgon Gas Development administration/operations complex site and will involve the use of approximately 12 ha to house operations support facilities, including warehouses, vehicle maintenance and workshops and associated offices, parking and laydown areas.

The proposal does not include construction of any new production, transportation, or accommodation facilities, and all workforce, utilities and transport requirements will be met via existing infrastructure and from within existing (approved) capacities.

Since approval for the Gorgon Gas Development was granted and following commencement of construction in 2009, the proponent has identified the current tenure for the approved Gorgon Gas Development on Barrow Island which was limited to 300 ha of uncleared land under the *Barrow Island Act 2003*, presents a constraint to safe and efficient execution and to optimisation of cost, schedule and environmental performance (Chevron Australia 2013). The proponent is currently utilising previously cleared areas of the Island that are remote from the Gorgon Gas Development for construction laydown and operations support and is also demobilising equipment/materials from the Island to manage space constraints. The revised proposal is expected to result in less movement of materials and therefore a reduction in vehicle movements across the Island due to the consolidation of operations, as well as a reduction in quarantine risks from bringing demobilised equipment/materials back on to the Island.

Figure 1 – Location of Proposal

(source: Chevron Australia 2013)



The use of land on Barrow Island for gas processing is provided for in the *Barrow Island Act 2003* for up to 300 ha of uncleared land. In December 2013 the *Barrow Island Act 2003* was amended to increase the Gorgon Gas Development's total tenure on Barrow Island to 332 ha of uncleared land allocated for gas processing purposes. The proposed use of 32 ha of uncleared land is within the allocation of uncleared land on Barrow Island allowed under the amendment.

If the proposal is implemented, the total area of uncleared land on Barrow Island occupied by the Gorgon Gas Development will increase from approximately 1.3% to approximately 1.4%; and the cumulative area of the Gorgon Gas Development and historical disturbance associated with the existing oilfield will increase from approximately 6.6% to approximately 6.7%. The potential impacts of the proposal are to flora and vegetation and terrestrial fauna from the clearing and to subterranean fauna from the cut and fill earthworks.

Any areas disturbed as part of the proposal and not required for the future construction and operation of the Gorgon Gas Development will be rehabilitated in accordance with the proponent's *Post-Construction Rehabilitation Plan* (Chevron Australia 2009). The facilities constructed in the operations support area will be decommissioned along with other approved Gorgon Gas Development infrastructure at the end of the field life, in accordance with the decommissioning strategies for the approved Gorgon Gas Development.

The proposal was referred to the EPA on 25 October 2013 by the proponent under section 38(1) of the EP Act. The proposal was published for public comment on 28 October 2013. No submissions were received. Following consideration of the environmental aspects of the proposal, the EPA set the level of assessment at 'Assessment on Proponent Information' (API) Category A. The EPA issued Scoping Guidelines identifying the preliminary key environmental factors 'Flora and Vegetation', 'Terrestrial Fauna', 'Subterranean Fauna' and 'Offsets (Integrating Factors)' as requiring further assessment. The proponent prepared an Environmental Review document (Chevron Australia 2013) in response to the Scoping Guidelines to support the EPA's assessment of the proposal. On 6 January 2014 the EPA published its Report and Recommendations (EPA Report 1499) on its assessment of the proposal. The EPA concluded:

...[T]he proposal can be managed to meet the EPA's environmental objectives, provided the proposal is implemented consistent with the existing management plans established under the implementation conditions of Ministerial Statement 800, with the addition of a condition related to offsets and an administrative condition relating to monitoring and reporting.

It was against this Report and Recommendations that the appeals were received.

OVERVIEW OF APPEAL PROCESS

In accordance with section 106 of the EP Act, a report was obtained from the EPA in relation to the issues raised in the appeal. The proponent was also given the opportunity to address the matters raised in the appeal.

During the appeal investigation the Office of the Appeals Convenor met with the proponent and separately discussed the appeals with one of the appellants.

The environmental appeals process is a merits based process. For appeals in relation to an EPA Report and Recommendations, the Appeals Convenor normally considers the environmental merits of the assessment by the EPA, based on objectives as set by the EPA as well as other environmental factors. The appeals process considers environmental significance, relevance of factors, additional information not considered by the EPA, technical errors and attainment of policy objectives.

OUTCOMES SOUGHT BY APPELLANTS

The outcome sought by the appellants was that the Minister determine that the proposal should not be implemented.

GROUND OF APPEAL

In support of the appellants' view that the proposal should not be allowed, the following grounds of appeal were raised:

1. Loss of habitat on Barrow Island and impacts on the Island's biodiversity;
2. Impacts on Barrow Island terrestrial fauna (including subterranean fauna); and
3. Introduction of non-indigenous species.

Each of the above grounds of appeal is addressed in turn.

GROUND 1: LOSS OF HABITAT ON BARROW ISLAND AND IMPACTS ON THE ISLAND'S BIODIVERSITY

Both appellants raised concerns about the clearing of additional land on Barrow Island and the impacts that the associated loss of additional habitat will have on the Island's biodiversity. Noting that the Barrow Island is a finite habitat, the appellants contended that the proponent should not be allowed to use additional land beyond the 300 ha provided for under the *Barrow Island Act 2003*. One appellant also noted that the proponent was already using additional land than currently provided for under the *Barrow Island Act 2003* and thus creating a larger footprint than approved and that the additional land included in the current proposal would further enlarge that footprint. During discussions with one of the appellants, the appellant expressed concerns with respect to the trapping and translocation of fauna off Barrow Island to sites on the mainland where there is not adequate protection from predators and there is thus low survival of the translocated animals.

Consideration

With respect to potential impacts on the biodiversity of Barrow Island, on the basis of information provided in EPA Report 1499 and the proponent's Environmental Review (Chevron Australia 2013) and supporting reports, it is understood that:

- No Declared Rare Flora listed under the *Wildlife Conservation Act 1950* have been recorded on Barrow Island. Of the three species of Priority Flora that have been recorded on the Island, one (*Corchorus congener*) was recorded in low abundance (less than 1% cover at four locations) in the development envelope in a field survey undertaken in October 2013. This species is considered relatively abundant and widespread across Barrow Island.
- Of the 40 species of flora considered to be 'locally significant' on Barrow Island due to restricted distribution or vulnerability to disturbance, two (*Hakea lorea* subspecies *lorea* and *Melaleuca cardiophylla*) occur in the development envelope. Previous surveys have found both species are relatively widespread across the Island, with the disturbance for this proposal representing less than 1% and 1.6% of the mapped distribution of *M. cardiophylla* and *H. lorea* subspecies *lorea*, respectively.
- No Threatened Ecological Communities listed under State or Commonwealth legislation occur on Barrow Island. There are two vegetative Priority Ecological Communities (PECs) listed for the Island. The development envelope does not contain either of the landforms that support these communities and no PECs have been recorded. One of the site selection criteria for the proposal was avoidance of creeklines to avoid impacts to the *Triodia angusta* dominated creekline vegetation

PEC. A creekline runs along the western edge of the development envelope which has a buffer in place so the proposal will not impact on the creekline.

- There are no mapped vegetation types that are restricted to the development envelope and all vegetation types within the development envelope are well represented across Barrow Island. A field survey undertaken in October 2013 reported the vegetation in the development envelope to be in 'excellent' condition with no visible signs of disturbance.
- None of the terrestrial fauna species recorded within the development envelope are considered to have a distribution that is restricted to the development envelope. As Barrow Island is a Nature Reserve that undergoes active management, there are secure populations of conservation significant fauna species on the Island outside areas of development.
- The number of each threatened fauna species estimated to be present within the development envelope represents less than 0.25% of their populations on Barrow Island. Where practicable, the management of clearing for the proposal will include collection and relocation of fauna.
- Fauna habitats that occur within the development envelope are considered to be well-represented in the areas surrounding the development envelope and across Barrow Island. There are no habitats of critical importance to any particular terrestrial fauna species in the development envelope. Avoidance of areas of significant fauna habitat was one of the site selection criteria for the proposal.
- Of the habitats considered significant on Barrow Island, there are no Boodie warrens or raptor nests within the development envelope. Active Boodie warrens are found to the south, west and east of the development envelope, however studies have indicated that the development envelope does not represent a movement corridor for Boodies between the east and west warrens and that there is limited evidence of foraging within the development envelope. It is predicted that the proposal will impact on 130 termite mounds, equivalent to less than 2% of the 7,000 termite mounds mapped in the vicinity of the Gorgon Gas Development.

The EPA advised that in making its recommendations on this proposal, it took into account the measures taken by the proponent to avoid and minimise the impacts to conservation significant habitat on Barrow Island through the site selection process. In Report 1499, the EPA noted that the proponent has sought to avoid, minimise and rectify environmental impacts associated with the proposal by:

- Undertaking a site selection study to select a site that has the lowest environmental impacts including:
 - avoiding known or potential Priority Ecological Communities (PEC), specifically avoiding creeklines to avoid impacts on the *Triodia angusta* dominated creekline vegetation; and
 - avoiding areas of conservation significant fauna habitat, specifically avoiding impacts to Boodie warrens and raptor nests.
- Minimising the additional land required to 32 ha.
- Minimising the impacts associated with edge effects by aligning the proposal area to be adjacent to the existing development footprint.
- Rehabilitating any parts of the area not required for the future construction and operation of the Gorgon Gas Development once they are no longer required to support the Gorgon Gas Development and rehabilitating the remaining area at the end of gas field life.

The EPA advised that it considered that the proposal will result in the unavoidable loss of a small proportion of habitat, but that the habitat that is to be lost is widely distributed across the Island. The EPA advised that through the avoidance and minimisation of impacts to conservation significant habitat, the proposal is not expected to threaten the biodiversity of the Island and the proposal was considered to meet the EPA's environmental objectives. In

Report 1499, the EPA noted there will be displacement and potential loss of low numbers of fauna, including species of conservation significance as a result of the proposal, but that the number lost will be reduced by an active trapping and translocation program prior to ground disturbance.

The proponent reiterated the findings from the assessment of the impacts from the proposal presented in its Environmental Review (Chevron Australia 2013), including:

- Site selection avoided the habitats on Barrow Island that are considered to be significant and have restricted distributions. The fauna habitats within the proposal area are well represented in adjacent areas and elsewhere on Barrow Island and there is no indication that the proposal area contains any habitats of critical importance to any species of terrestrial fauna.
- The area of potential clearing comprises less than 0.1% of Barrow Island and the associated habitats support less than 0.25% of the Barrow Island populations of threatened fauna that occur in the area and an even smaller proportion of the regional population of those species that also occur elsewhere.
- Management of proposal activities, including rehabilitation of disturbed areas no longer required for the future construction and operation of the Gorgon Gas Development, is expected to ensure the extent of habitat and number of individuals of any species affected by the proposal is minimised.

The proponent stated that its impact assessment concluded that, given the small scale of disturbance and the widespread availability on Barrow Island of similar habitats within the nature reserve, the effects on fauna would be minimal. In addition, considering the avoidance and management measures applied to the proposal, the proponent is of the view that the biodiversity of Barrow Island would not be adversely affected by the proposed use of up to 32 ha of uncleared land. From discussions with the proponent it is also understood that the proponent has undertaken an assessment of the current and future land requirements for the approved Gorgon Gas Development and that through the consolidation of activities and its site selection process, the additional land required has been reduced from greater than 100 ha to 32 ha.

The EPA advised that *Barrow Island Act 2003* specifically makes available the use of a certain amount of previously uncleared land on Barrow Island for the Gorgon Gas Development and that the *Barrow Island Act 2003* does not preclude the use of already cleared land on the Island, on which the proponent has some form of tenure, to support the Gorgon Gas Development.

The proponent confirmed the distinction between the Gorgon Gas Development's approved use of previously cleared land on Barrow Island and the limitation on the grant of tenure over uncleared land on Barrow Island for gas processing project purposes that is stipulated in the *Barrow Island Act 2003*. The proponent advised that the proposed use of an additional 32 ha of uncleared land on Barrow Island is consistent with the allocation provided under the *Barrow Island Act 2003* (as amended). The proponent noted that no more uncleared land could be used for gas processing purposes without amendment to the *Barrow Island Act 2003*. The proponent also advised that the use of uncleared land on Barrow Island by the Gorgon Gas Development is strictly regulated via the tenure process under the *Land Administration Act 1997*.

The proponent noted that managed clearing activity has been occurring on Barrow Island for over 40 years (since the 1960's) during oilfield operations and as part of the approved Gorgon Gas Development and that the proposal represents only a very small increase in the extent of clearing undertaken on Barrow Island. The proponent advised that it has a policy of minimising clearing to the extent practicable and that clearing on Barrow Island is managed to minimise the effects to fauna habitat values. The proponent also advised that the long-term

monitoring of threatened fauna populations on Barrow Island has not indicated any adverse effects on diversity from the clearing that has been undertaken.

In recognition that there will be an unavoidable loss of 32 hectares of habitat, particularly habitat for specially protected fauna under the *Wildlife Conservation Act 1950*, the EPA advised that it considered that there was a significant residual impact that required an offset. The EPA advised that it therefore recommended that an appropriate offset is the extension of the existing *Threatened Species Translocation and Reintroduction Program* which is implemented by the Department of Parks and Wildlife (DPaW), for two years consistent with existing funding arrangements. The EPA advised that this represents a 10% increase in the contribution which is commensurate with the approximately 10% increase in the project footprint.

The proponent noted that the existing *Threatened Species Translocation and Reintroduction Program* has successfully expanded the distribution of several of the threatened fauna species of Barrow Island to other areas in the region, increasing the total area of habitat available to these species beyond that available prior to the Gorgon Gas Development and thereby enhancing regional biodiversity.

From the information presented in respect to this ground of appeal and consistent with the advice of the EPA, it is considered that the EPA has adequately considered the issues raised in the appeals in relation to the potential impacts that the loss of habitat will have on Barrow Island's biodiversity, where the EPA concluded that through the avoidance and minimization of impacts to conservation significant habitat, the proposal is not expected to threaten the biodiversity of the Barrow Island. It is understood from Report 1499 that the EPA considers the current management plans that relate to flora and vegetation and terrestrial fauna required under Ministerial Statement No. 800 are effective in managing the impacts of the Gorgon Gas Development on flora and vegetation and terrestrial fauna, and that the EPA considers that these management plans should be implemented for the development envelope that is the subject of this proposal. The measures taken by the proponent to avoid, minimise and rectify the environmental impacts associated with the proposal are also noted.

GROUND 2: IMPACTS ON BARROW ISLAND FAUNA

One appellant identified concerns about the reported numbers of fauna injuries and deaths due to vehicle strikes, including of species listed as threatened or vulnerable under State or Commonwealth legislation, as a result of the Gorgon Gas Development on Barrow Island. The appellant also contends that the euthanasia of badly injured animals is inappropriate and that the animals should be treated.

With respect to subterranean fauna, one appellant contends that the three species listed as Schedule 1 species under the *Wildlife Conservation Act 1950* (the Barrow Cave Gudgeon [*Milyeringa justitia*];¹ the troglobitic schizomid *Draculooides bramstokeri*; and the troglobitic millipede *Speleostrophus nesiototes*) likely to be found within the 32 ha proposed to be cleared are at risk of further loss or extinction by the proposal.²

¹ The proponent advised that until 2013 it had been thought that the species of Gudgeon on Barrow Island was the Blind Gudgeon (*Milyeringa veritas*). Following further taxonomic work it is now proposed that there is a distinct species on Barrow Island (*Milyeringa justitia*) with the proposed common name of the 'Barrow Cave Gudgeon'. The proponent advised that this change has been adopted by the DPaW and the Barrow Cave Gudgeon is listed as a Schedule 1 species under the *Wildlife Conservation Act 1950*. The proponent understands the Commonwealth Department of Environment has yet to recognise the change and still considers the species on Barrow Island to be the Blind Gudgeon. Given the DPaW's position, the proponent advised that it has adopted the name Barrow Cave Gudgeon in its Environmental Review documentation and considers this to be the correct name.

² The proponent clarified that the numbers for the Schedule 1 listed subterranean fauna species referred to by the appellant represent the number of 'collections' of each species recorded within 4 km of the development envelope and that this does not necessarily relate to the number of individuals of each species recorded (as more than one specimen of a particular species may have been recorded during the same sampling event), nor does it correlate to the number of 'habitat areas' for each species.

One appellant expressed concern that there are no provisions for protecting the Black-flanked Rock-wallaby on Barrow Island.

Consideration

Fauna Injuries and Deaths due to Vehicle Strikes

The EPA advised that a key characteristic of the proposal is that it will result in the consolidation of existing operations from across Barrow Island into one location adjacent to the Gorgon Gas Development. This will reduce the number of vehicle movements across the Island. The EPA advised that the proponent has predicted that this consolidation will result in 122 less threatened fauna casualties due to vehicle strikes during the construction period and 300 less casualties during the operation of the Gorgon Gas Development. The EPA advised that it noted the expected reduction in fauna deaths from vehicle strikes when concluding that the proposal can meet the EPA's objectives for 'Terrestrial Fauna'.

The EPA advised that the handling of fauna and euthanasia of injured animals is covered by the proponent's *Fauna Handling and Management Common User Procedure* (Chevron Australia 2013). The EPA also advised that this procedure has been approved by the DPaW to ensure appropriate measures are used in fauna handling. It is noted that the procedure includes guidelines for trained fauna handlers for assessing the treatment level an animal requires and that appropriate first aid and observation of the animal is required to be undertaken before euthanasia is considered as a treatment option.

The proponent noted that fauna casualties associated with operations on Barrow Island are recorded and reported to regulatory agencies and publicly, in accordance with Ministerial Statement No. 800, and that the EPA's recommended conditions for the proposal would extend those monitoring and reporting requirements to the use of the additional 32 ha of uncleared land. The proponent also noted that the range of specific management measures that have been developed to avoid or minimise fauna casualties from the approved Gorgon Gas Development would also be applied to the proposal via the EPA's recommended conditions and that these include specific protocols regarding the handling of injured fauna on Barrow Island that have been developed in consultation with the DPaW.

Risks to Subterranean Fauna

On the basis of information provided in EPA Report 1499 and the proponent's Environmental Review (Chevron Australia 2013), it is understood that the subterranean fauna community of Barrow Island is considered to be unique and of high conservation value resulting in its listing as a Priority 1 PEC. It is also understood that a total of 63 stygofauna species and 19 troglafauna species have been found on Barrow Island and that ten of these are listed as Schedule 1 species under the *Wildlife Conservation Act 1950*. It is understood that interpretation of available geological information suggests the area contains a range of habitats suitable for use by stygofauna and troglafauna; however there are no large caves or other surface geological features known from the development envelope that might suggest particular value as subterranean habitat, or the presence of large-scale geomorphic features that might create potential barriers to gene flow between adjacent habitats.

The EPA advised that the study area for subterranean fauna was delineated to provide information to support this proposal and extends outside the 36 ha development envelope and therefore includes areas that will not be disturbed by this proposal. The EPA advised that, in addition, subterranean fauna habitat is considered to extend outside the study area and across other parts of the Island. The proponent confirmed that the sampling records cited by the appellant relate only to bores located within 4 km of the development envelope for the proposal, which represents a subset of the bores on Barrow Island from which sampling

records can be used to evaluate the likely distribution of subterranean fauna species and habitats.

The EPA advised that it noted that the proposal may impact on the three species listed as Schedule 1 species and considered likely to be found within the development envelope, but these species are found to have a wider distribution across Barrow Island. The EPA also advised that ongoing sampling undertaken by the proponent has reduced the number of subterranean fauna species previously recorded at one location on the Island from seven species down to two species. The EPA advised that this supports the conclusion that these subterranean fauna species are likely to be more widely distributed.

On the basis of the evaluation undertaken in the Environmental Review (Chevron Australia 2013) of the extent of subterranean fauna habitat likely to be affected by the proposal compared to the available subterranean fauna habitat on Barrow Island, the proponent noted that all of the Schedule 1 subterranean fauna expected to occur in the 32 ha area had sampling records that suggested a wider distribution on Barrow Island and that the proposal to use up to 32 ha of land would potentially affect only a very small proportion of available subterranean fauna habitat. The proponent advised that, for example, it has been estimated that the proposal would affect approximately 0.4% of the reported Barrow Island extent of Barrow Cave Gudgeon habitat, which has arguably the most restricted distribution of the three Schedule 1 subterranean fauna species. Information in the proponent's Environmental Review (Chevron Australia 2013) indicates that habitat suitable to support the Barrow Island Cave Gudgeon may extend over approximately 7,800 ha (approximately 35%) of Barrow Island.

The proponent also referred to the Environmental Review (Chevron Australia 2013) where it is noted that monitoring of the effects on subterranean habitat from the construction activity to date suggested that the proposed clearing of the 32 ha may have limited impacts on the underlying subterranean habitat. It is noted that in the proponent's Environmental Review (Chevron Australia 2013), it is reported that there has been a recent identification of a Barrow Cave Gudgeon from a sampling bore on the existing administration/operations complex site, which the proponent considers is indicative that construction activities have not impacted this species. The proponent advised that the assessment concluded the proposal would not, however, significantly impact any of the Schedule 1 subterranean fauna species that may occur in the proposal area.

It is noted that EPA Report 1499 identifies that the proponent has committed to a number of measures to avoid and minimise the impacts to subterranean fauna, including:

- Using existing water supplies to avoid dewatering or groundwater abstraction.
- Minimising the extent and depth of excavation works to that which is practicable for operational requirements.
- Designing and implementing the project to minimise changes to the hydrological regime and prevent groundwater contamination.

It is also noted that the EPA states in Report 1499 that it considers that the current management plans that relate to subterranean fauna required under Ministerial Statement No. 800 are effective in managing the impacts of the Gorgon Gas Development and that these should be implemented for the development envelope for this proposal.

Provisions for the Protection of the Black-flanked Rock-wallaby

The EPA advised that the Black-flanked Rock-wallaby is found on Barrow Island and is protected under the *Wildlife Conservation Act 1950*. The EPA also advised that this species is considered to inhabit the west coast of Barrow Island whilst this proposal is located on the

eastern side of the Island. The EPA advised that the proposal is not therefore expected to impact on the Black-flanked Rock-wallaby.

The proponent confirmed that the Black-flanked Rock-wallaby is restricted on Barrow Island to specific habitats that occur on the west coast of Barrow Island and the site selection process for the proposal has avoided this habitat. By avoiding areas of Black-flanked Rock-wallaby habitat, the proponent contends that the proposal to use an area on the eastern side of Barrow Island has no potential for adverse effects on this species.

Overall Consideration

From the information presented in respect to this ground of appeal and consistent with the advice of the EPA, it is considered that the EPA has adequately considered the issues raised by the appellants in relation to impacts on Barrow Island's fauna in its assessment of the proposal.

GROUND 3: INTRODUCTION OF NON-INDIGENOUS SPECIES

One appellant expressed concern that the more development that is allowed on Barrow Island there is an increased risk of introduction of non-indigenous species, noting that the absence of introduced fauna has supported the success of endemic species on Barrow Island. Both appellants raised concerns that there have already been a number of quarantine breaches reported over the life of the Gorgon Gas Development.

Consideration

The EPA advised that the proponent has indicated (in the Environmental Review [Chevron Australia 2013] for this proposal) that due to space constraints, some equipment and materials that have been through quarantine procedures need to be removed from the Island to free up space. The equipment and materials then need to be brought back onto the Island again at a later date when required, which requires the equipment and materials to go through quarantine again. The EPA advised that it agrees with the proponent's contention that this proposal will reduce the quarantine risks and chance of quarantine breaches by reducing the amount of equipment and materials needed to be taken off the Island and then brought back onto the Island when they are required again. The EPA advised that this will reduce the likelihood of non-indigenous species being introduced.

The proponent advised that the proposal does not involve any new activities or facilities and that the proposal involves the use of existing Gorgon Gas Development workforce and logistics arrangements, and will not increase the overall number of personnel, aircraft or vessel movements to or from Barrow Island. The proponent also advised that the proposal does not introduce any new potential pathways for non-indigenous species to arrive on Barrow Island (or surrounding waters), nor any increase in the likelihood of non-indigenous species becoming established via any of the existing pathways and thus the proposal will not increase the quarantine risk associated with the approved Gorgon Gas Development. The proponent noted the EPA's recommended conditions would extend the management measures developed for the approved Gorgon Gas Development under Ministerial Statement No. 800, to the use of the additional 32 ha of uncleared land, including the quarantine management requirements that have been developed and implemented. The proponent noted these include oversight by an independent expert panel, as well as prompt reporting and investigation of all potential breaches. The proponent also noted that public reporting of quarantine performance, via an annual Environmental Performance Reports, is also required by Ministerial Statement No. 800.

The proponent also advised that the proposal may ultimately reduce the total number of personnel, aircraft and vessel movements to and from Barrow Island since it is expected to:

- Introduce efficiencies and improvements in productivity in the construction program that may reduce the overall duration of the construction phase.
- Allow plant/equipment/materials to be retained on Barrow Island between usage, reducing the frequency of mobilisation/demobilisation operations to and from Barrow Island.

The proponent considered that this would serve to reduce, rather than increase, potential quarantine risk associated with the approved Gorgon Gas Development.

With respect to appellants concerns about quarantine breaches, the proponent advised that monitoring undertaken on Barrow Island and in surrounding waters for non-indigenous species since the commencement of the quarantine management system has demonstrated that there has been no establishment of non-indigenous species as a result of the Gorgon Gas Development.

From the information presented in respect to this ground of appeal and consistent with the advice of the EPA, it is considered that the EPA has adequately considered the issues raised by the appellants in relation to the introduction of non-indigenous fauna in its assessment of the proposal.

CONCLUSION AND RECOMMENDATION

The EPA Report 1499 concluded that the proposal could be managed to meet the EPA's environmental objectives, provided the proposal is implemented consistent with the existing management plans established under the implementation conditions of Ministerial Statement No. 800.

It is noted that the EPA has recommended a condition requiring an offset to the significant residual impact caused by the proposal on up to 32 ha of a Class A Nature Reserve, including habitat for specially protected fauna under the *Wildlife Conservation Act 1950*. This requires the proponent to provide an additional contribution to the *Threatened Species Translocation and Reintroduction Program* in accordance with the current funding contributions provided for in the Program and extending it for a further two years. It is noted that the EPA also considered that where the proponent can demonstrate that it has substantially commenced effective rehabilitation within five years, in accordance with the proponent's *Post-Construction Rehabilitation Plan* (Chevron Australia 2009) and *Topsoil Management Plan* (Chevron Australia 2012), then a reduction in the required contribution may be approved.

It is noted that the EPA also recommended an administrative condition related to monitoring and reporting to ensure that monitoring and compliance reporting for the Gorgon Gas Development and the Gorgon Additional Lands Project occurs on a joint basis.

Following the investigation into the appeals, it is considered that the EPA's assessment of the proposal did adequately consider the potential environmental impacts raised by the appellants and that no further assessment or reassessment by the EPA is required. The EPA's recommendations are therefore supported. As such it is recommended that the appeals be dismissed.

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APPEALS CONVENOR

Investigating Officer:
Stephanie Turner, Senior Environmental Officer

MATERIAL CONSIDERED IN THE PREPARATION OF THIS REPORT

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