



# **Gorgon Gas Development Revised and Expanded Proposal – Section 46 Change to Conditions 18, 20 and 21 - Ministerial Statement 800**

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**Chevron Australia Pty Ltd**



**Report and recommendations  
of the Environmental Protection Authority**

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**Environmental Protection Authority  
Perth, Western Australia**

**Report 1394  
April 2011**

### **Assessment and Compliance Services Process Timelines**

<b>Date</b>	<b>Progress stages</b>	<b>Time (weeks)</b>
<b>13/01/11</b>	<b>Request received from Minister</b>	<b>13</b>
<b>13/04/11</b>	<b>Request placed on public record</b>	
<b>13/04/11</b>	<b>Final Proponent response to the issues raised</b>	
<b>21/04/11</b>	<b>EPA report to the Minister for Environment</b>	<b>1</b>

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## Summary and recommendations

Chevron Australia Pty Ltd is the operator and proponent for the Gorgon Gas Development Revised and Expanded proposal (Gorgon Gas Development), on behalf of the Gorgon Joint Venturers (GJVs). State environmental approval for the Gorgon Gas development was issued 10 August 2009 with the conditions described in Ministerial Statement 800, which supersedes Ministerial Statement 748.

Chevron Australia Pty Ltd (proponent) is seeking a change to the implementation conditions of Ministerial Statement 800 under section 46 of the *Environmental Protection Act 1986*.

The proponent's proposed changes to Conditions 18 and 21-10 would enable it to recommence dredging and spoil disposal activities for the marine facilities referred to in Condition 17.2 in the event of there being a project-attributable Level 3 Coral Health Management Trigger Exceedance. Under the proponent's proposed condition, recommencement would be subject to the Minister's approval.

Under section 46(1) of the *Environmental Protection Act 1986*, if the Minister for Environment considers, for any reason, that implementation conditions relating to a proposal should be changed, the Minister may request the Environmental Protection Authority (EPA) to inquire into and report to the Minister on the matter. After conducting its inquiry, by section 46(6) of the Act, the EPA is to report to the Minister for Environment on whether or not the conditions and procedures, if any, should be changed. In addition, the EPA may make any recommendations as it sees fit.

This report provides the EPA's recommendations to the Minister for Environment as to whether any conditions and procedures in Ministerial Statement 800 should be changed.

### Conclusion

The EPA has considered the proposal by Chevron Australia Pty Ltd Pty Ltd to change the Ministerial Conditions of Ministerial Statement 800 and has concluded that it is reasonable for Chevron Australia Pty Ltd to have a recommencement process within the implementation conditions of Statement 800. The draft recommended amended conditions represent a fair and reasonable draft condition set which addresses Chevron's concerns, whilst maintaining a high level of protection for the marine environment.

The EPA accepts that a mechanism which allows for the recommencement of dredging and spoil disposal activities in the event that a project attributable exceedance of a tier three limit occurs is appropriate. However the EPA is of the opinion, that recommencement should only be allowed to occur following a detailed review and reporting to the Minister, by the proponent on advice from the Construction Dredging Environmental Expert Panel (CDEEP), of the circumstances surrounding the incident. The details of the requirements for reporting and the process for recommencement approval is provided for in the recommended amended conditions provided for in Appendix 2 to this Report. The EPA is further of the opinion that in the event of the Minister receiving a report of any exceedance, the Minister should seek advice from the Chairman of the EPA. The Minister should also be able to require that the proponent undertake additional management measures and apply

revised management triggers and exceedances for the purposes of the recommencement of dredging and spoil disposal activities.

### **Recommendations**

The EPA recommends to the Minister for Environment the following:

1. That the Minister notes that this report is pursuant to Section 46(6) of the *Environmental Protection Act 1986* and therefore limited to consideration of proposed changes to the implementation conditions.
2. The Minister notes that the change to the implementation conditions, the subject of this report, will provide for the recommencement of dredging and spoil disposal activities in the event that a project attributable exceedance of a tier three limit occurs.
3. That the Minister notes that the EPA has concluded that the change to the implementation conditions can be managed provided that:
  - a. The proponent provides a detailed report to the Minister regarding the exceedance event (the detailed requirements of which are provided for in the recommended condition);
  - b. The proponent's report included proposed revised management measures for dredging and dredge spoil disposal activities, to ensure further unauthorised impact does not occur;
  - c. The proponent's report to include proposed revised management and impact triggers and justification for these;
  - d. The proponent's report include advice from the Construction Dredging Environmental Expert Panel (CDEEP) on particular matters;
  - e. The proponents provides all relevant environmental monitoring data to the General Manager of the OEPA.
4. The Minister determines to change the implementation conditions in accordance with the EPA recommended amended conditions and procedures recommended in Appendix 2 of this report

**Contents**

**Page**

**Summary and recommendations ..... i**

**1. Introduction and background.....1**

**2. The proposed change to implementation conditions .....1**

**3. Discussion .....2**

**4. Conditions.....3**

    4.1 Recommended Conditions .....3

**5. Conclusions .....4**

**6. Recommendations .....4**

**Appendices**

- 1. References
- 2. Recommended Conditions

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# 1. Introduction and background

The Minister for Environment has requested the Environmental Protection Authority (EPA) to consider and provide advice under Section 46(1) of the *Environmental Protection Act 1986* on Chevron Australia Pty Ltd's proposal to change Condition 18 and Condition 21-10 of Ministerial Statement 800 to enable it to recommence dredging and spoil disposal activities in the event of the project-attributable Level 3 Coral Health Management Trigger Exceedance, subject to the Minister's approval.

Further details of the proposal are presented in Section 2 of this Report. Section 3 discusses the assessment of the proposed change to the implementation conditions. Recommended Conditions are discussed in Section 4. Section 5 presents the EPA's conclusions and Section 6 the EPA's Recommendations.

References are listed in Appendix 1. The recommended conditions and procedures are provided in Appendix 2.

## 2. The proposed change to implementation conditions

Chevron Australia Pty Ltd's (the proponent) initially proposed changes to Condition 18 and Condition 21-10 which would enable it to recommence dredging and spoil disposal in the event of the Project-attributable Level 3 Coral Health Management Trigger Exceedance, subject to the Minister's approval (Chevron Australia Pty Ltd, 2011). The proponent was of the view that this change would establish a rigorous recommencement mechanism and process which would ensure continuing project environmental acceptability and remove the environmental risks, legal uncertainty and potentially extensive project cost and schedule implications should Chevron Australia Pty Ltd be required to suspend dredging and spoil disposal activities indefinitely or until such time as some other mechanism for recommencement of these activities was found.

The proponent advised that the dredging program was approximately 75% complete (based on volume) as at April 2011 and is currently scheduled for completion in October 2011. Further that prolonged delays to recommencing dredging and spoil dumping activities in the event of a Level 3 Coral Health Management Trigger exceedance, would mean that the dredging period would be extended beyond the currently scheduled 18 months dredging and spoil disposal program, and any uncertainties in establishing an appropriate legal mechanism to enable the recommencement of dredging and spoil disposal activities, could result in significant project cost and schedule implications (i.e., AUD1.2 million per day) and additional environmental risks.

The proponent proposed that the recommencement of dredging and spoil disposal activities in the event of a Level 3 Coral Health Management Trigger exceedance will be managed in accordance with the approved Gorgon Gas Development and Jansz Feed Gas Pipeline: Dredging and Spoil Disposal Management and Monitoring Plan (Dredge Plan). The Proponent proposed that the Dredge Plan will be revised in accordance with the proposed amendments to the Ministerial Conditions to reflect

that, in the event of having suspended dredging activities and spoil disposal activities, when the proponent wishes to recommence dredging and spoil disposal activities, it will submit a Dredging and Spoil Recommencement Plan to the Minister for Environment for approval.

The Dredging and Spoil Disposal Recommencement Plan will:

- Set out what management strategies will be implemented so that the recommencement of such activities is not likely to contribute to causing unacceptable further net mortality of coral;
- May propose management triggers in place of those in Condition 21.4 of Ministerial Implementation Statement No. 800; and
- May propose additional matters to be considered in the report required under Condition 18.2 at the time of the third Post –Dredging Marine Habitat Survey.

Advice will be sought from the CDEEP about these matters.

The proponent's proposed change to condition 21.10 would provide for a recommencement of dredging and dredge spoil disposal activities after a Level 3 Management Trigger exceedance attributable to the proponent's implementation of the proposal in accordance with the Minister's approval which would be issued under the Dredge and Spoil Disposal Management and Monitoring Plan.

### **3. Discussion**

The following issues were identified by the EPA regarding the request to change the conditions put forward by the proponent that:

- recommencement would be conditional upon no further 'unacceptable' net coral mortality. The EPA considered the term "unacceptable' to be subjective; lacking specificity and certainty;
- the proposed change to conditions would, in the event of a Level 3 exceedance, remove all of the impact limits established by Condition 18. While the limits relating to a single site or zone may be changed in the event of an exceedance and recommencement, the limits for the other sites or zones should remain unchanged; and
- it is not clear to the EPA whether the recommencement management plan would be a stand-alone document or part of an existing management plan. The ability to ensure compliance with the recommencement of activities and any new limits was uncertain.

The EPA was of the opinion that any decision to allow for recommencement of dredging and dredge spoil disposal activities had to be made in full knowledge of the circumstances surrounding the initially exceedance and with knowledge of the measures which would prevent a further exceedance. It was determined that the decision in relation to recommencement should be made by Minister after receipt of a comprehensive report of the incident prepared by the proponent, with advice from the CDEEP and advice from the Chairman of the EPA.

The EPA is also of the view that the conditions should require that the proponent provide to the CEO of the OEPA all environmental monitoring data.

## **4. Conditions**

Section 46(1) of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for Environment on whether or not the implementation conditions or procedures, if any, should be changed.

In addition, the EPA may make recommendations as it sees fit.

Extensive consultation was undertaken with the proponent to ensure that the recommended conditions provided a mechanism to recommence dredging and spoil disposal activities, whilst providing a level of certainty for the proponent and maintaining a high level of protection of the marine environment.

### **4.1 Recommended conditions**

The EPA recommends to the Minister for Environment the following:

1. That the Minister notes that this report is pursuant to Section 46(6) of the *Environmental Protection Act 1986* and therefore limited to consideration of proposed changes to the implementation conditions.
2. The Minister notes that the change to the implementation conditions, the subject of this report, will provide for the recommencement of dredging and spoil disposal activities in the event that a project attributable exceedance of a tier three limit occurs.
3. That the Minister notes that the EPA has concluded that the change to the implementation conditions can be managed provided that:
  - a. The proponent provides a detailed report to the Minister regarding the exceedance event (the detailed requirements of which are provided for in the recommended condition);
  - b. The proponent's report included proposed revised management measures for dredging and dredge spoil disposal activities, to ensure further unauthorised impact does not occur;
  - c. The proponent's report to include proposed revised management and impact triggers and justification for these;
  - d. The proponent's report include advice from the Construction Dredging Environmental Expert Panel (CDEEP) on particular matters;
4. The Minister determines to change the implementation conditions in accordance with the EPA recommended amended conditions and procedures recommended in Appendix 2 of this report.
5. The EPA also recommends that the proponent be required to provide all relevant environmental monitoring data to the General Manager of the OEPA.

The recommended amended conditions are presented in full in Appendix 2.



## 5. Conclusions

### Conclusion

The EPA has considered the proposal by Chevron Australia Pty Ltd Pty Ltd to change the Ministerial Conditions of Ministerial Statement 800 and has concluded that it is reasonable for Chevron Australia Pty Ltd to have a recommencement process within the implementation conditions of Statement 800. The draft recommended amended conditions represent a fair and reasonable draft condition set which addresses Chevron's concerns, whilst maintaining a high level of protection for the marine environment.

The EPA accepts that a mechanism which allows for the recommencement of dredging and spoil disposal activities in the event that a project attributable exceedance of a tier three limit occurs is appropriate. However the EPA is of the opinion, that recommencement should only be allowed to occur following a detailed review and reporting to the Minister, by the proponent on advice from the Construction, Dredging Environmental Expert Panel (CDEEP), of the circumstances surrounding the incident. The details of the requirements for reporting and the process for recommencement approval is provided for in the recommended amended conditions provided for in Appendix 2 to this Report. The EPA is further of the opinion that in the event of the Minister receiving a report of any exceedance, the Minister should seek advice from the Chairman of the EPA. The Minister should also be able to require that the proponent undertake additional management measures and apply revised management triggers and exceedances for the purposes of the recommencement of dredging and dredge spoil disposal activities.

## 6. Recommendations

The EPA submits the following recommendations to the Minister for Environment:

1. That the Minister notes that this report is pursuant to Section 46(6) of *the Environmental Protection Act 1986* and thus is limited to consideration of proposed changes to the original conditions.
2. The Minister notes that the proposed change is to provide for the recommencement of dredging and spoil disposal activities in the event that a project attributable exceedance of a tier three limit occurs, provide for the Minister to seek advice from the OEPA determined following consultation with the EPA Chairman, upon receiving a report of an exceedance, and that monitoring data be made available to the CEO of the OEPA.
3. That the Minister notes that the EPA has concluded that the modified proposal can be managed to meet the EPA's objectives, and thus not impose an unacceptable impact on the environment provided there is satisfactory implementation by the proponent of the amended conditions, as set out in Section 4.
4. The Minister imposes the amended conditions, commitments and procedures recommended in Appendix 2 of this report.

## Appendix 1

### References

Chevron Australia Pty Ltd (2011), *Gorgon Gas Development Revised and Expanded Proposal: Barrow Island Nature reserve – Section 46 Application for change to Ministerial Statement No. 800*, Chevron Australia Pty Ltd, Western Australia.

Environmental Protection Authority (2009), *Gorgon Gas Development Revised and Expanded Proposal: Barrow Island Nature Reserve, Report and Recommendations of the Environmental Protection Authority*, Environmental Protection Authority, Report 1323, Perth Western Australia.

Minister for Environment (2009), *Statement that a Proposal may be Implemented (Pursuant to the Provisions of the Environmental Protection Act 1986) Gorgon Gas Development Revised and Expanded Proposal: Barrow Island Nature Reserve*, Statement No. 800, Government of Western Australia, Perth Western Australia.

## **Appendix 2**

### **Recommended Environmental Conditions**

## Recommended Amendments to Condition 18

18.1 The implementation of the works associated with construction, dredging and dredge spoil disposal activities for the marine facilities listed in Condition 17.2, shall not result in an exceedance of the following Impact Limits:

- i. Average Net Detectable Mortality of *Porites* coral in excess of 30% within the Zones of Moderate Impact;
- ii. The Permanent Loss of Coral assemblages within the Zones of High Impact and Zones of Moderate Impact in excess of:
  - a. 22 hectares; or
  - b. The Area of Loss of Coral Assemblages calculated under Condition 14.6.ii, whichever is less; or
- iii. Any Detectable Net Mortality of any coral outside the Zones of High Impact and Zones of Moderate Impact,

unless and until, at a specified site(s) outside the Zones of Moderate Impact or specified zone(s) in the Zones of Moderate Impact, a Revised Impact Limit has been approved to have effect for that specified site(s) or zone(s) by the Minister in accordance with Condition 21.12, in which case the approved Revised Impact Limit for the specified site(s) or zone(s) shall not be exceeded in the implementation of the works associated with construction, dredging and dredge spoil disposal activities for the marine facilities listed in Condition 17.2.

18.2 If there is an exceedance of the Impact Limits established by Condition 18.1 i or 18.1 iii and or approved Revised Impact Limits, or the Permanent Loss of Coral Assemblages exceeds the Area under Condition 18.1.iib, at the time of the third Post-Dredging Marine Habitat Survey the Proponent shall, in consultation with CDEEP and DEC, prepare and submit a report to the Minister that:

- i. Predicts the rate of natural recovery; and
- ii. Assesses whether the rate of recovery is sufficient to ensure the Permanent Loss of Coral Assemblages will be reduced to less than 22 ha or the Area under Condition 18.1.iib, whichever is less.

If the predicted rate of natural recovery is not sufficient to ensure the Permanent Loss of Coral Assemblages will be reduced to less than 22 ha or the Area under Condition 18.1.iib, whichever is less, the Proponent shall include in that Report an Action Plan with the aim of addressing compliance with Condition 18.1.ii, as determined by the Minister.

18.3 The Proponent shall implement any Action Plan included in the Report required by Condition 18.2.

## Recommended Amendments to Condition 20

20.6 The proponent shall implement the Plan. If under condition 21.12 any Revised Impact Limit(s) and or Revised Management Trigger(s) for conditions 18 and or 21 are approved, and or additional management measures are required to be implemented, those Revised Impact Limit(s) or Revised Management Trigger(s) and additional management measures shall have effect as if they were part of the Plan.

## Recommended Amendments to Condition 21

21.4 The Management Triggers in Table 1 below are to apply to the management of construction, dredging and dredge spoil disposal activities associated with works for the marine facilities listed in Condition 17.2, which will require the Proponent to adopt the actions specified in Conditions 21.5, 21.6, 21.7,21.8, 21.9 and 21.10 unless and until Revised Management Triggers have been approved by the Minister in accordance with Condition 21.12 to have effect at a specified site(s) outside the Zones of Moderate Impact or specified zone(s) in the Zones of Moderate Impact, in which case the approved Revised Management Triggers for the specified site(s) and specified zone(s) shall not be exceeded in the implementation of the works associated with construction, dredging and dredge spoil disposal activities for the marine facilities listed in Condition 17.2.

**Table 1: Management Triggers for construction, dredging and dredge spoil disposal activities associated with works for the facilities listed in Condition 17.2.**

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Zones of High Impact	n/a	n/a	n/a
Zones of Moderate Impact	15% Average Net Detectable Mortality <i>Porites</i> ; 50% Mortality <i>Porites</i> at any site	25% Average Net Detectable Mortality <i>Porites</i>	30% Average Net Detectable Mortality <i>Porites</i>
Zones of Influence	Detectable adverse change in the health of coral	10% coral bleaching at any site	Detectable Net Mortality of any coral
Regionally Significant Areas	Detectable adverse change in the health of coral	10% coral bleaching at any site	Detectable Net Mortality of any coral

21.6 If any Level 1 Management Trigger (or approved Revised Management Trigger) criterion in Condition 21.4 Table 1 is exceeded within 72 hours of detection of the exceedance, the Proponent shall notify the CDEEP of the exceedance, develop and implement an Impact Management Plan, describing what measures it is taking, or intends to take, to reduce the risk of a Level 2 Management trigger being exceeded and to ensure the limits set in Condition 18.1i and 18.1 iii are not exceeded, and provide that Plan to the CDEEP and the Minister.

21.7 If any Level 2 Management Trigger (or approved Revised Management Trigger) criterion in Condition 21.4 Table 1 is exceeded the Proponent shall:

- i. Immediately advise the CDEEP and report the exceedance to the Minister, and suspend dredging and spoil disposal activities within 48 hours unless otherwise authorised by the Minister;
- ii. Identify the dredging and spoil disposal activities and metocean conditions which caused the exceedance;
- iii. Identify locations of the dredging and spoil disposal activities where existing impacts are low and those activities could recommence;
- iv. Confirm coral health monitoring results with the CDEEP and report to the Minister the status of coral health parameters against the limits set in Condition 18.1i and 18.1 iii; and
- v. Prepare an Impact Management Plan, (the Plan) on the advice of CDEEP then submit to the Minister describing what measures the Proponent is taking, or intends to take, to keep impacts to below the limits set in Condition 18.1i and 18.1 iii, and the marine Water Quality Criteria that will be met to allow for the recommencement of dredging and spoil disposal activities and ensure the limits set in Condition 18.1i and 18.1 iii will not be exceeded.

21.9 If any Level 3 Management Trigger criterion provided for in Condition 21.4 Table 1 (or Revised Management Trigger approved under Condition 21.12) is exceeded the proponent shall:

- i. Immediately suspend all dredging and spoil disposal activities associated with works for the facilities listed in Condition 17.2; and
- ii. Within 24hours of that suspension, report to the Minister and CDEEP, the exceedance and that it has suspended dredging and spoil disposal activities associated with works for the facilities listed in Condition 17.2, and the results of the coral health monitoring that led to that suspension.

21.10 If after suspending dredging and spoil disposal activities under Condition 21.9i the Proponent determines that there is no exceedance of any Level 3 Management Trigger (or approved Revised Management Trigger) criterion in Condition 21.4 Table 1, the Proponent shall, in consultation with CDEEP, provide a report to the CEO. The Proponent may then recommence dredging and spoil disposal activities.

21.11 If after suspending dredging and spoil disposal activities under Condition 21.9i and if condition 21.10 does not apply, and the Proponent wishes to recommence dredging and spoil disposal activities, the Proponent:

- i. Shall submit to the Minister:
  - a. The results of the most recent coral health monitoring for all monitoring and reference sites, including identifying where exceedance(s) have taken place, and those sites where there is strong evidence an exceedance is reasonably expected to be recorded as part of the same event;
  - b. The dredging and spoil activities which were being undertaken in the monitoring period prior to the exceedance and until the time of suspension;
  - c. The metocean conditions as monitored in the monitoring period prior to the exceedance and until the time of suspension;
  - d. The results of the most recent water quality and sediment deposition monitoring;
  - e. Proposed revised Impact Limit(s) and or revised Management Trigger(s) for the site(s) outside the Zones of Moderate Impact where exceedance(s) have taken place, and those sites where there is strong evidence an exceedance is reasonably expected to be recorded as part of the same event, and or for the zone(s) inside the Zones of Moderate Impact where exceedance(s) have taken place; and
  - f. Any other information considered relevant by the Proponent in support of its proposal to recommence dredging and spoil disposal activities.
- ii. If the exceedance occurred inside a Zone of Moderate Impact, shall set out what additional management measures the proponent proposes to implement so that the recommencement of dredging and spoil disposal activities will not contribute to further net mortality of *Porites*, or cause net mortality of *Porites* to exceed a revised Impact Limit and or revised Management Trigger, proposed by the proponent in condition 21.11.i e, for that zone where an exceedance has been recorded having regard to the matters provided for in Condition 21. 11 i and will keep impacts outside the Zones of Moderate Impact below the Impact Limits set in

Condition 18.1 iii (or approved Revised Impact Limits for a specified site(s) or zone(s));

- iii. If the exceedance occurred outside the Zones of Moderate Impact, shall set out what additional management measures the proponent proposes to implement so that the recommencement of dredging and spoil disposal activities will not contribute to further net mortality of any coral, or cause net mortality of any coral to exceed a revised Impact Limit and or revised Management Trigger, proposed by the proponent in Condition 21.11.i e, at those sites where an exceedance has been recorded or there is strong evidence an exceedance is reasonably expected to be recorded as part of the same event, having regard to the matters provided for in Condition 21. 11 i and will keep impacts below the Impact Limits set in Condition 18.1 iii (or approved Revised Impact Limits for a specified site(s) or zone(s)) at other sites outside the Zones of Moderate Impact and will keep impacts inside the Zones of Moderate Impact below the Impact Limits set in Condition 18.1 I (or approved Revised Impact Limits for a specified zone(s));
- iv. May propose additional matters to be considered in the Report required by Condition 18.2 at the time of the third Post-Dredging Marine Habitat Survey; and
- v. Shall submit to the Minister advice from the CDEEP Independent Experts on the matters in i, ii and iii above.

21.12 The Minister may, having regard to the information submitted by the proponent under Condition 21.11 and on the advice of the Chairman of the EPA, approve Revised Impact Limit(s) and or Revised Management Trigger(s) to have effect for the purpose of Conditions 18 and 20, in which case the Proponent may then recommence dredging and spoil disposal activities subject to the Revised Impact Limit(s) and or Revised Management Trigger(s). The Minister may also, having regard to the information submitted by the proponent under Condition 21.11, require the Proponent to implement additional management measures in ii and iii above, or other additional practicable management measures, as part of the Dredge and Spoil Disposal Management Plan required under Condition 20.

21.13 The proponent shall grant unencumbered access to, and provide to the requirements of the CEO of the Office of the Environmental Protection Authority, all information and empirical data collected while implementing the Dredging and Spoil Disposal Management Plan required by Condition 20.1, and for the investigations and monitoring required in Conditions 21.1 to 21.12, inclusively.