



Coordinator-General's Change Report

On the

Environmental Impact Statement

For the

Hinze Dam Stage 3 Project

Report evaluating the Environmental Impact Statement, pursuant to Part (4) Section 35 of the *State Development and Public Works Organisation Act 1971* (Qld)

Released: 31 July 2008



Hinze Dam Stage 3 Project

Table of contents

Coordinator-General’s Change Report - Synopsis	3
1. Introduction	5
1.1 The Proponent	5
1.2 Background	5
1.3 Request for Project Change.....	6
2. Description of the Proposed Changes	7
2.1 Cut-Off Wall	7
Equipment	7
Traffic Movements	9
2.2 Reasons for Changes.....	9
3. Public Notice/Consultation	11
4. Evaluation of Environmental Effects	13
4.1 Cut-Off Wall Construction Noise Impacts	13
4.2 Cut-Off Wall Construction Dust Impacts	14
4.3 Cut-Off Wall Construction Traffic Impacts.....	14
4.4 Suitability of Existing Conditions	15
Noise	15
Air Quality/Dust.....	15
Traffic	15
Hours of construction.....	16
5. Matters of National Environmental Significance.....	17
5.1 Department of the Environment, Water, Heritage and the Arts	17
6. Conclusion	18
Appendix 1- New and Amended Conditions	19
Changes to conditions.....	19
Additional conditions	20
Appendix 2 – Location of Cut-Off Wall Activities	21



Coordinator-General's Change Report - Synopsis

This Report has been prepared pursuant to s.35 of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act) and provides an evaluation of the environmental effects of the proposed changes to a condition of the Hinze Dam Stage 3 Project (the Project). The Project was the subject of an evaluation in the Coordinator-General's Report of October 2007 (signed 22 October 2007).

On 20 October 2006, the Project was declared to be a 'significant project' for which an Environmental Impact Statement (EIS) is required in accordance with Part 4 of the SDPWO Act. The Project was also determined to be a 'controlled action' under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 16 January 2007 (EPBC 2006/3211), due to the likely impacts on matters of national environmental significance. The controlling provisions under Part 3 Division 1 section 18 and 18A of the EPBC Act were identified as listed threatened species and communities. The Project therefore required Commonwealth approval under Part 9 of the EPBC Act.

In accordance with section 87 of the EPBC Act, the Commonwealth Minister for Environment, Heritage and the Arts decided on 16 January 2007 that assessment would be by the accredited State's impact assessment process conducted under Part 4 of the SDPWO Act under the Bilateral Agreement between the Australian and Queensland governments. Consequently, the EIS addressed Australian Government related matters.

The EIS was advertised for public comment from 9 June 2007 until 9 July 2007, and 37 public and Advisory Agency submissions were received.

The proponent prepared a Supplementary Report to the EIS that addressed the issues raised in the submissions on the EIS. The Supplementary Report was provided to the Coordinator-General on 31 August 2007.

On 22 October 2007, in accordance with section 35 of the SDPWO Act, an evaluation of the EIS was completed and the Coordinator-General determined that the project should proceed, subject to a number of conditions. It was concluded that the impacts described in the EIS and Supplementary EIS were able to be mitigated and managed effectively through implementation of the proponent's commitments and the conditions set out in the Coordinator-General's Report.

On 20 December 2007, in accordance with section 133 of the EPBC Act 1999, the Commonwealth Minister for the Environment, Heritage and the Arts approved the Project, subject to 12 conditions.

On 31 January 2008, the Project was granted development approval, under the Integrated Planning Act 1997, by the Department of Natural Resources and Water.

By letter dated 15 April 2008, I was provided with a written notice from the proponent, in accordance with section 35D of the SDPWO Act, requesting an evaluation of proposed changes to a condition of the Project. The letter described the proposed amendment, its effects on the Project and the reasons for the proposed change in accordance with section 35E of the SDPWO Act. The relevant condition is from Appendix 1, Schedule A, PN11 of the Coordinator-General's October 2007 Report and relates to the hours in which drilling, blasting, extraction and crushing of extracted material may be carried out.

Additional information concerning specific components of the proposed change was requested from the proponent during April and May 2008. The resulting additional information is detailed in section 2 and 3 of this Report.



In accordance with section 35F of the SDPWO Act, relevant Government Agencies and directly affected stakeholders were consulted in my assessment of the project changes. I invited comment from directly affected stakeholders by letter dated 19 June 2008.

I have evaluated the environmental effects of the proposed change to the condition of the project and its effect on the project according to Part 4 of the SDPWO Act. I have considered the information provided by the proponent and by advisory agencies and stakeholders and the matters outlined in section 35H of the SDPWO Act.

I consider that on the whole the nature of impacts that may result from the proposed change to the condition of the project are limited to the range of impacts as assessed in the Coordinator-General's Report of October 2007. I have determined that the amended and new conditions described in Appendix 1 of this Report will suitably mitigate impacts relating to hours of construction operation and that these conditions must be adhered to by the proponent during the construction phase of the Project.

In accordance with section 35J of the SDPWO Act, a copy of this report will be provided to the proponent. This report will also be made publicly available on the Department of Infrastructure and Planning's website.

.....
Colin Jensen
Coordinator-General
Date: 31 July 2008



1. Introduction

This Report has been prepared pursuant to s.35 of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act) and provides an evaluation of the environmental effects of the proposed changes to a condition of the Hinze Dam Stage 3 Project (the Project). The Project was the subject of an evaluation in the Coordinator-General's Report of October 2007 (signed on 22 October 2007).

1.1 The Proponent

The project's proponent at that time was the owner of Hinze Dam, the Gold Coast City Council (GCCC). On 1 July 2008, the ownership of the dam and the Project transferred to the Queensland Bulk Water Supply Authority (QBWSA). The QBWSA is delivering the Project as part of an Alliance arrangement whereby it is working in partnership with Theiss, SKM and URS within the Hinze Dam Alliance (the Alliance). The GCCC is continuing to project manage the delivery of the Project on behalf of the QBWSA.

1.2 Background

The Project will augment the existing Hinze Dam. The dam's embankment will be raised by 15 metres from 93.5 metres to 108.5 metres, increasing the dam's capacity to over 309 700 million litres.

The upgrade will provide an additional 79 000 million litres of flood storage capacity and increase the dam's yield by at least an additional 16 million litres a day. The project will also provide greater flood mitigation for properties downstream of the dam and will make the structure compliant with current dam safety design guidelines and standards.

On 20 October 2006 the Project was declared to be a 'significant project' for which an Environmental Impact Statement (EIS) is required in accordance with Part 4 of the SDPWO Act. The Project was also determined to be a 'controlled action' under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 16 January 2007 (EPBC 2006/3211), due to the likely impacts on matters of national environmental significance. The controlling provisions under Part 3 Division 1 section 18 and 18A of the EPBC Act were identified as listed threatened species and communities. The Project therefore required Commonwealth approval under Part 9 of the EPBC Act.

In accordance with section 87 of the EPBC Act, the Commonwealth Minister for Environment, Heritage and the Arts decided on 16 January 2007 that assessment would be by the accredited State's impact assessment process conducted under Part 4 of the SDPWO Act under the Bilateral Agreement between the Australian and Queensland governments. Consequently, the EIS addressed Australian Government related matters.

The EIS was advertised for public comment from 9 June 2007 until 9 July 2007, and 37 public and Advisory Agency submissions were received.

The proponent prepared a Supplementary Report to the EIS, which addressed the issues raised in the submissions on the EIS. The Supplementary Report was provided to the Coordinator-General on 31 August 2007. The EIS and Supplementary Report to the EIS can be viewed via the website at http://www.hinzedamstage3.com/publicNotices_Publications.html



On 22 October 2007, in accordance with section 35 of the SDPWO Act, an evaluation of the EIS was completed and the Coordinator-General determined that the project should proceed, subject to a number of conditions. It was concluded that the impacts described in the EIS and Supplementary EIS were able to be mitigated and managed effectively through implementation of the proponent's commitments and the conditions set out in the Coordinator-General's Report. The Report may be viewed at www.dip.gov.au.

On 20 December 2007, in accordance with section 133 of the EPBC Act 1999, the Commonwealth Minister for the Environment, Heritage and the Arts approved the Project, subject to 12 conditions. On 31 January 2008, the project was granted development approval, under the *Integrated Planning Act 1997*, by the Department of Natural Resources and Water.

1.3 Request for Project Change

Part 4, Division 3A of the SDPWO Act provides that the Coordinator-General may evaluate a proposed change to a condition of a project made by a proponent of a significant project following completion of the Coordinator-General's Report evaluating the EIS.

Section 35C of the SDPWO Act enables the Coordinator-General to evaluate the environmental effects of the proposed change, its effects on the project and any other related matters.

By letter dated 15 April 2008, the proponent provided me with a written notice in accordance with section 35D of the SDPWO Act of a proposed change to a condition of the Project. A "Hinze Dam Stage 3 – Noise Assessment for Cut-Off Wall Construction Assessment Report" dated April 2008 detailing the proposed activities, impacts and management of noise was submitted with the letter.



2. Description of the Proposed Changes

The project retains all of the key elements which were subject to an EIS and Supplementary Report to the EIS during 2007. The proposed change relate to conditions from the October 2007 Coordinator-General's Report relating to permitted construction hours for drilling, blasting, extraction and crushing of extracted material (PN11, page 73) and noise limits from site activities (Table 2, page 80). The proponent is requesting that permitted daily construction hours be extended to allow certain works, associated with the construction of a cut-off wall, to occur outside of the nominated hours of 6.30am to 6.30pm Monday to Saturday. These nominated hours were proposed by the proponent within the EIS (Volume 3, page 12-14).

2.1 Cut-Off Wall

The need for construction of a cut-off wall to address the current and future seepage and piping risks on the right abutment was identified and referred to in Volume 1 of the EIS. Volume 2 of the EIS identified that the geology in this area consisted of Greenstone with Chert inclusions. The permeability of this geology was assessed as likely to vary from moderate to high permeability. A preliminary design was prepared for construction of a positive seepage barrier to control seepage and the associated risk of erosion. The design also included piping through the foundation on the right abutment.

The proponent is requesting a change to permitted construction hours to enable an extended shift to be worked to allow the construction of a much larger cut-off wall than envisaged in 2007, when the project's construction schedule was originally devised. The proposed location of the larger cut-off wall, and other key works, is unchanged within the project site. The location is identified in Appendix 2 of this Report.

The cut-off wall would be constructed using a slurry excavation technique that involves excavating a trench using hydraulic excavators or crane mounted cutters. The trench is stabilised with bentonite slurry to prevent collapse while the cutter head operates beneath the surface of the slurry, which lubricates and silences the cutting operation. After excavation of each segment is complete, the trench is backfilled with a concrete mix using a diesel driven pump during the daytime.

The proponent has indicated that permitted working times would need to be extended to accommodate modified construction methods and in order to complete the works associated with the construction of the cut-off wall within the project's scheduled program to meet the timeframe mandated by the Water Regulation. The proposed working hours for the construction of the cut-off wall are:

- Monday to Friday 6.30am to 10.00pm and
- Saturday 6.30am to 2.00pm cutter operation and bentonite plant and 2.00pm to 10.00pm maintenance as required.

Equipment

The equipment required for the construction of the current cut-off wall was not detailed in the EIS, as the extent of the wall was not known at that time. Due to the larger size and depth of the wall and the ground conditions at the site, it was determined that a hydraulic trench cutter and a clamshell grab would be used to excavate the trench for the cut-off wall.



The equipment and activities associated with the cut-off wall construction include:

- Trenching operations using hydraulic excavators or crane mounted cutters
- Bentonite plant (also known as desanding plant)
- Bentonite slurry mixing plant
- Concrete batch plant
- Transformer
- Workshop
- Material and equipment storage area
- Vehicle movements

A description of the plant and equipment and the proposed operating hours of individual equipment is provided below:

Crane Mounted Cutter – The Cutter operates in a trench under bentonite. A bentonite/fines mixture is pumped to the bentonite plant where the bentonite is separated from the cut material and pumped back into the trench. A pump is located within the trench. The cutter will run from 6:30am to 10.00pm Monday to Friday and 6:30am to 2.00pm Saturday.

Grab – A clam-like head grab will be used to extract softer material, which is dumped to a truck beside the crane. The truck is filled approximately every 20 minutes and the material is taken to a spoil dump on the approved site. The grab will generally be run from 6:30am to 6:30pm Monday to Friday and 6:30am to 2.00pm Saturday. The grab may infrequently be used until 10.00pm during Monday to Friday in emergency situations.

Chisel Crane – If the grab is not effective a chisel will be used to break up rock. This operation will only be undertaken if required from 6:30am to 6:30pm Monday to Friday and 6:30am to 2.00pm Saturday.

Bentonite Plant (or desanding plant) – The plant will be required to run concurrently with the excavation of the trench. The desanding plant treats the material circulated through the cutter operation, to extract the cut material from the bentonite. The majority of the noise will be generated from the desanding operation. The desanding plant will operate from 6:30am to 10.00pm Monday to Friday and 6:30am to 2.00pm Saturday, with only maintenance to the desanding plant occurring after 2.00pm on Saturdays. Spoil material from the desanding plant will be loaded into a truck and taken to a disposal area on site last thing during day time hours, and then first thing in the morning. There will be no spoil removal operations after 6.30pm.

Bentonite Slurry Plant – The plant will mix the bentonite with water to create the slurry that will be added to the concrete. The mixing of the bentonite and the concrete creates the plastic concrete that will be poured into the trench to form the cut-off wall. The plant will only operate during the currently approved working hours of Monday to Saturday 6:30am to 6:30pm.

However, there may be emergency situations where night-time operations are required because of potential risk to the dam stability. The potential for emergency night-time works is a necessary part of the activity and was considered in the EIS and remains the same regardless of the operational hours. The Environmental Protection Agency (EPA) has a requirement under the *Integrated Planning Act 1999* that a registered operator of an Environmentally Relevant Activity must notify the EPA when emergency works are required.

Concrete Batching Plant - The plant is required to manufacture the flexible concrete required for the cut-off wall. As the volume of concrete required for the cut-off wall is less than 10 per cent of the total concrete volume required for the project the plant will be operated under the Alliance's existing permit pertaining to ERA 62 Concrete Batching. The plant will only operate during the currently approved working hours of Monday to Saturday 6:30am to 6:30pm.



Routine maintenance will be programmed to be undertaken during Monday to Saturday 6:30am to 6:30pm. However some maintenance activities to affect emergency repairs may occur up to 10.00pm if any breakdowns are experienced.

Impacts including noise, air and dust emission characteristics of the above plant are similar to the noise and dust impacts assessed in the EIS. Impacts and conditions of use are discussed in section 4 of this Report.

Traffic Movements

Additional traffic movements into the Project site associated with the activities of the cut-off wall will include:

- 1-2 tankers per week of bentonite
- 3-4 tankers per week of cement
- Day time workforce of up to 35 people
- Night time workforce of up to 8 people.

Traffic will use Advancetown Road to access the site. The traffic generated by the additional night-time workforce of 8 people will be no more than 8 trips after 6.30pm.

Traffic movements on-site associated with construction with the cut-off wall are summarised below:

- Trucks from grab to spoil dump (every 20 minutes) only when the grab is in use
- Trucks from desanding plant to spoil dump (only during day time hours) morning and afternoon
- A forklift may be required for transporting broken equipment
- A mechanic and foreman using light vehicles on site.

The proponent will ensure that all of the workforce will participate in site inductions and education programs which target raising awareness of minimising traffic and noise impacts to the project site.

An evaluation of the impacts and the conditions including monitoring measures are described in Section 4 of this Report.

2.2 Reasons for Changes

The proponent's explanation of the reasons for the proposed change is as follows.

As the EIS was prepared in the first half of 2007, the design for the project was approximately 30 per cent complete and was considered to be sufficiently advanced to enable an accurate accurate description the major parameters of the Project and enable project approvals to be determined.

As part of the ongoing design process additional geotechnical investigations were undertaken during 2008, with particular focus on the right abutment area. This area is where the interface occurs between the main embankment and the saddle dam. These investigations further defined the very complex geology of this region. Through these geotechnical investigations, the extent of the foundation works required to minimise seepage was redefined. The nature of the geology resulted in a need to modify the originally proposed foundation treatment and construction methods in the interface area.

Following the review of several options in consultation with the independent peer review panel, it was concluded that the most effective foundation treatment in the interface region would be to construct a cut-off wall 227 metres long and 0.8 metres wide with depths to extend between 15 metres and 48 metres.



Works in this area must be completed prior to the raising of the main embankment and the existing saddle dam. The project has a regulated completion date *under Water Amendment Regulation (No.6) 2006* of 31 December 2010. If the works associated with construction of the revised cut-off wall occur only during the existing approved daytime periods, the project will be unable to maintain the program established to meet the mandated timeline of the *Water Amendment Regulation (No.6) 2006*. In summary, the regulated completion date has been established for this project, along with a range of other dates for other required projects, to ensure that SEQ has adequate water supplies in the period 2008 to 2026.



3. Public Notice/Consultation

Consultation on the proposed changes concerning the cut-off wall was undertaken by the proponent. The consultation process involved advising stakeholders by letter and door-knock that the Alliance was seeking an extension of the working hours and explaining the cut-off wall process and anticipated noise levels. A total of 202 letters were distributed. A written invitation was extended to 91 residents in proximity of the site to attend an on-site information day comprising a bus tour, lunch and an opportunity for questions and discussion with the Alliance team. Two letters of complaint were received by the Alliance in response to its letter advising of the request for extended working hours.

I have also received letters from the same residents. These letters indicated that the residents were concerned about noise impacts from the Project and requesting the proposal to extend work hours to 10.00pm not be allowed.

Each resident has been responded to on an individual basis by both the Alliance and myself. In correspondence to the residents dated 19 June 2008, I acknowledged their concerns and advised of the process for the Coordinator-General to evaluate the Alliance's request. The Alliance has advised in correspondence dated 22 May 2008 that other verbal indications received from the community have indicated general acceptance of the Project, the work itself and the way in which the residents were being kept informed about the project.

In order to confirm the advised outcomes of the above described community consultation undertaken by the proponent, I decided to seek comments from the directly affected stakeholders. On 19 June 2008, I wrote to 91 stakeholders advising of the requested amendment to working hours and providing the opportunity to comment on the proposal. One stakeholder replied advising that they supported the project and would be agreeable to the approval of the extension in hours, providing that the noise levels were not louder than what they were currently experiencing. The stakeholder proposed a trial period for the extended hours to gauge the noise levels of the cutter and desander equipment at night, prior to the Coordinator-General's approval of the nine-month period of night works.

After consideration of this request, I have decided not to implement a trial period, as I am satisfied the Alliance has demonstrated that the noise levels emitted from the night works will be sufficiently attenuated at residential dwellings to comply with EPA sleep disturbance criteria. In addition, the EPA approvals for ERAs cannot accommodate trial periods for licenses.

I also decided to refer details of the request for a proposed change to government agencies, seeking advice to inform my evaluation. These agencies included the EPA and the Dam Safety Regulator within the Department of Natural Resources and Water (DNRW).

In particular, the proposed changes were forwarded to the EPA for review and comment against the relevant EPA-related conditions and recommendations contained in the Coordinator-General's Report of October 2007.

EPA requested that additional information be provided about the assessment of tonality or low frequency adjustments for noise emissions and clarification of predicted noise levels and the mitigation measures for noise attenuation in relation to the change (refer Section 4). Additional information as requested was provided by the proponent by email on 9 May 2008. Further additional information was provided by the proponent by email on 3 June 2008 concerning opportunities for further reduction of noise, proactive management of noise emissions and community consultation to date and in the future.



Following review of the additional information on the proposed change, EPA correspondence dated 11 June 2008 stated that the EPA had assessed and would grant approval for the application to change a condition of the current Development Approval to extended working hours to which drilling, blasting, extraction and crushing operations could be conducted. EPA suggested requirements for additional conditions, and an amendment to the existing conditions contained in my October 2007 Report. These are outlined in section 4 of this report.

The proposed cut-off wall changes were also forwarded to the Dam Safety Regulator in DNRW for review and comment. The Dam Safety Regulator (DNRW) advised on 29 April 2008 that the geotechnical investigation findings and cut-off wall arrangements were two of the main issues identified and addressed at Peer Review Panel meetings attended by the Regulator since preliminary design works began in May 2007. The Regulator is aware of the need for additional works on the Project's cut-off wall and is satisfied that the information provided to date by the Alliance meets the requirements of the development permit condition for Dam Safety.



4. Evaluation of Environmental Effects

Section 35H of the SDPWO Act identifies the matters which the Coordinator-General must consider in evaluating the environmental effects of the change, its effect on the project and any other related matters. I have determined that there is no reason warranting the effects of the entire project to be re-evaluated. That is, I have determined that I should only evaluate the effects of the changes that are proposed relative to the Project that was the subject of evaluation in the Coordinator-General's Report of October 2007.

In accordance with section 35H of the SDPWO Act, in evaluating the environmental effects of the proposed changes and their effects on the Project, I have considered:

- the nature of the proposed changes and their effect on the Project
- the Project as evaluated in the Coordinator-General's report under section 35
- the environmental effects of the proposed changes and their effect on the Project
- advice from the EPA and DNRW about the proposed changes and their effect on the Project;
- correspondence received from affected residents

I have also considered whether any of the Coordinator-General's conditions and recommendations included in the Coordinator-General's Report should be amended in accordance with section 35I(2) in order to effectively manage the impacts of the proposed changes.

In making my evaluation I have had regard to the following material:

- letter from the Hinze Dam Alliance – 15 April 2008
- additional information provided by the proponent – (emails of 9 and 25 May 2008, 3 June 2008 and 1 July 2008)
- correspondence from residents
- advice on the proposed changes provided by the Agencies listed below:
 - EPA – (emails of 1 May and 11 June 2008)
 - DNRW – (email of 29 April 2008)
- the Hinze Dam Stage 3 Project Environmental Impact Statement

The above material indicates that the key issues to be assessed, in relation to the requested change, relate to the noise, dust and traffic impacts of the proposed changes.

4.1 Cut-Off Wall Construction Noise Impacts

The proposed change involves construction of an effective foundation treatment in the interface region being a cut-off wall 227 metres long and 0.8 metres wide with depths to extend between 15 metres and 48 metres.

A detailed description and impacts of the change is described in detail in the Hinze Dam Stage 3 "Noise Assessment for the Cut-Off Wall Construction Assessment Report" dated April 2008.

The assessment considered potential noise impacts from the construction activities at nearby residential locations and compared results of predicted levels to the sleep disturbance assessment criteria. The results of the noise predictions and the day time trials conducted in June 2008 indicate that noise emissions from the cut-off wall activities will be sufficiently attenuated at residential dwellings and will comply with EPA sleep disturbance criteria.



To ensure that noise levels are managed to meet these criteria, all construction activities are to be inaudible at the residential locations by 10.00pm each Monday to Saturday.

The proponent will undertake noise monitoring throughout the cut-off wall operation to ensure that noise levels are at an acceptable level to maintain the acoustic amenity of the local community.

4.2 Cut-Off Wall Construction Dust Impacts

Dust at the concrete batch plant will be controlled by covering the bags of bentonite with plastic. The empty bags will be stored in containers and removed at regular intervals. During construction, road surfaces will be kept wet to minimise construction dust. No dust is caused by the cutter in the trench as the bentonite powder is mixed with water to form bentonite slurry which is pumped into the trench from the surface.

The conditions set down in Appendix 1, Schedule A, of the Coordinator-General's Report for the Project to minimise environmental nuisance at any dust-sensitive place resulting from activities during the construction phase of the project apply to the cut-off wall activities.

4.3 Cut-Off Wall Construction Traffic Impacts

The impact of the total estimated number of vehicle trips to and from the site during the construction phase were assessed in section 13.4.7 of the EIS and evaluated in section 4.3 of the Coordinator-General's Report. The estimated vehicle trips summarised in section 3.3.4 of the EIS are shown below. Daily traffic during the construction peak is estimated as vehicle trips per day.

Table 1: Summary of Estimated Vehicle Trips For the Construction Phase

Generation Type	Daily Traffic Generated – Peak Construction Period			Total Heavy Vehicles During Construction
	Light Vehicles (option 2)	Buses (option 1)	Heavy Vehicles	
Workforce	520	4	-	-
Visitors	6	-	-	-
Concrete (including ash, cement and sand)	-	-	10	-
Equipment	-	-	-	128
Service Vehicles	-	-	4	-
Materials	-	-	8	-
Total	526	4	22	128

Source: Hinze Dam Stage 3 Project Environmental Impact Statement Volume 1, page 3-30

The Alliance correspondence of 15 May 2008 advises that the additional local road daytime traffic movements described above in section 2.1, which are associated with the construction of the cut-off wall, will be accommodated within the proposed traffic movements summarised above. That is the additional 6 tankers per week will be incorporated in the 128 heavy vehicles and the additional 35 workers travel to site will be incorporated in the 520 light vehicle movements. This is able to occur as the balance of the site will not be operating at peak workforce levels during the scheduled nine-month period of the cut-off wall operations from June 2008 to April 2009.



Section 13.4.1 of the EIS envisaged an afternoon shift for workshop and maintenance between 3.00pm and 1.00am involving a total of 10 workers resulting in up to 20 vehicle trips per day along Advancetown Road. The proposed change will result in the addition of up to 8 workers from the night-time shift of the cut-off wall exiting the site along Advancetown Road between 6.30pm and 10.00pm at the completion of the second shift on the cut-off wall activities. I am satisfied that the addition of up to 8 vehicle movements after 6.30pm is consistent with traffic volumes associated with the Advancetown Road area at this time and will not increase impacts.

While the number of allowed traffic movements was not conditioned in the Coordinator-General's Report, the commitments made by the proponent were conditioned in section 4.3 of the Report and will apply to additional traffic associated with the cut-off wall.

4.4 Suitability of Existing Conditions

Noise

The noise emissions generated by the cut-off wall construction will comply with the noise limits set out in Table 2 of the Coordinator-General's Report as shown in Appendix 1 of this Report.

Air Quality/Dust

The dust emissions generated by the cut-off wall are regulated by the Development Approval and the conditions set down in Appendix 1, Schedule A, of the Coordinator-General's Report at (PA1) to (PA13). These conditions will act to minimise environmental nuisance at any dust-sensitive receptor resulting from activities during the construction phase of the project and therefore also apply to the cut-off wall activities.

The proponent has also developed a range of mitigation measures to be included in the construction Environmental Management Plan (EMP) as an Air Quality Environmental Plan. Measures include:

- regular watering of the haul roads to dampen dust, with particular focus on the section of the haul road near residences
- Trucks travelling to site will have loads secured and covered
- Speed limiting of trucks travelling to and from the site and on haul roads
- The concrete batching plant will have an air cleaner to minimise particulates
- Rehabilitation of cleared areas will be re-seeded and stabilised quickly to minimise erosion
- Regular monitoring of particulates and dust deposition levels at nearest residences within a Dust Monitoring Program.

I note also that the proponent has placed an enclosure around the bentonite storage area.

Traffic

The daytime traffic movements are within the number of movements proposed in the EIS and assessed in the project evaluation for the Coordinator-General's Report. The traffic and noise impacts by the additional night-time traffic generated by the eight night-time workers on the cut-off wall will be minimised by the proponent commitments conditioned in section 4.3 on page 31 and 32 of the Coordinator-General's Report to minimise impacts on Advancetown Road due to construction traffic as follows:

- To reduce construction traffic in the Gilston and Advancetown areas the proponent will operate a bus service to shuttle the construction workforce between the construction site and key transport hubs on the Gold Coast. Four trips a day (two in; two out) will be provided during peak hours.



- Prior to construction commencing, a safety audit of transport routes will be carried out and works undertaken to ensure the safe passage of construction vehicles (eg raising overhead wires, local road widening).
- An education program will be implemented for the workforce to raise and maintain awareness of safety and courtesy issues within the local community. Topics will include speed and minimising noise.
- As part of the Construction Communication Program a system of complaint reporting, investigation and response will be initiated allowing the local community the opportunity to provide feedback on traffic and safety issues.

An undertaking has also been made to limit large construction traffic travelling to and from site along local roads to 40kmph.

Hours of construction

The proposed hours for extraction and crushing of material for the cut-off wall are outside of hours conditioned in PN11, Schedule A, Appendix 1. New and amended conditions are required for construction activities after 6.30pm Monday to Saturday. Additional and amended conditions are contained in Appendix 1 of this Report.

The location of the cut-off wall activities and work areas for the extended hours condition is shown in Appendix 2.

I am satisfied that the impacts of this change can be managed effectively through the application of the existing conditions in the Coordinator-General's Report of October 2007 and the new and amended conditions as contained in Appendix 1.



5. Matters of National Environmental Significance

5.1 Department of the Environment, Water, Heritage and the Arts

The Project was referred to the Commonwealth Department of Environment and Water Resources on 23 December 2006 for a determination as to whether the project constituted a 'controlled action' pursuant to part 3 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). On 16 January 2007 the Australian Government determined that the Hinze Dam proposal was a 'controlled action' pursuant to section 75 of the EPBC Act

The Australian Government accredited the State's 'significant project' impact assessment process as suitable for its assessment of this project. Consequently, matters of national environmental significance were evaluated by the Coordinator-General in the Coordinator-General's Report of October 2007.

On 20 December 2007, following assessment of the EIS and review of the Coordinator-General's Report the Australian Government granted the project conditional approval. Twelve conditions were attached to the approval which the proponent is required to meet.

Upon receipt of the letter of 15 April 2008 from the proponent, it was evaluated that comments not be sought from the Commonwealth Department of Environment, Water, Heritage and the Arts on the proposed change to the condition of the Project. This decision followed advice from the proponent that the request for a change in construction times for the cut-off wall construction would have no impact on matters of national environmental significance (MNES) over and above those that were assessed in the EIS and Supplementary Report. The proposed cut-off wall works are located within the existing project footprint and MNES species are not present in the cut-off wall construction area. Therefore no further approval action was necessary under the EPBC Act.

I am satisfied that the project changes will have no impact on MNES and therefore the project can be managed effectively through the application of existing Queensland and Australian Government conditions.



6. Conclusion

I have evaluated the environmental effects of the proposed change to the condition of the Hinze Dam Coordinator General's Report and its effects on the Hinze Dam Project according to Part 4 of the SDPWO Act. I have considered the matters in section 35H of the SDPWO Act and outlined my review in section 4 Evaluation of Environmental Effects.

I consider that on the whole the nature of impacts that may result from the proposed change to the condition of the Project are limited to the range of impacts as assessed in the Coordinator-General's Report of October 2007. I have determined that the amended and new conditions described in Appendix 1 of this Report will suitably mitigate impacts relating to hours of construction operation and that these conditions must be adhered to by the proponent during the construction phase of the Project.

In accordance with section 35J of the SDPWO Act, a copy of this report will be provided to the proponent. This report will also be made publicly available on the Department of Infrastructure and Planning's website.



Appendix 1- New and Amended Conditions

Changes to conditions

Condition PN11 changed from:

(PN11) Notwithstanding any other condition of this development approval, no drilling, blasting, extraction and crushing of extracted material may be carried out:

- (a) Outside the hours of 6:30am to 6:30pm Mondays to Saturdays;
- (b) On Sundays; and
- (c) On public holiday(s).

to:

(PN11) No drilling, blasting, extraction and crushing of extracted material may be carried out:

- (a) Outside the hours of 6:30am to 6:30pm Monday to Saturday;
- (b) On Sundays; and
- (c) On public holiday(s).

Appendix 1 Schedule A Table 2- Noise Limits has been changed to reflect the operation of the equipment/plant associated with the cut-off wall for the period of works from June 2008 until April 2009.

Table 2 - Noise Limits was changed from:

Noise level dB(A) measured as	Monday to Saturday		Sundays and public holidays
	6:30am - 10pm*	10pm – 6:30am	Anytime
	Noise measured at a 'Nuisance sensitive place'		
L _{Aeq} , 1hr	58	Not audible	Not audible
L _{A1} , adj, 10 mins	63	Not audible	Not audible
Noise measured at a 'Commercial place'			
L _{Aeq} , 1hr	58	Not audible	Not audible
L _{A1} , adj, 10 mins	63	Not audible	Not audible

*After 6:30pm Monday-Saturday, only activities associated with motor vehicle maintenance are permitted.

to:



Noise level dB(A) measured as	Monday to Saturday		Sundays and public holidays
	6:30am - 10pm* ¹	10pm – 6:30am	Anytime
	Noise measured at a 'Nuisance sensitive place'		
L _{Aeq} , 1hr	58	Not audible	Not audible
L _{A1} , adj, 10 mins	63	Not audible	Not audible
	Noise measured at a 'Commercial place'		
L _{Aeq} , 1hr	58	Not audible	Not audible
L _{A1} , adj, 10 mins	63	Not audible	Not audible

*After 6:30pm Monday-Saturday, only activities associated with motor vehicle maintenance are permitted.

(1) During the construction of the cut-off wall, works are permitted in accordance with conditions PN19, PN20 and PN21 for those areas described in condition PG19.

Additional conditions

The following additional conditions are in addition to conditions contained in Appendix 1 Schedule A of the Coordinator General's Report. I nominate the Environmental Protection Agency (EPA) as concurrence agency for the following conditions.

(PG19) The works associated with the construction of the cut-off wall are only permitted to be undertaken in those areas shown in Figure 1- General Location of Activities and Work Areas provided in the letter dated 15th April 2008 to the Department of Infrastructure and Planning and attached as Figure 2 of development approval IPDE00776207.

(PN19) Notwithstanding condition PN11, the operation of the Cutter (Liebherr 885) and the Bentonite Plant (desanding plant) associated with the construction of the cut-off wall is permitted from 6:30am to 10.00pm Monday to Friday and 6:30am to 2.00pm Saturday.

(PN20) Maintenance activities associated with the construction of the cut-off wall are permitted from 6:30am to 10:00pm Monday to Saturday.

(PN21) The works associated with the construction of the cut-off wall are permitted to be conducted from June 2008 until April 2009.



Appendix 2 – Location of Cut-Off Wall Activities



