

GLADSTONE – FITZROY
PIPELINE PROJECT
Environmental Impact Statement

Supplementary Report
Summary



Gladstone Area
Water Board

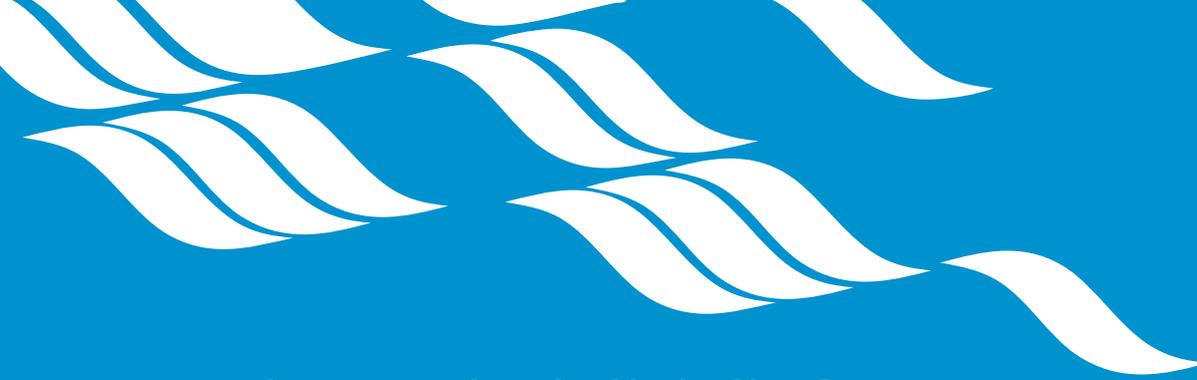


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This information has been prepared by, or on behalf of, the Gladstone Area Water Board (GAWB) regarding the Gladstone-Fitzroy Pipeline Project. Care has been taken to ensure that the information is accurate and up to date at the time of publishing.





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Introduction

Gladstone Area Water Board (GAWB) is planning for the future water needs of the Gladstone Region by preparing plans to secure water within a suitable time frame if and when additional water supply is required. After careful consideration and assessment of the options available as part of the Central Queensland Regional Water Supply Strategy (CQRWSS) and GAWB's Strategic Water Planning process, a pipeline to transfer water from the Fitzroy River to Gladstone was identified as the preferred option. GAWB is carrying out preparations for the project now to ensure that as soon as increased demand, or low dam levels triggers the need, the pipeline can be constructed within two years.

As part of this forward planning, in late 2008, GAWB released for public comment an Environmental Impact Statement (EIS) for the Gladstone-Fitzroy Pipeline Project. As an additional source of water for GAWB, the project will be capable of extracting up to 30,000 megalitres (ML) of water each year (to a maximum of 100 ML per day) from the Fitzroy River at Laurel Bank.

Key components of the Gladstone-Fitzroy Pipeline Project include:

- An underground pipeline approximately 115 km long from Laurel Bank near Rockhampton to a connection with GAWB's existing infrastructure near Yarwun just north of Gladstone
- An intake and pump station on the Fitzroy River at Laurel Bank
- A Water Treatment Plant, reservoir and pump station at Alton Downs
- A booster pump station and reservoir at Raglan
- A reservoir at Aldoga.

See Figure 1 for an overview of the project area and the key components of the project.

About the Environmental Impact Statement

GAWB is required to prepare an EIS for the project under the Queensland Government's *State Development and Public Works Organisation Act 1971* (SDPWO Act) and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Queensland Coordinator-General will evaluate the project according to the relevant legislation, with the project requiring final approval from the Australian Government's Minister for the Environment, Water, Heritage and the Arts before it can proceed.

The EIS was prepared in accordance with the requirements of the Terms of Reference for the project, which was issued by the Queensland Coordinator-General. The EIS was prepared

during a 12-month period and was approved by the Coordinator-General for release to the community for public comment on 22 October 2008.

Public comment period

The EIS was made available for public comment for a period of 30 business days, commencing 1 November 2008 and concluding 15 December 2008. During this time, GAWB made an effort to inform as many stakeholders as possible about the public comment period for the EIS. This was achieved through:

- **Letters** - sent directly to stakeholders listed on the project database (including affected landowners, landowners within 500 m of the pipeline corridor, elected representatives and other people who registered their interest in the project during earlier consultation activities).
- **Advertising** - the Department of Infrastructure and Planning (DIP) placed a public notice in relevant publications (including the Courier Mail) on Saturday 1 November 2008. GAWB placed advertisements in the Gladstone Observer and the Morning Bulletin advertising the availability of the EIS and the schedule of consultation activities during the public comment period.
- **Media** - GAWB prepared a media release about the availability of the EIS. A number of media stories were run in local publications around the time of the release of the EIS.
- **Community information sessions** - GAWB held six community information sessions along the pipeline route to give people the opportunity to speak to the project team about the EIS. These were attended by 46 people.
- **Project update newsletters** - sent with letters to key stakeholders, provided to EIS display locations and uploaded to the project website.
- **Display of the EIS document** - hardcopies of the EIS were provided to 19 locations along the pipeline route and the Queensland State Library to ensure the community had access to the document. The EIS was also uploaded to the project website.
- **Summary of Major Findings** - a summary of the EIS was prepared to simplify the document and make it more accessible to the community. Copies of this document were provided to EIS display locations and were sent with letters to key stakeholders.
- **1800 number / project email address** - questions about the EIS were answered on the project 1800 number and email address.

During the public comment period a total of 27 submissions were received. In accordance with relevant legislation, the Coordinator-General has requested that GAWB prepare a Supplementary Report to address the issues raised in these submissions.

About the Supplementary Report

GAWB has prepared a Supplementary Report in response to the submissions received from stakeholders (including individual landowners, regional councils, state government departments and the Department of Environment, Water, Heritage and the Arts (DEWHA)) regarding the Gladstone-Fitzroy Pipeline Project's EIS.

The main purpose of the Supplementary Report is to formally address and respond to issues raised in submissions about the EIS. In addressing the issues raised in submissions, the Supplementary Report provides:

- Clarification of data and discussion of impacts in the EIS
- Additional information for consideration by the Coordinator-General
- A considered response to the issues raised in the submissions.

The Supplementary Report also provides an opportunity for GAWB to clarify project information and provide further details or changes made to the project in response to the issues raised in submissions. Changes to legislation that have occurred since the release of the EIS are also addressed in the Supplementary Report.

The Supplementary Report will be provided to the Coordinator-General for consideration in preparing his evaluation report for the project's EIS. The Coordinator-General's report will then be sent to the DEWHA for consideration as part of the Department's final assessment of the project. Information within this report is current up to the time of publishing (May 2009).

This summary of the Supplementary Report provides an overview of the submissions received, and the responses provided by GAWB in relation to these submissions. The names of private land holders have not been included in this report. For complete details of these submissions and responses, please view the complete Supplementary Report to the EIS for the Gladstone-Fitzroy Pipeline, which is available:

- Online at www.gladstone-fitzroypipeline.com.au
- In hard copy at the Gladstone Area Water Board – 147 Goonoon Street, Gladstone
- By requesting a CD copy from the project team – phone 1800 771 185

Please note that as of 26 March 2009 there have been a number of changes to Queensland Government departments. The department changes relevant to this report are:

- The Department of Housing ceases to exist and is now part of the Department of Communities
- The Department of Emergency Services ceases to exist and is now part of the Department of Community Safety

- The Department of Mines and Energy, Department of Primary Industries and Fisheries and the Department of Tourism, Regional Development and Industry cease to exist and are now part of the Department of Employment, Economic Development and Innovation (DEEDI)
- The Department of Natural Resources and Water and the Environmental Protection Agency (EPA) cease to exist and are now part of the Department of Environment and Resource Management (DERM)
- Queensland Transport and the Department of Main Roads cease to exist and are now part of the Department of Transport and Main Roads (DTMR).

Where the above departments are referred to in this report, the old name has been used if referring to the submission received from the relevant department. However, where future consultation is proposed with one of the above departments, the new name has been used.

Submissions and responses

A total of 27 submissions were received by the Coordinator-General during the EIS public comment period. These submissions have been reviewed by GAWB and are addressed in detail in the Supplementary Report to the EIS. This section provides an overview of the issues raised in submissions and GAWB's response to these issues.

Approvals and consistency with plans and development schemes

Submission/s relates to: *consistency with or additional approvals/conditions for project works.*

A number of additional approvals will be required before construction of the project can commence. These include obtaining:

- A water permit in accordance with the *Water Act 2000* for taking water from a watercourse, lake or spring or groundwater within the Rockhampton Regional Council Local Government Area if water is required for construction purposes
- Development conditions for all operational works under the *Water Act 2000*, *Vegetation Management Act 1999* (VM Act), *Coastal Protection and Management Act 1995* and the *Fisheries Act 1994*

- A Riverine Protection Permit where there is any excavation, filling or destruction of vegetation within a watercourse, lake or a spring, as a result of any erosion structures required for the wet commissioning discharge
- Local Government approvals for Environmentally Relevant Activities, food handling and waste control for the temporary site facilities, as well as general set-up and decommissioning activities
- Approval from the Gladstone Ports Corporation and DIP to confirm final positioning of the pipeline within the Material Transport Service Corridor.

It is also noted that the wording of the EIS in relation to construction in wetlands and adjacent to Yellow Chat habitat does not comply with the probable solutions identified in the Development Scheme for the Stanwell Gladstone-Infrastructure Corridor State Development Area (SGICSDA). The relevant Development Scheme outcomes and probable solutions are shown in the table below:

Outcome	Probable solution
Potential and known Yellow Chat habitats are retained	Construction adjacent to Yellow Chat breeding areas occurs between May and September
The ecological values of wetlands are retained	Avoid construction in wetlands wherever feasible and practical. If it is not feasible or practical to avoid construction in wetlands, construction shall occur between May and September.

The wording of the EIS and Planning Environment Management Plan (EMP) have been amended to comply with the above outcomes. This is further described below.

Accommodation requirements for the project

Submission/s relates to: *impact on housing affordability and social amenity in the project area due to the limited availability of housing for the project's workforce.*

The EIS outlined that the project will place additional pressures on the already tight housing and rental market within the project area. This is based on the assumption that skilled labour demands will remain high and the housing market will still be constrained within the local area at the time of the project's construction. As the timeline for project construction is not yet known (it being dependent on drought and demand triggers), these factors cannot yet be confirmed. As such, GAWB cannot yet prepare a coordinated Housing Management Plan, and the mitigation measures provided in the EIS are still considered appropriate.

Since the release of the EIS, the planning for workforce accommodation for the project has progressed with a 200-person housing camp being considered for the Raglan area, if required. Whilst not yet confirmed, and dependant on the housing and employment conditions at the time of construction, this camp would reduce the pressure on existing housing in the project area. This camp would potentially house pipeline construction personnel and Raglan Pump Station personnel who are not local residents. If a construction camp is required to house personnel during the project's construction phase, appropriate Local Government approvals will be sought.

Alloga Reservoir construction personnel are expected to be housed in local accommodation in Gladstone, whilst all water treatment plant, intake and project office personnel will be accommodated locally in Rockhampton. It is also expected that a majority of the construction personnel for the water treatment plant, intake and pipeline will be local residents, reducing the strain on the housing rental market. However there will be a requirement for some specialist personnel for the project to be sourced from outside the region. Considering this information, GAWB does not believe that there will be considerable pressure arising from the project on the local accommodation situation.

Vegetation clearing

Submission/s relates to: *requirement for additional information regarding the clearing of vegetation for the project.*

Clearing of vegetation mapped as remnant under the VM Act requires a Vegetation Clearing Permit from DERM (formerly NRW), unless exemptions apply. NRW's submission on the EIS identifies that there is insufficient information in the EIS to assess the impacts of vegetation clearing.

There are 33 Vegetation Clearing Sites (VCS) within the project corridor. They include:

- VCS 1 to 3: These sites are in the Alton Downs Easement, outside the State Development Areas
- VCS 4 to 13: These sites exist within the SGICSDA
- VCS 14 to 33: These sites exist within the Gladstone State Development Area (GSDA).

There are currently four options being considered by GAWB for the management of the remnant regional ecosystems (REs) at these sites. Each of these four options is further discussed in Appendix D.

Where required, approvals for vegetation clearing will be obtained prior to construction. This may include the provision of appropriate vegetation offsets under the *Policy for Vegetation Management Offsets 2007*.

See Appendix D of the Supplementary Report for further information on the VCSs within the project corridor.

Revegetation post construction

Submission/s relates to: *requirements for revegetation post construction.*

In addition to the mitigation measures outlined in the EIS, the following measures for revegetation have been included in the Planning EMP to ensure appropriate species are used for revegetation activities:

- Local provenance native plant seed or seed from other parts of Central Queensland is to be used for rehabilitation within any areas of remnant or remnant regrowth vegetation that supports a ground cover of native grasses
- Native trees and shrubs removed from areas of RE will be recorded and replaced in accordance with the requirements of the vegetation clearing permit (for example, recorded using a tally system and then replaced on a one for one basis using locally available species appropriate to the RE).

Impact on mining leases in the project area

Submission/s relates to: *consultation requirements for mining lease holders prior to pipeline construction.*

It is noted that the proposed pipeline route may impact on land under a mining lease granted to Cement Australia (Queensland) Pty Limited. It is understood that this mining lease was due to expire on 31 July 1997, however, an application for renewal was lodged by Cement Australia prior to the expiry date and at this time, is pending receipt of further information before a decision is made. In accordance with the requirements of the *Mineral Resources Act 1989*, prior to undertaking any construction works for the project that may impact this mining lease, it will be necessary for GAWB to obtain the consent of Cement Australia (Queensland) Pty Limited.

Impact on gas pipelines in the project area

Submission/s relates to: *requirement for GAWB to gain consent from pipeline licence holders if surface levels will change as a result of the project.*

The proposed pipeline alignment crosses a number of existing gas pipelines or granted easements under the *Petroleum and Gas (Production and Safety) Act 2004*. Under the Act, the surface level of land must not be changed without the consent of the (petroleum and gas) pipeline licence holder.

Engineering design for construction of the Gladstone-Fitzroy Pipeline will provide a safe and technically sound construction methodology to cross these gas pipelines in agreement with the relevant pipeline licence holders to ensure that there are no long term compatibility issues with the gas pipelines.

Impact on electricity transmission lines in the project area

Submission/s relates to: *requirements for construction in the vicinity of power lines.*

Detailed design plans of the crossing points have been requested by Powerlink and will be provided by GAWB as part of the stakeholder consultation process for the project. It is noted that Powerlink has identified a range of potential issues for consideration by GAWB regarding the interaction of pipelines and high voltage lines. These issues are already under consideration and will be agreed with Powerlink prior to the finalisation of design.

Safety advice provided by Powerlink will also be considered in the design and construction and GAWB and the construction contractor will comply with the pipeline co-use guidelines provided by Powerlink. GAWB or the construction contractor will discuss with all stakeholders their conditions and requirements to ensure the safety and integrity of their infrastructure as well as the safety of the project's personnel. The relevant strategies and procedures will then be implemented through the induction process and Job Safety Analysis systems used before construction occurs.

Interface of the project with proposed rail projects in the study area

Submission/s relates to: *requirement for the EIS to address additional rail projects in the project area.*

The EIS does not refer to the proposed Moura Link – Aldoga Rail Project, the proposed Wiggins Island Rail Project or the area under investigation for the Fitzroy River Coal Terminal. Submissions requested that the potential interface between the project and these proposed projects be discussed with Queensland Rail. Where relevant, figures in the EIS showing rail infrastructure have been updated to include these proposed projects.

The design details for the Gladstone-Fitzroy Pipeline (in relation to the crossing of rail infrastructure) have been issued to Queensland Rail and discussions with Queensland Rail are ongoing regarding proposed expansion of their network in the project area and how this may affect the project. As design progresses, issues relating to the interface with Queensland Rail's infrastructure in the Aldoga/Yarwun area will be discussed. Other rail projects that will be considered include the proposed Fitzroy River Coal Terminal and the Xstrata rail spur in the Bajool/Raglan Area.

GAWB will also seek appropriate approvals from Queensland Rail (as required by the *Transport Infrastructure Act 1994*) prior to the commencement of construction.

Traffic management during construction

Submission/s relates to: *the appropriate management of traffic during construction.*

In line with mitigation measures outlined in the EIS, GAWB will prepare detailed drawings and traffic management plans for State Controlled Roads or where the pipeline crosses other roads, for the approval of DTMR and other relevant authorities prior to the commencement of construction. GAWB will seek approval for works affecting State Controlled Roads prior to the commencement of construction under the *Transport Infrastructure Act 1994*.

GAWB will prepare Construction and Operational Traffic Management Plans for approval by relevant authorities at appropriate points within the project timeline to address the management of traffic associated with the project.

Watercourse crossing methodology

Submission/s relates to: *impacts to riparian vegetation and tidal lands.*

Environmental assessment undertaken during the EIS identified that there are varying environmental values at each of the creeks in the study area. Inkerman, Horrigan, Raglan, Gavial and Bob's Creeks will be crossed by microtunnelling as these creeks have been identified as having significant ecological values including one or more of the following:

- Significant riparian vegetation (e.g. mangroves)
- Stream bed and banks generally in good condition
- High in-stream microhabitat diversity.

Trenched crossings are proposed at Twelve Mile and Larcom Creeks due to the small size of these waterways, limited riparian vegetation and the potential for mitigation measures to successfully manage the impacts arising during construction. Trenching of these crossings would make use of coffer dams to keep the construction area dry. The use of coffer dams would require a Waterways Barrier Permit from DEEDI (formerly Department of Primary Industries and Fisheries) under the *Fisheries Act 1994*. A range of mitigation measures are proposed for these crossings, the details of which will be determined at the time the Waterways Barrier Permit is submitted for approval from DEEDI.

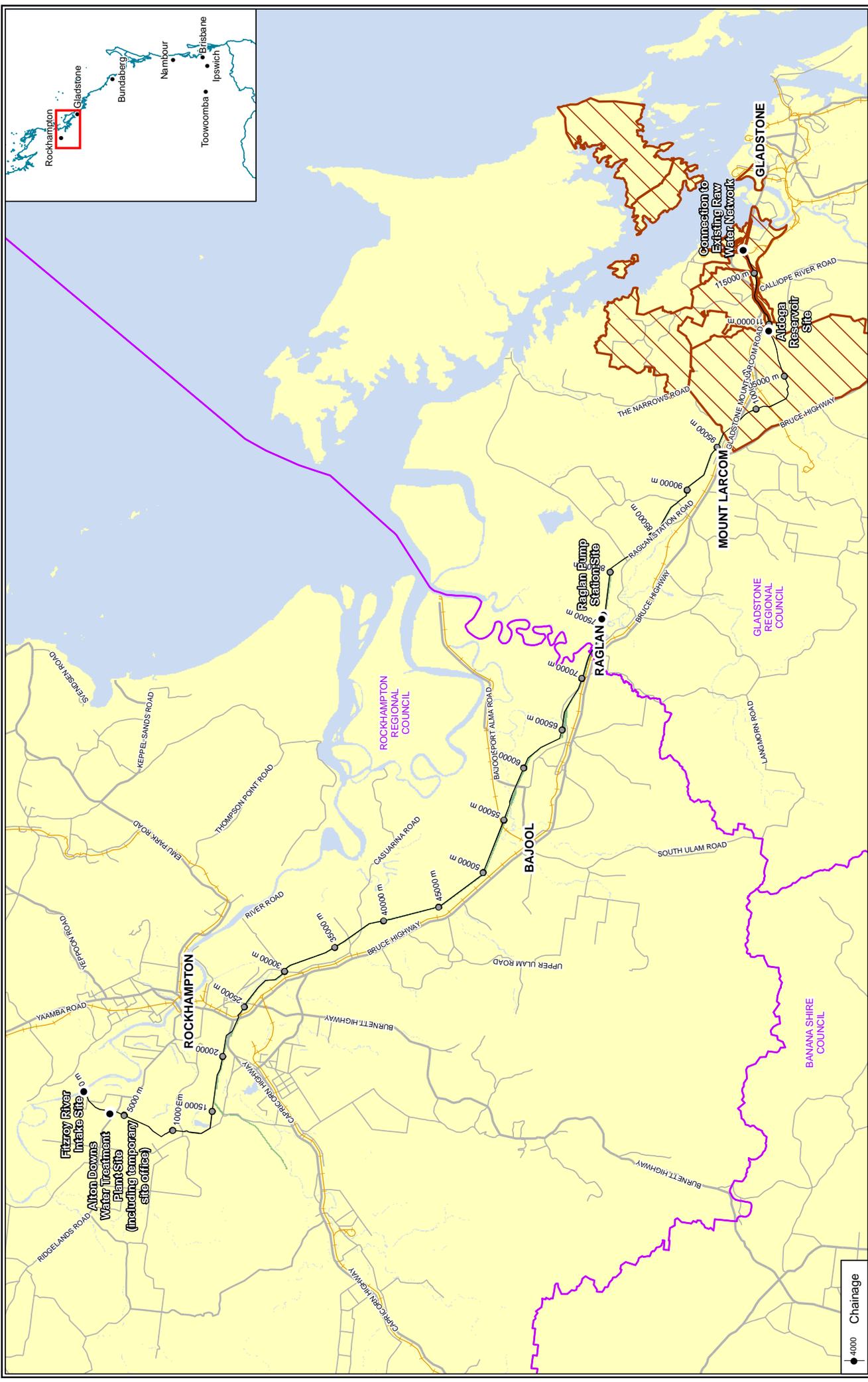
There are two tidal creeks in the project area which are Inkerman and Raglan Creeks. For both of these creeks, microtunnelling has been selected as the preferred crossing method to reduce the impact to tidal lands and to significant riparian vegetation (such as mangroves). Horrigan Creek, Bob's Creek and Gavial Creek will also be crossed by microtunnelling to avoid riparian vegetation and remnant vegetation. Mitigation measures will be in place to minimise any potential impacts to tidal lands or riparian vegetation from this method and will include:

- Placement of microtunnelling pits outside of the riparian vegetation zone
- Use of erosion and sediment control during construction
- Preparation of an Acid Sulfate Soil (ASS) Management Plan for construction
- Minimisation of clearing width through adjacent vegetation.

Construction Timing

Submission/s relates to: *construction timing in wetland areas and adjacent to Yellow Chat Habitat.*

In accordance with the requirements of the SGICSDA Development Scheme, GAWB has made a commitment that construction will only occur between May and September (outside Yellow Chat breeding season) where the corridor within the SGICSDA crosses a wetland or is adjacent to potential Yellow Chat breeding habitat. The location of these areas in the SGICSDA has been defined in consultation with the EPA.



● 4000 Chainage
 ● Project Infrastructure
 — The Right of Way
 — Railway Line
 — Principal Road
 — Secondary Road
 — Minor Road
 — LGA Boundary
 — SGICSDA
 — GSDA

Gladstone - Fitzroy Pipeline EIS
 Supplementary Report
Figure 1 - Locality Map (overview)
 Sheet 1 of 1



While every care is taken to ensure the accuracy of this data, the Gladstone Area Water Board (GAWB) makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the plan being inaccurate or incomplete in any way and for any reason. It should also be noted that final survey of the pipeline alignment and SGICSDA boundary are yet to occur and may result in changes to the alignments depicted here.

The EPA has suggested that the portion of the pipeline footprint that is within 1 km of RE 11.1.2 (this RE corresponds to the habitat type where the species has been observed to nest) should only be constructed between May and September. In practical terms this corresponds to an 18 km stretch of pipeline between the Port Alma Railway and Horrigan Creek and includes the following creek crossings:

- Inkerman Creek
- Twelve Mile Creek
- Horrigan Creek.

Wetlands within the project corridor and the SGICSDA where construction will only occur between the months of May and September include:

- Lagoon 2
- Gavial Creek and associated wetlands (Frogmore Lagoon)

In addition to these wetlands, it is noted that the Alton Downs pipeline route traverses other wetland areas that form part of the Yeppen Floodplain. The Alton Downs pipeline route was selected to avoid, as far as possible, the impacts to the wetlands of the Yeppen Floodplain. However the route traverses small areas on the edge of this floodplain that are mapped as wetland. Whilst these areas are not covered by the requirements of the SGICSDA Development Scheme, construction will occur in dry periods unless there is no feasible and practical alternative, to minimise the potential impacts to these areas.

Aquatic fauna

Submission/s relates to: *potential impact to aquatic fauna caused by the project.*

Discussions with the DPIF (now DEEDI) have indicated that trenching works must not impact on fish passage and that in-stream habitats must be restored on completion of the works. Creek crossings that are to be trenched are not expected to take more than a week to complete so the period of impact to fish passage will be short term. The detailed mitigation measures to comply with the requirements of a Waterways Barrier Permit will be determined when application is made to DEEDI (formerly Department of Primary Industries and Fisheries) prior to construction, and may include:

- Development and implementation of Special Area Plans for all waterway crossings
- Removal of all imported fill from the earth bund coffer dam from the creek at the conclusion of construction with the creek profile returned to pre-works conditions
- Conducting pre and post-works surveys of the creek to ensure the creek profile is restored.

To limit the potential for fish and crustaceans becoming trapped in the coffer dam during construction of the Fitzroy River intake the coffer dam will be constructed from the bank on one side of the dam. A crane will drive the piles, install the bracing and then fill with appropriate material. The crane will then travel along the dam building more sections until the entire dam is constructed. Effectively the dam remains 'open' until the final sheet pile is in place, so any fauna will be able to leave the dam until this point.

Once the coffer dam is completed the remaining water will be pumped back into the Fitzroy River. Water levels will be lowered slowly to enable any fauna trapped in the coffer dam to be removed by qualified wildlife handlers and placed back in the river. The pump will have appropriate screening to prevent fauna injuries during the pumping process.

Indigenous employment opportunities

Submission/s relates to: *Indigenous employment opportunities related to the project.*

As outlined in the EIS, the *Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects* only applies in certain indigenous communities and does not apply to the project. Despite this, GAWB seeks to take a proactive approach to engage local individuals, groups and organisations to better facilitate employment of indigenous peoples.

GAWB's internal human resources policies will be applied to the project. These policies will also apply to the construction contractor. The relevant policies include GAWB's:

- Anti-discrimination Policy, which secures the rights of employees to work in an environment free of intimidation and discrimination
- Equal Opportunity Employment Policy, which applies during selection and recruitment.

During the recruitment process for both the construction and operation phases of the project, GAWB and all contractors will advertise available positions via recruiting agencies and other media (e.g. newspapers), whilst also providing job information directly to Aboriginal community groups and organisations.

Native Title

Submission/s relates to: *the process for managing Native Title along the pipeline route.*

Discussions between GAWB and DIP are ongoing, however it is likely that where Native Title has not been extinguished the construction of the pipeline is likely to address Native Title under Section 24KA of the *Native Title Act 1993* (NT Act). It is noted that the pipeline passes through largely freehold tenure and it is likely that Native Title has been extinguished on some or all parcels of land.

Section 24KA applies to certain types of infrastructure, including water pipelines (as well as other water supply and reticulation facilities), which are operated for the public. The pipeline meets the necessary criteria required under this section of the NT Act. Any interested Native Title parties will be given the opportunity to comment on the pipeline and how it might impact Native Title interest. The non-extinguishment principle applies and any right that Native Title holders may have to compensation for the effect of the project on their Native Title rights is preserved under Section 24KA.

In the case of the intake location, it has been assumed that Native Title rights may still exist within the boundaries of the Fitzroy River. Native Title will be addressed at this site pursuant to Section 24HA of the NT Act. This section of the NT Act provides a mechanism for the authorisation of acts in relation to the 'management and regulation of water and air space'. It provides that interested Native Title parties will have the opportunity to comment on the proposed activity. Also, under Section 24HA the 'non extinguishment principle' applies. That is the grant of any permit authorising the intake pump does not extinguish Native Title rights but any inconsistent Native Title rights are suspended to the extent of inconsistency. Any right that Native Title holders may have to compensation for the effect of the project on their Native Title rights is preserved under Section 24HA. Native Title at the proposed Alton Downs WTP site has been extinguished through past land tenure grants.

Native Title at the proposed Raglan Pump Station and Reservoir site has been extinguished through past land tenure grants. Native Title rights with respect to the road access to the site are also extinguished through past land tenure grants on the majority of lots. Where this is not the case, the road may be constructed under Section 24KA – Public Infrastructure of the NT Act. Native Title at the proposed Aldoga Reservoir site has been extinguished through past land tenure grants.

Further review of historical records and tenure information for the pipeline route north of the SGICSDA has been undertaken since the EIS was released for public comment. This has confirmed that Native Title has been extinguished over all lots and roads in the proposed pipeline corridor north of the SGICSDA except for one lot. Native Title may well have been extinguished over this lot but there is currently insufficient evidence to confirm this. Further research is being undertaken to determine the status of Native Title on this lot so that the appropriate Native Title process can be identified.

Pipeline corridor access

Submission/s relates to: *access to the pipeline corridor during operation.*

Access to the pipeline corridor will occur via public roads or access tracks constructed from public roads to the corridor. GAWB will manage access tracks to the Alton Downs Easement whilst access to the SGICSDA and GSDA will be determined and managed by DIP. It is the intention that access to the SGICSDA and GSDA will be for the use of all the State Development Area (SDA) infrastructure corridor users. These access tracks would typically cross private land and negotiations with landowners will occur before any routes can be finalised. The majority of potential access tracks currently exist.

It is expected that access along the pipeline route will typically be within the pipeline corridor via an unformed track. It is understood this is consistent with DIP's proposed approach in the GSDA and SGICSDA. GAWB requires access ways that are accessible at all times to certain infrastructure such as check valves and isolation valves. In these cases 'all weather' access tracks will be constructed. Isolation valves will typically be installed every 5 km and will be installed at the inlet and outlets of all pump stations and storage reservoirs. Check valves are located near reservoirs and at the pump stations, additionally one check valve is to be installed before the high point of the pipeline between Raglan and Aldoga (approximately 15 km from Aldoga).

Impacts to the Capricorn Yellow Chat

Submission/s relates to: *impacts to the Capricorn Yellow Chat from changes to surface flows or groundwater impacts during construction.*

Further review has been undertaken since the EIS, regarding the potential for impacts to the Yellow Chat and its habitat from changes to surface flows and groundwater impacts during construction. A range of mitigation measures have been proposed. Due to the relatively short-term and localised nature of the impacts and with the proposed mitigation measures (including construction timing to avoid the Yellow Chat breeding season), changes to surface and groundwater conditions as a result of the project are expected to have negligible impacts to the marine plain wetlands that form habitat for the Yellow Chat.

The following possible offset options relating to the Yellow Chat were raised by DEWHA for GAWB's consideration and investigation during the assessment process. It was recommended that GAWB implement at least one of these options.

- Provision of financial contribution to Central Queensland University towards Yellow Chat research
- Undertake fencing at Twelve Mile Creek to exclude cattle from Yellow Chat breeding habitat
- Securing appropriate land at Inkerman or Twelve Mile Creeks for long-term conservation.

GAWB has committed to the first of the above three options as the offset option for the project. DEWHA has also indicated their preference for this option.

A Senior Research Officer from the Central Queensland University's Centre for Environmental Management has prepared a research proposal that will be funded by GAWB to the cost of approximately \$50,000. The objectives of the study are to:

- Contribute to the ecological knowledge base of this species
- Evaluate the extent to which the Yellow Chat is dependent on inundation of its habitat for breeding
- Determine the ecological drivers of saltmarsh habitat use by Yellow Chats.

Research will take place at a range of sites in the Fitzroy Delta with a primary focus on Twelve Mile Creek and Cheetham.

Acid sulfate soils

Submission/s relates to: *the management of acid sulfate soils during construction.*

The EIS's Planning EMP states that an ASS investigation will be undertaken prior to construction in accordance with *State Planning Policy 2/02 Planning and Managing Development Involving Acid Sulfate Soils* and that site-specific ASS Management Plans will be developed as a result of this investigation. This will include measures for the prevention and treatment of acid water runoff.

GAWB will submit the results of the ASS investigation and the Management Plan to DERM (formerly the Department of Natural Resources and Water) prior to works commencing.

Historical cultural heritage

Submission/s relates to: *the management and recording of Historical cultural heritage sites.*

In the event of an Historic cultural heritage find during construction, the Planning EMP states that works will cease in the area until the nature of the site can be assessed, recorded and or retrieved by a cultural heritage specialist and in consultation with DERM (formerly the EPA or the Department of Natural Resources and Water). This and other management strategies will be further developed in the Construction EMP.

As stated in the EIS's Planning EMP, a survey of the Woolwash – Frogmore Pipeline will be undertaken prior to construction to determine the nature and extent of subsurface archaeological material within the project corridor. For both the Woolwash – Frogmore Pipeline and Twelve Mile Road, a basic level of photographic recording, which captures the nature of the item and its context within the cultural environment and within the project area, will be undertaken at least three months prior to works commencing in the area. The information from the survey and heritage recording will be provided to DERM in the form of a cultural heritage technical report.

The '*Guideline - Archival Recording of Heritage Listed places*' is currently in draft form and due to be finalised in 2009. While the project will not impact any Heritage Listed places, the guideline will be referred to for guidance during salvage recording of the sites named above.



Small scale mapping of the Woolwash – Frogmore Pipeline and Twelve Mile Road, with the cultural heritage features shown relative to local topography and cadastral boundaries, has been provided in the Supplementary Report as requested in the EPA submission.

Wording of the Planning Environmental Management Plan

Submission/s relates to: *amendment of the wording of the Planning Environmental Management Plan (Planning Environmental Management Plan) in relation to ‘qualifiers’.*

In the majority of cases, the Planning EMP has been amended based on the EPA request to remove qualifiers such as ‘where possible’ and ‘where practicable’.

Water treatment plant

Submission/s relates to: *management and disposal of residue and stormwater from the water treatment plant.*

While not all details are yet known regarding the handling of residue from the Alton Downs WTP, additional information has been included in the Supplementary Report to address issues outlined in submissions (see below for a brief summary). As the project progresses, further details will become available. This will enable the information to be included in the Environmentally Relevant Activity application for the Alton Downs WTP. A Residue Management Plan will also be developed to detail the management measures to be put in place during operation.

Management of residue

At the Alton Downs WTP, the water treatment process removes suspended solids from the water using chemicals, which on dispersion form an aluminium hydroxide flocculent. At the end of the process, this produces a residue that consists of the aluminium hydroxide and other solids removed from the raw water, such as sediment and potentially algae. Alum residues have been shown to be non toxic and of negligible risk to stock and water resources. This position is supported by regulators including DERM.

The residue is dewatered using centrifuges to a consistency of 25 percent solids, and then conveyed to enclosed hoppers (silos) for short-term storage, ready for transport off site. Drainage from the site is transferred to a General Purpose Pump Station for recirculation to the head of the plant. A stormwater retention basin and residue trap basin are included in the design to prevent overflow of stormwater or residue to the surrounding environment. The design of the plant is based on a residue storage capacity of 400 tonnes, with an emergency residue stockpile area of 2,000 tonnes.

The plant will be operated to prevent anaerobic conditions developing in the water treatment process, minimising the potential for odour to be generated. As described in the Planning EMP (Appendix F), measures will be in place to manage the storage, handling and transport of the water treatment plant residue and to address any potential odour issues.

The Supplementary Report describes the residue handling process at the water treatment plant in more detail.

Management of stormwater

The following aspects have been considered in the development of the above stormwater strategy for the site:

- The retention of stormwater is a flood mitigation activity
- The stormwater retention basin ensures that stormwater runoff from the developed site will not be more than it is in its pre-developed state
- Treatment and transmission of the stormwater from the Alton Downs WTP site is a more energy efficient means to deliver water to Gladstone than withdrawing the equivalent quantity from the Fitzroy River at Laurel Bank
- An alternative discharge of the pumped water from the stormwater retention basin to the natural ground south of the Alton Downs WTP can be provided to maintain normal runoff conditions if required by DERM.

Impacts to private land in the Alton Downs easement

Submission/s relates to: *impacts to private land in the Alton Downs easement from the pipeline route, Fitzroy River intake or Alton Downs water treatment plant.*

In June 2007, GAWB began consulting with landowners in the Alton Downs area regarding the proposal for the Gladstone-Fitzroy Pipeline and the need to determine a preferred route for the pipeline. Since this time, GAWB has continued to discuss the pipeline route with landowners to seek comment and keep them up to date with the route options being considered. During this time GAWB has written to adjoining landowners to inform them of project investigations and activities that were taking place in the local area.

A number of issues in the Alton Downs area were raised by private submitters. These issues have been addressed by the Supplementary Report and include:

- The route identification and selection process
- Multiple easements in the Alton Downs area
- Impact on existing land uses
- Noise from trucks during construction and operation
- Dust caused by construction
- Construction camps and pipe storage areas
- Rehabilitation of the project area post construction
- Soil waste
- Water allocations, funding for weirs and desalination options
- The location and area required for the Alton Downs WTP
- The public consultation process
- WTP residue and noise
- Impact on aquatic fauna at the intake and pump station
- Property value.

For more detail see the Supplementary Report.

Emergency services

Submission/s relates to: *emergency services role in the project.*

It is noted that the Department of Emergency Services is satisfied that issues within the Department's jurisdiction are not adversely affected by the project. The role of the emergency services during construction and operation has been recognised in the risk assessment for the project. The safety of public, personnel and equipment requires a close relationship to be established with all emergency service operators. The regional offices of Queensland Fire and Rescue Service, Queensland Ambulance Service and Emergency Management Queensland will be consulted prior to and during construction.

GAWB is also liaising with the Alton Downs Rural Fire Brigade and is developing protocols to allow access to water in the event of an emergency in the local community.

Amendments to text where errors have been identified

Submission/s relates to: *changes to text in the EIS to correct errors.*

The following sections of the EIS have been amended to correct text:

- **Section 1.9.4.2** – Text updated to state that the GSDA Development Scheme was updated in July 2008 and SGICSDA Development Scheme was finalised in August 2008.
- **Section 8.3** – the GSDA was amended in March 2007, not April 2007 as stated in the EIS. The GSDA comprises 28,000 ha, not 21,000 ha as stated in the EIS.
- **Section 13.5.1.2** – The EIS incorrectly identified the Central Line as the Blackwater Line, which although not crossed by the pipeline route, is within the project area. The Port Alma Branch Line is currently disused and was not identified in the EIS. The Fisherman's Landing Branch line was also not referred to in the EIS.
- All references in the EIS regarding the Stanwell Gladstone-Infrastructure Corridor should refer to it as the Stanwell Gladstone-Infrastructure Corridor State Development Area (SGICSDA).
- All references to the *Fisheries Regulation 1995* should refer to the *Fisheries Regulation 2008*.
- All references to the *Environmental Protection (Air) Policy 1997* should refer to the *Environmental Protection (Air) Policy 2008*.
- Appendix E5 of the EIS had formatting errors. The revised version has not been included with the Supplementary Report but is available on the project website: <http://gladstone-fitzroypipeline.com.au/>.
- Other text changes have been made in the EIS to clarify points as described in the Supplementary Report.



Changes to the EIS

A number of changes have been made to the EIS based on the availability of additional information or changes to relevant legislation. These changes are discussed in this section.

Changes to legislation

On 1 January 2009, the *Environmental Protection Regulation 1998* (Qld) was superseded by the 2008 version. Subsequently some information in the EIS is now outdated and changes are summarised below.

Regulated Waste

The EIS previously stated that the residue from the Alton Downs WTP was not considered a regulated waste due to an EPA operational policy. However, under the recently released *Environmental Protection Regulation 2008* (Qld), Schedule 7, clause 54 states that 'sludge and residues from water treatment plants are considered a limited regulated waste. It is not considered a 'trackable waste' under Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* (Qld).

As a result of this new legislation, the transport of the residue is considered an Environmentally Relevant Activities (ERA 57) and requires approval from DERM.

This is in addition to ERA 64 approval that is required for water treatment (previously ERA 16).

Environmental Protection (Air) Policy 2008 (Qld)

This policy was also recently re-released as the *Environmental Protection (Air) Policy 2008*. As such, amendments to the EIS text are provided in the Supplementary Report to ensure consistency with the new version of the policy.

Environmental Protection (Noise) Policy 2008 (Qld)

Prescribed noise objectives in Queensland are outlined in the *Environment Protection (Noise) Policy 2008* and these have been used in the assessment of the project's noise impacts. The relevant changes from the *Environment Protection (Noise) Policy 1997* to the 2008 version include a reduction in the outdoor daytime and evening acoustic quality noise objective.

The EIS Chapter 12, Noise and Vibration, has been reviewed for changes to the environmental protection legislation, which, amongst other things, addresses gradual increase in cumulative background noise that can occur with the successive introduction of new 'noise generating' industries to an area and imposes additional requirements for protecting the amenity of existing property owners. The relevant changes to the noise chapter are included in the Supplementary Report.

Additional information

Since the release of the EIS, GAWB has continued design work on the project and this has enabled further information to be included in the Supplementary Report for particular issues such as the accommodation arrangements, noise and truck movements, creek crossing methodologies and residue and stormwater management at the Alton Downs WTP. GAWB has also further progressed consultation with landowners to acquire an easement in the Alton Downs area. This has resulted in minor changes to the Alton Downs alignment.

Since the release of the EIS, GAWB has met with DIP and DEWHA and has consulted with the EPA and other agencies to particularly address issues as follows:

- Impacts to the Yellow Chat from changes to surface and groundwater flows
- Estimates of residue at the Alton Downs WTP and the processes for management of residue and stormwater at the plant and for disposal of the residue
- Various matters within the SGICSDA including Native Title, vegetation clearing, construction timing and access.

Changes to design

A number of changes to the design of the project have occurred as more information became available regarding the project.

Revision of recommended creek crossing methods for major creeks

The following creek crossing methods have been recommended in the EIS:

Creek	Proposed crossing method
Lion Creek	Open trenching (if the construction is carried out in the dry)
Gavial Creek	Microtunnelling (originally open trenching) - Change due to the presence of remnant vegetation at the creek crossing and that the creek was dry at the time of sampling and have now been recognised as semi-permanent pools.
Inkerman Creek	Microtunnelling
Twelve Mile Creek	Open trenching
Marble Creek	Open trenching
Horrigan Creek	Microtunnelling
Raglan Creek	Microtunnelling
Larcom Creek	Open Trenching
Bobs Creek	Microtunnelling (new inclusion to the EIS)

Revision of road and rail crossings

In addition to the major road crossings listed in the EIS, the Mt Larcom Gladstone Road and Calliope River Targinie Road intersection will be thrust bored.

In addition to the list of road and rail crossings listed in the EIS, Bajool Port Alma Road and Darts Creek Road will be thrust bored.

Changes to the pipeline alignment

There have been four minor pipeline alignment modifications since the EIS was published. The first two of these changes have occurred in the Alton Downs area because landowners (having received offers from GAWB to acquire an easement) have raised particular concerns about assets on their land that would be adversely affected by the proposed route. The changes are aimed at resolving these issues by realignment of the route rather than by compensation.

The first realignment is designed to avoid a dam and outbuilding on Lot 1 RP612576 and to avoid an orchard on Lot 74 PL641. This realignment has been deviated to the east and now affects three landowners (Lot 2 RP616059, Lot 1 RP612576 and Lot 74 PL641). The revised route is more direct than the original alignment.

The second realignment is proposed to adjust the location of the bend in the route to the west. The purpose of the realignment is to avoid a stand of trees on Lot 101 LN351. The change also improves the gully crossing point. The realignment means that Lot 131 SP112056 (which is owned by the same landowner as Lot 101LN351) is now affected by the corridor alignment.

The third alignment change is a result of a change to the alignment of the SGICSDA and occurs approximately 800 m to the south-east of Darts Creek Road. The new alignment now borders the Powerlink easement for approximately 800 m before deviating south-east to rejoin the previous SGICSDA alignment.

The fourth change has been made to the alignment near the Fitzroy River intake as a result of discussions with SunWater.

Revised estimates of residue production at the water treatment plant

Estimates of average residue production at the Alton Downs WTP have been revised to an average of 133 tonnes per day since the release of the EIS, based on a consistency of 25 percent dry solids. The EIS reported an average residue production of approximately 118 tonnes per day based on a consistency of 30 percent dry solids. This change is due to the operational philosophy for the centrifuges at the Alton Downs WTP.

This increase in estimated average residue production represents an increase of one truck per day (therefore two trips) to transport the residue from the site. The total number of heavy vehicle trips per day during operation of the Alton Downs WTP would therefore be 14, not 12 as originally described in Chapter 13 of the EIS, Transport and Access Arrangements. The impact to State Controlled Roads is still less than one percent and therefore assessed as a negligible impact.



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