

1 Introduction



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## 1.1 Project Proponents

The Queensland Coke and Power Plant Project (the Project) is a venture involving two proponents, Queensland Coke and Energy Pty Ltd (QCE) and Stanwell Corporation Limited (SCL). On the ground, QCE will be responsible for the Coke Plant construction and operation whilst SCL will be responsible for the Power Plant construction and operation. QCE is also responsible for managing the preparation of the EIS on behalf of the proponents.

QCE is wholly owned by Macarthur Coal Limited (MCC). MCC is a Queensland based coal mining company listed on the Australian Stock Exchange with a market capitalisation of over \$600 million. The company presently operates two coal mines west of Mackay in Central Queensland, Coppabella and Moorvale. Annual production is approximately 6.2 million tonnes of low volatile metallurgical coal (for pulverised injection into the blast furnace (PCI coal)) and thermal coal. The PCI coal is crushed and directly injected into the blast furnace to provide energy to the steel making process. MCC holds 73.3% of the Coppabella and Moorvale operations with the balance held by a number of Japanese and Chinese joint venture partners.

MCC is committed to effective environmental management and has a proven track record of profitability. The company invests significant funds in the exploration of extensive tenement holdings in the Bowen Basin of Central Queensland and intends to grow organically through the development of new coal mines in order to meet the growing global demands for energy and metallurgical coals. MCC proposes to supply a portion of the coal for the Project.

SCL is a Queensland Government owned company established under the *Government Owned Corporations Act (1993)* (Qld) and is registered under the *Corporations Act 2001* (Cth). SCL is one of Australia's leading generators (1,643 MW) of environmentally responsible electricity with an extensive portfolio of coal-fired, gas-fired, wind, hydro, and bio-energy power generation facilities.

SCL is committed to providing low cost, reliable electricity and to leading the market in asset and environmental performance, while pursuing a balanced portfolio that gains strength from investments in diverse energy technologies at sites nationwide. It has generating assets and projects located in Queensland, New South Wales, Victoria, South Australia and Western Australia. The most significant presence is in Queensland where SCL contributes nearly 20% of the electricity generated in the State. SCL employs more than 300 people nationally. As at 30 June 2005, SCL had total assets of \$1,653 million and total liabilities of \$637 million.

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The contact details for the two proponents are:

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The proponents have commissioned URS Australia Pty Ltd to prepare this Environmental Impact Statement (EIS) and the Phillips Group to assist in the communication and consultation process. Contact details are:

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The Phillips Group Pty Ltd  
549 Queen Street  
Brisbane Qld 4000  
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Fax: (07) 3230 5010

## 1.2 Project Description

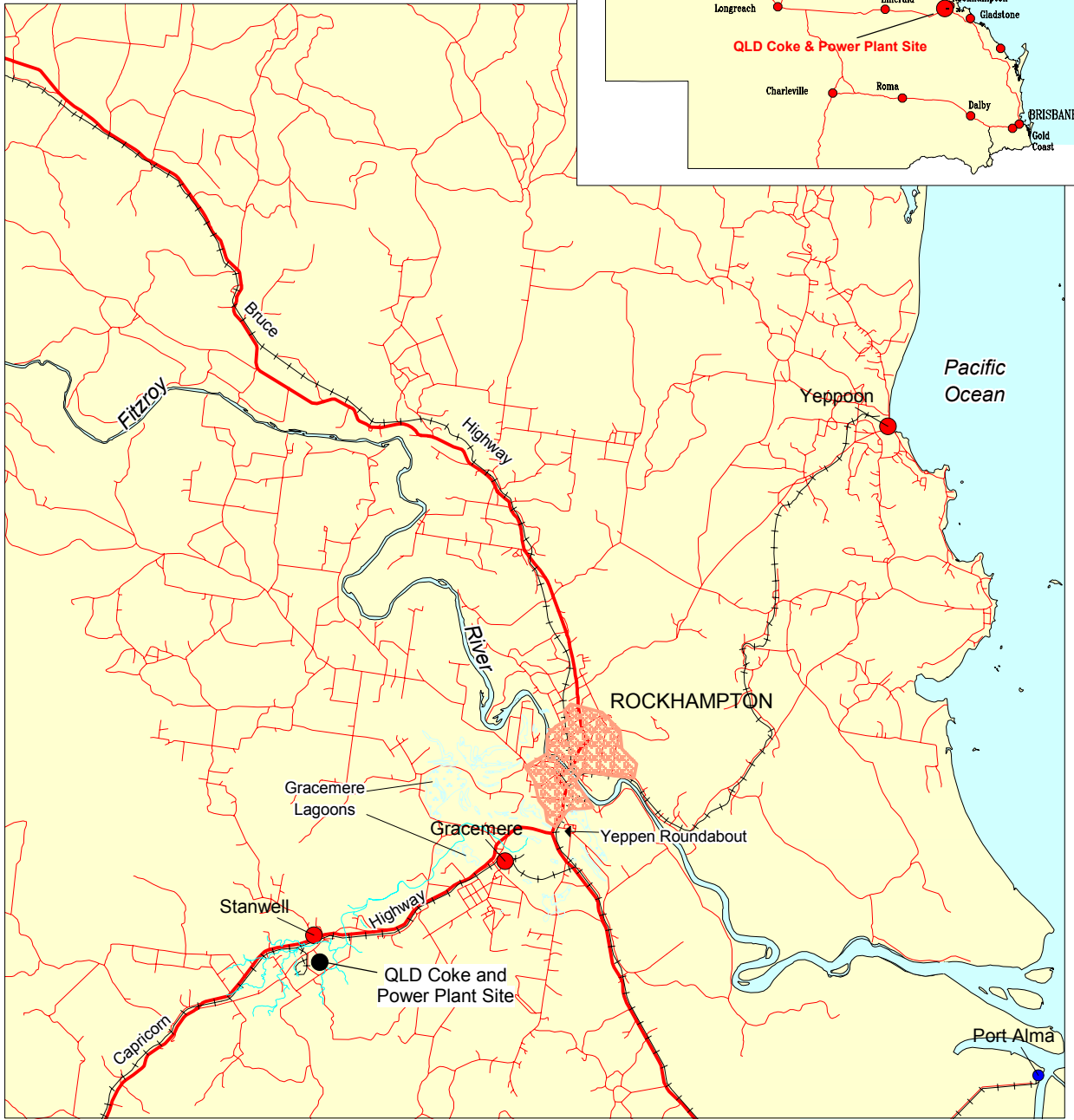
### 1.2.1 Key Project Elements

QCE and SCL are proposing to construct and operate a Coke Plant and Power Plant respectively, within the Stanwell Energy Park (SEP), located 25 km south-west of Rockhampton in Central Queensland. The SEP is located adjacent to the existing Stanwell Power Station (SPS) (Figures 1.1 and 1.2).

The Coke Plant, operated by QCE, would employ modern heat recovery coke making technology to produce metallurgical lump coke for export to steel makers throughout the world, using coal sourced from Queensland mines. As outlined in detail in Section 2 - Project Description, the technology uses heat generated from the combustion of gases contained within the coal to convert coal into coke. The Coke Plant is proposed to be constructed to an ultimate capacity of up to 3.2 million tonnes per annum (Mtpa). Initially, a two-stage construction process (of 1.6 Mtpa per stage) was anticipated, however, an initial stage of 800,000 tpa is currently being considered. For the purpose of the EIS, a two-stage process, each of 1.6 Mtpa, has been assessed as this represents a maximum impact scenario case with respect to potential environmental impacts arising from a more intensive construction period. At the 3.2 Mtpa level the Coke Plant would consume approximately 5 Mtpa (wet) of Bowen Basin coking coal. It is expected that new coking coal production capacity would be developed to meet the long-term requirements of the Project.

Coal for the Coke Plant will be railed from the Bowen Basin coal fields to the project site using the existing Queensland Rail (QR) railway system and the Stanwell Power Station (SPS) rail loop and coal unloading system, which is connected to the main Blackwater Rail System by a dedicated spur line. The

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**QUEENSLAND COKE  
AND POWER PLANT PROJECT  
ENVIRONMENTAL IMPACT STATEMENT**

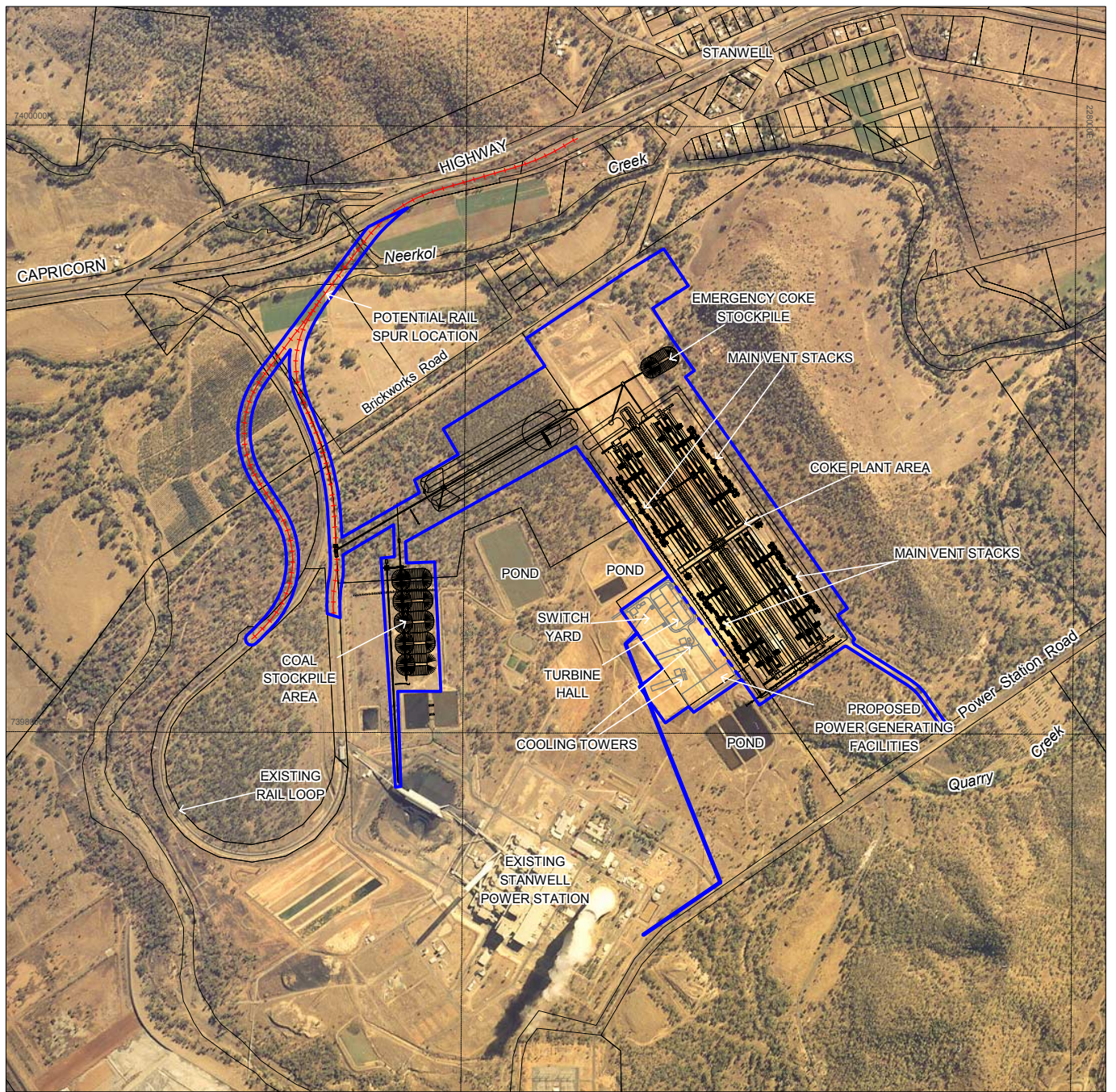
**REGIONAL LOCATION PLAN**



Drawn: VH	Approved: JMCD	Date: 06-01-06
Job No: 42625626	File No: 42625626-g-001.wor	

Figure: 1.1

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**LEGEND**

- Proposed Development Footprint
- Proposed Coke and Power Plant
- Cadastral Boundaries
- - - - - Proposed Railway



0 250m 500m

Scale 1:20 000 (A4)  
Horizontal Datum GDA94 Zone 56

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**QUEENSLAND COKE  
AND POWER PLANT PROJECT  
ENVIRONMENTAL IMPACT STATEMENT**

**AERIAL PHOTO SHOWING  
PROJECT LAYOUT**



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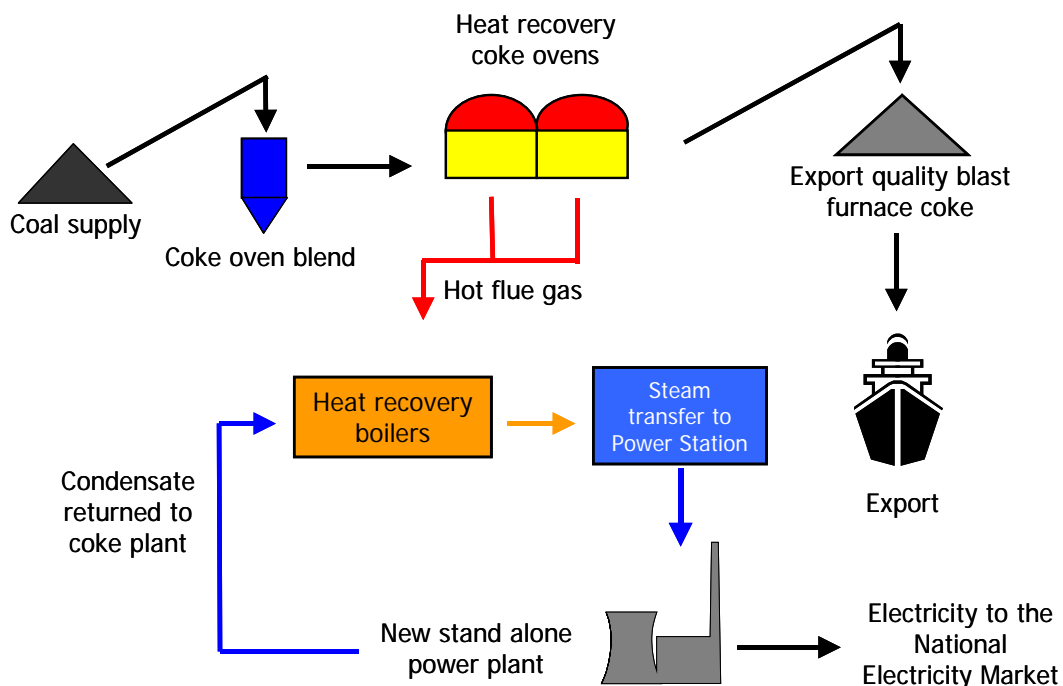
spur line is planned to be approximately 1 km long. Some modifications will be made to the unloading system to accommodate the Coke Plant supply.

The coke produced by the Coke Plant would be transported by rail to Fisherman's Landing at the Port of Gladstone for export to markets in Asia, Europe and the Americas. As the SPS loop is currently designed only to accommodate loaded trains entering the loop from the west and empty trains returning in the same direction, the Project will require the modification of the rail loop to enable trains to leave the SPS site turning east to the port. As indicated on Figure 1.2, this new eastern angle connection from the SPS rail loop to the central Blackwater line will need to be constructed. This connection will allow the transportation of product coke from the loading facility on the SPS rail loop to the Fisherman's Landing unloading facility.

SCL proposes to construct a new Power Plant adjacent to the Coke Plant to generate electricity for the National Electricity Market using steam produced from waste heat from the Coke Plant. The Power Plant could generate up to 370 MW of electricity under the 3.2 Mtpa coke production scenario. The timing of the construction of the Power Plant will be determined by the expected availability of waste heat to enable the efficient operation of the Power Plant.

The proposed layout of the Coke Plant and the Power Plant and a conceptual representation of the Project are shown on Figures 1.2 and 1.3 respectively. An overview of the project processes is presented in Figure 1.4.

**Figure 1.4: Overview of the Project**





QUEENSLAND COKE  
AND POWER PLANT PROJECT  
ENVIRONMENTAL IMPACT STATEMENT

CONCEPTUAL REPRESENTATION  
OF COKE AND POWER PLANT PROJECT



Drawn: VH

Approved: JMcD

Date: 06-01-06

Job No.: 42625626

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The Project provides an opportunity to value-add to the Queensland export coal industry by producing a high value coke product as well as environmentally smart electricity. An added benefit is the ability to utilise non-traditional coals for coke making, thereby further enhancing the value of Queensland's coal resources. Detailed infrastructure requirements for individual aspects of the Project are provided in Section 2 - Project Description.

### 1.2.2 Project Studies

Numerous studies and surveys have been undertaken in developing the Project and preparing this EIS, including baseline studies and investigations previously undertaken for the project area. Where applicable, reference was also had to the Australian Magnesium Corporation (AMC) project studies (Dames & Moore, 1999). Local data collected for the SPS relevant to the Project was provided by SCL. The studies and investigations conducted for this Project include:

- Pre-feasibility study (Barlow Jonker, 2004);
- Feasibility study (ongoing);
- EIS studies to assess potential impacts of the Project, comprising: air quality; cultural heritage; ecology (flora, fauna and aquatic biology); greenhouse gases; noise; health and safety; socio-economic; soils, geology and topography; surface water and groundwater; traffic; and visual.

The study/survey methodology and results are described in more detail and referenced in the relevant sections of this EIS dealing with each environmental value identified.

## 1.3 Project Objectives, Rational and Alternatives

### 1.3.1 The Process

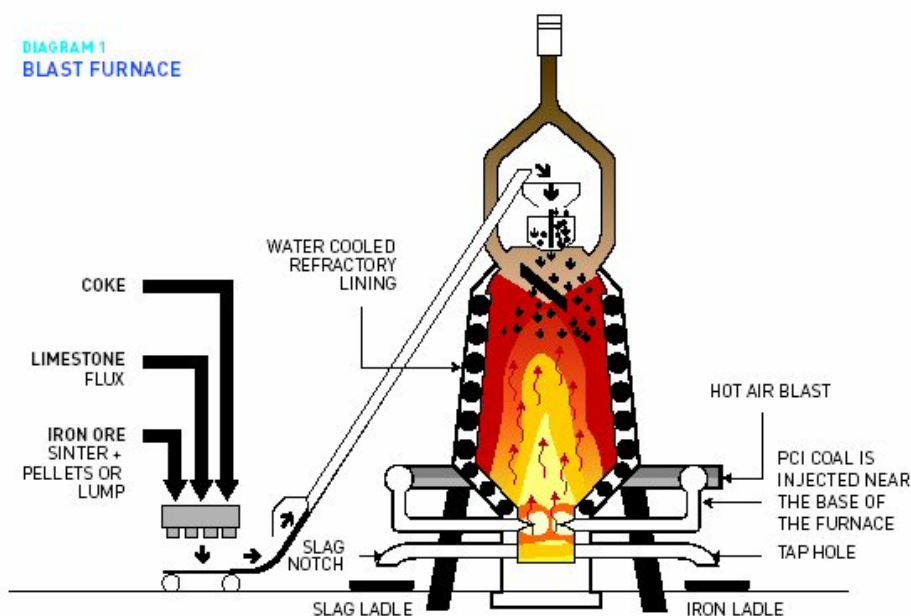
The process of making metallurgical coke involves the concentration of carbon from coal. Coke is an essential ingredient for steel making. The hard lumps of concentrated carbon (coke) have sufficient strength to withstand the tough environment of a blast furnace (Figure 1.5). The process is referred to as "carbonisation" and involves the alteration of the physical form of the carbon by the application of heat that drives off the volatile components of coal. Coal is essentially composed of carbon, volatile matter, water and minerals and after the application of heat, a concentration of carbon and minerals are left. Depending on the volatile matter content of the coal, one tonne of coal will produce between 700 kg and 750 kg of coke.

### 1.3.2 The Technology

#### ***By-Product Coke Ovens***

Typically, metallurgical coke production facilities are integrated into steel production facilities. In addition to producing coke for the blast furnace, the ovens are designed to capture the volatile components driven off during the carbonisation process, which are then separated into a range of by-products for use in the steel plant or sold to various processing industries located outside the steel mill. These ovens are generally referred to as “by-product” coke ovens or vertical slot ovens. In Australia by-product ovens are operated by Bluescope Steel at the Port Kembla Steel Works and OneSteel at the Whyalla Steel Works.

**Figure 1.5 Diagram of a Blast Furnace**



#### ***Heat Recovery Coke Ovens***

The Project will utilise an alternative coke making technology called “heat recovery” coke making. Heat recovery coke oven technology has evolved from a process of “non-recovery” coke making which combusts the volatile components produced during carbonisation. The combustion takes place in the top of the oven chamber and the resultant hot gas is captured for heating of the ovens. In the case of heat recovery ovens, surplus hot gas is piped to heat recovery steam generators (also called heat recovery boilers) that supply steam for electricity generation.

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The objective with both types of coke oven technology (heat recovery and by-product) is to convert coal into coke without combustion of the carbon, unlike a coal-fired power station that generates heat and steam by the complete combustion of the coal (except for the minerals).

The basic difference between heat recovery coke making and by-product coke making is that in by-product ovens the heat input into the coal charge is provided by indirect (external) heat transfer through the oven walls from an independent heating system. As such, coal is carbonised in the absence of air and a positive internal pressure environment is created. In order for the heat to transfer from the external source through the coal charge, the shape of the oven is generally tall and narrow (slot oven).

In the heat recovery process, heat input results from the complete combustion of the volatile components of the coal within, and at the top of, the oven chamber generated during carbonisation and a negative pressure is created. The negative pressure results in significantly reduced emission levels compared with by-product ovens and the design requirements for the ovens are simpler, cheaper and easier to maintain. The most effective oven shape for this process is a “bee hive shape” as shown in Plate 1.1.

**Plate 1.1 Example of Bee Hive Shaped Coke Ovens under Construction**



The key benefits of the heat recovery coke ovens proposed to be constructed at Stanwell are:

- A significantly reduced environmental impact compared with conventional coke production, due to the negative pressure environment in the oven chamber and the combustion of the volatile components of the coal;

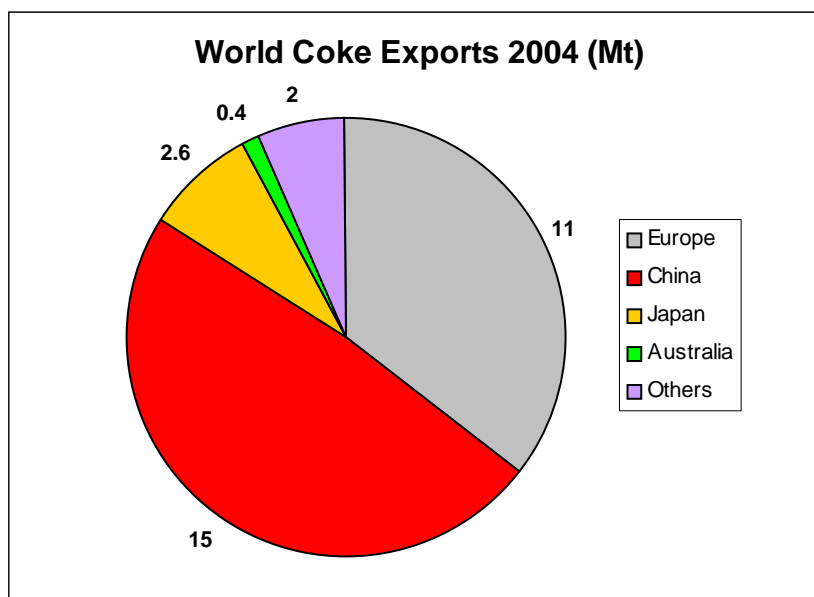
- The ability to utilise surplus heat for the generation of electricity with no additional greenhouse gas emissions;
- Lower capital cost compared with conventional by-product ovens;
- Relatively simple, proven and reliable technology; and
- The ability to produce strong coke from a wide range of coal types, including coals that would not normally be used in conventional by-product style coke making.

Non-recovery coke ovens have been operating in Australia since the early 1900s, with the Illawarra Coke Company owning and operating the Coal Cliff and Corrimal Coke Works on the south coast of NSW and Xstrata Coal operating the Bowen Coke Works in Queensland.

### 1.3.3 Project Rationale

A number of steel producers around the world import metallurgical coke to cover production shortages from their own coke facilities or to avoid having to build their own additional or new coke making facilities. As coke ovens age and the cost of replacing integrated by-product ovens increases, steel producers are now considering coke imports as an alternative. Historically, China, Poland and Japan have dominated the coke export trade, exporting around 20 Mtpa which comprises 67% of the total coke trade of approximately 30 Mtpa (Figure 1.6). Generally, steel producers are reluctant to rely heavily on coke imports due to supply and quality risks.

**Figure 1.6 World Coke Exports in 2004**



China has dominated the market historically (around 15 Mtpa of exports), however, the current boom in Chinese domestic steel demand and the resultant surge in demand for raw materials, including coking

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coal, has led to uncertainty concerning Chinese long term supply reliability. In addition, there are continuing efforts by the Chinese Government to close down the old inefficient and polluting village based coke industry.

As the majority of the world production of coke is produced in integrated steel works using conventional by-product type manufacturing processes, the Project will potentially replace inefficient coke making capacity and therefore contribute to an improved global environment, as outlined below.

Australia is currently a relatively insignificant participant in the world coke trade with exports of less than 0.5 Mtpa. On the other hand, Australia is the largest exporter of coking coal in the world (116 Mtpa), with 97 Mtpa exported from Queensland in 2004. The Project provides an opportunity for downstream processing of the coking coal in an environmentally smart way with the associated provision of employment and revenue benefits for Queensland.

It is proposed that the coke will be sold under long-term contracts. A number of steel producers in Asia, the Americas and Europe have formally expressed interest in entering into “take or pay” contracts for initial 10-year terms as an alternative to constructing their own coke making capacity or relying on potentially unreliable spot purchases of Chinese coke to meet future needs.

The supply of coke from Australia offers security of supply from a politically stable country with abundant coking coal resources and high environmental standards. In addition, there is the added advantage that the coke making technology proposed by QCE will enable the use of weaker or non-traditional coking coals, thereby increasing resource security overall. There are also logistical advantages for the buyer with fewer tonnes of coke being required relative to coal.

### **1.3.4 Project Status and Staging**

Over the past two to three years, QCE and SCL have jointly investigated the feasibility of the Project. In October 2004, the proponents completed initial feasibility studies for the Project and selected the project site and export port. At the same time, QCE undertook an intensive market survey and has secured a number of “Letters of Intent” from prospective long-term coke buyers.

To date QCE has received “Letters of Intent” for the supply of 2.1 Mtpa pf coke from customers in Asia and South America. A commitment to supply an additional 1.1 Mt is under negotiation. In addition, QCE commenced a review of potential coal supply sources and is in discussion with candidates for the supply of the coke making technology. SCL has conducted preliminary Power Plant design and has commenced detailed design and assessment of the Power Plant. QCE is satisfied that there is sufficient market interest and a detailed feasibility study is being undertaken. QCE’s intention is to complete the feasibility study and EIS by early 2006 with a view to making a decision to proceed with construction also in early 2006. If this can be achieved coke production could commence as early as May 2008. Once operating, the Project is expected to have a life of at least 40 years.

The Project is currently undergoing an environmental assessment processes under the Queensland *State Development and Public Works Organisation Act 1971* (SDPWO Act) (Section 1.4.1).

The anticipated timescale required for the implementation of the Coke Plant is shown in Table 1.1.

**Table 1.1 Anticipated Timescale for Implementation of the Coke Plant**

Element	Timing
Technology Selection	July 2005
Environmental Impact Statement	January 2006
Detailed Feasibility Study	March 2006
Final Project Approvals	June 2006
First Coke (Stage 1)	May 2008
Full Coke Production (Stage 1)	August 2008
Stage 2 (if considered feasible)	January-June 2009

Optimal heat supply from the Coke Plant for the efficient operation of the associated Power Plant will be achieved when the Coke Plant is at full Stage 2 production. Consequently, construction of the Power Plant is likely to coincide with Stage 2 construction of the Coke Plant. However, further consideration of detailed design, economic and supply scenarios may result in the Power Plant being constructed and commissioned earlier than Stage 2 of the Coke Plant.

The successful development of the Project is dependent upon several factors, including successful negotiations on support infrastructure for transport (rail, road and shipping), energy, water supply, telecommunications, and workforce accommodation and support infrastructure. These are discussed in detail in Section 2 - Project Description.

### 1.3.5 Policies and Regulatory Frameworks

The Project supports the implementation of key State and Local Government policies and strategies. The Project will also support community based development initiatives in the Rockhampton and Gladstone communities were relevant. The relevant policies and strategies are listed below:

- Key Priorities of the Queensland Government including “managing urban growth and building Queensland’s regions” (specifically regional jobs creation and building on the strengths of Queensland’s diverse regions) and “growing a diverse economy and creating jobs” (State of Queensland (Department of the Premier and Cabinet), 2005);
- Queensland Energy Policy: A Cleaner Energy Strategy (Department of Energy, 2000);
- Smart State Strategy (State of Queensland (Department of the Premier and Cabinet), 2005a);
- Export Solutions - Queensland Government’s Trade Strategy (Department of State Development, Trade and Innovation 2005);
- The Local Industry Policy - A Fair Go for Local Industry (Department of State Development 1999);

- 
- The Draft Indigenous Economic Development and Participation Strategy (IEDPS) (Department of State Development, Trade and Innovation 2005a);
  - The Central Queensland Training and Employment Strategy: A Smart State Initiative (Department of Employment and Training, 2002); and
  - Community based economic development initiatives of Rockhampton Regional Development Ltd and the Gladstone Area Promotion and Development Ltd.

### 1.3.6 Project Benefits

#### ***Social***

Initial estimates suggest that the Project will create direct employment for up to 1,650 persons at the peak of the construction phase. Once full production is reached approximately 145 long-term operational phase jobs will be created. It is estimated that approximately 12 jobs will be located at the Fisherman's Landing port facility in Gladstone. In addition to the direct employment impact, the Project is envisaged to significantly boost indirect employment and value-added output throughout the regional economy. Using Queensland Treasury's Office of Economic and Statistical Research (OESR) Input-Output Model for the Fitzroy Statistical Division, it is estimated that approximately 3,000 additional full-time equivalent jobs may be generated throughout other sectors in the regional economy. A full analysis of the social environment is provided in Section 12 – Social Environment.

#### ***Economic***

The Project is estimated to generate an additional \$480 million in value-added activities in the Fitzroy regional economy. In addition, the supply of coal is expected to generate additional economic activity in the Bowen Basin. The direct economic impacts of the project construction stage at the local, regional and state level will be large and positive due to the large capital expenditure involved (\$1.77 billion), the number of construction jobs to be created, the length of the construction period and the demand for supplies and services from local businesses. The direct economic impacts of the project operating stage at the local, regional and state level will also be large and positive, due to the level of annual revenue involved, the level of annual operating expenditure, the number of operating jobs created and the payment of taxes, dividends and profits. Detailed economic modelling for the Project has been conducted with the outcomes provided in Section 13 - Economic Environment.

#### ***Environmental***

In the heat recovery coke making process of converting coal to coke through the carbonisation process outlined above, the carbon in the coal is concentrated in the coke by heating. The carbon in the coal is not combusted in the coke making process, thereby resulting in very little carbon loss to the environment.

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The coke produced by the Project will replace coke manufactured by older and less environmentally friendly by-product coke ovens operating around the world. This Project will therefore make a positive net contribution to the reduction of global pollution.

The Coke Plant will burn gases driven off from the coal to further heat the coal to form the coke product. The excess heat produced by the combustion of these gases will also be used to produce electricity. This “smart” generation of power will assist in the reduction of greenhouse gas emissions as it generates electricity using excess heat produced from the combustion of liberated gases in the coke ovens, that would otherwise be wasted. The generation of electricity from gas, with little or no combustion of coal, produces electricity with a greenhouse gas intensity considerably better than modern coal fired power stations.

The use of coal gases as a fuel in the coke production process, and for the production of heat for electricity generation, may assist the diversification of the State’s energy mix. The proponents believe it will facilitate the greater use of gas and renewables in energy production.

The proposed use of recycled waste water supports the Government’s “smarter” use of the finite State resources strategy. Studies will pursue the use of waste water (blowdown water) from the existing SPS and any new generation unit associated with the Project as quenching water in the coke production process. The use of such water may significantly reduce the Project’s need to draw raw water from the Fitzroy River. The potential ability to use SPS waste water streams, thereby significantly reducing water demand, was a significant issue in selecting the SEP as the project location.

Coke and coal fines may be recycled back into the coke oven charge and/or used in the SPS process. The concept of briquetting the fines to produce an alternate value-added product will also be investigated.

### 1.3.7 Project Alternatives

#### ***Technological Alternative***

Historically, coke plants have been constructed on one of two main principles:

- The recovery of semi-combusted waste gases for on selling of by-products (termed recovery or by-product coke ovens); or
- The complete combustion of waste gases with no generation of by-products (termed non-recovery coke ovens), with or without heat recovery.

For non-recovery coke ovens, during the heat recovery process the extra heat results from the complete combustion of the raw gas generated during coal heating (carbonisation) and a negative pressure is created. The negative pressure results in significantly reduced emission levels and the design requirements for the ovens are simpler, cheaper and easier to maintain compared with by-product ovens.



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The technological alternative to the Project is a stand-alone coke plant without waste heat recovery resulting in heat being vented to the atmosphere. This alternative is not socially or environmentally responsible as the waste energy source in the form of heat is not utilised.. Therefore, the proposal to construct and operate a combined coke plant and power plant is the preferred alternative.

### ***Locality Alternatives***

The project site at the SEP was selected following a detailed investigation of a number of alternative sites, including Abbot Point and Gladstone. In the final analysis the following key issues determined the ultimate selection of the site:

- Capital cost;
- Materials handling;
- Proximity to Bowen Basin coking coals;
- Opportunities for heat usage;
- Labour availability;
- Port access;
- Availability of water; and
- Proximity to electricity transmission grid.

The SEP site stood out as having the following significant advantages:

- The ability to take advantage of a power generation alliance with SCL for the efficient use of surplus heat from the coke making process. The SPS is also located within the SEP;
- The opportunity to share existing infrastructure including water services, road and rail access and power transmission facilities, thereby reducing the environmental impact of new facilities;
- Sufficient land for the planned size of the Project which has already been allocated for industrial use and which has already been substantially prepared for the former AMC project;
- The ability to make use of engineering, geotechnical and environmental investigations associated with the SPS and the AMC project;
- Proximity to Bowen Basin coking coals;
- Access to a labour pool at Rockhampton and the surrounding region; and
- Access to high capacity rail transport infrastructure to Fisherman's Landing for the export of coke products.

The Fisherman's Landing wharf is the preferred location for an export wharf for the coke product.

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## 1.4 Environmental Impact Assessment Process

### 1.4.1 Methodology

The objective of the Environmental Impact Assessment (EIA) process under State and Commonwealth legislation is to integrate environmental management with planning for proposals and establish a process for:

- Ensuring that proponents assume primary responsibility for protection of any environmental values that may be affected by their proposals;
- Addressing environmental management through the life of proposals;
- Forming a basis for statutory decisions on whether a proposal meets ecologically sustainable development principles, and if so, relevant environmental management and monitoring conditions; and
- Incorporating community and stakeholder views in assessment and decision-making processes.

The Project was declared to be a “significant project” under Section 26 of the SDPWO Act by the Coordinator General (CoG) on 23 December 2004. The declaration initiated the statutory environmental impact assessment process of Part 4 of the Act, requiring the preparation of this EIS.

This process was previously managed by the Department of State Development and Innovation (DSDI) on behalf of the CoG. With the re-establishment of the Office of the Coordinator General under new administrative arrangements announced in July 2005, responsibility for management and evaluation now resides within the Office of the Coordinator General. In addition, the DSDI is now the Department of State Development, Trade and Innovation.

Following the significant project declaration, a draft Terms of Reference (ToR) for an EIS were prepared and made available for public comment. All relevant Commonwealth, State and Local Government agencies and authorities were also invited to participate in the process as Advisory Agencies. In finalising the ToR, the CoG gave regard to all submissions on the draft ToR prior to their finalisation.

The statutory impact assessment process under the SDPWO Act is also the subject of a bilateral agreement between the Queensland and the Commonwealth Governments in relation to environmental assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The proponents referred the proposal to the Commonwealth Minister for the Environment and Heritage (Department of the Environment and Heritage – DEH) in accordance with the provisions of the EPBC Act. On 7 March 2005 the Commonwealth Minister decided that the proposal did not constitute a controlled action under Section 75 of the EPBC Act (Appendix C).

This EIS has been prepared to address the final ToR (Appendix A). A public notice will be placed in relevant local and state newspapers advising where copies of the EIS are available for inspection, how the EIS can be obtained, that submissions may be made to the CoG about the EIS and the timeframe for the submission period. During this advertising period, members of the public have the opportunity to make

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submissions about the EIS. Following the submission period, the proponents may be required to prepare a Supplementary Report/Addendum to the EIS to address specific matters raised in submissions on the EIS.

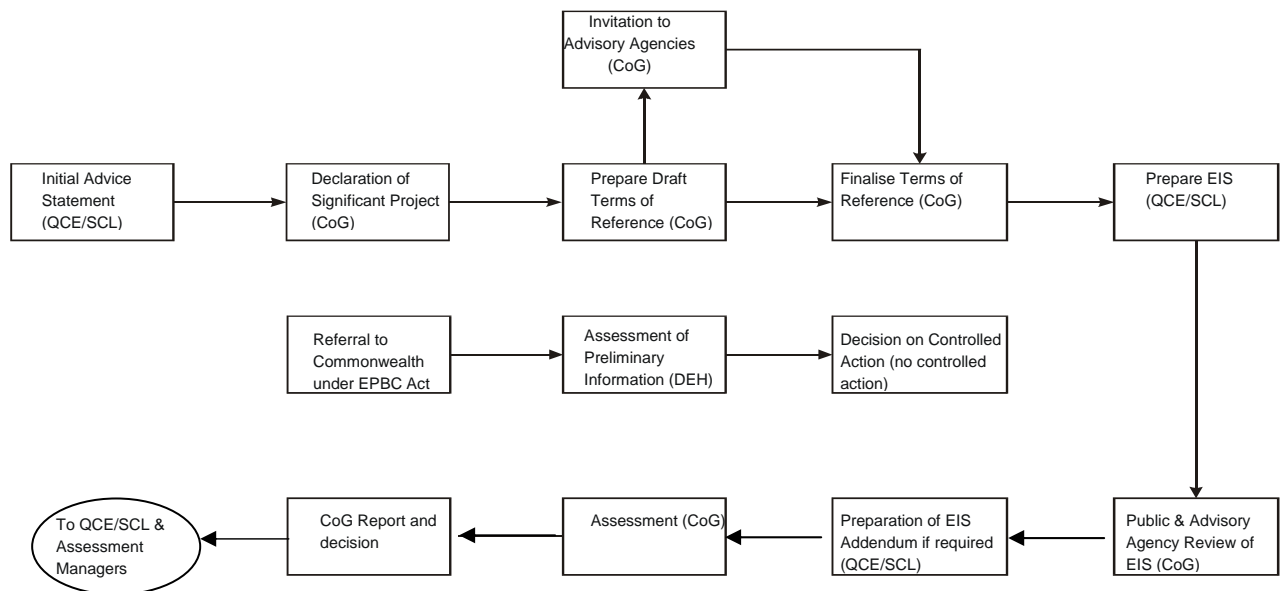
At the completion of the EIS assessment phase, the CoG will prepare a report evaluating the EIS and other related material, pursuant to Section 35 of SDPWO Act. The CoG Report will include an evaluation of the environmental effects of the Project and any related matters, and will reach a conclusion about the environmental effects and any associated mitigation measures. The evaluation will take into account all relevant material including: the EIS; all properly made submissions and other submissions accepted by the CoG and any other material the CoG considers is relevant to the Project such as a Supplementary Report/Addendum to the EIS; comments and advice from Advisory Agencies; technical reports on specific components of the Project; and legal advice. Figure 1.7 highlights this process.

In response to the statutory assessment process and the public advertising of the Project, the proponents have initiated an extensive community consultation process. This community consultation is also a requirement of the EIS. The public consultation process for the Project is outlined briefly below and is discussed in detail in Appendix B.

In addition to the requirements under the SDPWO Act and EPBC Act, the Project will require a range of development approvals under the *Integrated Planning Act 1997* (IP Act) and the *Environmental Protection Act 1994* (EP Act). Under s39 of SDPWO Act, the CoG Report may state to the IP Act Assessment Manager one or more of the following:

- The conditions that must attach to the development approval;
- That the development approval must be for part only of the development; and/or
- That the approval must be preliminary approval only.

Alternatively, the CoG Report may state to the Assessment Manager that there are no conditions or requirements for the Project, or that the application for development approval be refused.

**Figure 1.7 State and Federal Assessment Process relevant to the Project**

### 1.4.2 Objectives of the EIS

The principal objective of EIA process is to identify and assess the environmental impacts that could occur as a result of the construction and operation of a project. Impacts are considered for relevant aspects of the natural, social, and economic environment and include any cumulative and flow-on impacts. These are reported in the EIS. The EIS also proposes strategies for managing these impacts. The EIS provides information to decision-makers about the project and a framework against which the environmental impacts of the project can be assessed. The EIA process facilitates input by stakeholders and decision-makers into the environmental management and monitoring programs. The EIS also aims to:

- Provide a source of information from which individuals and groups may gain an understanding of the project, the need for the project, the alternatives, the environmental values that it may affect and the impacts that may occur, and the measures taken to minimise those impacts;
- Set out acceptable standards and levels of impacts (both beneficial and adverse) on environmental values;
- Demonstrate how environmental impacts can be managed through the protection and enhancement of the environmental values; and
- Provide a basis for public consultation and informed comment on the project.

Although the EIA for the Project is being conducted under the SDPWO Act, a number of approvals and licenses for the Project will also be required under the IP Act and the EP Act. The relationship of the EIS

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to other environmental planning documentation, conditions, approvals and authorities are highlighted in Section 1.6 below.

### 1.4.3 Submissions

The EIS will be placed on exhibition for public comment for 30 business days. During this time, the public has an opportunity to make written submissions to the CoG. All submissions are to be written and legible with contact details provided, and lodged at the contact address of the Office of the Coordinator-General. The format of submissions, the lodgement address and deadline will be provided in the public notice for the EIS. The CoG will consider all properly made submissions received during the stated submission period in evaluating the EIS for the proposal.

## 1.5 Public Consultation Process

Consultation with advisory agencies, members of the public and other stakeholders has formed an integral part of the EIS process. The community consultation process for the Project aims to ensure clear, transparent, two-way communication between the proponents and stakeholders (including advisory agencies and community members) through listening, recording and responding to issues relating to the Project as they arise. The consultation process provides the proponents with opportunities to impart information to the stakeholders regarding the Project and obtain valuable local knowledge. It also provides stakeholders with an opportunity to express their views about the Project and be actively involved in the EIS process. The key objectives of the consultation program have been to:

- Initiate and maintain open communication between stakeholders and the proponents on all aspects of the Project and the environmental impact assessment work;
- Inform the different interest groups about the proposal and encourage involvement in the process;
- Seek an understanding of interest group concerns about the proposal;
- Explain the impact assessment research methodology and how public input might influence the final recommendations for the Project;
- Provide an understanding of the regulatory approval process;
- Seek local information and input in the Project by providing a range of opportunities for stakeholders to identify key issues for consideration;
- Provide the community with a sense of ownership in the Project; and
- Proactively work with the community to propose recommended strategies to minimise negative impacts.

Where parties may be affected by the Project's impact on matters of national environmental significance, the ToR requires the consultation process to identify any 'affected' and 'interested' persons as defined in

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Sections 38 and 41(3)(b) of the EP Act. The stakeholders that have been consulted are listed in Appendix B and broadly encompass:

- Rockhampton, Gracemere, Stanwell and Gladstone communities and businesses
- Local Councils
- Department of State Development Trade and Innovation and other government agencies
- Environmental and community groups
- Indigenous groups and traditional owners
- Federal and State elected representatives
- Regional business, development, industry and training organisations
- Media

A comprehensive consultation program was planned in the early stages of the project approval process from February 2005, and has been conducted throughout the impact assessment and EIS compilation phase. A variety of communication tools were identified as appropriate and have been adopted by the proponents throughout the planning stages of the Project to inform, and receive feedback from, stakeholders. These tools included meetings, newsletters, advertisements and media releases, website updates, workshops, public displays and a public enquiry system using a freecall telephone number, facsimile number, e-mail and reply paid system. The application of these consultation tools will continue throughout the life of the Project with specific timing detailed in Appendix B.

Any issues identified in the consultation program are recorded and fed back into the EIS process. Whilst the EIS must address elements outlined in the ToR, mitigation and management measures are expanded to specifically address issues identified by stakeholders.

## **1.6 Project Approvals and Legislative Framework**

### **1.6.1 State Development and Public Works Organisation Act 1971**

As discussed above, the Project was declared to be a ‘significant project’ under the SDPWO Act by the CoG. This EIS has been prepared under the provisions of the SDPWO Act following the submission of an Initial Advice Statement (IAS) in December 2004 and the subsequent development of the ToR for the EIS.

### **1.6.2 Environmental Protection Act 1994**

Under the EP Act, a number of proposed activities have the potential to cause environmental harm. These Environmentally Relevant Activities (ERAs) require a Development Approval or Code of Environmental Compliance. People who intend to operate ERA’s, for which a development approval is sought under *IP Act*, are also required to obtain a registration certificate under the EP Act. An application for registration is made to the same government agency that is responsible for assessing and conditioning the ERA in IDAS, i.e., the administering authority.

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Project activities classified as ERAs in the *Environmental Protection Regulation 1998* potentially include coke producing (ERA 8), gas producing (ERA 9), fuel burning (ERA 17), screening etc material (ERA 22), motor vehicle workshop (ERA 28), crude oil or petroleum product storing (ERA 11), sewage treatment (ERA 15) and chemical storage (ERA 7).

In addition, ERAs which may be undertaken on the site by contractors during the construction phase of the Project and at the Fisherman's Landing site, may include concrete batching (ERA 62) and stockpiling, loading and unloading goods in bulk in association with operating a port (ERAs 74 and 71). These parties will be responsible for ensuring that ERAs are authorised under any relevant Environmental Authority.

Under Schedule 2 of the EP Act, it is likely that the Project will involve several Notifiable Activities, which are activities likely to cause contamination. The relevant activities include 29 Petroleum product or oil storage and 37 Waste storage, treatment or disposal. Also it is possible that registration on the Environmental Management Register (EMR) or the Contaminated Land Register (CLR) will be required. Current notifiable activities and listings on the EMR or CLR are triggers under IDAS for referral of an application to the EPA in respect of contaminated land matters. As the Project is being assessed under the SDPWO Act EIS process, land contamination has been addressed in the EIS.

### 1.6.3 Integrated Planning Act 1997

Almost all development approvals are integrated into the common Integrated Development Assessment System (IDAS) and applications are made using the common Form 1 Development Application. The IP Act Schedule 8 and the *Standard Building Regulation 1993* detail what development is self-assessable development, assessable development or exempt development. The Project involves several types of assessable development that would be combined into one application under IDAS.

Under the IDAS process the Project will trigger applications for: a Material Change of Use as per Local Planning Scheme; Environmentally Relevant Activities; Material Change of Use for an ERA; for the reconfiguration of an Allotment; for Building Work; and for Operational Work of various types such as Clearing of Native Vegetation on Freehold Land under IP Act and the *Vegetation Management Act 1999* (VM Act - Clearing native vegetation that is assessable development under Schedule 8, Part 1 of the IP Act). Clearing vegetation to which the VM Act applies is operational work within the definition of development in IP Act. Clearing on leasehold land requires an Application for a Tree Clearing Permit to the Department of Natural Resources and Mines (DNRM) and is outside of the IDAS process.

The IDAS process normally requires referrals to be made to referral agencies. However, since the EIS process is under the SDPWO Act, this referral process has been undertaken as part of the SDPWO Act assessment process. After the Report from the CoG has been received by the proponents, the required Development Applications are to be lodged with the relevant Local Authority for development approval. An application for a Registration Certificate should also be made to the EPA.

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### 1.6.4 Aboriginal Cultural Heritage Act 2003

The main purpose of the *Aboriginal Cultural Heritage Act 2003* (ACHA), which is administered by the DNRM, is to provide effective recognition, protection and conservation of Aboriginal cultural heritage. In accordance with the ACHA the extent of Aboriginal cultural heritage has been assessed through a Cultural Heritage Study (CHS). A Cultural Heritage Management Plan (CHMP) is being prepared in conjunction with identified Aboriginal Parties (Darumbal People). The CHMP will provide the basis for the management of Aboriginal cultural heritage issues in the Project's zone of influence as discussed in detail in Section 11 – Cultural Heritage of this EIS.

### 1.6.5 Other Approvals

A number of approvals may also be required under the *Water Act 2000*, *Nature Conservation Act 1992*, *Fisheries Act 1994*, *Transport Infrastructure Act 1994*, *Transport Planning and Coordination Act 1994* and *Transport Operations (Road Use Management) Act 1995*. Subsequent to receipt of development approvals and relevant environmental authorities, there will likely be a need for several minor approvals pertaining to temporary road closures for the transportation of oversized loads of plant equipment and materials etc. These minor approvals will be made on an as needs basis during the course of the Project's construction phase.

### 1.6.6 Policies

The State Planning Policy 1/92 "Development and the Conservation of Agricultural Land" (Department of Primary Industries (DPI, 1992), requires that an assessment of the agricultural land capability of the area be conducted to provide a benchmark of existing/potential agricultural land use. Section 3 - Land Characteristics provides detail on the assessment of agricultural land capability for the Project.

The "State Coastal Management Plan – Queensland's Coastal Policy" (EPA 2001) indicates that water quality must be maintained at a standard that supports and maintains coastal ecosystems. Furthermore, release of contaminants must be eliminated wherever possible. In line with the *Environmental Protection (Water) Policy 1997*, environmental values for all Queensland waters must be identified in order that they be protected and/or enhanced. These include the biological integrity of the aquatic ecosystem and recreational, drinking water supply, agricultural and/or industrial uses. These policies are discussed further for the project site and Fisherman's Landing wharf in Section 5 – Waste Resources

The *Environmental Protection Policy (Air) 1997* and its amendment contain three lists of air quality indicators and goals relevant to the aesthetic enjoyment of places and visual and local amenity, biological integrity and other (unspecified) atmospheric qualities. The National Environmental Protection Council (NEPC) produced national standards in 1998 for regional air quality to be achieved within 10 years of commencement. The standards and associated monitoring and reporting requirements are published in the National Environmental Protection Measure (NEPM) for Ambient Air Quality (NEPC, 2003). These policies are addressed in Section 7 – Air.



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The *Environmental Protection Policy (Noise) 1997* aims to identify acoustic environmental values to be enhanced or protected, specifies an acoustic quality objectives and provides a framework for decision making, program development and noise assessments. The application of this policy to the Project is discussed further in Section 9 – Noise and Vibration.

The relevant local planning instrument governing the development of the project site is the Fitzroy Shire Planning Scheme with is effective since 5 December 2005 and complies with the requirements of the IP Act (Fitzroy Shire Council, 2005).

Within the Fitzroy Region, the “Central Queensland Strategy for Sustainability - 2004 and Beyond” (CQSS) (Fitzroy Basin Association, 2004) has recently been developed as part of the Central Queensland – A New Millennium joint initiative, bringing together governments at all levels and the community to create a framework to guide the future growth and development of the Central Queensland region. The CQSS is the regional plan for the management of the natural resources and environments of the river catchments of the Central Queensland region. Whilst the plan does not have the statutory backing of local government planning schemes, it seeks to protect the region’s assets through addressing key pressures.

### **1.6.7 Local Government Planning Controls**

Development approval applications are to be lodged in accordance with Fitzroy Shire Planning Scheme for the construction of the Project, in accordance with the Calliope Shire Planning Scheme for construction of the Fisherman’s Landing facility, and in accordance with relevant provisions of State policies. The planning schemes are discussed further in Section 3 - Land Characteristics.

#### ***Local Laws***

Fitzroy Shire Council (Control of Nuisances) Local Law No. 15 aims to protect the environment and public health, safety and convenience, by eliminating or reducing nuisances resulting from excessive noise, smoke, other atmospheric pollutants, and wind-borne materials, light spillage, vegetation overgrowth and visual pollution resulting from unsightly accumulations of objects and materials. A permit can be obtained where the activity would otherwise breach this local law.

Calliope Shire Council Subordinate Local Law No. 37 (Control of Nuisances) 2001 aims to protect the environment and public health, safety and convenience, by eliminating or reducing nuisances resulting from vegetation overgrowth and visual pollution resulting from unsightly accumulations of objects and materials. If required by the relevant Local Governments, the proponents will obtain permits necessary to comply with all local laws applicable to the Project.

#### ***Building Approvals***

Any building work in the area requires a Building Development Application. An application usually consists of the appropriate Application Forms, copies of the plans and the relevant application fee. In order for Council or a private certifier to make an assessment for compliance under the *Building Act 1975*

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and *Standard Building Regulation 1993*, *Sewerage and Water Supply Act 1949* and the *Integrated Planning Act 1997*, detailed information will be provided by the proponents as required.

### **1.6.8 Commonwealth Government**

The Commonwealth *Native Title Act 1993* (NT Act) and the Queensland ACHA formalise the common law recognition of native title (i.e., rights and interests over land and water possessed by Indigenous people in Australia under their traditional laws and customs). The NT Act provides for the existence of native title rights and interests over land which is or has been subject to a pastoral lease, and possibly some other forms of leasehold tenure. The project site in the SEP is within the external boundaries of the registered Darumbal native title claim, lodged on 27 June 1997 (QC97/21). The claim is active and is currently in mediation. In addition, the Fisherman's Landing Wharf area is subject the Port Curtis Coral Coast Native Title claim (QC01/29). The implication of this claim on land use is discussed in Section 3 Land Characteristics.

As outlined previously, the requirements of the EPBC Act for the Project have been addressed through the submission of a referral application to the DEH with the Project being deemed not a controlled action under this legislation.