



MINISTER FOR THE ENVIRONMENT;
LABOUR RELATIONS

Statement No.

000552

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)

GAS TO SYNTHETIC HYDROCARBONS PLANT, BURRUP PENINSULA
SHIRE OF ROEBOURNE

Proposal: The proposal is to construct and operate a natural gas to synthetic hydrocarbons plant, a natural gas supply pipeline, eight product pipelines, and a product loading facility at the Dampier Public Wharf on the Burrup Peninsula, approximately 1,300 kilometres north of Perth, as documented in schedule 1 of this statement.

Proponent: Syntroleum Sweetwater, LLC

Proponent Address: "Construction House", 35-37 Havelock Street,
WEST PERTH WA 6005

Assessment Number: 1270

Report of the Environmental Protection Authority: Bulletin 985

The proposal to which the above report of the Environmental Protection Authority relates may be implemented subject to the following conditions and procedures:

Procedures

1 Implementation

- 1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as documented in schedule 1 of this statement.
- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

Published on

18 SEP 2000

- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

2 Proponent Commitments

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of conditions and procedures in this statement.

3 Proponent

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person in respect of the proposal.
- 3-2 Any request for the exercise of that power of the Minister referred to in condition 3-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.
- 3-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

4 Commencement

- 4-1 The proponent shall provide evidence to the Minister for the Environment within five years of the date of this statement that the proposal has been substantially commenced.
- 4-2 Where the proposal has not been substantially commenced within five years of the date of this statement, the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment will determine any question as to whether the proposal has been substantially commenced.
- 4-3 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement at least six months prior to the expiration of the five year period referred to in conditions 4-1 and 4-2.

4-4 Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years for the substantial commencement of the proposal.

5 Compliance Auditing

5-1 The proponent shall submit periodic Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.

5-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environmental Protection is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal, written advice that the requirements have been met.

5-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

Conditions

6 Environmental Management System

6-1 In order to manage the environmental impacts of the project, and to fulfil the requirements of the conditions and procedures in this statement, prior to ground-disturbing activity, the proponent shall demonstrate to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection that there is in place an environmental management system which includes the following elements:

1 An environmental policy and corporate commitment to it;

2 Mechanisms and processes to ensure:

(1) planning to meet environmental requirements;

(2) implementation and operation of actions to meet environmental requirements;

(3) measurement and evaluation of environmental performance; and

3 Review and improvement of environmental outcomes.

6-2 The proponent shall implement the environmental management system referred to in condition 6-1.

7 Greenhouse Gas Emissions Management Plan

7-1 Prior to commissioning, the proponent shall prepare a Greenhouse Gas Emissions Management Plan:

- to ensure that “greenhouse gas” emissions from the project are adequately addressed and best available efficient technologies are used to minimise total net “greenhouse gas” emissions and/or “greenhouse gas” emissions per unit of product; and
- to mitigate “greenhouse gas” emissions in accordance with the Framework Convention on Climate Change 1992, and consistent with the National Greenhouse Strategy;

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This Plan shall include:

- 1 calculation of the “greenhouse gas” emissions associated with the proposal, as indicated in “Minimising Greenhouse Gas Emissions, Guidance for the Assessment of Environmental Factors, No. 12” published by the Environmental Protection Authority;
- 2 specific measures to minimise the total net “greenhouse gas” emissions and/or the “greenhouse gas” emissions per unit of product associated with the proposal;
- 3 monitoring of “greenhouse gas” emissions;
- 4 estimation of the “greenhouse gas” efficiency of the project (per unit of product and/or other agreed performance indicators);
- 5 an analysis of the extent to which the proposal meets the requirements of the National Greenhouse Strategy using a combination of:
 - “no regrets” measures;
 - “beyond no regrets” measures;
 - land use change or forestry offsets;
 - international flexibility mechanisms; and
- 6 a target set by the proponent for the reduction of total net “greenhouse gas” emissions and/or “greenhouse gas” emissions per unit of product over time, and annual reporting of progress made in achieving this target....

Note - In Section 5 above, the following definitions apply:

- (1) "no regrets" measures are those that can be implemented by a proponent which are effectively cost-neutral and provide the proponent with returns in savings which offset the initial capital expenditure that may be incurred.
- (2) "beyond no regrets" measures are those that can be implemented by a proponent which involve some additional cost that is not expected to be recovered.

- 7-2 The proponent shall implement the Greenhouse Gas Emissions Management Plan required by condition 7-1.
- 7-3 The proponent shall make the Greenhouse Gas Emissions Management Plan required by condition 7-1 publicly available, to the extent that this will not breach required confidentiality with regard to commercial and proprietary information, to the requirements of the Environmental Protection Authority.

8 Decommissioning Plans

- 8-1 Prior to construction, the proponent shall prepare a Preliminary Decommissioning Plan that provides the framework to ensure that the site is left in a suitable condition, with no liability to the State, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

The Preliminary Decommissioning Plan shall address:

- 1 rationale for the siting and design of plant and infrastructure and conceptual plans for its removal or, if appropriate, retention;
 - 2 conceptual rehabilitation plans for all disturbed areas and a process to agree on the end land use(s); and
 - 3 management of noxious materials to avoid the creation of contaminated areas.
- 8-2 At least six months prior to the anticipated date of decommissioning, or at a time agreed with the Department of Environmental Protection, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in a suitable condition, with no liability to the State, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

The Final Decommissioning Plan shall address:

- 1 removal or, if appropriate, retention of plant and infrastructure,
- 2 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and

3 identification of contaminated areas, including provision of evidence of notification to relevant statutory authorities.

8-3 The proponent shall implement the Final Decommissioning Plan required by condition 8-2 until such time as the Minister for the Environment determines that decommissioning is complete.

8-4 The proponent shall make the Final Decommissioning Plan required by condition 8-2 publicly available, to the requirements of the Environmental Protection Authority.

9 Work Practices

9-1 Prior to commencement of construction, the proponent shall prepare a written prescription for contractor work practices covering plant and pipeline construction and operation, to ensure that work practices are carried out at the level of international best practice, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Department of Minerals and Energy.

9-2 The proponent shall ensure that plant and pipeline construction and operation comply with the prescription referred to in condition 9-1.

10 Performance Review

10-1 Each five years following the commencement of construction, the proponent shall submit a Performance Review report to the Department of Environmental Protection:

- to document the outcomes, beneficial or otherwise;
- to review the success of goals, objectives and targets; and
- to evaluate the environmental performance over the five years;

relevant to the following:

- 1 environmental objectives reported on in Environmental Protection Authority Bulletin 985;
- 2 proponent's consolidated environmental management commitments documented in schedule 2 of this statement and those arising from the fulfilment of conditions and procedures in this statement;
- 3 environmental management system environmental performance targets;
- 4 environmental management programs and plans; and/or
- 5 environmental performance indicators;

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

Note: The Environmental Protection Authority may recommend changes and actions to the Minister for the Environment following consideration of the Performance Review report.

Note

- 1 The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the Environmental Protection Act.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

14 SEP 2000

Schedule 1

The Proposal (1270)

The proposal is to construct and operate a natural gas to synthetic hydrocarbons plant, a natural gas supply pipeline, eight product pipelines, and a product loading facility at the Dampier Public Wharf on the Burrup Peninsula, Shire of Roebourne, approximately 1,300 kilometres north of Perth.

The location of the plant is shown in Figures 1 and 2. The plant site has an area of about 74 hectares. The actual plant will occupy an area of approximately 50 hectares within this site.

The plant will utilise the proprietary Syntroleum Process to produce 1,240 tonnes or 10,000 barrels of synthetic crude oil per day using approximately 135 terajoules of natural gas per day. Natural gas will be obtained from the Woodside Onshore Gas Plant via a natural gas supply pipeline.

The synthetic crude oil produced is able to be refined into a range of specialty products such as lubricants and diesel fuel.

In addition to the construction of the plant, the proposal will also include the following ancillary components:

- 1 the realignment of a section of Hearson Cove Road, including improvements to Burrup Road;
- 2 the construction of a natural gas supply pipeline from the Woodside Onshore gas plant to the Syntroleum plant;
- 3 the construction of product pipelines from the Syntroleum plant site to the Dampier Public Wharf; and
- 4 a product loading facility and other improvements at the Dampier Public Wharf.

The main characteristics of the proposal are summarised in Table 1 below.

Table 1: Summary of key proposal characteristics

Element	Description
Project purpose	To produce synthetic hydrocarbons from North West Shelf natural gas using the proprietary Syntroleum Process, for sale to domestic and international markets.
Project life	25+ years.

Major project components	<p>(1) Syntroleum Gas to Synthetics (GTS) plant of nominal 1,240 tonnes per day (10,000 barrels per day) capacity.</p> <p>(2) Approximately 5 kilometres long gas supply pipeline from the Woodside Onshore Gas Plant to the Syntroleum GTS plant.</p> <p>(3) Eight product pipelines approximately 4.5 kilometres long from the Syntroleum GTS plant to the Dampier Public Wharf.</p> <p>(4) Realignment of Hearson Cove Road.</p> <p>(5) A product loading facility and other improvements at the Dampier Public Wharf.</p>
Plant Location	King Bay - Hearson Cove Industrial Area (adjacent to the intersection of Burrup Road and Hearson Cove Road).
Plant site area	<p>Total site area: Approximately 74 hectares.</p> <p>GTS plant area: Approximately 50 hectares.</p> <p>Plant site construction laydown areas: Approximately 10 hectares.</p>
Plant facilities	<p>(1) Syngas production Auto Thermal Reactor (ATR).</p> <p>(2) Air compression area.</p> <p>(3) Syngas compression area.</p> <p>(4) Hydrogen recovery areas x 2.</p> <p>(5) Fischer - Tropsch section.</p> <p>(6) Catalyst reactivation.</p> <p>(7) Paraffin oil hydroheater.</p> <p>(8) N - paraffin fractionation.</p> <p>(9) Paraffin product separation.</p> <p>(10) Hydro - isomerization / dewaxing.</p> <p>(11) Lube oil distillation.</p> <p>(12) Product storage and transport area.</p> <p>(13) Utilities area.</p> <p>(14) General plant areas / boiler.</p> <p>(15) Firewater area.</p> <p>(16) Bio - treating system area.</p> <p>(17) Stormwater run-off treatment and storage pond.</p> <p>(18) Control building and electrical room.</p> <p>(19) Warehouse and offices.</p> <p>(20) Plant access roads and car parking.</p>
Plant operation	Continuous - 24 hours per day, 365 days per year.
Shutdown time	<p>Orderly shutdown - 2 hours.</p> <p>Emergency shutdown - 10 minutes.</p>
Plant storage capacities	Sixty day storage for all products.
Plant inputs: Natural gas Water Power supply	<p>Nominal 135 terajoules per day from the Woodside Onshore Gas Plant.</p> <p>Approximately 3 million litres per day.</p> <p>Operational power generated internally:</p>

<p>Nominal plant emissions:</p> <p>Carbon monoxide (CO)</p> <p>Carbon dioxide (CO₂)</p> <p>Oxides of nitrogen (NO_x)</p> <p>Sulphur dioxide (SO₂)</p> <p>Particulate matter (total suspended)</p> <p>Volatile organic compounds</p> <p>Process effluent discharges</p> <p>Water sludge</p> <p>Stormwater</p>	<p>525 tonnes per year</p> <p>1.16 million tonnes per year</p> <p>2,340 tonnes per year</p> <p>45 tonnes per year</p> <p>115 tonnes per year</p> <p>170 tonnes per year</p> <p>Nil - residual process water to be evaporated (approximately 1.6 Mega Litres per day)</p> <p>20 - 30 tonnes per day</p> <p>12mm 'first flush' stormwater impoundment / treatment system to be installed for process areas. Discharge to King Bay following treatment. Sent to wastewater treatment system if it is off - specification.</p>
<p>Noise</p>	<p>During construction: Predicted maximum L_{A10} <35dB(A) at nearest residential area (Dampier).</p> <p>During operation: Predicted maximum L_{A10} 29dB(A) at Dampier and 36dB(A) L_{A10} at Hearson Cove.</p>
<p>Risk</p>	<p>Less than 1 in 10⁶ outside the GTS plant boundaries.</p> <p>Less than 7 in 10⁵ at zero metres from the gas supply pipeline.</p> <p>Less than 7 in 10⁷ at zero metres from the product pipelines.</p>

Figures (attached)

Figure 1 - Project Location - Regional Map.

Figure 2 - Project Location - Locality Map.

Figure 3 - Process flowchart / mass balance diagram.

Figure 4 - Details of the plant layout.

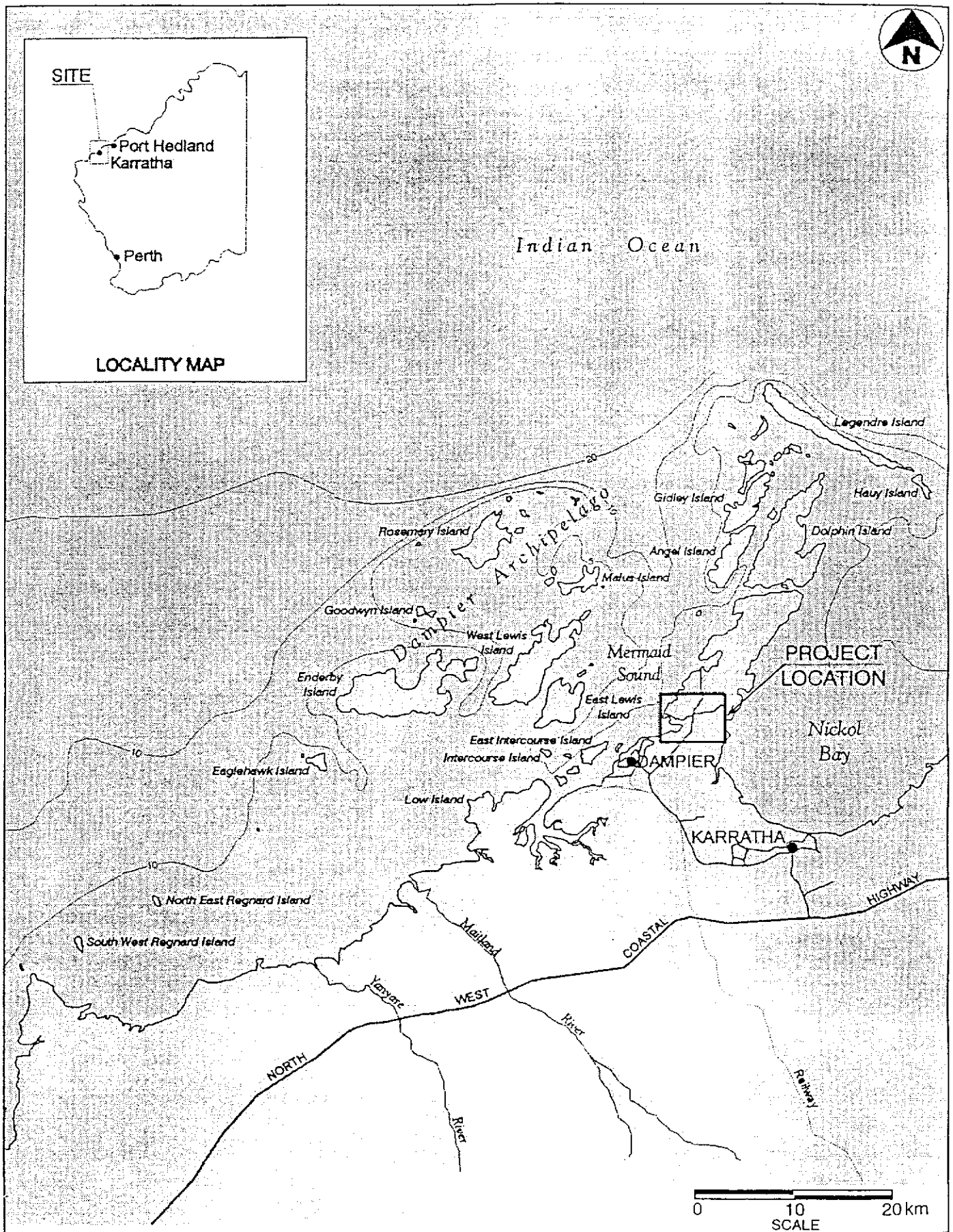


Figure 1. Project Location - Regional Map (Source: Figure 1.2 HLA - Envirosiences, 1999a).

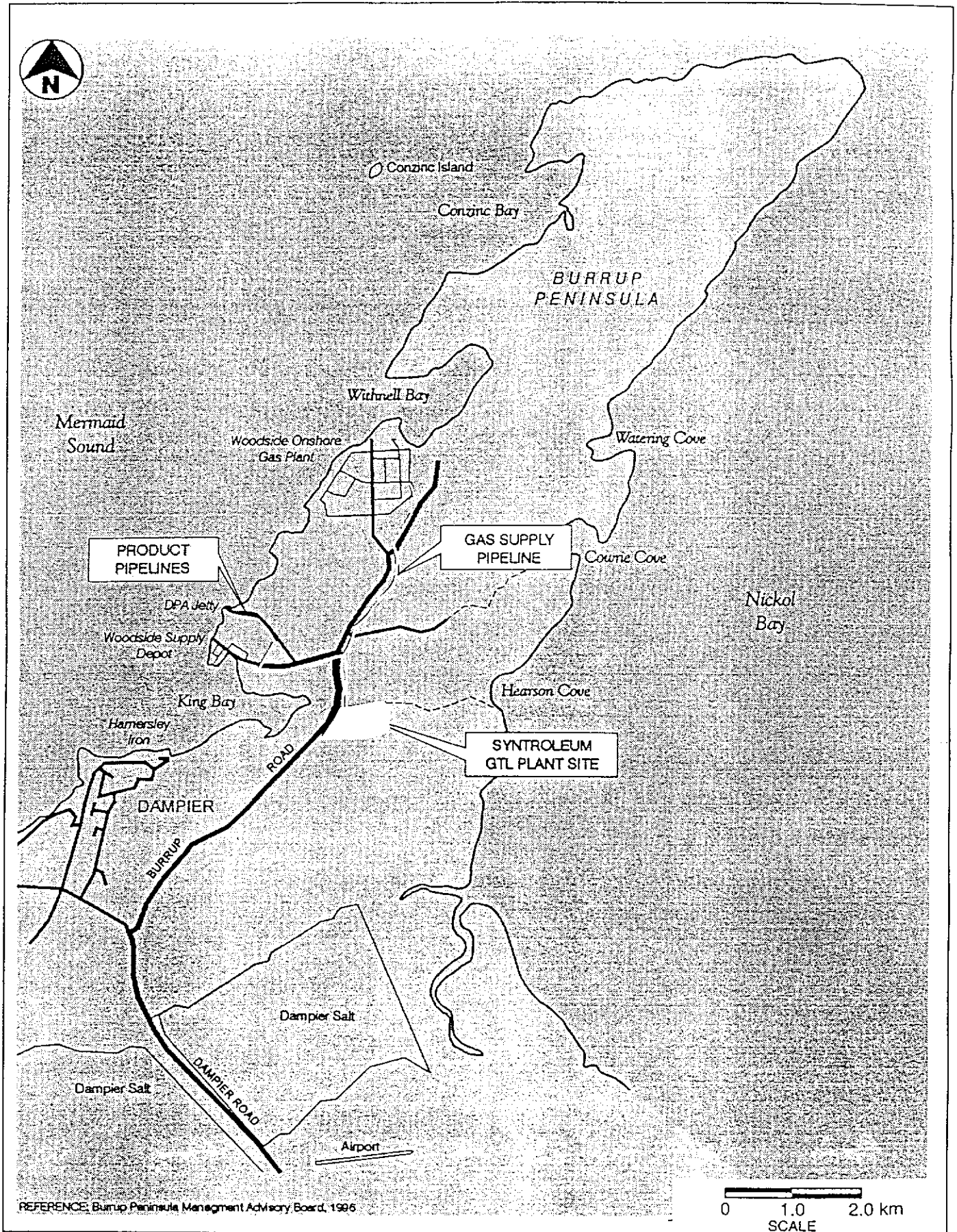


Figure 2. Project Location - Locality Map (Source: Figure 1.3 HLA - Envirosiences, 1999a).

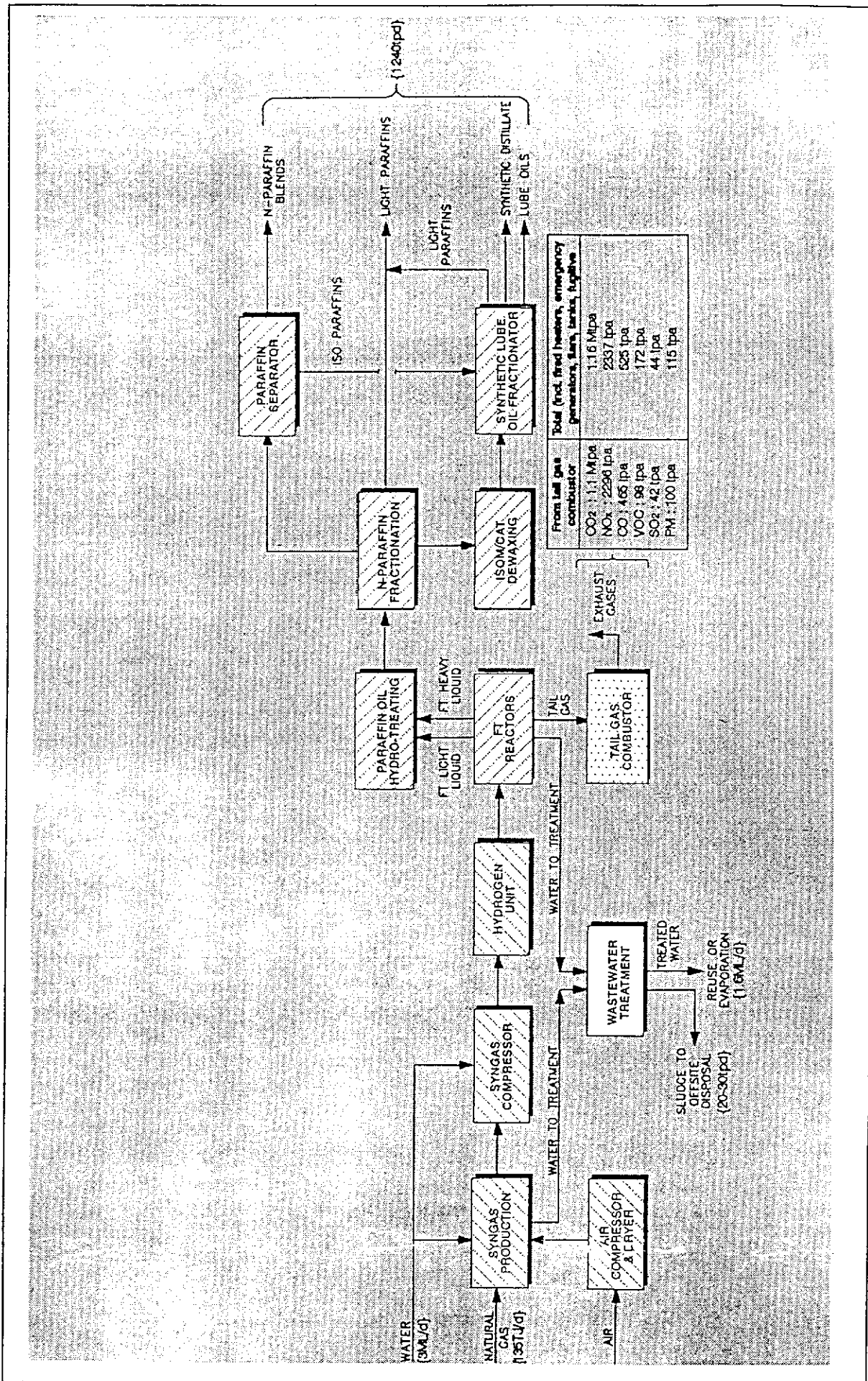
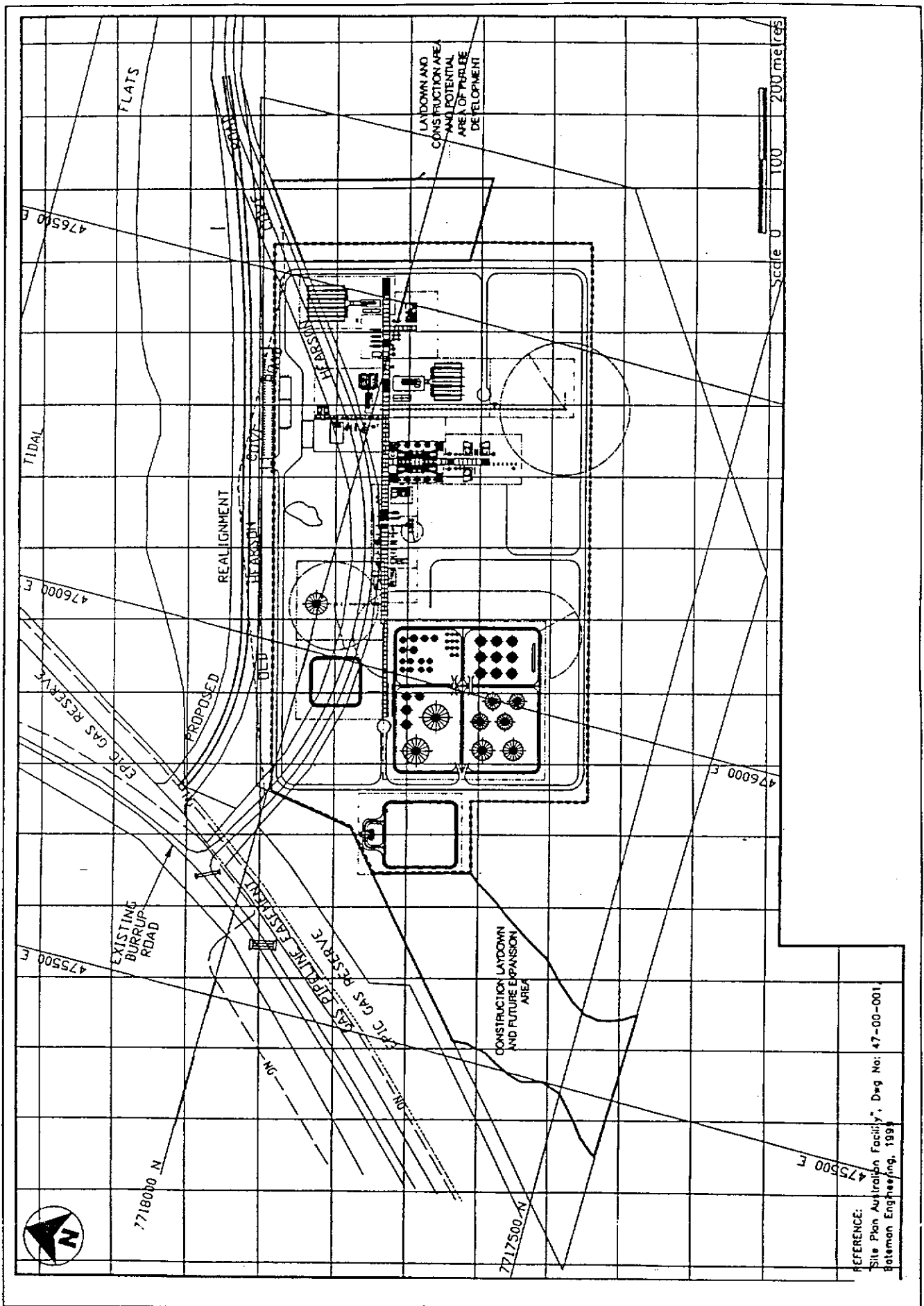


Figure 3. Process flowchart/mass balance diagram (Source: Figure 3.2 HLA - Envirosciences, 1999a).



REFERENCE:
 Site Plan 'Auriferous Facility', Dwg No: 47-00-001,
 Bateman Engineering, 1999

Figure 4. Proposed plant layout (Source: Figure 3.3 HLA - Envirosciences, 1999a).

Schedule 2
Proponent's Consolidated Environmental Management Commitments - Gas to Synthetic Hydrocarbons Plant, Burrup Peninsula, Shire of Roebourne (1270)

No	Topic	Action	Objective	Timing	Advice
1	Terrestrial flora	The proponent commits to establishing a native garden within the plant site boundary or in another appropriate site. The native garden will be established using species listed in Flora and Fauna Assessment report of CER, and will contain, at a minimum, 100 percent of the Rare and / or Priority plant individuals that are destroyed during construction.	To maintain the species richness of the area, and maintain priority species.	During rehabilitation.	DEP, CALM
2	Terrestrial flora	The proponent commits to ensure that all construction equipment is washed down prior to coming on site. Equipment washdown areas will be established in areas near the wharf for equipment brought in by sea and south of Dampier Salt for equipment brought in by road. Washdown residues to be disposed of in accordance with DEP / CALM / Shire of Roebourne requirements.	To prevent weed species, possibly attached to construction equipment from establishing on the Burrup Peninsula.	During construction.	CALM, DEP, Shire of Roebourne.
3	Terrestrial flora	The proponent commits to counting all Rare and / or Priority plant species within disturbance areas and will officially notify CALM of the number of each species to be removed. At a minimum, 100 percent of any Rare and / or Priority plant individuals that are to be destroyed, will be replaced with identical species in landscaping, rehabilitation or the native garden.	To maintain abundance and distribution of Priority species.	Prior to start of construction / During rehabilitation.	CALM
4	Terrestrial flora	The proponent commits to undertake seed collection of priority and other native plant species.	To ensure local seed is available for rehabilitation works.	Already started.	CALM
5	Terrestrial fauna	The proponent commits to conducting a snail survey for a 30 to 40 hectare area in the southern rocky hills area adjacent to the south side of the plant.	Ensure that mollusc species and numbers are accurately determined and species abundance is maintained in the areas surrounding the plant site.	Already started.	DEP, CALM.
6	Terrestrial fauna	The proponent commits to conducting another fauna survey concentrating on the western drainage areas of the plant site.	Ensure that fauna species and numbers are accurately determined in the western drainage area of the site.	Already started.	DEP
7	Terrestrial flora	The proponent commits to prepare a rehabilitation plan and closure report and submit it to the DEP and CALM at least 2 months prior to construction commencing. The rehabilitation plan will include a weed management plan and a topsoil management plan.	Ensure that the affected areas to be rehabilitated will be as weed free as reasonably practicable, and able to augment the growth of local species.	Submit 2 months prior to construction.	DEP, CALM
8	Terrestrial flora	The proponent commits to initiate a flora sampling program in accordance with the scope of work issued by the DEP. The report will be submitted to the DEP when it is completed.	Ensure that the full range of wet and dry season flora species are investigated, especially in the western drainage area of the site.	Already started	DEP
9	Terrestrial flora	The proponent commits to using the lightest method of clearing that is reasonably practicable in the areas that will be rehabilitated.	Ensure that replanting is not hampered by excessively compacted soils.	During Construction.	DEP
10	Terrestrial flora and fauna	The proponent commits to disturbing only the areas in the western drainage areas of the site that are essential to the construction and operation of the plant.	Minimise flora and fauna impacts in the western drainage area of the plant site.	During planning and construction.	DEP

No	Topic	Action	Objective	Timing	Advice
11	Terrestrial flora and fauna	The proponent commits to demonstrate good corporate citizenship in minimising impacts on vegetation and fauna during construction and operation of the plant.	Minimise flora and fauna impacts especially in the western drainage area of the plant site.	During planning and construction.	DEP
12	Greenhouse gas emissions	The proponent commits to continue investigations of "beyond no regrets" measures to reduce greenhouse gas emissions, particularly afforestation projects.	To find ways to minimise greenhouse gas impacts.	Biannually after commissioning	EPA
13	Greenhouse gas emissions	The proponent commits to adhering to EPA Guidance Statement No. 12 and the National Greenhouse Strategy, including calculation of the greenhouse gas emissions from the proposed plant, determination of the greenhouse gas emissions from the plant periodically after it is built and in operation, provision of a general description of the efficient technologies to be used to reduce total greenhouse gas emissions.	To minimise total greenhouse emissions as much as reasonably practicable.	Biannually after commissioning	DEP
14	Greenhouse gas emissions	The proponent commits to entering into the Commonwealth Government's Greenhouse Challenge, including the commitment to monitor its greenhouse gas emissions, develop on-going emission reduction strategies, set a target for the reduction of total net "greenhouse gas" emissions and/or "greenhouse gas" emissions per unit of product over time, and to provide an annual report of its overall performance.	To meet requirements of the Greenhouse Challenge and minimise total greenhouse gas emissions as much as reasonably practicable.	July-Dec 2000	DEP, and the Australian Greenhouse Office (AGO).
15	Greenhouse gas emissions	The proponent commits to using best engineering technology and management practices in designing, constructing and operating the plant to reduce greenhouse gas emissions to as low as reasonably practicable (ALARP).	To minimise greenhouse gas emissions during design and construction of the plant.	During design and operation.	DEP
16	Risk and hazards	The proponent commits to preparing an emergency response plan for the GTS plant, gas supply and product pipelines, to the appropriate requirements of the DME and State Emergency Services.	To minimise risk to public and worker safety.	Prior to commissioning	DME and the State Emergency Services.
17	Risk and hazards	The proponent commits to prepare a shipping emergency response plan in co-operation with the Dampier Port Authority. The Fire and Rescue Services, the State Emergency Service, CALM, the DEP, and DME will be consulted and linked to the emergency response plan. The proponent will trial a shipping emergency response plan in co-operation with the Dampier Port Authority as part of the normal preparations for the loading of product at the Dampier Public Wharf.	To minimise risk, including the risk of spillages or leaks, prepare an emergency response plan, and ensure that all contingencies for emergencies at the wharf have been considered.	Prior to the first loadout of product.	DPA, DME, DEP, SES, CALM, and Fire and Rescue Services.
18	Risk and hazards	The proponent commits to prepare a Safety Management System (SMS) prior to commissioning, to the appropriate requirements of the DME.	To minimise risk to public and worker safety.	Prior to commissioning	DME
19	Risk and hazards	The proponent commits to prepare a final Quantitative Risk Assessment (QRA) for the project prior to commissioning, to the appropriate requirements of the DME and the DEP.	To minimise risk to public and worker safety.	Prior to commissioning	DME, DEP
20	Risk and hazards	The proponent commits to ensure that risks and hazards associated with the proposed plant will not compromise access to Hearson Cove, except during an emergency situation where Hearson Cove Road may be closed to allow emergency procedures to take place without interference, in consultation with the DME and DEP.	To ensure that risks and hazards associated with the proposed plant will not compromise access to Hearson Cove.	During construction and operation.	DME, DEP
21	Risk and hazards	The proponent commits to ensure that the design and construction of the plant, natural gas supply and product pipelines, and other related infrastructure complies with the requirements of AS1940, AS2885, AS4041, the <i>Petroleum Pipelines Act 1969</i> , the <i>Explosives and Dangerous Goods Act 1961</i> , and the Australian Pipeline Industry Association (APIA) Code of Environmental Practice, and other relevant standards and guidelines, where appropriate.	To ensure that the design and construction of the plant, natural gas supply and product pipelines, and other related infrastructure complies with the requirements of relevant legislation, standards and guidelines.	During design and construction	DME, DEP

No	Topic	Action	Objective	Timing	Advice
22	Risk and hazards	The proponent commits to design the road crossings of pipelines to ensure an acceptable level of safety during operations and construction, following discussions with the Shire of Roebourne, Main Roads WA, the DME, the DEP and other relevant organisations, prior to construction.	To minimise risk factors and ensure safety of the gas and product pipelines during construction and operation.	Prior to construction of crossings.	Shire of Roebourne, Main Roads WA, DME and DEP.
23	Risk and hazards	The proponent commits to undertake HAZOP studies of all critical plant systems and designs to the appropriate requirements of the DME. Where appropriate, the proponent will implement the recommendations of the preliminary risk assessment, the quantitative risk assessment and the HAZOP studies in the design and operation of the plant.	To minimise risk and promote safety.	During design and operation.	DME
24	Gaseous and particulate emissions	The proponent commits to design the plant in order to ensure that the National Environment Protection Measure (NEPM) standard of 225 micrograms per cubic metre for Nitrogen Dioxide (NO ₂) will be met, even in worst case conditions, at every offsite location.	To minimise Nitrogen Dioxide emissions at all offsite locations and to at least meet the 225µg/m ³ NEPM standard.	During design.	DEP
25	Gaseous and particulate emissions	The proponent commits to adopting and implementing best engineering practice in relation to limiting NO _x emissions from the plant by installing a tail gas combustor which produces the lowest NO _x emissions reasonably practicable, and by incorporating NO _x reducing equipment in other relevant areas of the plant.	To minimise NO _x emissions from the plant as much as reasonably practicable	During design.	DEP
26	Gaseous and particulate emissions	The proponent commits to ensure that the construction contractors develop the details of construction dust control in conjunction with Roebourne Council, and the Pilbara Region Office of the DEP.	To minimise dust during construction.	Prior to and during construction.	DEP Pilbara, Shire of Roebourne.
27	Surface water quality	The proponent commits to disposing hydrotest water in a manner satisfactory to the DEP and Shire of Roebourne.	Ensure that there is no water pollution in King Bay.	During Construction.	DEP, Shire of Roebourne.
28	Surface water quality	The proponent commits to sampling treated stormwater prior to discharge. Effluent quality will be compared with licence criteria / water quality standards. Effluent diverted to wastewater treatment system if not in accordance with standards.	To minimise potential for pollution of King Bay and Mermaid Sound.	During Operation.	DEP
29	Marine water, sediment and biota quality	The proponent commits to requiring any vessel carrying their products to meet the AQIS guidelines including disposal of ballast water.	Ensure ballast water and other health risk issues are managed to AQIS standard.	Prior to first loadout.	DPA
30	Aboriginal heritage	The proponent commits to ensure that all identified archaeological sites, with the exception of P3051, will remain undisturbed or be preserved in situ. P3051, a previously disturbed shell scatter, will become subject of an application to the Minister for Aboriginal Affairs to further disturb the site.	To maintain and preserve cultural heritage.	During construction and operation.	DEP, Aboriginal Affairs Department.
31	Aboriginal heritage	The proponent commits to ensure that during earthworks on areas of ground that have not previously been disturbed, Aboriginal representatives will be employed to monitor preparatory earthworks. In this context, earthworks is defined as cut to a depth of 500mm or fill to a depth of 500mm or more.	To identify items of archaeological significance.	During initial earthworks.	DEP, Aboriginal Affairs Department, Aboriginal custodians.
32	Traffic impacts	The proponent commits to ensure that through traffic will be retained on all local roads during the construction phase. Short delays may be necessary during some construction activities (eg. blasting, heavy lifts transport).	To maintain access to all areas of the Burrup Peninsula.	During construction.	Main Roads, Shire of Roebourne.

No	Topic	Action	Objective	Timing	Advice
33	Environmental management	The proponent commits to prepare Environmental Management Plans (EMPs) for each major component of the construction works, namely: 1. Syntroleum Gas to Synthetics (GTS) plant 2. Hearson Cove Road realignment 3. Gas Supply Pipeline 4. Product Pipelines, and 5. Ship loading facility at the Dampier Public Wharf The proponent commits to develop and implement an Environmental Management System (EMS) in accordance with the principles of AS/NZS ISO 14001. The EMS will include Environmental Management Plan(s) for operation of all facilities associated with the project. The EMP for ship loading and usage of Dampier Port will be developed in consultation with the Dampier Port Authority.	To manage environmental aspects of development.	Prior to start of construction.	DEP
34	Environmental management	The proponent commits to develop and implement an Environmental Management System (EMS) in accordance with the principles of AS/NZS ISO 14001. The EMS will include Environmental Management Plan(s) for operation of all facilities associated with the project. The EMP for ship loading and usage of Dampier Port will be developed in consultation with the Dampier Port Authority.	To effectively manage environmental aspects of the Project.	Initial EMS prior to commencement of operations. Implementation on-going.	DEP
35	Visual impact	The proponent commits to minimise the visual impact of the plant by painting appropriate surfaces with colours that are in sympathy with the surroundings where reasonably practicable.	Reduce any negative visual impacts of the plant.	During design.	DEP
36	Other	The proponent commits to ensure that best practice technology will be employed in the design of the Project.	To minimise atmospheric, noise and wastewater emissions and to prevent pollution of the environment.	Design phase.	DEP, DME
37	Other	The proponent commits to notifying the Shire of Roebourne in relation to any potential considerations for additional worker housing.	Ensure that town planning objectives are met.	Prior to and during construction.	Shire of Roebourne
38	Other	The proponent commits to get development consent from the Council.	Ensure that Council standards are met.	Prior to construction.	Shire of Roebourne
39	Other	The proponent commits to minimising the disruption of traffic and the impact on road structures from heavy vehicle movements on advice from the Shire of Roebourne and Main Roads WA.	Ensure minimum disruption of traffic, minimum impact on road structures.	Prior to and during construction.	Shire of Roebourne, and Main Roads WA.
40	Other	The proponent commits to using the King Bay to Hearson Cove Service Corridor when routing the product pipelines, if it is operational within an acceptable timeframe to allow the proponent to complete the design and financial requirements of the project.	Reduce impacts along King Bay Road and MOF Road if possible.	Prior to critical point in financial decision-making process.	DEP, DRD

Abbreviations:

AGO = Australian Greenhouse Office	DPA = Dept. of Primary Industry	QRA = Quantitative Risk Assessment
ALARP = As low as reasonably practicable	EMP = Environmental Management Programme	SES = State Emergency Service
AQIS = Australian Quarantine & Inspection Service	EMS = Environmental Management System	SMS = Safety Management System
AS = Australian Standard	EPA = Environmental Protection Authority	
CALM = Dept. of Conservation & Land Management	GTS = Gas to Synthetics	
CER = Consultative Environmental Review	HAZOP = Hazard & Operability Study	
DEP = Dept. of Environmental Protection	MOF = Materials Off-loading Facility	
DME = Dept. of Minerals & Energy	NEPM = National Environmental Protection Measure	