MINISTER FOR THE ENVIRONMENT;
LABOUR RELATIONS

Statement No.

000516

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

BRICKWORKS, LOT 6 BUSHMEAD ROAD, LOT 103 STIRLING CRESCENT & LOT 151 LAKES ROAD, HAZELMERE, SHIRE OF SWAN

Proposal: Construction and operation of a brick and tile manufacturing plant in Hazelmere, producing 140 to 180 million bricks and tiles per annum. Three tunnel kilns are intended for the site, with kiln exhaust gases to pass through limestone cascade absorbers to remove acid gases. Raw materials will be obtained off-site, as documented in schedule 1 of this statement.

Proponent: Saracen Properties Pty Ltd

Proponent Address: c/o BSD Consultants, BSD Centre, 2 Bagot Road Subiaco WA 6008

Assessment Number: 1207

Report of the Environmental Protection Authority: Bulletin 916

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

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.

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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 Environmental Management System

3-1 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 construction, 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.

3-2 The proponent shall implement the environmental management system referred to in condition 3-1.

4 Noise from Heavy Vehicle Movements

4-1 Outside the hours of 8 a.m. to 6 p.m. Monday to Saturday, the proponent shall ensure that heavy vehicle movements on Stirling Crescent and Bushmead Road (East of Stirling Crescent) do not cause unacceptable noise levels in the opinion of the Chief Executive Officer of the Department of Environmental Protection.

5 Decommissioning and Rehabilitation Management Plan

5-1 At least six months prior to decommissioning, the proponent shall prepare a Decommissioning and Rehabilitation Management Plan to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This Plan shall address:

1 removal or, if appropriate, retention of plant and infrastructure;

2 rehabilitation of all disturbed areas to a standard suitable for agreed new land use/s; and

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

5-2 The proponent shall implement the Decommissioning and Rehabilitation Management Plan required by condition 5-1 until such time as the Minister for the Environment determines that decommissioning and / or rehabilitation is / are complete.

5-3 The proponent shall make the Decommissioning and Rehabilitation Management Plan required by condition 5-1 publicly available, to the requirements of the Environmental Protection Authority.

6 Performance Review

6-1 Each six years following the commencement of construction, the proponent shall submit a Performance Review 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 six years;

relevant to the following:

1 environmental objectives reported on in Environmental Protection Authority Bulletin 916;

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.

7 Proponent

7-1 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.

7-2 Any request for the exercise of that power of the Minister referred to in condition 7-1 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.

7-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

8 Commencement

8-1 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.

8-2 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.

8-3 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 8-1 and 8-2.

8-4 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.

9 Compliance Auditing

9-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.

9-2 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.

9-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

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.

2 The Swan Valley Air Quality Committee, chaired by the Eastern Metropolitan Regional Council, will be established to achieve better consultation over air quality in the Swan Valley. It will provide a forum for community representatives, brick manufacturers, the Department of Environmental Protection and other relevant government agencies.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

20 JUL 1999

Schedule 1

The Proposal (1207)

The site comprises Lot 6 Bushmead Road, Lot 103 Stirling Crescent and Lot 151 Lakes Road, Hazelmere, Shire of Swan.

The proposal consists of a raw materials stockpile, a building for clay mixing, a building for clay crushing and grinding, a building for storage of ground clay material, a brick and tile production building, a drainage basin, a fuel storage area, an area for product storage, carparks, weigh bridge and wheel wash facility and office buildings.

Plant includes up to eight crushers, three tunnel kilns and drier units, six drier stacks and three scrubber stacks equipped with dry fluoride cascade scrubbers.

The plant will operate seven days a week, with kilns operating 24 hours per day. Full production will occur for only 20 hours per day, and production will cease between 2 am and 6 am each day to allow for servicing of equipment.

Total area of the site is approximately 17.5 hectares. The proponent has not included Lot 6 Lakes Road in the subject site.

In order to accommodate the proposal on the site, approximately 2.7 hectares of remnant vegetation to the south of the site will require clearing. An area of 0.86 hectares of remnant vegetation will remain on the site, with a further contiguous area of approximately 1.4 hectares of remnant vegetation outside the site boundary, in the control of Main Roads WA.

The development is modelled on German plants incorporating the latest technology and designs. The process involves the stockpiling of wet clay (10 to 15 percent water content), crushing, grinding and mixing of the clay, the formation of the product, initial drying of the product in two-chamber driers, which utilise heat recycled from the kilns, and gradual heating of the product to a maximum temperature of approximately 1200°C in the natural gas powered kilns.

During the firing of the clay, hydrogen fluoride, hydrogen chloride and oxides of sulphur are released. Gases from the furnaces will be passed through a Hellmich limestone cascade scrubber (or equivalent) to reduce the concentration of hydrogen fluoride, hydrogen chloride and oxides of sulphur before being exhausted to atmosphere. Solid waste from the limestone scrubbers will be removed by a contractor to an approved landfill site. Water vapour will be exhausted to atmosphere from the drier stacks. Other minor gaseous emissions will be carbon monoxide, carbon dioxide, nitrogen oxides and volatile organic compounds.

Dust from the clay stock pile will be controlled by the use of sprinklers.

Surface water runoff from the site will be diverted to a drainage basin to precipitate sediment before discharge to the Helena River. Wastewater from the wheel wash will be passed through an oil/sediment separator, from which clay and water will be recycled. Sewage will be treated on-site using aerated treatment units (ATUs) until connection with the sewer network becomes possible. All chemicals will be stored in bunded areas in case of spillage.

Noise from the site will be controlled by noise suppression measures and a sound barrier at the southern boundary of the site to reduce impacts of noise generated by mobile equipment in the clay stockpile area.

The site has been designed to allow ease of access for trucks, and major highways are adjacent to the site.

Electricity, gas and water supply services are available to the site.

The development will produce 140 to 180 million bricks, tiles and pavers per annum which equates to an approximate daily production of 1600 tonnes of bricks, tiles and pavers.

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

Table 1 - Summary of key proposal characteristics (1207)

Proposal Aspect	Description	
Site Location and area	Lot 6 Bushmead Road, Lot 103 Stirling Crescent and Lot 151 Lakes Road, Hazelmere, Shire of Swan. Approximate area 17.5 hectares.	
Timing	Construction will take approximately 15 months. Production expected to begin in July 2001.	
Plant	• 3 Tunnel Kiln and Drier units	Natural gas fired kilns fitted with waste heat recovery heated driers
	• 3 Scrubber Stack units	"Product of Combustion" exhaust stacks
	• 6 Drier Stack units	Water vapour exhaust stacks
	• 6 Drier Fan units	Low speed, centrifugal, axial controlled fans
	• 3 Fluoride Cascade Absorber units •	Calcium carbonate cascade absorbers
	• Conveying Crushing Equipment	Plant process controlled
Inputs		
Raw Materials:	• Clay soils	2100 tonnes per day
- maximum quantities	• Manganese dioxide	100 tonnes per annum
	• Liquid fructose	300 tonnes per annum
	• Limestone	730 tonnes per annum
Utilities: - maximum quantities	• Natural Gas	150 GJ/h
	• Electricity (operating 20 hours per day)	8 MW
	• Electricity (operating 4 hours per day)	4 MW
	• Scheme Water	10,000 litres per hour
	• Sewage treatment	Aerated Treatment Units (ATUs)
	• Drainage basin	25,650 cubic metres volume
	• Fuel storage in double skinned, bunded tanks	15,000 litres diesel 1500 litres various lubricants
	• Wheel wash and oil separation facility	
Outputs		
Product	Bricks, tiles and pavers	1600 tonnes per day
Solid waste	Waste limestone (containing calcium fluoride)	2 tonnes per day
Gaseous Waste	HF	less than 0.005 tonnes per day
	HCl	0.389 tonnes per day
	NO_x	0.123 tonnes per day
	SO_2	0.037 tonnes per day
	SO_3	0.003 tonnes per day
	CO	2.944 tonnes per day
	VOC	0.084 tonnes per day
	CO_2	99,000 tonnes per annum
	100 percent scheme water input lost through process evaporation	

Table 1 (1207) - continued

Environmental Management		
Vegetation Communities	• Retain area of 0.86 hectares of the remnant vegetation	Landscape with native vegetation
Hydrogen Fluoride	• Calcium carbonate cascade absorbers	35 metre stacks
Hydrogen Chloride	• Calcium carbonate cascade absorbers	Pre-treatment facility if required
Dust	• Dust control at clay stock-pile by sprinklers.	Wheel wash facility
Noise	• Noise suppression measures at plant	A sound barrier at the southern boundary of the site
Wastewater	• Drainage basin • Oil separators installed where waste stream is potentially contaminated	Sewage treatment
Chemical and fuel storage	• Bunded areas	
Traffic	• entries and exits designed to minimise impact on local community	

Figures

Figure 1: Location map (showing land use and environmental features).

Figure 2: Plant layout (showing buildings, stockpile areas, waste product disposal and treatment areas, all dams and water storage areas, storage areas including fuel storage, landscaped areas etc.).

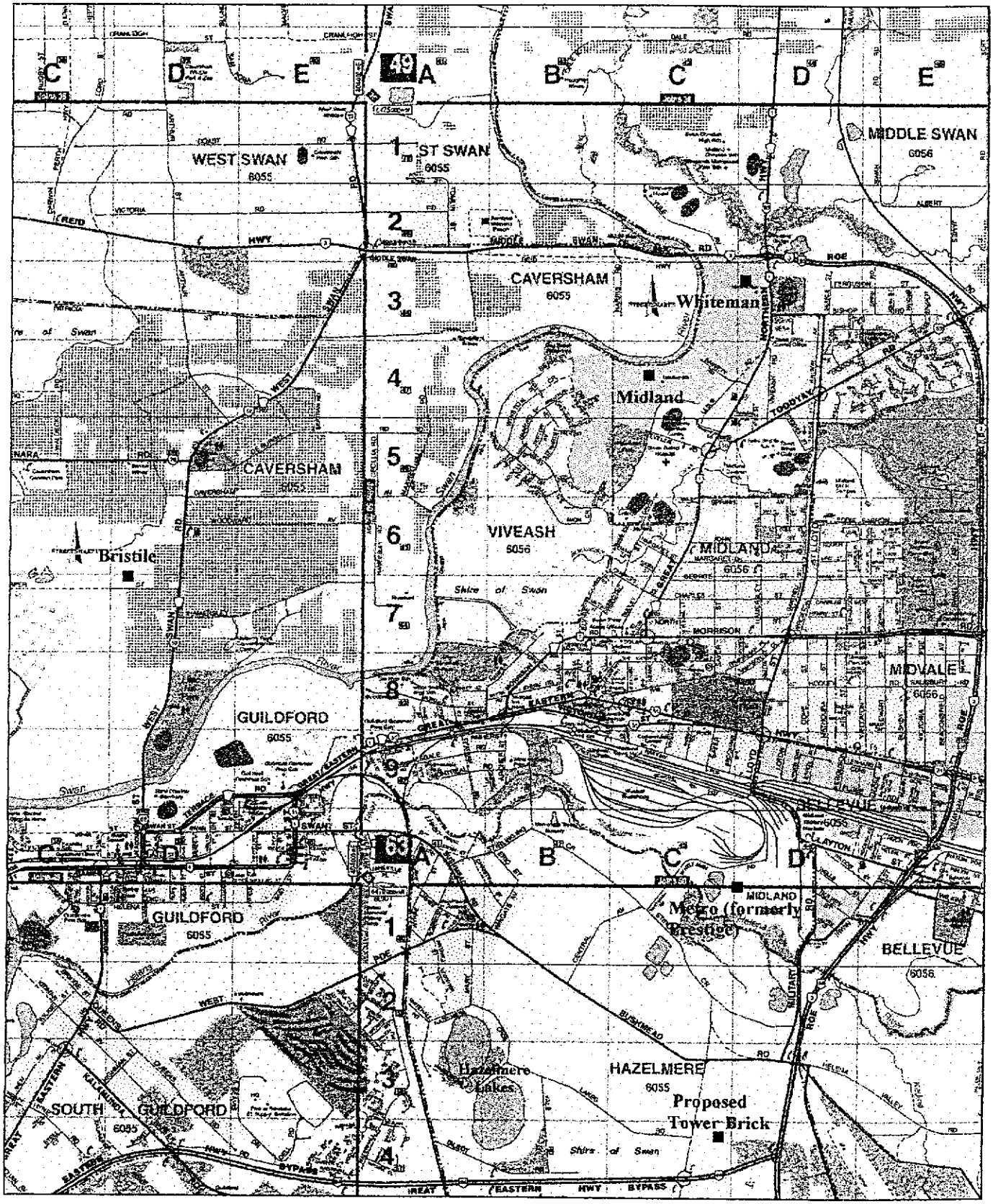

Figure 1. Proposal Location

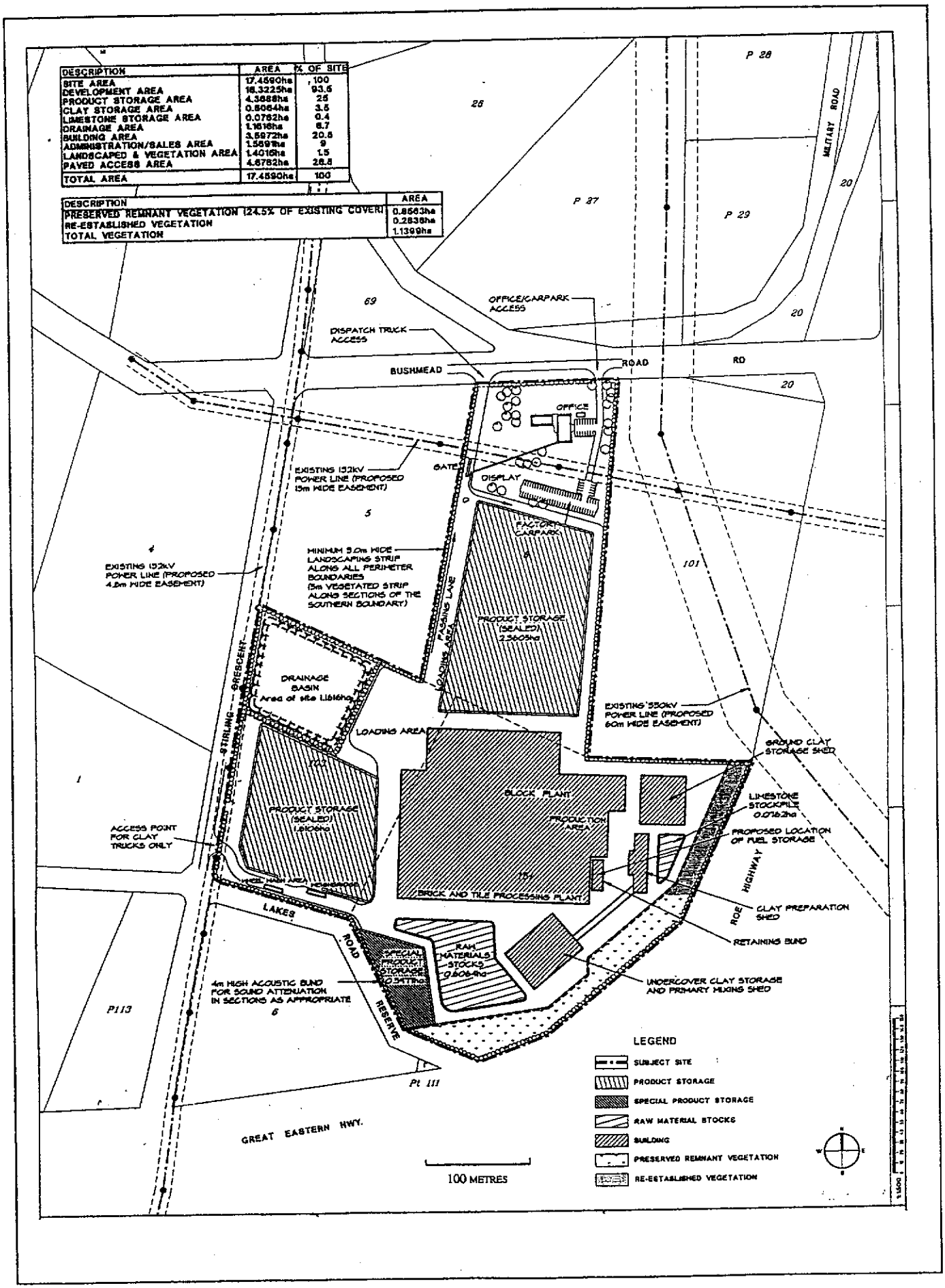

Figure 2. Plant layout.

Schedule 2

Proponent's Consolidated Environmental Management Commitments

28 June 1999

BRICKWORKS, LOT 6 BUSHMEAD ROAD, LOT 103 STIRLING CRESCENT & LOT 151 LAKES ROAD, HAZELMERE, SHIRE OF SWAN

(Assessment number 1207)

Saracen Properties Pty Ltd

Summary of Proponent's Environmental Management Commitments (1207) - 28 June 1999

Topic	Commitment	Objective	Action	Timing	Advising Agency	Measurement/ Compliance Criteria
1 Environmental Management	Develop and implement an Environmental Management System (EMS).	To manage environmental issues identified in the Consultative Environmental Review, during the public review period and by the DEP/EPA.	Document management policy including an environmental management program (EMP) and detailing issues of responsibility, training schedules, monitoring and maintenance programs, incident reporting, corrective and preventative action, audit control and management review. Make EMP available to members of the public on request. Integrate the Environmental Management System with the plant-wide maintenance computer system to generate work orders on a pre-programmed basis.	EMP to be available prior to commissioning. EMS to be implemented within six months of commissioning.	Department of Environmental Protection.	Submission of EMP and EMS documentation to Department of Environmental Protection.
2 Social Amenity	Establish community liaison and complaints management procedures.	To deal with issues arising as a result of plant operations and associated activities.	Implement the following actions: • maintain register of complaints; • detail action to be undertaken in the event of a complaint; and • liaise with representatives of community groups.	During construction and operations.	Department of Environmental Protection.	Successful development of good community relationships.
3 Air quality	Undertake detailed chemical analyses of local clays.	To determine fluoride content in local clays, to establish firing curves for operating processes and to ensure correct sizing of scrubber modules.	Provide local clay samples to qualified local and government laboratories for determining chemical content and firing characteristics. Size scrubber modules to achieve design scrubber efficiencies based on specific characteristics of raw materials and imported German limestone (or equivalent).	During detailed design.	Department of Environmental Protection.	Submission of detailed design documentation.

4 Air Quality	Design appropriately sized scrubbers on all kilns to achieve maximum emission concentrations of 5mg/m3 for hydrogen fluoride and 200mg/m3 for HCl. Total hydrogen fluoride emissions from the site will not exceed 0.145g/s.	To remove hydrogen fluoride and HCl from kiln exhaust gases.	Implement the following systems and procedures: • Hellmich scrubbers (or environmental performance equivalent) for each kiln; • use of imported German limestone (or equivalent); • kilns will be designed to automatically shut down in the event of power failure, fan failure or scrubber failure; and • scrubbing system will be installed with no bypass vent.	During detailed design.	Department of Environmental Protection.	Submission of design documentation.
5 Air Quality	Monitor scrubber stack exhaust gases and undertake remedial action if scrubber performance as stated in Commitment 4 is not achieved.	To ensure that scrubber exhaust emission concentrations do not exceed 5mg/m3 for hydrogen fluoride and 200mg/m3 for hydrogen chloride, and to ensure that total hydrogen fluoride emissions from the site do not exceed 0.145g/s.	Test scrubber stack emissions during commissioning Sample scrubber stacks on a regular basis. Participate and co-operate fully with random stack sampling as required by the DEP. Pursue the following remedial actions as appropriate if scrubber efficiencies for HF are not achieved: • modify operational processes (firing temperature, air flow, kiln setting pattern); • inject calcium hydroxide powder into the flue gas stream; • change from calcium carbonate granules (limestone) to calcium hydroxide pellets; and • change scrubber configuration (ie, install more scrubber modules). In the event that HCl efficiencies cannot be achieved, then the Proponent will install a pretreatment system that will increase the scrubber efficiency for HCl. Monitoring Reports to Western Power - Transmission Division.	During commissioning During operations. Monthly for the first 12 months and thereafter on a quarterly basis. On a random basis as initiated by DEP.	Department of Environmental Protection.	Submission of scrubber stack monitoring results.

6 Air Quality	Monitor drier stack exhaust gases and undertake remedial action if atmospheric wastes are detected.	To confirm that no atmospheric wastes are emitted from drier stacks.	Monitor drier stack exhaust to confirm that no atmospheric wastes are emitted from drier stacks. If testing finds that atmospheric wastes are present in the drier stacks then the Proponent will take appropriate remedial action.	Once during commissioning. Quarterly for the first 12 months of operation and thereafter annually.	Department of Environmental Protection.	Submission of drier stack monitoring results.
7 Air Quality	Undertake testing to characterise Volatile Organic Compounds emissions from all stacks.	To ensure that Volatile Organic Compounds are within appropriate design ground level concentrations.	Undertake testing of all stack to characterise Volatile Organic Compounds. If testing finds that Volatile Organic Compounds exceed design ground level concentrations then the Proponent will install control mechanisms such as afterburners.	During plant commissioning. Quarterly for the first 12 months of operation and thereafter twice yearly.	Department of Environmental Protection.	Submission of stack testing results.
8 Air Quality	Undertake testing to characterise odours should verifiable odour complaints arise, and/or at the request of DEP.	To identify the source of verifiable odour complaints.	Maintain a register of odour complaints. Undertake source testing to characterise odours should verifiable complaints arise.	Following odour complaints which are verifiable by the DEP.	Department of Environmental Protection.	Summary of complaint register with documentation of complaint resolution.
9 Air Quality	Implement dust control measures.	To minimise the impact of dust on the local community.	Implement the following dust control measures: • install and operate sprinklers on clay stockpiles; • restrict disturbance of the clay stockpile to a single face; • minimise inventory of clay stockpiles on site; • install a wheel wash facility; and • undertake appropriate dust monitoring.	During detailed design and during operations.	Department of Environmental Protection.	Submission of detailed drawings and dust management procedures.
10 Air Quality	Participate in a hydrogen fluoride and hydrogen chloride impact study and industry management plan if required by the DEP and in association with other local ceramic industries.	To improve local air quality.	Cooperate with DEP and other local ceramic industries to determine reasonable study parameters.	Upon request of the DEP.	Department of Environmental Protection.	To be specified by the Department of Environmental Protection in consultation with local ceramic industries.

11 Air Quality	Enter the Commonwealth Government's Voluntary Greenhouse Challenge.	To minimise Greenhouse Gas emissions.	Incorporate best practice kiln firing technology including continuous monitoring of oxygen in the flue gas. Submit a letter of intent to the Greenhouse Challenge Office and develop an agreement of action for the voluntary program.	During detailed design. Within six months of commencing operation.	Department of Environmental Protection. Common-wealth Government of Australia.	Submission of design documentation. Submission of Annual Monitoring Reports (detailing greenhouse gas emissions) to the Commonwealth Government and Department of Environmental Protection.
12 Air Quality	Investigate and prepare a suitable program for ambient monitoring of fluoride levels.	To comply with the objectives of the *Fluoride in the Swan Valley Environmental Strategy.*	Establish where required monitoring stations within the site boundary and within the community to the requirements of the DEP and in consultation with the Swan Valley Air Quality Committee for effective pollution monitoring. Establish a program of sampling as per the requirements of the DEP.	Prior to commissioning and during plant operation.	DEP	Submission of ambient monitoring results.
13 Air Quality	Investigate and prepare a suitable program for dust monitoring.	To monitor dust emissions crossing the site boundary. To meet standards set by the National Environment Protection Measure.	Establish monitoring stations up and downwind of clay stockpile to meet the requirements of the DEP.	Frequency and duration to account for seasonal variations.	DEP	Submission of dust monitoring data.
14 Water Quality	Monitor surface water quality of the detention basin and any outflow.	To ensure acceptable quality of discharge to the Helena River.	Design the outflow so that additional treatment other than sedimentation can be incorporated at a later date if required. Wastewater generated from process areas will be contained prior to discharge to the drainage basin. Only stormwater will be directly discharged to the basin. Discharge from the basin will be in accordance with the requirements of the DEP, including appropriate	During detailed design.	Department of Environmental Protection.	Submission of design documentation.

			criteria from the Draft WA Guidelines for Fresh and Marine Waters (DEP, 1993) for the protection of aquatic ecosystems. Incorporate oil separators to input to drainage basin, where necessary. Prepare contingency plan to handle upset conditions which could potentially contaminate the stormwater detention basin. Undertake initial survey of detention basin and outflow. Monitor water quality of the detention basin and any outflow and compare results with initial water quality data.	Prior to commissioning Quarterly, during operation.	Waters and Rivers Commission.	Submission of contingency plan. Submission of surface water quality monitoring results.
15 Water Quality	Monitor groundwater quality.	To establish background levels prior to development and monitor changes over time.	Establish baseline groundwater quality and conditions prior to development. Monitor groundwater quality regularly during operations and compare against existing groundwater conditions on site.	Seasonally, prior to operation. Quarterly, during operation.	Department of Environmental Protection. Waters and Rivers Commission	Submission of groundwater monitoring results.
16 Water Quality	Report any significant petrochemical spill and remediate subsurface and surface conditions in the event of a spill.	To minimise the potential for surface and groundwater contamination.	Develop procedures to ensure that subsurface and surface conditions are remediated in the event of a spill. Report significant spills according to incident reporting system within the Environmental Management System.	Within six months of commissioning. During operations.	Department of Environmental Protection. Waters and Rivers Commission.	Submission of documented procedures. Submission of incident reports, as required.
17 Water Quality	Construction of safety bunding on concrete around all fuel and chemical storage areas, including interceptor pits with oil/water separators.	To minimise the potential for surface and groundwater contamination.	Design and build bunding and interceptor pits	During detailed design stage and construction	Department of Environmental Protection	Submission of design documentation.

18 Vegetation	Undertake plant boundary modifications to preserve remnant vegetation.	To minimise impact on remnant vegetation stands identified as having significant conservation value.	Redesign the layout of the facilities as illustrated in Figure 2 to include: • preservation of 0.86ha of remnant vegetation; • setting aside an additional 0.28ha for transplanting with native species; and • including a 4m buffer zone planted with native species around the perimeter.	During detail design and prior to construction.	Department of Environmental Protection.	Submission of final plant layout design and site boundary inspection.
19 Vegetation	Explore other reasonable opportunities to minimise clearance of vegetation.	To minimise impact on remnant vegetation stands identified as having signif-icant conserv-ation value.	Review plant design and layout as proposed in Figure 2 for other reasonable opportunities to preserve additional remnant vegetation in addition to the 0.86ha identified in commitment 18.	During detail design and prior to construction.	Department of Environmental Protection	Submission of documentation describing the review of options and rationale for final recommended layout.
20 Vegetation	Enter into a conservation covenant with Main Roads WA, the responsible agent for the adjacent road reserve.	To protect and manage remnant vegetation.	Consult with Main Roads WA to encourage their support of the covenant and develop vegetation management procedures as part of the Environmental Management System.	Within six months of commissioning.	Department of Environmental Protection.	Submission of covenant documentation and vegetation management procedures.
21 Traffic	Ensure that company trucks or subcontractor's trucks do not travel through Hazelmere Townsite.	To minimise traffic impacts on local residents.	Issue written instructions to drivers and subcontractors.	At startup and regularly during operation.	Local Authority.	Copies of written instructions.
22 Noise	Install an enhanced safety system on front end loaders and heavy vehicles.	To minimise noise from the raw material stockpile areas.	Implement an enhanced safety system to enable the beeper volume to be reduced after dark and supplemented with downward and outward facing flashing lights. Maintain register of noise complaints.	During detailed design. During operations.	Department of Environmental Protection.	Summary of complaint register with documentation of complaint resolution.

23 Noise	Limit noise emissions at source	To minimise noise impacts outside of the site	Implementation to include: • Lining of underside of the plant roof where necessary with perforated 350 Fibretex or equivalent; • Location of main door on the northern or western side of the plant; • Limit noise emission from stack, drier and scrubber discharges to 80 dB (A) at 1 metre; • Limit noise emission from all external fans and equipment to 80 dB (A) at 1 metre • Limit noise emissions from front end loaders to 80 dB(A) at 7m. • Limit noise emission from forklifts to 85 dB(A) at 1m.	During detailed design and construction During operation	Department of Environmental Protection	Submission of design documentation. Confirmation of noise levels when plant operational.
24 Noise	Limit noise emissions from the site	To conform with Environmental Protection (Noise) Regulations 1997	Construct a sound attenuation barrier on site, where required	During detailed design and construction	Department of Environmental Protection	Submission of design documentation. Confirmation of noise levels when plant operational.
25 Water Supply	Investigate alternatives to scheme water supply.	To minimise use of scheme water.	Investigate the feasibility of supplementing scheme water with low grade groundwater, artesian source or recycled wastewater.	During detailed design.	Waters and Rivers Commission.	Submission of results of feasibility study.
26 Environmental Management	Publish annual report with summary of auditing information.	To provide public information on plant performance and compliance.	Prepare and publish annual report.	Annually during operation	DEP	Availability of annual report as requested.

Abbreviations:
DEP = Department of Environmental Protection
EPA = Environmental Protection Authority