MINISTER FOR THE ENVIRONMENT

Statement No.

000633

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL (PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE ENVIRONMENTAL PROTECTION ACT 1986)

RAVENSTHORPE NICKEL PROJECT, BANDALUP HILL
SHIRE OF RAVENSTHORPE

Proposal: The mining and processing of an average of 10 million tonnes per annum of nickel ore from three ore-bodies (Halleys, Hale-Bopp, and Shoemaker-Levy) near Bandalup Hill, approximately 35 kilometres east of Ravensthorpe, producing 220 000 tonnes per annum of nickel-cobalt hydroxide over a period of approximately 20 years, as documented in schedule 1 of this statement.

Proponent: Ravensthorpe Nickel Operations Pty Ltd

Proponent Address: Level 12, 200 St George's Terrace, PERTH WA 6000

Assessment Number: 1426

Previous Assessment Number: 1199

Previous Statement Number: 509

Report of the Environmental Protection Authority: Bulletin 1093

Previous Report of the Environmental Protection Authority: Bulletin 930

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the following conditions and procedures, which replace all previous conditions and procedures:

1 Implementation and Changes

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

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29th FLOOR, ALLENDALE SQUARE, 77 ST. GEORGE'S TERRACE, PERTH 6000 TELEPHONE: (08) 9220 5050 FACSIMILE: (08) 9221 4665/8
E-MAIL: judy-edwards@dpc.wa.gov.au

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, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

2-1 The proponent shall implement the 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 the conditions in this statement.

3 Proponent Nomination and Contact Details

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 as the proponent for the proposal.

3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.

3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

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 or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

- the environmental factors of the proposal have not changed significantly;
- new, significant, environmental issues have not arisen; and
- all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environmental Protection which address:

- the implementation of the proposal as defined in schedule 1 of this statement;
- evidence of compliance with the conditions and commitments; and
- the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

5-2 The proponent shall submit a performance review report every five years after the start of the operations phase, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:

- the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
- the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
- significant improvements gained in environmental management, including the use of external peer reviews;

- stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and

- the proposed environmental targets over the next five years, including improvements in technology and management processes.

6 Priority Flora / Significant Vegetation Communities Management Plan

6-1 Prior to ground-disturbing activities and in consultation with the Department of Conservation and Land Management, the proponent shall prepare a Priority Flora / Significant Vegetation Communities Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Advisory agency (See procedure 3):
- Department of Conservation and Land Management

The objective of this Plan is:

- to ensure the conservation of flora species and vegetation communities which occur within the project area.

This Plan shall address:

1 the management and monitoring of impacts on Priority Flora species within the project area, in particular, *Eucalyptus purpurata* ms, *Spyridium glaucum*, *Dampiera deltoidea*, and *Kunzea similis*;

2 further regional surveys to confirm the conservation status of each of the above species;

3 revegetation strategies, including industry best practice completion criteria to be met as the mining area advances;

4 preliminary research into the propagation of these species during the first three years of mining, in order to select initial rehabilitation techniques to be used during this time;

5 further investigations into the regeneration and seed ecology of these species (particularly *Dampiera deltoidea*) in order to determine appropriate regeneration methodologies, if completion criteria are not being achieved; and

6 the management and monitoring of impacts on significant vegetation communities within the project area, in particular, *Eucalyptus flocktoniae* - *Melaleuca coronicarpa 'gorse'* and *Eucalyptus purpurata* ms woodland.

6-2 The proponent shall implement the Priority Flora / Significant Vegetation Communities Management Plan required by condition 6-1, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

6-3 The proponent shall make the Priority Flora / Significant Vegetation Communities Management Plan required by condition 6-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7 Fauna Management Plan

7-1 Prior to ground-disturbing activities and in consultation with the Department of Conservation and Land Management, the proponent shall prepare a Fauna Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Advisory agency (See procedure 3):

- Department of Conservation and Land Management

This Plan shall address:

1 management and monitoring to minimise impacts on fauna within the project area and the adjacent Bandalup corridor; and

2 in particular, management and monitoring of the Heath Rat (*Pseudomys shortridgei*) and the Western Mouse (*Pseudomys occidentalis*);

7-2 The proponent shall implement the Fauna Management Plan required by condition 7-1 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7-3 The proponent shall make the Fauna Management Plan required by condition 7-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Procedures

1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.

2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environmental Protection.

Notes

1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.

2 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 1986*.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT

- 5 SEP 2003

Schedule 1

The Proposal (Assessment No. 1426)

The Ravensthorpe Nickel Project is located 35 kilometres east of Ravensthorpe and involves the mining of nickel ore from three ore-bodies (Halleys, Hale-Bopp, and Shoemaker-Levy) and the processing of this ore into a nickel-cobalt hydroxide product for shipment to Queensland via the Esperance Port.

Key components of the project include (refer to Figure 1):

- mining of three ore-bodies (Halleys, Hale-Bopp, and Shoemaker-Levy);
- transport of ore to Run-of-Mine pads via combination of haul roads and conveyor;
- beneficiation and processing of ore to a mixed nickel-cobalt hydroxide product (refer to process flow diagram in Figure 2);
- a process water supply and reject brine pipeline to the coast;
- a quarry to provide limestone reagent to the processing plant;
- transport of reagents and products along the South Coast Highway;
- an accommodation village for the construction workforce and a proportion of the permanent workforce; and
- tailings storage facilities and evaporation ponds (there are two options for these as set out in Figure 3).

Further quantitative description of these components is provided in Table 1 below.

A crucial management strategy for the development of this project is the establishment of a *Kunzea similis* conservation area. As part of this proposal an area has been set aside from mining (refer to Figure 4) for the conservation *in situ* of sub-populations of *Kunzea similis*. Direct disturbance through mining activities will be excluded from this area (which includes a 50 metre buffer around the populations) and indirect impacts will be closely monitored and managed.

Table 1 – Key Proposal Characteristics

KEY CHARACTERISTIC	REVISED PROJECT
Project Life	~20 years
Nominal size of Resource (at cut-off grade of 0.5% Ni)	183.3 Mt
Halleys	66.9 Mt
Hale-Bopp	25.2 Mt
Shoemaker-Levy	91.2 Mt
Mining Rate – maximum *Mining Rate (ore) - average*	18.8 Mtpa 10.0 Mtpa
Beneficiated ore production (average)	3.8 Mtpa
Acid leach throughput	3.8 Mtpa
Maximum depth of mining	60 m (from edge of pit)
Tailings Storage area – ground level footprint	460 ha
Tailings Storage Areas – final surface area	460 ha

KEY CHARACTERISTIC	REVISED PROJECT
Evaporation Pond – maximum likely area	250 ha
Water Supply Source	
Operations Water Supply Source	Seawater
Construction Water Supply Source	Groundwater
Operations Water Supply – raw water (average) (35,000 mg/L Total Dissolved Solids) Water Supply – groundwater extraction (maximum)	~30,000 kL/day 2,500 kL/d (~ 20,000 TDS)
Energy generation – installed capacity *Current configuration is 2 x 2 MW diesel engines and 3 x 18 MW steam turbines (two in use, one standby)*	58 MW
Energy generation – from diesel engines	4 MW
Energy generation – from steam turbines (acid plant)	32 -45 MW
Energy consumption – (combination of diesel power station and recovered steam power from acid plant)	36 MW
Limestone	200, 000 tpa
Sulphur	500, 000 tpa (max) <1.8kg SO_2 per tonne of acid produced
Diesel (includes mining)	15,000 tpa
Workforce construction (including mining)	1,200 people
Workforce operations (including mining)	300 people
Pit Area (combined total)	1068 ha
Pit Area -Halleys	205 ha
Pit Area - Hale-Bopp	197 ha
Pit Area - Shoemaker-Levy	666 ha
Limestone Quarry Area- Tamarine	67 ha
Plant Area *Hydrometallurgical Process Plant (including Beneficiation Plant)*	53 ha
Crusher and Conveyor	20 ha
Ore Stockpile Area includes ROM pads (combined total)	35 ha
Stockpile Area – Halleys	12 ha
Stockpile Area – Hale-Bopp	12 ha
Stockpile Area – Shoemaker-Levy	11 ha
Overburden Storage Area – waste dumps (combined total)	469 ha
Overburden Storage Area – Halleys and Hale-Bopp (excluding backfilled areas)	231 ha
Overburden Storage Area – Shoemaker-Levy	238 ha
Accommodation Village	~25 ha
Nickel Production ***Nominal*** *nickel production (contained nickel in a mixed nickel-cobalt hydroxide intermediate)*	Up to 50,000 tpa
Transport Rate to site	855,000 tpa
Transport Rate from site (product)	Up to 220,000 tpa

Abbreviations

Mtpa	million tonnes per annum
Mt	million tonnes
tpa	tonnes per annum
ML	million litres
ha	hectares
kg	kilogram
MW	megawatt
TDS	total dissolved solids
kL/d	kilolitres per day

Figures (attached)

Figure 1 – Regional plan showing project layout
Figure 2 – Options for location of proposal components
Figure 3 – Process flow diagram, and
Figure 4 – *Kunzea similis* conservation area.

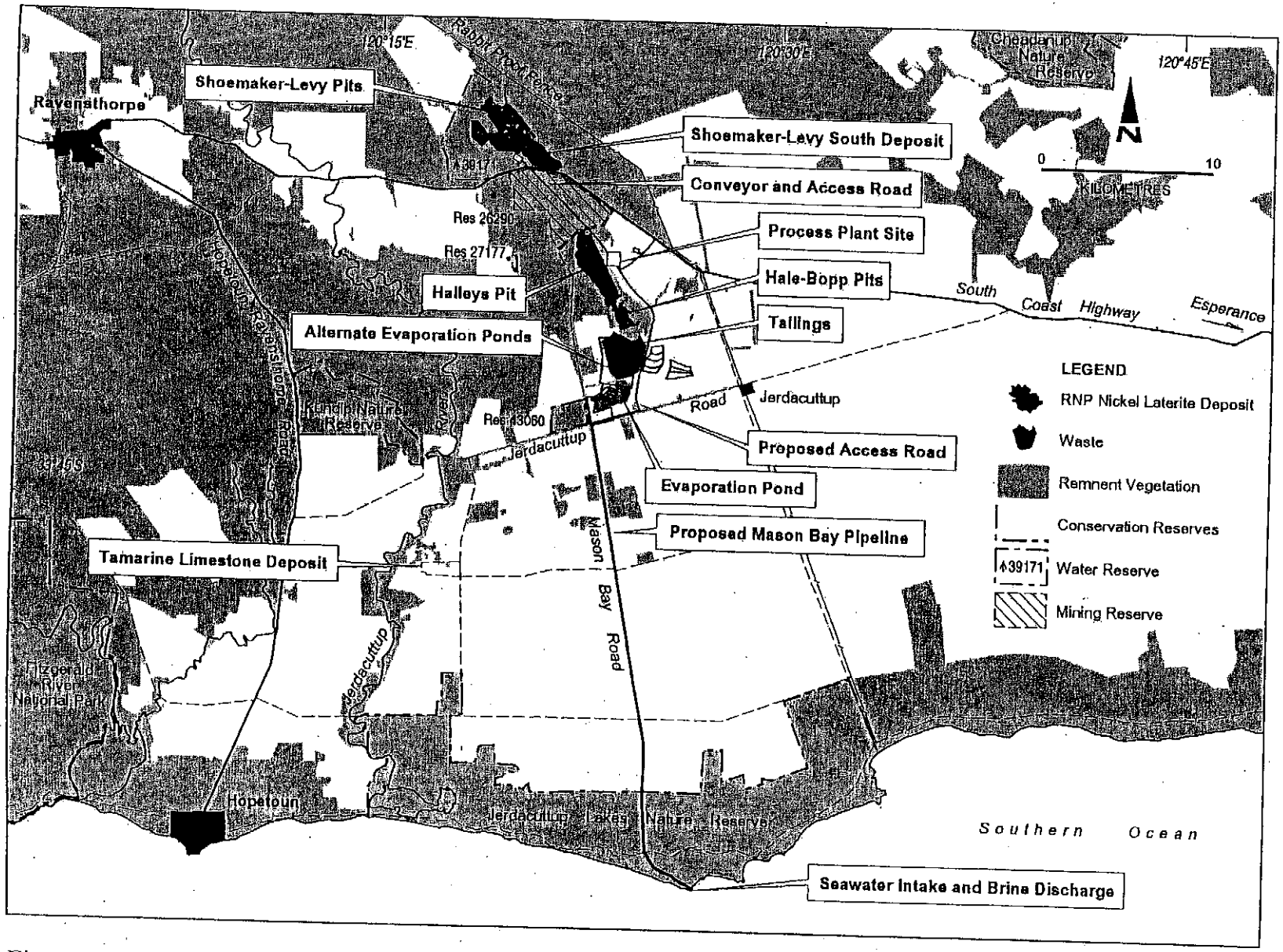

Figure 1: Regional plan showing project layout (RNO 2002)

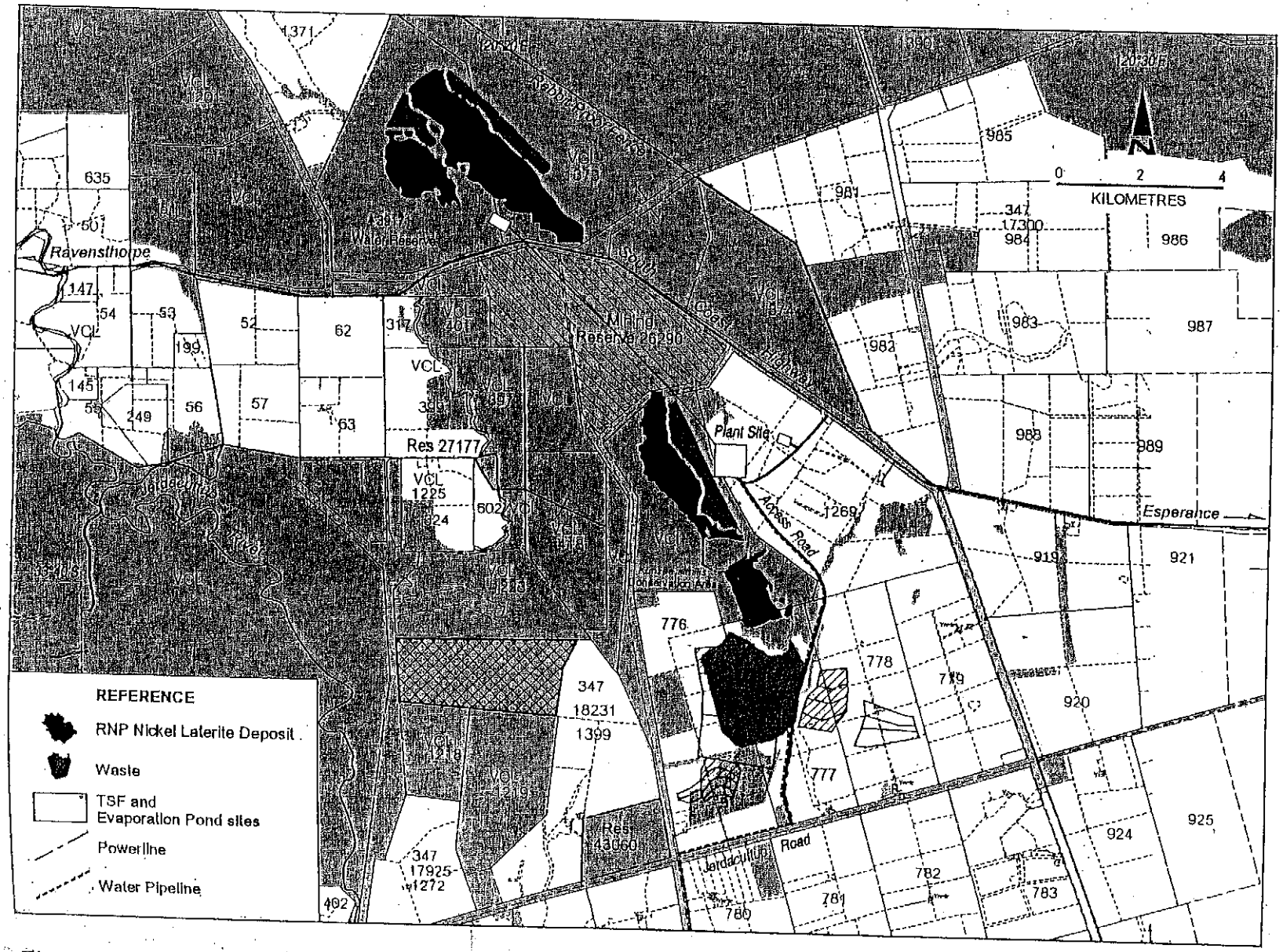

Figure 2: – Options for location of proposal components

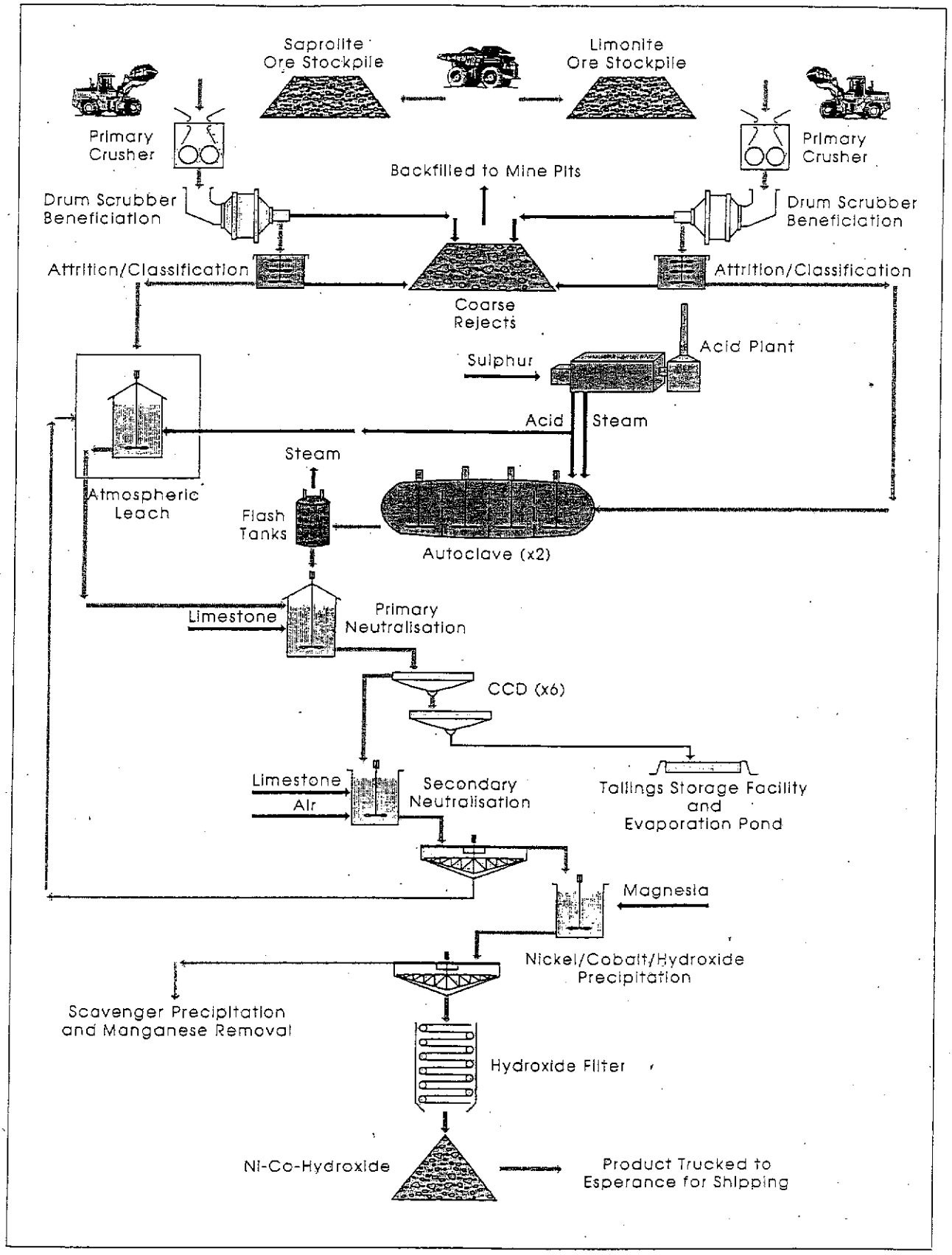

Figure 3: Process flow diagram (RNO 2002)

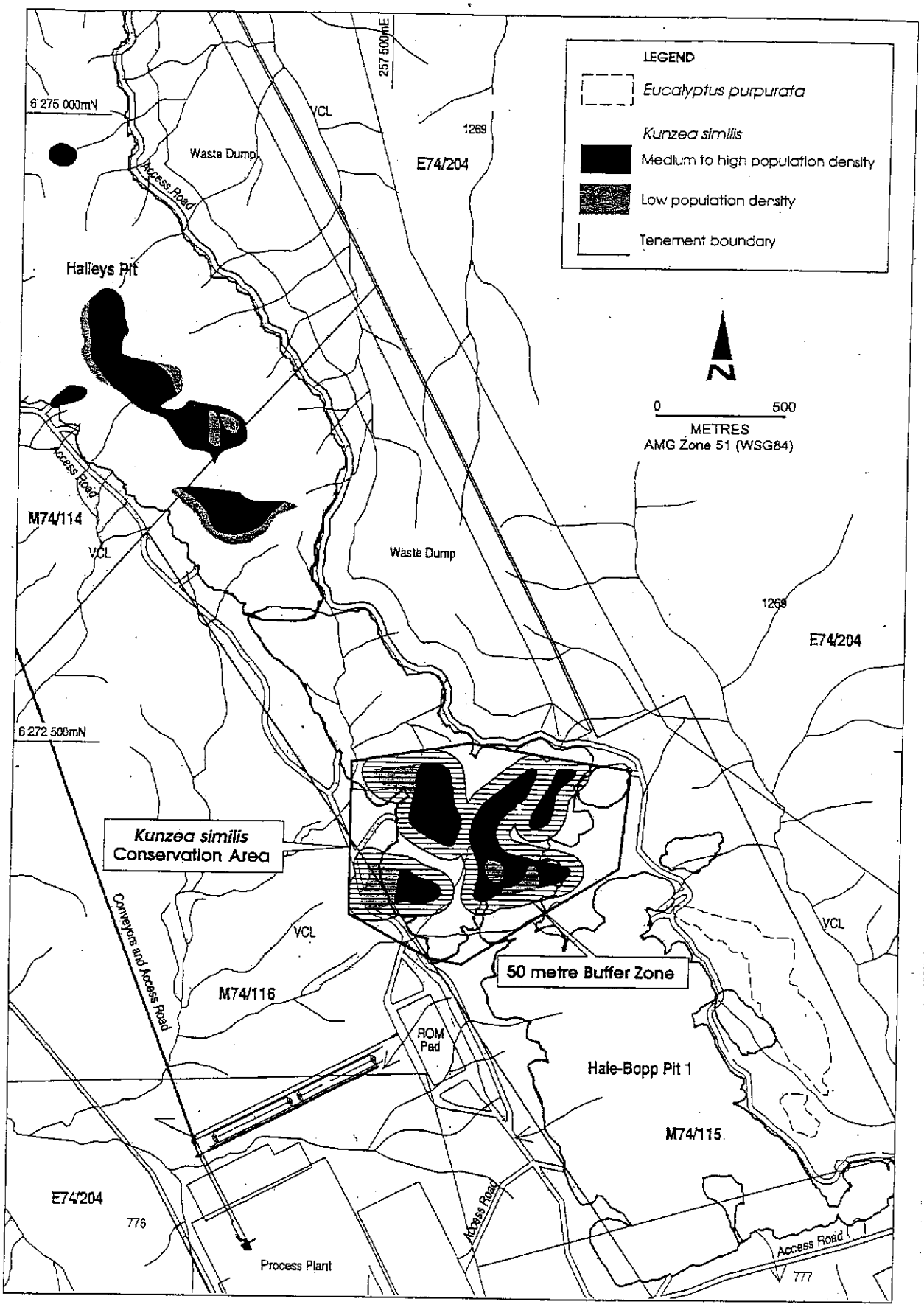

Figure 4: Kunzea similis conservation area (RNO 2002)

Schedule 2

Proponent's Environmental Management Commitments

29 August 2003

Ravensthorpe Nickel Project, Bandalup Hill
Shire of Ravensthorpe

(Assessment No. 1426)

Ravensthorpe Nickel Operations Pty Ltd

Schedule 2

RAVENSTHORPE NICKEL PROJECT, BANDALUP HILL, SHIRE OF RAVENSTHORPE (ASSESSMENT NO. 1426)

PROPONENT'S ENVIRONMENTAL MANAGEMENT COMMITMENTS – 29 AUGUST 2003

Note: The term "commitment" as used in this schedule includes the entire row of the table and its seven separate parts as follows:

- a commitment number;
- a topic;
- the "action" to be undertaken by the proponent;
- the objective of the commitment;
- the measurement/compliance criteria;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environmental Protection.

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
1	Conservation Offsets	Purchase approximately 660 ha of uncleared land (part of Location 1399) and preserve for conservation purposes.	Facilitate Western Shield fox baiting program to expand into the Bandalup Corridor. Maintain ecosystem function protection.	Land Purchased	Within twelve months following the commencement of construction of the project as described within the s46 Environmental Review.	DCLM
2	Conservation Offsets	In addition to the purchase of 660 ha of uncleared land referred to in commitment 1, rehabilitate 0.4ha of uncleared land for every 1ha of land cleared as part of the project.	Offset clearing associated with project development within the Bandalup Corridor.	Land Rehabilitated	To be completed prior to the completion of closure activities.	DCLM

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
		This rehabilitation will aim to, as closely as practicable, match the vegetation communities which would have existed prior to initial clearing. This rehabilitation is in addition to the revegetation of land disturbed by mine development.				
3	Conservation Offsets	Avoid clearing remnant vegetation on land purchased by the proponent, except where specifically required for Project facilities and related infrastructure.	Reduce as much as practicable the area of land required to be cleared.	Annual Environmental Report	Overall	DCLM
4	Rehabilitation	Develop a Reabilitation Plan designed to rehabilitate disturbed areas to re-establish as closely as reasonably practicable, similar vegetation communities as existed pre-mining, consistent with defined post-mining landuse objectives. The program will specifically: • include detailed completion criteria to be met as the mining area progresses (completion criteria to be agreed in consultation with DCLM); and • identify suitable rehabilitation techniques by preliminary research into propagation of species during the initial years of mining.	Rehabilitate impacted areas to an acceptable standard, which will integrate the post-mining vegetation communities with the surrounding environment.	Rehabilitation Management Plan Annual Environmental Report	Pre-disturbance associated with pit development.	DCLM DoIR
5	Rehabilitation	Implement the Rehabilitation Plan.	Demonstrate compliance with commitment 4.	Annual Environmental Report	Overall	DoIR

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
6	Surface Hydrology	Develop a Surface Water Management and Monitoring Plan which will address; • integrity of the water supply pipeline; • diversions of the Bandalup and Burlabup creeks; • runoff and water shadow effects from project earthworks; • storm water runoff from the processing plant; and • storage and handling of chemicals and reagents.	To take all reasonable and practicable measures to minimise detrimental impacts on the hydraulic function of drainage systems. To take all reasonable and practicable measures to minimise detrimental impacts on downstream water quality.	Annual Environmental Report	Pre-commissioning	WRC
7	Surface hydrology	Implement the Surface Water Management and Monitoring Plan.	Demonstrate compliance with commitment 6.	Annual Environmental Report	Overall	
8	Groundwater	Prepare a Groundwater Management and Monitoring Plan, which will include: • Installation of a groundwater monitoring network (down hydraulic gradient) around the tailings storage facility, evaporation pond and process plant; • Installation of groundwater observation monitoring bores down hydraulic gradient of any groundwater abstraction bores; and • A process for annually monitoring and reporting on groundwater levels and quality which exist within the lease boundaries.	Maintain the quality of groundwater exiting the Project boundaries to ensure that existing uses, including ecosystem function, are protected.	Installation of monitoring network.	Pre-commissioning Pre-construction Overall	WRC
9	Groundwater	Implement the Groundwater Management and Monitoring Plan.	Demonstrate compliance with commitment 8.	Annual Environmental Report	Overall	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
10	Flora and Vegetation	Prepare a Flora and Vegetation Management Plan, which addresses: • the management and monitoring of impacts on priority flora species within the Project area; • regional surveys to confirm the conservation status of priority species where required; • investigating the regeneration and seed ecology of specific species to determine appropriate regeneration methodologies; • management and monitoring of impacts on significant vegetation communities within the Project area; and • management of the impacts on significant vegetation from the use of saline water as a dust suppressant. (Note: This plan will supplement the requirements of condition 6 for a number of priority species flora.)	Protect Declared Rare and Priority Flora, consistent with the provisions of the *Wildlife Conservation Act 1950*. To ensure conservation of priority flora and significant vegetation communities which occur in the Project area.	Flora and Vegetation Management Plan	Pre-disturbance associated with pit development.	DCLM
11	Flora and Vegetation	Implement the approved Flora and Vegetation Management Plan.	Demonstrate compliance with commitment 10.	Annual Environmental Report	Overall	
12	Dieback	Prepare a Dieback Management Plan for activities over which the proponent has direct control or influence. This plan will include: • periodic surveys of project area to assess changes in dieback status; • restrictions on vehicle movement; and • hygiene measures for earthmoving vehicles.	Avoid the introduction or spread of disease.	Dieback Management Plan	Pre-construction	DCLM

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
13	Dieback	Implement the Dieback Management Plan.	Demonstrate compliance with commitment 12.	Annual Environmental Report	Overall	
14	Vegetation	Undertake measures to avoid (where reasonable and practicable) disturbance to the area of vegetation to the west of Mason Bay Road (deemed "old growth vegetation") within any of its tenements during the period of the leases.	To ensure conservation of priority flora and significant vegetation communities which occur in the Project area. Protection of native fauna within the Bandalup Corridor.	Annual Environmental Report	Overall	
15	Priority Flora – *Kunzea similis*	Conserve *in situ* populations of *Kunzea similis* on Hale-Bopp deposit (currently estimated at 40% of known population), with a buffer zone of no less than 50 metres as defined by Figure 4.	Protection of *Kunzea similis in situ.*	Mine plan	Overall	DCLM
16	Priority Flora – *Kunzea similis*	Develop a Kunzea Management Plan which will as a minimum; • Facilitate and undertake research studies and rehabilitation trials aimed at re-establishing viable *Kunzea similis* communities on areas disturbed by mining and other alternative sites; and • Monitor progress of sites rehabilitated with *Kunzea similis.* (Note: This plan will supplement the requirements of condition 6.)	Protection of *Kunzea similis.*	Kunzea Management Plan Annual Environmental Report	Pre-disturbance associated with pit development. Overall	DCLM
17	Priority Flora – *Kunzea similis*	Implement the Kunzea Management Plan.	Demonstrate compliance with commitment 16.	Annual Environmental Report	Overall	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
18	Fauna	Form a sponsorship agreement with DCLM aimed at further study of the Heath Rat (*Pseudomys shortridgei*). The study framework will be agreed between the proponent, DCLM, and any supervising research institution. Topics for consideration in the framework could include: • basic species ecology; • habitat preferences; • population trends across the species' known range; • use of satellite imagery to identify extent of potential habitat; and • estimates of total population numbers.	Facilitate greater understanding of the Heath Rat.	Sponsorship agreement with DCLM	Pre-construction.	DCLM
19	Fauna	Form a sponsorship agreement with DCLM to extend the Fitzgerald River National Park Western Shield baiting program to include the Bandalup Corridor and Project area.	Protection of native fauna within the Bandalup Corridor.	Sponsorship agreement with DCLM	Pre-commissioning	DCLM
20	Marine Flora and Fauna	Develop a Pipeline Construction Environmental Management Plan, which will include all measures to reduce the disturbance to marine flora and fauna associated with pipeline construction.	Maintain the ecological function, abundance and species diversity of marine flora and fauna.	Construction Environmental Management Plan	Pre-construction of seawater intake and return brine pipeline.	
21	Marine Flora and Fauna	Implement the Pipeline Construction Environmental Management Plan.	Demonstrate compliance with commitment 20.	Annual Environmental Report	Overall	
22	Social Setting and Community	Actively facilitate the continuation of the Ravensthorpe Nickel Project Community Liaison Committee and the Jerdacuttup RNO Working Group during construction and ongoing operation of the Project.	To assist with managing potential community effects from the construction, operation and closure of the Project.	Community Liaison Committee Jerdacuttup RNO Working Group	Overall	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
23	Heritage and Aboriginal Sites	Prepare a Heritage Management Plan which incorporates: • Training for all employees to make them aware of the significance of indigenous and non-indigenous heritage; • Procedures to identify and report internally such indications; and • Procedures for external notification and reporting of potential heritage sites.	Ensure that the proposal complies with the requirements of the *Aboriginal Heritage Act 1972* and any other statutory requirements in relation to areas of cultural or historical significance.	Heritage Management Plan	Pre- construction	DIA Herit Co.
24	Heritage and Aboriginal Sites	Implement the Heritage Management Plan.	Demonstrate compliance with commitment 23.	Annual Environmental Report	Overall	
25	Air Quality	Provide predicted ambient air quality information to any interested members of the community when applying for a Works Approval under Part V of the *Environmental Protection Act 1986*. This information will include. • Predictive dispersion modelling for SO_2, SO_3, NO_x and particulates using collected onsite meteorological data and final plant design information; and • Demonstrated compliance with relevant standards or guidelines with results obtained from dispersion modelling.	Demonstrate compliance with ambient air quality criteria.	Air Quality Report	Pre-construction.	CLC

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
26	Greenhouse Gas Emissions	Prepare a Greenhouse Gas Management Plan which: • includes calculation of the greenhouse gas emissions associated with the proposal (using the generally accepted methods); • indicates specific measures adopted to limit greenhouse gas emissions for the Project; • includes monitoring of greenhouse gas emissions; • estimates the comparative greenhouse gas efficiency of the Project (per unit of product and/or other agreed performance indicators) with the efficiency of other comparable projects producing a similar product; and • provides an analysis of the extent to which the proposal meets the requirements of the National Strategy using a combination of: • 'no regrets' measures; • 'beyond no regrets' measures; • land use change or forestry offsets; and • international flexibility mechanisms.	To ensure that GHG emissions from the Project are adequately addressed and best available efficient technologies, as far as practicable, are used to minimise total net GHG emissions and/or GHG emissions per unit of product. To mitigate GHG emissions in accordance with the Framework Convention on Climate Change 1992, and consistent with the National Greenhouse Strategy.	Greenhouse Gas Management Plan Annual Environmental Report (including GHG emissions)	Pre- commissioning	DoIR
27	Dust and Particulates	Prepare a Dust Management Plan in consultation with DoIR and DEP. This plan will include ambient monitoring proposals to verify that dust levels comply with the relevant standards or guidelines.	To ensure that dust levels generated by the Project do not adversely impact the ecological function or health and amenity of the community.	Dust Management Plan Annual Environmental Report	Pre-disturbance Overall	DoIR
28	Dust and Particulates	Implement the Dust Management Plan.	Demonstrate compliance with commitment 27.	Annual Environmental Report	Overall	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
29	Noise	Maintain a complaints register to record any noise-related complaints from the public. This information will be used to revise noise management measures where investigation into the complaint identifies the need.	To maintain noise-related amenity of surrounding community.	Complaints Register	Overall	
30	Blasting Vibration	Pay for independent structural integrity assessments to be undertaken on all dwellings and buildings on properties which immediately neighbour blast sites in accordance with the recommendations contained within the draft "EPA Guidance – Environmental Noise", or any other subsequent approved industry standard. The proponent will repeat this process on (reasonable) request or at specified intervals and will make good any defect which has occurred as a result of blasting vibration. The proponent will consult with interested parties prior to the conduct of each assessment.	To ensure that adjacent neighbours are not materially impacted by proponent blasting operations.	Completion of assessments.	Pre commencement of production blasting.	DoIR
31	Solid Waste	Develop a Waste Management and Waste Minimisation Plan, including; • measures to minimise waste generated by the activities on the premises; • training for all employees; • provision of adequate waste storage containers.	Cleaner production and sustainability.	Waste Management and Minimisation Plan	Pre-commissioning	
32	Solid Waste	Implement the Waste Management and Waste Minimisation Plan.	Demonstrate compliance with commitment 31.	Annual Environmental Report	Overall	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
33	Public Health and Safety	Develop a Hazardous Substances Management Plan, including; • Development of a register; and • Storage, handling and disposal requirements.	Ensure that risk is managed to meet the EPA's criteria for individual fatality risk off-site and the DoIR's requirements in respect of public safety.	Assessment completed.	Pre-construction	DoIR
34	Public Health and Safety	Implement the Hazardous Substances Management Plan.	Demonstrate compliance with commitment 33.	Annual Environmental Report	Overall	
35	Closure	Prepare a Preliminary Closure Plan which provides the framework to ensure that the site is left in a stable and sustainable condition. The plan will include: • the establishment of appropriate vegetation communities; and • measures to reduce visual impact associated with mine development by designing post-mining landforms as closely as practicable to resemble pre-mining landforms.	Maintain ecological integrity and long term landform stability.	Preliminary Closure Plan	Pre-construction	DoIR
36	Closure	Build on and implement the Preliminary Closure Plan within 5 years following commissioning.	To implement progressive closure.	Annual Environmental Report	Overall	DoIR

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
37	Environ-mental Management System	Demonstrate that an Environmental Management System for the Project has been implemented.	All risks are identified and management plans implemented for high risks. To meet BHP Billiton HSEC Management Standards.	HSEC Management System	Pre-construction and Overall	DoIR
38	Environ-mental Management Plan (Construction Phase)	Prepare and implement an Environmental Management Plan for the project *construction phase*. The Plan will address the following: • Land disturbance • Water • Flora • Fauna • Waste • Air quality • Noise • Rehabilitation • Heritage • Incident management • Complaint management • Fire Management • Site induction ; and • Performance reporting.	Implement and maintain an approved EMP in order to: • implement the Environmental Management System; and • achieve the goals of protection of the environment, public and workforce.	Environmental Management Plan	Pre-construction	

No.	Topic	Action	Objective	Compliance Criteria	Timing	Advice
39.	Environ-mental Management Plan (Operations Phase)	Prepare and implement an Environmental Management Plan for the project *operation phase*. The Plan will address the following: • Land disturbance • Water • Flora • Fauna • Waste • Air quality • Noise • Rehabilitation • Heritage • Incident management • Complaint management • Fire Management • Site induction; and • Performance reporting.	Implement and maintain an approved EMP in order to: • implement the Environmental Management System; and • achieve the goals of protection of the environment, public and workforce.	Environmental Management Plan	Pre-commissioning. Overall	

Abbreviations :

CLC = Community Liaison Committee
DEP = Department of Environmental Protection
DCLM = Department of Conservation & Land Management
DIA = Department of Indigenous Affairs
DoIR = Department of Industry & Resources
EMP = Environmental Management Plan
EPA = Environmental Protection Authority
GHG = Greenhouse Gases
Herit Co = Heritage Council of WA
HSEC = Health, Safety, Environment & Community
WRC = Water & Rivers Commission

MINISTER FOR THE ENVIRONMENT

Mr Ken Hellsten
Ravensthorpe Nickel Operations Pty Ltd
PO Box Z5051
PERTH WA 6831

Dear Mr Hellsten

APPROVAL TO VARY THE SEAWATER INTAKE FACILITY FOR THE RAVENSTHORPE NICKEL PROJECT (STATEMENT 633)

On 10 November 2004 you wrote to the Department Environment regarding a variation to the design of the seawater intake facility.

Because this is a variation to the original proposal, it is not considered part of the EPA assessment in Bulletin 1093 and authorised by Ministerial Statement 633. However under Section 45C of the *Environmental Protection Act 1986*, I am able to approve variations to a proposal, without a revised proposal being submitted to the EPA, when it is considered that the changes will not have a significant environmental impact.

On the advice of the EPA I understand that:

- The detrimental environmental impacts associated with the variation to the seawater intake design are not considered significant; and
- The construction and operation of the facility can be managed by the existing conditions of Statement 633.

I consider that the redesign of the seawater intake facility is unlikely to result in significant changes to the environmental impacts of the approved proposal. Approval is therefore granted under Section 45C of the *Environmental Protection Act 1986* for the requested variation.

Yours sincerely

ORIGINAL SIGNED
3 DEC 2004
DR JUDY EDWARDS MLA

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT

cc: Walter Cox, EPA Chairman

29th FLOOR, ALLENDALE SQUARE, 77 ST. GEORGE'S TERRACE, PERTH 6000 TELEPHONE: (08) 9220 5050 FACSIMILE: (08) 9221 4665/8
E-MAIL: judy-edwards@dpc.wa.gov.au

The variation is a design for an onshore seawater intake facility rather than an offshore intake facility.

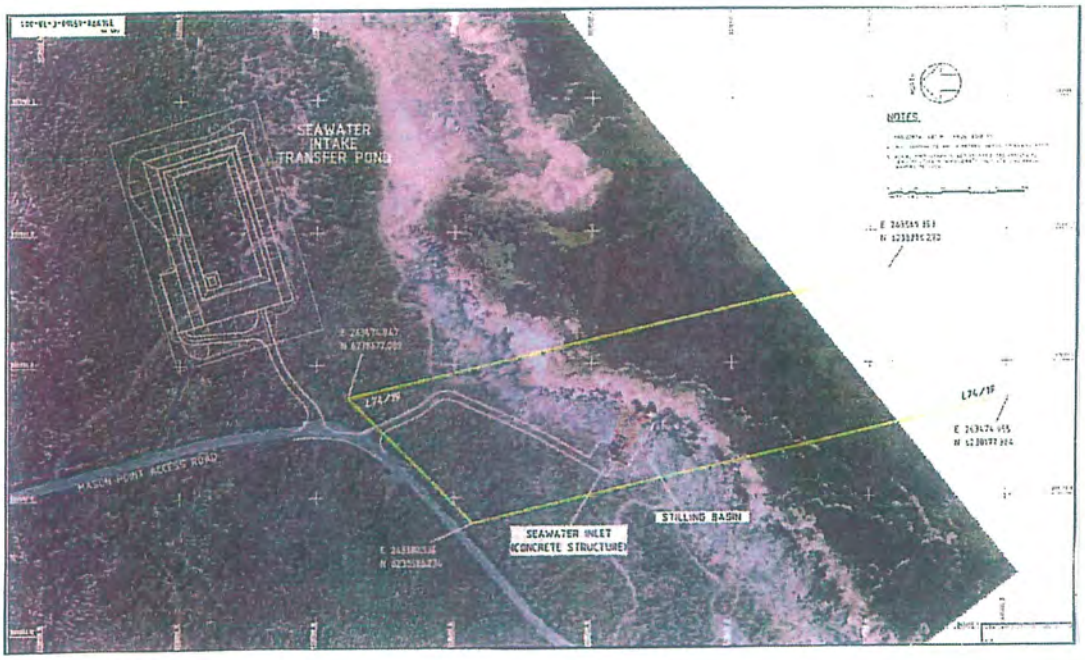

Figure – Location of intake and associated infrastructure

Attachment 1 to Statement 633

Change to Proposal

Proposal: Ravensthorpe Nickel Project, Bandalup Hill, Shire of Ravensthorpe

Proponent: Ravensthorpe Nickel Operations Pty Ltd

Change: Increase the maximum allowable area of the evaporation pond from 250 hectares to 391 hectares.

Components of original Proposal as implemented:

Component	Quantities/Description
Evaporation Pond – Maximum likely area	250 ha

Components of changed Proposal:

Component	Quantities/Description
Evaporation Pond - total area	Not more than 391 hectares

Dr Paul Vogel
Chairman
Environmental Protection Authority
under delegated authority

Approval date: 22.12.08

Attachment 2 to Statement 633

Change to Proposal

Proposal: Ravensthorpe Nickel Project, Bandalup Hill, Shire of Ravensthorpe

Proponent: FQM Australia Nickel

Change: Construct and operate a Sands Reject Storage Facility

Key Characteristics Table:

Element	Description of approved change to proposal
Sands Reject Storage Facility	
Area of disturbance	160 hectares (147 hectares for the facility, 5 hectares for additional infrastructure and 8 hectares for a topsoil stockpile) on agricultural land and a pine plantation.
Operating life	Eight years

List of Figures:
Figure 5: Indicative site layout for the Sands Reject Storage Facility

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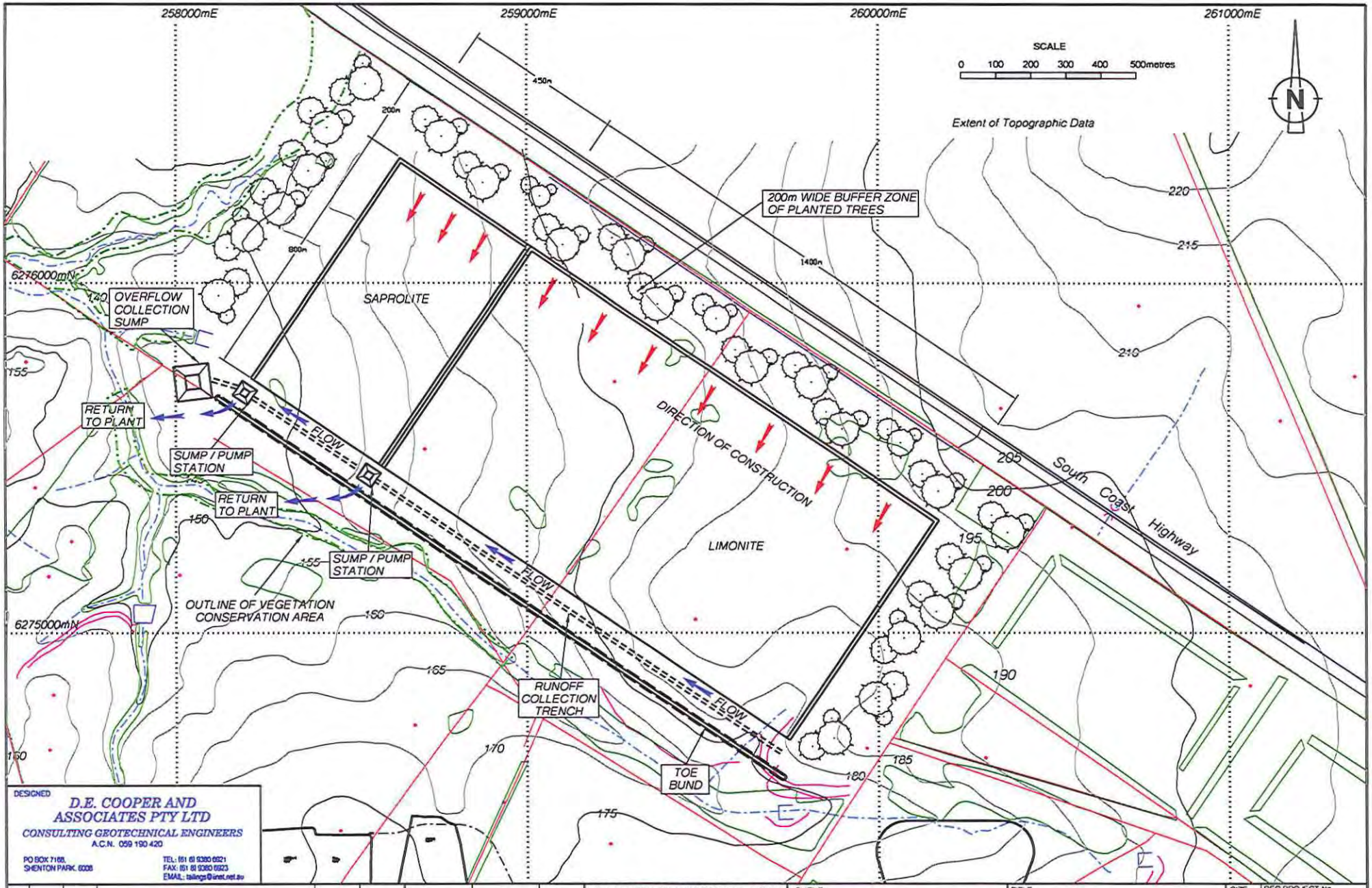
Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 23 September 2010



DESIGNED

D.E. COOPER AND ASSOCIATES PTY LTD

CONSULTING GEOTECHNICAL ENGINEERS

A.C.N. 059 190 420

PO BOX 7168, SHENTON PARK, 6008

TEL: (61 8) 9380 6921
FAX: (61 8) 9380 6923
EMAIL: tailings@iinet.net.au

REVISIONS

REV	DATE	REVISION	CHECKED	APPROV.

	BY	DATE
DESIGN APPR.		
CHECKED		
DESIGNED	D.C.	28.09.10
DRAWN	J.H.	28.09.10

CLIENT APPROVED FOR CONSTRUCTION

DATE: SIGNED:

CLIENT: FQM AUSTRALIA NICKEL PTY LTD

PROJECT: RAVENSTHORPE NICKEL PROJECT

TITLE: REJECT SAND STORAGE GENERAL ARRANGEMENT

SIZE: A3

DEC PROJECT NO.: 184

SCALE: 1 : 10000

DRAWING No.: Figure 5

REV.: -

Attachment 3 to Ministerial Statement 633

Change to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and all previous Attachments to Ministerial Statement 633

Proposal: Ravensthorpe Nickel Project

Proponent: FQM Australia Nickel Pty Ltd

Changes:

- Increase in disturbance footprint of 282 ha and removal of elements considered not environmentally relevant or managed under other legislation.

Table 1: Summary of the Proposal

Proposal Title	Ravensthorpe Nickel Project, Bandalup Hill, Shire of Ravensthorpe
Short Description	The Ravensthorpe Nickel Project is located 35 kilometres east of Ravensthorpe and involves the mining of nickel ore from three ore-bodies: Halleys, Hale-Bopp and Shoemaker-Levy, and the processing of this ore into a nickel-cobalt hydroxide product for shipment via the Port of Esperance. Key components of the project include: • transport of ore to Run-of-Mine pads via combination of haul roads and conveyor; • a process water supply and reject brine pipeline to the coast; and • tailings storage facilities and evaporation ponds. A crucial management strategy for the development of this project is the establishment of a *Kunzea similis* conservation area. As part of this proposal an area has been set aside from mining (refer to Fig. 3) for the conservation in situ of sub populations of *Kunzea similis*. Direct disturbance through mining activities will be excluded from this area (which includes a 50 metre buffer around the populations) and indirect impacts will be closely monitored and managed.

Table 2: Location and authorised extent of physical and operational elements

Element	Previously Authorised Extent	Authorised Extent
Project Life	~20 years	**Removed as not a significant key characteristic relevant to the environment.**
Nominal size of resource (at cut-off grade of 0.5% Ni)	183.3 Mt	**Removed as not a significant key characteristic relevant to the environment.**
Halleys Deposit	66.9 Mt	**Removed as not a significant key characteristic relevant to the environment.**
Hale-Bopp Deposit	25.2 Mt	**Removed as not a significant key characteristic relevant to the environment.**
Shoemaker-Levy Deposit	91.2 Mt	**Removed as not a significant key characteristic relevant to the environment.**
Mining Rate – Maximum Mining Rate (ore) – average	18.8 Mtpa 10.0 Mtpa	**Removed as not a significant key characteristic relevant to the environment.**

Element	Previously Authorised Extent	Authorised Extent
Beneficiated ore production (average)	3.8 Mtpa	**Removed as not a significant key characteristic relevant to the environment.**
Acid Leach throughput	3.8 Mtpa	**Removed as managed under Part V of the *Environmental Protection Act 1986***
Maximum depth of mining	60 m (from edge of pit)	60 m (from edge of pit)
Tailings Storage Area – ground level footprint	460 ha	460 ha
Tailings Storage Areas – final surface area	460 ha	**Removed as described above in Tailings Storage Area – ground level footprint**
Evaporation pond	Not more than 391 ha	Not more than 391 ha
Water Supply Source		
Operations Water Supply Source	Seawater	**Removed as described below under Operations Water Supply – raw water (average)**
Construction Water Supply Source	Groundwater	**Removed as described below under Construction Water Supply**
Operations Water Supply – raw water (average)	Seawater Up to 30,000 kL/day (35,000 mg/L TDS)	**Seawater** **Up to 30,000 kL/day**
Construction Water Supply	Groundwater Up top 2,5000 kL/day (~20,000 mg/L TDS)	**Groundwater** **Up to 2,5000 kL/day)**
Energy generation – installed capacity Current configuration is 2 x 2 MW diesel engines and 3 x 18 MW steam turbines (Two in use, one standby)	58 MW	**Removed as managed under Part V of the *Environmental Protection Act 1986***
Energy generation – from diesel engines	4 MW	**Removed as managed under Part V of the *Environmental Protection Act* 1986**
Energy generation – from steam turbines (acid plant)	32-45 MW	**Removed as managed under Part V of the *Environmental Protection Act* 1986**
Energy consumption – (combination of diesel power station and recovered steam power from acid plant)	36 MW	**Removed as managed under Part V of the *Environmental Protection Act* 1986**
Limestone	200,000 tpa	**Removed as managed under Part V of the *Environmental Protection Act* 1986**
Sulphur	Up to 500,000 tpa <1.8kg SO2 per tonne of acid produced	Up to 500,000 tpa <1.8kg SO2 per tonne of acid produced
Diesel (includes mining)	15,000 tpa	**Removed as not a significant key characteristic relevant to the environment**
Workforce construction (including mining)	1,200 people	**Removed as not a significant key characteristic relevant to the environment**
Workforce operations (including mining)	300 people	**Removed as not a significant key characteristic relevant to the environment**
Pit area (combined Total)	1068 ha	**1204 ha**
Pit area – Halleys	205 ha	**233 ha**
Pit area – Hale-Bopp	197 ha	**305 ha**
Pit area – Shoemaker-Levy	666 ha	666 ha
Limestone Quarry Area – Tamarine	67 ha	67 ha
Plant area *Hydrometallurgical Process Plant (including Beneficiation Plant)*	53 ha	53 ha
Crusher and conveyor	20 ha	20 ha

Element	Previously Authorised Extent	Authorised Extent
Ore Stockpile Area includes ROM pads (combined Total)	35 ha	35 ha
Stockpile area – Halleys	12 ha	12 ha
Stockpile area – Hale-Bopp	12 ha	12 ha
Stockpile area – Shoemaker-Levy	11 ha	11 ha
Overburden Storage Area – waste dumps (combined total)	469 ha	**586 ha**
Overburden Storage Area – Halleys and Hale-Bopp (excluding backfilled areas)	231 ha	**348 ha**
Overburden Storage Area – Shoemaker-Levy	238 ha	238 ha
Sands Reject Storage Facility	160 ha	160 ha
Accommodation Village	Up to 25 ha	Up to 25 ha
Nickel Production **Nominal** nickel production (contained nickel in a mixed nickel cobalt hydroxide intermediate)	Up to 50,000 tpa	Up to 50,000 tpa
Transport rate to site	855,000 tpa	855,000 tpa
Transport rate from site (product)	Up to 220,000 tpa	Up to 220,000 tpa

Note: Text in **bold** indicates a change to the proposal.

Table 3: Abbreviations

Abbreviation	Term
ha	hectare
tpa	tonnes per annum
kL	kilolitre

Figures (attached)

Figure 1 - Regional Plan Showing Project Layout
Figure 2 - Location of Project Elements
Figure 3 - Conservation Areas
Figure 4 - Seawater Onshore Intake Facility
Figure 5 - Reject Sand Storage – General Arrangement
Figure 6 - Disturbance Envelope and Community Conservation Area Boundaries

[Signed 12 August 2014]

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Figure 1. Regional Plan Showing Project Layout

Project Elements for Ministerial Statement 633

N

0 7.5 15 Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Date: 01/08/2014 Drawn By: Cheyne A. Jowett & L.M. Cotte

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FQM AUSTRALIA NICKEL

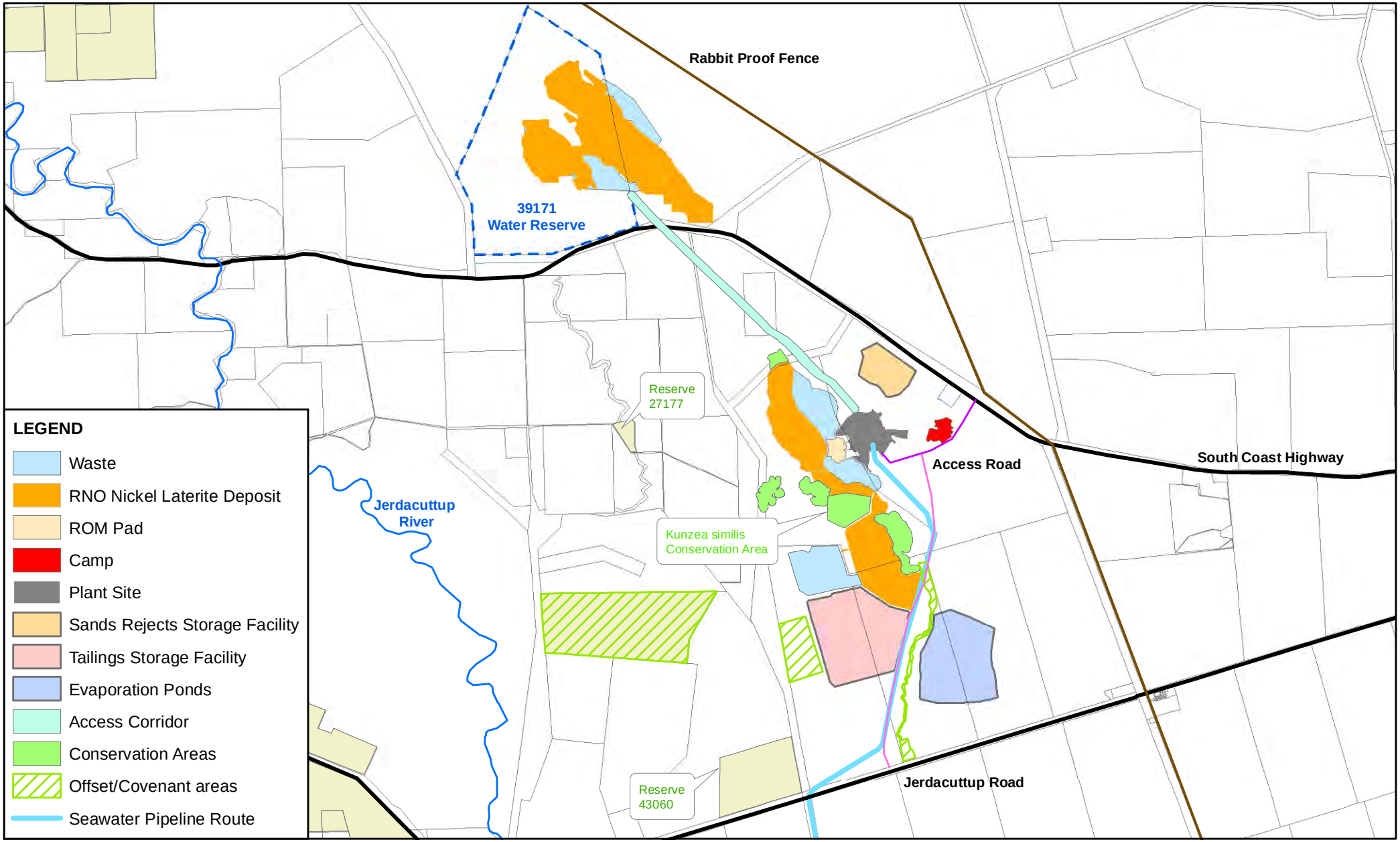

Figure 2. Project Elements

Project Elements for Ministerial Statement 633

N

0 5 10 Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Date: 01/08/2014 Drawn By: Cheyne A. Jowett

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FQM AUSTRALIA NICKEL

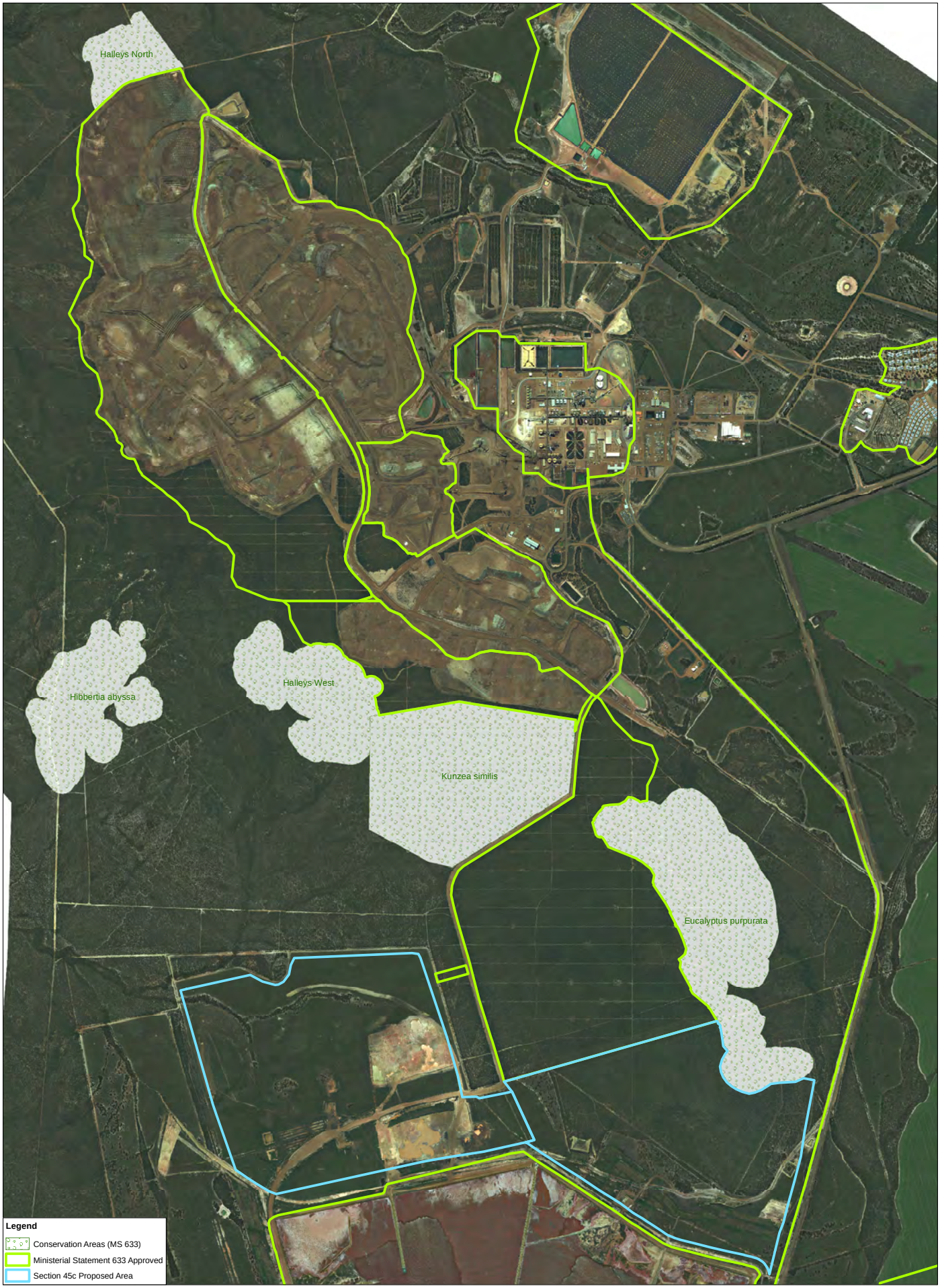

Figure 3 Conservation Areas

Project Elements for Ministerial Statement 633
Hibbertia abyssa Conservation Area established following classification as Threatened Flora - Declared Rare Flora in 2010.

N

0 0.75 1.5 Kilometers

Date: 04/08/2014 Drawn By: Cheyne A. Jowett

Coordinate System: GDA 1994 MGA Zone 51

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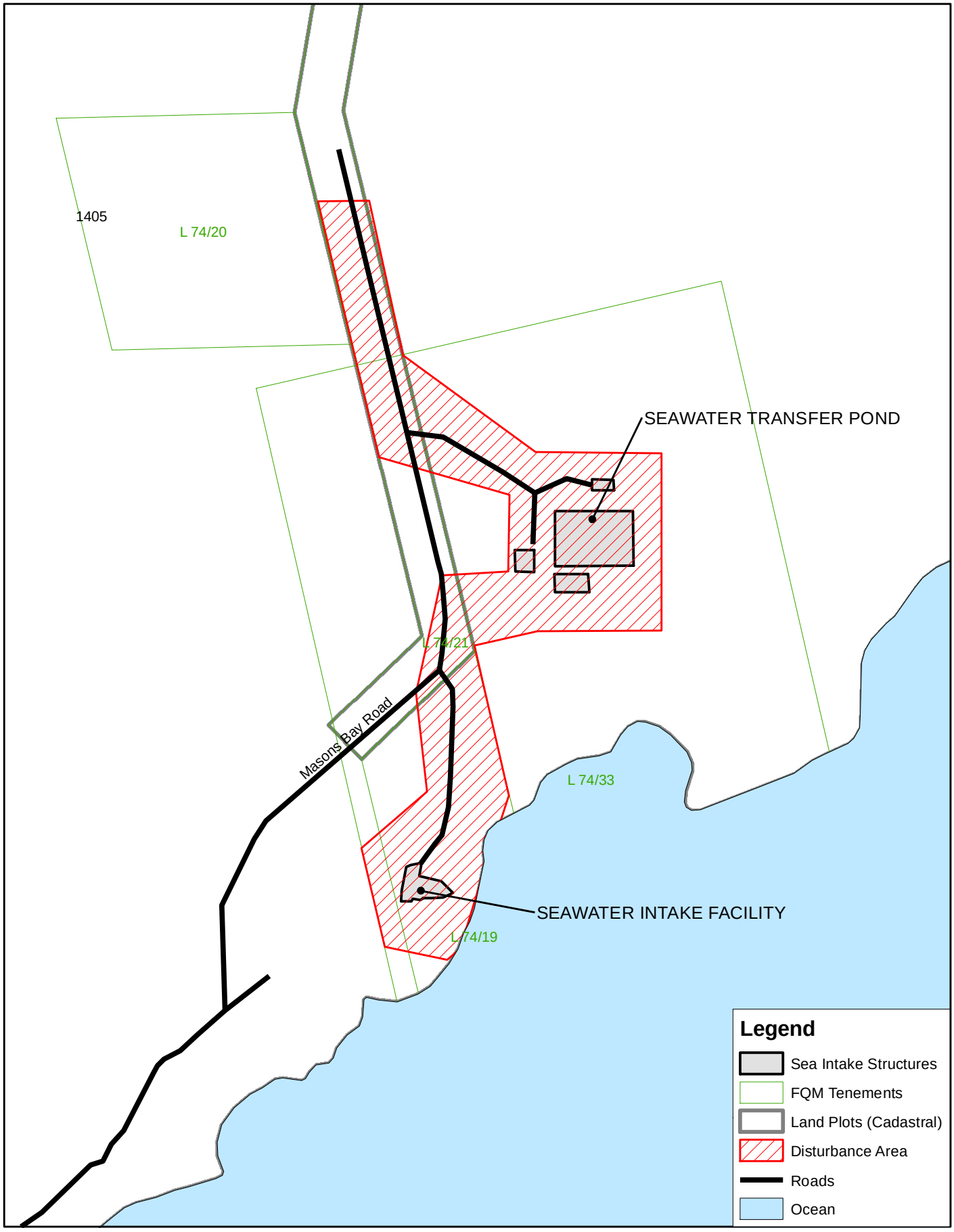

Figure 4. Seawater Onshore Intake Facility

Project Elements for Ministerial Statement 633

N

0 125 250 Meters

Date: 01/08/2014 Drawn By: D.Hakayobe

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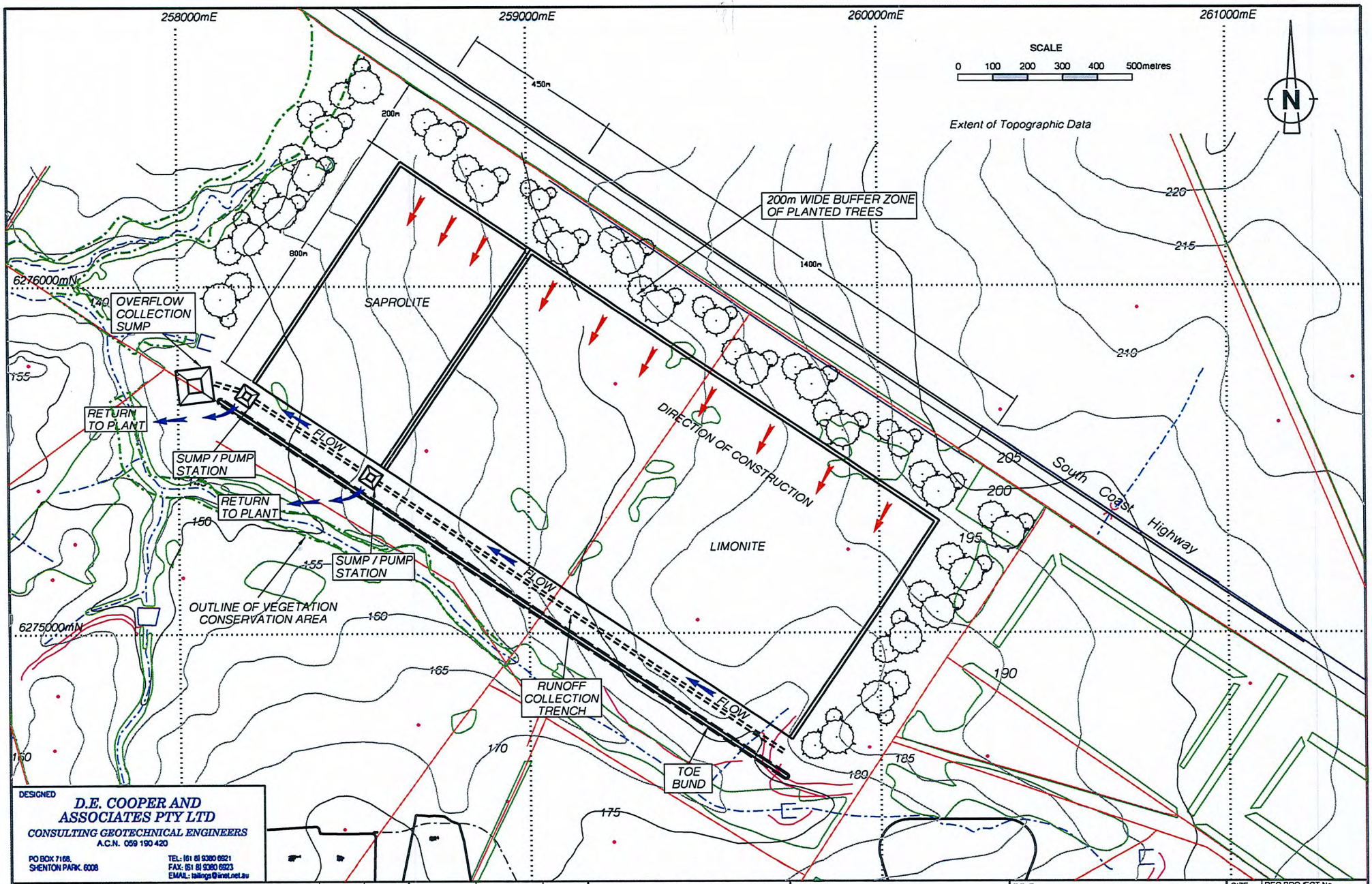
FQM AUSTRALIA NICKEL



DESIGNED

D.E. COOPER AND ASSOCIATES PTY LTD
CONSULTING GEOTECHNICAL ENGINEERS
A.C.N. 059 190 420
PO BOX 7168, SHENTON PARK. 6008
TEL: (61 8) 9380 6921
FAX: (61 8) 9380 6923
EMAIL: tailings@iinet.net.au

REVISIONS	REV	DATE	REVISION	CHECKED	APPROV.

	BY	DATE
DESIGN APPR.		
CHECKED	-	-
DESIGNED	D.C.	28.09.10
DRAWN	J.H.	28.09.10

CLIENT APPROVED FOR CONSTRUCTION

DATE : SIGNED :

CLIENT: FQM AUSTRALIA NICKEL PTY LTD

PROJECT: RAVENSTHORPE NICKEL PROJECT

TITLE: REJECT SAND STORAGE GENERAL ARRANGEMENT

SIZE: A3

DEC PROJECT No.: 184

SCALE: 1 : 10000

DRAWING No.: Figure 5

REV.: -

Figure 6. Disturbance Envelope and Community Conservation Area Boundaries

Attachment 4 to Ministerial Statement 633

Change to proposal approved under section 45C of the
Environmental Protection Act 1986

This Attachment replaces Schedule 1 and all previous attachments to Ministerial Statement 633

Proposal: **Ravensthorpe Nickel Project, Bandalup Hill, Shire of Ravensthorpe**

Proponent: **FQM Australia Nickel Pty Ltd**

Changes:

- Administrative changes to better define the proposal in schedule 1
  - Define development envelopes and combining project elements to allow flexibility in implementation, without increasing the authorised extent.
  - Include the access corridor (from Shoemaker-Levy to the process plant) to the authorised extent table.
  - Include the seawater pipeline and intake to the authorised extent table.
  - Add 289 hectares of cleared farmland for topsoil stockpiles, access tracks and miscellaneous infrastructure to the authorised extent table.
  - Amend the boundaries of the Halleys pit, Halleys overburden storage area and Hale-Bopp pit to incorporate historical clearing of native vegetation, without increasing the total authorised clearing extent.
  - Include the limestone quarry to Figure 1.
  - Minor variation to the alignment of the access corridor in Figure 2.
  - Consistent naming of project elements between the tables and figures.
  - Remove elements that are duplicated.

Table 1: Summary of the Proposal

Proposal Title	Ravensthorpe Nickel Project, Bandalup Hill, Shire of Ravensthorpe
Short Description	The Ravensthorpe Nickel Project is located 35 kilometres east of Ravensthorpe and involves the mining of nickel ore from three orebodies: Halleys, Hale-Bopp and Shoemaker-Levy, and the processing of this ore into a nickel-cobalt hydroxide product for shipment via the Port of Esperance. Key components of the project include: • transport of ore to Rin-of-Mine pads via combination of haul roads and conveyor; • a process water supply and reject brine pipeline to the coast; and • tailings storage facilities and evaporation ponds. A crucial management strategy for the development of this project is the establishment of a *Kunzea similis* conservation area. As part of this proposal an area has been set aside from mining (refer to Figure 3) for the conservation in situ of sub populations of *Kunzea similis.* Direct disturbance through mining activities will be excluded from this area (which includes a 50 metre buffer around the populations) and indirect impacts will be closely monitored and managed.

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Previously Authorised Extent	Authorised Extent
Physical elements			
Maximum depth of mining	-	60 metres (from edge of pit)	No change
Tailings storage facility	Figure 2	460 ha	**Disturbance of no more than 830 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope**
Evaporation ponds	Figure 2	Not more than 391 ha	
Sands reject storage facility	Figure 2	160 ha	**Disturbance of no more than 110 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope**
Pit area (combined total)	-	1,204 ha	**Removed as duplicate of pit area identified for Halleys, Hale-Bopp and Shoemaker-Levy**
Ore stockpile area includes ROM pads (combined total)	-	35 ha	**Removed as duplicate of stockpile area identified for Halleys, Hale-Bopp and Shoemaker-Levy**
Overburden storage area – waste dumps (combined total)	-	586 ha	**Removed as duplicate of overburden storage area identified for Halleys, Hale-Bopp and Shoemaker-Levy**
Overburden storage area – Halleys and Hale-Bopp (excluding backfilled areas)	-	348 ha	**Removed as duplicate of overburden storage area identified for Halleys and Hale-Bopp**
Halleys and Hale-Bopp pit, overburden storage areas and stockpiles	Figure 2	233 ha Halleys pit 305 ha Hale-Bopp pit 348 ha Halleys and Hale-Bopp overburden storage areas 12 ha Halleys stockpile 12 ha Hale-Bopp stockpile	**Disturbance no more than 909 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope**
Shoemaker-Levy pit, overburden storage area and stockpile	Figure 2	666 ha pit 238 ha overburden storage area 11 ha stockpile	**Disturbance of no more than 915 ha within the 944 ha Shoemaker-Levy Development Envelope**
Processing and infrastructure	Figure 2	25 ha accommodation camp 53 ha plant area 20 ha crusher and conveyor	**Disturbance no more than 169 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope**

Element	Location	Previously Authorised Extent	Authorised Extent
Limestone quarry area - Tamarine	Figure 1	67 ha	**Disturbance no more than 67 ha within a 100 ha Limestone Quarry Development Envelope**
Seawater intake and brine reject pipelines	Figure 1	Not defined	**Constructed within the 40.2 ha Seawater Pipeline and Intake Development Envelope**
Access corridor	Figure 2	Not defined	**Disturbance of no more than 60 ha within the 210.6 ha Access Corridor Development Envelope**
Access tracks and miscellaneous infrastructure within cleared farmland	Figure 2	Not defined	**Disturbance no more than 119 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope. Additional 1 ha is within native vegetation**
Topsoil stockpiles within cleared farmland	Figure 2	Not defined	**Disturbance no more than 170 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope**
Operational elements			
Operations water supply – raw eater (average)	-	Seawater up to 30,000 kL/day	No change
Construction water supply	-	Groundwater up to 25,000 kL/day	No change
Sulphur	-	Up to 500,000 tpa <1.8kg SO2 per tonne of acid produced	No change
Nickel production **Nominal** nickel production (contained nickel in a mixed nickel cobalt hydroxide intermediate)	-	Up to 50,000 tpa	No change
Transport rate to site	-	855,000 tpa	No change
Transport rate from site (product)	-	Up to 220,000 tpa	No change

Note: Text in **bold** in Table 2 indicates a change to the proposal.

Table 3: Abbreviations

Abbreviation	Term
ha	hectare
kL	kilolitre
tpa	tonnes per annum

Figures (attached)

Figure 1 - Regional location and development envelopes
Figure 2 - Proposal elements
Figure 3 - Conservation Areas
Figure 4 - Seawater onshore intake facility

Dr Tom Hatton
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 23 May 2019

Figure 1: Regional location and development envelopes

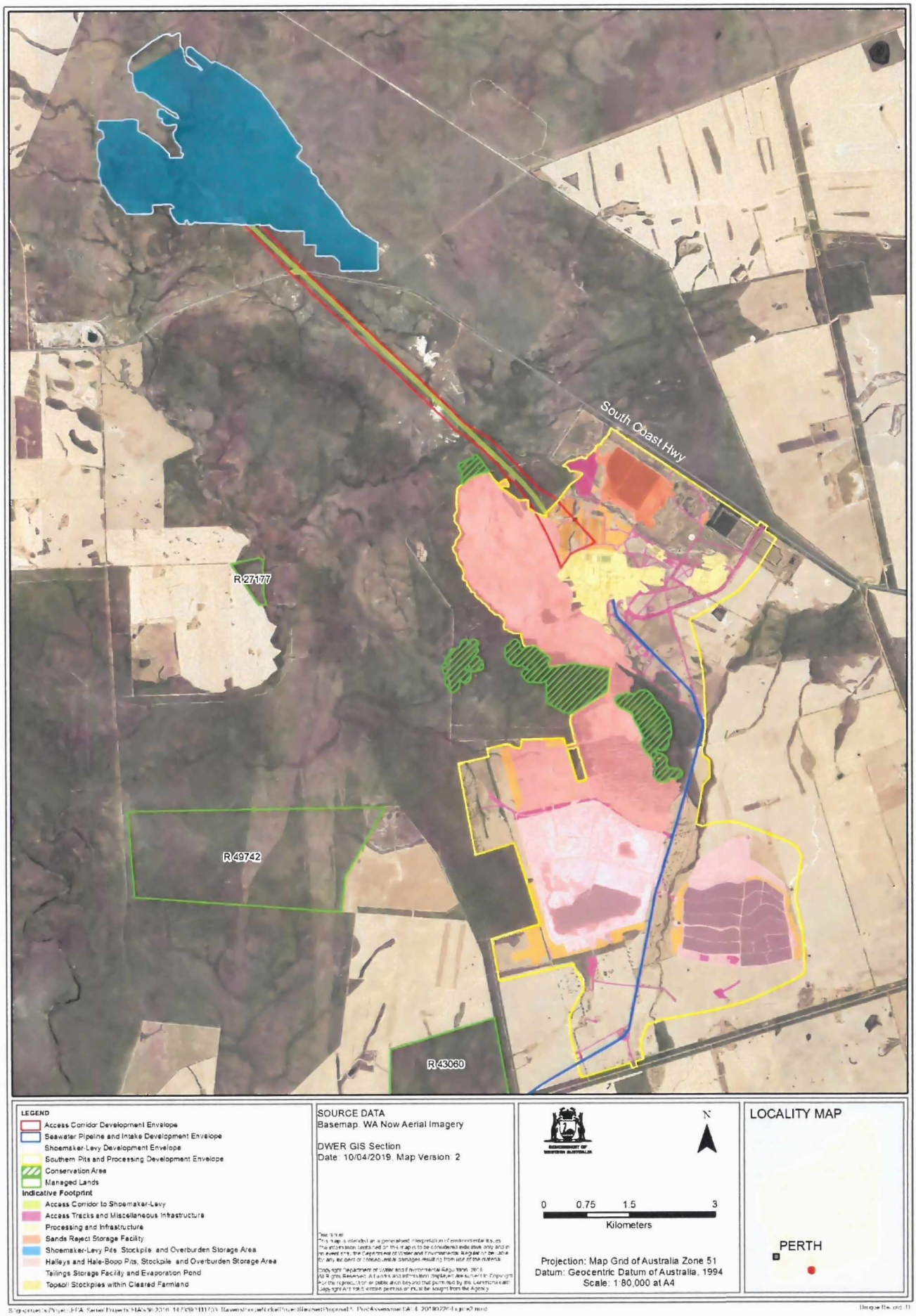


Figure 2: Proposal elements

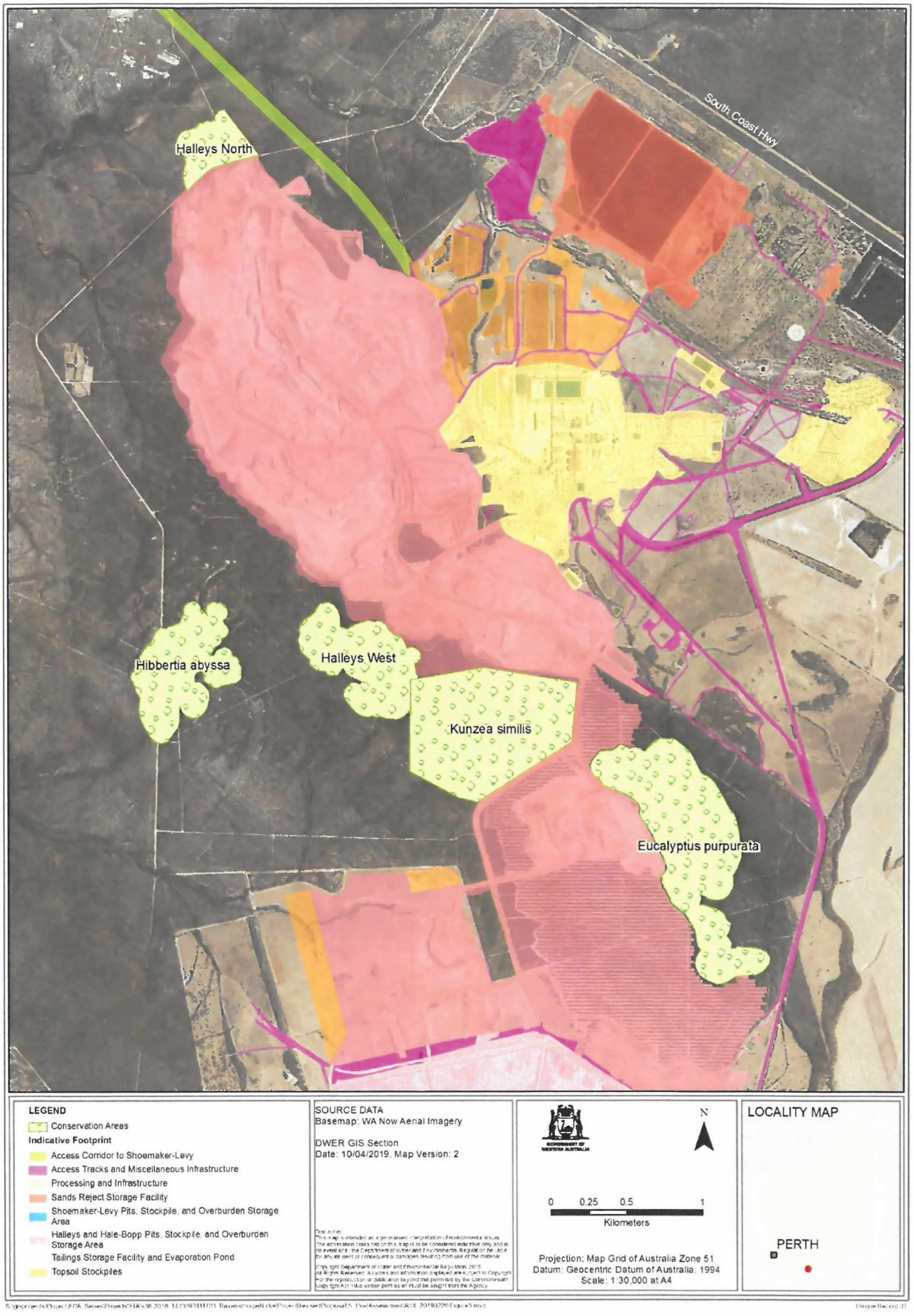


Figure 3: Conservation areas

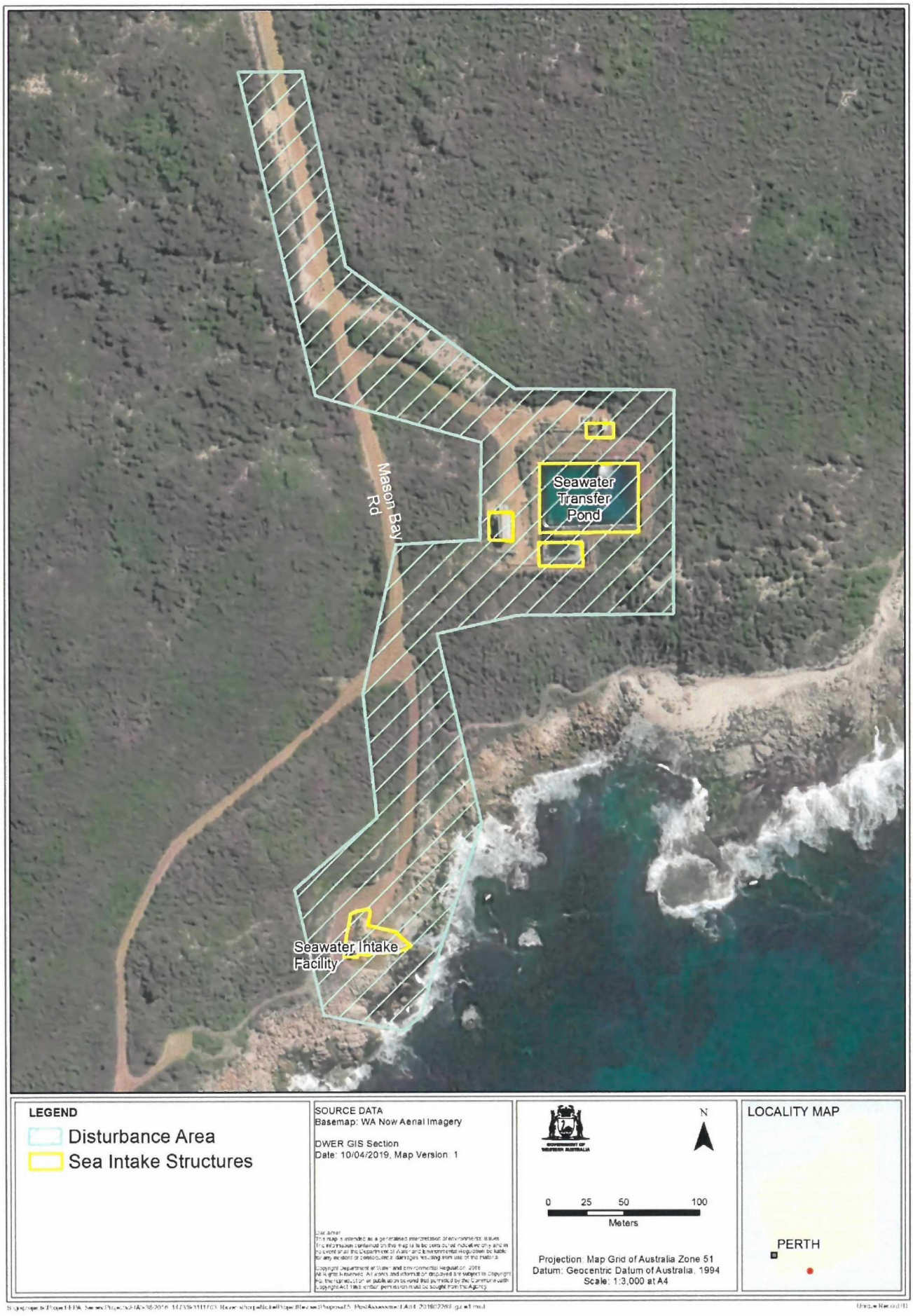


Figure 4: Seawater onshore intake facility

Coordinates defining the Ravensthorpe Nickel Project development envelopes as shown in Figure 1 are held by the Department of Water and Environmental Regulation, Alfresco document reference number 2019-1555474273480 (dated 17 April 2019).

Attachment 5 to Ministerial Statement 633

Amendment to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and all previous attachments to Ministerial Statement 633

Proposal: **Ravensthorpe Nickel Project**

Proponent: **First Quantum Metals Australian Nickel Pty Ltd**

Changes:

- Expansion of Southern Mines and Processing Development Envelope by 0.06 ha
- Expansion of Tamarine Limestone Quarry Development Envelope by 71.8 ha and disturbance by 76.7 ha
- Increase Seawater Pipeline and Intake Development Envelope by 20.3 ha
- Increase Access Corridor Development Envelope by 1.6 ha

Table 1: Summary of the proposal

Proposal title	Ravensthorpe Nickel Project
Short description	The Ravensthorpe Nickel Project is located 35 km east of Ravensthorpe and involves the mining of nickel ore from three orebodies: Halleys, Hale-Bopp and Shoemaker Levy, and the processing of this ore into a nickel-cobalt hydroxide product for shipment via the Port of Esperance. Key components of the project include: • Transport of ore to Run-of-Mine pads via combination of haul roads and conveyors; • A process water supply and reject brine pipeline to the coast; and • Tailing storage facilities and evaporation ponds A crucial management strategy for the development of this project is the establishment of a *Kunzea similis* conservation area. As part of this proposal and area has been set aside from mining (refer to Figure 3) for the conservation in situ of sub-populations of *Kunzea similis*. Direct disturbance through mining activities will be excluded from this area (which includes a 50-metre buffer around the populations), and indirect impacts will be closely monitored and managed.

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Previously authorised extent	Authorised extent
Physical Elements			
Tailings storage facility and evaporation ponds	Figure 1	Disturbance of no more than 830 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	No change
Sands reject storage facility	Figure 1	Disturbance of no more than 110 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	No change
Halleys and Hale Bopp pit, overburden storage areas and stockpiles.	Figure 2	Disturbance of no more than 909 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 909 ha within the 3,940.**8** ha Southern Mines and Processing Development Envelope
Processing and Infrastructure	Figure 2	Disturbance of no more than 169 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Processing and Infrastructure (including windfarm)
Access tracks and miscellaneous infrastructure within cleared farmland	Figure 1	Disturbance of no more than 119 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	No change
Topsoil stockpiles within cleared farmland	Figure 1	Disturbance of no more than 170 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	No change
Shoemaker-Levy pit overburden storage area and stockpile	Figure 1	Disturbance of no more than 915 ha within the 944 ha Shoemaker-Levy Development Envelope	No change
Limestone quarry area - Tamarine	Figure 3	Disturbance of no more than 67 ha within the 100 ha Limestone Quarry Development Envelope	Disturbance of no more than **143.7** ha within the **171.8** ha Limestone Quarry Development Envelope
Seawater intake and	Figure 1	Constructed within the 40.2 ha Seawater Pipeline and	Constructed within the **60.5** ha Seawater

Element	Location	Previously authorised extent	Authorised extent
brine reject pipeline		Intake Development Envelope	Pipeline and Intake Development Envelope
Access corridor	Figure 1	Disturbance of no more than 60 ha within the 210.6 ha Access Corridor Development Envelope	Disturbance of no more than 60 ha within the **212.2** ha Access Corridor Development Envelope
Operational Elements			
Maximum depth of mining	NA	No more than 60 metres (from the edge of pit)	No change
Operations water supply – raw water (average)	NA	Pumping of up to 30,000 kL of seawater per day	No change
Construction water supply	NA	Abstraction of up to 25,000 kL of groundwater	No change
Sulphur	NA	Up to 500,000 tonnes per annum (tpa) <1.8 kg SO2 per tonne of acid produced	No change
Nickel production Nominal nickel production (contained nickel in a mixed nickel-cobalt hydroxide intermediate)	NA	Up to 50,000 tpa	No change
Transport rate to site	NA	On average 855,000 tpa	No change
Transport rate from the site (product)	NA	Up to 220,000 tpa	No change

Note: Text in **bold** in Table 2 indicates a change to the proposal.

Table 3: Abbreviations

Abbreviation	Term
CEO	Chief Executive Officer
GL	gigalitre
ha	hectare
km	kilometre

Mr Darren Walsh
CHAIR
Environmental Protection Authority
under delegated authority

Approval date: 04 March 2025

Figure 1: Proposal Elements

Figure 2: Limestone Quarry Development Envelope

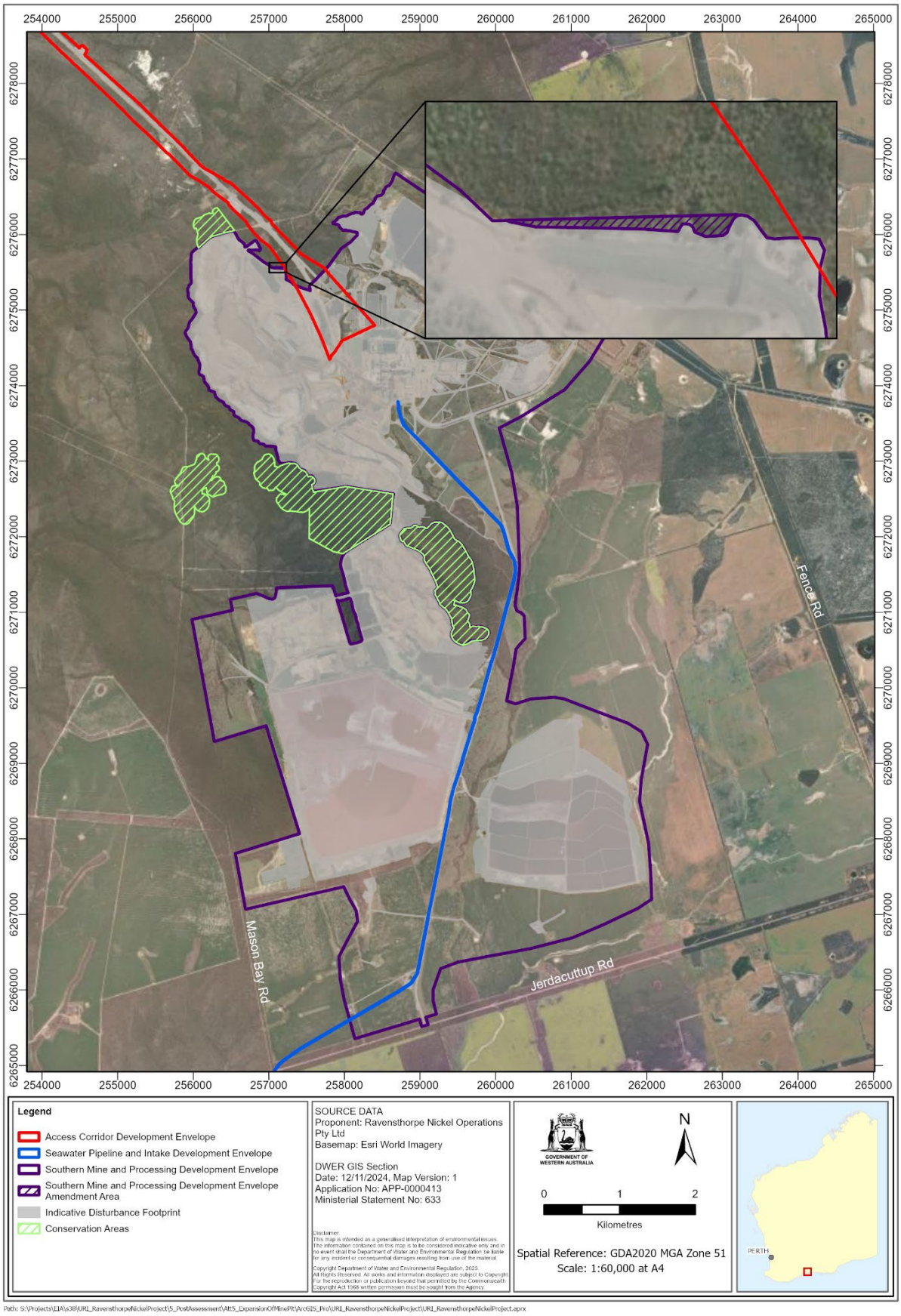


Figure 3: Southern Mines and Processing Development Envelope with amended extent

Figure 4: Access Corridor Development Envelope

Attachment 6 to Ministerial Statement 633

Amendment to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and all previous attachments to Ministerial Statement 633

Proposal: **Ravensthorpe Nickel Project**

Proponent: **First Quantum Metals Australian Nickel Pty Ltd**

Changes:

- Inclusion of wording in Table 2 to reflect the expansion of Southern Mines and Processing Development Envelope by 0.06 ha, authorised under Attachment 5
- Removal of reference to a windfarm
- Correction of spelling error in Table 1

Table 1: Summary of the proposal

Proposal title	Ravensthorpe Nickel Project
Short description	The Ravensthorpe Nickel Project is located 35 km east of Ravensthorpe and involves the mining of nickel ore from three orebodies: Halleys, Hale-Bopp and Shoemaker Levy, and the processing of this ore into a nickel-cobalt hydroxide product for shipment via the Port of Esperance. Key components of the project include: • Transport of ore to Run-of-Mine pads via combination of haul roads and conveyors; • A process water supply and reject brine pipeline to the coast; and • Tailing storage facilities and evaporation ponds A crucial management strategy for the development of this project is the establishment of a *Kunzea similis* conservation area. As part of this proposal **an** area has been set aside from mining (refer to Figure 3) for the conservation in situ of sub-populations of *Kunzea similis*. Direct disturbance through mining activities will be excluded from this area (which includes a 50-metre buffer around the populations), and indirect impacts will be closely monitored and managed.

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Previously authorised extent	Authorised extent
Physical Elements			
Tailings storage facility and evaporation ponds	Figure 1	Disturbance of no more than 830 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 830 ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Sands reject storage facility	Figure 1	Disturbance of no more than 110 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 110 ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Halleys and Hale Bopp pit, overburden storage areas and stockpiles.	Figure 2	Disturbance of no more than 909 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 909 ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Processing and Infrastructure	Figure 2	Disturbance of no more than 169 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than **169.06** ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Access tracks and miscellaneous infrastructure within cleared farmland	Figure 1	Disturbance of no more than 119 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 119 ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Topsoil stockpiles within cleared farmland	Figure 1	Disturbance of no more than 170 ha within the 3,940.7 ha Southern Mines and Processing Development Envelope	Disturbance of no more than 119 ha within the **3,940.8** ha Southern Mines and Processing Development Envelope
Shoemaker-Levy pit overburden storage area and stockpile	Figure 1	Disturbance of no more than 915 ha within the 944 ha Shoemaker-Levy Development Envelope	No change
Limestone quarry area - Tamarine	Figure 3	Disturbance of no more than 67 ha within the 100	Disturbance of no more than 143.7 ha within the 171.8 ha Limestone

Element	Location	Previously authorised extent	Authorised extent
		ha Limestone Quarry Development Envelope	Quarry Development Envelope
Seawater intake and brine reject pipeline	Figure 1	Constructed within the 40.2 ha Seawater Pipeline and Intake Development Envelope	Constructed within the 60.5 ha Seawater Pipeline and Intake Development Envelope
Access corridor	Figure 1	Disturbance of no more than 60 ha within the 210.6 ha Access Corridor Development Envelope	Disturbance of no more than 60 ha within the 212.2 ha Access Corridor Development Envelope
Operational Elements			
Maximum depth of mining	NA	No more than 60 metres (from the edge of pit)	No change
Operations water supply – raw water (average)	NA	Pumping of up to 30,000 kL of seawater per day	No change
Construction water supply	NA	Abstraction of up to 25,000 kL of groundwater	No change
Sulphur	NA	Up to 500,000 tonnes per annum (tpa) <1.8 kg SO2 per tonne of acid produced	No change
Nickel production Nominal nickel production (contained nickel in a mixed nickel-cobalt hydroxide intermediate)	NA	Up to 50,000 tpa	No change
Transport rate to site	NA	On average 855,000 tpa	No change
Transport rate from the site (product)	NA	Up to 220,000 tpa	No change

Note: Text in **bold** in Table 2 indicates a change to the proposal.

Table 3: Abbreviations

Abbreviation	Term
CEO	Chief Executive Officer
GL	gigalitre
ha	hectare
km	kilometre

Darren Walsh
CHAIR
Environmental Protection Authority
under delegated authority

Approval date: 10 September 2025

Figure 1: Proposal Elements

Figure 2: Limestone Quarry Development Envelope

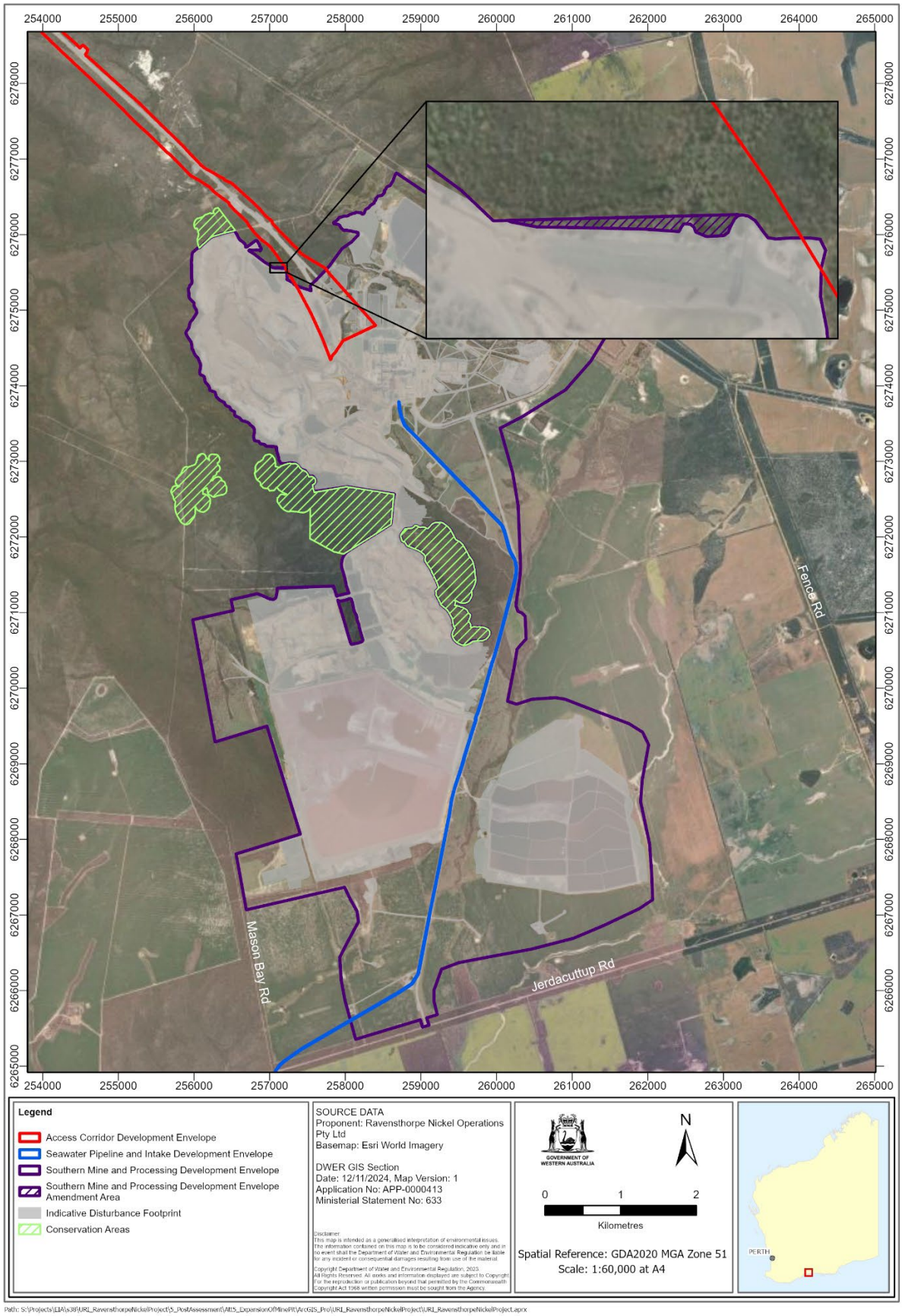


Figure 3: Southern Mines and Processing Development Envelope with amended extent

Figure 4: Access Corridor Development Envelope