WHITEHAVEN COAL

Whitehaven Coal Mining Pty Ltd

ABN: 65 086 426 253

Environmental Assessment

for the Establishment of Additional Reject Ponds at the Whitehaven CHPP

August 2011

Prepared by Whitehaven Coal Mining Pty Ltd

Tel: (02) 6741 9316

Fax: (02) 6742 3607

Email: dyoung@whitehavencoal.com.au

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Appendix 2 – AHIMS Database Search Results

Appendix 3 – Spectrum Acoustics Letter Report – Predicted Noise Levels

1 Introduction

This section introduces the proposal by Whitehaven Coal Mining Pty Ltd (WHC) to establish additional reject ponds at the Coal Handling and Preparation Plant (CHPP) and Rail Loading Facility near Gunnedah. This section provides information on:

- The format of the document;
- The Applicant, Whitehaven Coal Mining Pty Ltd;
- The Project Site;
- Background to the proposal; and
- An overview of the existing approvals and operations on site.

1.1 Scope

This EA has been prepared to accompany an application (see Appendix 1) to establish three additional fine reject ponds and two additional settlement ponds at the Whitehaven CHPP facility located 5 kilometres west of Gunnedah.

This document identifies the proposed design of the additional ponds, proposed management measures and an assessment of the impacts of the proposed activities. This document does not cover activities associated with transport of coal to the CHPP as this is covered in separate approvals for each of the mines transporting coal to the site.

The level of information outlined in this EA is intended to clearly outline the extent of the modification proposed, the assessed impacts of the proposal and the mitigation and management measures to be adopted for the project.

1.2 Document Format

This EA has been compiled in five sections as follows:

Section 1: Introduces the Applicant and the Project Site and provides an overview of the existing operations, environmental performance, and the need for the modification.

Section 2: Outlines the proposed changes on site and modified practices to operate the additional ponds.

Section 3: Provides a description of the components of the existing environment that may be impacted upon by the modified proposal and identifies any constraints requiring further assessment.

Section 4: Presents the design and operational safeguards to be adopted for the modified project components and the impacts of ongoing operations on the surrounding environment. Where appropriate, monitoring is outlined.

Section 5: Evaluates the modified proposal based upon the results of assessment in Section 4 and the principles of Ecologically Sustainable Development.

Appendix 1: Presents the written request to modify Development Consent 0079.2002.

Appendix 2: Presents the search results from the Aboriginal Heritage Information Management System

Appendix 3: Presents a letter report outlining the predicted noise impacts from the project

1.3 The Applicant

The Applicant, Whitehaven Coal Mining Pty Ltd (WHC), is a wholly owned subsidiary of Whitehaven Coal Limited (WCL), formed to explore for and develop coal resources in the Gunnedah Basin. WHC operates the Gunnedah CHPP and rail siding. The CHPP processes coal delivered from WCL's operating open cut mines in the Gunnedah Basin, being the Tarrawonga, Rocglen and Sunnyside open cut operations.

The Applicant is committed to the responsible development of coal operations in the Gunnedah Basin to guarantee the long-term reliable supply of coal to the domestic and export markets, to maintain and expand the customer base for Gunnedah coal, and provide continuing employment and support to the Gunnedah community.

The existing coal mining projects conducted by the Applicant (See Figure 1.1), especially as they relate to the cumulative increase in local coal production are as follows:-

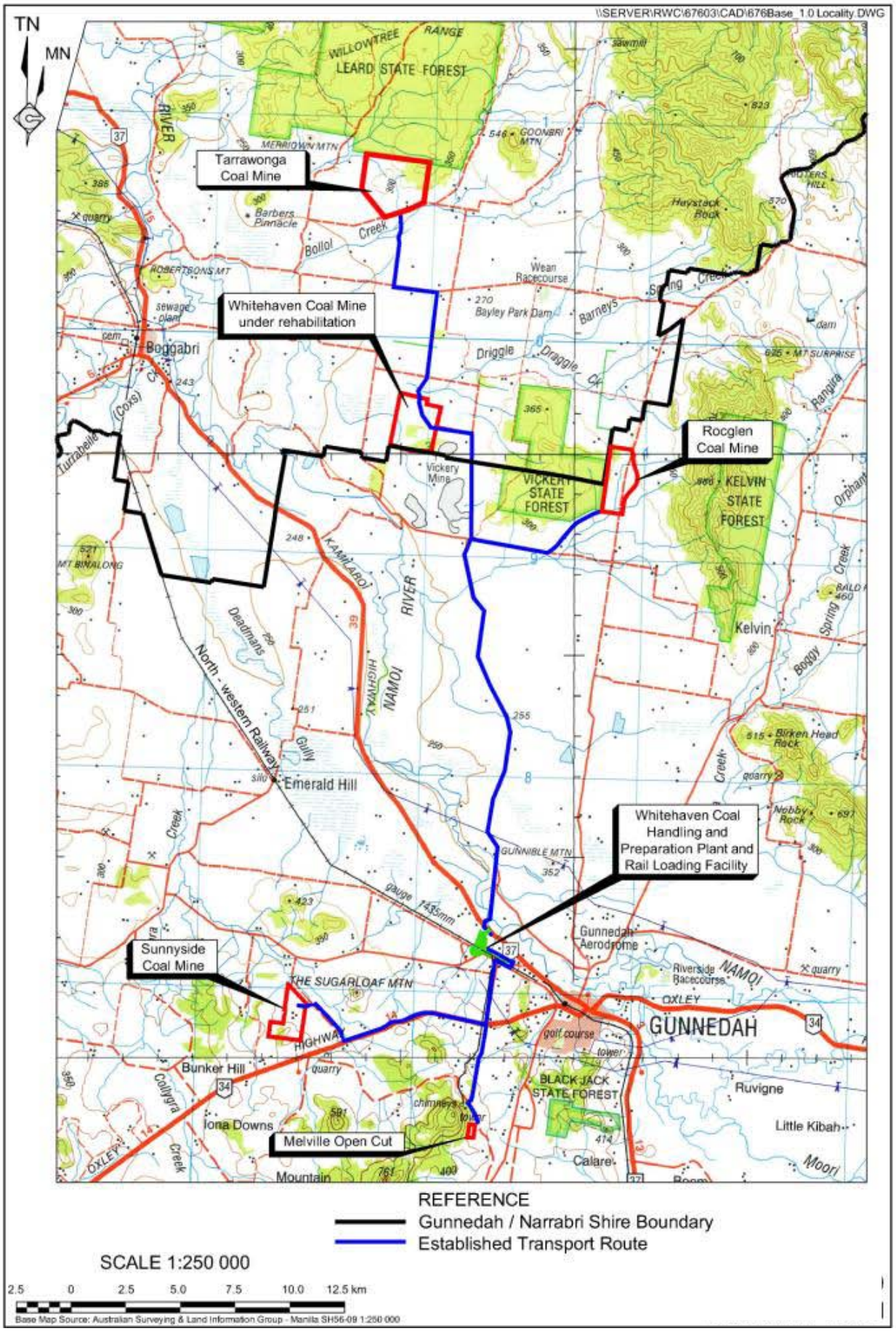

Figure 1.1 - Locality Plan

Tarrawonga Coal Mine

Approved and commenced in November 2005, the Tarrawonga Coal Mine provides up to 2 million tonnes per annum (Mtpa) of coal to the CHPP for washing or bypass product. A modified approval was granted for the Tarrawonga operation on 15th October 2010 which provides for continued coal production to 2013. Investigations are currently progressing with the view to an expansion of the Tarrawonga site during 2012 with a long term presence in the Gunnedah Basin expected.

Rocglen Coal Mine

Approved and commenced in April 2008, the Rocglen Coal Mine provides up to 1.5 Mtpa of coal to the CHPP for washing or bypass product. A Part 3A application is currently being determined by the Department of Planning and Infrastructure (DoPI) for a minor extension to Rocglen operations to enable additional coal production for a further 4 years, out to 2020.

Sunnyside Coal Mine

Approved and commenced in September 2008, the Sunnyside Coal Mine provides up to 1.0 Mtpa of coal to the CHPP for washing or bypass product. Sunnyside Mine has an expected life of up to seven years, with production expected to continue up to 2015.

1.4 The Project Site

The Whitehaven CHPP covers an area of approximately 72 ha and incorporates the following parcels of land:-

- Lot 678, DP 705086;
- Lot 1, DP 239575;
- Lots 111, 120, 471, 472, 473, 474, 475 and 498, DP 755503;
- Lot 1, DP 810271;
- Lot 12, DP 542047;
- Lot 3, DP 875874; and
- That component of the north-western railway line adjacent to Lot 3, DP 875874 incorporating the rail load-out bin.

The additional pond construction will occur on Lot 112 DP 755503 and comprises approximately 10 ha. The project site is shown on Figure 1.2.

The entire site lies within the Parish of Gunnedah, County of Pottinger and Shire of Gunnedah. Details of land ownership are presented in Section 3.2.1.1.

1.5 An Overview of the Existing Facility

1.5.1 Introduction

This section provides a brief overview of the existing facility to enable readers to understand what operations and activities are currently approved and underway at the facility.

1.5.2 Facility History and Current Approvals

In June 2002, WHC lodged a development application with Gunnedah Shire Council (GSC) for the construction and operation of a CHPP adjacent to the existing rail loading facility which had been previously approved for the Vickery Coal Project. On the 2nd October 2002, GSC provided development consent (DA 0079.2002) for the construction and operation of the coal handling and associated facilities and the road transportation of coarse and fine rejects and coal. The consent operates for a period of 20 years, expiring 2nd October 2022.

On 17th April 2008, Modification 305208 to DA 0079.2002 was granted by GSC which provided for an increase in throughput through the CHPP to 3 million tonnes per annum and the rail load out facility to 4.1 million tonnes per annum.

The facility also operates with an Environment Protection Licence (EPL 3637) as a "coal works" with a nominated maximum throughput of 5 million tonnes per annum. The licence also nominates required environmental monitoring and thresholds for noise, dust and water quality.

1.5.3 Existing Layout and Operations

Figure 1.3 displays the existing layout of the Whitehaven CHPP and rail loading facility.

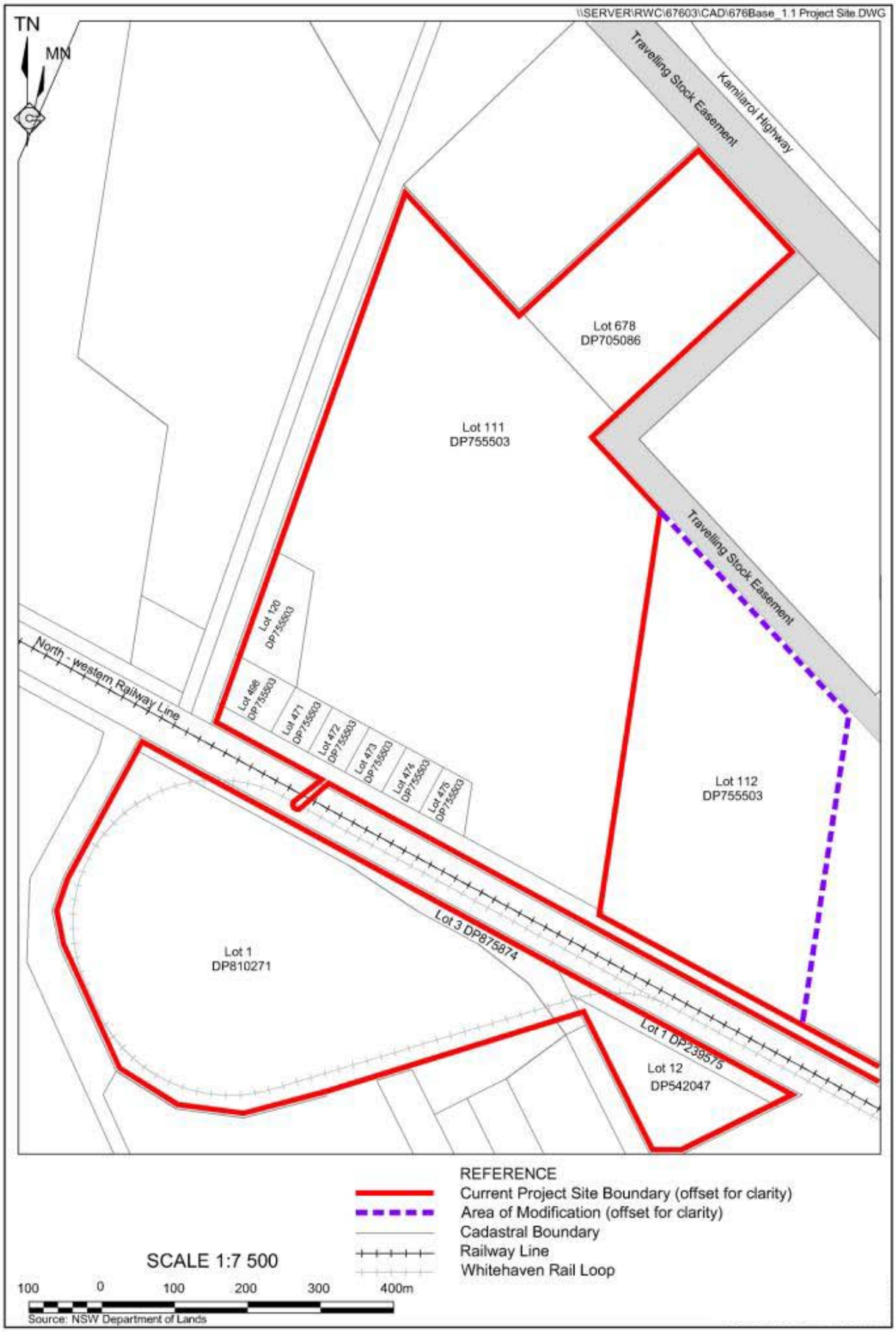

Figure 1.2 - Project Site

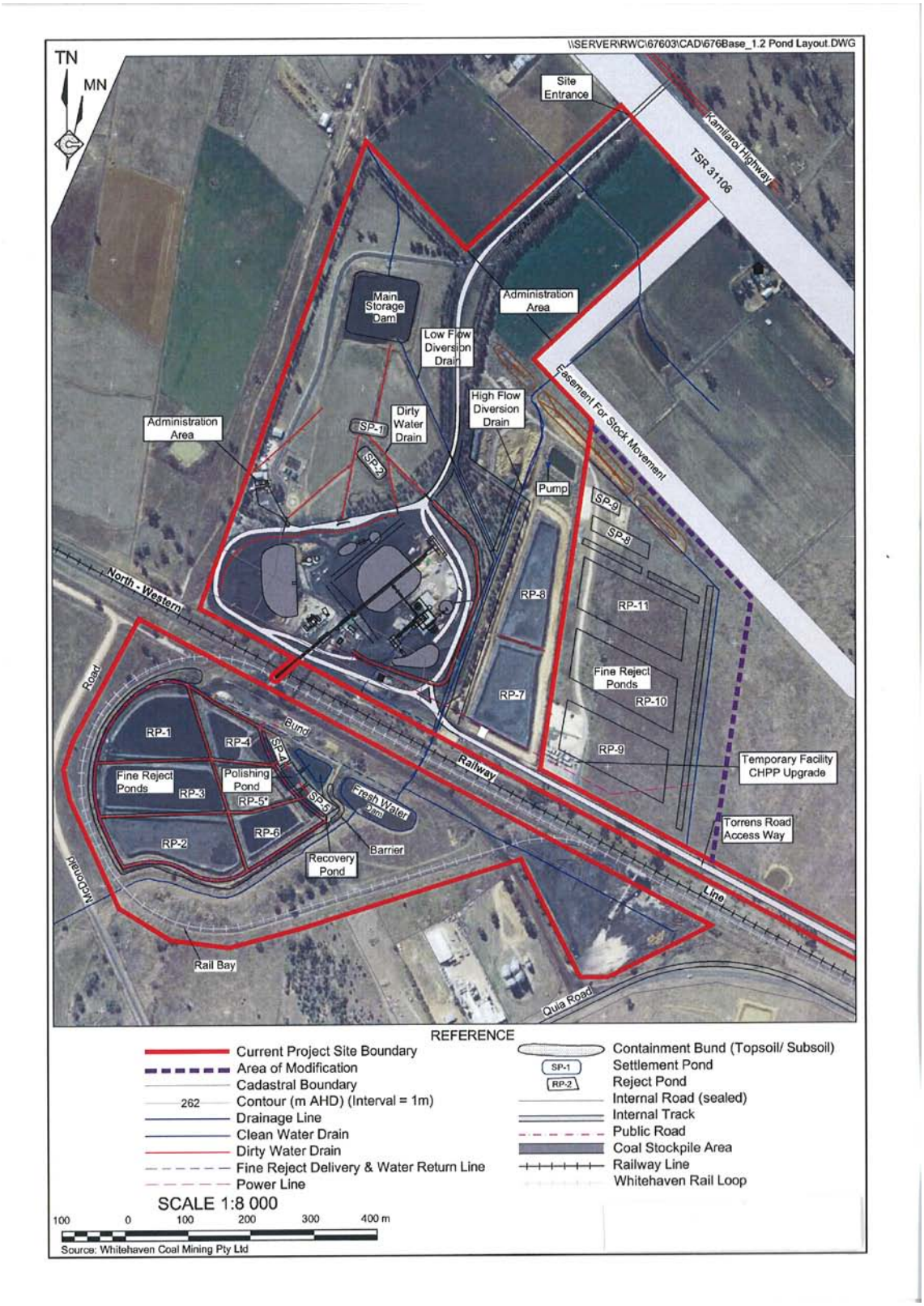

Figure 1.3 - CHPP Layout

The principal components of the facility are:-

North of the North-Western Railway Line

- Site entrances from the Kamilaroi Highway and Torrens Road, and internal road networks;
- A coal preparation plant and associated facilities including coal and reject stockpiles. The plant currently has a continuous rated throughput of 550 tonnes per hour (tph);
- A coal screening plant;
- A weighbridge for incoming trucks and truck wash for outgoing trucks;
- Reclaim tunnels, conveyors, and rail load out bin;
- Offices, workshops, amenities, electrical equipment;
- Various water tanks and lighting towers;
- Various clean and dirty water drains, storage dams and settlement ponds;
- Reject ponds and settlement ponds; and
- Tree screening and landscaping.

South of the North-Western Railway Line

- Site entrance from Quia Road;
- Rail loop off the main north western railway line; and
- Reject ponds, settlement ponds, recovery ponds and a freshwater dam;

The facility receives coal from Tarrawonga, Rocglen and Sunnyside open cut operations between the hours of 7:00am to 10:00pm Monday to Friday and 7:00am to 6:00pm on Saturdays. All coal is placed in ROM stockpiles for washing or in product stockpiles for bypass loading. Up to 150,000 tonnes of coal can be stockpiled on site at any time. Table 1.1 lists identifies the current operational hours of the site.

Table 1.1 - Hours of Operations - CHPP and Rail Loading Facility

Activity	Monday to Saturday	Sunday
CHPP operations and stockpile management	24 hours	24 hours
Train loading	24 hours	24 hours
Domestic coal screening and despatch	7:00am to 10:00pm	-
Despatch of coarse and fine rejects	7:00am to 9:30pm	-
Fine reject ponds refurbishment	7:00am to 6:00pm	8:00am to 6:00pm
Delivery of ROM coal	7:00am to 10:00pm	

Actual operation of the CHPP is dependent upon coal supply, shipment requirements and rail and port allocations. Domestic coal supply is on an ad-hoc basis dependent upon customer requirements.

Rejects from coal washing are either directed to a coarse reject stockpile or fine reject ponds. The coarse rejects are loaded by front end loader into highway trucks and backloaded to the open cuts for placement in the void to be incorporated into the final landform once rehabilitated. Fine rejects are currently excavated from the ponds on both the northern and southern side of the main northern railway line and transported to the former Melville Open Cut for placement in the final void. An application is currently being prepared for fine reject to the transported to the former Brickworks Open Cut void, once the void space at the Melville site is completed. It is expected this will occur within the next 12 months.

Coal destined for the Port of Newcastle is transported by train, which are generally dispatched up to twice daily.

1.5.4 Environmental Performance

The environmental performance of the existing facility can be established through review of monitoring data and the site complaints register.

1.5.4.1 Noise

Noise compliance is assessed through attended noise monitoring events undertaken by an appropriately experienced and qualified acoustics expert. Performance is measured against the noise criteria as stipulated in EPL 3637. Condition L6.1 stipulates noise must not exceed the noise limits presented in Table 1.2.

Table 1.2 - Noise Criteria

Location	Day $L_{Aeq(15\ minute)}$	Evening $L_{Aeq(15\ minute)}$	Night $L_{Aeq(15\ minute)}$	Night $L_{A1(1\ minute)}$
Non project related residences adjacent to Kamilaroi Highway including residences on properties 5, 6, 9, 10, 11 and 12 identified on Figure 3.3 of the Statement of Environmental Effects	38	37	35	45
Non project related residences adjacent to Quia and Torrens Roads including residences on properties 13, 15, 16 and 17 identified on Figure 3.3 of the Statement of Environmental Effects	39	35	35	45
Non project related residences to north west of premises along Wirringulla Road	35	35	35	45

Noise monitoring has been undertaken at the site in accordance with the above schedule. Table 1.3 presents $L_{Aeq(15\ minute)}$ levels attributable to site activities over the last two years.

Table 1.3 - Noise Monitoring Results

Date/Period	Kamilaroi Highway (non project residence)	Quia Road (non project residence)
16th June 2009 - Day	Inaudible	<30
16th June 2009 - Evening	36	30
16th June 2009 - Night	**41**	<30
8th September 2009 - Evening	**40**	**42**
9th September 2009 - Day	<30	39
9th September 2009 - Night	**39**	**42**
26th November 2009 - Day	30	inaudible
26th November 2009 - Evening	**38**	**40**
26th November 2009 - Night	35	35
7th April 2010 - Day	37	38
7th April 2010 - Evening	37	**37**
7th April 2010 - Night	28	<20
30th August 2010 - Day	35	35
30th August 2010 - Evening	inaudible	30
30th August 2010 - Night	35	<35
14th December 2010 - Day	33	inaudible
14th December 2010 - Evening	<30	inaudible
14th December 2010 - Night	32	<25

On the basis of the above results, non compliances with noise criteria were recorded on the night of 16th June 2009, the evening and night of 8th and 9th September 2009, the evening of 26th November 2009 and the evening of 7th April 2010. On all occasions where exceedances were recorded, the CHPP was not the dominant noise source, with local traffic noise generally the predominant source. On no occasions have complaints been made in relation to noise from the CHPP to correlate with these monitoring events.

1.5.4.2 Air Quality

Deposited dust levels have been recorded at locations around the existing CHPP facility and Reject Ponds since operations commenced. Analysis of results is indicative of some months exceeding the deposited dust criteria (g/m^2/month), however, the

source of dust is identified as being from a number of sources, and not only related to operations at the CHPP by review of meteorological conditions from the site weather station. In summary, deposited dust results are as follows:-

- 2006, all EPL monitoring locations were below the annual average threshold of 4g/m^2/month
- 2007, all EPL monitoring locations were below the annual average threshold of 4g/m^2/month
- 2008, all EPL monitoring locations were below the annual average threshold of 4g/m^2/month
- 2009, one EPL monitoring location exceeded the annual average threshold of 4g/m^2/month.
- 2010, all EPL monitoring locations were below the annual average threshold of 4g/m^2/month.

At the end of 2009, a High Volume Air Sampler was established off Quia Road to monitor PM_{10} levels. To date, this monitor has confirmed compliance with PM_{10} criteria, and as at end of 2010 was running an annual average result of 11.70ug/m^3 which is well below the annual average criterion of 30ug/m^3.

1.5.4.3 Water Quality

Since commencement, there has been three wet weather discharges from the main water storage dam at site. On all occasions the discharge has been within water quality parameters prescribed within EPL 3637. On average, the water quality from the main storage dam is as follows:-

- pH – 7.4
- Electrical Conductivity - 934µs/cm
- Total Suspended Solids – 19.3mg/L
- Total Organic Carbon – 10mg/L
- Grease & Oil - <5mg/L

The results of water quality monitoring suggests that the water in the dam is suitable for livestock watering purposes.

1.5.4.4 Complaints

All complaints received in relation to the project are investigated promptly to minimise the potential for adverse impacts. A review of complaints records identifies complaints to date as follows:-

- 2007 – 10 complaints (5 in relation to dust, 5 in relation to noise). All complaints were from 2 complainants whose properties have since been acquired by Whitehaven.
- 2008 – 5 complaints (general complaints in relation to dust, noise and lighting). 3 complainants in which investigations and ongoing communications have been maintained.
- 2009 – 3 complaints (General complaints in relation to dust, noise and lighting). 1 complainant in which investigations and ongoing communications have been maintained.
- 2010 – 7 complaints (5 in relation to truck movements and 2 in relation to noise and dust).

On all occasions, complaints have been addressed promptly, and additional actions undertaken when warranted. This has included actions such as dust composition analysis and establishment of additional PM_{10} monitoring at the "Kendo" property.

1.5.4.5 Rail Movements through Gunnedah

The proposed construction of three additional reject ponds will not impact on current rail movements through Gunnedah.

1.5.4.6 Conclusion

The CHPP facility has achieved an acceptable level of environmental performance with monitoring results confirming general compliance with monitoring requirements.

1.6 The Need for Additional Reject Ponds

As production levels have increased, and the CHPP has increased throughput in accordance with the modification approved in 2008, the volume of coal processed through the plant and the subsequent volume of fine reject has increased. Whilst additional ponds were constructed to satisfy increased throughput through the plant in the 2008 modification, significant periods of wet weather during 2010 created delays in drying times in the existing ponds, which impacted on subsequent extraction of the reject from the ponds for emplacement at the former Gunnedah Colliery. This in turn created capacity constraints for additional reject from the washing process. It has therefore become apparent that in order for improved efficiency of operations, and to minimise the potential for wet weather or other factors to impact on fine reject capacity, additional storage is required at the CHPP.

An additional three reject ponds and two settlement ponds have been designed for incorporation with the existing two ponds approved in the prior modification. The establishment of new ponds will not result in any additional washing of coal, any additional transport of reject, nor any change to existing process or procedure. The only change will be in the additional footprint for reject storage on Whitehaven Coal owned land.

Government Consultation

The proposal has been discussed with GSC and DoPI, who have advised that the approval process would be via an application under Section 75W of the *Environmental Planning and Assessment Act, 1979* to DoPI.

1.7 Ongoing Documentation and Management

1.7.1 Ongoing Documentation

The Whitehaven CHPP is currently operated in accordance with a site specific environmental management system incorporating the following:-

- Environmental Policy;
- Monitoring procedures for noise, air quality, surface water, groundwater, reject ponds and general site inspections;
- Complaints Management System.

These arrangements would continue with the additional ponds included as part of general procedures on site.

1.7.2 Environmental Management

Ongoing environmental management of the CHPP and rail loading facility will remain the overall responsibility of the General Manager. Day to day environmental performance will be managed by the CHPP Project Manager and the Group Environmental Manager.

2 Description of Modified Proposal

This section describes the proposed modification to the existing site. Emphasis is placed on describing the additional ponds and their design and construction elements. This section also reviews the approvals that will be required and the additional rehabilitation requirements at the end of the facilities life. It is intended that upon approval, the Whitehaven CHPP site will have the authority to continue current operations comprising throughput of 3 million tonnes per annum (mtpa) of coal through the washplant, and loading of 4.1mtpa of coal through the rail load out facility, with the reject circuit incorporating the additional ponds.

2.1 Outline of the Proposed Modification

2.1.1 Objectives

The principal objective of this application is to increase the capacity for storage of fine reject from the Whitehaven CHPP. Additional storage capacity has proved necessary following recent prolonged wet weather which has delayed drying time and consolidation of reject for subsequent excavation and transport to the reject emplacement area at the former Gunnedah Colliery. This is turn, has led to capacity constraints on the operation of the CHPP. Construction and operation of the additional ponds will be achieved in a safe and environmentally responsible manner with only minor additional impacts expected on adjoining residents. These impacts have been assessed and management measures prescribed in this assessment to ensure minimum impact from the modification.

2.1.2 Overview of proposed works

The proposed works would involve the following:-

- Survey and set out for three additional fine reject ponds (RP9, RP10, RP11) and two additional settlement ponds (SP8, SP9) adjacent to the existing ponds RP7 and RP8;
- Soil stripping over an area of approximately 10 hectares to facilitate pond construction;
- Excavation of ponds to provide approximate reject capacity as follows: RP9 – 36,330m^3, RP10 – 36,500m^3, RP11 – 37,760m^3, and excavation of settlement ponds to provide approximate water storage capacity SP8 – 6,810m^3, SP9 – 3,290m^3;
- Compaction of base of ponds to achieve permeability specification of $1*10^{-9}$ m/s;
- Installation of 300mm drainage blanket to the pond floor of RP9, RP10 and RP11;

- Construction of coarse reject walls to allow reject to dry and water to filter through pond walls into settlement ponds;
- Pump water retained in settlement ponds back through CHPP circuit for reuse;
- Establishment of earthen bund around all sides of reject emplacement;
- Establishment of access road and drains within reject pond facility; and
- Establishment of vegetation screen on northern and eastern sides of the reject facility.

Figure 2.1 identifies the proposed layout of the new ponds facility.

2.1.3 Approvals Required

In order to establish the additional ponds, a modified approval is required through DoPI to Development Consent 0079.2002.

An application to modify EPL 3637 would be made to account for additional monitoring locations required as a consequence of the development.

2.2 Modified Site Layout

Figure 1.2 displays the proposed modified site layout highlighting the additional ponds area. All modifications proposed are located on the northern side of the north-western railway line.

The principal modification to the site layout will be the establishment of three new reject ponds and two new settlement ponds, all established adjacent to the existing pond network. The additional ponds will provide additional capacity to store fine reject from the CHPP, and will be operated in accordance with current operational practice. The modified layout includes the provision of access roads to the ponds for subsequent excavation and removal.

2.3 Coal Receival

No changes are proposed in relation to the existing arrangements of coal delivery to the CHPP.

2.4 Processing Plant and Project Stockpiles

No changes are proposed in relation to the existing processing plant configuration or stockpile management.

2.5 Rail Loading Facility

No changes are proposed in relation to the existing rail loading facility.

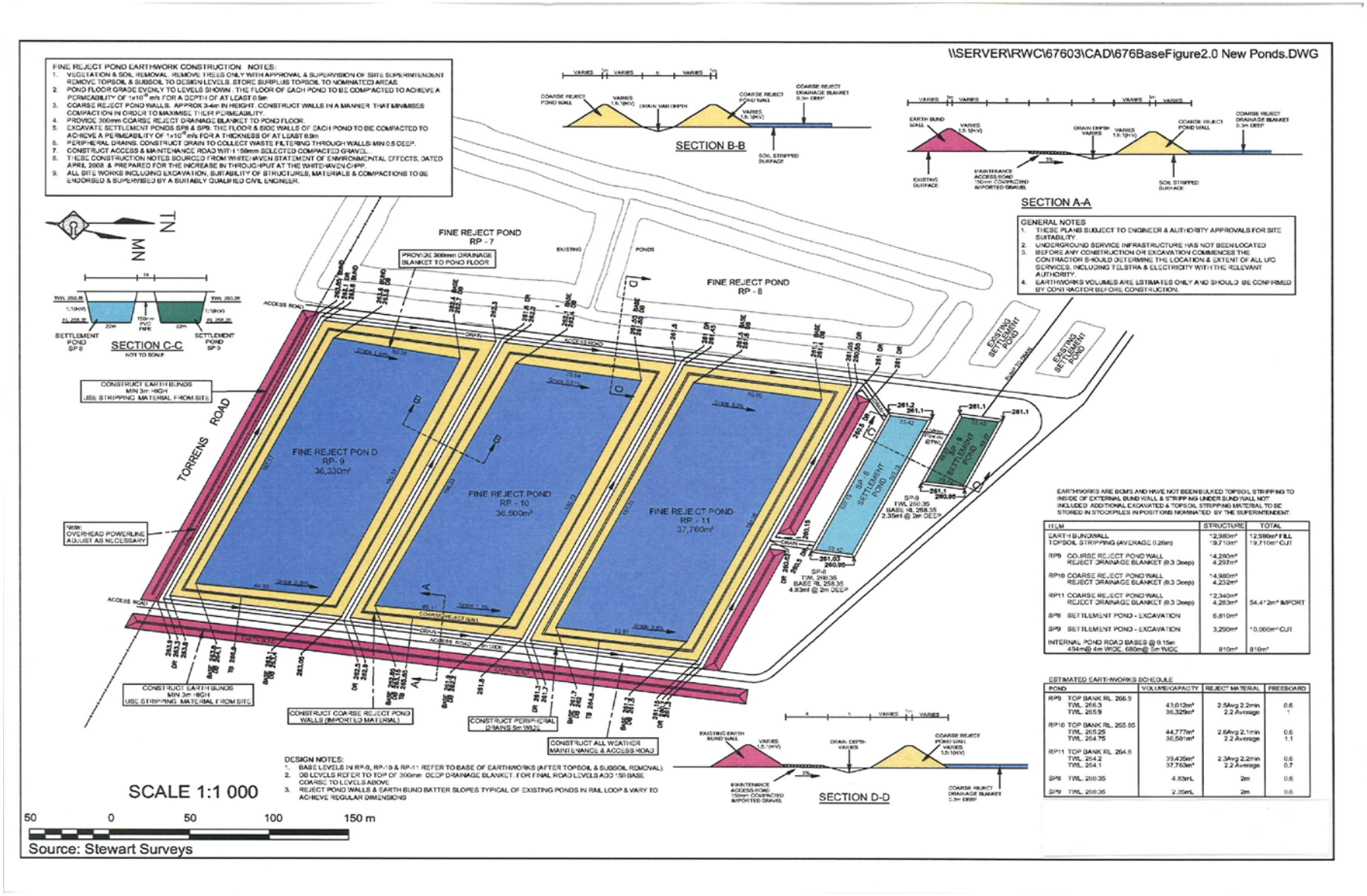

Figure 2.1 - New Ponds Design

2.6 Reject Management

2.6.1 Coarse Reject

Coarse reject would continue to be discharged from the CHPP into designated coarse reject stockpiles for subsequent loading and dispatch back to the voids of the operating open cuts. The stockpile area will maintain a capacity of 20,000 tonnes.

2.6.2 Fine Reject

The existing fine reject system is operating at or near capacity. As a consequence, periods of wet weather can significantly impact on the plant's capacity to operate if the fine reject circuit experiences delays in subsequent drying time and excavation. As a consequence, an additional three reject ponds are proposed for inclusion in the current fine reject circuit, together with an additional two settlement ponds. The proposed location of the ponds are shown on Figure 1.2.

2.6.2.1 Fine Reject Pond Construction

Construction of the additional reject ponds will involve the following:-

(1) Vegetation and Soil Removal

Three Peppercorn trees will require removal within the footprint of RP9, RP10, RP11, and settlement ponds SP8 or SP9. Approximately 15cm of topsoil will be stripped from the ponds footprint. A further 30cm of subsoil will be stripped from the perimeter drains and pond floor to achieve a grade of up to 1.5% to facilitate appropriate drainage. The stripped soils will then be used to construct a bund wall around the southern, eastern and northern sides of the ponds. Any excess material will be retained in soil stockpiles. A total of approximately 15,000m^3 of topsoil and approximately 30,000m^3 of subsoil would be removed during the construction of the ponds, drains and bunds.

(2) Shaping of Pond Floor

The floor of each pond will be shaped to achieve a grade of up to 1.5% to the north to allow appropriate drainage. The floor of each pond will be compacted to achieve a permeability of $1*10^{-9}$ m/s for a depth of at least 0.9m.

(3) Construction of the Pond Walls using Coarse Reject

The pond walls will be approximately 3-4m high with a toe width of up to 11m with batter slopes of 1.5:1(H:V). A crest width of between 1 to 2m will allow adequate space for location of discharge pipes. The walls of the ponds will be constructed to minimise potential

for compaction so as to retain their capacity to filter water through the walls. The wall construction will be undertaken with appropriate supervision from a civil engineer.

(4) Construction of a Drainage Blanket

Up to 0.3m of coarse reject will be placed on the graded pond floor to create a drainage blanket. This will allow water to filter through the reject until it intersects the compacted pond base, where it will flow to the north along the grade and into the settlement ponds. All coarse reject for wall and drainage blanket construction will be sourced from the CHPP.

(5) Excavation of Settlement Ponds

Two settlement ponds will be excavated to a depth of approximately 2 metres providing a storage capacity in pond SP8 of 4.8ML and in pond SP9 of 2.3ML.

The floor and side walls of each pond will be compacted to achieve a permeability of $1*10^{-9}$ m/s, for a thickness of at least 0.9m.

(6) Installation of peripheral V-Drains

A set of peripheral V drains will be established to collect the water filtering through the drainage blanket and side walls of each pond. Water captured will be directed to the settlement ponds. The drains will be approximately 5m wide to allow for subsequent maintenance. The drain invert will be below the level of the adjacent pond floor. An access way will be retained between the drain and bund wall.

Ponds RP9, RP10 and RP11 will have a reject capacity of 110,590m^3 which provides for a further 4 months reject production at the CHPP.

The above construction activities would be undertaken with the equipment (or similar) listed in Table 2.1.

Table 2.1 - Indicative Equipment List

Item	No.	Function	Duration
Bulldozer (CAT D6)	1	Earthworks	2 weeks
Scraper	1	Earthworks	2 weeks
Excavator	1	Settlement pond excavation	1 week
Front end Loader	1	Pond wall construction	2 weeks
Grader	1	Floor shaping/drain construction	2 weeks
Semi-tipper	2	Coarse reject delivery	2 weeks
Source: Whitehaven Coal Mining Pty Ltd.			

2.6.2.2 Pond Operations

The thickened fine reject from the CHPP will continue to be pumped to the active reject pond via a 150mm diameter pipe which would discharge on the southern section of the pond enabling it to disperse in shallow layers via the grade in the final floor. This process would continue until the reject material reaches to within 0.6m of the top of the pond wall crest. Water within the fine reject would move laterally through the pond walls and through the drainage blanket, into the external perimeter drains and into the settlement ponds. Water from the settlement ponds, following appropriate settlement time would be pumped to the main storage dam for recirculation back through the plant.

The fine reject would take between 3-4 months to consolidate sufficiently prior to excavation and transport to the reject emplacement area at the Melville Open Cut Void or other approved emplacement areas. The new ponds RP9, RP10 and RP11 would be operated cyclically with existing ponds RP1-RP8 to ensure sufficient capacity in ponds to receive fine rejects whilst other ponds are consolidating and others are being excavated.

Refurbishment of ponds will be required on excavation of consolidated reject. This process would require:-

- Removal of consolidated fines with course reject drainage blanket and inner layer of coarse reject from pond wall;
- Installation of new drainage blanket;
- Replacement of inner pond wall with fresh coarse reject; and
- Settlement pond cleanout.

Refurbishment of each pond generally takes approximately 2 months to complete. Materials from the pond refurbishment are transported with the fine reject to the Melville Open Cut void or other approved emplacement area.

2.7 Waste Management

There would be no modification to the collection or disposal of wastes generated other than the coarse and fine rejects discussed in Section 2.6.

2.8 Transportation

There would be no modification to the transport arrangements currently in place for transfer of fine reject to the Melville Open Cut Void. A proposed new reject emplacement area at the former Brickworks Open Cut Void is the subject of a separate application.

2.9 Hours of Operation

No changes are proposed to the hours of operation of the plant as per Table 1.1.

2.10 Operational Life

No changes are proposed to the current operational life of the Whitehaven CHPP.

2.11 Employment

No changes are expected in employment levels as a consequence of the modification. The construction of the additional ponds will provide short term employment during the construction phase for up to 8 persons during the construction phase (approximately 6 weeks).

2.12 Rehabilitation

No change is proposed to rehabilitation objectives at the site. The additional ponds constructed will be rehabilitated to the same requirements as the existing ponds as follows:-

- RP9, RP10, RP11, SP8 and SP9 will be backfilled and profiled to create a gently sloping landform draining to the north as existed prior to their development;
- All established tree screens would be retained as part of the final landform.

2.13 Final Land Use

No change is proposed to final land use of the site.

2.14 Rehabilitation Methods

No change is proposed to the rehabilitation methods proposed for the site.

The new ponds would be active up until the completion of washing and loading of product coal on the Project Site. As a consequence, the fine reject and silt within these structures would be retained for at least 4 months to provide adequate drying time prior to excavation and emplacement in the approved emplacement areas.

Once reject and fines are removed from the ponds the area will be rehabilitated as follows:-

- Previously stripped subsoil and topsoil will be used to re-profile the reject and settlement ponds, draining to the north as existed prior to development;

- A final thickness of subsoil of 0.3m will be established across the pond footprint;
- A layer of topsoil of at least 0.15m will be replaced across the pond footprint;
- A mixture of pasture species appropriate to the season will be sown including fast growing non-persistent cover species and perennial grasses and legumes; and
- A suitable fertiliser will be applied at the time of seeding.

2.15 Rehabilitation Maintenance

Maintenance procedures proposed for the site will remain unchanged and will include regular inspections of all drainage lines and controls, monitoring of vegetation establishment, in-fill planting as required, and appropriate weed control.

3 Description of Existing Environment

This section describes the existing environment within and around the Project Site. The description focuses on those elements that may be affected by the proposal.

3.1 Topography

3.1.1 Existing Environment

3.1.1.1 Regional Topography

Figure 3.1 places the site within its regional topographic context. The Project Site lies within the Namoi River Basin. Elevations in the region range from 761m AHD on King Jack Mountain (approx 12km south-southwest of the Project Site) and 886m AHD within Community Conservation Area Zone 2 – Kelvin (25km north of the Project Site) to less than 260m AHD along the Namoi River valley immediately north of the Project Site.

3.1.1.2 Local and Project Site Topography

The Project Site is located on gently sloping land (2° to less the 0.5°), grading to the northeast towards the Namoi River. Whilst the site would be visible from elevated vantage points, operations have continued at the site since 2002 with no significant detrimental visual impacts reported.

3.2 Land Ownership and Land Use

3.2.1 Existing Environment

This subsection identifies the landholdings and residences in the vicinity of the Project Site and provides an overview of the land use in and around the area.

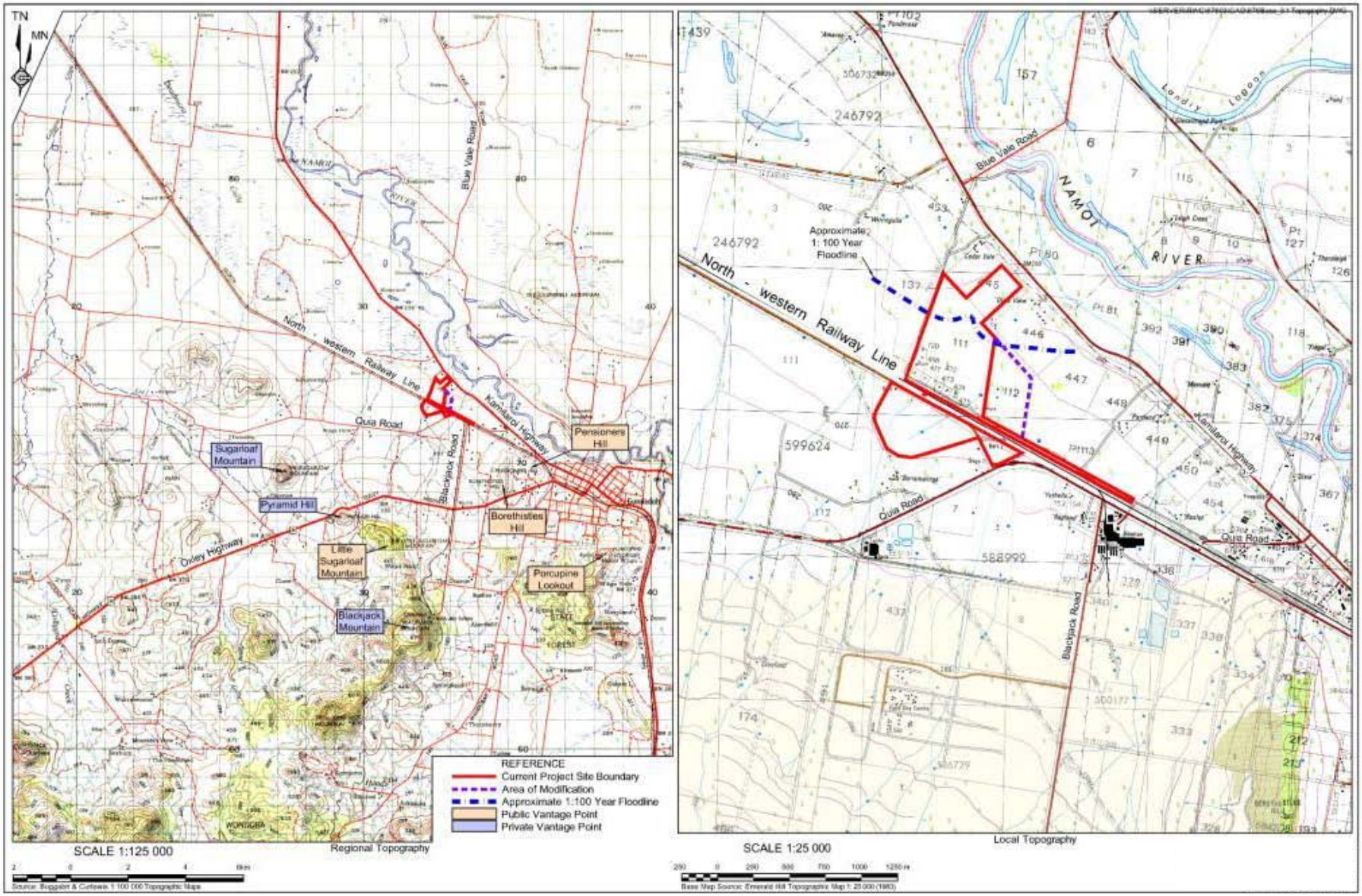

Figure 3.1 - Regional and Local Topography

3.2.1.1 Land Ownership

Table 3.1 and Figure 3.2 present the ownership of land, and identified residences around the Project Site.

Table 3.1 - Land Ownership

Reference	Lot /DP	Landowner	Residence[1]
1	1/239575	Whitehaven Coal Mining Pty Ltd.	
	2/246792		A
	12/542047		
	111/755503		
	120/755503		
	446/755503		D
	471/755503		
	472/755503		
	473/755503		
	474/755503		
	475/755503		
	498/755503		
	678/705086		
	7/714466		M
	1/119957		
	112/755503		
	1/402537		H
2	1/810271	The Council of the Shire of Gunnedah	
	2/875874		
	3/875874		
3	111/599624	New Wave Leathers	
	5/587712		
4	453/755503	R.W Tibbs	
	137/755503		B
	199/755503		
5	677/705086	T.D & P.A Burns	C
6	447/755503	J.C & J.E Wilkinson	E
7	448/755503	C.J & W.D Jaegar	F
8	449/755503	P.A & D.L Rankin	G
9	450/755503	R.S & C.A Brown	
10	1/1111136	North West Project (NSW) Pty Ltd	I (derelict)
	339/755503		
11	155/755503	W.P Small	J (derelict)
12	154/755503	G & D Tibbett	K
13	153/755503	C.B.C Finlay & K.M Hunt	L
14	10/701400	G.S & H.A Finlay	
15	9/701400	Pryde and Scott Investments Pty Ltd	
16	2/613172	Pryde's Tucker Bag Pty Ltd	
17	4/629803	Ryleend Pty Ltd	
18	1/613172	Manildra Flour Mills Retirement Fund Pty Limited	
19	1/875874	P.E & R Harris	

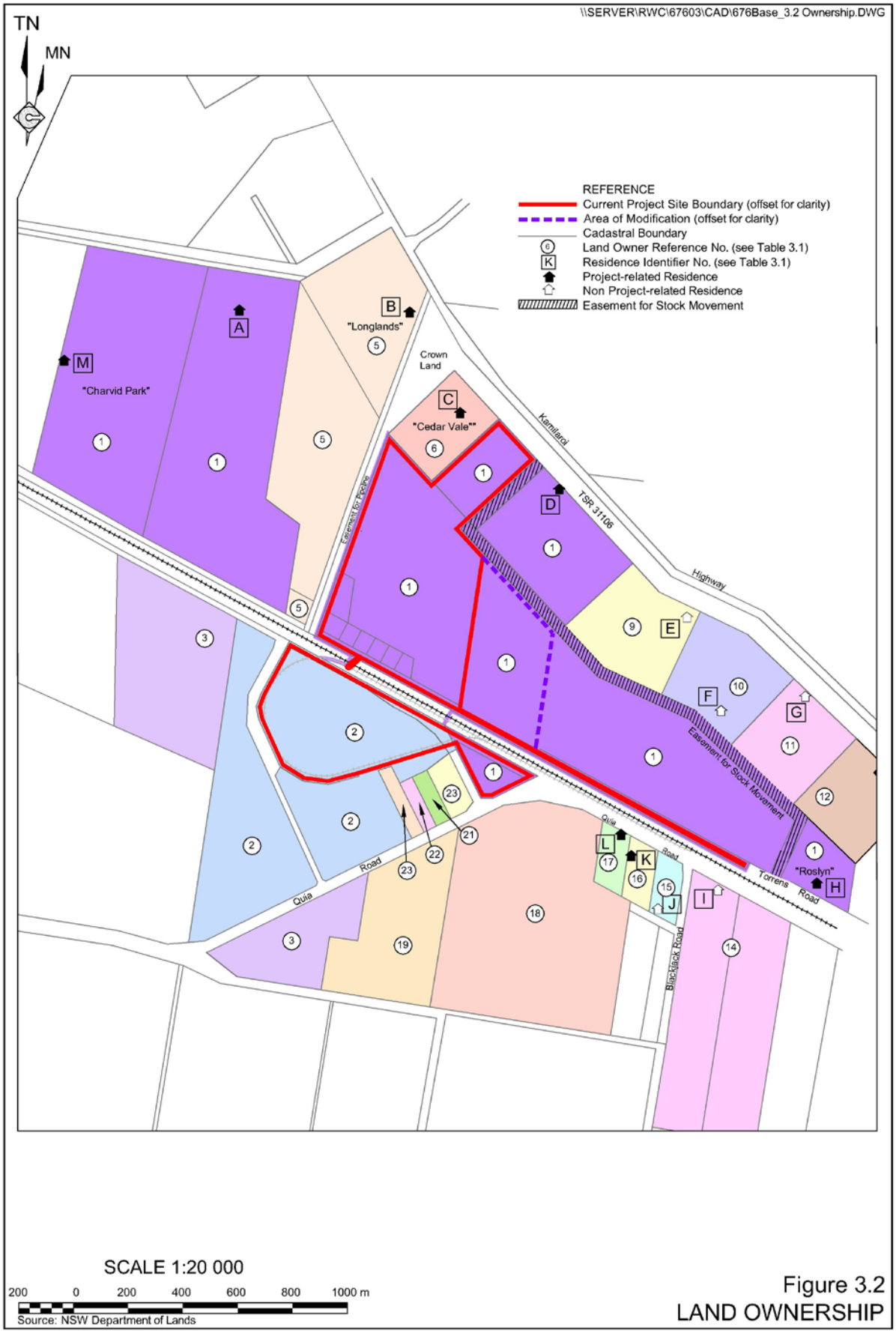

Figure 3.2 - Land Ownership

An easement for stock movement is located east and north of the Project Site. A 40m wide strip incorporating the North-Western Railway Line is owned/administered by Rail Infrastructure Corporation.

Figure 3.2 identifies the nearest residences to the Project Site whilst Table 3.2 lists the typical distances from component areas on the Project Site to surrounding residences.

Table 3.2 - Proximity of Surrounding Residences to Reject Ponds

Residence	Project Related	Proximity to Reject Ponds(m)
A	Yes	1600
B	Yes	1250
C	Yes	900
D	Yes	600
E	No	650
F	No	800
G	No	1100
H	Yes	1250
I	No	1100
J	No	1000
K	Yes	800
L	Yes	700
M	Yes	1800

3.2.1.2 Land Use

The Project Site

The Project Site formerly comprised part of a larger landholding which was used for seasonal crop production and sheep grazing. The site has been used for mining related purposes by the proponent since 2002, and prior to this, was utilised by the former owner for rail loading of coal since 1988.

Surrounding Land

A range of agricultural and industrial land uses occur within the vicinity of the Project Site, including a number small rural residential holdings as evidenced by the land ownership table above. Other land use activities in proximity to the site include grain storage/distribution, stockfeed manufacturing, landscape supplies, a tannery and the former Gunnedah Abattoir site.

3.2.2 Constraint(s)

As the proposed modification will involve a short term construction period for the ponds, with the development immediately adjacent to the existing pond network, it is not expected

that the proposed construction and operation of the ponds will detrimentally affect surrounding land uses.

3.3 Water Resources

3.3.1 Local Drainage

The CHPP utilises both surface and groundwater for processing purposes through the plant. The proposed construction of the additional ponds will not impact on existing water requirements. The site is licensed for both surface and groundwater extraction to cover required water use.

The Project Site lies within the catchment of the Namoi River Basin of north-western NSW. The Namoi River Basin covers an area of approximately 43,000km^2 and incorporates the centres of Tamworth, Gunnedah, Narrabri and Walgett. The Namoi River catchment upstream of the Project Site covers an area of approximately 17,100km^2.

Local drainage is dominated by the close proximity of the Namoi River, with numerous and often poorly defined ephemeral drainage lines flowing towards the river from small hills and ridges. Surface runoff flows generally in a north-westerly direction, with box culverts and causeways directing flows from areas to the south, beneath the north-western railway line and Torrens Road.

3.3.2 Project Site Drainage

Figure 3.3 presents how natural drainage patterns have been modified on and surrounding the Project Site by the construction of the rail loop, stockpile areas, water storages and a network of drainage channels which were installed to divert water around, or direct water to the various storages. The proposed modification will not alter these drainage flows, with any surface flows directed around the proposed ponds location.

3.3.3 Flooding Potential

Whilst much of Gunnedah Shire comprises a natural floodplain, the majority of the Project Site falls outside of the 1:100 year flood level as shown on Figure 3.4. The location of the additional ponds is clearly outside the area of possible flood impact.

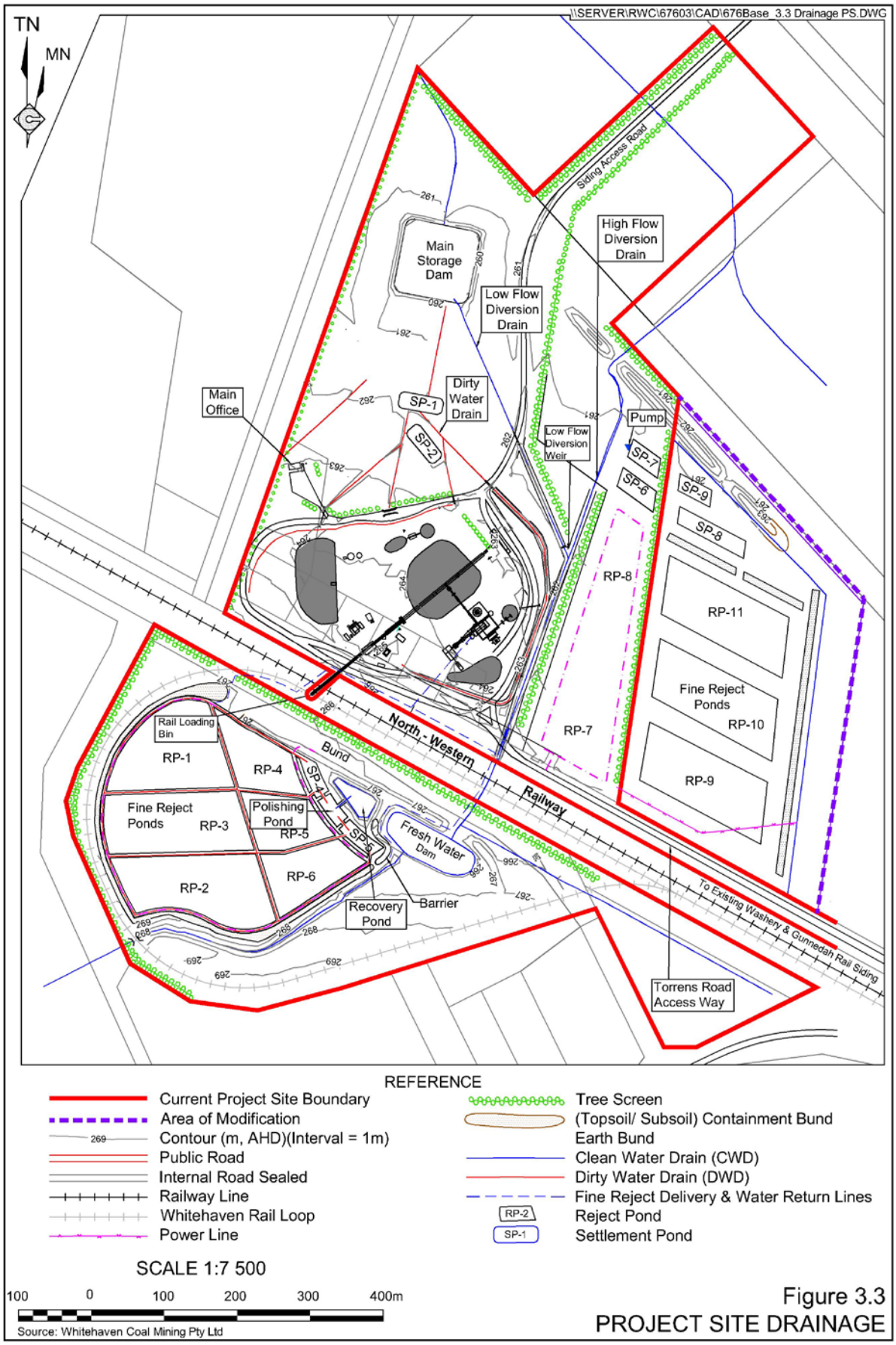

Figure 3.3 - Project Site Drainage

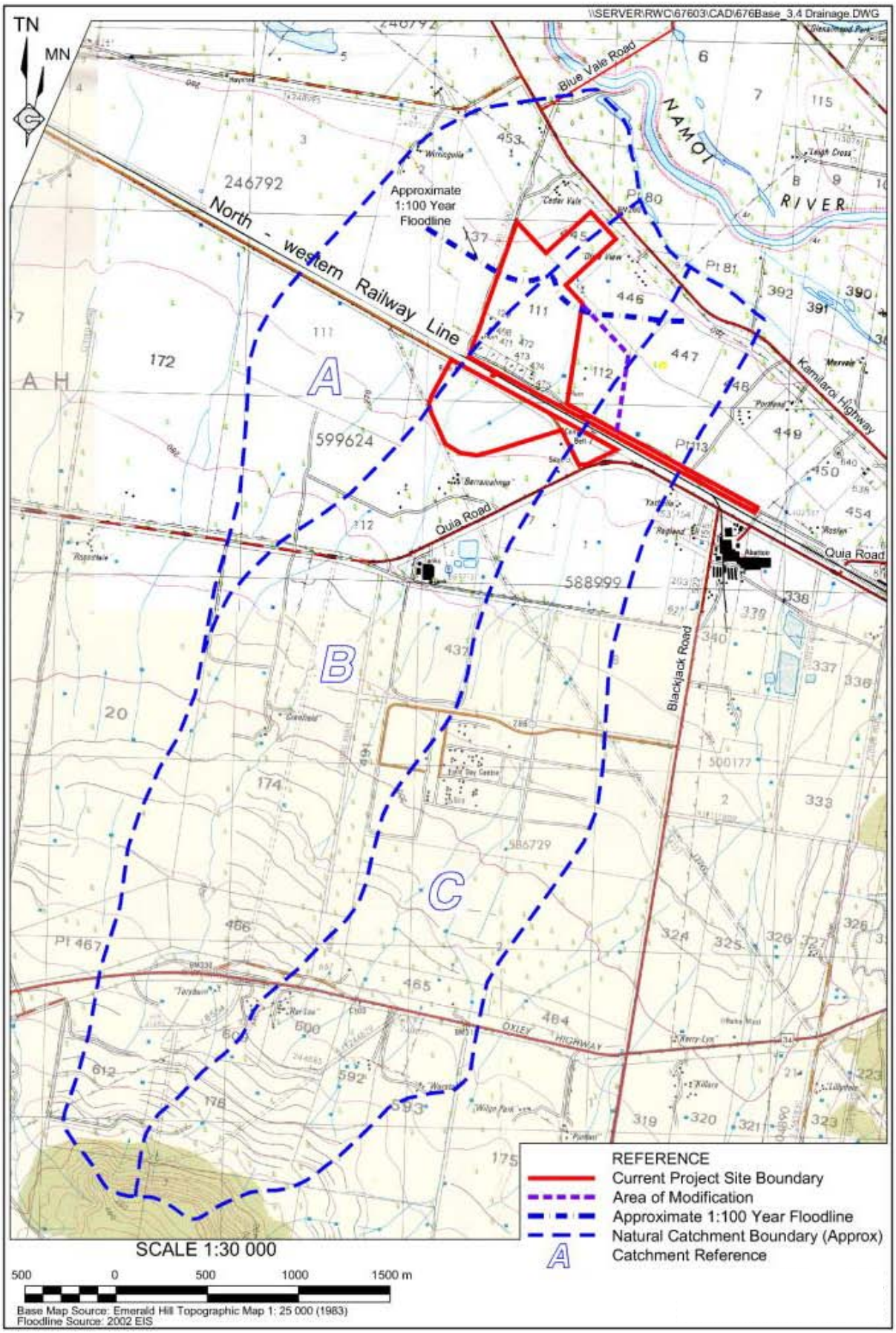

Figure 3.4 - Local Drainage

3.4 Soils and Land Capability

3.4.1 Soils

Two dominant soil types occur within or adjacent to the Project Site, namely:-

1. **Euchrozems.** Strongly structured soils with a lower clay content near the surface, weak horizon differentiation and a neutral to slightly alkaline reaction trend. Surface soil consists of reddish brown to dark brownish red clay loam on a light clay. There are no special erosion control problems associated with this soil type.
2. **Brown Clay Soils.** Generally weakly differentiated light to medium clays with a brown to grey brown colour throughout the profile, neutral surface pH and alkaline at depth.

There is limited evidence of any significant erosion on the Project Site apart from minor scouring in some drainage channels.

3.4.2 Land Capability

The 1:100 000 scale Land Capability Map of the Boggabri area, prepared by the former Soil Conservation Service shows the areas of the Project Site and surrounds not disturbed by coal stockpiling or construction activities as being mainly Class II and III land, with areas of prior mining related disturbance as Class M. These land classes are described by Emery as follows:-

- Class II: Soil conservation practices such as strip cropping, conservation tillage and adequate crop rotation. Usually gently sloping land suitable for a wide variety of agricultural uses. Has a high potential for production of crops on fertile soils similar to Class I, but increasing limitations to production due to site conditions.
- Class III: Structural soil conservation works such as graded banks, waterways and diversion banks, together with soils conservation practices such as conservation tillage and adequate crop rotation. Sloping land suitable for cropping on a rotational basis. Generally used for the production of the same type of crops as listed for Class I, although productivity will vary depending upon soil fertility. Individual yields may be the same as for Classes I and II, but increasing restrictions due to the erosion hazard will reduce yield over time. Soil erosion problems are often severe.
- Class M: Mining and Quarrying areas.

3.4.3 Constraints

Disturbance to the soils in the area of the new reject ponds will be undertaken carefully to avoid any adverse impacts upon the properties of the soils, particularly affecting their long

term use for rehabilitation. Land capability and suitability should not constrain the proposed modification.

3.5 Ecology

3.5.1 Existing Environment

The proposed modification to the operation of the facility would require additional disturbance to predominantly cleared land, with three Peppercorn trees likely to be disturbed to accommodate the additional ponds. The area to be disturbed is immediately adjacent to the existing pond network and within and adjacent to areas previously considered as part of the ecological surveys for the site in 2002, during which no species were considered to be adversely impacted. Additional disturbance within the pond footprint occurred during the upgrade of the CHPP, as well as for general laydown purposes and temporary office facilities for the personnel engaged during the plant upgrade. No further consideration is given to ecological impacts in this assessment.

3.6 Aboriginal Heritage

In accordance with the Office of Environment and Heritage document "Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, 2010", appropriate measures have been undertaken to determine if there are any known Aboriginal objects in the area of the ponds development. A search of the OEH Aboriginal Heritage and Information Management System (AHIMS) database confirmed 1 known registered Aboriginal Site within 1km of the proposed works, and no known registered sites within 200m of the proposed works. Copies of the AHIMS searches are included in Appendix 2. On this basis it was concluded that there are no known registered sites within the area of proposed works. In addition to this, the subject area has been subject to previous historic agricultural and grazing practices as well as more recent disturbance associated with the CHPP upgrade, with the site presenting no landscape features such as mature trees, ridgelines, cliffs, caves or undisturbed land that may be more likely to retain Aboriginal site significance. As a further protection measure, topsoil stripping of the additional ponds area will be undertaken after a preliminary site survey by Aboriginal stakeholder representatives, who will remain present during stockpiling to verify no Aboriginal artefacts are present in the area.

3.7 Air Quality

The proposed modification will not result in any significant additional dust impacts as compared to the existing operations. The construction phase (approximately 6 weeks) may

result in some additional dust generation during pond establishment, however this is not expected to constrain the proposed modification. No changes are proposed in terms of coal stockpiling or operational throughput. No further consideration is given to air quality impacts in this assessment.

3.8 Noise

An assessment of predicted noise impacts as a consequence of construction and operation of the new ponds was completed by Spectrum Acoustics, with a copy of their letter report contained in Appendix 3. The outcome of that assessment indicates that the proposed modification will not result in any significant additional noise impacts as compared to the existing operations, nor will it result in an exceedance of the existing noise criteria. Modelling of noise levels at the closest non-project related residences in Table 3.3 below identifies pond construction work will not exceed current noise limits applied to the CHPP. This modelling was based off sound power levels (105 dB(A),$L_{eq(15minute)}$) obtained from measurements during dam construction at the Werris Creek Mine which utilised similar equipment to that proposed for the CHPP modification.

Table 3.3 Predicted Pond Construction Noise Levels, dB(A),$L_{eq(15min)}$

Receiver	Neutral	ENE wind	SSW wind	Criterion
E (Wilkinson)	29	26	32	38
F (Jeager)	28	25	32	38
G (Rankin)	24	21	27	38

In addition to the pond construction noise, an assessment was conducted of cumulative noise of the operating CHPP, including train loading and SSW wind conditions to assess total noise. The results in Table 3.4 confirm noise levels remain within current noise limits for the CHPP.

Table 3.4 Predicted Total Site Noise Levels, dB(A),$L_{eq(15min)}$ (SSW wind)

Receiver	Current	2008	Total	Criterion
E (Wilkinson)	32	33	36	38
F (Jeager)	32	33	36	38
G (Rankin)	27	37	37	38

Consideration was also given to noise impacts of active excavation of the new ponds and transport from site. As this activity involves the use of a small excavator loading single semi-trailers, the post construction noise levels would be less than that generated during construction work with the operation of additional equipment. On this basis, complying noise emissions would be expected during operations of the new ponds.

3.9 Transportation and Traffic

No changes to existing transportation and traffic levels are proposed in the modification application. The additional ponds will provide additional storage capacity in the existing reject circuit as contingency, however there will be no change to current approved throughput into the plant.

Transportation and traffic is not considered further in this assessment.

3.10 Visibility

The Project Site is located on virtually flat land between the Kamilaroi Highway and Quia Road, and as such is potentially visible from these vantage points and a limited number of surrounding residences.

Views of the existing facilities on the Project Site are already available from these same vantage points, including the rail loading bin, CHPP building, conveyor assembly, stockpiles, lighting towers and trains on the rail loop. These views are obscured to varying degrees by intervening vegetation and planted tree screens.

The proposed additional ponds are unlikely to significantly impact on existing views of the Project Site, and, their location immediately adjacent to the existing pond network is unlikely to result in a significant change to existing view profiles of the Project Site. A tree screen will be established on the outer edge of the new ponds to further limit potential visual impacts.

3.11 Socio-Economics

As no significant change to existing operations are proposed as part of this modification, it is not expected that there will be any significant impact from the project on existing employment or expenditure in the Gunnedah Region. A short term addition of construction contractors (approximately 6 weeks) may result during pond construction, however this will be short term with no further flow on effects to the regional economy. No further consideration is given to socio-economic impacts in this assessment.

3.12 Planning Considerations

3.12.1 Local Planning Instruments

The Project Site is zoned under the Gunnedah Shire Local Environment Plan (LEP) 1998. The area of the proposed modification is zoned 1(a) Rural (Agricultural Protection). The objectives of this zoning are as follows:-

- To protect the use and efficiency of prime agricultural land while permitting appropriate development subject to suitable subdivision controls;
- To permit other forms of development which are ancillary to rural land uses or that, as a result of their nature, require siting outside the urban area;
- To avoid further fragmentation and alienation of useable arable land;
- To retain the low density nature of settlement within the rural areas and ensure that any future development does not create unreasonable demands on the existing infrastructure or available services;
- To provide for the requirements of the rural community;
- To maintain safety and convenience along main roads by discouraging uses that are likely to generate traffic volumes which disrupt traffic flow; and
- To ensure that the existing level of scenic amenity is maintained by requiring development to have regard for significant ridgelines and hilltops.

The proposed construction of additional reject ponds is permissible under the Gunnedah LEP with the consent of Council.

3.12.2 Regional Planning Issues

Orana Regional Environmental Plan (REP) No. 1 – Siding Spring

The Project Site lies within a region called the Siding Spring Observatory Dark Skies Region. The objective of this defined area is to ensure appropriate protection of observing conditions at the Siding Spring Observatory. The proposed development is some 130km from the Observatory, with no expected impacts from the development on observing conditions. No further consideration is given to this REP in the assessment document.

3.12.3 State Planning Issues

State Environmental Planning Policy No. 33 (SEPP 33) – Hazardous and Offensive Development

The proposed modification does not involve the introduction of any additional hazardous or offensive developments. As a consequence no further consideration to SEPP 33 is provided in this assessment.

State Environmental Planning Policy No. 44 (SEPP 44) – Koala Habitat Protection

The Gunnedah Local Government Area (LGA) is identified in Schedule 1 of SEPP 44 as an area that could provide habitat for Koala's, and as such requires a determination as to if any potential or core Koala habitat will be disturbed as a consequence of this proposal. Core Koala habitat comprises land with a resident population of Koalas wheras potential Koala habitat comprises land with native vegetation with known Koala feed trees constituting at least 15% of the total number of trees present on site. There is no core habitat or potential habitat located within the area of disturbance. The only trees to be disturbed as a consequence of the pond construction comprise three small Peppercorn trees.

State Environmental Planning Policy (SEPP) (Mining, Petroleum Production and Extractive Industries) 2007.

The SEPP specifies matters requiring consideration in the assessment of any mining, petroleum production and extractive industry development, as defined in NSW legislation. Part 3, and specifically clauses 12 and 13, of the Mining SEPP requires that consideration be given to the compatibility of projects with surrounding land uses. There is no land use within or surrounding the Project Site considered to be sensitive or incompatible with the proposed pond establishment. This is supported by the fact that the additional ponds will be constructed immediately alongside the existing pond network.

The SEPP also requires consideration of natural resource management and environmental management, resource recovery, transportation and rehabilitation. The information presented in this assessment addresses each of these matters and indicates that the proposal will not have any significant impacts over and above the currently approved operations.

4 ENVIRONMENTAL SAFEGUARDS AND EFFECTS

This section describes the design and operational safeguards proposed to minimise and manage impacts of the proposed construction of the additional reject ponds.

4.1 Water Resources

4.1.1 Objectives

The proposed modification will not require any additional water resources. The construction of the new ponds will provide additional storage capacity for fine reject from the CHPP to enable a less constrained reject circuit, particularly during periods of wet weather. The proposal does not seek to increase throughput through the CHPP. As a consequence, water resources will continue to be managed with the following objectives in mind:-

- To segregate “clean”, “dirty” and “contaminated” water flows;
- To contain sediment laden water within the disturbed area of the Project Site;
- To minimise erosion from uncontrolled drainage;
- To avoid negative impacts on local groundwater quality and quantity;
- Ensure all activities are undertaken at an elevation so as not to be affected by a 1:100 year ARI flood level of the Namoi River;
- To ensure water management systems employed within the Project Site do not adversely affect downstream water users, that the ecological integrity of the catchment is maintained, and that any water leaving site complies with discharge criteria; and
- To rehabilitate the site such that water draining from site is of a quality that is non-polluting.

4.1.2 Operational Safeguards and Management Procedures

4.1.2.1 Potential Sources of Water Pollution

Sources of water pollution from the existing and proposed development within the Project Site are as follows:-

- Surface runoff from ROM coal and product coal stockpiles;
- Runoff from hardstand areas, including roads and office areas;
- Overflow or uncontrolled discharge from the fine reject ponds;
- Runoff from disturbed areas during construction of RP8, RP9, RP10, SP8 and SP9;
- Runoff from the RP9, RP10, RP11 perimeter bund awaiting cover crop establishment;

- Runoff from soil stockpiles;
- Fine reject leachate migration to groundwater; and
- Spillage of hydrocarbons.

Suspended solids are likely to be the most likely source of water pollution.

4.1.2.2 Management of Water Quality

Current practices of quarterly sampling from the main storage dam on site, and any discharge event, to monitor pH, EC, Total Suspended Solids, Oil and Grease and Total Organic Carbon will continue to confirm ongoing water quality post completion of the additional reject ponds. Water filtered through the new ponds and into SP8 and SP9 will be recirculated through the plant.

The current monitoring bore network surrounding the existing reject and settlement ponds will be expanded to undertake additional monitoring around the new pond area, particularly to cover the area to the south east. Groundwater monitoring will analyse the following parameters and will be undertaken quarterly in accordance with current practice.

- Ammonia
- Bicarbonate
- Calcium
- Chloride
- Electrical Conductivity
- Lead
- Magnesium
- Nitrate
- Potassium
- Sodium
- Standing Water Level
- Sulphate
- pH.

The proposed construction of the additional ponds will not alter existing water management practices across the site. That is, clean water will continue to be diverted away from disturbed areas whilst dirty water will be captured in sediment ponds and the main storage dam. The only change to current flows will be the establishment of an additional clean water diversion drain around the outside of the pond footprint, whilst any dirty water from the ponds will report to SP8 and SP9, as defined on Figure 3.3.

Water is designed to seep from RP9, RP10 and RP11 into SP8 and SP9. The settled water is pumped either direct through the CHPP circuit or via the main storage dam where it will be held until required for recirculation.

To avoid contamination of groundwater by coal fines leachate the following practices will be adopted, as per existing reject ponds:-

- Fine reject will be regularly cleaned out of the reject ponds as drying times allow to minimise the time available for any leachate to seep into the ground;

- The floor of each reject pond will be compacted to achieve a permeability of $1*10^{-9}$m/s for a thickness of at least 0.9m; and
- The floor and walls of the settlement ponds will be compacted to achieve a permeability of $1*10^{-9}$m/s.

4.1.3 Environmental Effects

No adverse effects on local water quality are expected on the basis that all dirty water will be diverted through dirty water drains to settlement ponds and the main storage dam prior to being able to discharge off site. Clean water will continue to be available to water users downstream via the diversion of clean waters around site and into natural drainage depressions to the Namoi River. Final rehabilitation of the site will also see drainage features that direct flows as existed prior to the development.

4.2 Land Use

4.2.1 Objectives

Surrounding land-use is predominantly rural and/or industrial, with the objective of this modification being to ensure no adverse impacts on these surrounding land uses. It is also an objective, upon decommissioning of the facility, to be able to return the site to its pre-existing land-use. Whilst the proposed modification is not expected to impact on surrounding land users, the following operational safeguards and procedures have been adopted.

4.2.2 Operational Safeguards and Management Procedures

The additional reject and settlement ponds will be operated in conjunction with the existing pond network. This will ensure a cyclical approach to activities within the ponds in terms of application of fine reject, settlement and excavation. On this basis, activities in and around RP9, RP10 and RP11 will be cyclical and on an as needs basis, as opposed to continuous operations. In addition to this, the new ponds will be screened by an external bund, with a tree screen established on the outside of the bund to further restrict views of the ponds.

Soil resources stripped from the pond footprint will be appropriately managed to ensure their long term viability. This will be achieved through stockpiling of soil at strategic locations around the perimeter of the new ponds for screening purposes at heights of 2m for topsoil and 3m for subsoil. All stockpiles will be seeded to an appropriate cover crop for the season and managed to minimise weed growth. Prior to use for rehabilitation, the soil from the stockpiles will be analysed for fertility and chemical properties to target any

ameliorative measures that may be necessary upon respreading to ensure a suitable growth medium.

4.2.3 Environmental Effects

The application of the above measures will minimise the impact of the development on surrounding land-uses and ensure the soil resources are managed for future rehabilitation. On this basis, the environment effect of the pond construction on land use is expected to be minimal.

4.3 Aboriginal Heritage

4.3.1 Objectives

Whilst no evidence of Aboriginal occupation or utilisation of the Project Site and/or surrounds has been found in accordance with the OEH Due Diligence Code of Practice investigations, an objective of the proposed modification is to minimise impacts on Aboriginal heritage.

4.3.2 Operational Safeguards and Management Procedures

In order to ensure no impact on items of Aboriginal significance it is proposed to invite representatives from the local Aboriginal community to inspect the pond footprint during soil stripping operations. In the event that an artefact or item of Aboriginal significance is encountered, the following protocol will be followed:-

- Operations in the area of the find will cease immediately, and the area will be cordoned off with tape. The Project Manager will be notified;
- An appropriately qualified archaeologist will be invited to site to inspect the find and report on its authenticity. If confirmed as an artefact, WHC will contact the OEH for advice on how to proceed, in conjunction with the representative Aboriginal stakeholders. This will include measures for salvage and storage.
- Works will only recommence in the area of the find upon approval to proceed from the OEH.

4.3.3 Environmental Effects

Based on survey works completed to date, and the management procedures to be adopted, the environmental effect of the pond construction on Aboriginal heritage is expected to be minimal.

4.4 Noise

4.4.1 Objectives

The primary objective of the proposed development in terms of noise will be to minimise noise impacts during both construction and operation of the new ponds.

4.4.2 Operational Safeguards and Procedures

To manage potential noise impacts, the following actions will be undertaken:

- Specific attended monitoring will take place at the commencement of construction activities to confirm noise levels are within predicted levels and do not exceed criteria;
- Attended monitoring will be undertaken on a quarterly basis post construction works to confirm noise levels remain within compliance limits at closest non-project related property, being Property E as shown on Figure 3.2.
- In the event that noise levels are identified above compliance limits and are a consequence of construction or operational activities at the ponds, operational measures will be undertaken to reduce noise levels which may include standing equipment down, operating from a different location or other measures that prove effecting in reducing noise levels.

4.4.3 Environmental Effects

Based on the operational safeguards and procedures, the noise impacts associated with the proposed new ponds are expected to be minor and remain within current noise compliance limits as specified in the existing Environment Protection Licence.

4.5 Visibility

4.5.1 Objectives

The primary objective of the proposed development in terms of visibility will be to minimise the visual intrusion of the new ponds area and activities undertaken within the ponds footprint.

4.5.2 Operational Safeguards and Procedures

Notwithstanding the existing practices in place at the site to reduce visible impacts of current operations, the following actions will be implemented to minimise intrusiveness of the proposed additional ponds.

- Minimise the extent of land disturbance consistent with operational requirements, which will be restricted to the footprints for reject ponds RP9, RP10, RP11, SP8 and SP9, and the clean water drain around the perimeter of the pond footprint;
- Restriction on the height of the reject pond walls to 3 metres;
- Ensure establishment of a cover crop on the outer bund wall and retained soil stockpiles;
- Undertake tree screen planting to the east of the newly constructed ponds;
- Incorporate existing air quality controls into the new ponds area;
- Maintain the site in a clean and tidy condition; and
- Restrict the use of night lighting to operational hours only.

4.5.3 Environmental Effects

Based on the operational safeguards and procedures, and that the additional ponds will be established and operated in accordance with the immediately adjacent existing ponds, the environmental effects of the construction and operation of the additional ponds are expected to be minimal.

5 EVALUATION OF THE MODIFIED PROPOSAL

This section concludes the document with an evaluation of the proposal against biophysical and socio-economic considerations.

5.1 Evaluation of the Impacts of the Modified Proposal

5.1.1 Biophysical Considerations

The modification to existing operations by the establishment of additional reject and settlement ponds at the CHPP will have negligible additional impacts. In order to minimise potential for additional impact, a number of operational safeguards and management measures have been described to adequately address the extent of impact.

5.1.1.1 Water Resources

The establishment of the additional ponds will not create any additional reliance on water resources or increased water use. The application does not seek to increase throughput in the plant, but does seek to provide contingency storage for fine reject to avoid any potential for the reject circuit to stall operations of the plant.

Current water management practices on site will continue, with a diversion bank established on the outer perimeter of the new ponds area to divert clean water around the site. Dirty water from within the pond footprint and leachate water from the ponds will be directed via drains to settlement ponds for capture and recirculation through the plant. The existing surface water quality testing regime will be maintained.

Groundwater impacts are expected to be minimal as a consequence of pond construction methods which will ensure permeability and compaction specifications are achieved to avoid leaching of waters from the reject circuit into the groundwater. The existing network of monitoring piezometers will be expanded to verify groundwater quality and levels are not adversely impacted as a consequence of the new ponds.

5.1.1.2 Land Use

The proposed construction and operation of the new ponds, immediately adjacent to the existing pond network, is not expected to have any detrimental impact on surrounding land use. Management measures will be in place to conserve soil resources stripped during construction for reuse in subsequent rehabilitation of the site. Soil stockpiles will be managed to establish appropriate cover crops to maintain soil viability, will be stockpiled at

heights to lessen potential impacts of compaction on soil health, and will be managed to ensure weeds do not establish and set seed throughout the soil resource.

Final rehabilitation of the site will restore the land to its pre-development condition, including general drainage direction. Final rehabilitation of the ponds will be undertaken in conjunction with rehabilitation of the CHPP site, as specified in the 2008 modification SoEE.

5.1.1.3 Aboriginal Heritage

Prior survey works in and around the CHPP site have not identified any sites of Aboriginal heritage significance. A recent search of the AHIMS database also confirmed no registered sites within 200m of the proposed work site, with only 1 registered site within 1km of the affected lot (Lot 112 DP 755503). Notwithstanding this, management measures have been identified to ensure appropriate systems will be in place during construction of the additional ponds to monitor for Aboriginal artefacts. This will be achieved by inviting representative members of the Aboriginal community to undertake a pre-clearance survey of the ponds footprint, and monitor soil stripping activities for evidence of any artefactual material. In the event of any artefactual material being encountered, operations will cease, an archaeologist will be called to site to review and document the find in conjunction with the Aboriginal representatives, and the OEH engaged to confirm appropriate process prior to recommencing works. This practice will ensure the integrity of any artefactual material throughout the development of the new ponds area.

5.1.1.4 Noise

As an extension to the existing pond network, the establishment of the additional ponds is not expected to generate significant additional noise during either construction or operational activities. This was confirmed through the application of a noise model to predict noise levels at the closest non-project related residences to the new ponds site. A management program of attended monitoring during construction, and quarterly monitoring during operations will confirm if noise levels remain within compliance limits. If noise levels are determined above criteria, the source of the elevated noise will be identified and operational practices modified to ensure noise levels return to compliance levels.

5.1.1.4 Visibility

As an extension to existing pond operations, the establishment of the additional pond area is not expected to have a significant additional impact on existing visibility of site operations. As the ponds will be operated in cycle with the existing pond network, operations in and

around the new ponds will be intermittent in nature thereby minimising visual observations of the site. In addition, appropriate screening of the new ponds area will be made via a visual bund around the south eastern perimeter of the ponds which will be seeded to an appropriate cover crop. On the outside of the bund, a vegetation screen will be established to further screen the site from surrounding vantage points. This vegetation screen will replicate existing screening of the CHPP entrance road and site boundary. These measures will ensure the visible impact of the additional ponds is minimised.

5.2 Conclusion

The proposed modification to the current approved CHPP operations, as presented in this assessment is of a minor nature to provide additional capacity for the CHPP reject circuit. The only change to existing operations is the construction of 3 additional reject ponds and 2 additional settlement ponds. These ponds will be constructed to adjoin the existing pond system. It has been assessed that the construction of these ponds will have negligible additional impacts to current approved operations.

5.3 Evaluation Against the Principles of Ecologically Sustainable Development

Ecologically Sustainable Development (ESD) can be defined as development which uses, conserves and enhances the community's resources such that ecological processes are maintained and our existing and future quality of life can be improved. Four key principles are considered when assessing development against ESD:

- The precautionary principle
- The principle of social equity
- The principle of the conservation of biodiversity and ecological integrity
- The principle for improved valuation and pricing of environmental resources.

5.3.1 The Precautionary Principle

This principle suggests that in circumstances where there are serious threats of irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Emphasis must therefore be placed on anticipation and prevention of environmental damage, rather than reaction to it. Environmental safeguards have been identified in this assessment with a thorough knowledge of the existing environment, experience with

existing operations, and an appreciation of potential impacts to adequately prevent environmental damage. Following full evaluation of the proposal, there are no activities or features associated with the proposal for which there is a level of uncertainty in achieving acceptable environmental performance. The procedures necessary to operate the reject circuit from the CHPP is well known from many years of experience and demonstrated over the last 9 years of operations from the site.

It is also identified that the area of the pond establishment will be rehabilitated so that the environmental features of the area will be returned to a comparable landform as existed prior to development.

5.3.2 Intra and InterGenerational Equity

The objective of this principle is that the present generation should ensure the health, diversity and productivity of the environment be maintained or enhanced for future generations.

The proposed modification is of a minor nature and will not disadvantage any part of the community as a consequence of the management measures described. The establishment of the additional ponds will also ensure that adequate capacity is maintained in the reject circuit so as to prevent any potential downtime of CHPP operations, so as not to impact on employment and flow on effects through the local economy.

The proposed management measures and rehabilitation of the site will also ensure maintenance of the “quality of life” for surrounding landholders both now and in the future once rehabilitation activities are complete.

5.3.3 Conservation of Biological Diversity and Ecological Integrity

The modified proposal will result in only minor additional disturbance to land that has previously been subject to agricultural practices and general access and equipment storage by the previous landowner. As a consequence any impact on biodiversity or ecological integrity is considered to be minor in nature and ultimately mitigated through management measures proposed and through the rehabilitation of the site following the cessation of coal processing activities.

5.3.4 Improved Valuation and Pricing of Environmental Resources

The valuation placed on environmental resources is evidenced in this assessment through the management measures prescribed and the rehabilitation practices to be implemented at the end of the CHPP operations. Costing of pond development and operations includes

provision for management measures, monitoring and rehabilitation which must be undertaken to a standard that achieves both regulatory and community expectations.

5.3.5 Conclusion

The proposed modification will have minimal impact on the local environment both now and in the future, and is consistent with features of the current approved CHPP operation. The operation of the CHPP is being conducted in an ecologically responsible manner, with the final rehabilitation of the site expected to return the land to its pre-establishment land capability and land use.

5.4 Justification of the Modified Proposal

The modified proposal provides the current CHPP operation with additional capacity in its fine reject circuit. This additional capacity is necessary to provide contingency storage of fine reject to enable the CHPP to operate to its optimum performance. The modification would be generally imperceptible to surrounding property owners and would have no perceptible additional impact on the surrounding environment.

5.4.1 Consequences of not Proceeding with the Modified Proposal

In circumstances where weather conditions or other factors impact on reject extraction rates, inadequate pond capacity may cause the CHPP to cease operations until adequate capacity is available. Any shutdown in plant operations will then impact on the supplying mines in terms of ROM supply and stockpile capacity, meeting contract requirements on rail and at port, and subsequent operators at both the CHPP and supplying mines.

Ultimately, any shutdown in operations at the CHPP will have impacts on employment levels at the plant which will have flow on effects in the local community. It is considered the benefits of providing additional capacity in the reject circuit by minimising its potential as a “choke point” in the CHPP outweigh the minor impacts that may result as a consequence of the modification. The management measures that have been identified in this assessment, which further minimise the potential for impact, support proceeding with the modified proposal.

6 References

Corkery, R.W (2008) *Statement of Environmental Effects For the Increase in Throughput at the Whitehaven Coal Handling and Preparation Plant and Rail Loading Facility, via Gunnedah.*

Whitehaven Coal Mining Pty Ltd (2002) *Environmental Impact Statement for the Whitehaven Siding Coal Handling and Preparation Plan.*

Environment, Climate Change and Water (2010) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.*

Pennington, N - (Spectrum Acoustics 2011) *Noise Assessment – Whitehaven CHPP Modification.*

APPENDIX 1 – APPLICATION FOR MODIFICATION

Request to modify a major project

NSW GOVERNMENT
Department of Planning

Date duly made: ____/____/____ Modification No. _____

1. Before you lodge

This form is required under section 75W of the *Environmental Planning and Assessment Act 1979* (the Act) in order to request the Minister to modify the Minister's approval to carry out a project or concept plan to which Part 3A of the Act applies.

Before making this request, it is recommended that you first consult with the Department of Planning (the Department) concerning your modification. The Director-General may issue environmental assessment requirements that must be complied with before your request will be considered by the Minister.
If the changes proposed by the modification will result in a project that is consistent with the existing approval, the Minister's approval for a modification is not required.

Disclosure Statement
Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than $1,000) made in the previous two years.

Note: For more details about political donations disclosure requirements, including a disclosure form, go to **www.planning.nsw.gov.au/donations**.

Lodgement
All modification requests must be lodged with the Director-General of the Department of Planning, by courier or mail. An electronic copy should also be e-mailed to the assessment contact officer assigned to the project.

NSW Department of Planning
Ground floor, 23-33 Bridge Street, SYDNEY NSW 2000
GPO Box 39 SYDNEY NSW 2001
Phone 1300 305 695

2. Details of the proponent

Company/organisation/agency: Whitehaven Coal Mining Pty Ltd.
ABN: 65 086 426 253

☒ Mr ☐ Ms ☐ Mrs ☐ Dr ☐ Other

First name: Brian
Family name: Cullen

Position: General Manager, Technical Services

STREET ADDRESS

Unit/street no.: 10409
Street name: Kamilaroi Highway
Suburb or town: GUNNEDAH
State: NSW
Postcode: 2380

POSTAL ADDRESS (or mark 'as above')

PO Box 600
Suburb or town: GUNNEDAH
State: NSW
Postcode: 2380

Daytime telephone: (02)67424337
Fax: (02)67423607
Mobile: 0418200512

Email: bcullen@whitehavencoal.com.au

3. Identify the land

STREET ADDRESS (where relevant)

Unit/street no.: 10409

Street or property name: Kamilaroi Highway

Suburb, town or locality: GUNNEDAH NSW

Postcode: 2380

Local government area(s): Gunnedah

State Electorate(s): Tamworth

REAL PROPERTY DESCRIPTION

See Attached Schedule

Note: The real property description is found on a map of the land or on the title documents for the land. If you are unsure of the real property description, you should contact the Department of Lands.

Please ensure that you place a slash (/) to distinguish between the lot, section, DP and strata numbers. If the proposed modification applies to more than one piece of land, please use a comma to distinguish between each real property description.

OR: detailed description of land attached: ☒

MAP: A map of the site and locality should also be submitted with this request.

4. Details of the original major project or concept plan

Briefly describe what the original approval allows

Construction and operation of a Coal Handling and Preparation Plant and rail loading facility, including operation of reject ponds for fine reject from the plant.

What was the original project application no.?: 0079.2002

What was the date of the approval?: 2/10/2002

What was the original application fee?:

Note: Clause 245K of the *Environmental Planning and Assessment Regulation 2000* provides information on calculating the maximum fee for a request for modification.

5. Describe the modification you propose to make to the approval

Describe the proposed modification

Construction of additional reject ponds for the fine reject circuit at the CHPP

Your modification request may need to be accompanied by an Environmental Assessment, including plans. An electronic and hard copy of this document will be required.

ESTIMATED CAPITAL INVESTMENT VALUE

Please indicate the estimated capital investment value (CIV) of the modification to the project approval or concept plan (excluding GST).

$150,000.00

FULL TIME EQUIVALENT JOBS

Please indicate the number of jobs created by the proposed modification. This should be expressed as a proportion of full time equivalent (FTE) jobs over a full year.

Construction jobs (FTE) 0 Operational jobs (FTE) 0

6. Landowner's consent (where required)

As the owner(s) of the above property, I/we consent to this request being made by the proponent:

Land

Signature

Name

Date

Land

Signature

Name

Date

Note: Under Clause 8F of the *Environmental Planning and Assessment Regulation 2000* (the Regulation), certain applications for approval under Part 3A of the Act do not require consent of the landowner, however, the proponent is required to give notice of the application (e.g. linear infrastructure, mining & petroleum projects, and critical infrastructure).

7. Political donation disclosure statement

Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than $1,000) made in the previous two years.

Have you attached a disclosure statement to this request?

☒ Yes

☐ No

Note: For more details about political donations disclosure requirements, including a disclosure form, go to **www.planning.nsw.gov.au/donations**.

8. Proponent's signature

As the proponent(s) of the project and in signing below, I/we hereby:

- provide a description of the modification to the project approval or concept plan and address all matters required by the Director-General pursuant to Section 75W of the Act, and
- declare that all information contained within this form is accurate at the time of signing.

Signature

Name

Brian Cullen

Date

22/06/2011

In what capacity are you signing if you are not the proponent

Name, if you are not the proponent

Political donations disclosure statement

NSW GOVERNMENT
Department of Planning

Office use only:

Date received: ___/___/___ Planning application no. _____

This form may be used to make a political donations disclosure under section 147(3) of the *Environmental Planning Assessment Act 1979* for applications or public submissions to the Minister or the Director-General.

Please read the following information before filling out the Disclosure Statement on pages 3 and 4 of this form. Also refer to the 'Glossary of terms' provided overleaf (for definitions of terms in *italics* below). Once completed, please attach the completed declaration to your planning application or submission.

Explanatory information

Making a planning application or a public submission to the Minister or the Director-General
Under section 147(3) of the Environmental Planning and Assessment Act 1979 ('the Act') a person:

(a) who makes a *relevant planning application* to the Minister or the Director-General is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by any *person with a financial interest* in the application, or

(b) who makes a *relevant public submission* to the Minister or the Director-General in relation to the application is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by the person making the submission or any *associate of that person*.

How and when do you make a disclosure?
The disclosure to the Minister or the Director-General of a *reportable political donation* under section 147 of the Act is to be made:

(a) in, or in a statement accompanying, the relevant planning application or submission if the donation is made before the application or submission is made, or

(b) if the donation is made afterwards, in a statement of the person to whom the relevant planning application or submission was made within 7 days after the donation is made.

What information needs to be included in a disclosure?
The information requirements of a disclosure of reportable political donations are outlined in section 147(9) of the Act.

Pages 3 and 4 of this document include a Disclosure Statement Template which outlines the information requirements for disclosures to the Minister or to the Director-General of the Department of Planning.

Note: A separate Disclosure Statement Template is available for disclosures to councils.

Warning: A person is guilty of an offence under section 125 of the *Environmental Planning and Assessment Act 1979* in connection with the obligations under section 147 only if the person fails to make a disclosure of a political donation or gift in accordance with section 147 that the person knows, or ought reasonably to know, was made and is required to be disclosed under section 147.

The maximum penalty for any such offence is the maximum penalty under Part 6 of the *Election Funding and Disclosures Act 1981* for making a false statement in a declaration of disclosures lodged under that Part.

Note: The maximum penalty is currently 200 penalty units (currently $22,000) or imprisonment for 12 months, or both.

Glossary of terms (under section 147 of the *Environmental Planning and Assessment Act 1979*)

gift means a gift within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981*. Note. A gift includes a gift of money or the provision of any other valuable thing or service for no consideration or inadequate consideration.

Note: Under section 84(1) of *the Election Funding and Disclosures Act 1981* gift is defined as follows:

gift means any disposition of property made by a person to another person, otherwise than by will, being a disposition made without consideration in money or money's worth or with inadequate consideration, and includes the provision of a service (other than volunteer labour) for no consideration or for inadequate consideration.

local councillor means a councillor (including the mayor) of the council of a local government area.

relevant planning application means:

a) a formal request to the Minister, a council or the Director-General to initiate the making of an environmental planning instrument or development control plan in relation to development on a particular site, or
b) a formal request to the Minister or the Director-General for development on a particular site to be made State significant development or declared a project to which Part 3A applies, or
c) an application for approval of a concept plan or project under Part 3A (or for the modification of a concept plan or of the approval for a project), or
d) an application for development consent under Part 4 (or for the modification of a development consent), or
e) any other application or request under or for the purposes of this Act that is prescribed by the regulations as a relevant planning application,

but does not include:

f) an application for (or for the modification of) a complying development certificate, or
g) an application or request made by a public authority on its own behalf or made on behalf of a public authority, or
h) any other application or request that is excluded from this definition by the regulations.

relevant period is the period commencing 2 years before the application or submission is made and ending when the application is determined.

relevant public submission means a written submission made by a person objecting to or supporting a relevant planning application or any development that would be authorised by the granting of the application.

reportable political donation means a reportable political donation within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981* that is required to be disclosed under that Part. Note. Reportable political donations include those of or above $1,000.

Note: Under section 86 of *the Election Funding and Disclosures Act 1981* reportable political donation is defined as follows:

86 Meaning of "reportable political donation"

(1) For the purposes of this Act, a reportable political donation is:
  (a) in the case of disclosures under this Part by a party, elected member, group or candidate—a political donation of or exceeding $1,000 made to or for the benefit of the party, elected member, group or candidate, or
  (b) in the case of disclosures under this Part by a major political donor—a political donation of or exceeding $1,000:
    (i) made by the major political donor to or for the benefit of a party, elected member, group or candidate, or
    (ii) made to the major political donor.

(2) A political donation of less than an amount specified in subsection (1) made by an entity or other person is to be treated as a reportable political donation if that and other separate political donations made by that entity or other person to the same party, elected member, group, candidate or person within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1).

(3) A political donation of less than an amount specified in subsection (1) made by an entity or other person to a party is to be treated as a reportable political donation if that and other separate political donations made by that entity or person to an associated party within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1). This subsection does not apply in connection with disclosures of political donations by parties.

(4) For the purposes of subsection (3), parties are associated parties if endorsed candidates of both parties were included in the same group in the last periodic Council election or are to be included in the same group in the next periodic Council election.

a person has a financial interest in a relevant planning application if:

a) the person is the applicant or the person on whose behalf the application is made, or
b) the person is an owner of the site to which the application relates or has entered into an agreement to acquire the site or any part of it, or
c) the person is associated with a person referred to in paragraph (a) or (b) and is likely to obtain a financial gain if development that would be authorised by the application is authorised or carried out (other than a gain merely as a shareholder in a company listed on a stock exchange), or
d) the person has any other interest relating to the application, the site or the owner of the site that is prescribed by the regulations.

persons are associated with each other if:

a) they carry on a business together in connection with the relevant planning application (in the case of the making of any such application) or they carry on a business together that may be affected by the granting of the application (in the case of a relevant planning submission), or
b) they are related bodies corporate under the *Corporations Act 2001* of the Commonwealth, or
c) one is a director of a corporation and the other is any such related corporation or a director of any such related corporation, or
d) they have any other relationship prescribed by the regulations.

Political Donations Disclosure Statement to Minister or the Director-General

If you are required under section 147(3) of the Environmental Planning and Assessment Act 1979 *to disclose any political donations (see Page 1 for details), please fill in this form and sign below.*

Disclosure statement details

Name of person making this disclosure	Planning application reference (e.g. DA number, planning application title or reference, property address or other description)
BRIAN CULLEN	

Your interest in the planning application (circle relevant option below)

You are the APPLICANT (YES) / NO OR You are a PERSON MAKING A SUBMISSION IN RELATION TO AN APPLICATION YES / NO

Reportable political donations made by person making this declaration or by other relevant persons

** State below any reportable political donations **you have made** over the 'relevant period' (see glossary on page 2). If the donation was made by an entity (and not by you as an individual) include the Australian Business Number (ABN).*

** If you are the **applicant** of a relevant planning application state below any reportable political donations that you know, or ought reasonably to know, were made by any persons with a financial interest in the planning application, OR*

** If you are a **person making a submission** in relation to an application, state below any reportable political donations that you know, or ought reasonably to know, were made by an associate.*

Name of donor (or ABN if an entity)	Donor's residential address or entity's registered address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation
No Political Donations Made				

Please list all reportable political donations—additional space is provided overleaf if required.

By signing below, I/we hereby declare that all information contained within this statement is accurate at the time of signing.

Signature(s) and Date 22/6/11.

Name(s) BRIAN CULLEN.

Cont...

Political Donations Disclosure Statement to Minister or the Director-General

Name of donor (or ABN if an entity)	Donor's residential address or entity's registered address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation

Schedule of Land

678/705086; 1/239575; 111/755503; 120/755503; 471-475/755503; 498/755503;

1/810271; 12/542047; 3/875874; 112/755503; that component of the north-western railway line adjacent to 3/875874 comprising the rail lout out bin.

APPENDIX 2 – AHIMS DATABASE SEARCH RESULTS

AHIMS Web Services (AWS)
Search Result

Your Ref Number : CHPP
Client Service ID : 46647

Whitehaven Coal Mining
10409 Kamilaroi Highway
Gunnedah New South Wales 2380

Date: 13 July 2011

Attention: Daniel Young

Email: dyoung@whitehavencoal.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 112, DP:DP755503 with a Buffer of 1000 meters, conducted by Daniel Young on 13 July 2011

A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

PO BOX 1967 Hurstville NSW 2220
43 BridgeStreet HURSTVILLE NSW 2220
Tel: (02)9585 6345 (02)9585 6741 Fax: (02)9585 6094

ABN 30 841 387 271
Email: ahims@environment.nsw.gov.au
Web: www.environment.nsw.gov.au

Office of Environment & Heritage

AHIMS Web Services (AWS)
Search Result

Your Ref Number : CHPP2
Client Service ID : 46650

Whitehaven Coal Mining
10409 Kamilaroi Highway
Gunnedah New South Wales 2380

Date: 13 July 2011

Attention: Daniel Young

Email: dyoung@whitehavencoal.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 112, DP:DP755503 with a Buffer of 200 meters, conducted by Daniel Young on 13 July 2011

A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

PO BOX 1967 Hurstville NSW 2220
43 BridgeStreet HURSTVILLE NSW 2220
Tel: (02)9585 6345 (02)9585 6741 Fax: (02)9585 6094

ABN 30 841 387 271
Email: ahims@environment.nsw.gov.au
Web: www.environment.nsw.gov.au

APPENDIX 3 – SPECTRUM ACOUSTICS NOISE ASSESSMENT REPORT

5 August 2011

Ref: 06260/4067

Mr Danny Young
Whitehaven Coal Mine
PO Box 600
GUNNEDAH NSW 2380

RE: NOISE ASSESSMENT - WHITEHAVEN CHPP MODIFICATION

Dear Sir,

This letter report presents the results of an assessment of potential noise impacts from a proposed modification at the Whitehaven Coal Handling and Preparation Plant (CHPP) near Gunnedah, NSW.

Information you provided shows that you wish to construct three new settlement ponds to the east of the CHPP as indicated in **Figure 1**. Construction would be during daytime hours only and would be located up to 400m east of the CHPP.

As a new activity on an existing site it would be appropriate to assess the potential noise impacts against the existing site criteria as shown in **Table 1**. Receivers listed in Table 1 are not project-related and are shown in **Figure 2**.

Table 1
Operational Noise Criteria, dB(A),$L_{eq(15\ minute)}$

Receivers	Day	Evening	Night
E, F & G	38	37	35

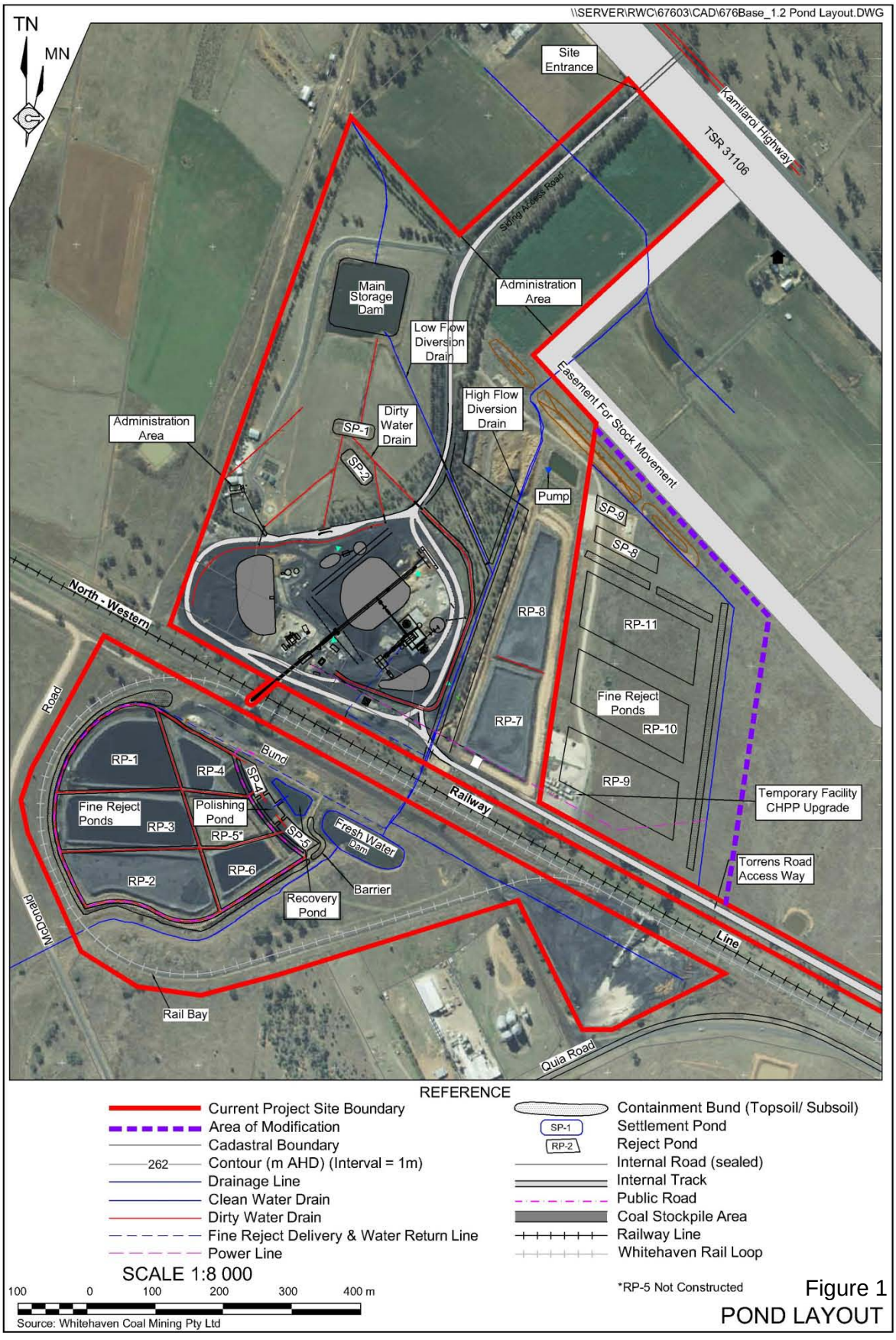

Figure 1
POND LAYOUT

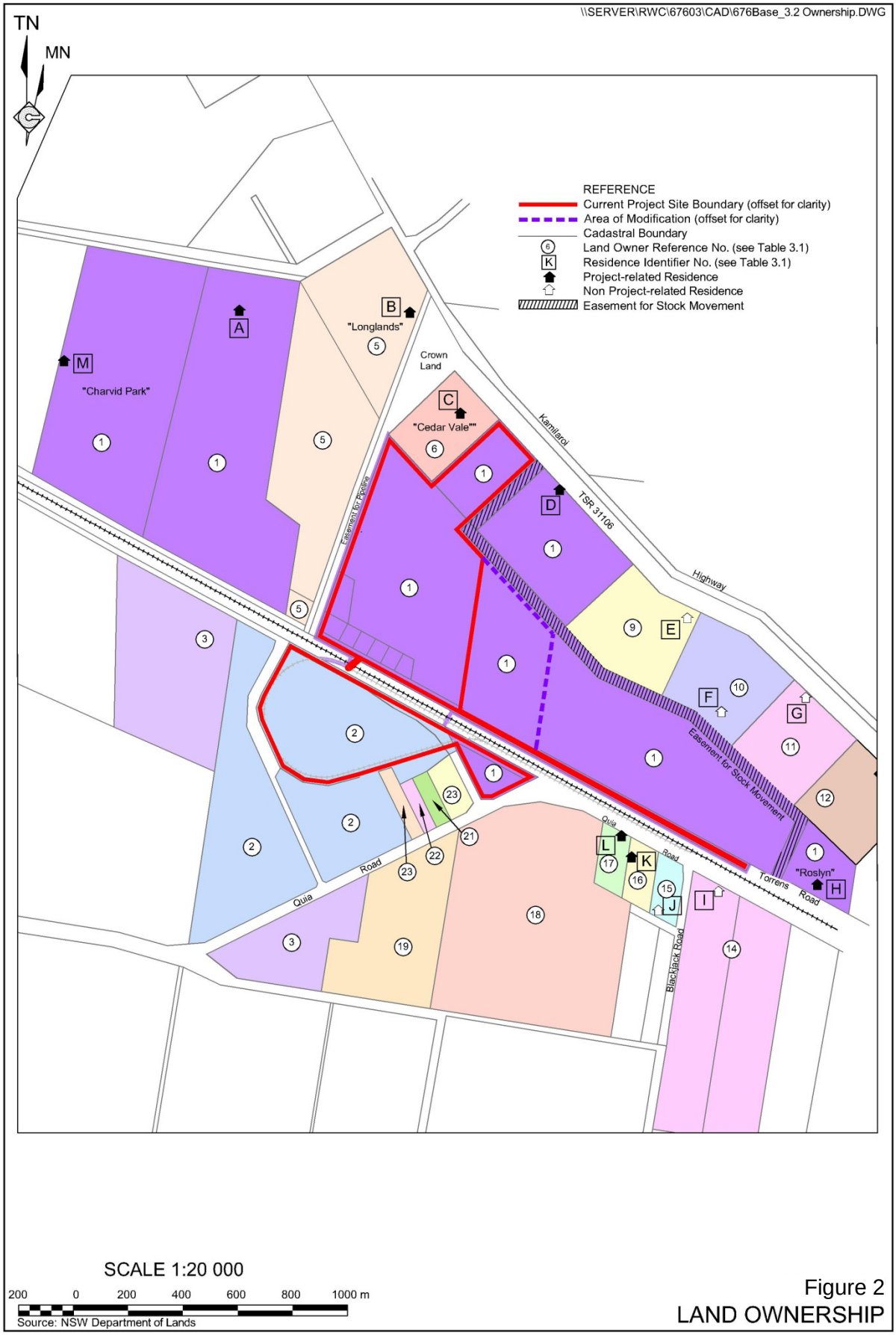

Figure 2
LAND OWNERSHIP

Dam construction activities at Werris Creek Coal Mine (WCCM) have previously been measured by Spectrum Acoustics. The plant items proposed for use in the current proposal (D6 dozer, small excavator, truck, FEL, scraper, etc) were very similar to those used at WCCM, where an overall sound power level was measured at 105 dB(A),$L_{eq(15minute)}$. As a daytime only activity, assessment of potential sleep disturbance (L_{Amax} emissions) is not required.

Spectrum acoustics conducted noise modelling for the (now approved) Whitehaven CHPP upgrade in 2008 using the Environmental Noise Model (ENM) software. A point source with sound power level 105 dB(A) was placed at a position 400m east of the CHPP and point calculations performed for the receivers in Table 1. Predicted noise levels under possible daytime conditions (ie, winds assessed in the 2008 study, but no inversions) are shown in **Table 2**.

Table 2
Predicted Pond Construction Noise Levels, dB(A),$L_{eq(15min)}$

Receiver	Neutral	ENE wind	SSW wind	Criterion
E (Wilkinson)	29	26	32	38
F (Jeager)	28	25	32	38
G (Rankin)	24	21	27	38

The highest potential noise impacts from the proposal occur under SSW wind conditions. In order to determine total noise emissions from the site, the results in Table 2 and the 2008 results for total site emissions (including train loading) under SSW wind conditions, plus the cumulative level, are summarised in Table 3.

Table 3
Predicted Total Site Noise Levels, dB(A),$L_{eq(15min)}$ (SSW wind)

Receiver	Current	2008	Total	Criterion
E (Wilkinson)	32	33	36	38
F (Jeager)	32	33	36	38
G (Rankin)	27	37	37	38

The results in Table 3 show that, for the brief period of pond construction at the nearest point to receivers, total noise emissions from the site are not predicted to equal or exceed the existing operational noise criteria.

Information also provided with the project brief states that just a loader and semi-trailer would be utilised once the ponds are completed for subsequent pond cleanout and removal of emplaced reject. The post-construction noise levels from this activity would be lower than noise levels during construction and complying noise emissions (ie, lower than in Table 1) would result.

In summary, the assessment has found that the total site noise emissions, including the proposed pond construction and operation, could occur without leading to an exceedance of the existing noise criteria.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,
SPECTRUM ACOUSTICS PTY LIMITED

Neil Pennington
Acoustical Consultant