

# Departmental Correspondence Action Sheet

*4/2/00*

File **7005**

Loose  
Doc.

**1**

Date of Entry:

Urgent

Signature:

Routine

- For Necessary Action
- For Advice
- For Information
- Prepare Draft Reply
- Prepare Draft Reply my Signature
- Prepare Draft Reply D/G Signature
- Prepare Departmental Minute
- Prepare Ministerial Briefing
- No Action
- Copy Provided
- Please Discuss

### ACTION OFFICER USE

*Noted* 49-Sch4 - Signature *Please file*

Comments (if any)

RTI DL RELEASE - DNRM

DESIGNATED OFFICER

Signature:

Date:

Received in Records



### FINAL ACTION

Departmental Minute Prepared

Yes

No

Comments

Signature

Date



RECEIVED  
10 FEB 2000  
8:30  
11:15  
C gm

14/2/00  
Extractive Industries Unit  
PO Box 839  
Spring Hill  
Qld 4004

SOUTHERN REGIONAL OFFICE

**BORAL RESOURCES (QLD) PTY LTD**  
ACN 009 671 809

147 Coronation Drive Milton QLD 4064  
PO Box 1369, Milton QLD 4064  
Telephone (07) 3867 7600  
Facsimile (07) 3867 7477

Attn: Mr Michael O'Flynn

**RE: Key Resource Area – Gold Coast Region**

As part of your discussions with, and recommendations to, the Gold Coast City Council regarding their Draft Strategic Plan, we feel it appropriate to alert you to the presence of what we believe to be a key resource area in the Gold Coast region.

The site is currently the subject of a lease arrangement between Boral Resources (Qld) Pty Ltd and Castalia Holdings Pty Ltd. It is situated at Reedy Creek and is that part of the land shown as lot 105 on the attached plan. An aerial photograph depicting the general area is also enclosed. An enlarged (A1) Orthophoto is available for your perusal which shows contours and cadastra overlain on a recent (July 99) aerial photograph.

Being surrounded by a ring of ridgelines, the site is well protected/buffered from adjoining residential areas and has direct access to arterial routes proposed in the Gold Coast City Transport Plan. Of course the site will be subject to the usual environmental impact studies normally associated with extractive industry upon application (Noise, vibration, transport, water and air quality, visual amenity etc.)

To date Boral have conducted preliminary field mapping and a seismic survey and intend to commence follow-up core drilling and testing in the near future. Results to date indicated high strength rock (seismic velocities generally 2500m/s to 3000m/s) suitable for use as high quality roadbase within 1m of the surface with aggregate quality material (seismic velocities generally 5000m/s to 5500m/s) below 10-20m depth.

As per our discussion, drilling will commence within a week or two and you will be most welcome to view all results and core samples to assure yourselves that this deposit is of significant size and quality and reasonably accessible so as to be **designated a Key Resource Area within the upcoming release of the local Strategic Plan.**

Please contact myself on 3867 7603 to arrange the site visit. We look forward to your involvement in the protection of this valuable resource.

Yours Sincerely

49-Sch4 - Signature

Tom Macbeth  
Technical Manager



61 7 3867 7477  
interchange

**PARAMETERS**

- 538-548
- 2
- All
- Part Rural Zone and Part Future Urban Zone

**NOTES**

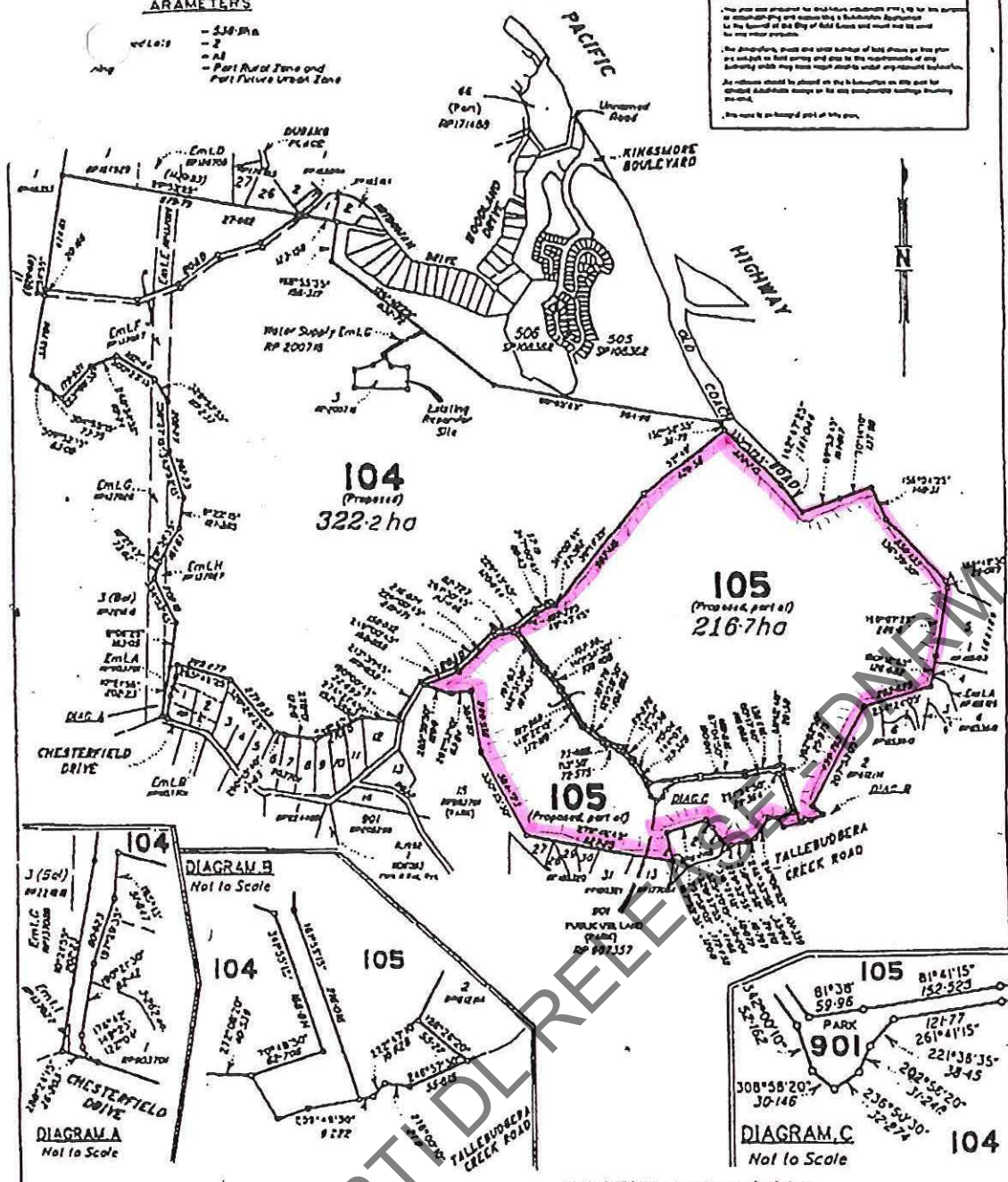
The plan was prepared for the purpose of showing the proposed subdivision of the land shown on the plan and does not constitute a subdivision application to the Council of the City of Gold Coast and must not be used for any other purpose.

The boundaries, areas and other details of lots shown on this plan are subject to field survey and also to the requirements of any authority which may require details under any applicable legislation.

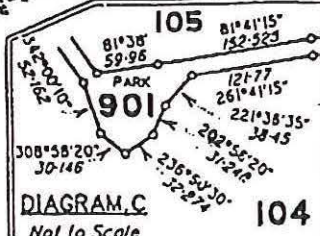
An outline should be placed on the boundaries on this plan for official subdivision maps or for any subsequent dealings involving the land.

This plan is an integral part of this project.

394



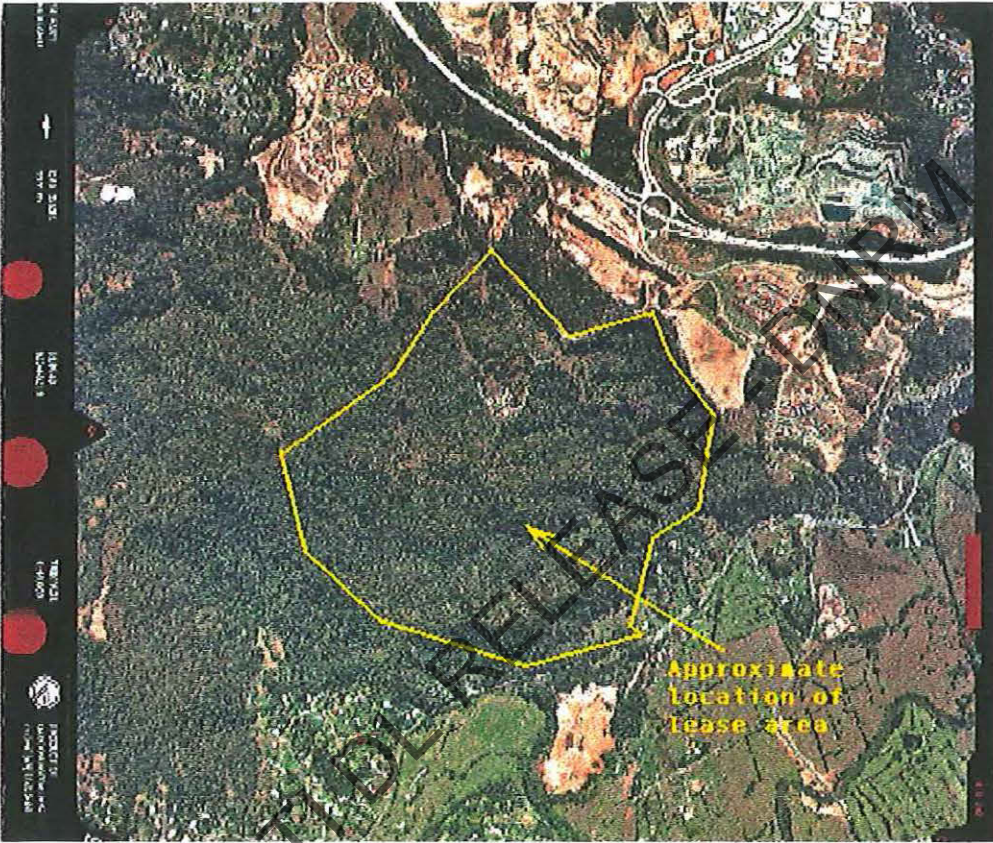
**DIAGRAM B**  
Not to Scale



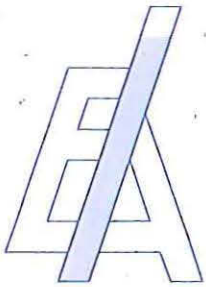
Scale 1:15000 - Lengths are in Metres

Due CASTALIA HOLDINGS PTY LTD Plan of Proposed Subdivision of Lot 103 on RP 907337 Castalia Holdings Pty Ltd Pacific Hwy & Old Coach Rd, Reddy Creek		Date of Plan 1/8 Date of Plan n/a	Date of Plan 1/8 Date of Plan n/a	Date of Plan 1/8 Date of Plan n/a	MICHEL SURVEY GROUP PTY LTD 6506-243
--	--	--	--	--	--

2 d 6610 2255 20 p17 P2d sGuhdngs Pgy Ltd 19 Jul 99 08:55







# Extractive Industries Association Inc.

With Compliments

72

020



Mick  
For your assistance

*Regards*

49-Sch4 - Signature

*4/5/00*

375 Wickham Terrace Brisbane Qld 4000 Tel: (07) 3842 2222 Fax: (07) 3832 3195

RTI DL RELEASE - DNRM

8 May 2000

Mr Ken Gluch  
Extractive Industries Association Inc  
Level 13, 97 Creek Street  
BRISBANE QLD 4000

Dear Ken,

### **Re: Extractive Industry in Gold Coast City**

With reference to your fax of 11 April and meeting on 27 April, please find attached maps of the Gold Coast City Council area in hard copy and digital form showing:

1. Areas currently zoned Extractive Industry,
2. Areas from which sand is currently extracted - tenure uncertain,
3. Potential Resources of Sand,
4. Confirmed Resources of Quarry Rock,
5. Potential Resources of Quarry Rock,
6. Sand extraction site at Horizon Shores marina - Permit by DEH
7. Jabiru Island sand processing facility.
8. Resource boundaries ("Sausages").

The maps have been compiled with the assistance of the Mr Michael O'Flynn of the Department of Mines and Energy, and from digital data supplied by Gold Coast City Council (GCCC) for work on the Holts Hill Project. Additional information was derived from a study for GCCC on sand resources in the Jacobs Well area in 1996, from data in personal files and from discussions with stake holders.

During data compilation it became evident that there were discrepancies between the 1995 Albert Shire Plan and the 1999 digital data. It was assumed that the digital data was correct. The Year 2000 version of the GCCC Strategic Plans do not show Extractive Industry on some Domain Maps or Local Area Plans, and there are inconsistencies within the one Map.

Presented below is a list of sites within categories 1 to 4 listed above. Numbers refer to sites on Figure 1.

#### **Zoned Extractive Industry**

- 1.
- 3.
4. 73(2)
- 5.

- 6.
- 7.
- 8.

- 9.
- 10.

73(2)

- 12.
- 13.

- 14.
- 15.
- 16.

- 17.

**Sand Extraction Sites**

- 5.

**Potential Resources of Sand**

- 2.
- 3.
- 5.
- 13.

**Confirmed Resources of Quarry Rock**

- 9.
- 18.

19. Reedy Creek Boral application to be lodged

**Potential Resources of Quarry Rock**

- 20.
- 21.

**Resource Areas removed from Map**

- 1.
- 11.

RTI/DL RELEASE - DNRM

**Haul Routes**

Designated haul routes exist from the Stapylton, Northern Darlington, Oxenford and Hymix Quarries to the Gold Coast Motorway. The Jacobs Well - Stapylton Road is a designated haul route for the sand workings at Jacobs Well. Although Reedy Creek road is a designated haul Road there are no quarries with Extractive Industry Zoning with direct access to the road.

The Blue Rock Quarry at Cedar Creek does not have a designated haul route, while the Boral quarry at West Burleigh has almost direct access to the Highway. The River Sands operation at Eagleby is proposing to pump product under the Logan River to existing facilities in Logan City.

**Other Sites**

There are two other sites marked on the map. Sand extracted under a DEH permit at Horizon Shores marina is sold to the general market. Sand recovered under Department of Transport permits (mainly maintenance dredging) is processed by Boral at their Jabiru Island facility at Paradise Point.

If you require any further information please do not hesitate to contact me.

Regards, /

49-Sch4 - Signature

RTI DL RELEASE - DNRM



**MapInfo Files**

The following MapInfo files were used in the compilation.

darl_reserves	Resource Boundary for KRA area
darlnkra	KRA boundary = resource + buffer
ex_kra	area excised from KRA
Extract_Zone	Data from Extractive Zone in 1999 digital data
Gravel_Reserves	Data from Gravel Reserves in 1999 digital data
Horizon Shores Area of marina	
Jabiru Island	Location of processing facility
Legend	Map Legend
Pot_Sand	Potential Resources of Sand
Pot_Quarry	Confirmed and Potential Resources of Quarry Rock
Resource Boundaries	Updated sausages from Strategic Plan Map
Site Numbers	Site numbers in attached text

RTI DL RELEASE - DNRM

## REEDY CREEK – GEOLOGY & BORE HOLES

### General comment

The diamond drill core recovered from the Reedy Creek site, as well as the fresh chips obtained from the open holes 7 and 8, were of a rock type given the term meta-greywacke. Unlike typical meta-greywackes, which are generally poorly sorted and contain a range of rock fragments of different sizes, the typical Reedy Creek source rock is composed of a finer grained, more mature sediment (ie it is generally well sorted). The Reedy Creek rock is typically a fine to medium grained siliceous sandstone, which has undergone regional metamorphism. It is mid-grey in colour, and, when fresh, is very hard, tough and strong. Like many northern NSW – southern Queensland meta-greywackes, the Reedy Creek rock contains sporadic inclusions of meta-argillite, ranging from pea-size to very large lenses up to several metres thick.

Fresh source rock should furnish a high quality crushed aggregate. Fresh rock is highly likely to pass the following laboratory test procedures easily.

- Ten percent fines wet/dry strength variation
- Washington Degradation test
- Los Angeles Abrasion test
- Sodium sulphate soundness test

In terms of strength, soundness and durability, it should be superb.

Initial concerns with the source rock, which is likely to be very siliceous (abundant quartz) relate to its potential for alkali aggregate reactivity, possible problems with its adherence to bitumen (bitumen stripping) and its skid resistance. It is recommended that laboratory testing be undertaken on selected intervals of drill core.

Particularly recommended are:

- Petrography
- Alkali-aggregate reactivity (Shayan method?)
- Bitumen stripping, need to precoat?
- PAFV

Unlike many other meta-greywackes from within the Neranleigh-Fernvale Beds in northern NSW, which have a typical weathering profile extending to 30m or more, the depth of weathering at Reedy Creek appears to be significantly less, at least on the ridge-tops. The highly to moderately weathered profile extends typically to about 10-12m below the surface. This is the maximum depth that need be stripped. Some of the weathered material stripped could be used in road base and other quarry products. Much of the stripped overburden will be required for filling of depressions on the site to create a plant site and stockpile areas as well as any bund walls that may be required for screening purposes.

While initial impressions of rock quality and continuity appear very promising, further geological investigation of rock quality and the weathering profile is required in the valleys and areas away from the ridge-tops.

### **Drill logs**

The following drill logs were compiled by Tom Macbeth (holes 1,2,3,6,7 and 8), while holes 4 and 5 were logged by Ian Wallace at West Burleigh quarry on 15 October 2001.

#### **REEDY CREEK DDH 1 (Vertical)**

Open hole to 7.0m

0.30m of dark grey topsoil over clayey yellow brown subsoil to 1.0m. Highly weathered rock chips from 1-2m with moderately weathered from 2-7m. Seems to be interbedded argillite and greywacke.

Started coring at 7.0m.

From 7.0m slightly weathered greywacke/argillite – near vertical bedding. Argillite band (probably quite thin) dominates to 8.8m followed by fine grained greywacke with very thin but common bands of argillite. Minor folding present throughout as well as micro faulting. Greywacke is light grey. Joints are generally closely spaced planar and iron stained. No major infills present. Jointing becomes less common below 10.7m but is still medium spaced with some closely spaced joints. Micro faulting very common from 14.0 to 14.9m with associated changes in bedding attitude. Greywacke band with large (up to 50mm) elongate argillite flecks from 14.95m to 15.9m (only a thin bed but approx vertically bedded). This bed has a green/brown coated joint its full length and this is the last major coated joint.

From 15.9m is fresh fine grained greywacke with only minor lenses and wisps of argillite. Bedding tends to wander around the vertical although some bands dipping as low as 20° are noted – but mostly vertical. Defects are close-medium spaced. One common set dips at 30° - 45°. Rare quartz veins to 3mm occur.

End of hole at 20.44m.

#### **REEDY CREEK DDH 2 (Angled at 45° toward 064°M)**

Open hole to 10.5m

0.30m of dark grey topsoil over clayey yellow brown subsoil to 1.0m. Highly weathered rock chips from 1-2m with moderately weathered from 2-10.5m. Seems to be greywacke.

Start coring at 10.5m.

From 10.5m greywacke – no argillite lenses or bands (defects are closely spaced and Fe-stained, very close from 15.5 to 18.2m). Very fine grained for a greywacke. All slightly weathered. Few clayey coatings on defects at 16.4m. Defects medium spaced from 18.2m. Few defects below 18.2m are



not iron-stained. All defects appear planar. Prominent sets at 30° - 50° from core axis.

Bedding is very difficult to see but very fine argillite flecks appear to dip at 20° (ie 70° to core axis). Few quartz veins to 4-5mm. Defects are iron-stained to 12.7m after which the rock is fresh. Defects are still close. This continues to 33.85m (with some medium spacing) but after that it is medium to 45.8m. First true signs of bedding occur from 36.5m where argillite flecks and wisps dip at 40° - 55° to core axis. Greywacke is medium grained here also. Thin argillite lens also occurs at 38-38.5m and is subparallel to core axis. Same again between 40.97 and 43.1m. Defects are:

close from 45.8 to 46.8m  
close-medium to 48.3m  
wide to 50.95m  
close to 51.8m  
wide to 54.0m  
close to 54.45m  
medium-wide to 57.9m  
wide from 57.9m to end of hole.

Base of hole is argillitic (from 49.6m to 56.6m) all dipping between 20° - 30° from core axis. Micro folding/faulting common. Quartz veining common to 10mm wide.

### **REEDY CREEK DDH 3 (Angled at 45° towards 061°M)**

Open hole to 11.5m  
0.30m of dark grey topsoil over clayey yellow brown subsoil to 1.0m. Highly weathered rock chips from 1-2m with moderately weathered from 2-11.5m. Seems to be greywacke.

Start coring at 11.5m  
Greywacke, slightly weathered, fine grained, medium spaced defects. Defects are planar, fairly clean although they are freshly stained. Argillite wisps intersected at 12.8m which subparallel core axis. Other argillite bands occur at 14.6m (40mm wide), 14.85 (50mm), 15.13 (35mm), 15.3 (20mm), 15.5 (40mm), 15.7 - 15.82, 16m (40mm), 17.8 (30mm) all of which dip at approx 45° to core axis. Minor argillite wisps at 17.95 which dip at 15 - 20°. Minor quartz veins occur. Slightly weathered ends at 19.46 with the last orange iron-stained joints after which the rock is fresh. Quartz veins more common below 18.8m up to 10mm thick with no obvious preferred orientation.

From 19.46 the beds are as follows:

19.46 - 20.85	fine grained greywacke
20.85 - 21.67	argillite dark grey dips at approx 25° (65° to axis)
21.67 - 21.80	fine grained greywacke
21.80 - 22.02	argillite, dark grey, fractured and healed with quartz

22.02 – 22.48	coarse grey greywacke, appears lower strength, dips at 45° to core axis
22.48 – 28.07	various fine grained to medium grained greywacke beds, quartz veins common, well fractured. Coarse bands are much lower strength. Bedding approx 35 - 40° (55 - 60° to axis)
28.07 – 29.07	interbedded argillite and greywacke (50/50), bedding dip at approx 20° (70° to core axis)
29.07 – 36.1	fine grained greywacke with wide defect spacing (most to now has been close). Argillite wisps and flecks occur and dip at 20 - 45° (45 - 70° to core axis)
36.1 – 36.33	dark grey argillite – dips at approx 15° (75° to axis)
36.33 – 39.27	fine to medium grained greywacke, few argillite flecks which dip at approx 30° (60° to axis). Defect spacing is medium.
39.27 – 44.86	interbedded argillite and greywacke (50/50) but with argillite dominating in top half of band. Dips at 30 - 45° (45 - 60° to axis). Closely fractured quartz veining is common. Core broken in places
44.86 – 49.3	fine grained greywacke. Defects are close to medium, few contorted argillite bands. Bedding dips at 40° (60° to axis)
49.3 – 49.52	dark grey argillite, broken core
49.52 – 52.56	fine grained greywacke, few flecks dipping at 35 - 40° (55 - 60° to axis)
52.56 – 52.90	argillite bed, dark grey with some very fine grained greywacke. Dips at 15 - 20° (75 - 70° to axis)
52.90 – 57.77	interbedded fine grained greywacke and argillite. Argillite occurs as numerous thin beds, lenses and wisps. Dip varies from 15 - 20° (75 - 70° to axis) grading to 45° below 54.9m. Microfolding and faulting common. Defects are close. Some quartz veining. Greywacke is very fine grained.
57.77 – 59.9	greywacke light grey, hard, fine grained. Some argillite wisps towards base which dip at 45°.
59.9 – 60.16	Argillite to end of hole at 60.16m.

**REEDY CREEK DDH 4 (Believed to be angled at 45° towards ~ 060°M)**

Open hole to 10.0m. Commenced coring at 10.0m.

10.0 – 12.18m	Meta-greywacke, fine grained (virtually a fine-grained meta-sandstone), mid-grey, slightly to moderately weathered, moderately hard, moderately strong, joint planes each 25-150mm, Fe-staining on joint surfaces but no significant weathering from joint surface. Most joints intersected at 40-50° from core axis.
12.18 – 15.50m	As above, slightly weathered, narrow sheared zone (50mm wide) around 15.50m.

15.50 – 19.50m Meta-greywacke as above, but fresh to slightly weathered, Fe-stained tight joints, intersections approx. each 100-200mm, occasional flecks of dark-grey to black meta-argillite; fractures each 50-200m.

21.50 – 22.75m Meta-greywacke and meta-argillite intermittently interbedded, with microfolds.

22.75 – 23.40m Meta-greywacke, hard, strong, fresh to slightly weathered.

23.40 – 23.80m As above, but with inclusions of meta-argillite, hard, strong.

23.80 – 25.80m Meta-greywacke, mid to dark grey, fresh, hard, tough, strong.

25.80 – 29.00m As above, with inclusions of meta-argillite, fractures (mainly joint planes) every 25-200mm, tight with no Fe-staining. Minor shearing in places.

29.09 – 30.09m Meta-greywacke fine-grained, fresh, hard, strong.

30.09 – 32.00m As above, but with inclusions of meta-argillite.

32.00 – 39.80m Meta-greywacke, very fresh, very hard and strong.

39.80 – 40.00m As above, but fractured, sheared, moderately weathered, mechanically weak.

40.00 – 53.50m Meta-greywacke with occasional inclusions of meta-argillite, fresh, hard, strong. Slight shearing with weakened rock between 46.40 and 46.50.

End of hole at 53.50m

**REEDY CREEK DDH 5 (Angled at 45° towards 064°M)**

Open hole to 11.00m. Coring commenced at 11.00m.

11.00 – 13.25m Meta-greywacke, fine to medium grained, mid-grey with frequent flecks of dark grey meta-argillite, slightly weathered, Fe-stained joint surface, moderately hard, moderately strong.

13.25 – 16.00m As above, with occasional inclusions of meta-argillite, joint spacings 100mm-450mm, Fe-staining on joint surfaces, but no significant weathering associated with joints.

16.00 – 20.64m As above, with core fractures (mainly joint planes) at 50-200m spacings, tight joints.

20.64 – 25.20m As above, fresh, hard, strong, few joint fractures.

25.20 – 26.40m Meta-greywacke as above with minor quartz veins.

26.40 – 29.50m Meta-greywacke, fresh, very hard, and strong, superior quality.

29.50 – 35.00m Meta-greywacke as above, but with inclusions of meta-argillite which is also hard and strong.

35.00 – 36.50m Meta-greywacke with inclusions (sheared and fractured) of meta-argillite.

36.50 – 39.75m Meta-greywacke, generally fresh, hard and strong, with many joints and fractures.



39.75 – 42.50m Meta-greywacke, fresh, hard, strong, with inclusions and interbeds of black meta-argillite.  
42.50 – 42.80m Meta-greywacke, moderately altered, fractured, mechanically weak.  
42.80 – 59.57m Meta-greywacke, fresh, grey, hard, strong, with occasional wisps and clasts of meta-argillite.

End of hole 59.57m

**REEDY CREEK DDH 6 (Angled at 45° towards 311°M).**

Open hole to 8.0m

0.30m of dark grey topsoil over clayey yellow brown subsoil to 1.0m. Highly weathered rock chips from 1-2m with moderately weathered from 2-8m. Seems to be interbedded argillite and greywacke.

Start coring at approx 8.0m

8.0 – 8.6m – interbedded argillite and greywacke (70% argillite), moderately to slightly weathered, closely spaced defects, medium strength.

8.6 – 10.85m – moderately weathered cut core faces have been iron-stained as well as orange brown staining on defect surfaces. Bedding of this band and the one above intersects core axis at approx 30 –40° (ie dip looks about 50 - 60°). Defects are close with some broken segments. Medium strength.

10.85 – 14.45m – Slightly weathered. Rocks is a light grey greywacke with orange brown iron-staining on defect surfaces. Some minor argillite lenses dipping the same as above.

14.45 – Fresh rock – Greywacke, few argillite lenses and wisps and some coarse grained segments but generally fine grained and hard. Defect spacing is close to 38.8m after which it is medium to 45.3 then wide to very wide. Quartz veining common and criss-crossing.

Bedding measurements are as follows:

Depth	Approx Dip	Relative to Core Axis
15.0	55°	35°
18.0	70°	20°
25.2	45°	45°
30.0	60°	30°
32.0	70°	20°
33.5	70°	20°
37.5	65°	25°
40.0	65°	25°
41.5	85°	5°
43.0	85°	5°
46.0	70°	20°
47.5	70°	20°
49.0	70°	20°
52.0	70°	20°
60.0	65 – 70°	20 – 25°

#### **REEDY CREEK DH 7 (vertical open hole)**

Near corner to nursery

0 – 1.5m – light orange/brown, silty to sandy clay chips with highly to moderately weathered rock chips – slightly weathered chips are floaters.

1.5 – 4.0m – highly to moderately weathered greywacke – pale grey brown, powdery chips which feel silty. Rock chips are moderately weathered greywacke with iron-stained surfaces.

4.0 – 6.0m – moderately to slightly weathered greywacke with some argillite chips

6.0 – 14.0m – light to dark grey chips of slightly weathered greywacke with some argillite. Few iron-stained surfaces in washed chips. Mostly greywacke.

14.0 – 18.0m – Fresh greywacke.

End of Hole at 18.0m

#### **REEDY CREEK DH 8 (vertical open hole)**

Below drop, before turn

0 – 0.5 – topsoil dark brown

0.5 – 1 – subsoil yellow brown, clayey

1.0 – 6.0 – extremely weathered greywacke light orange brown

6.0 – 9.0 – highly weathered greywacke light orange brown

9.0 – 10.0 – moderately weathered greywacke

10.0 – 13.5 – moderately to slightly weathered greywacke

13.5 – 15.0 – slightly weathered argillite

15.0 – 24.0 – fine grained argillite

End of Hole at 24.0m

## REEDY CREEK KEY RESOURCE AREA - KRA 96

**LOCAL GOVERNMENT AREA:** Gold Coast City

**LOCATION:**

The resource is located about 5.5km southwest of Burleigh and west of the Pacific Motorway. (See Map KRA 96).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The potential resource is comprised of a major meta-greywacke band forming a vegetated hill that is surrounded by ridges. The deposit has recently been investigated by company drilling that has confirmed the quality and consistency of the greywacke.

**SIGNIFICANCE:**

Investigations indicate a resource of 36 Mt, with additional resources depending on the final pit imprint and depth. The resource is the largest greenfield resource strategically located to the centre of the Gold Coast Market. The resource meets the criteria for a Key Resource Area.

**SEPARATION AREA:**

The parcel on which the resource occurs is large enough and has the topographic features to almost completely self-buffer the resource, providing a separation distance between 300 and 500metres. The KRA has been expanded in the southeast and east by the inclusion of acreage parcels currently zoned. ??????. Given the topographic situation of perimeter ridges, this distance should be sufficient to mitigate adverse impacts.

In the north, the separation area merges with the KRA boundary for the West Burleigh quarry.

**TRANSPORT ROUTE:**

A tentative transport route has been proposed from the northern section of the resource to the Pacific Highway via the Bermuda Street interchange. This would require grade separation from the proposed Tugun light rail corridor.



## REEDY CREEK KEY RESOURCE AREA - KRA 96

**LOCAL GOVERNMENT AREA:** Gold Coast City

**LOCATION:**

The resource is located about 5.5km southwest of Burleigh and west of the Pacific Motorway. (See Map KRA 96).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The potential resource is comprised of a major meta-greywacke band forming a vegetated hill that is surrounded by ridges. The deposit has recently been investigated by company drilling that has confirmed the quality and consistency of the meta-greywacke.

**SIGNIFICANCE:**

Investigations indicate a resource of 36 Mt, with additional resources depending on the final pit imprint and depth. The resource is the largest greenfield resource strategically located to the centre of the Gold Coast Market. Over twenty years of supply is available at the present level of demand in the region.

The resource meets the criteria for a Key Resource Area.

**SEPARATION AREA:**

The parcel on which the resource occurs is large enough and has the topographic features to almost completely self-buffer the resource, providing a separation distance between 300 and 500metres. Given the topographic situation of perimeter ridges, this distance should be sufficient to mitigate adverse impacts.

In the north, the separation area merges with the KRA boundary for the West Burleigh Key Resource Area.

**TRANSPORT ROUTE:**

A tentative transport route has been proposed from the northern section of the resource to the Pacific Highway via the Bermuda Street interchange. This would require grade separation from the proposed Tugun light rail corridor.

Petith Cheryl

32047

100  
05/05/03

**From:** Petith Cheryl  
**Sent:** Tuesday, 20 May 2003 1:05 PM  
**To:** 'Valerie J Dripps'  
**Cc:** P.J.Hickman@dlgp.qld.gov.au; O'lynn Mick  
**Subject:** RE: Additional Definitions for SPP - Protection of Extractive Resources

**Importance:** High



SPP Protection of  
Extractive R...

Hi Val,

Please find attached a revised version of the proposed Policy. As discussed on the phone, the majority of the proposed KRAs are existing operations with appropriate transport routes already established. However, there are a handful of KRAs that are undeveloped, which do not have development approvals, and hence, do not have established or agreed transport routes. It is these KRAs in particular, where we would appreciate your Department's support in ensuring that the transport routes we have proposed are the best possible routes, in terms of safety and access.

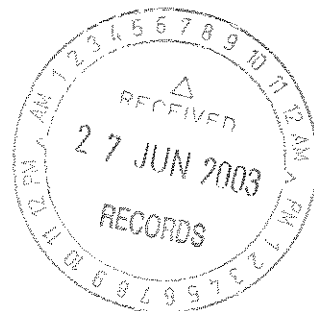
I believe that transport routes, in the past, have been determined at the development assessment stage for an extractive industry approval and have been determined based on DMR's Guidelines for Assessment of Road Impacts of Development Proposals. However, as we are indicating preferred transport routes for those KRAs that do not have existing approvals, we are seeking your advice (as the experts) to ensure that the transport route indicated in the Policy is the most appropriate route supported by the State government.

As the Policy does not address extractive industry, I'm not sure that we can provide appropriate wording in the Policy to address these concerns and as such, this may need to be addressed through the individual KRAs (maps and reports). I am open to any suggestions on this. Also, if your Department has any concerns with the KRA Concept map in Annex 1, please let me know.

The following is a list of all the proposed KRAs that do not have existing development approvals:

73(2)

Reedy Creek



If you have any further questions or concerns, please do not hesitate to contact me.

Thank you.

Regards,

Cheryl Petith

-----Original Message-----

**From:** Valerie J Dripps [mailto:Valerie.J.Dripps@transport.qld.gov.au]  
**Sent:** Wednesday, 14 May 2003 5:00 PM

R

To: P.U.Hickman@dlgp.qld.gov.au; Petith Cheryl  
Cc: rt.z.nicol@mainroads.qld.gov.au;  
stephen.z.smaha@mainroads.qld.gov.au  
Subject: Additional Definitions for SPP - Protection of Extractive Resources

Dear PJ  
( and Cheryl)

Further to our meeting this morning when we discussed the need to review the diagram and definitions for SPP - Protection of Extractive Resources

Please find attached our revised definitions.

(See attached file: Additional definitions for SPP Protection of Extractive Resources.doc)

Regards

Valerie Dripps  
BScHons MBA  
Senior Policy Advisor  
Roads Integrated Planning Unit Phone: (07) 3404 3863  
Floor 24, Mineral House, 41 George Street, Brisbane Qld 4001 Fax:  
(07) 3404 3808  
Email: valerie.j.dripps@mainroads.qld.gov.au  
(Embedded image moved to file: pic02397.pcx)

RTI RELEASE - DNRM

\*\*\*\*\*  
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**Petith Cheryl**

**From:** Petith Cheryl  
**Sent:** Wednesday, 4 June 2003 9:08 AM  
**To:** Willmettt Cliff  
**Subject:** RE: Extractive Resources SPP

Hi Cliff,

In relation to the greenfields EKRA's that you sent to both Jon and Kristie, there are a couple more sites that need to be looked at. These are as follows:

73(2)

Reedy Creek (Gold Coast)



96 - Reedy\_Ck.pdf

I'm not sure why they were not included previously.

Our recommended approach to dealing with matters that need to be addressed at development assessment has been to add an additional section to the EKRA reports titled "special considerations." This section details any issues that a local government need to consider when assessing a development application or alternatively, will detail any revisions to the EKRA based on already agreed positions over State interests that a local government will need to be aware of.

In light of this approach, would you like to review all the EKRA's? Most are existing quarry sites, however some, for example the 2 EKRA's in Redland Shire, may have additional resources to what is currently approved for extraction.

Please contact me if you have any questions or concerns.

Regards,

Cheryl

RTI/DL RELEASED - DIRM

-----Original Message-----

**From:** Willmettt Cliff  
**Sent:** Tuesday, 8 April 2003 8:31 AM  
**To:** Petith Cheryl  
**Subject:** RE: Extractive Resources SPP

Cheryl

It would be appropriate to note the potential for ASS in the commentary related to the relevant KERA's to ensure that testing and any required management is taken into account in plans for development of the resource.

*Cliff Willmettt*  
Principal Policy Officer  
Land and Regional Planning  
Department of Natural Resources and Mines  
(07) 322 42335 49-Sch4 - Mobile phone



-----Original Message-----

**From:** Petith Cheryl  
**Sent:** Tuesday, 8 April 2003 8:26 AM  
**To:** Willmettt Cliff  
**Subject:** RE: Extractive Resources SPP

Cliff,

Based on Kristie's response, what I need to know is if an extractive industry proposal could be approved over these sites, with appropriate ASS management?

If yes, then we can still put the KRA's up. If no, then we may need to look at revising the workable resource area or cutting out the resource altogether.

- Cheryl

-----Original Message-----

**From:** Willmatt Cliff  
**Sent:** Monday, 7 April 2003 4:27 PM  
**To:** Petith Cheryl  
**Subject:** FW: Extractive Resources SPP

Now what do you and I do with this info?

*Cliff Willmatt*  
Principal Policy Officer  
Land and Regional Planning  
Department of Natural Resources and Mines  
(07) 322 42335

-----Original Message-----

**From:** Watling Kristie  
**Sent:** Monday, 7 April 2003 4:09 PM  
**To:** Willmatt Cliff  
**Cc:** Walton Jonathon  
**Subject:** RE: Extractive Resources SPP

Hi Cliff

73(2)

Rocks bearing sulfide minerals or marine shales etc may be an issue in some areas.  
Hope this helps  
Kristie

-----Original Message-----

**From:** Willmatt Cliff  
**Sent:** Monday, 7 April 2003 3:01 PM  
**To:** Watling Kristie  
**Cc:** Walton Jonathon  
**Subject:** RE: Extractive Resources SPP

Thanks for the assistance.

*Cliff Willmatt*  
Principal Policy Officer  
Land and Regional Planning  
Department of Natural Resources and Mines  
(07) 322 42335 49-Sch4 - Mobile phone

-----Original Message-----

**From:** Watling Kristie  
**Sent:** Monday, 7 April 2003 1:35 PM  
**To:** Willmatt Cliff

**Cc:** Walton Jonathon  
**Subject:** Extractive Resources SPP

Hi Cliff

I've got the KRAs printed out and am about to have a look from an acid sulfate soils perspective. In terms of GQAL, John Loi is the guy to do this. 49-Sch4 - Personal Information not due back for 10 days. So, I will forward the KRAs to Jon Walton to have a look at - he will attempt to do so, but no guarantee on time.

Seeya  
Kristie

RTI DL RELEASE - DNRM

**Petith Cheryl**

**158**

**From:** Petith Cheryl  
**Sent:** Tuesday, 12 August 2003 12:44 PM  
**To:** Barley Rachel  
**Subject:** RE: KRAs and Vegetation Constraints

Hi Rachel,

Updates on our progress are provided in the text below:

As discussed last week, any areas with moderate or significant areas of "of concern" vegetation, we would like to leave as is for now and include the necessary words in the accompanying KRA report.

I would really appreciate it if we could come to some conclusion on this by mid next week. 49-Sch4 - Personal Information

Regards,

Cheryl

-----Original Message-----

**From:** Petith Cheryl  
**Sent:** Friday, 8 August 2003 5:17 PM  
**To:** Barley Rachel  
**Subject:** KRAs and Vegetation Constraints

Hi Rachel,

Below is an update on the KRAs that we have modified and/or investigated to-date:

RTI DL RELEASE - DNRM



73(2)



73(2)  
RTI DL RELEASE - DNRM

KRA 96 - Reedy Creek

- No changes have been made to this KRA.

73(2)

PROHIBITED RELEASE - DNRM

We had a very positive meeting with EPA on Wednesday and as a result, no changes will be made to our KRA's based on any of EPA's concerns (except for Mount Cotton and West Mount Cotton). EPA have agreed that at the strategic planning level, no areas of resource need to be excised at this stage, as all we are trying to achieve is the identification and protection of a valuable resource. The protection of the resource is therefore not in conflict with the protection of any other natural resource or environmental values. It was considered to be more appropriate for all State interests to be considered if and when a development application is received, and in the context of the local circumstances. This approach was also agreed to for good quality agricultural lands.

In relation to the constraints that the vegetation management unit has identified over several KRAs, we would like to excise areas of significant vegetation from our resource/processing areas where the conflict is minor and it is easy to do so. Where the conflict is moderate or significant, we feel that both values can be shown, and protected, until such time as a development application presents itself. At this time, it can be assessed appropriately, against current legislation and other interests.

We have several provisions in the Policy and Policy Guideline which allow for the overlap of other local, regional or State interests to be recognised and considered. The relevant sections in the Policy and Policy Guideline are as follows:

Policy - section 7(1)(b)(i)

Policy Guideline - sections 2.6, 3.7, 4.1, 4.5 and possibly 4.9

Attached is the most recent version of the Policy.

R

My preferred option would be to take the abovementioned approach and try to satisfy vegetation management's concerns through adequate provisions in the Policy and/or through the special considerations sections in each of the KRA reports.

73(2)

Thank you for your time this afternoon.  
Regards,

**Cheryl Petith**  
Principal Planner, Mineral and Extractive Planning  
Dept of Natural Resources and Mines  
Ph: 07 323 71587 Fax: 07 323 71634  
Mailto:Cheryl.Petith@nrm.qld.gov.au  
[www.nrm.qld.gov.au/mines/spp\\_extract\\_resource](http://www.nrm.qld.gov.au/mines/spp_extract_resource)

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KRAs requiring some modification or partial exclusion from SPP due to other State interest constraints{

KRA	NR&M Constraints	EPA Constraints	Outcome
KRA 96 Reedy Creek		<p>73(2)</p> <p><b>Exclude KRA</b>  <i>The KRA resource / processing area forms a critical element of the State significant Burleigh Heads – Great Dividing Range bioregional wildlife corridor, identified by the Biodiversity Planning Assessment (Version 3.3) in the SEQ Regional Nature Conservation Strategy; The remnant contains Special Biodiversity Values:</i></p> <ul style="list-style-type: none"> <li>○ <i>Remnant patch of Eucalyptus pilularis forest. E. pilularis tall open forest (tending to wet sclerophyll forest) has a naturally restricted distribution in the Gold Coast area and has</i></li> </ul>	<p>No changes have been made to this KRA. The report contains the following special considerations: The KRA contains areas of vegetation having State biodiversity significance under the Environmental Protection Agency's Biodiversity Planning Assessment and forms part of the Burleigh Heads – Great Dividing Range bioregional wildlife corridor. The KRA also encompasses several cultural heritage</p>

RTI DL RELEASE - DNRM



KRAs requiring some modification or partial exclusion from SPP due to other State interest constraints{✓ = cf Schedule report}

KRA	NR&M Constraints	EPA Constraints	Outcome
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*been depleted by urbanisation. The KRA encompasses eighteen Cultural Heritage sites of State significance. Six of these sites are in the Resource / Processing Area, while the remaining thirteen are located in the KRA boundary. The sites are evenly distributed over the KRA making modification of the boundaries difficult. The high density of sites on this Lot is unusual for the Gold Coast area where intensive land development has seen the loss of many cultural heritage values. The density of sites is unusual and therefore increases the significance of the sites at this location.*

sites of State significance. ✓

73(2)

RTI DL RELEASED BY OIA