

# KRA Reports and Maps

Key Resource Area reports and maps 81 to 120

April 2016

## **MOUNT MARROW KEY RESOURCE AREA – KRA 81**

**LOCAL GOVERNMENT AREA:** Ipswich City Council

**LOCATION:**

The resource is located about 6 kilometres northeast of Rosewood (see map KRA 81).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

A thick sequence of hard basalt forms a prominent hill known as Mount Marrow northeast of Rosewood. This is the site of a large quarry producing a range of crushed aggregates.

**SIGNIFICANCE:**

The resource is sufficient for many decades of supply at the present rate of consumption. It is conveniently situated to supply the western Brisbane and Ipswich urban markets and surrounding districts.

**SEPARATION AREA:**

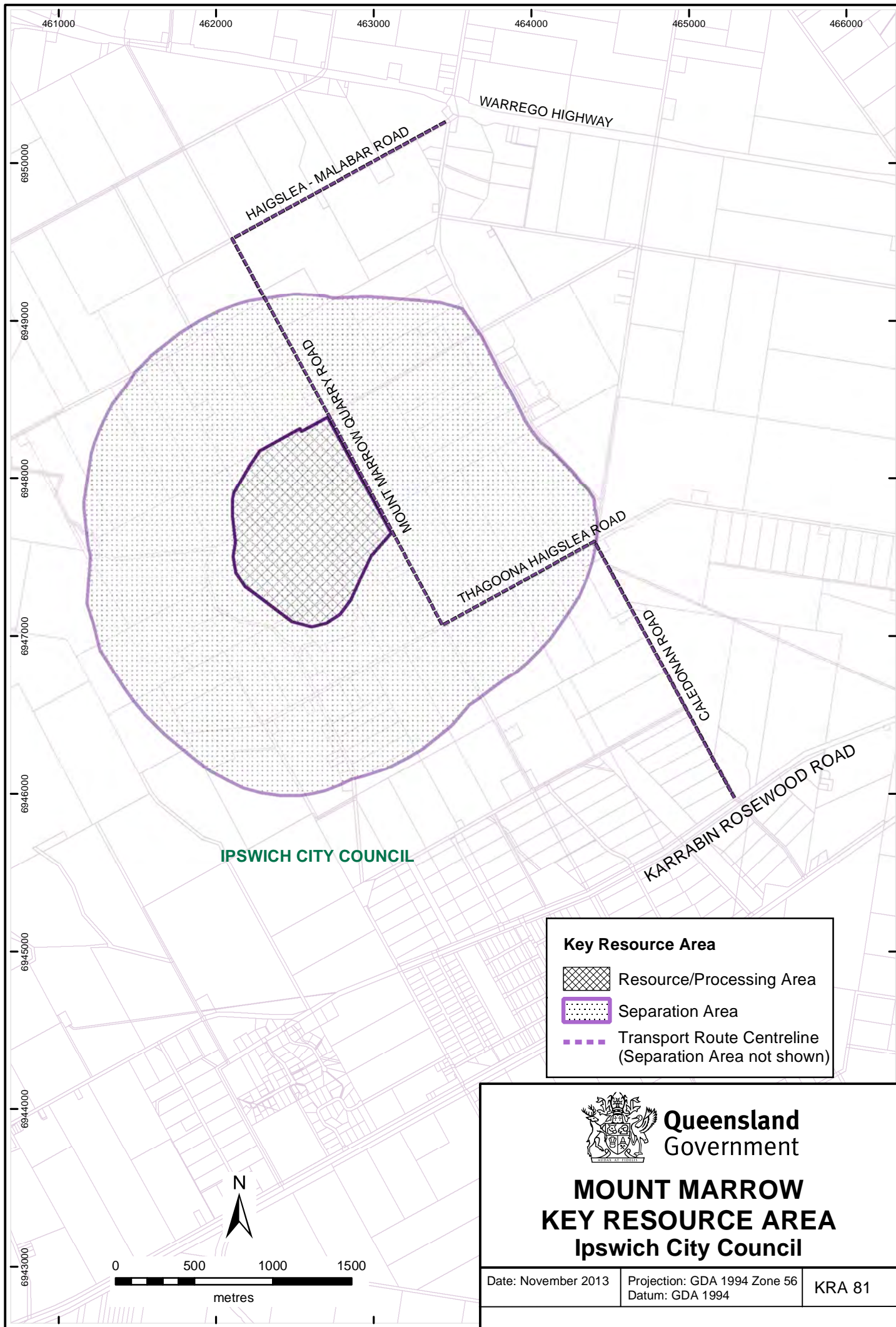
A 1000 metre separation distance has been adopted around the Mount Marrow basalt quarry, as the hill stands higher than any surrounding topography. This has been expanded on the eastern side because of the high visibility on the eastern flank and a previous Planning and Environment Court decision, which affirmed the need for a greater (2000 metre) buffer in this area.

**TRANSPORT ROUTE:**

Two transport routes extend in opposite directions along the Mount Marrow Quarry Road. The southern route leads to the Thagoona-Haigslea Road onto Caledonian Road, which reaches the Karrabin-Rosewood Road, while the northern route leads to the Haigslea-Malabar Road and thence to the Warrego Highway.




**SPECIAL CONSIDERATIONS:**

Some parts of the separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



IPSWICH CITY COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**MOUNT MARROW  
KEY RESOURCE AREA  
Ipswich City Council**

Date: November 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 81

## **PURGA KEY RESOURCE AREA – KRA 82**

**LOCAL GOVERNMENT AREA:** Ipswich City Council

**LOCATION:**

The resource is located east of the Boonah Road about 4 kilometres northeast of Peak Crossing. It is about 18 kilometres south of Ipswich (see map KRA 82).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of a thick steeply dipping sill of fine dark grey basalt, which is underlain by weathered sandstone. It forms a prominent conical hill in which a moderate sized quarry has been established largely on the western side.

**SIGNIFICANCE:**

The resource provides a substantial proportion of the aggregate production for the Ipswich and Fassifern Valley districts. There are only sufficient resources remaining for less than 10 years supply in the approved area, with potential for extensions into adjoining properties which would maximise resource utilisation by allowing deepening of the quarry.

**SEPARATION AREA:**

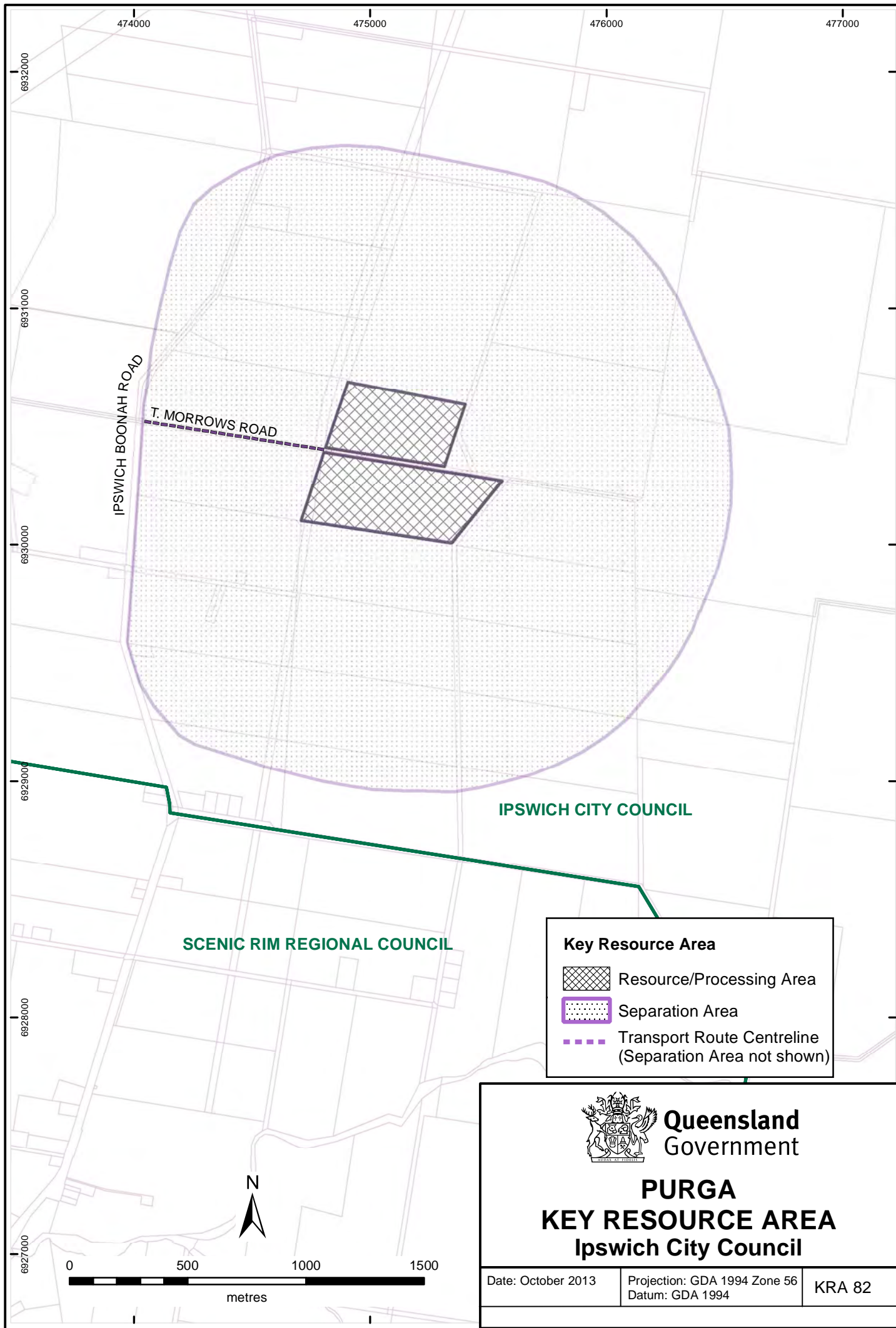
The full 1000 metre separation distance has been adopted around most of the resource/processing area as the resource is topographically higher than the surrounding land. The separation area has been slightly truncated in the west where the boundary is defined as the Ipswich-Boonah Road.

**TRANSPORT ROUTE:**




The transport route is along T. Morrows Road to the Ipswich-Boonah Road. The majority of the rock is transported to Ipswich to the north, but some is transported to rural markets elsewhere.


**SPECIAL CONSIDERATIONS:**

Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**PURGA  
KEY RESOURCE AREA  
Ipswich City Council**

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 82
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## **SUMMERVILLE KEYRESOURCE AREA – KRA 83**

**LOCAL GOVERNMENT AREA:** Somerset Regional and Ipswich City Councils

**LOCATION:**

The resource is located within an alluvial terrace along the Brisbane River 8 kilometres southeast of Fernvale (see map KRA 83).

**EXTRACTIVE RESOURCE:** Sand and Gravel

**EXTRACTIVE RESOURCE DESCRIPTION:**

The sand and gravel resources underlie the second lowest alluvial terrace. Part of the resource has been worked previously.

**SIGNIFICANCE:**

The resource has the potential to supply the western Brisbane and Ipswich Cities, Lockyer and Somerset Regional Councils markets for the next decade.

**SEPARATION AREA:**

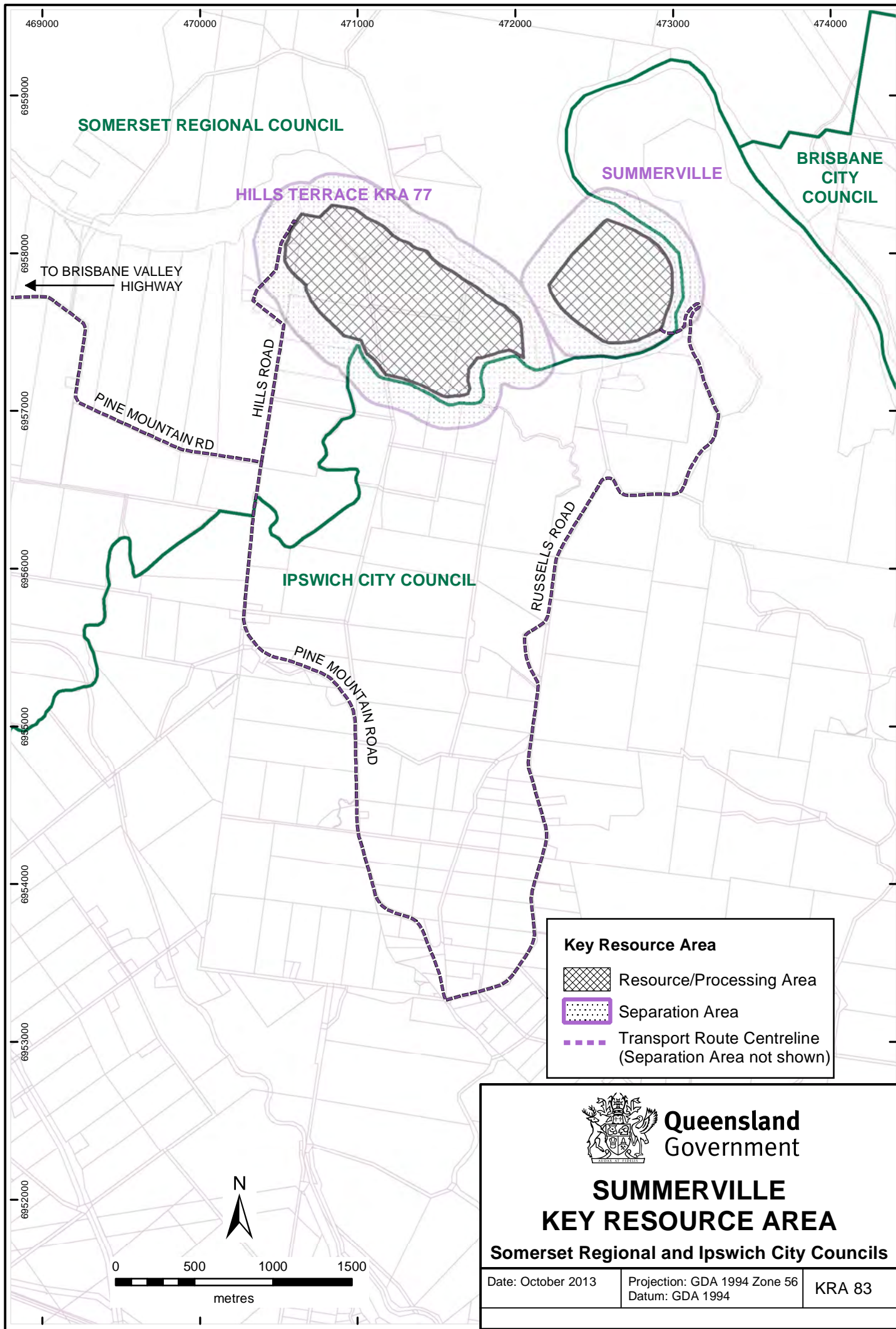
A separation distance of 200 metres has been applied around the resource extent on the northern, eastern and western sides. The separation area to the south of the resource area is set to the southern bank of the Brisbane River where a high cliff screens the resource from land south of the river.

**TRANSPORT ROUTE:**

The transport route crosses the Brisbane River to the east to reach Russell Road, leads south to reach Pine Mountain Road and then along that road northwards and westwards to reach the Brisbane Valley Highway at Borallon.

**SPECIAL CONSIDERATIONS:**

The KRA is partly covered by the Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



SOMERSET REGIONAL COUNCIL

BRISBANE CITY COUNCIL

HILLS TERRACE KRA 77

SUMMERVILLE

TO BRISBANE VALLEY HIGHWAY

PINE MOUNTAIN RD




HILLS ROAD

IPSWICH CITY COUNCIL

RUSSELLS ROAD

PINE MOUNTAIN ROAD

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland Government**

**SUMMERVILLE KEY RESOURCE AREA**

**Somerset Regional and Ipswich City Councils**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 83

## **MARBANGO KEY RESOURCE AREA – KRA 84**

**LOCAL GOVERNMENT AREA:** Maranoa Regional Council

**LOCATION:**

The resources lies immediately north of the Warrego Highway about 5 kilometres west of Amby and about 65 kilometres west of Roma (see map KRA 84).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resources are located near the southern end of an extensive belt of basalt flows that extends for many kilometres northward from the Warrego Highway. Where the resource is being worked, the basalt varies from 12 to 17 metres thick. Overburden depth is variable. It is mostly less than 3 metres but exceeds 10 metres in places.

**SIGNIFICANCE:**

The resources are expected to be sufficient for over 20 years. The operating quarry and now abandoned pits have provided the majority of various rock products to the Maranoa, Murweh, and Balonne Shires. Products have been transported as far as Blackall, Goondiwindi, Jericho, St George and Quilpie. The resource is of State significance.

**SEPARATION AREA:**

The resource areas are effectively defined by the extent of the basalt within the boundaries of properties leased by the quarry operators. The existing quarry operation is visually screened from the surrounding rural land by its position on the ridge. However, as this provides only limited shielding of other quarry-related impacts, the separation distance is set at the full 1000 metres from the resource/processing area.

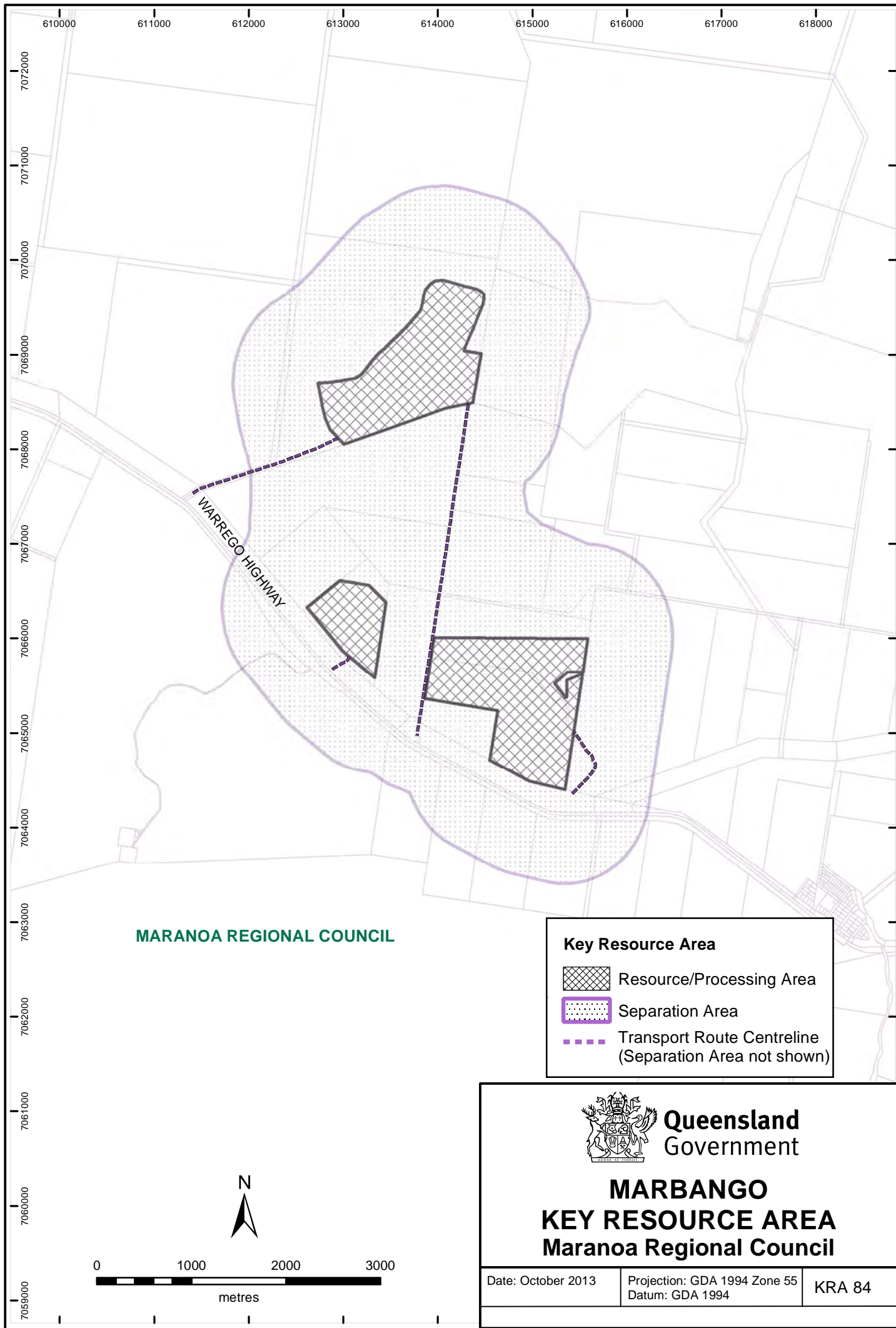
**TRANSPORT ROUTE:**

The transport routes are through private land onto the Warrego Highway.

**SPECIAL CONSIDERATIONS:**




The KRA resource/processing areas in the northern and southern portions are covered by 'of concern' vegetation under the *Vegetation Management Act 1999*. The 'of concern' vegetation covering the northern resource/processing area is within the currently approved area.





**MARANOA REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**MARBANGO  
KEY RESOURCE AREA  
Maranoa Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 55  
Datum: GDA 1994

KRA 84

## **WARRIAN KEY RESOURCE AREA – KRA 85**

**LOCAL GOVERNMENT AREA:** Maranoa Regional Council

**LOCATION:**

The resource is located about 35 kilometres north of Roma via the Roma – Taroom Road (see map KRA 85).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource comprises basalt that forms a low flat-topped hill with gently sloping flanks. The basalt in the current working faces of the quarry is mostly fresh and it appears that the basalt intrudes the surrounding sedimentary rocks.

**SIGNIFICANCE:**

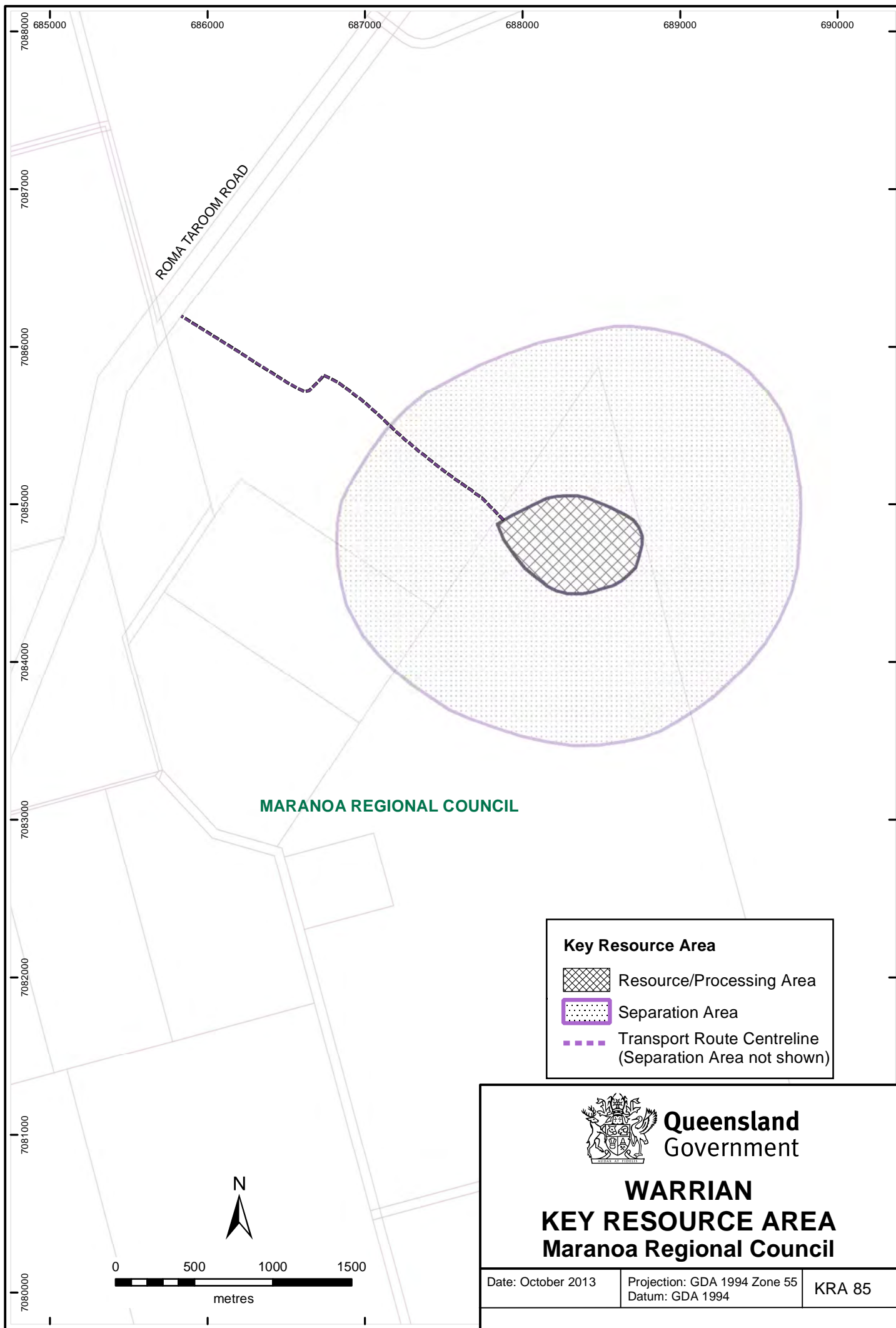
Warrian quarry supplies materials for major road work contracts and other infrastructure projects, in addition to local projects and requirements. It has provided a significant proportion of various rock products to the Maranoa Regional Council and Balonne Shire. It is also suitably situated to supply materials to the southern part of the Banana Shire. The expected resource life is greater than 15 years.

**SEPARATION AREA:**

The current quarry is largely screened from the surrounding area by the rim of the hill currently retained for this purpose. The outer boundary of the separation area is set at the full 1000 metres from the resource boundary to allow for effective separation after removal of the rim, which forms part of the resource.

**TRANSPORT ROUTE:**




The materials are transported through private land onto the Roma – Taroom Road to the west.



ROMA TAROOM ROAD

MARANOA REGIONAL COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**WARRIAN  
KEY RESOURCE AREA  
Maranoa Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 55 Datum: GDA 1994	KRA 85
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## BARGARA KEY RESOURCE AREA – KRA 86

**LOCAL GOVERNMENT AREA:** Bundaberg Regional Council

**LOCATION:**

The resource is located on Back Windermere Road, about 5 kilometres south of Bargara (see map KRA 86).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is within basalt that underlies the coastal plain between Burnett Heads and Elliott Heads.

An existing quarry supplies a range of aggregates and road base products.

**SIGNIFICANCE:**

The resource supports production of a considerable proportion of the quarry materials consumed in the Bundaberg region. Well-designed development of the site may result in another 10 years of supply.

There is only one other rock resource of comparable size within 30 kilometres of Bundaberg. This is located about 3 kilometres to the south along Back Windermere Road.

**SEPARATION AREA:**

The boundaries of the separation area to the north and east are constrained by the boundaries of Future Urban or Urban zoned land. The separation area extends 500 metres west of Back Windermere Road over the land zoned as Rural, as this area is partly buffered by the topography. However, in the southwest, the small lots north of Innes Park Road around Tara Street are excluded from the separation area.

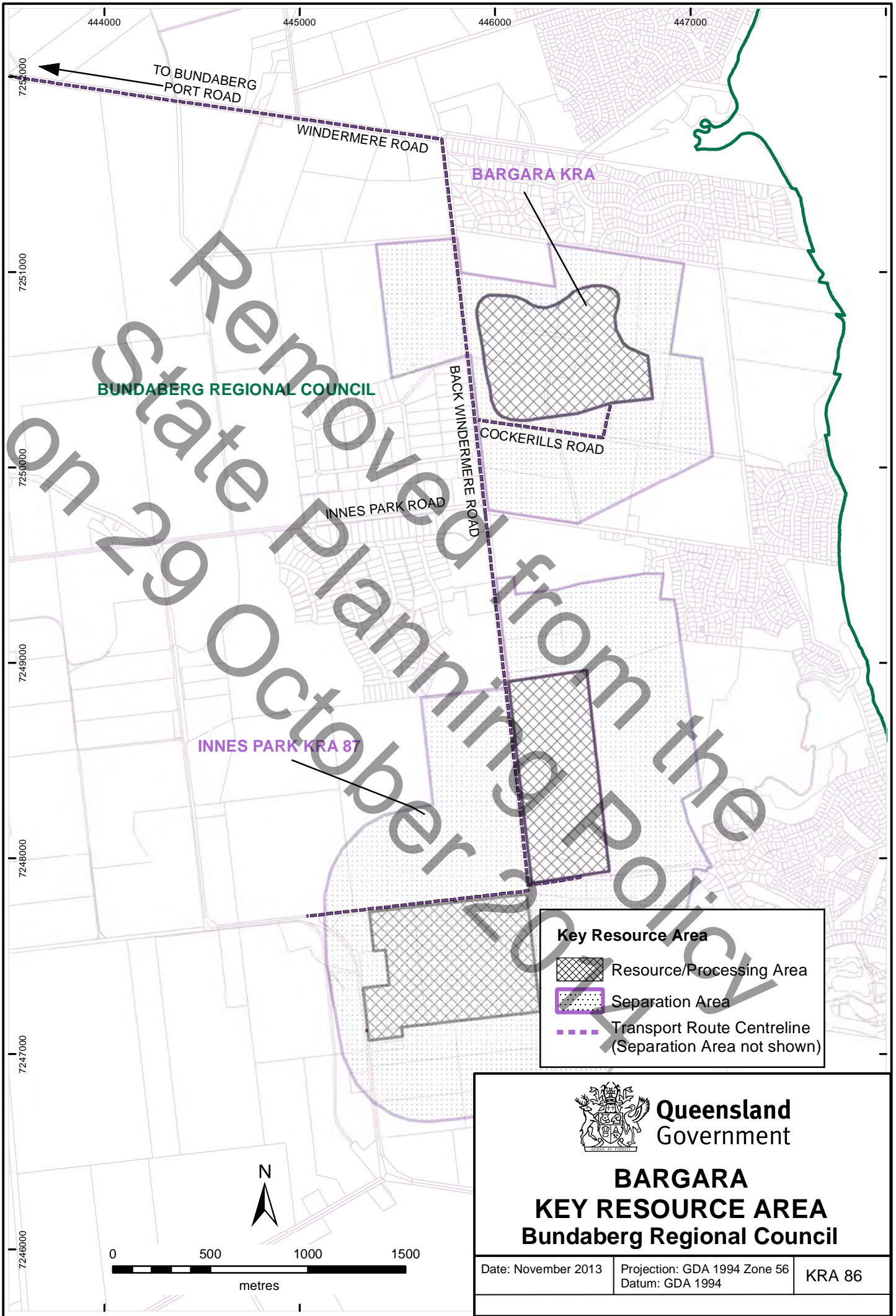
The full separation distance of 1000 metres is adopted on the southern side of the resource, including the Rural blocks between Cockerills Road and Innes Park Road.

**TRANSPORT ROUTE:**




The transport route is directly onto Cockerills Road thence onto Back Windermere Road. Some quarry product is transported north and west along Back Windermere Road and Windermere Road to the State-controlled Bundaberg Port Road (Walker Street), while the remainder is transported south along Back Windermere Road to the State-controlled Innes Park Road.

**SPECIAL CONSIDERATIONS:**

Some parts of the separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**BARGARA  
KEY RESOURCE AREA  
Bundaberg Regional Council**

Date: November 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 86

## INNES PARK KEY RESOURCE AREA – KRA 87

**LOCAL GOVERNMENT AREA:** Bundaberg Regional Council

**LOCATION:**

The resource is located along Back Windermere Road, about 8 kilometres south of Bargara (see map KRA 87).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource comprises part of a basalt unit that underlies the coastal plain between Burnett Heads and Elliott Heads. A quarry currently operates in the northern part of the resource, east of Back Windermere Road. An additional resource has been identified to the south-west of the existing quarry, bounded by Barolin Homestead Road, Back Windermere Road and Elliott Heads Road.

**SIGNIFICANCE:**

The total remaining resource is sufficient for over 30 years of supply. The current quarry supplies a large proportion of the aggregates for the Bundaberg region. The additional resource is conveniently situated to supply the Bundaberg market. It meets the criteria for State significance.

**SEPARATION AREA:**

North and northwest of the resource/processing area, the separation area excludes the land in the Hinterland Residential Zone west of Back Windermere Road and south of Innes Park Road. The flat country to the east of the resource is included in the Community Zone and Urban Residential Zone. This land is partly shielded by a bund wall constructed along the perimeter of the extractive operations, allowing a reduction in separation distance to 500 metres.

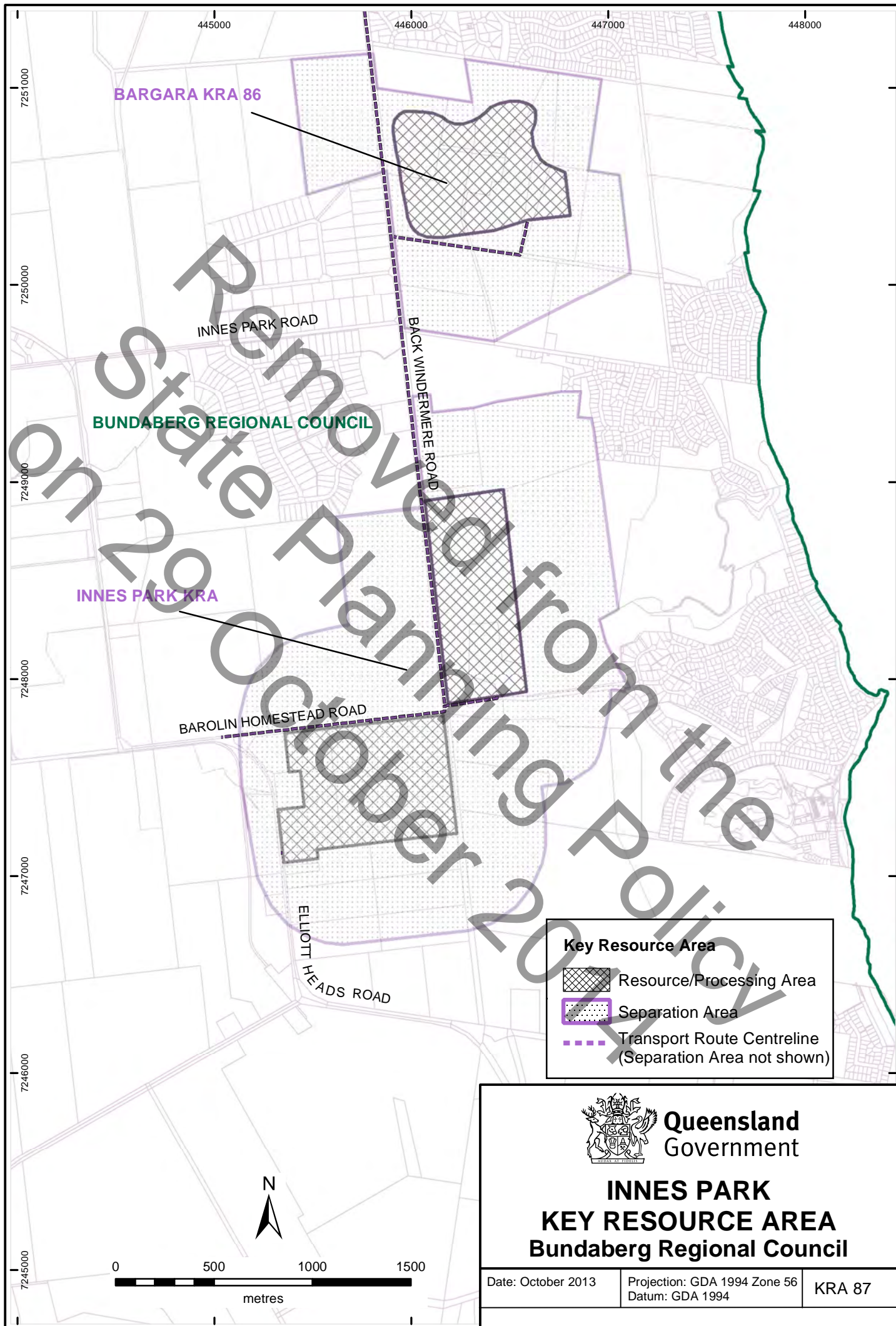
The separation area boundary has been defined at 500 metres from existing quarry operations. The potential quarry operations over the Rural Zoned land south and west of the existing quarry (south of Barolin Homestead Road and west of Back Windermere Road), could be shielded by construction of bund walls and therefore a separation area boundary of 500 metres has been applied. As extraction proceeds the pits will be screened from the surrounding land as they will be lower in elevation.

**TRANSPORT ROUTE:**

From the quarry entrance on Back Windermere Road, most quarry product is transported north to the State-controlled Innes Park Road. If the southern part of the resource is exploited, direct access to Elliott Heads Road would be suitable.

**SPECIAL CONSIDERATIONS:**

Some parts of the resource/processing and separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



BARGARA KRA 86

INNES PARK ROAD

BUNDABERG REGIONAL COUNCIL




INNES PARK KRA

BAROLIN HOMESTEAD ROAD

ELLIOTT HEADS ROAD

BACK WINDERMERE ROAD

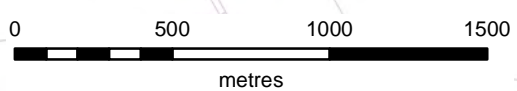
**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**INNES PARK  
KEY RESOURCE AREA  
Bundaberg Regional Council**



Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 87
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## **MEADVALE KEY RESOURCE AREA – KRA 88**

**LOCAL GOVERNMENT AREA:** Gympie Regional Council

**LOCATION:**

The resource is situated at Meadvale railway siding 13 kilometres south of Gympie on the North Coast Line (see map KRA 88).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of a hill of porphyritic rhyolite, believed to be an intrusive plug.

The resource has been partially worked for ballast and armour rock for the upgrade of the North Coast railway line.

**SIGNIFICANCE:**

The resource is the closest available hard rock to Gympie and the developing areas surrounding the city. The resource size is significant but not well-defined. However, there are no other significant hardrock resources within 40 kilometres of Gympie. It is also strategically located as a source of maintenance materials for the railway.

**SEPARATION AREA:**

The western boundary of the separation area is 500 metres west of the resource where a ridge provides partial shielding from the impacts of quarry operations. The boundary for the remainder of the separation area is set at the full 1000 metres from the nearest part of the resource/processing area, as the surrounding land is lower and potentially more exposed to quarry-related impacts.

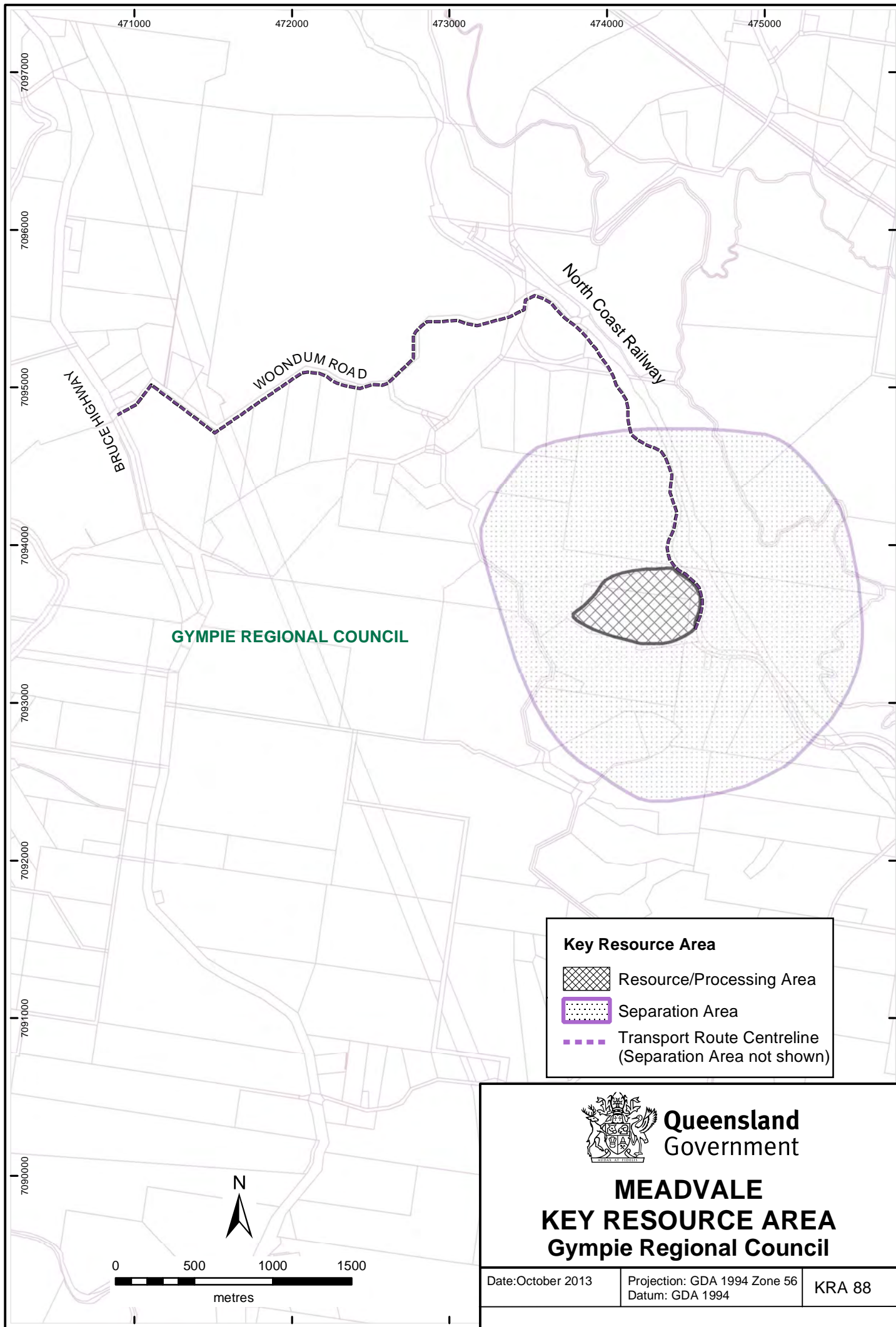
**TRANSPORT ROUTE:**

The transport route is northwards along the original North Coast railway easement to Woondum Road, then westwards along Woondum Road to the Bruce Highway, about 8 kilometres south of Gympie.

**SPECIAL CONSIDERATIONS:**




Some parts of the resource/processing and separation areas are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.





**GYMPIE REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**MEADVALE  
KEY RESOURCE AREA  
Gympie Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 88

## **MOY POCKET KEY RESOURCE AREA – KRA 89**

**LOCAL GOVERNMENT AREA:** Gympie Regional and Sunshine Coast Regional Councils

**LOCATION:**

The resource lies west of the Mary River at Moy Pocket, 35 kilometres south of Gympie via the Gympie to Kenilworth road to Brooloo, and thence via Moy Pocket Road (see map KRA 89).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The main part of the resource comprises trachyandesitic intrusive rocks. This rock unit underlies an area between Moy Pocket Road in the east and the foot of the Kenilworth Bluff in the west. A large quarry is currently working the resource. The trachyandesite is at least 60 metres deep below the present quarry floor. Additional products such as low grade road bases are obtained from hardened mudstone near the northwestern end of the current extractive licence area.

**SIGNIFICANCE:**

The resource supplies a major proportion of the demand for road base, aggregate, and armour rock in the Sunshine Coast and Gympie regions. The trachyandesite is preferred over other rock types available in those regions for asphalt screenings for road surfacing.

**SEPARATION AREA:**

The separation distance is set 1000 metres from the southwestern edge of the resource, extending over the eastern slopes of Kenilworth Bluff. The southeastern ridge of the quarry will be retained as a visual barrier to the Mary River valley, allowing the separation distance in this area to be 500 metres from the resource/processing area.

A separation distance of 1000 metres has been adopted from the existing quarry face over the Rural land adjacent to the northeastern boundary of the resource. On the northwestern side, the separation area boundary is established at 1000 metres from the trachyandesite part of the resource. This will also provide 500 metres of separation from the mudstone area currently being worked by ripping.

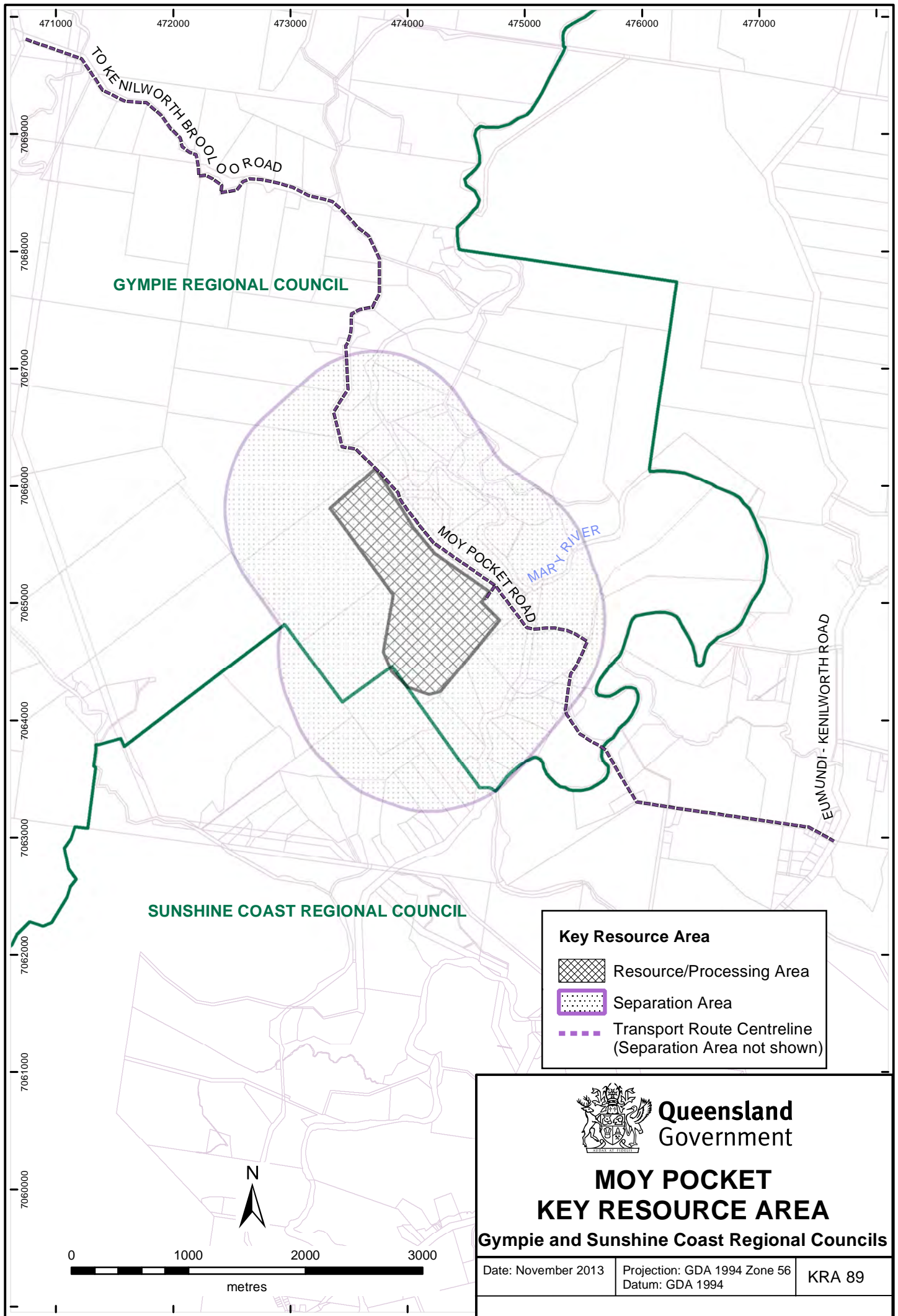
**TRANSPORT ROUTE:**

Products are transported both north along Moy Pocket Road to the State-controlled Kenilworth – Brooloo Road, and south along Moy Pocket Road to the Eumundi – Kenilworth Road, and then east to the Bruce Highway.




**SPECIAL CONSIDERATIONS:**


The KRA contains areas having State biodiversity significance under the Biodiversity Planning Assessment administered by the Department of Environment and Heritage Protection and may also contain cultural heritage values. Small areas of ‘of concern’ vegetation under the *Vegetation Management Act 1999* occur on the edges of the current approval area.

Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)


**Queensland Government**

**MOY POCKET  
KEY RESOURCE AREA**

**Gympie and Sunshine Coast Regional Councils**

Date: November 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 89
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## **DUNDOWRAN KEY RESOURCE AREA - KRA 90**

**LOCAL GOVERNMENT AREA:** Fraser Coast Regional Council

**LOCATION:** The resource lies twelve kilometres west of Pialba and south of Craignish (see Map KRA90).

**EXTRACTIVE RESOURCE:** Quarry Rock and sand

### **EXTRACTIVE RESOURCE DESCRIPTION**

The hard rock resource lies along a high ridge of basalt extending southwest of Dundowran. The rock is suitable for most construction applications. Three quarries operate at different places along the basalt ridge.

The sand resource is situated to the west of the central part of the basalt ridge on lower ground east of Dublin Road.

### **SIGNIFICANCE**

The existing hard rock operations supply a large portion of the aggregate demand in the Hervey Bay to Maryborough district. Over forty years of resource are expected to remain at the present rate of production.

The fine sand resource supplies a significant proportion of this commodity to the same market area.

The resources meet the Volume, Production Level and Regional Markets criteria for State significance.

### **SEPARATION AREA**

The distance of one kilometre is adopted where no intervening ridges are present within that distance. On the northwest to northeast side of the quarry the separation distance can be reduced to a maximum of 500 metres, due to the retention of the ridge, excepting where houses or urban subdivisions are already within that distance. The shortest distance to urban subdivisions is approximately two hundred metres. The separation area is drawn accordingly.

On the southeast side of the resource, the boundary is set at the nearest limit of rural residential zones. The separation area around the sand resource is set at 200 metres to the west of the resource, as the eastern extent overlaps with the separation area around the hard rock resource.

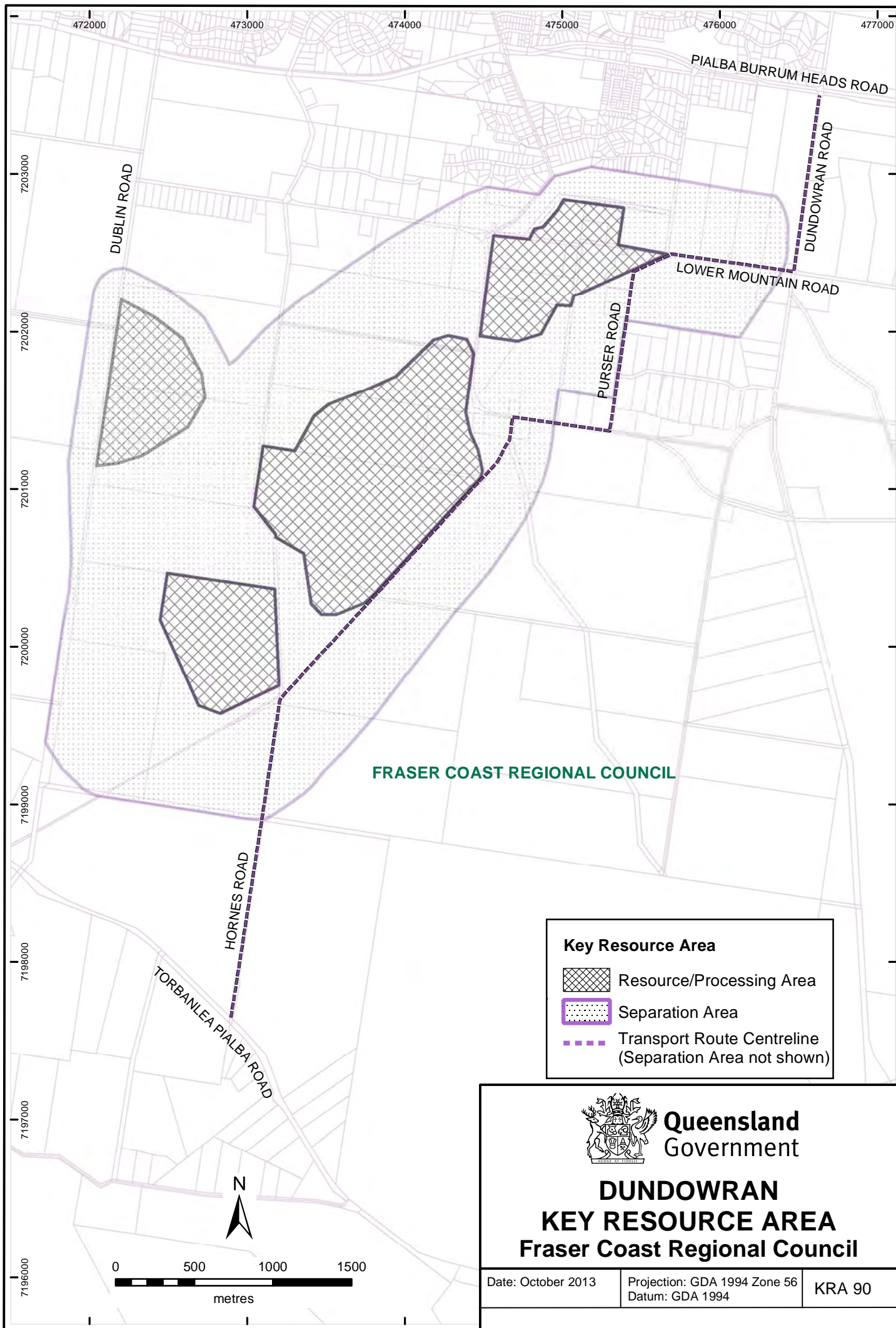
### **TRANSPORT ROUTE**

The northern quarry uses Dundowran Road via Lower Mountain Road to access the Burrum Heads to Pialba Road.

The southern quarries transport products south to the Torbanlea – Pialba Road via Hornes Road, or north via Hornes Road and Purser Road to Lower Mountain Road, and then via Dundowran Road to the Pialba – Burrum Heads Road.




**SPECIAL CONSIDERATIONS:**

Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



FRASER COAST REGIONAL COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



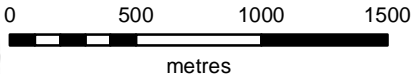
**Queensland  
Government**

**DUNDOWRAN  
KEY RESOURCE AREA  
Fraser Coast Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 90



## **RED RIDGE KEY RESOURCE AREA – KRA 92**

**LOCAL GOVERNMENT AREA:** Bundaberg Regional Council

**LOCATION:**

The resource is located near the Goodwood Road, about 12 kilometres east of Childers (see map KRA 92).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is an isolated occurrence of basalt that forms a low hill south of the Gregory River crossing on the Goodwood Road. Surface indications of basalt extend for a kilometre to the northeast of the existing pit. The thickness of the basalt is unknown.

**SIGNIFICANCE:**

An existing quarry in the resource is a major supplier of quarry products to the Bundaberg and Fraser Regional Councils. Supply from this resource is expected to increase in future as hardrock resources in the surrounding district, especially in the Bundaberg district, are exhausted. Resources in the present quarry are sufficient for over 10 years supply at current production rates. The resource life for the whole deposit is estimated at more than 50 years. The resource meets the criteria for State significance.

**SEPARATION AREA:**

A separation distance of 1000 metres is set from the outer extent of the resource to avoid any future quarry impacts.

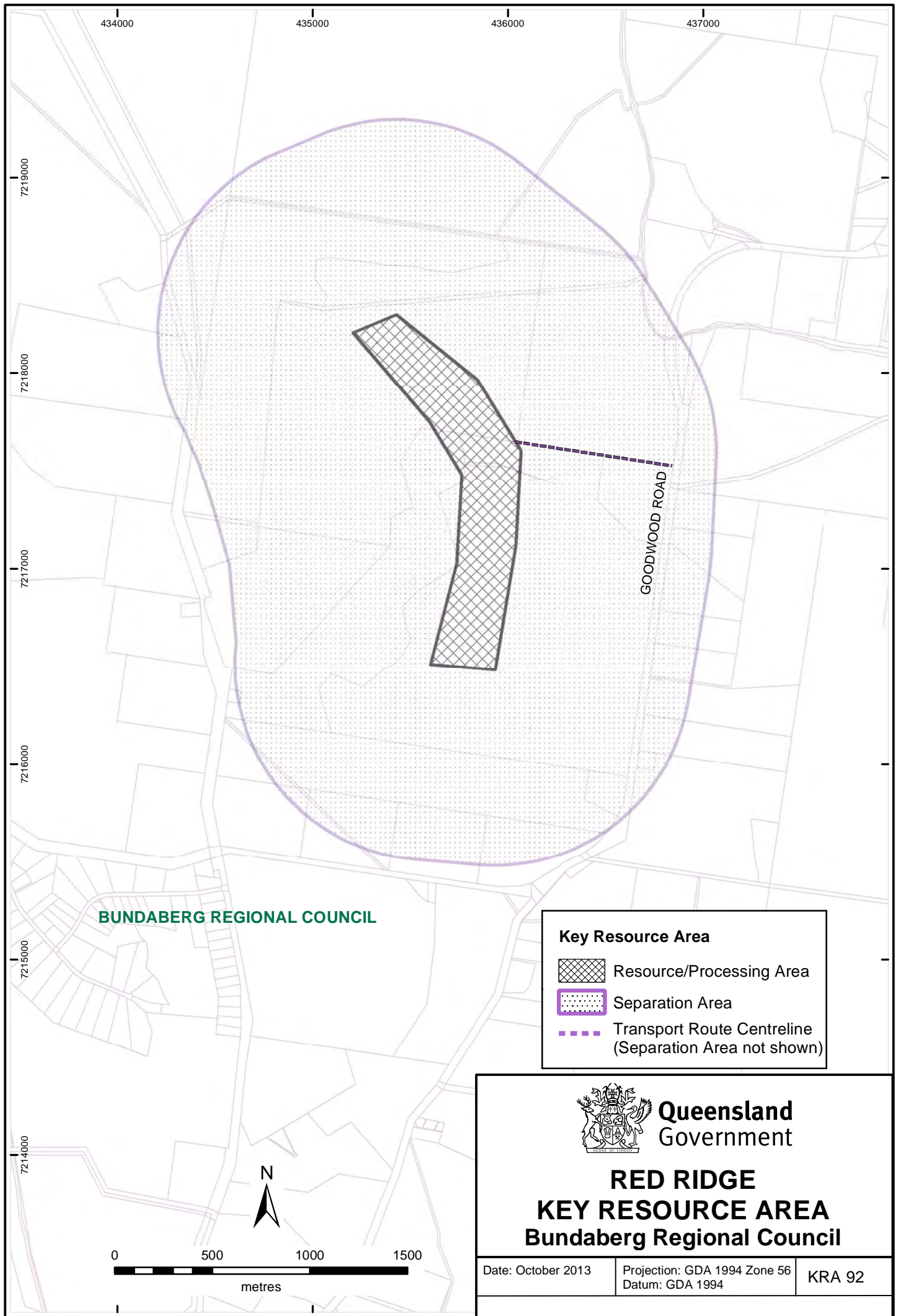
**TRANSPORT ROUTE:**

Materials are transported over an unpaved road through land owned by the quarry operator directly onto the State-controlled Goodwood Road to the east.

**SPECIAL CONSIDERATIONS:**




Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.





**BUNDABERG REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**RED RIDGE  
KEY RESOURCE AREA  
Bundaberg Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 92

## **HODGLEIGH KEY RESOURCE AREA – KRA 93**

**LOCAL GOVERNMENT AREA:** South Burnett Regional Council

**LOCATION:**

The resource is located on the northern side of the D'Aguilar Highway near Hodgeleigh, approximately 7 kilometres northwest of Nanango (see map KRA 93).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource comprises quartzite, mudstone and greywacke, which form a prominent ridge northwest of Barker Creek. The rocks have been hornfelsed (metamorphosed) by a nearby large granitic intrusion.

A major quarry is located on the southern end of the resource.

**SIGNIFICANCE:**

The remaining resource is sufficient for at least another 10 years production. The resource is conveniently situated to supply a wide range of quarry products to a market extending throughout the South Burnett region. It is of State significance.

**SEPARATION AREA:**

The separation distance is set at 500 metres from the western edge of the resource/processing area, as intervening ridges partly shield the resource on this side. A width of 1000 metres is required for the remainder of the separation area as no similar topographic screening exists.

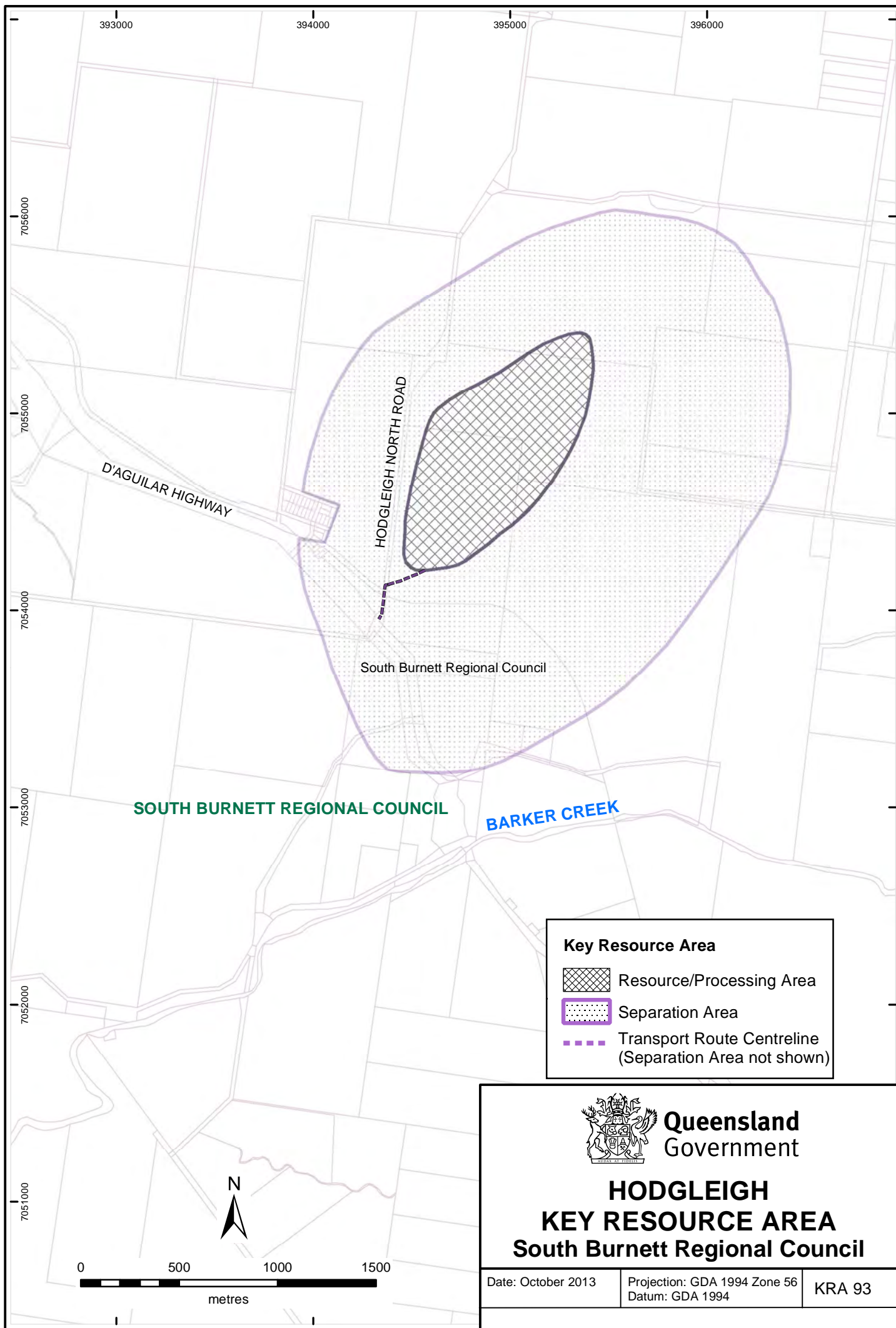
A small area of Future Urban zoned land west of the resource has been excluded from the separation area.

**TRANSPORT ROUTE:**

The transport route is directly onto Hodgeleigh North Road and thence onto the D'Aguilar Highway.

**SPECIAL CONSIDERATIONS:**

Some parts of the separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



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D'AGUILAR HIGHWAY




HODGLEIGH NORTH ROAD

South Burnett Regional Council

**SOUTH BURNETT REGIONAL COUNCIL**

**BARKER CREEK**

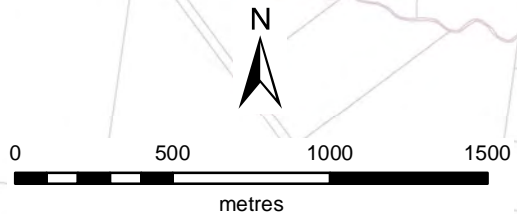
**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**HODGLEIGH  
KEY RESOURCE AREA  
South Burnett Regional Council**



Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 93

## **CLUTHA CREEK SANDS KEY RESOURCE AREA – KRA 94**

**LOCAL GOVERNMENT AREA:** Logan City Council

**LOCATION:**

The resource is located on the north side of Clutha Creek, about 3.5 kilometres north of Tamborine Village. It is bordered by Clutha Creek Road to the south and the Waterford-Tamborine Road to the east (see map KRA 94).

**EXTRACTIVE RESOURCE:** Sand

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource, which covers an area of about 100 hectares, comprises colluvium and weathered sandstone. An existing operation based on ripping, washing and cyclone separation produces graded sand products. Limited blasting is permitted under strict conditions.

**SIGNIFICANCE:**

The resource is sufficient for 20 to 30 years of supply. The resource currently supplies a market area extending from the south side Brisbane to the Gold Coast. It is one of a small number of sand supply sites south of Brisbane.

**SEPARATION AREA:**

The separation distance of 200 metres has been applied around the resource, with 40 metres of this being an internal setback. To the west, south and east, the separation area covers mainly Rural zoned land. To the north, the separation area extends 160 metres into lots that are zoned Rural Residential A, as any further intensification of development in this area would be inconsistent with extraction of the resource.

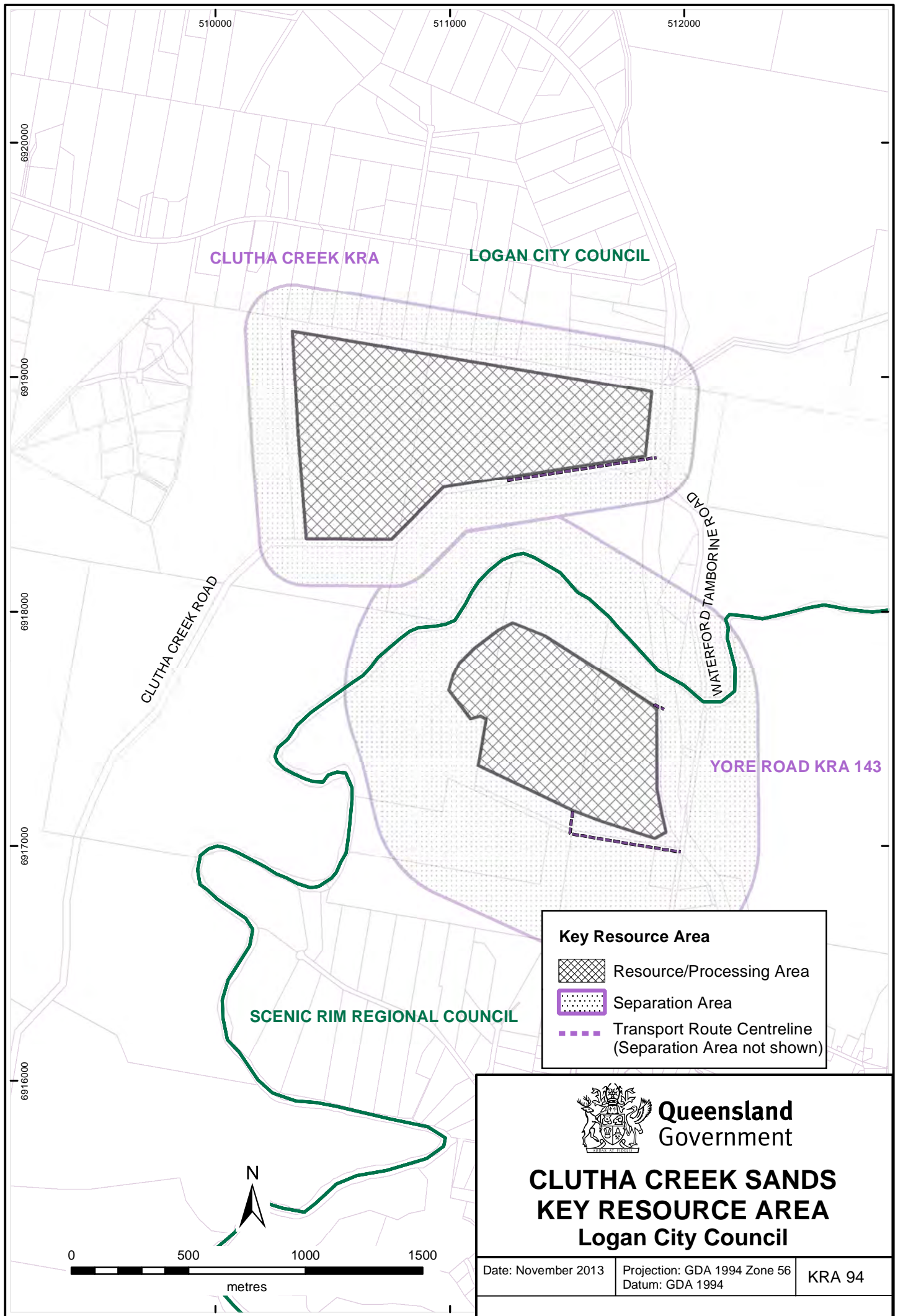
**TRANSPORT ROUTE:**

The transport route is via Clutha Creek Road eastward to the State-controlled Waterford-Tamborine Road.




**SPECIAL CONSIDERATIONS:**

A small area of 'of concern' vegetation under the *Vegetation Management Act 1999*, located in the northwestern corner of the resource/processing area, is covered by a current extractive industry approval.

Some parts of the resource/processing and separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**CLUTHA CREEK SANDS  
KEY RESOURCE AREA**  
Logan City Council

Date: November 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 94
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## **MUNDOOLUN CONNECTION SANDS KEY RESOURCE AREA – KRA 95**

**LOCAL GOVERNMENT AREA:** Scenic Rim Regional Council

**LOCATION:**

The resource occurs about 4 kilometres south-southeast of Tamborine Village, on the western slopes of the Tamborine Plateau. Access is via the Mundoolun Connection Road, 2 kilometres south of the intersection with the Beaudesert-Beenleigh Road (see map KRA 95).

**EXTRACTIVE RESOURCE:** Sand

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource comprises colluvium and weathered sandstone and covers about 600 hectares. An operation based on ripping, washing and cyclone separation produces graded sand products.

**SIGNIFICANCE:**

The resource is likely to be sufficient for over 50 years of supply. The resource is of regional significance and would be able to meet a large proportion of supply requirements in the markets on Brisbane's south side and the Gold Coast. It is one of only a few supply sites south of Brisbane.

**SEPARATION AREA:**

The full 200 metre separation distance has been applied around the resource area.

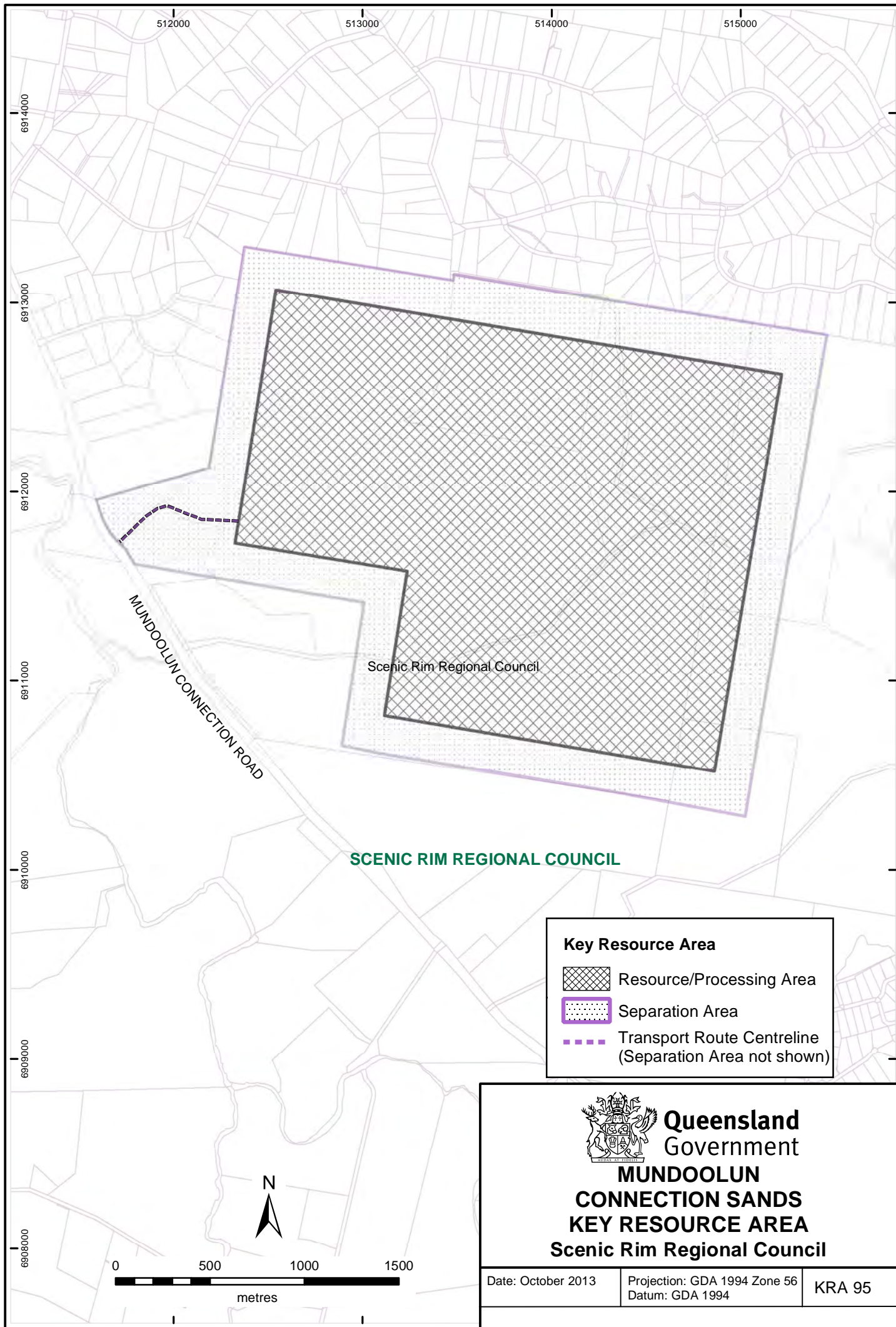
**TRANSPORT ROUTE:**

The transport route is directly onto the State-controlled Mundoolun Connection Road.

**SPECIAL CONSIDERATIONS:**




The KRA contains areas of vegetation having regional biodiversity significance under the Biodiversity Planning Assessment administered by the Department of Environment and Heritage Protection. There has been an unconfirmed sighting of the Richmond birdwing butterfly in the northwestern portion of the KRA, which is listed as vulnerable under the *Nature Conservation (Wildlife) Regulation 2006*. Some areas of 'of concern' vegetation under the *Vegetation Management Act 1999* have been protected under the current approval.

Small portions of the resource/processing area and separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**SCENIC RIM REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)


**Queensland Government**  
**MUNDOLUN CONNECTION SANDS KEY RESOURCE AREA**  
**Scenic Rim Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 95
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## **REEDY CREEK KEY RESOURCE AREA – KRA 96**

**LOCAL GOVERNMENT AREA:** Gold Coast City Council

**LOCATION:**

The resource is located about 5.5 kilometres southwest of Burleigh and west of the Pacific Highway (see map KRA 96).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is dominated by greywacke rocks of the Neranleigh-Fernvale Beds and is surrounded by ridges. The resource has been investigated by drilling that has confirmed the quality and consistency of the greywacke.

**SIGNIFICANCE:**

Investigations indicate a large resource, sufficient for over 40 years of supply depending on the final pit footprint and depth. The resource is the largest known greenfield resource in the southern part of Gold Coast City, and is strategically located in relation to the Gold Coast market. It therefore meets the criteria for State significance.

**SEPARATION AREA:**

The parcel of land on which the resource occurs has the topographic features to almost completely buffer the resource, providing a separation distance of between 120m and up to 600 metres. Design of the pit would utilise the topographic screening provided by the surrounding ridges. The separation area is not extended beyond the parcel boundary as the land is zoned Residential or equivalent.

In the north, the separation area meets the boundary of the West Burleigh Key Resource Area (KRA 70).

**TRANSPORT ROUTE:**

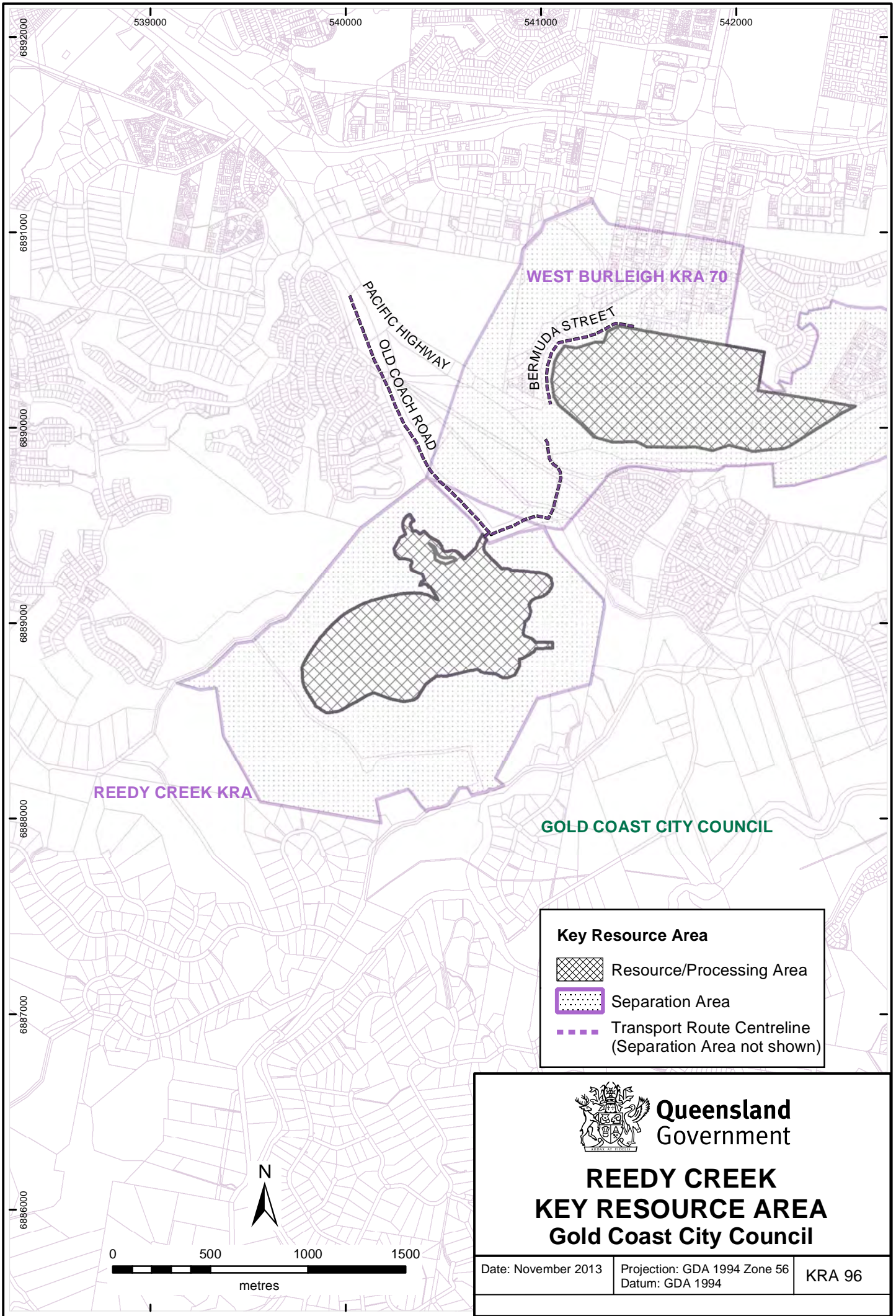
A transport route has been proposed from the northern section of the resource to the Pacific Highway via the proposed Bermuda Street interchange. An alternative route along the Old Coach Road has also been nominated.

**SPECIAL CONSIDERATIONS:**

The KRA contains areas of vegetation having State biodiversity significance under the Biodiversity Planning Assessment administered by the Department of Environment and Heritage Protection and forms part of the Burleigh Heads – Great Dividing Range bioregional wildlife corridor. The KRA also encompasses several cultural heritage sites of State significance.

A small area of ‘endangered’ vegetation under the *Vegetation Management Act 1999*, located within the property would be protected by any granted development approval conditions.





REEDY CREEK KRA




WEST BURLEIGH KRA 70

BERMUDA STREET

PACIFIC HIGHWAY  
OLD COACH ROAD

GOLD COAST CITY COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



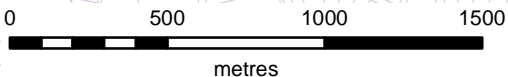
**Queensland  
Government**

**REEDY CREEK  
KEY RESOURCE AREA  
Gold Coast City Council**

Date: November 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 96



## TANTITHA KEY RESOURCE AREA – KRA 97

**LOCAL GOVERNMENT AREA:** Bundaberg Regional Council

**LOCATION:**

The resource is located about 3 kilometres north of Bundaberg. It lies to the east of and parallel to Gooburrum Road, and extends from Colvins Road in the south to Hills Road in the north (see map KRA 97).

**EXTRACTIVE RESOURCE:** Sand

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is part of a coastal dune system that underlies the gently undulating coastal plain between Bundaberg and Moore Park. The sand averages three metres thick and overlies other coastal sediments and older weathered rocks.

Several small extractive operations have utilised parts of this resource for over 20 years.

**SIGNIFICANCE:**

The resource contains about 50 million tonnes of sand and is estimated to be sufficient to supply the regional demand for over 40 years. It is also the nearest major sand resource to service the Bundaberg and Wide Bay market areas.

**SEPARATION AREA:**

The resource/processing area boundary has generally been defined to ensure that a separation distance of 200 metres can be established on all sides.

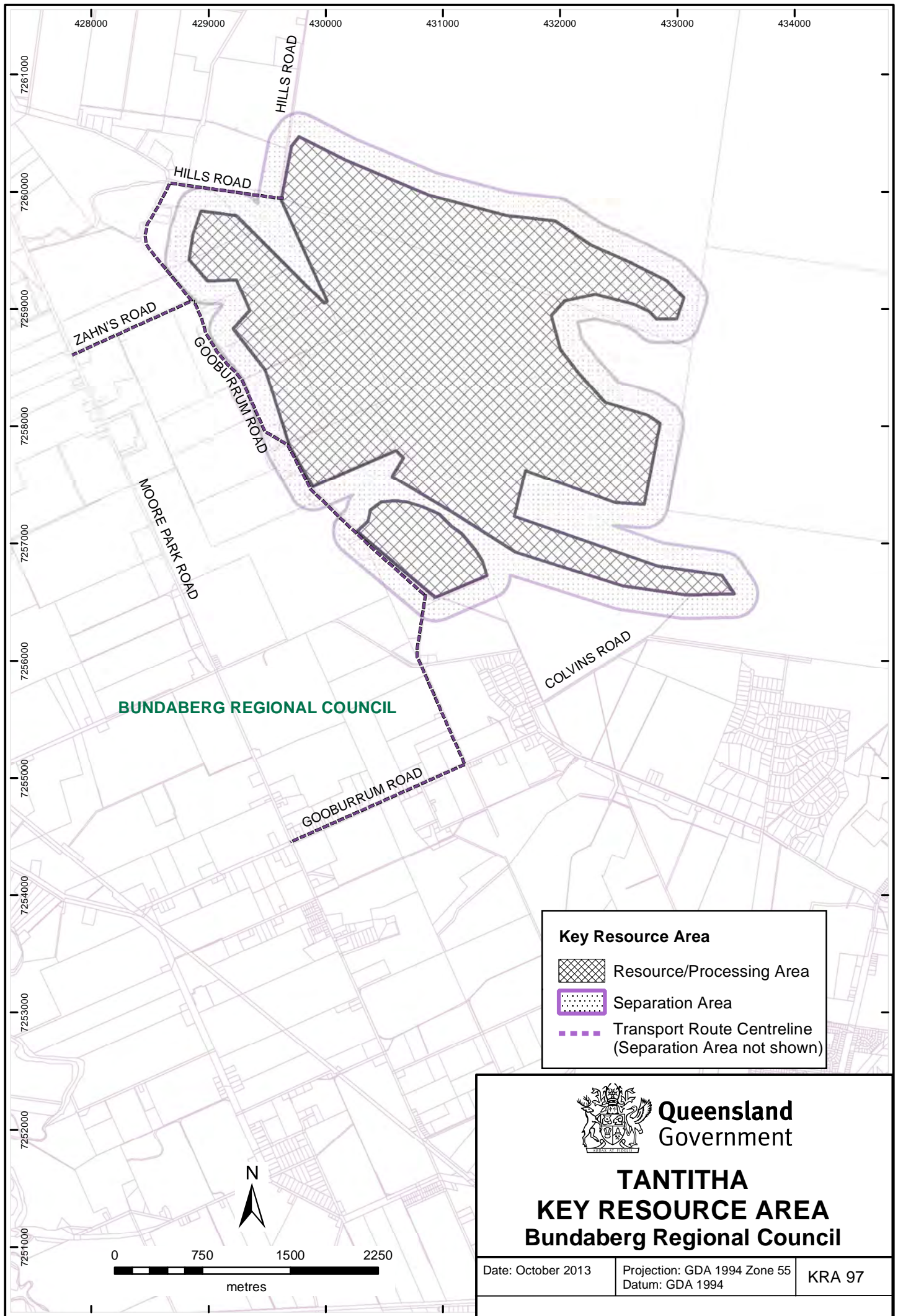
**TRANSPORT ROUTE:**

Transport routes from the the resource are southward along Gooburrum Road to Moore Park Road, or from Hills Road via Gooburrum Road and Zahns Road to Moore Park Road.

**SPECIAL CONSIDERATIONS:**




The resource area is located within the Bundaberg (Declared) Sub-artesian area and is characterised by shallow groundwater. A wildlife corridor in 'not of concern' vegetation could pose a constraint to development along the southern edge of the resource area.

Most of the KRA is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**BUNDABERG REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**TANTITHA  
KEY RESOURCE AREA  
Bundaberg Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 55 Datum: GDA 1994	KRA 97
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## **PEAK HILL KEY RESOURCE AREA – KRA 98**

**LOCAL GOVERNMENT AREA:** Rockhampton Regional Council

**LOCATION:**

The resource is 8 kilometres north of Rockhampton on the Rockhampton to Yeppoon road (see map KRA 98).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consist of andesitic tuff and a small diorite and gabbro intrusion which form two northwesterly trending ridges to the north of Norman Gardens on the northern outskirts of Rockhampton. An operating quarry is sited on the resource. The resource extent has been outlined on the basis of the area zoned as Extractive Industry on the Rockhampton City planning scheme.

**SIGNIFICANCE:**

The existing operation produces a considerable proportion of the hard rock consumed in Rockhampton city and the surrounding region. The resource is sufficient to continue for over twenty years at its present rate of production.

**SEPARATION AREA:**

As the resource is surrounded by higher ridges to the north, east, and southeast, the separation area adopted in those areas extends to the first high ridge, a distance of approximately 500 metres. In this sector the separation area includes the Yeppoon Road and Berserker Range Environmental Areas.

In the remainder, the variable separation distance is set by the Norman Road Slope Constraint Area boundary that controls the permissible extent of urban development on the basis of slope, and is as narrow as 100 metres where subdivision has extended up to the slope boundary.




**TRANSPORT ROUTE:**

The material is transported via the Rockhampton – Yeppoon Road which passes through the separation area.

ROCKHAMPTON REGIONAL COUNCIL

ROCKHAMPTON YEPPOON ROAD

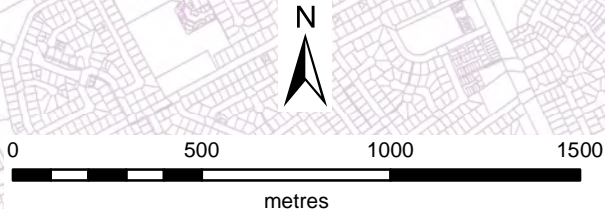
**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**PEAK HILL  
KEY RESOURCE AREA  
Rockhampton Regional Council**



Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 98

## **BLADENSBURG KEY RESOURCE AREA – KRA 99**

**LOCAL GOVERNMENT AREA:** Winton Shire Council

**LOCATION:**

The resource is located about 11 kilometres south of Winton (see Map KRA 99).

**EXTRACTIVE RESOURCE:** Gravel

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of a surface layer of clayey alluvium, overlying a sequence of clayey sands and gravels, forming ancient stream deposits and channel infill. The resource has an area of approximately 720 hectares.

**SIGNIFICANCE:**

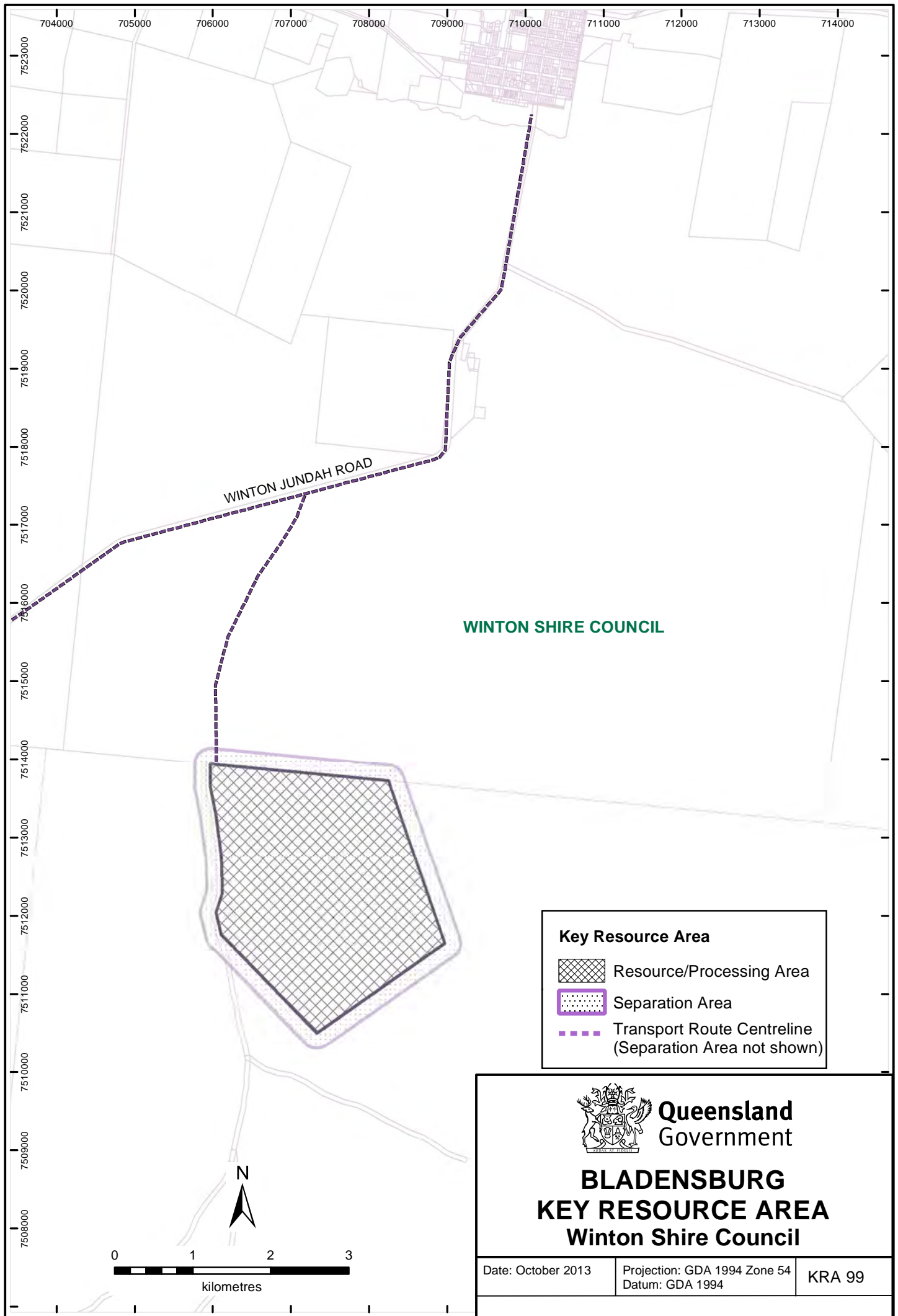
The resource is on a reserve that is held by Transport and Main Roads as Trustee and has reserves estimated sufficient for more than 50 years supply. All other areas of available gravel of this standard have been exhausted for at least 50 kilometres in each direction along the state controlled roads. It is the only source in the region able to meet specifications available for use in the construction and maintenance of the National Highway and Kennedy Developmental roads.

**SEPARATION AREA:**

The separation distance of 200 metres is adopted around the perimeter of the resource. This includes portion of the Bladensburg National Park, which abuts all but the northernmost resource boundary, which is abutted by the Winton Town Common, used for grazing stock.

**TRANSPORT ROUTE:**




Materials are transported along the unsealed Route of the River Red Gums Road to the Winton – Jundah Road then onto the Landsborough Highway in Winton.



WINTON SHIRE COUNCIL

WINTON JUNDAH ROAD

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**BLADENSBURG  
KEY RESOURCE AREA  
Winton Shire Council**

Date: October 2013

Projection: GDA 1994 Zone 54  
Datum: GDA 1994

KRA 99



## **WINDERMERE KEY RESOURCE AREA – KRA 100**

**LOCAL GOVERNMENT AREA:** Winton Shire Council

**LOCATION:**

The resource occurs about 11 kilometres south of Winton (see map KRA 100).

**EXTRACTIVE RESOURCE:** Soil

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of a surface layer fine grained silty sand (loam), overlying a thick sequence of clayey alluvium. The loam is an important source of binder material for admixture with the gravel from the Bladensburg deposit. The material represents old river and floodplain deposits.

**SIGNIFICANCE:**

The resource is on a reserve that is held by Transport and Main Roads as Trustee and has reserves estimated to be sufficient for more than 20 years supply. All other areas of loam suitable for blending with the gravel from the Bladensburg resource have been exhausted for at least 70 kilometres in each direction along the state controlled roads. It is the only source available for use in the construction & maintenance of the National Highway and Kennedy Developmental roads.

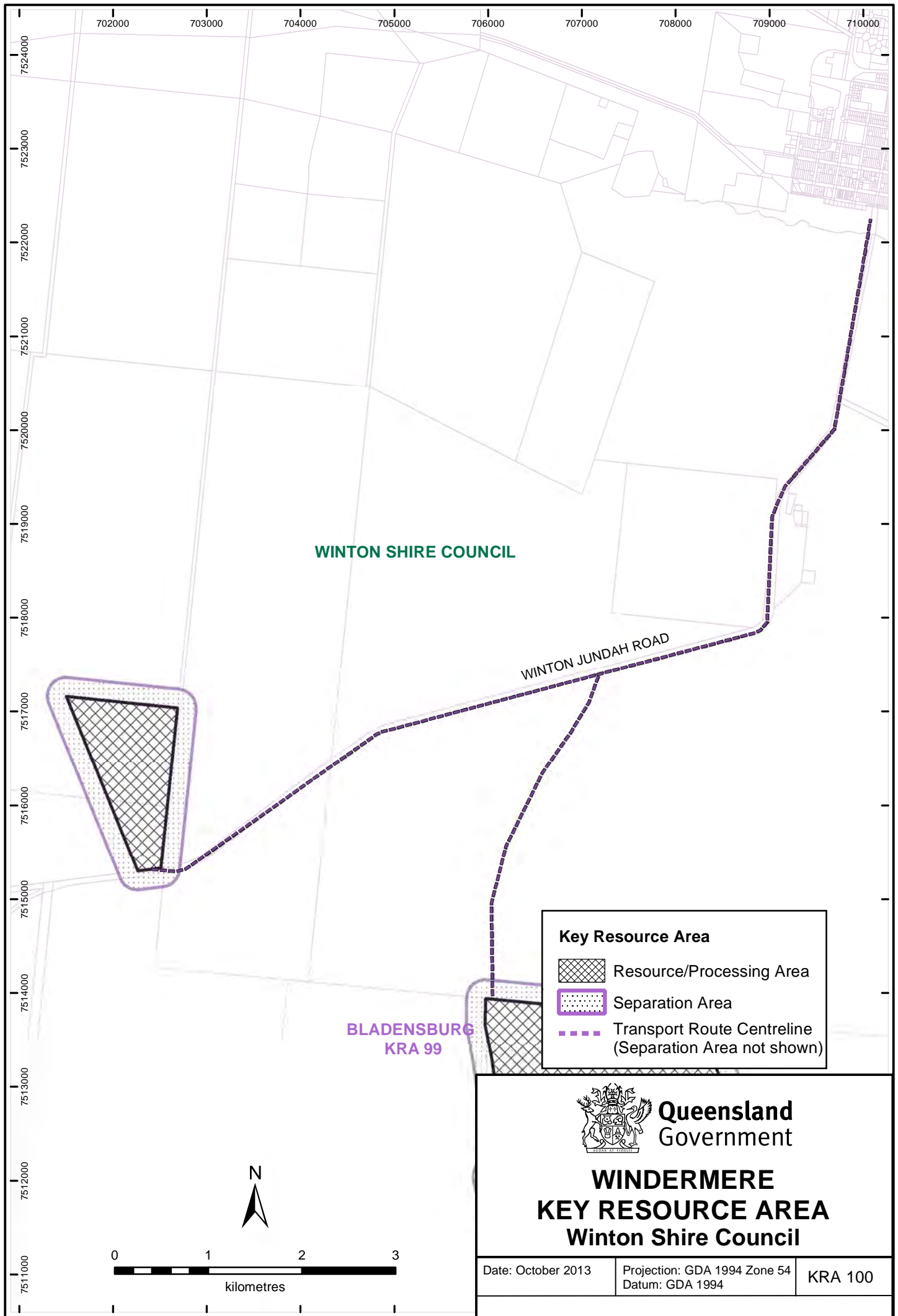
**SEPARATION AREA:**

A separation distance of 200 metres has been adopted around the perimeter of the resource. The resource is bounded on the southern side by the Winton Town Common which is currently used for grazing stock. The remainder of the surrounding land is zoned as Rural.

**TRANSPORT ROUTE:**

Materials are transported via an unsealed road to the Winton – Jundah Road and then onto the Landsborough Highway in Winton.





## **SHOECRAFT KEY RESOURCE AREA - KRA 101**

**LOCAL GOVERNMENT AREA:** Banana Shire Council

**LOCATION:** The resource is located at 1031 Castle Creek Rd, approximately 23 kilometres northeast of Theodore and 47 kilometres south of Banana (see KRA Map 101).

**EXTRACTIVE RESOURCE:** Hard Rock

### **EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is hosted by the Camboon Volcanics and consists of basalt to basaltic andesite and minor volcanoclastic rocks. It is located close to the proposed route of the Surat Basin Railway and the Leichhardt Highway.

### **SIGNIFICANCE:**

The resource appears capable of sustaining the proposed production rates of more than 100,000 tonnes/yr for several decades. The resource has the potential to supply material to the region for a number of decades, and is ideally located to supply major projects in the region.

### **SEPARATION AREA:**

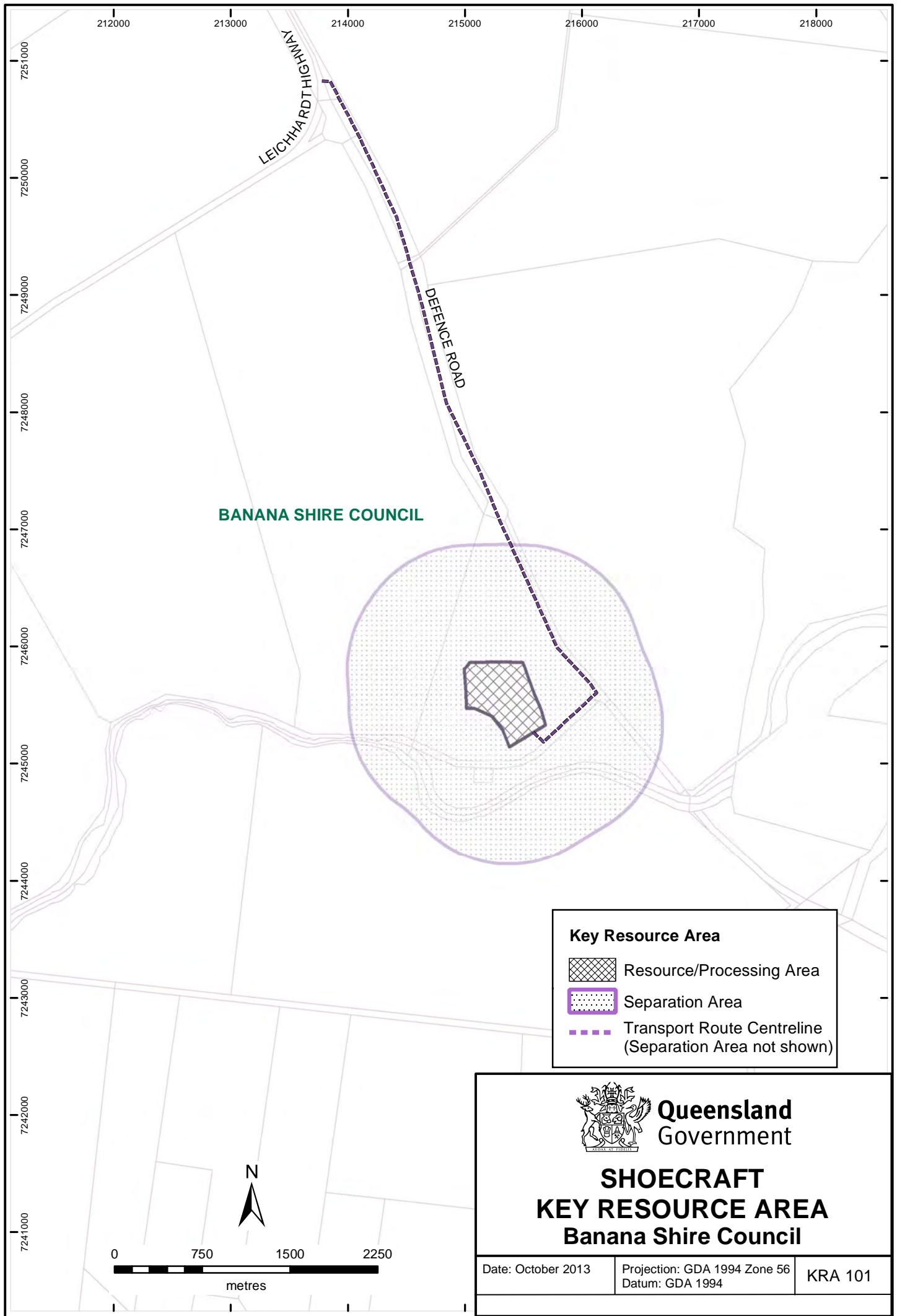
A maximum separation distance of 1000 metres has been applied around the resource/processing area boundary as the surrounding land is zoned Rural.

### **TRANSPORT ROUTE:**

The material will be transported via Defence Road and onto the Leichardt Highway.




### **SPECIAL CONSIDERATIONS:**

Most of the KRA is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**BANANA SHIRE COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**SHOECRAFT  
KEY RESOURCE AREA  
Banana Shire Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 101

## **YALKARA KEY RESOURCE AREA - KRA 102**

**LOCAL GOVERNMENT AREA:** Banana Shire Council

**LOCATION:** The resource is located along 1135 Orange Creek Road, 25 km west of Biloela (see map KRA 102).

**EXTRACTIVE RESOURCE TYPE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION**

The resource is a large volcanic complex consisting of dacitic and andesitic ignimbrites, andesites and rhyolites with minor volumes of metamorphosed metasediments.

### **SIGNIFICANCE:**

The resource is large and is capable of producing significantly greater than 5 percent of annual demand for the commodity type in the region or sub-region. The current market area for the quarry is large and material is supplied to Gladstone as well as Biloela, Banana and nearby mining projects.

Drilling, petrology and independent NATA certified testing has confirmed that material at the existing quarry is suitable for the production of a wide range of low to high specification materials including rail ballast. There is currently a modest shortage of approved high quality materials in the area. The existing quarry is located immediately adjacent to the rail line and there are plans to build a rail siding on the site to access material for use as rail ballast.

### **SEPARATION AREA:**

The quarry is located on freehold land and has few environmental or planning constraints.

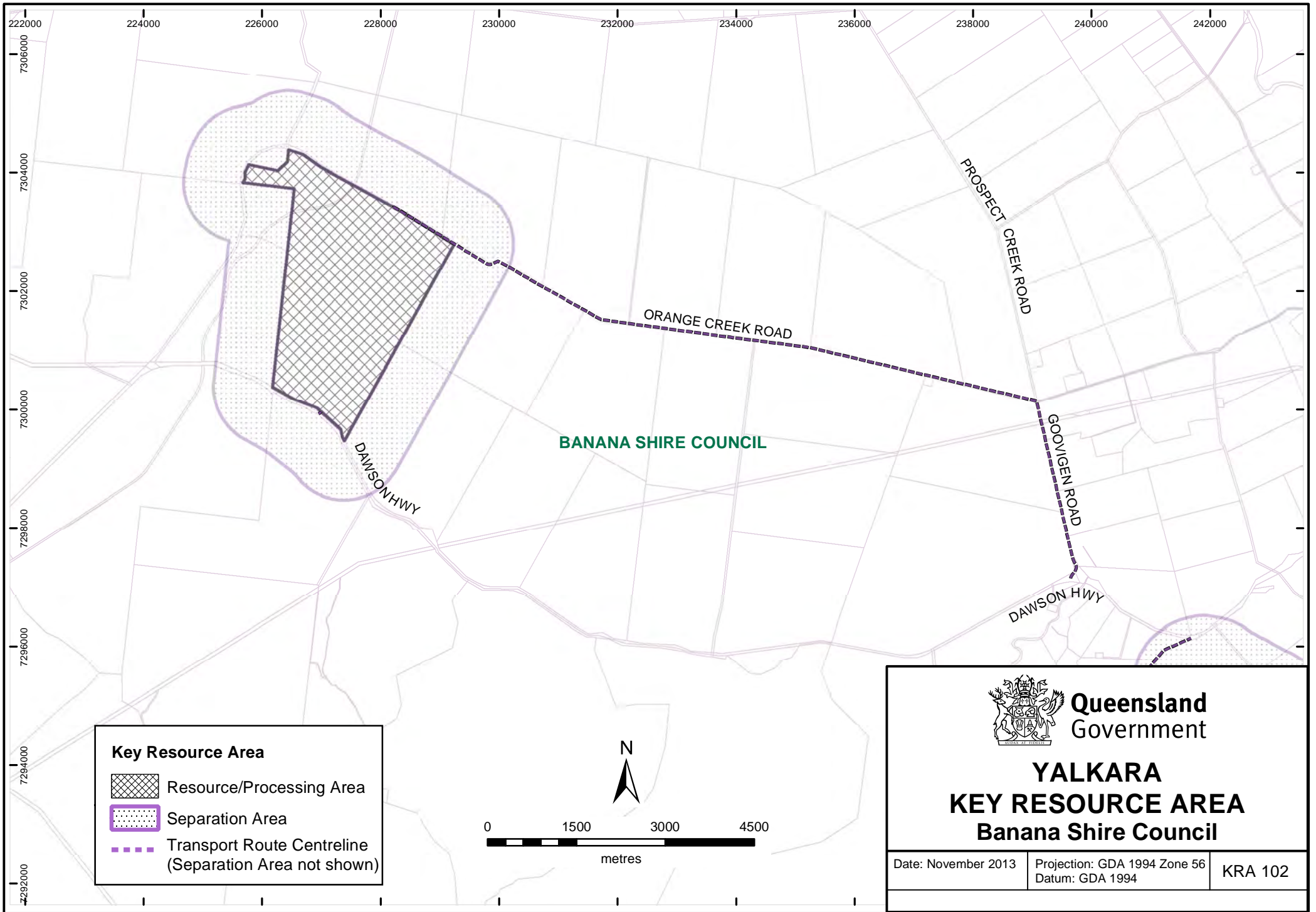
A separation distance of 1000 m is applied from the resource/processing area boundary as blasting may be required to access the hard rock resource.

### **TRANSPORT ROUTE:**




Material is transported directly onto Orange Creek Rd and eastward to Goovigen Road then onto Dawson Highway. A second route transports material directly to the Dawson Highway at the southern end of the resource.

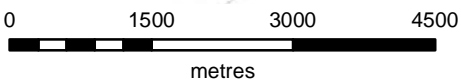
### **SPECIAL CONSIDERATIONS:**

A small portion of the resource/processing and separation area to the north is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**YALKARA  
KEY RESOURCE AREA  
Banana Shire Council**

Date: November 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 102
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## **FAIRVIEW KEY RESOURCE AREA - KRA 103**

**LOCAL GOVERNMENT AREA:** Banana Shire Council

**LOCATION:**

The Fairview quarry is located approximately 25 km north of the township of Banana (see KRA Map 103).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of andesite that is variably altered and weathered. There is an existing quarry operation at the site and a very large volume of rock is available within the current permit area and at the current bench level. The underlying rock is reportedly less weathered and better quality.

**SIGNIFICANCE**

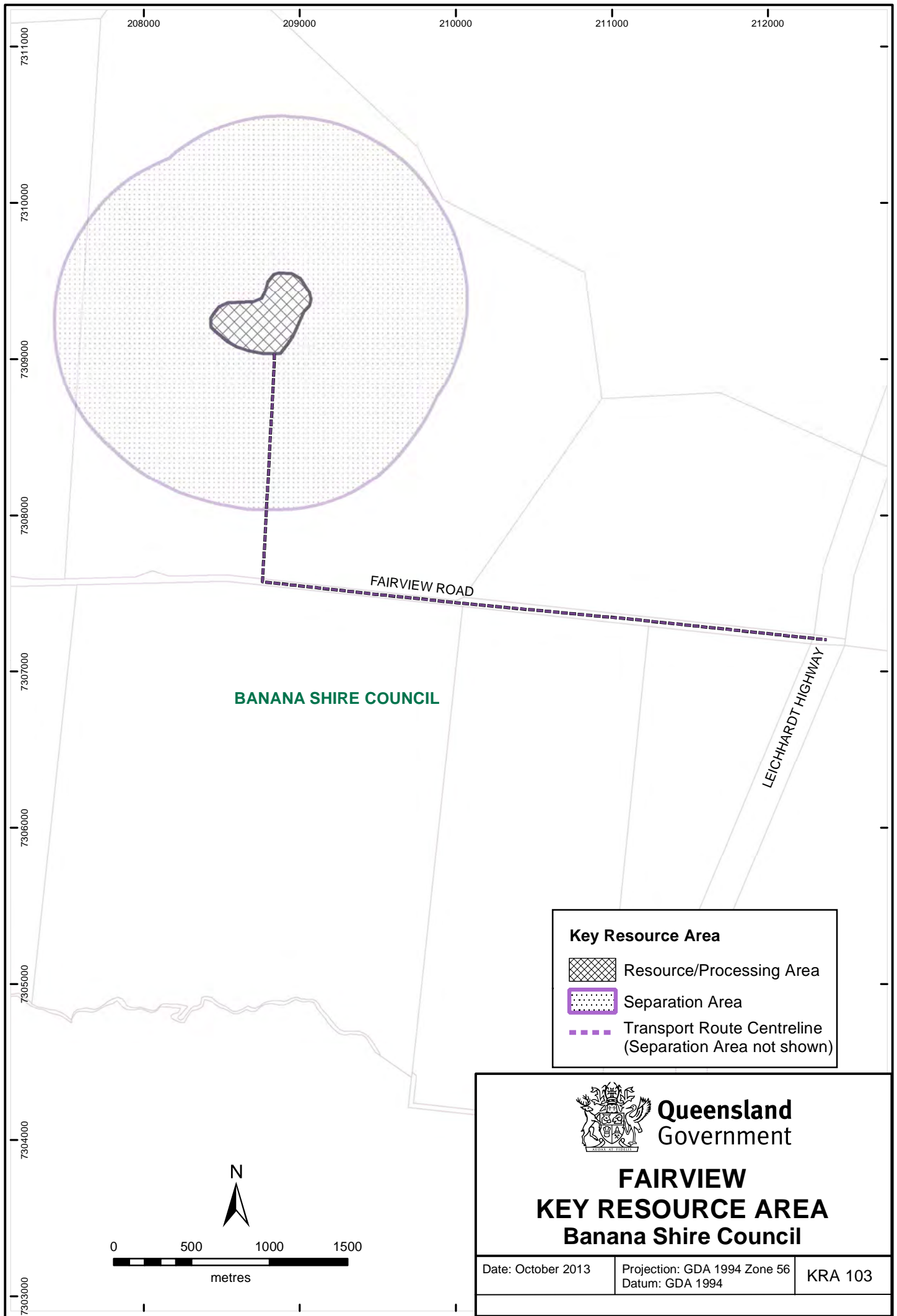
Sufficient resources remain for several decades of supply at the current rates of production.

**SEPARATION AREA**

Blasting is likely to be required throughout the resource therefore a separation distance of 1000 m from the resource/processing area boundary is applied.

**TRANSPORT ROUTE**

Material is transported along a 1.5 km gravel quarry access road and connects to Fairview Road which joins to the Leichhardt Highway, 4.3 km to the east. .






**BANANA SHIRE COUNCIL**

FAIRVIEW ROAD

LEICHHARDT HIGHWAY

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



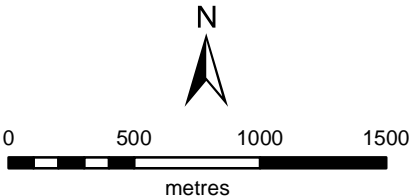
**Queensland  
Government**

**FAIRVIEW  
KEY RESOURCE AREA  
Banana Shire Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 103



## **KIANGA KEY RESOURCE AREA - KRA 104**

**LOCAL GOVERNMENT AREA:** Banana Shire Council

**LOCATION:**

The Kianga quarry is located approximately 18 km south of Banana adjacent to the Leichhardt Highway (see KRA Map 104).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of basalt overlying older siltstone and shale units. The basalt outcrop is approximately 1500 metres long and 350 metres wide. The outcrop has been quarried over an area of approximately 300 metres long and 100 metres wide.

**SIGNIFICANCE:**

The resource is estimated to be sufficient to supply the regional demand for over thirty years. It is conveniently located, immediately adjacent to the route of the proposed Surat Basin Railway corridor and relatively close to major mining projects in the region.

**SEPARATION AREA:**

A separation distance of 1000 m is applied around the resource/processing area boundary as blasting may be required to access the resource.

**TRANSPORT ROUTE:**

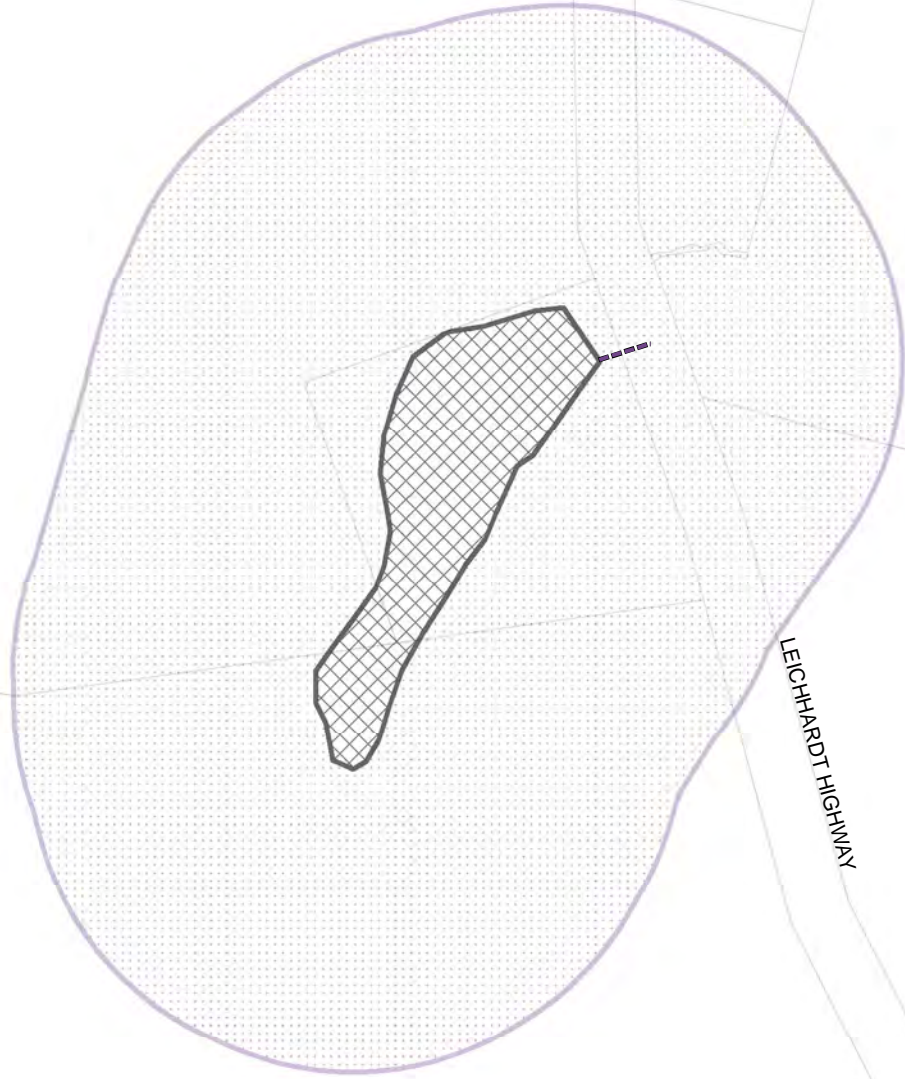
Material is transported onto the Leichhardt Highway over private property on the same lot as the quarry.

**SPECIAL CONSIDERATIONS:**




A small portion of the separation on the southern side is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**BANANA SHIRE COUNCIL**



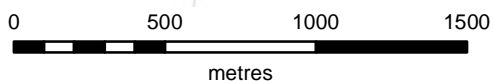
**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**KIANGA  
KEY RESOURCE AREA  
Banana Shire Council**



Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 104

## **PROSPECT CREEK KEY RESOURCE AREA - KRA 105**

**LOCAL GOVERNMENT AREA:** Banana Shire Council

### **LOCATION:**

The resource is about 5 km west of Biloela along the Camboon-Crowsdale Road (See Map KRA 105). Extensive basalt deposits exist further south and west, however the current resource area is centred on an approved extractive industry defined by percussion drill intersections.

**EXTRACTIVE RESOURCE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of extensive massive basalt flows overlying sedimentary layers. A significant thickness of basalt is present in the drilled area, underlain by sandstone and clay suitable for blended products such as road base. The area underlain by basalt forms an elevated plateau trending north-south east of the Camboon-Crowsdale Road and is several times more extensive than the drilled area.

The rock is hard and durable and capable of producing a wide range of construction materials.

### **SIGNIFICANCE:**

There are several hard rock resources throughout the Callide and Dawson Valleys. Basalt resources are relatively rare and the resource may be capable of producing specific products close to the Biloela urban market, Callide coal mine and other markets in the Callide Valley.

The available resource is estimated to be sufficient for over 30 years at the current rate of production for the region, with extensive basalt deposits in the immediate vicinity.

### **SEPARATION AREA:**

The resource/processing area is defined by the outer edge of the level upper surface of the plateau. As the surrounding land is lower and relatively flat and blasting may be required to access the resource a maximum separation distance of 1000 m is adopted.

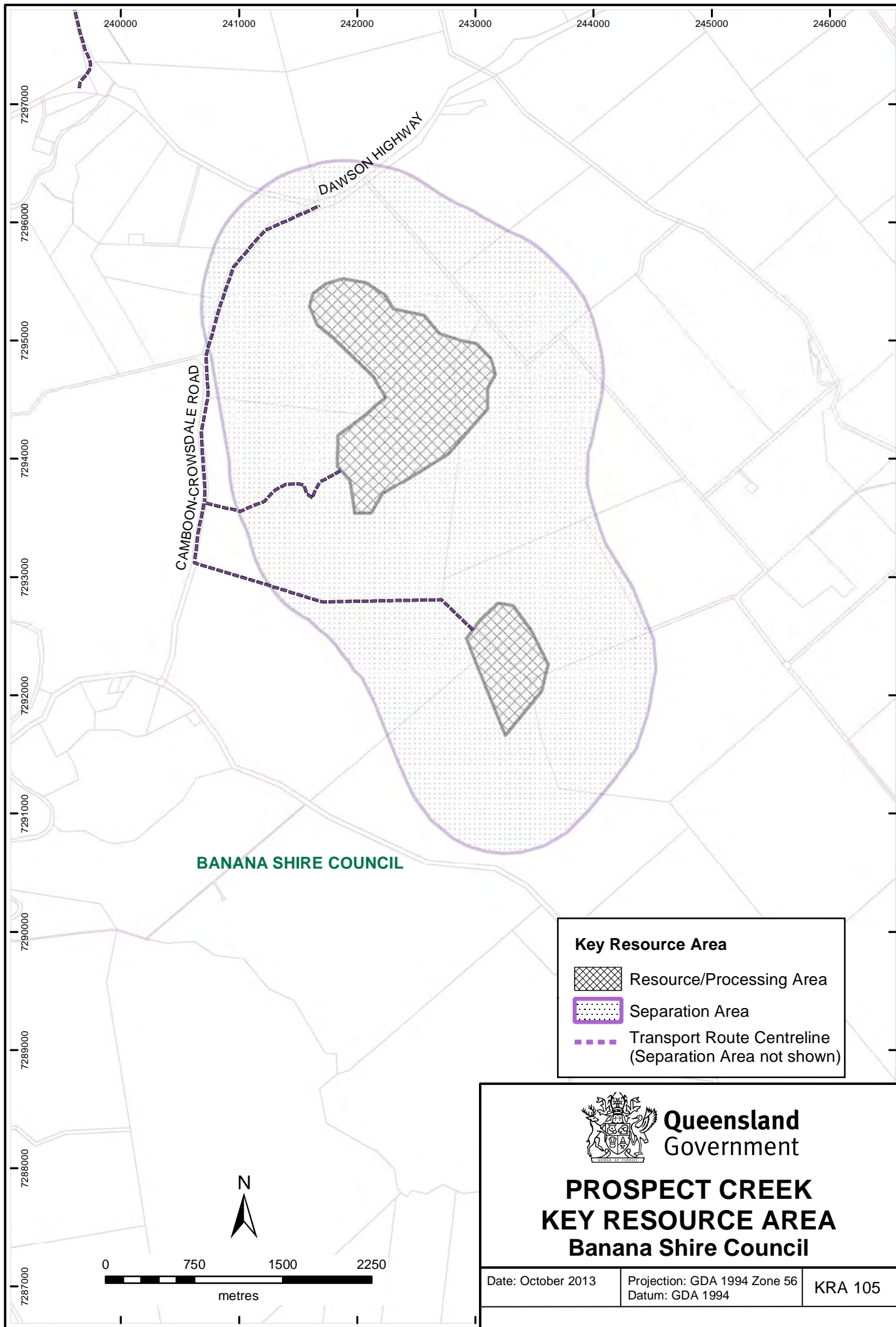
### **TRANSPORT ROUTE:**

Transport from the quarry site has used unsealed metalled tracks across private property to reach the Camboon-Crowsdale Road, thence northwards to the Dawson Highway intersection.

### **SPECIAL CONSIDERATIONS:**




The resource area has been drawn to indicate areas where the available geological information indicates a resource. More drilling is required to confirm resources on adjoining land.

The KRA is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



BANANA SHIRE COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**PROSPECT CREEK  
KEY RESOURCE AREA  
Banana Shire Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 105

## **TOMATO ISLAND KEY RESOURCE AREA - KRA 106**

**LOCAL GOVERNMENT AREA:** Bundaberg Regional Council

**LOCATION:**

The resource is located about 3 kilometres west of Bundaberg. It extends parallel to the right bank of the Burnett River downstream of the Ben Anderson barrage between McCoys Creek and the river (see map KRA 106).

**EXTRACTIVE RESOURCE:** Sand

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is part of an elongate in-stream island along the eastern side of the Burnett River downstream of the Ben Anderson Barrage. The sand averages 10 metres thick and overlies Pleistocene sediments or older weathered rocks,

A large extractive operation has utilised parts of this resource for over twenty years.

**SIGNIFICANCE:**

The resource is estimated to be sufficient to supply the regional demand for over fifteen years. It is also the most conveniently located large sand resource relative to the Bundaberg and North Burnett Regional Council markets.

**SEPARATION AREA:**

A separation distance of 200 metres is designated around the resource. Much of this covers waterways or riparian zones.

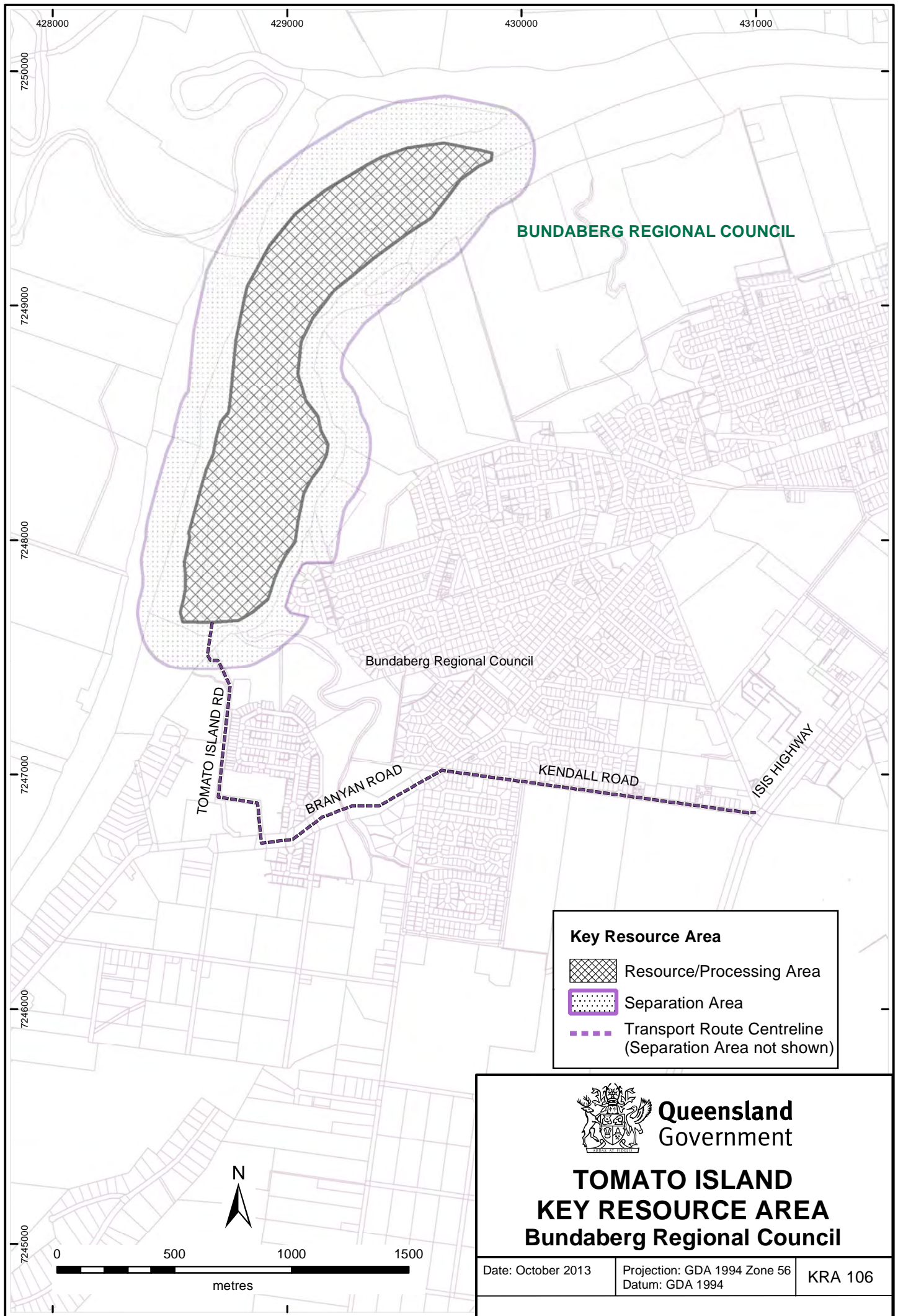
A lesser separation distance is adopted at the south eastern part of the KRA where residential lots occur adjacent to the edge of the existing operation.

**TRANSPORT ROUTE:**




Materials are transported via Tomato Island Road onto Branyan Road then Kendall Road to reach Isis Highway-Takalvan St.


**SPECIAL CONSIDERATIONS:**

Some parts of the separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)


**Queensland Government**

**TOMATO ISLAND  
KEY RESOURCE AREA  
Bundaberg Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 106
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## **BEDFORD WEIR KEY RESOURCE AREA - KRA 107**

**LOCAL GOVERNMENT AREA:** Central Highlands and Isaac Regional Councils

**LOCATION:** The resource is approximately 23 kilometres north of Blackwater (See Map KRA 107).

**EXTRACTIVE RESOURCE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION**

The resource consists of two separate deposits of basalt. A large existing quarry produces crushed rock from basalt between the Cooroorah Road and the southern bank of the Mackenzie River about a kilometre south of the Bedford Weir. The thickness of the overburden is variable. Considerable resources remain and basalt appears to extend into the adjacent property to the southwest with the easement for the pipeline to Blackwater forming a practicable southwestern boundary.

The Central Highlands Regional Council has two reserves about a kilometre east of the operating quarry. There are some shallow historical quarry workings however if significant thicknesses of basalt occur the reserves may constitute a sizeable resource for future demands.

### **SIGNIFICANCE:**

The resource is capable of supplying the Blackwater regional market with a range of products including concrete aggregate and road base. Substantial resources remain, sufficient for more than 25 years. As such the deposit meets the criteria for State significance of production level, deposit volume, and regional supply.

### **SEPARATION AREA:**

The quarry has been established in an area that has only low relief; close to the Mackenzie River. Future expansion in the property would not be screened from surrounding land, therefore the full 1000 metres is adopted except in the direction of the recreation reserve near Bedford Weir.

The resource in the Council reserve is also on land of low relief, so the full 1000 metres separation has been applied.

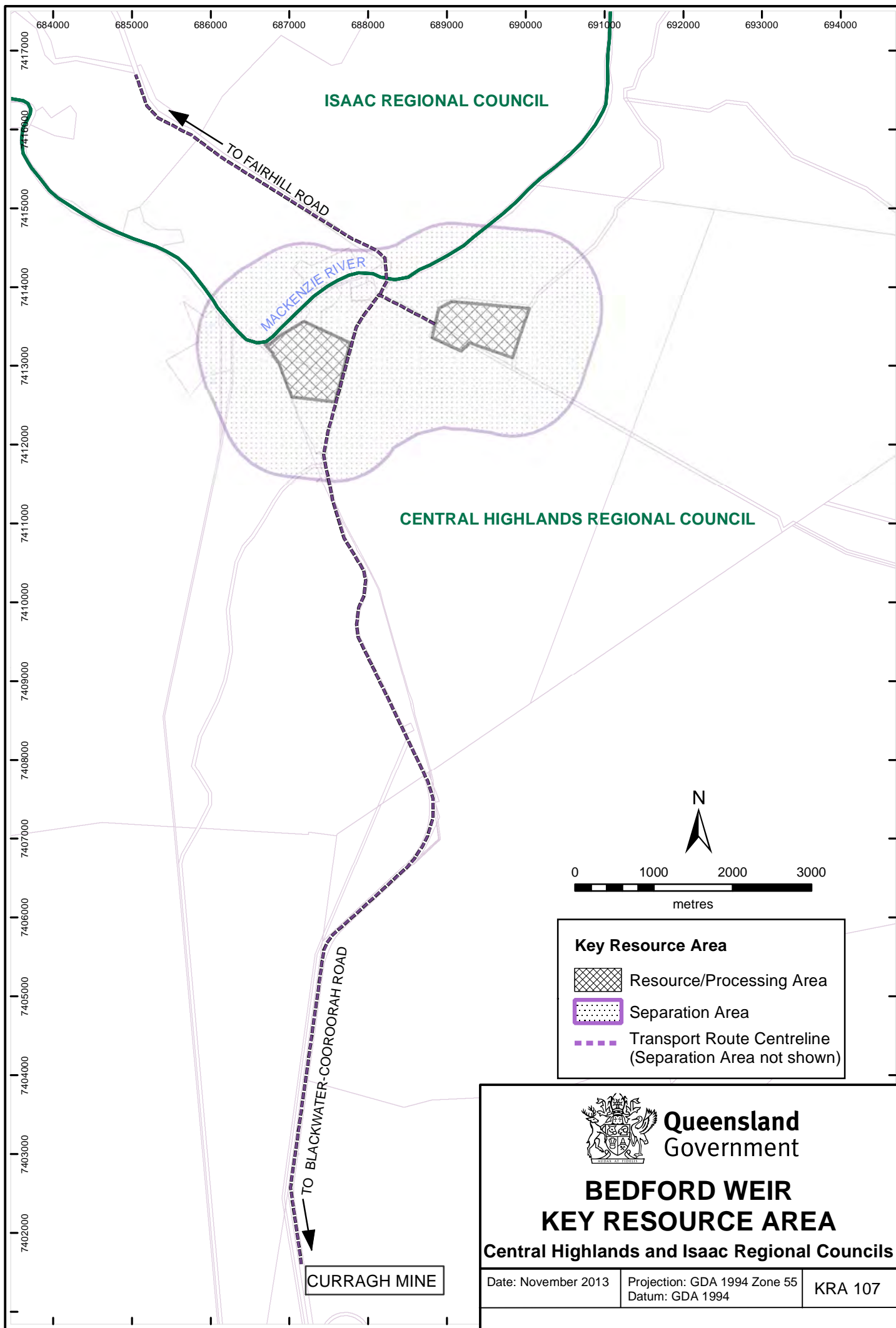
### **TRANSPORT ROUTE:**

The transport route extends southwards to the Curragh mine entrance where it joins the State-controlled section of the Blackwater- Cooroorah Road which runs north from the Capricorn Highway to the entrance of Curragh Mine.




Transport northwards takes place on local roads for considerable distances. The closest State –controlled roads are the German Creek Road and the Dingo Development Road, so a transport route is designated only to the first connecting road, the Mackenzie River to Capella Road.


### **SPECIAL CONSIDERATIONS:**

Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland Government**

**BEDFORD WEIR  
KEY RESOURCE AREA**

**Central Highlands and Isaac Regional Councils**

Date: November 2013	Projection: GDA 1994 Zone 55 Datum: GDA 1994	KRA 107
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**CURRAGH MINE**



## **SHEPTON KEY RESOURCE AREA - KRA 108**

**LOCAL GOVERNMENT AREA:** Central Highlands Regional Council

**LOCATION:** The Shepton Key Resource Area is located 17 kilometres southeast of Capella and 40 km north of Emerald in Central Queensland (see map KRA108).

**EXTRACTIVE RESOURCE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of basalt up to 30 metres thick. This is evident at an existing extractive operation at Shepton quarry. Resource drilling has outlined a significant thickness of massive basalt and testing of the material indicates suitability for high quality ballast, road base, screenings and production of high quality concrete aggregate.

### **SIGNIFICANCE:**

Sufficient resources remain for several decades of supply at the current rates of production. The KRA meets the resource size, production rate criteria for State significance.

### **SEPARATION AREA:**

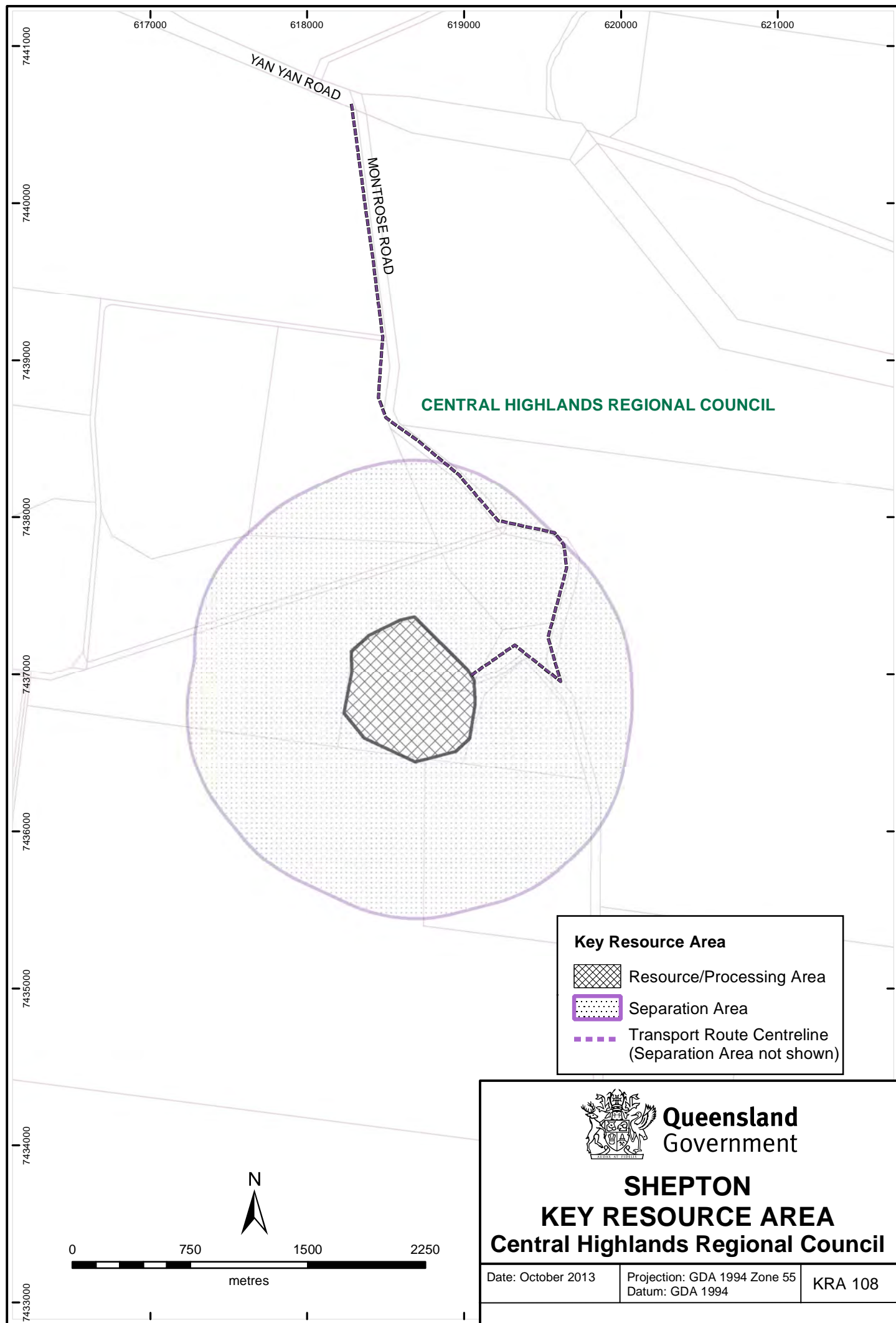
A one kilometre buffer zone around the current resource and processing area boundary has been adopted as the surrounding country is low and level and is zoned Rural.

### **TRANSPORT ROUTE**

A short gravel quarry access road connects to Montrose Road that joins the Yan Yan Road which leads to the Gregory Highway 17 kilometres to the northeast. Yan Yan Road also leads eastwards to major coal mines and other townships.




### **SPECIAL CONSIDERATIONS:**

Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



CENTRAL HIGHLANDS REGIONAL COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**SHEPTON  
KEY RESOURCE AREA  
Central Highlands Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 55  
Datum: GDA 1994

KRA 108

## **SPRINGSURE KEY RESOURCE AREA – KRA 109**

**LOCAL GOVERNMENT AREA:** Central Highlands Regional Council

**LOCATION:** The resource is located 8 kilometres east of Springsure (See map KRA 109).

**EXTRACTIVE RESOURCE:** Quarry rock

### **EXTRACTIVE RESOURCE DESCRIPTION:**

The resource contains up to 100 million tonnes of variably weathered basalt with a large core of unweathered basalt suitable for the production of high quality engineering products including concrete and asphalt. There is an existing extractive industry operation at the site. .

### **SIGNIFICANCE:**

The size of the resource is sufficient to supply material to nearby mining and infrastructure projects in the area. The resource is also considered significant given the quality of the material, proximity to market and size of the resource.

### **SEPARATION AREA:**

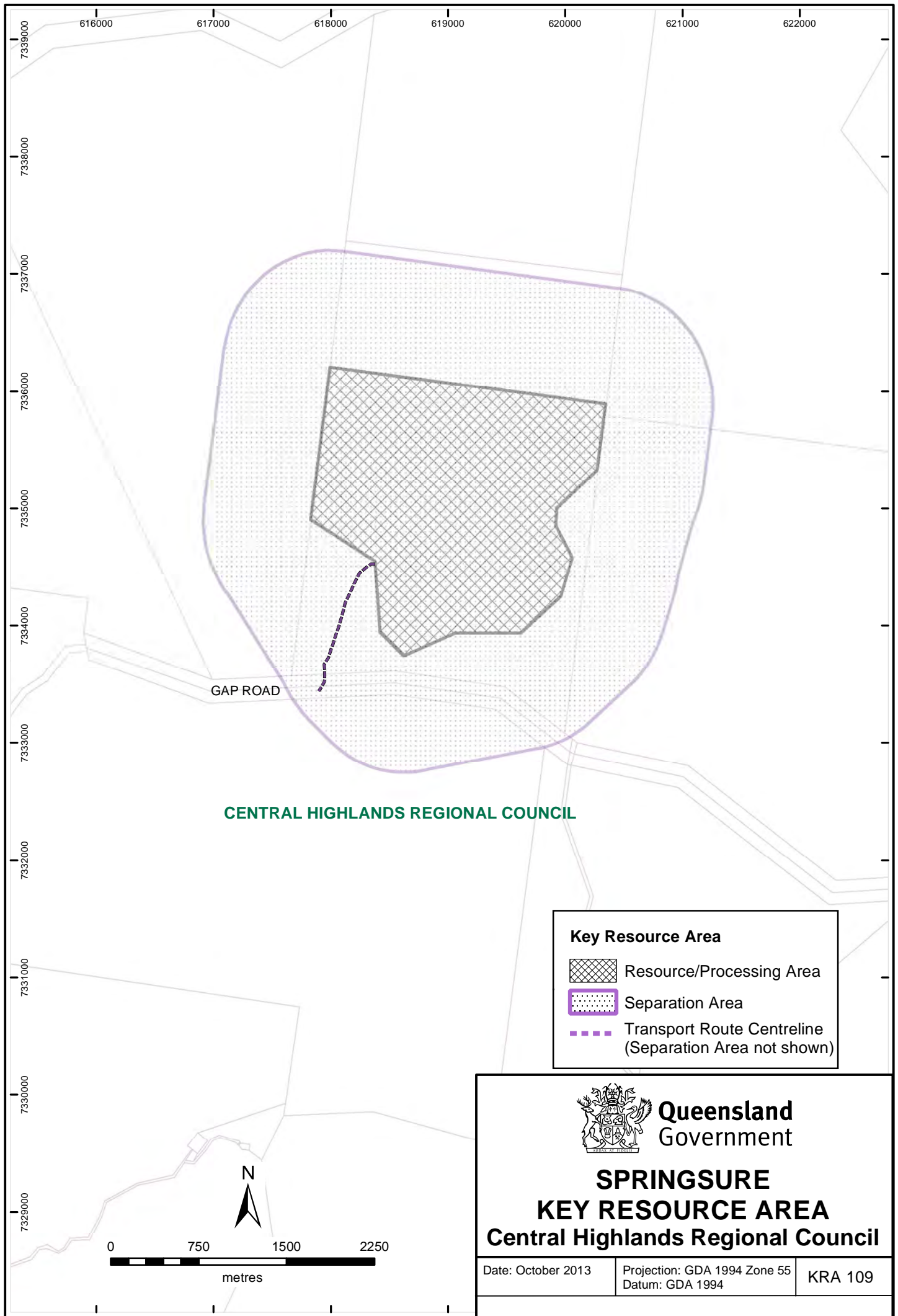
A separation distance of 1000 metres is adopted as blasting is likely to be required for most parts of the resource.

### **TRANSPORT ROUTE:**

The most direct transport route is via an unsealed road south to Gap Road then west to Springsure.




### **SPECIAL CONSIDERATIONS:**

A small portion of the separation area to the north is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



CENTRAL HIGHLANDS REGIONAL COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**SPRINGSURE  
KEY RESOURCE AREA  
Central Highlands Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 55 Datum: GDA 1994	KRA 109
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## **TOLMIES CREEK KEY RESOURCE AREA - KRA 110**

**LOCAL GOVERNMENT AREA:** Central Highlands Regional Council

**LOCATION:** The resource area is approximately 15 kilometres south west of Blackwater (see map KRA 110).

**EXTRACTIVE RESOURCE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION**

The resource consists of an elongated east-west trending ridge of basalt. A large quarry producing crushed rock is located in the middle of this ridge. Overburden is variable, but is relatively shallow. Considerable resources remain as the basalt appears to extend into the adjacent property to the north and into another ridge to the east of the existing quarry.

### **SIGNIFICANCE**

The resource is large with an existing quarry operating at the site. The Tolmie Creek quarry is one of two major quarries supplying the Blackwater regional market and accounts for a significant portion of the concrete aggregate and road base for this market. It is conveniently located to areas of demand and transport routes, and substantial resources remain, sufficient for more than 25 years. As such the deposit meets the criteria for a Key Resource Area.

### **SEPARATION AREA**

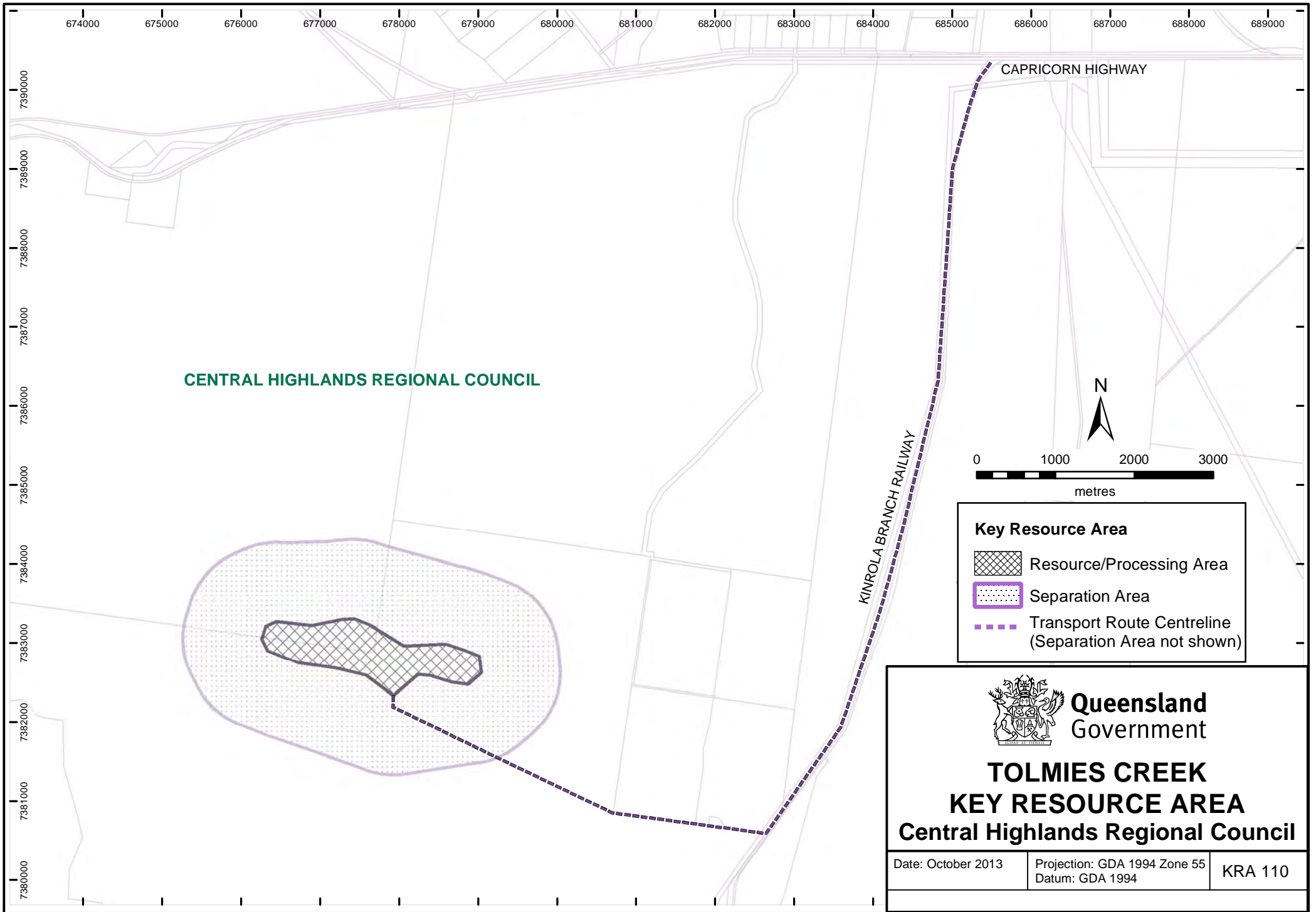
The quarry has been established in a saddle between the two low basalt ridges. It will be progressively extended into the ridges. The surrounding land has only low relief. Future expansion in the property would not be screened from the surrounding land and blasting may be required to access the resource. Therefore the full 1000 metres separation distance from the resource/processing area boundary has been applied.

### **TRANSPORT ROUTE:**

The transport route passes eastwards along a formed road across the land lease to a sealed service road for the South Blackwater mine. The latter road runs parallel to the Kinrola coal railway branch through land leased to a consortium of coal mining companies to reach the Capricorn Highway, 6 kilometres west of Blackwater.

### **SPECIAL CONSIDERATIONS:**

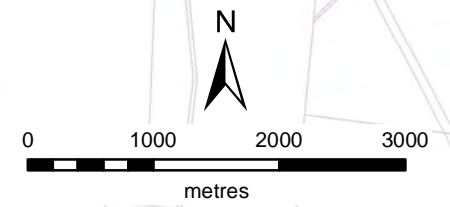
A small portion of separation area to the north is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.






**CENTRAL HIGHLANDS REGIONAL COUNCIL**


CAPRICORN HIGHWAY

KINROLA BRANCH RAILWAY



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**TOLMIES CREEK  
KEY RESOURCE AREA  
Central Highlands Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 55 Datum: GDA 1994	KRA 110
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## **CASTLEREAGH KEY RESOURCE AREA - KRA 111**

**LOCAL GOVERNMENT AREA:** Cloncurry Shire Council

**LOCATION:** The resource is located on a northerly trending ridge approximately 5 kilometres north east of Cloncurry (See Map KRA 111).

**EXTRACTIVE RESOURCE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION**

The resource is hosted by the Corella Formation and consists of calcareous and metamorphosed sedimentary rock units. The current extraction operation is sited on the lowest western slopes of a hornfels ridge in a leasehold lot. The northerly trending ridge extends for about 2 kilometres and may contain extensive resources. Part of the resource area is also underlain by a granitic intrusion.

### **SIGNIFICANCE**

The resource is well placed to supply the development of the Cloncurry region for a minimum of 50 years. Whilst there are several rock deposits throughout the Cloncurry region, few others are as convenient to the main markets in Cloncurry and to major transport routes.

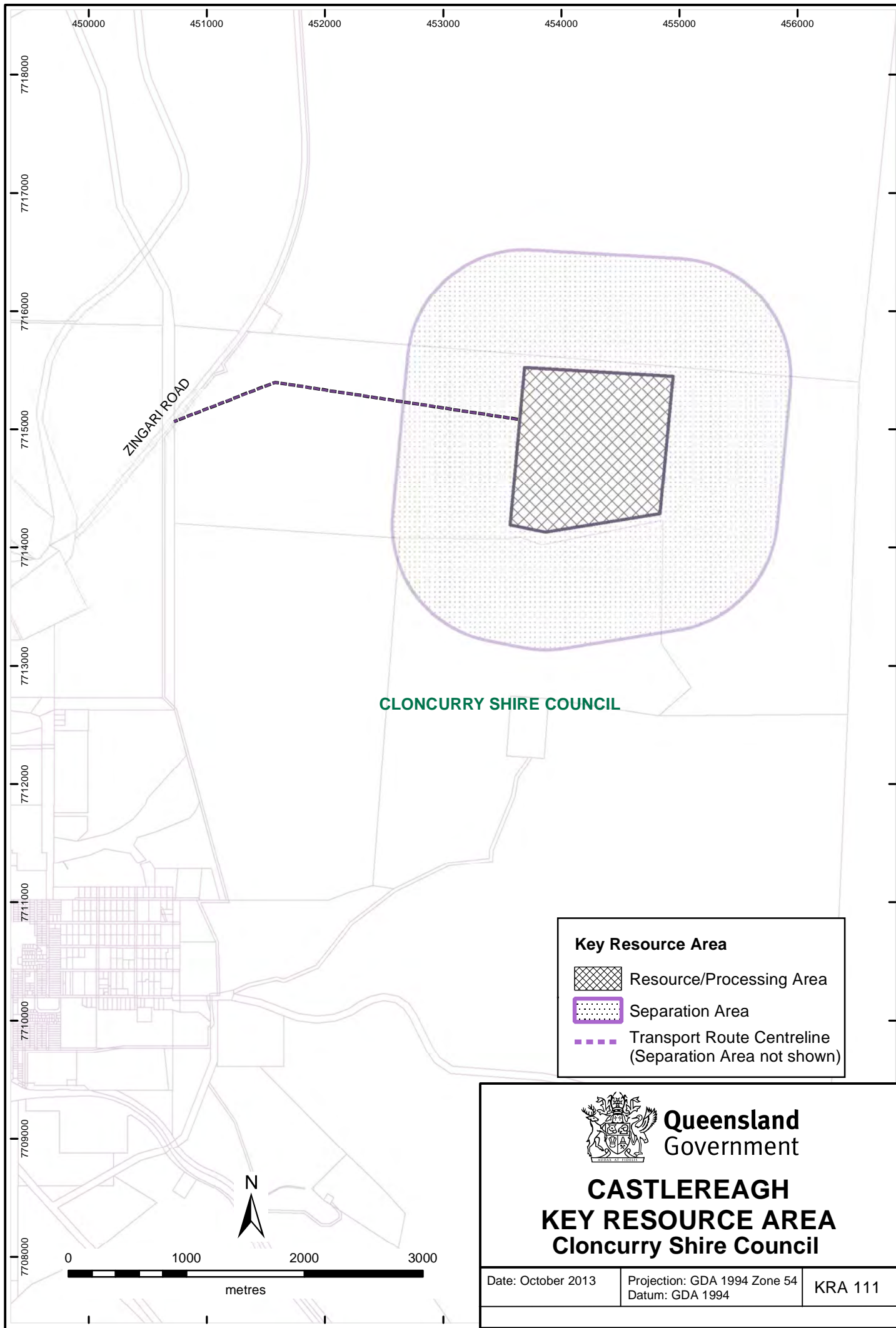
### **SEPARATION AREA:**

The resource/processing area covers an area believed to be underlain by hornfelsed equivalents of the Corella Formation. The resource limit is controlled by the extent of the hornfels believed to be indicated by the outline of a ridge around the present quarry.

The boundary of the separation area is set at 1000 metres around the resource, as the surrounding country is lower and blasting may be required. This approach protects the full extent of the ridge for future needs.




### **TRANSPORT ROUTE**

The transport route heads immediately west along an unsealed road across the leasehold land to join Zingari Road, north of Cloncurry.



CLONCURRY SHIRE COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**CASTLEREAGH  
KEY RESOURCE AREA  
Cloncurry Shire Council**

Date: October 2013	Projection: GDA 1994 Zone 54 Datum: GDA 1994	KRA 111
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## **ARCHER RIVER KEY RESOURCE AREA - KRA 112**

**LOCAL GOVERNMENT AREA:** Cook Shire Council

**LOCATION:**

The Archer River quarry is located approximately 65 kilometres northeast of Coen and 150 kilometres southeast of Weipa in Cape York Peninsula (see Map KRA 112).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION**

Adamellite is quarried under a sales permit granted under the *Forestry Act 1959*. The current quarry site is located in the southeastern periphery of the intrusive. Extensive outcrop of similar rock occurs in the adjacent lot, and would provide a large resource for the future if it became available.

**SIGNIFICANCE:**

Sufficient resources remain for several decades of supply at the current rates of production. Other hard rock occurrences in the vicinity are not considered suitable for production of high quality aggregate. The closest suitable hard rock is a further 350 kilometres to the south.

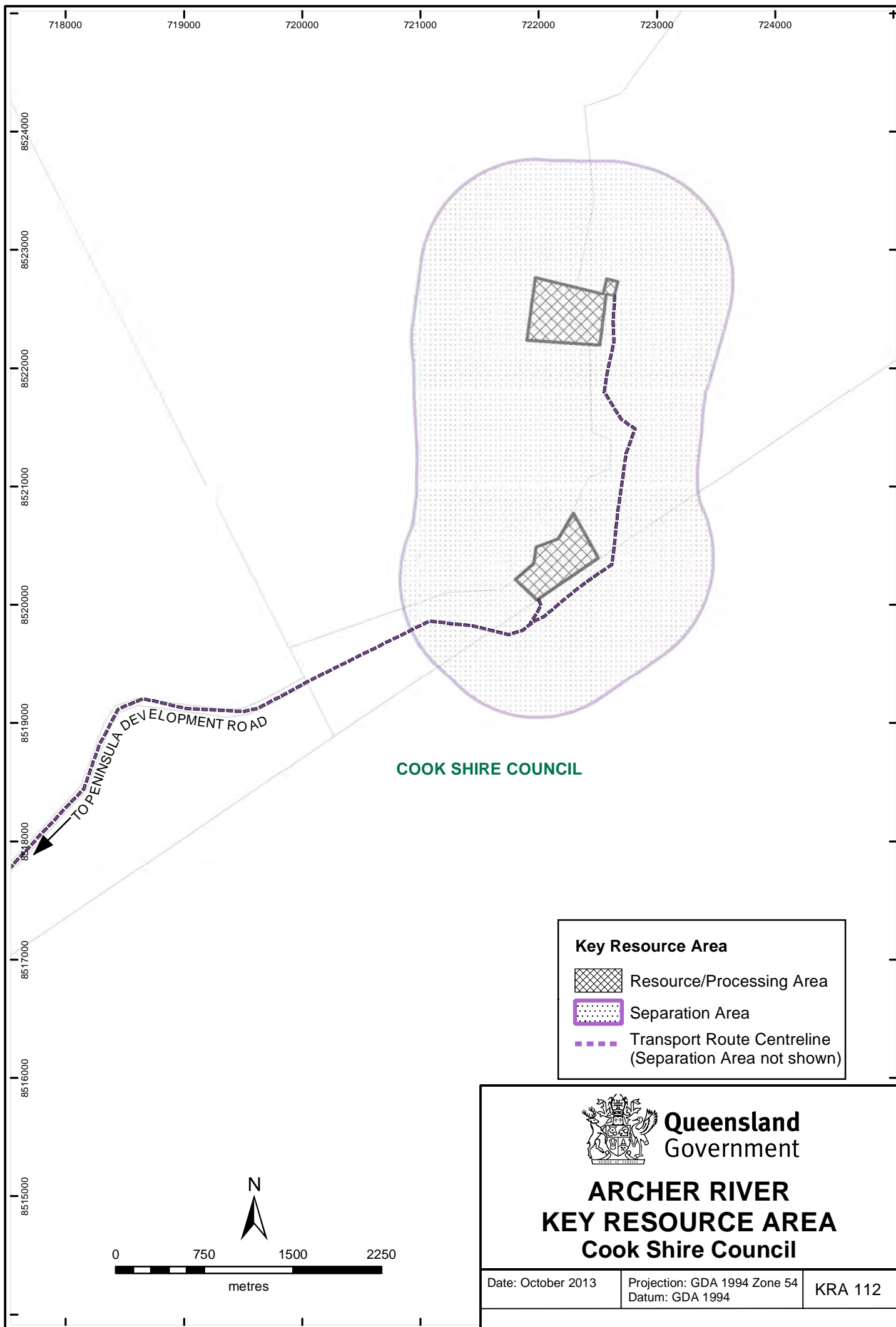
This resource meets the resource size, production rate, regional markets and scarcity criteria for state significance.

**SEPARATION AREA:**

The resource consists of two areas and blasting is likely to be required for both areas to access aggregate from the deeper parts of the resource. Therefore a separation distance of 1000 metres is adopted from the resource/processing area boundary.




**TRANSPORT ROUTE:**

A 13 kilometre gravel quarry access road connects to the Peninsula Development Road to the southwest.



COOK SHIRE COUNCIL

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**ARCHER RIVER  
KEY RESOURCE AREA  
Cook Shire Council**

Date: October 2013	Projection: GDA 1994 Zone 54 Datum: GDA 1994	KRA 112
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## **AUBURN KEY RESOURCE AREA - KRA 113**

**LOCAL GOVERNMENT AREA:** Western Downs Regional Council

**LOCATION:**

The resource is located at Knudsens Road adjacent to the Warranna State Forest 55 kilometres east of Wandoan and 75 kilometres north of Chinchilla in south eastern Queensland (see KRA Map 113).

**EXTRACTIVE RESOURCE TYPE:** Hard Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource comprises basalt, rhyolite and granite.

**SIGNIFICANCE:**

The site hosts a large, high quality basalt resource capable of supplying infrastructure projects and other construction demands in the region and is capable of producing the full range of quarry products including concrete and sealing aggregates. Part of the resource also includes some scarce rock type in this part of the Western Downs region. It therefore meets the criteria for a resource of State significance.

**SEPARATION AREA:**

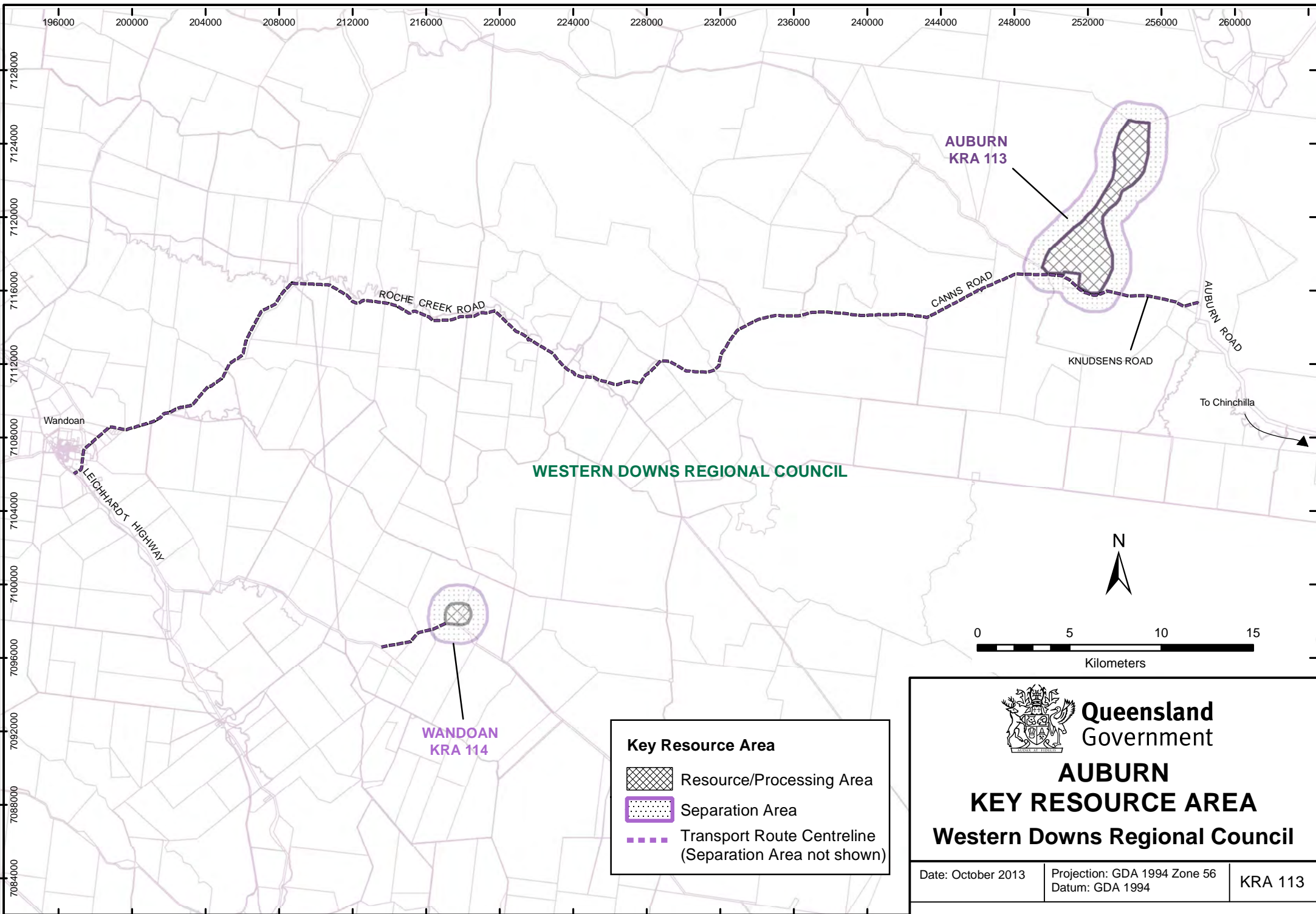
A separation distance of 1000 metres from the resource/processing area boundary is adopted as blasting may be required to access the hard rock resource. The surrounding country is zoned Rural and the Warranna State Forest is located adjacent to the western side of the resource.

**TRANSPORT ROUTE:**




Material would be transported along Auburn Road to the east via Knudsens Road and then southward to the Warrego Highway near Chinchilla. To reach the Leichhardt Highway to the west material would be transported along Canns Road then onto Roche Creek Road to Wandoan.


**SPECIAL CONSIDERATIONS:**

Most of the KRA is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland Government**

**AUBURN**

**KEY RESOURCE AREA**

**Western Downs Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 113
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## **WANDOAN KEY RESOURCE AREA - KRA 114**

**LOCAL GOVERNMENT AREA:** Western Downs Regional Council

**LOCATION:** The resource is located at 759 Old Chinchilla Road, near the township of Guluguba and approximately 20 km southeast of Wandoan and 50 km north of Miles (see KRA Map 114).

**EXTRACTIVE RESOURCE TYPE:** Quarry Rock

### **EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is part of a basalt plug. The depth of weathering of the basalt varies across the site with the thickness of overburden ranging from distinctly to slightly weathered up to 9 metres thick. Surrounding the plug are metasediments made up of sandstone, siltstone and mudstone which are suitable for general low grade specification material.

### **SIGNIFICANCE:**

The basalt resource is large and will supply material to the Western Downs Regional Council Area including major projects such as the proposed Wandoan Coal project for up to 40 years. The resource also has particular physical properties that are scarce in the region.

### **SEPARATION AREA:**

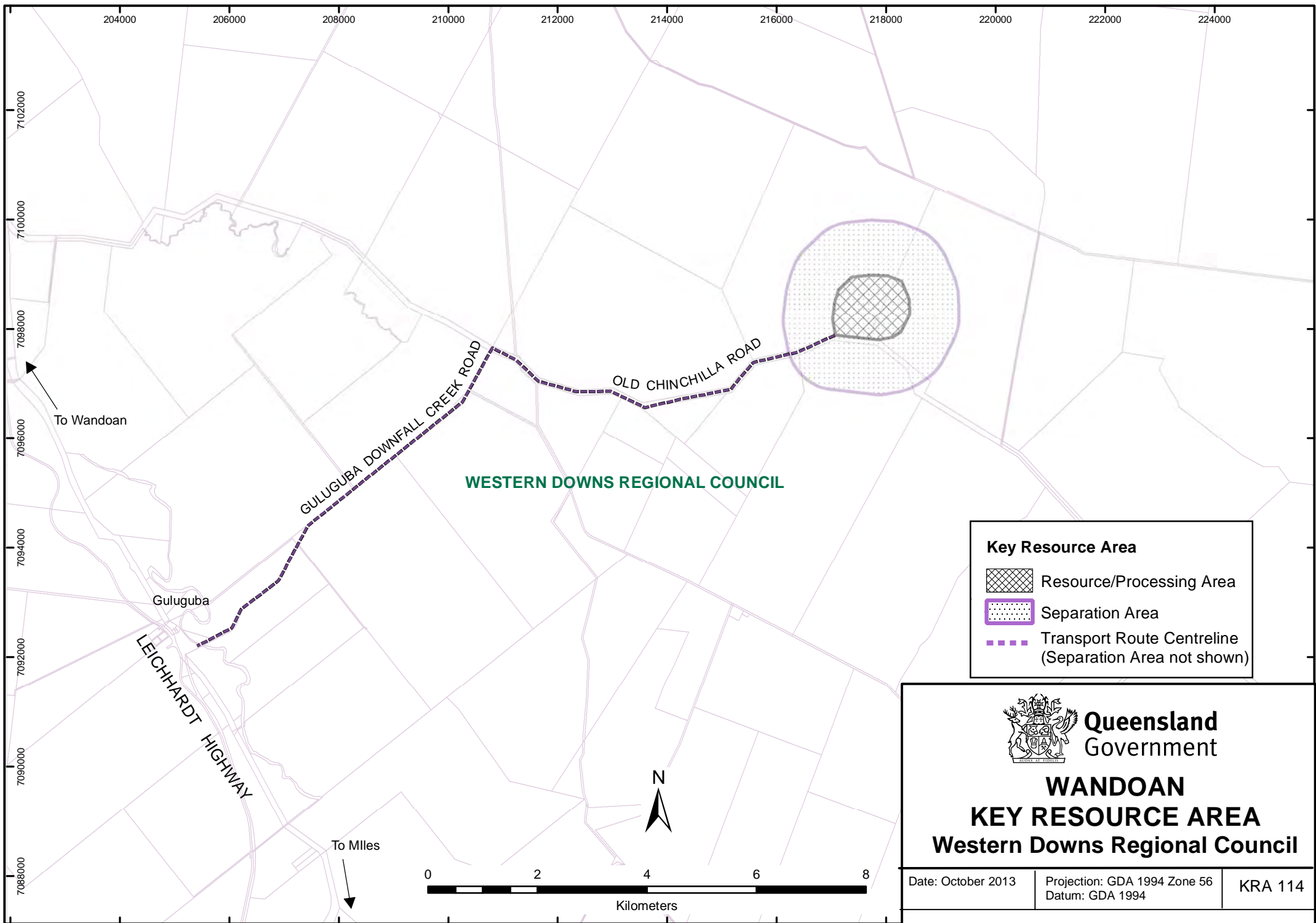
A maximum separation distance of 1000 metres has been applied around the resource/processing area boundary as blasting is considered necessary to access the resource and the surrounding Rural zoned areas are relatively flat lying..

### **TRANSPORT ROUTE:**

Material can be transported along Old Chinchilla Road and on to Guluguba Downfall Creek Road connecting to the Leichhardt Highway near Guluguba to the west.




### **SPECIAL CONSIDERATIONS:**


Most of the resource/processing and some parts of the separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



**WESTERN DOWNS REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



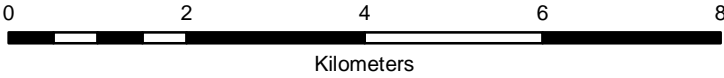
**Queensland  
Government**

**WANDOAN  
KEY RESOURCE AREA  
Western Downs Regional Council**

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 114
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To Wandoan

To Miles



## **MOUNT EATON KEY RESOURCE AREA – KRA 115**

**LOCAL GOVERNMENT AREA:** Fraser Coast and Gympie Regional Councils

**LOCATION:**

The resource is located about 25 kilometres north of Gympie between Neerdie Road and Anderleigh Road, east of Gunalda (see KRA Map 115).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource consists of a massive microgranodiorite intrusion situated within Neerdie State Forest. The intrusion forms an elevated dome higher than the surrounding country with a steep southern slope and a more dissected and gently sloping northern slope. Overburden is minimal with many exposures of slightly stained fresh rock in erosion gullies.

**SIGNIFICANCE:**

The deposit is a potential source of hard rock for the Gympie region, the southern Fraser Coast and northern parts of the Sunshine Coast region. At least 50 years production is possible. The size and quality of the resource allows it to meet the criteria for State significance.

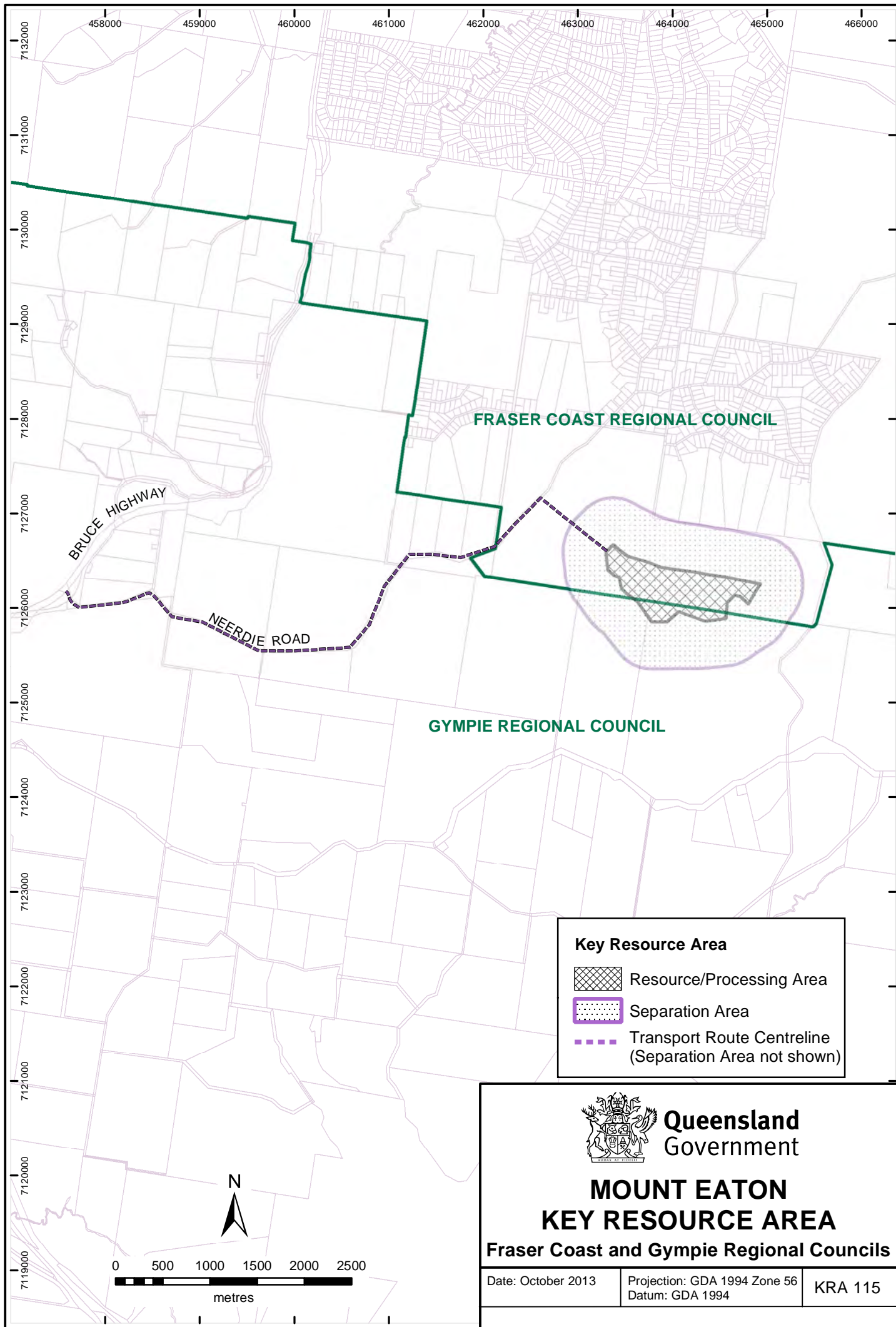
**SEPARATION AREA:**

The resource area is largely defined by outer limit of the rim of the hill so that quarrying would remain concealed and screened from the surrounding country and residential areas to the north. As the surrounding hill is mostly higher than the workings a distance of 500 metres has been adopted as the separation distance.




Rural residential lots to the north form the closest constraint on the Key Resource Area boundary as the remainder of the surrounding land is zoned Rural.

**TRANSPORT ROUTE:**

Access to the Bruce Highway would be gained via Neerdie Road, with an access point from the State Forest at the westernmost end of the resource.



**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**MOUNT EATON  
KEY RESOURCE AREA**  
Fraser Coast and Gympie Regional Councils

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 115



## **ANTIGUA AND MUNGAR KEY RESOURCE AREA - KRA 116**

**LOCAL GOVERNMENT AREA:** Fraser Coast Regional Council

**LOCATION:**

The resource is located approximately 25 kilometres south of Maryborough and approximately 10 kilometres from the Bruce Highway at Tiaro (see Map KRA 116).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

Quarry operations are presently confined to two small intrusions on freehold land. The diorite intrusion extends into Denison State Forest (SF 562) to the north which is scheduled to be quarried under a sales permit issued under the *Forestry Act 1959*. The resource/processing area covers the mapped dioritic intrusion. The resource limit is the contact with the surrounding sandstone unit of the Tiaro Coal Measures.

**SIGNIFICANCE:**

The resource is sufficient to meet demands for several decades and is ideally located to service the region's current and future needs.

The hard rock extractive operation is producing various classes of aggregate as demand requires, including asphalt, concrete, railway ballast and road base and has supplied several major projects in the region. The resource meets the criteria for State significance.

**SEPARATION AREA:**

The southern and western boundaries of the separation area are set at 1000 metres around the resource, as the surrounding country is lower. However a shorter distance may be feasible to the north of Yerra Road and east of the Mungar Road due to topography and thicker forest areas.

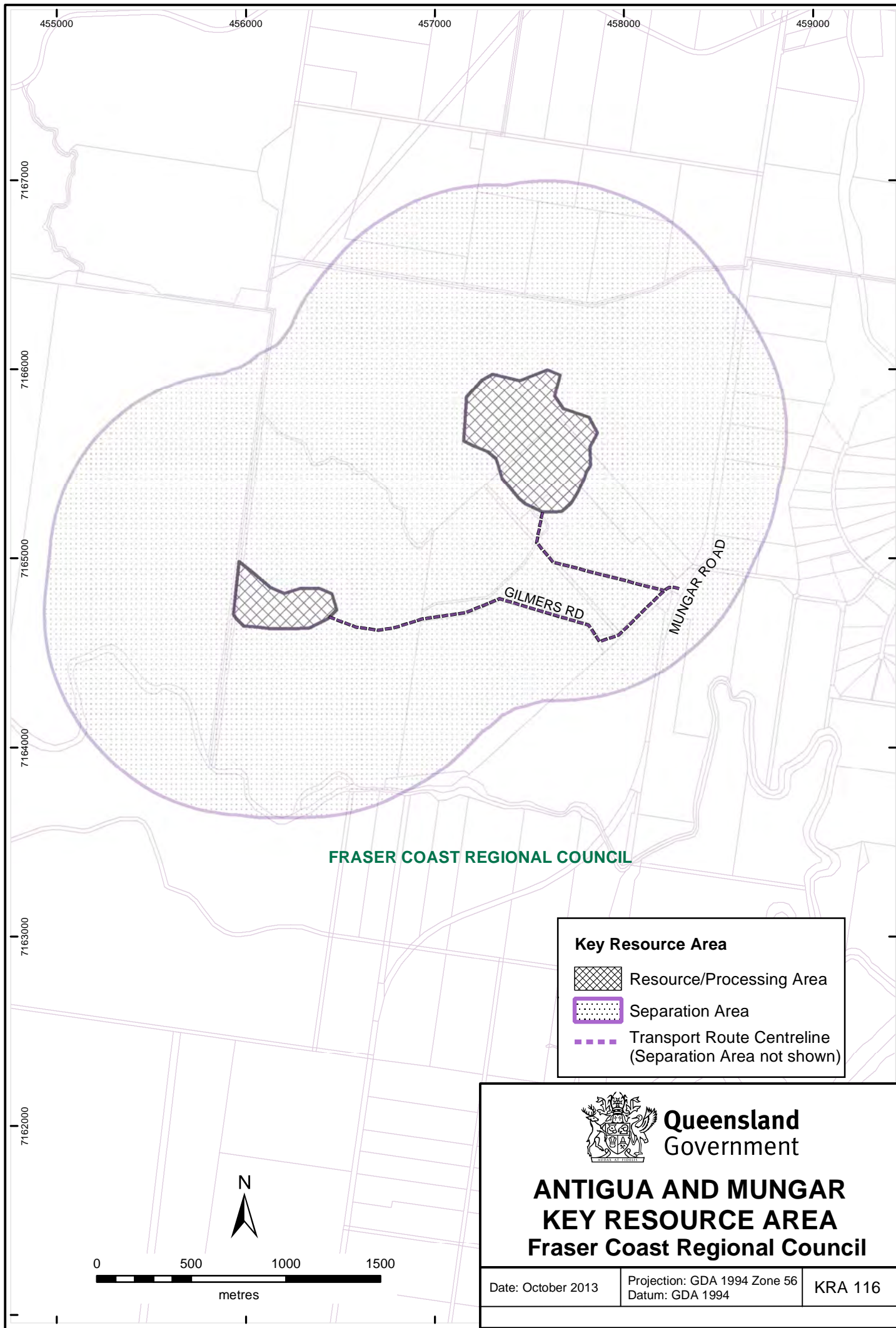
**TRANSPORT ROUTE:**

The only viable transport route is through freehold land owned and operated by Maryborough Quarry Pty Ltd direct to the Mungar Road, which leads north to Maryborough and south to Tiaro.

Yerra Railway siding is also located 5 kilometres to the north along the Mungar Road. Significant quantities of railway ballast have been trucked to this siding to service the North Coast main line and the Gayndah branch line.




**SPECIAL CONSIDERATIONS:**

Some parts of the resource/processing and separation area are covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



FRASER COAST REGIONAL COUNCIL

**Key Resource Area**

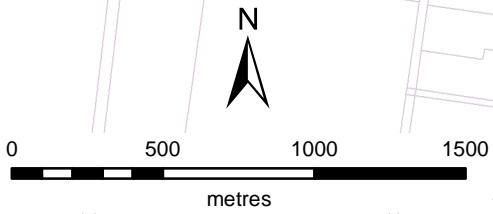
-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**ANTIGUA AND MUNGAR  
KEY RESOURCE AREA**  
Fraser Coast Regional Council

Date: October 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 116
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## **IVERAGH KEY RESOURCE AREA- KRA 117**

**LOCAL GOVERNMENT AREA:** Gladstone Regional Council

**LOCATION:**

The Iveragh sand resource is located approximately 16 km south east of Gladstone near the township of Tannum Sands (see Map KRA 117).

**RESOURCE TYPE:** Sand

**EXTRACTIVE RESOURCE**

A significant resource of fine sand in vegetated beach ridges occurs south of Tannum Sands. It is fine grained, well sorted and free from salt and other contaminants, where the sand is above the water table, and is suitable for industrial purposes such as chemical silica sand, foundry sand and fine concrete aggregate. The resource/processing area boundary is defined by the extent of an existing mining lease for silica sand (ML 3664).

For some decades a considerable amount of fine sand has been extracted from a thin residual layer in adjacent properties south to the Bruce Highway. A considerable depth of partly decomposed granite underlies the surface sand, and this is suitable for crushing and washing to produce concrete aggregate sand.

**SIGNIFICANCE**

The deposit is of considerable importance for industry of the Gladstone district, particularly cement manufacture. However it is also of significance for continued supply to the construction industry and large industrial projects.

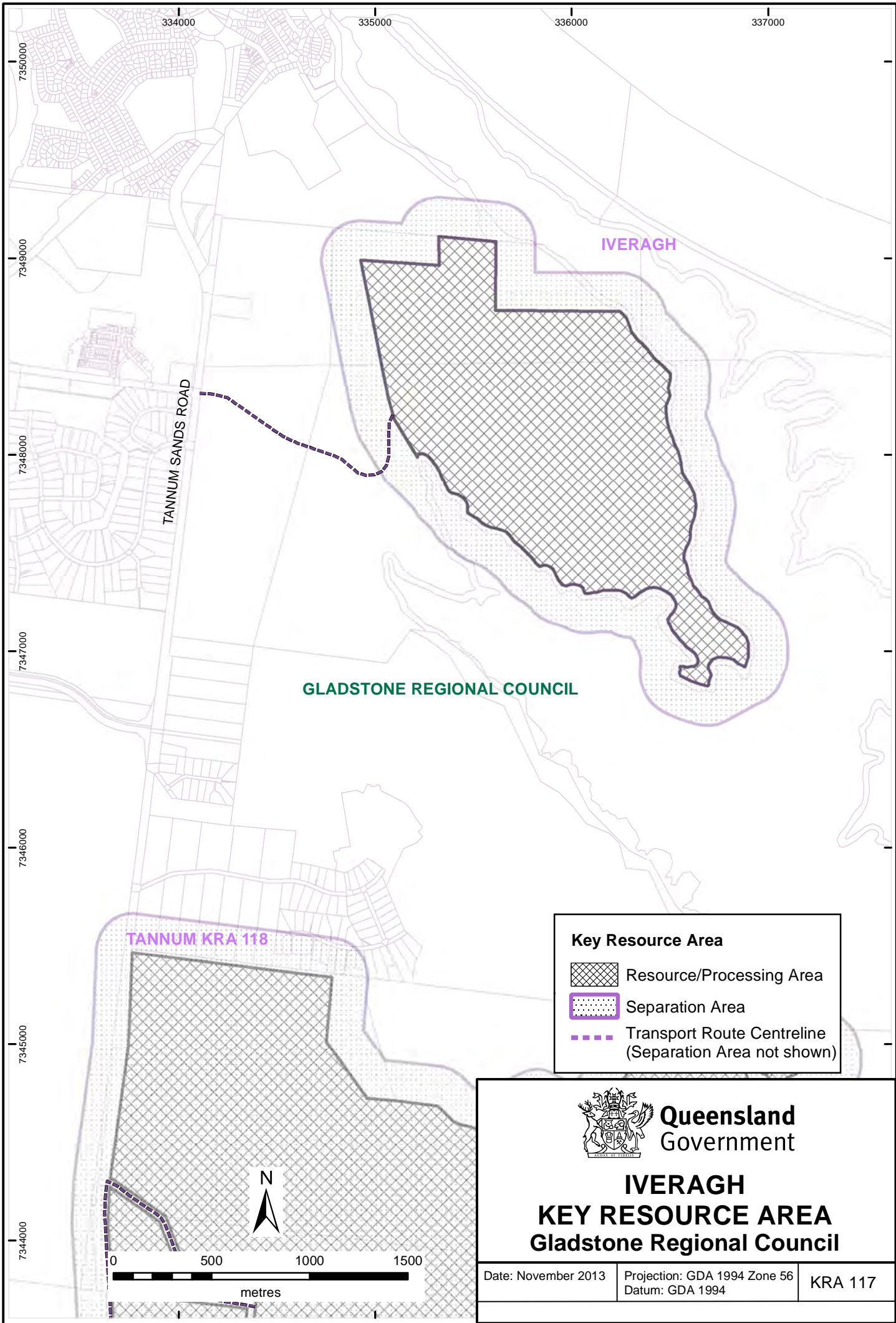
The deposit meets the deposit volume, production level and regional markets criteria for a KRA.

**SEPARATION AREA**

The boundary is recommended at 200 m from the extent of the mining lease boundary.

**TRANSPORT ROUTE**

The material is transported along an existing haul route for ML 3664 to the Tannum Sands Road and connecting to the Bruce Highway to the south.






IVERAGH

GLADSTONE REGIONAL COUNCIL

TANNUM KRA 118

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline (Separation Area not shown)



**Queensland  
Government**

**IVERAGH  
KEY RESOURCE AREA  
Gladstone Regional Council**

Date: November 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 117

## **TANNUM KEY RESOURCE AREA – KRA 118**

**LOCAL GOVERNMENT AREA:** Gladstone Regional Council

**LOCATION:** The resource is located approximately 17 km south east of Gladstone, Central Queensland (see map KRA 118) and two km south of Tannum Sands.

**EXTRACTIVE RESOURCE:** Sand and Gravel

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is made up of fine to coarse sands and gravel. The fine sand component occur mainly on the eastern half of the KRA. This sand is relatively clean, extremely fine and low in clays. The remainder of the site contains medium to coarse sands and gravel derived from extensive granodiorite outcrops in the area. The sand is predominantly feldspars with minor clays. An existing sand operation currently exists at the site.

**SIGNIFICANCE:**

The deposit is large and of considerable importance to the construction industry in the Gladstone district.

The site has been used as a source for sand in concrete for major engineering construction at the Gladstone smelter. In 2010, the site became a preferred source for sand products meeting highly specified sand for the LNG construction work at Curtis Island.

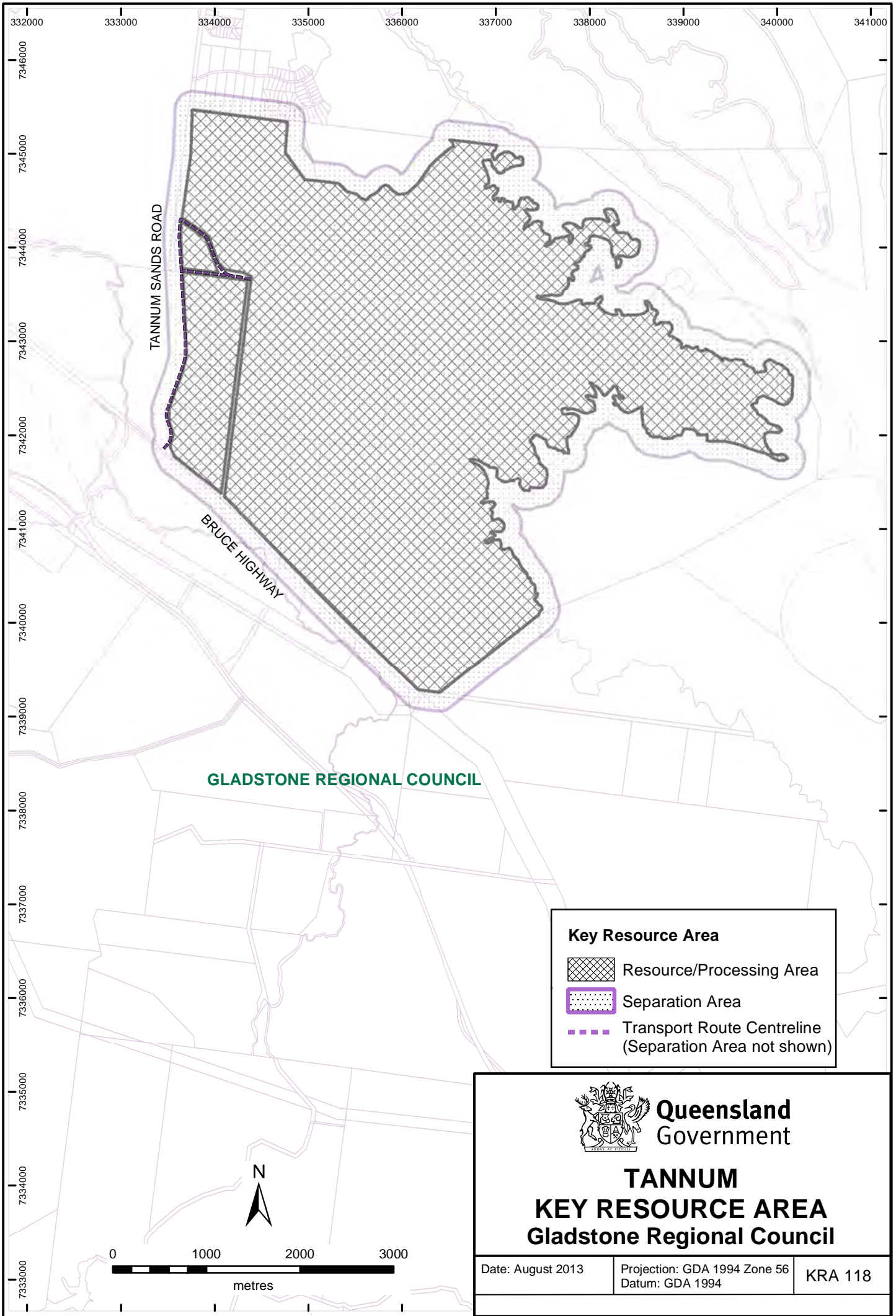
The deposit meets the Deposit Volume, Production Level and Regional Markets criteria for a Key Resource Area.

**SEPARATION AREA:**

A separation distance of 200 m is adopted around the resource/processing area.




**TRANSPORT ROUTE:**

The transport route is via Tannum Sands Road to the Bruce Highway.



**GLADSTONE REGIONAL COUNCIL**

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**TANNUM  
KEY RESOURCE AREA  
Gladstone Regional Council**

Date: August 2013	Projection: GDA 1994 Zone 56 Datum: GDA 1994	KRA 118
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## **TARGINNIE KEY RESOURCE AREA - KRA 119**

**LOCAL GOVERNMENT AREA:** Gladstone Regional Council

**LOCATION:**

The resource is located on the north side of the Gladstone - Mount Larcom Road, 3 kilometres southwest of Fisherman's Landing in the Gladstone State Development Area. It is located about 14 kilometres northwest of Gladstone (See Map KRA 119).

**EXTRACTIVE RESOURCE:** Quarry Rock

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource is contained within a metabasalt layer. The current extraction operation is sited on the lowest slopes of the Targinnie Ridge in a freehold lot owned by a private landholder.

Further hard rock deposits are likely to occur in the higher ridges in the freehold lot north and west of the current site.

**SIGNIFICANCE:**

The resource is well placed to supply the development of the Gladstone region for a minimum of 30 years. It is conveniently situated relative to the major urban and industrial growth areas of the Gladstone area, and will extend the available resource base for several decades.

**SEPARATION AREA:**

The outer limits of the resource/processing area include a ridge west of the present quarry extent, the pipeline easement to the south and ridge lines to the north and east. The ridges screen the industrial areas to the north and east and the main roads to the south and east from the resource.

The boundary of the separation area is set at the crest of a ridge approximately 500 metres west of the resource, and extends at a similar distance across the continuous ridge line to the north of the resource. The separation distance has been increased slightly to the east and southeast over flatter land to lie along the toe of a steep slope south of the Port Curtis road. This road together with the general purpose of the Corridor Buffer Zone are likely to restrict incompatible developments in any case so extension of the separation area may not be necessary.

**TRANSPORT ROUTE:**

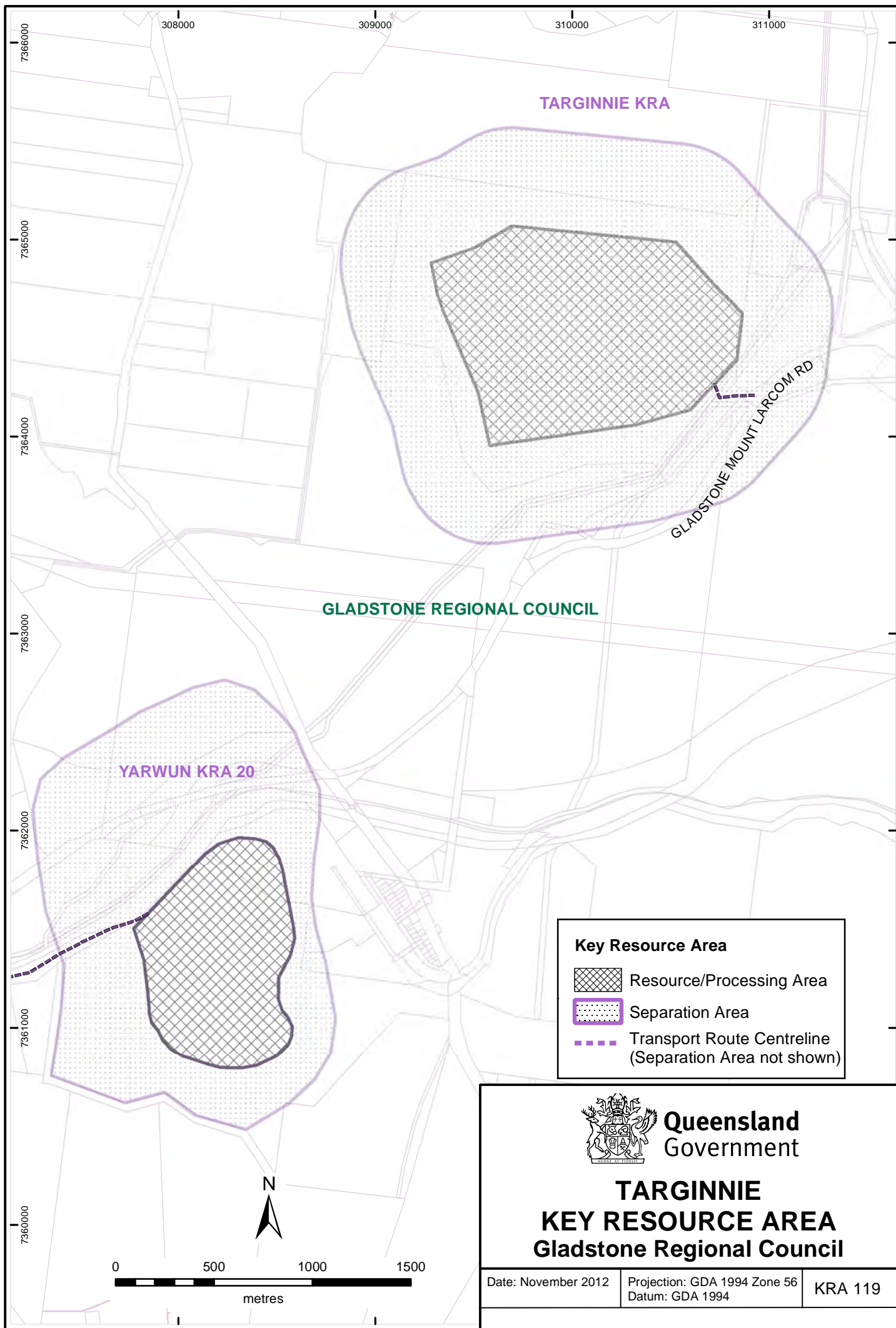
The short transport route crosses the Corridor Buffer Zone by a formed all-weather road and enters the Gladstone-Mount Larcom Road (Port Curtis Way) about one kilometre west of the intersection of Landing Road and Port Curtis Way.

**SPECIAL CONSIDERATIONS**

A patch of mostly 'Of Concern' with minor 'Not of Concern' vegetation 10 ha in size covers part of the northern ridge. Access to this part of the resource would require offsets under the Central Queensland Regional Vegetation Management Code.

A small area of the separation area to the east is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.








TARGINNIE KRA

GLADSTONE REGIONAL COUNCIL

YARWUN KRA 20

GLADSTONE MOUNT LARCOM RD

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**TARGINNIE  
KEY RESOURCE AREA  
Gladstone Regional Council**

Date: November 2012

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 119

## **KILDONAN KEY RESOURCE AREA - KRA 120**

**LOCAL GOVERNMENT AREA:** Goondiwindi Regional Council

**LOCATION:**

The resource is located approximately 18 km east south-east of Goondiwindi, on the Kildonan-Old Warwick Road (See map KRA 120).

**EXTRACTIVE RESOURCE:** Sand & Gravel

**EXTRACTIVE RESOURCE DESCRIPTION:**

The resource area is mapped as alluvium and lacustrine deposits and is located near an alluvial terrace along the Macintyre River. The site is covered by a sandy clay upper layer overlying a hard dense clay unit.

**SIGNIFICANCE:**

The deposit is large and is significant as deposits of sand are scarce in the region. The resource has the potential to supply a considerable portion of the Goondiwindi and surrounding area demand.

**SEPARATION AREA:**

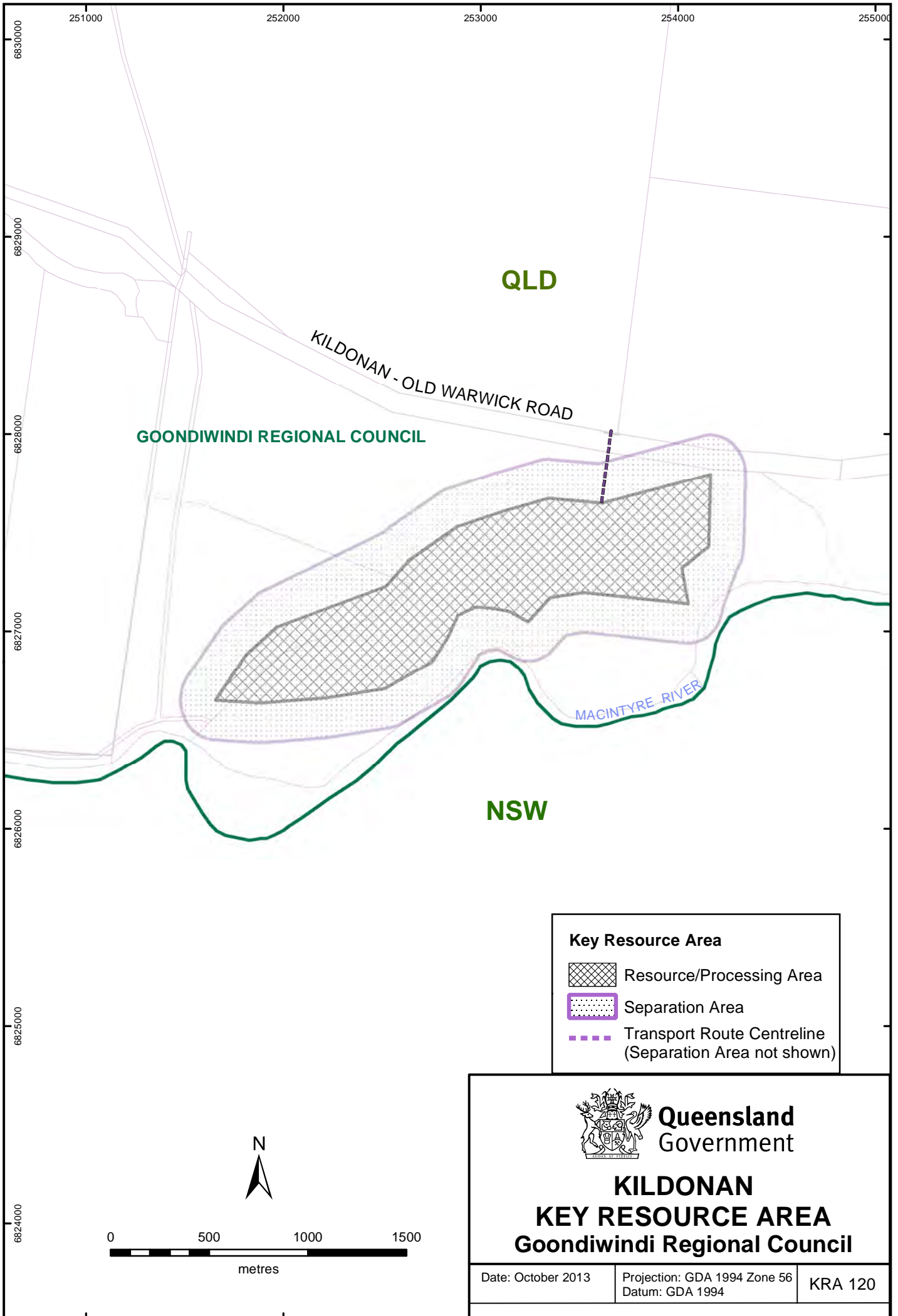
A separation distance of 200 m is applied around the Resource/Processing Area boundary.

**TRANSPORT ROUTE:**

The transport route is via a private road to the sealed Kildonan–Old Warwick Road.

**SPECIAL CONSIDERATION:**

A portion of the KRA is covered by Strategic Cropping Land Trigger Mapping under the *Strategic Cropping Land Act 2011* administered by the Department of Natural Resources and Mines. This indicates the location of potential SCL and further on-ground assessment against the SCL criteria is required to confirm whether the area is or is not an SCL.



QLD




GOONDIWINDI REGIONAL COUNCIL

KILDONAN - OLD WARWICK ROAD

MACINTYRE RIVER

NSW

**Key Resource Area**

-  Resource/Processing Area
-  Separation Area
-  Transport Route Centreline  
(Separation Area not shown)



**Queensland  
Government**

**KILDONAN  
KEY RESOURCE AREA  
Goondiwindi Regional Council**

Date: October 2013

Projection: GDA 1994 Zone 56  
Datum: GDA 1994

KRA 120