

Extractive Resources and Minerals Planning Study 2016



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Table of Contents

Executive Summary	2
1. Introduction	3
1.1 Resources and mining in Noosa Shire	3
1.2 Protecting state significant resources	3
1.3 Definitions	4
1.4 Approvals process.....	4
2. Past background studies	5
2.1 Extractive & Clay Mineral Resources of Noosa Shire 1997 (updated 2002)	5
2.2 Protection of Mineral and Extractive Resources in Noosa Shire- Willmott & Stephens 2001	5
2.3 Kin Kin Sand Resource – Report on Commercial Viability of Sand Extraction – EcoRoc 2005.....	6
2.4 Review of Viability of Extractive Sites Sunshine Coast Regional Council – Groundworks 2012.....	6
3. Legislative context	7
3.1 Sustainable Planning Act 2009 (SPA) and Regulation.....	7
3.2 Planning Act 2016	7
3.3 Other relevant Acts	7
3.4 State Planning Policy (SPP) and Guidelines – Mining and extractive resources.....	8
3.4.1 Extractive resources	9
3.4.2 Mining	10
3.4.3 Implications and recommendations for new planning scheme	11
3.5 South East Queensland Regional Plan 2009-2031	12
3.6 The Noosa Plan 2006.....	12
3.6.1 Draft amendments to The Noosa Plan	13
3.6.2 Recommendations for new planning scheme	14
4. Site assessment	14
4.1 Key Resource Areas – Noosa Shire	15
4.1.1 Ringtail Creek Key Resource Area (KRA 56).....	15
4.1.2 Wahpunga Range Key Resource Area (KRA 57)	17
4.2 Local Resource Areas and mining leases.....	20
4.2.1 Ringtail Creek	20
4.2.2 Nandroya	21
4.2.3 McGilchrist's Pits	22
4.2.4 White Pit.....	23
4.2.5 Glenwood.....	25
4.2.6 Kin Kin Creek	26
4.2.7 Brogden's Pit.....	27
4.3 Recommendations for new planning scheme	28

Executive Summary

A desktop review of the existing extractive resource and mining areas identified in *The Noosa Plan 2006* as well as review of state planning requirements has been undertaken to inform the preparation of the new planning scheme.

Information from the State Planning Policy, Guidelines and interactive mapping site, Queensland Globe, Department of Natural Resources and Mines, past studies, aerial photography, proposed planning scheme amendments and resolutions of Council, development approvals and discussion with development assessment officers have arrived at the following recommendations for the new planning scheme to deal with state interests and local planning matters:

State interests

1. Identify KRA 56 and 57 in the strategic framework and mapping, including strategic and specific outcomes for the protection of KRAs from encroachment of sensitive land uses and incompatible development.
2. Ensure the zoning of the KRA is consistent with protecting the KRA from sterilisation by sensitive or incompatible landuses.
3. Include KRA 56 and 57 in an Extractive Resources and Mining overlay with code outcomes that ensure development is compatible with the use of resource / processing area of the KRA. Sensitive landuses and incompatible development are assessed against overlay code provisions relating to its compatibility with the use of the KRA as an extractive industry.
4. Discuss with the Department of Infrastructure, Local Government and Planning the best approach for dealing with mining resources. Discuss the option of referring to mining leases, mining claims and mineral development licences on the State's Mines Online Mapping (MOM), rather than identifying mining leases in the planning scheme. This allows for changing circumstances and mining lease approvals to be up to date without amending the planning scheme.

Local matters

5. Make clear statements in the Strategic Framework regarding extractive industry and mining in Noosa Shire. Make specific reference to the use, extent and transport routes for resources.
6. Identify local resource areas, including separation areas and transport routes in the Extractive Resources and Mining Overlay code with relevant local provisions.
7. Include the following sites as mining lease¹ and local resource areas in the Extractive Resource and Mining Overlay:
 - o Nandroya (subject to current lease renewal approval)
 - o Glenwood (subject to current lease renewal approval)
 - o McGilchrist's Pits (300 Kennedy's Road only – review boundaries)
 - o White Pit (subject to review of future use of the site)
8. Exclude the following sites as local resource areas from the Extractive Resource and Mining Overlay:
 - a. Ringtail Creek
 - b. Kin Kin Creek sand
 - c. McGilchrist's Pits (309 Kennedy's Road)

¹ Designation as mining lease is subject to further discussion with the State regarding the potential use of the Mines Online Mapping site as the mining overlay.

9. Exclude the following mining lease designations from the Extractive Resource and Mining Overlay:
 - a. McGilchrist's Pits (309 Kennedys Road)
 - b. Brogden's Pit
10. Include measures in the planning scheme to avoid conflicts between mining resource development and haulage routes with other land uses, such as identification of local resource areas and buffers. Consideration should also be given to demand for the resource and other competing landuses for the site.
11. Prepare an Extractive Industry use code - including specific measures for site planning, separation and amenity, noise, vibration, transport routes, access and vehicle manoeuvring, separation distances, site drainage and stormwater management, landscaping, management of operations, hours of operation public safety and site rehabilitation.

1. Introduction

The purpose of this planning report is to review the current extractive resource and mining areas identified in The Noosa Plan 2006, review relevant state and legislative requirements and make recommendations for the new planning scheme.

1.1 Resources and mining in Noosa Shire

Noosa Shire contains a number of natural resources, including deposits of clay and shale, quarry rock and sand that have been identified and / or exploited over the years. The deposits have largely supplied raw material for the construction industry. In particular, large deposits of clay supplied the Cooroy Brickworks up until its closure in 2010.

Two state significant key resource areas (refer to 2.1) are located in Noosa Shire. Seven (7) locally significant resources and eleven (11) mining leases are also identified under The Noosa Plan 2006 (Appendix 1).

Since the preparation of The Noosa Plan there have been no new key resources areas, local resource areas or mining leases identified in the Shire and a number of mining leases have expired.

Currently both quarry rock KRAs are operational at Ringtail Creek and Wahpunga Range. Seven (7) mining leases identified in The Noosa Plan are still valid, two (2) are under application for renewal and two (2) have expired.

Demand for resources for the purpose of local processing for construction materials is reducing in Noosa, demonstrated by the closure of the Cooroy Brickworks. Future demand for clay and sand is unlikely to increase with projected growth in Noosa over the next 20 years being low. Significant sand resources south of Noosa, particular at Meridan Plains are also available.

It is likely there will be continued demand for quarry rock to meet local road construction and maintenance requirements.

1.2 Protecting state significant resources

The *Queensland State Government* has identified that a strong resources industry is vital to Queensland's economy and that a growing state requires economical access to essential raw materials to support its construction and infrastructure sectors.

The *State Planning Policy Guidelines for Mining and Extractive Resources* identifies the need to protect resources stating:

the extraction of raw materials such as rock, sand, gravel and clay provides essential raw materials needed to support new infrastructure, build roads, houses, hospitals, airports and rail lines. Encroaching urban development can constrain the ability of industry to cost effectively supply the sand, gravel and aggregate required to support infrastructure and construction.

In general, quarries can only economically provide materials to their own local and regional communities. As quarry material needs to be sourced locally from particular geological areas, the suitability of a particular extractive resource for its intended purpose can mean that the potential locations of suitable extractive resource deposits are highly limited. Extractive resources are bulky and of relatively low value, so that transport forms a major component of the end price paid by customers.

Because of their economic importance to the state, significant extractive resources, known as key resource areas (KRAs) are protected from development that could impact on their long-term viability.

1.3 Definitions

The *Sustainable Planning Act (SPA) Regulation* defines extractive industry under the *Queensland Planning Provision (QPP)* as:

a premises used for the extraction and/or processing of extractive resources and associated activities, including their transportation to market.

The *Mineral Resources Act 1989* defines a mineral and mining (in short):

A mineral is a substance normally occurring naturally as part of the earth's crust or dissolved or suspended in water on or within the earth's crust and includes clay, foundry sand, coal seam gas, limestone, marble, petroleum.

Mining means to carry on an operation with a view to, or for the purpose of, winning mineral from a place where it occurs, or extracting mineral from its natural state, or disposing of mineral in connection with, or waste substances resulting from, the winning or extraction.

A full definition is contained in Appendix 2.

1.4 Approvals process

Development proposals for extractive industries (i.e. a quarry) are regulated and assessed under the provisions of the planning scheme. Council is the assessment manager and developments are assessed through the Integrated Development Assessment System (IDAS).

Coal, mineral, petroleum and gas (including coal seam gas) resources are the property of the Queensland government. The approval processes for exploration and development of these resources, including issuing mining leases, is governed and decided by the state in accordance with its resources legislation. Notwithstanding this, planning schemes need to consider these resource developments.

2. Past background studies

There have been a number of background studies and investigations into extractive resources in Noosa Shire. Over time, the number of resources identified as being significant enough for protection through the planning scheme have reduced from an early identification of 37 sites to 9 sites (including KRAs) identified under The Noosa Plan.

The background studies have helped to inform the recommendations in the site assessment in section 5 and the recommendations for a site's inclusion or exclusion from the new planning scheme.

A summary of the key findings of the relevant background is outlined below.

2.1 Extractive & Clay Mineral Resources of Noosa Shire 1997 (updated 2002)

This study was conducted in 1997 to provide data and support for the planning scheme, describing the extent and analysis of existing resources within Noosa Shire. 37 resource sites of strategic importance were examined, finding 14 of 37 were deserving of long term resource protection. The remaining sites were considered of little strategic importance. Ratings were applied based on size and quality of resource, proximity to market users, accessibility, land use conflict, biophysical values and scenic amenity.

2.2 Protection of Mineral and Extractive Resources in Noosa Shire- Willmott & Stephens 2001

In 2001 the *Protection of Mineral and Extractive Resource in Noosa Shire* report identified that planning protection should be given to two deposits of quarry rock and 2 deposits of sand and a number of clay deposits to supply Cooroy Brickworks. The resource areas and buffers identified in the report were:

Clay:

The report identified the operation of the Cooroy Brickworks at that time required protection of a number of clay deposits to ensure sufficient supply for its operation in the longer term.

- Nandroya, White Pit, West Ridge and McGilchrist's pits - mining leases to avoid potential conflicts with other land uses.
- Glenwood Pits (Louis Bazzo Dr), Nursery Road and Ringtail Creek deposits to provide sufficient resource for the longer term.
- A buffer area was recommended of 200m around these deposits.

The report stated the above deposits were sufficient to supply Cooroy brickworks for the next 20 years and if things changed at the brickworks this should be reassessed.

No specific protection was proposed for Brogden's Pit as the resource was identified as small and there were widespread alternative supplies.

Quarry rock:

- Ringtail Creek - with a 1km buffer and haul route.
- Wahpunga Range Kin Kin

Sand:

- Kin Kin Creek Sands protection warranted until further investigations.
- Johns Road due to lack of sand resources in the Shire

2.3 Kin Kin Sand Resource – Report on Commercial Viability of Sand Extraction – EcoRoc 2005

In 2005 Titanium Noosa Pty Ltd commissioned a report on the viability of sand extraction on their land at Kin Kin Creek, as they proposed to develop the site for an eco-resort. The report concluded commercial extraction of sand was not viable and heavily constrained for the following reasons.

- the sand resources are shallow;
- some sand resources are coincident with and close to protected riparian vegetation;
- the sand resources have a relatively high fines content and cannot be used in high value applications such as concrete without substantial washing and processing to remove deleterious materials such as clay and silt fines;
- the need to wash sand introduces further environmental impacts and constraints;
- commercial sand extraction would also generate visual, noise and other amenity impacts;
- existing transport routes for sand haulage from the site are inadequate;
- these constraints limit the market area and market applications for the sand to lower value fill and bedding applications within the Noosa Shire;
- known resources, if extracted, would have an estimated life of 16 years, and it would take 13 years for cost recovery to occur;
- the sand deposits are not therefore commercially viable when applying typical extractive industry investment criteria;
- the site is not included as a Key Resource Area under the draft State Planning Policy for Protection of Extractive Resources.

2.4 Review of Viability of Extractive Sites Sunshine Coast Regional Council – Groundworks 2012

In 2012 a review of locally significant extractive sites was undertaken to inform the preparation of the Sunshine Coast Regional Council planning scheme, two sites were located in Noosa Shire – Kin Kin Creek and John's Road Cooroibah.

The conclusions reached for each site were based on:

- Resource quantum and quality potential resource
- Proximity to market
- Site access
- Environmental impacts
- Likely stakeholder issues
- Local and regional resource availability
- Market factors and any other issues as they arose.

The report concluded:

Kin Kin Creek – is not viable based on resource size and economics and likely cost of road upgrades. The report concluded the resource not be considered in the SCRC new planning

scheme as a viable resource of regional significance. (This conclusion was also based on Meridan Plains to the south providing sand for the region).

Cooroibah (Johns Road) – not viable in the long term because of reducing product quality, increasing production costs, groundwater / surface water issues, acid sulphate soils issues and practical extraction requirements ie. removal of material below the water table. The report concluded the resource not be considered in the SCRC new planning scheme as a viable resource of regional significance.

(Note: This site is not identified in The Noosa Plan 2006 and has now been exhausted).

3. Legislative context

3.1 Sustainable Planning Act 2009 (SPA) and Regulation

The *Sustainable Planning Act 2009* identifies extractive deposits as a “core matter” to be addressed in the preparation of a planning scheme. Extractive deposits are recognised resources or areas of economic value, described as valuable features. SPA recognises the important economic development and employment generation opportunities associated with mineral and extractive natural resources.

The State Planning Policy (SPP) identifies how state interests need to be addressed in planning schemes.

3.2 Planning Act 2016

The *Planning Act 2016* was passed in Parliament in May 2016. Although not yet enacted, it will have influence over the new planning scheme. The Act states that advancing the purpose of this Act includes—

(c) promoting the sustainable use of renewable and non-renewable natural resources, including biological, energy, extractive, land and water resources that contribute to economic development through employment creation and wealth generation...

The *working draft of the Planning Regulations* indicates the existing *State Planning Policy 2014* would continue under the new regulations.

3.3 Other relevant Acts

The state’s resources legislation comprises:

- *Mineral Resources Act 1989*
- *Geothermal Energy Act 2010*
- *Geothermal Exploration Act 2004*
- *Greenhouse Gas Storage Act 2009*
- *Petroleum Act 1923*
- *Petroleum and Gas (Production and Safety) Act 2004.*

The *Environmental Protection Act 1994* also has a major role in the regulation of extractive activities to prevent or minimise environmental harm. Extractive activities above a certain scale

are environmentally relevant activities (ERA's) under the provisions of the Act and associated regulations

3.4 State Planning Policy (SPP) and Guidelines – Mining and extractive resources

Mining and extractive resources are identified as a matter of state interest for landuse planning and development under the *State Planning Policy (SPP)* . The *State Planning Policy Guideline (SPP Guideline)* outlines how the policy is to be integrated into planning schemes. It seeks to ensure plan making and development assessment decisions protect important extractive resource deposits from encroachment by sensitive land uses and other potentially incompatible land uses. It also seeks to ensure planning schemes give due consideration to the presence and potential impacts of mining and resource development in their areas.

To integrate this state interest into the new planning scheme, the differing legislative environments relating to extractive resources (such as quarry rock, sand, gravel and clay) and coal, minerals, petroleum and gas resources need to be recognised.

The State interest identified under the SPP states:—

mineral, coal, petroleum, gas, and extractive resources are appropriately considered in order to support the productive use of resources, a strong mining and resource industry, economical supply of construction materials, and avoidance of land use conflicts wherever possible.

There are 3 state interest policy areas to be integrated into the new planning scheme.

For extractive resources:

Policy 1

Identifying key resource areas (KRAs) including the resource/processing area, separation area, transport route and transport route separation area.

Policy 2

Protecting KRAs by:

- 1) ensuring that sensitive land uses and other potentially incompatible land uses in a KRA are assessable against provisions that require the development to be compatible with the use of land in a KRA for an extractive industry*
- 2) providing for appropriate separation distances or other mitigation measures between the resource/processing area of the KRA and sensitive land uses to minimise conflict with the use of land in a KRA for an extractive industry.*

For coal, mineral, petroleum and gas resources:

Policy 3

Considering:

- a) the importance of areas identified as having valuable coal, minerals, petroleum, and gas resources, and areas of mining and resource tenures³, and*
- b) opportunities to facilitate mutually beneficial co-existence between coal, minerals, petroleum, and gas resource development operations and other land uses, and*
- c) the location of specified petroleum infrastructure that occur on petroleum leases or under petroleum facility licences and pipeline licences.*

3.4.1 Extractive resources

KRAs identify extractive resources of state or regional significance which the state considers worthy of protection for future use under the SPP. The significance is determined by the *Department of Natural Resources and Mines*, in accordance with the criteria detailed in *Part 3: Extractive resources—criteria for state significance of the SPP guideline*. KRAs are made up of both existing quarry sites and undeveloped sites.

The purpose of identifying key resource areas is to protect extractive resources from incompatible land uses. The key resource area is a designation not a development approval for extracting the resource. Two key resources areas are identified in the SPP in Noosa Shire:

KRA 56 – Ringtail Creek, (Appendix 3) and
KRA 57 – Wahpunga Range (Appendix 4)

The State Planning Policy Guideline outlines the composition of a KRA as having four parts:

- Resource/processing area—the extent of the extractive resource and any operational areas associated with the extraction and processing of the resource.
- Separation area—the area surrounding the resource/ processing area that is required in to maintain separation from people who may be affected by residual impacts such as noise, dust and ground vibrations of existing or future extractive operations within the resource/processing area. This area is designed to maintain an adequate buffer between extractive operations and incompatible uses.

The minimum distance is 200 metres for resources that don't require blasting or crushing to extract (sand, gravel and clay) and 1000 metres for hard rock resources as blasting and crushing of material is required. In some cases the separation area may be less than the minimum distances in consideration of local features such as topography or existing development commitments.

- Transport route—the route used to transport extracted resources to market. The transport route is a road or a rail link from the boundary of the resource/processing area to a major road or railway.
- Transport route separation area—the area surrounding the transport route needed to maintain separation of people from undesirable levels of noise, dust and ground vibration produced as residual impacts from the transportation of extractive material.

The distance is measured 100 metres from the centre line of the indicated transport route for a KRA.

3.4.2 Mining

The Queensland Government regulates the allocation of land and resources for the exploration and mining of minerals, coal, petroleum and gas. Permits for mining are regulated and managed by the state through key mining legislation (section 3.3). Mining is not assessed against the planning scheme and local government is not the assessment manager.

Permits for exploration and mining are issued for set periods and are conditional on demonstrating a planned and structured program of activity and meeting environmental conditions.

Permits can be divided into four types reflecting the differing levels of approved activity:

- exploration permits
- production permits (eg. Mining leases)
- infrastructure permits
- information permits.

Typical rights and obligations under a permit include:

- the right to explore for, or extract, the mineral, petroleum or energy resource in a safe and responsible manner
- the obligation to manage the resource/s appropriately, including compensation to landholders and native title holders as appropriate
- the obligation to pay royalties to the state for the mineral, petroleum or energy produced
- the obligation to rehabilitate or restore areas disturbed by operations.

The *Department of Natural Resources and Mines - Local Area Mining Permit Report – 8 May 2016 - Noosa Shire* identifies the following coal exploration, mineral production and infrastructure permits in Noosa Shire (tables 3.1, 3.2 and 3.3).

Note: The Noosa Plan only identifies mineral production permits (mining leases) on the Natural Resources Overlay. Coal exploration and infrastructure permits are not currently shown in the Noosa Plan but will need to be given consideration in the new planning scheme.

Table 3.1

Coal exploration permit - granted

Number	Authorised holder	Term sought	Date granted	Date expired
EPC2556	COAL STREAM PTY LTD	5 years	25/11/2013	24/11/2018
EPC2598	BAUPLE EXPLORATION PTY LTD	5 years	18/03/2014	17/03/2019

Table 3.2**Mineral production permit - granted**

Number	Authorised holder	Term sought	Date granted	Date expired
ML3672	CSR BUILDING PRODUCTS LIMITED	21 years	02/08/1973	31/08/2018
ML3673	CSR BUILDING PRODUCTS LIMITED	21 years	12/04/1973	28/02/2018
ML3696	ROBERTS BROS PTY LTD	21 years	11/09/1975	Renewal lodged
ML3705	CSR BUILDING PRODUCTS LIMITED	21 years	27/02/1986	28/02/2017
ML3709	CSR BUILDING PRODUCTS LIMITED	21 years	08/05/1980	Renewal lodged
ML3718	CSR BUILDING PRODUCTS LIMITED	21 years	16/01/1986	31/01/2027
ML3729	CSR BUILDING PRODUCTS LIMITED	21 years	03/04/1986	30/04/2027
ML3742	CSR BUILDING PRODUCTS LIMITED	21 years	19/06/1986	30/06/2027
ML50078	CSR BUILDING PRODUCTS LIMITED	20 years	24/11/1994	30/11/2027

Table 3.3**Infrastructure permit - granted**

Number	Authorised holder	Term sought	Date granted	Date expired
PPL32	ALLGAS PIPELINES OPERATIONS PTY LTD		31/03/1998	

3.4.3 Implications and recommendations for new planning scheme

The SPP Guidelines identifies how planning schemes should integrate the state planning policy. The approach outlined in the SPP with regard to extractive industry and mining is recommended for the new planning scheme as follows:

Extractive industry

- Identify KRAs in the strategic framework and mapping, including strategic and specific outcomes for the protection of KRAs from encroachment of sensitive land uses and incompatible development.
- Ensure zoning of the KRA is consistent with protecting the KRA from sterilisation by sensitive or incompatible landuses.
- Include KRAs in an extractive resource overlay with code outcomes that ensure development is compatible with the use of resource / processing area of the KRA. (Sensitive landuses and incompatible development are assessed against overlay code provisions relating to its compatibility with the use of the KRA as an extractive industry).

Mining

Despite mining not being regulated under the planning scheme, the SPP requires planning schemes give consideration to known mineral, coal and petroleum and gas resources and existing or proposed resource development proposals.

Where possible measures should be included in the planning scheme to avoid conflicts between the resource development and haulage routes with other land uses, such as identification of local resource areas and buffers. Consideration should also be given to demand for the resource and other competing landuses for the site.

The Noosa Plan 2006 currently identifies mining leases that were approved at the time of the plan's preparation. A local resource area and buffer is identified around these mining lease areas in all cases but one.

The status of mining leases change over time and it is difficult for planning scheme mapping to be up to date and keep pace with changing circumstances because of the lengthy planning scheme amendment process.

Some newer planning schemes have recently met this state interest requirement by referring to mining leases, mining claims and mineral development licences on the State's Mines Online Mapping (MOM)², rather than identifying mining leases in the planning scheme. This allows for changing circumstances and mining lease approvals to be up to date without amending the planning scheme.

It is recommended further discussion on this matter be undertaken with the Department of Infrastructure, Local Government and Planning for the best approach.

3.5 South East Queensland Regional Plan 2009-2031

The *SEQ Regional Plan* has relevance for plan making and development assessment. Natural Resources are addressed in Desired Regional Outcome 4; within the Regional Plan that intends to *'manage natural economic resources to sustainable and efficiently meet the needs of existing and future communities'*.

It seeks to:

- *coordinate and manage the use of natural resources to enhance community, economic and environmental values.*
- *manage natural economic resources to sustainable and efficiently meet the needs of current and future communities.*
- *identify and protect extractive and mineral resources for potential future, including transport corridors.*

In preparing the new planning scheme consideration will be given to the SEQ Regional Plan desired outcomes. There are no specific implications for the new planning scheme arising from the SEQ Regional Plan above and beyond the SPP.

3.6 The Noosa Plan 2006

Local government is the assessment manager for extractive industry applications and The Noosa Plan is the assessment tool for these resource developments Extractive industry is impact assessable under The Noosa Plan. In summary:

The Desired Environmental Outcomes in The Noosa Plan state in relation to extractive and mining resources states—

Renewable natural resources are used sustainably and non-renewable natural resources are used prudently. The use of natural resources does not have significant adverse impact upon other land uses.

² Mines Online Maps (MOM) minesonlinemaps.business.qld.gov.au maintained by the Department of Natural Resource and Mines.

Extractive resources are shown on the Planning Scheme Strategy Map and identified in the Natural Resource overlay. The Natural Resources Overlay Code deals with development and identifies resource processing, separation and haulage areas.

Extractive industry is defined as an Industrial Business Type 3 Extractive –

Winning from the land (or the bed of a watercourse) gravel, rock, sand, soil, stone, or other similar materials. The use class includes the treatment of those materials to produce a varied product. The term does not include the use of premises for an activity authorised under the Mineral Resources Act 1989.

The Business Use code contains limited provisions to assess extractive industry development dealing with proximity to Noosa River, haulage routes, visual impacts on roads and rehabilitation.

The Noosa Plan identifies two Key Resources Areas (KRA's 56 & 57). Seven (7) locally significant resources and eleven (11) mining leases shown in Table 3.4 (and Appendix 1).

Table 3.4

Key Resource Area	Resource
Ringtail Creek KRA 56	Quarry Rock
Wahpunga Range – KRA 57	Hard rock. Large reserves of hard rock.
Local Resource Areas and Mining lease	Resource
Ringtail Creek	Clay and shale
Nandroya (west of Bruce Highway and Holts Rd)	Clay and shale
McGilchrist pits (West-Ridge Nursery Road Cooroy (300& 309 Kennedys Rd)	Clay and shale
White pits (125 lake McDonald drive)	Clay
Glenwood pits (666 Louis Bazzo Dr)	Clay and shale
Kin Kin Creek (between Gympie Kin Kin Rd and Dr Pages Rd)	Sand, gravel and loam
Mining Lease	
Brogden's pit	Brick Clay

3.6.1 Draft amendments to The Noosa Plan

In August 2015, Council publicly notified draft amendments to The Noosa Plan. The amendments include changes to the Natural Resources Overlay mapping for KRA 56 and 57 and additional provisions in the Natural Resources Overlay Code to be consistent with the SPP requirements.

The amendments also include changes to the Business Use Code assessment requirements for extractive industry including more comprehensive provisions for buffers, separation and amenity, management of operations, landscaping, hours of operation, traffic and transport and rehabilitation.

Following public notification of the draft amendments, at its meeting on 19 November 2015 Council resolved to:

Write to the Department of Infrastructure, Local Government and Planning requesting a review of KRA 57 (Wahpunga Range), specifically suggesting that a more locally appropriate separation area be determined having regard to topographical features that may provide a natural buffer.

In response to this resolution, a letter requesting a review of the separation area boundary of KRA 57 was forwarded to the Minister.

The draft Amendments are currently with the Department of Local Government and Planning awaiting approval. See Appendix 5 for the draft amendments.

3.6.2 Recommendations for new planning scheme

As already noted, the new planning scheme must integrate state interests with the recommended approach outlined in section 3.4.3.

To adequately assess extractive industry and ensure sensitive landuses are not impacted by local resources and mining it is recommended the new planning scheme:

- Identify local resource processing areas, separation areas and transport routes in the Extractive Resources and Mining Overlay code with relevant local provisions.
- Include measures in the planning scheme to avoid conflicts between mining resource development and haulage routes with other land uses, such as identification of local resource areas and buffers. Consideration should also be given to demand for the resource and other competing landuses for the site.
- Prepare an Extractive Industry use code - including specific measures for site planning, separation and amenity, noise, vibration, transport routes, access and vehicle manoeuvring, separation distances, site drainage and stormwater management, landscaping, management of operations, hours of operation public safety and site rehabilitation.

Note: Recommendations for the identification of local resources in the planning scheme are identified in section 4.

4. Site assessment

An assessment of the local resource areas and mining leases currently identified in The Noosa Plan 2006 has been undertaken and recommendations made with regard to their inclusion or not in the new planning scheme.

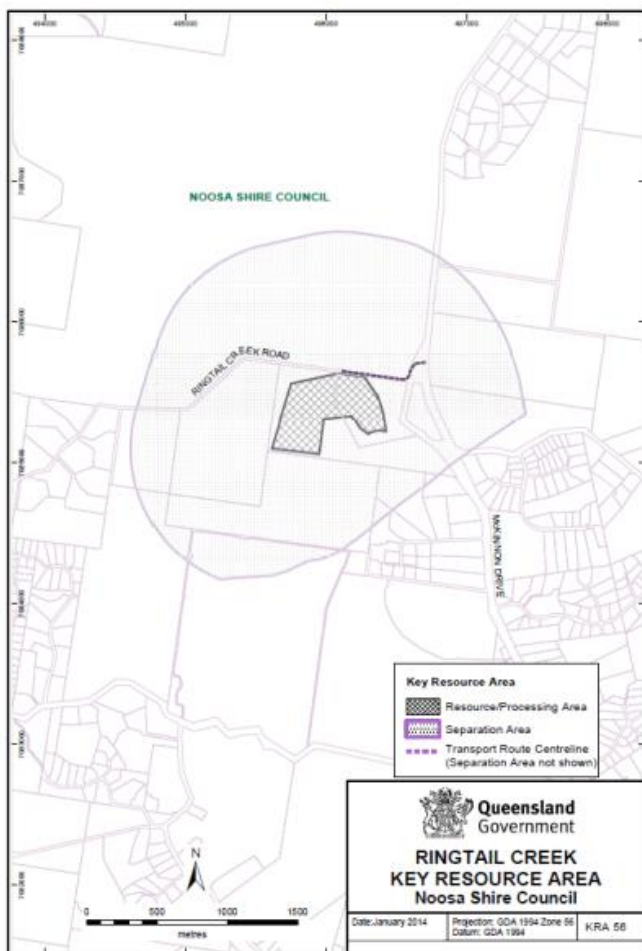
A discussion on the key resource areas in section 4.1 is also included for information purposes only, as the SPP requires that KRAs be reflected in the planning scheme.

4.1 Key Resource Areas – Noosa Shire

4.1.1 Ringtail Creek Key Resource Area (KRA 56)

Location:

33 & 93 Ringtail Creek Road Ringtail Creek 2/RP218418, 1/RP218418. The resource is located approximately 10 kilometres northwest of Tewantin, and is accessed via McKinnon Drive from Tewantin (see map KRA 56).



The Noosa Plan designation



Extractive Resource:

Quarry Rock

Status:

Operational - Council recently extracted rock for use on the upgrade of Dr. Pages Road.

Extractive Resource Description:

The resource consists of a wide, slightly too moderately weathered trachyte dyke or sill. The dyke is partly exposed in an old Forestry pit on Ringtail Creek Road. The intrusion forms a broad gently sloping ridge elongated along a north-westerly direction. It is partly forested.

Significance:

The site is currently identified as a Key Resource Area and provides material for construction of roads for Council.

Although present production levels are small, the location of the resource close to Noosa's urban area and the shortage of alternative sources will ensure its strategic significance, given the considerable distance to quarry rock resources outside of Noosa Shire. The resource could extend to a considerable depth, as it is an intrusive body, allowing considerable deepening. The rock is suitable for all classes of road gravel.

Separation Area:

The boundary of the separation area is set at 1000 metres from the western, southwestern and northern sides of the resource. The proximity of small subdivisions to the southeast constrains the separation distance to 500 metres in that area. The south-eastern flank of the ridge would need to be retained to screen operations from that direction.

Transport Route:

The transport route is along Ringtail Creek Road onto McKinnon Drive and then to the Noosa market area.

Constraints to exploitation:

Whilst the quarry is in operation there are potential conflicts with the rural residential development and access to McKinnon drive.

Special Considerations:

The KRA contains areas of 'of concern' vegetation under the *Vegetation Management Act 1999*, an area of endangered, vulnerable or rare species and forms part of the state significant Diaper State Forest – Peregrian bioregional wildlife corridor. The resource/processing area is adjacent to a site of indigenous cultural significance which includes a ceremonial ground. Some parts of the separation area and a small portion of the resource/processing area are covered by Strategic Cropping Land Trigger Mapping.

Recommendation:

KRA 56 is one of only 2 quarry rock resource identified in Noosa Shire and is a state significant resource identified as a key resource area under the SPP. The site will meet future local demand for quarry rock.

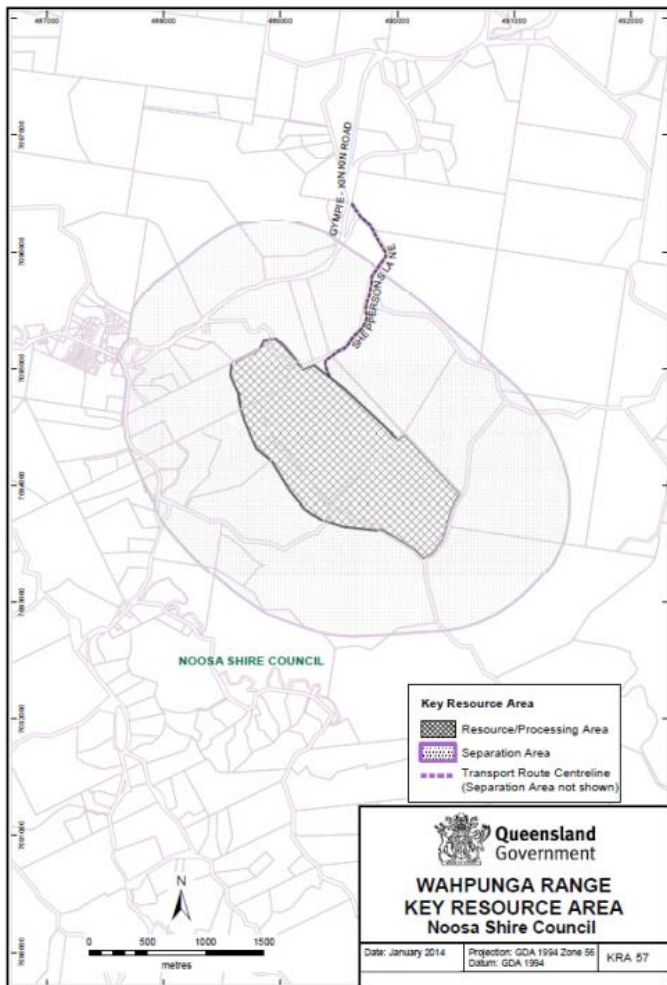
As required by the SPP include KRA 56 in new planning scheme.

4.1.2 Wahpunga Range Key Resource Area (KRA 57)

Location:

33 Murrays Road (1/RP190074), 69 Murrays Road (2/RP190074), 150 Sheppersons Lane (258/MCH187), 900 Sheppersons Lane (259/MCH187), 1174 Pomona Kin Kin Road (205/MCH18), 134 Gympie Kin Kin Road (200/MCH3259), and 68 Gympie Kin Kin Road (3/RP164 822), Kin Kin.

The resource is located approximately one kilometre east of Kin Kin, and is accessed via Sheppersons Lane via the Gympie to Kin Kin Road.



The Noosa Plan designation



Extractive resource:

Quarry Rock

Status:

Operational – The operator submits there is in excess of 30 years of hard rock remain. Up to 12 million tonnes in the currently approved extraction area.

Approvals & permits:

There is a valid 1987 court approved Town Planning Consent. Approval exists only on Sheppersons land (150 & 900 Sheppersons Lane -259 & 259/MCH187). Approval is valid until 2033 sunset clause.

On 26 July 2012 Council approved an amended Quarry management plan. At its meeting on 19 May 2016 Council considered changes to the approval by the court.

Extractive resource description:

A large elongate body of fresh to moderately weathered intrusive andesite occurs in the Wahpunga Range east of Kin Kin. The deposit occurs as a ridge extending southeast from the Gympie to Kin Kin road onto private property. The intrusion is 150 metres wide. Drilling and testing indicated suitability for bitumen screenings and road pavement gravels. Suitability for concrete aggregate has not been confirmed.

Significance:

The site is identified as a Key Resource Area. In the past Council extracted rock for use in road works. The site is now operated by another entity.

Although present production levels are small, the scarcity of other resources close to growth areas in Noosa Shire and adjoining regions means it is of strategic significance for many years. Significant resources are present and the deposit is considered by the State to be the most important in the Noosa area, although disadvantaged by distance from markets.

Separation Area:

The resource is sited on a high ridge, and will need to be worked by the retreating tree line method to optimise extraction from the intrusive dyke. The residential areas of Kin Kin lie about 1000 metres west of the northern end of the resource, so the full distance has been adopted for the whole separation area. The surrounding country is zoned as Rural therefore a separation distance of 1000 metres around the resource was adopted.

Note: Council has requested the Minister amend the separation area boundary to reflect a more locally appropriate boundary having regard to the topographical features of Wahpunga Range that provide a natural buffer.

Transport route:

The transport route uses the eastern part of Shepperson's Lane and then onto Gympie to Kin Kin Road. This is the council approved transport route. There are community held concerns with the suitability of this road. There are also noise impacts on the health retreat on this road in terms of noise from truck movements. An assessment of the haul route suitability would be required for any changes to the current approval.

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.

Constraints to exploitation:

Exploitation of deposits on the higher slopes of Wahpunga Range will have an adverse effect on visual amenity – particularly from Kin Kin – Gympie Road and Cootharabah Road.

Access to the Bruce Highway and the haulage route is a constraint. There are potential land use conflicts along the haulage route from noise and vibration from truck movements.

Recommendation:

KRA 57 is one of 2 quarry rock resources in Noosa Shire and is a state significant resource identified as a key resource area under the SPP. The site may meet future local demand for quarry rock.

As required by the SPP include KRA 57 in new planning scheme.

Assess the suitability of the haul route in any future changes to the current operations of the site.

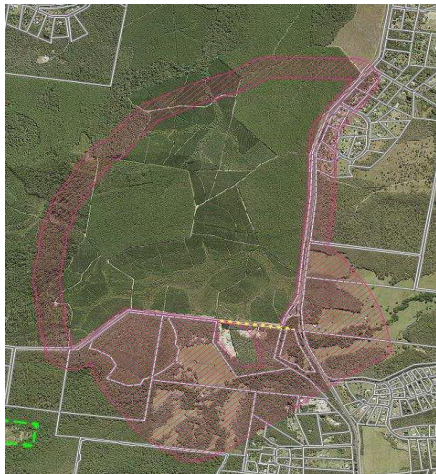
Note: Amend buffer area to reflect Council request to the Minister using Wahpunga range as a natural buffer (subject to a response from the state).

4.2 Local Resource Areas and mining leases

4.2.1 Ringtail Creek

Location:

Located in the state forest from Ringtail Creek to Cooloothin in the north. 997/FTY1936 – Ringtail State Forest.



Extractive resource:

Clay & shale

Status:

Not operational

Approvals and permits:

None

Extractive resource description:

Myrtle Creek sandstone & residual clay

Significance:

This is the largest of the residual clay deposits in the Shire. Whilst it is large it is only considered to be of minor importance particularly with closure of the Cooroy Brickworks and low levels of construction growth in the Shire and demand for the resource.

Separation Area:

The separation area is 200 m around the boundary of the local resource processing area.

Transport route:

The haulage route identified for the KRA 56 could be used as the haulage route from the site.

Special considerations:

The site is in a water resource catchment overlay area, contains an environmental protection corridor and riparian buffer area in the biodiversity overlay and covenants over these areas, and is included in the bushfire hazard overlay.

State interest include biodiversity, water quality and natural hazards risk and resilience.

Constraints to exploitation:

Exposure to McKinnon Drive and the location of rural residential development will limit potential use of the resource adjacent to the road. The site is large enough to commence operations well away from rural residential development and with direct access to the haul route identified for KRA 56 to the south.

Recommendation:

It is recommended Ringtail Creek local resource area be excluded from the new planning scheme for the following reasons:

- whilst the local resource area is very large, it is of little significance given other clay deposits in Noosa Shire;
- demand for clay resources is low noted by the closure of the Cooroy Brickworks.
- the site has considerable environmental constraints and forms part of the Ringtail State Forest.
- there are no current or proposed mining leases on the site.

4.2.2 Nandroya

Location:

Holts Road Cooroy (4SP266739)

West of Bruce Hwy and Holts Rd 2km south of Cooroy.



Extractive resource:

Clay and shale

Status:

Aerial photography indicates the site was last active around June 2015. The mining lease expired in September 2015 and operations have ceased. A mining lease renewal application has been lodged indicating an intent to recommence operations.

Approvals and permits:

Mining lease ML3696 expired 30/9/15.

Robert Bros Pty Ltd have lodged a mining lease renewal to the Department of Natural Resources and Mines.

Extractive resource description:

Large deposit of clay and was a resource for the Cooroy Brickworks. The resource is in the Lake Macdonald catchment.

Significance:

The site was an important raw material supply for the Cooroy brickworks since 1960 and was significant at that time. Its level of significance to brickworks is now reduced because of its closure.

The site is noted as a mining lease and local resource processing area and separation area in The Noosa Plan.

Separation Area:

The separation area is 200 m around the boundary of the local resource processing area.

Transport route:

There is no transport route mapped for this site.

Special considerations:

The site is in a water resource catchment overlay area, contains an environmental protection corridor and riparian buffer area in the biodiversity overlay and includes land in the bushfire hazard overlay. Covenants cover the areas in the environmental protection areas.

State interest include biodiversity, water quality and natural hazards risk and resilience.

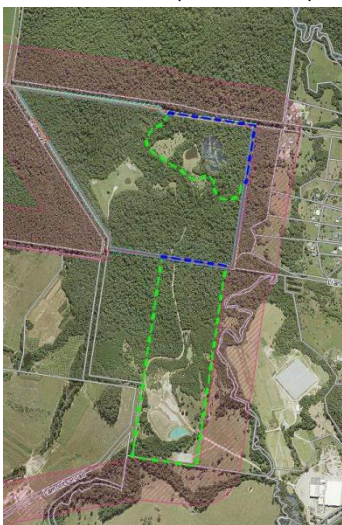
Recommendation:

It is recommended that Nandroya be included in the new planning scheme as a local resource area and separation area, subject to the mining lease being approved.

4.2.3 McGilchrist's Pits

Location:

McGilchrist's Pits – CSR building Productions Pty Ltd., 300 Kennedy's Road Lake Macdonald 3/SP108094 (south site) , 309 Kennedy's Road Lake Macdonald –112/MCH793 (north site)



Extractive resource:

Clay and shale

Status:

Not operational

Approvals and permits:

- 300 Kennedy's Road 3/SP108094 -Mining lease -ML3742 (expires 30/6/2027).

2012 MCU 12-0216 – approval was given for a quarry, the extracted material is proposed to be used as fill. CSR are seeking to include their other site – White pits in the Urban footprint. They have an existing permit to extract material from McGilchrist's Pits to use as fill at the White Pit site.

This operation has not commenced.

- 309 Kennedys Road, mining lease ML3671 expired 24/7/14.

Extractive resource description:

This is the largest tertiary clay deposit in Noosa Shire.

Significance:

The site was significant as a tertiary clay deposit and was a major resource and of importance to the former Cooroy Brickworks which is now closed. The site is no longer operational and there is no current lease over 309 Kennedy's Rd.

The site's significance to CSR has somewhat changed from a supply source of clay for the brick works to a supply source for fill of their other landholding at White Pit.

The Noosa Plan currently identifies this area as a local resource area, separation area and mining lease.

Separation Area:

The separation area is 200 m around the boundary of the local resource processing area.

Transport route:

Transport separation area around Lamonts Road

Special considerations:

The site contains environmental protection corridors and riparian buffer areas in the biodiversity overlay and bushfire hazard. State interests include biodiversity, water quality and natural hazards risk and resilience.

Constraints to exploitation:

The site was exploited for many years when the brickworks were open. There could be some conflict of landuse with the encroaching residential development if it was to begin operations again.

Recommendation:

- 300 Kennedys Road

It is recommended 300 Kennedy's Road be included in the new planning scheme as a local resource area and separation area as the mining lease and MCU approval for extraction is still current. Realign the local resource separation area.

- 309 Kennedys Road

It is recommended 309 Kennedy's Road be excluded from the new planning scheme as the site is not operational and there is no current mining lease on the site.

4.2.4 White Pit

Location:

125 Lake MacDonald Drive Lake MacDonald (2RP852009), 8RP16073, 3RP 137375.
93 Lake MacDonald Drive Lake MacDonald 101SP142407.



Extractive resource:

Clay

Status:

Not operational

Approvals and permits:

CSR Building Products Mining leases - Cooroy Brickworks –
ML50078 (expires 30/11/2027), ML3718 (expires 31/1/2027), ML3729 (expires 30/4/2027),
ML3673 (expires 28/02/2018), ML3705 (expires 28/02/2017), ML 3672(expires 31/08/2018).

Preliminary discussions have occurred between CSR and Council officers although CSR have yet to make a formal determination for this site. CSR has made representations to the State Government to expand the Urban Footprint with the aim to potentially fill these sites for development of approximately 200 urban residential lots.

Extractive resource description:

This is the largest tertiary clay deposit in Noosa Shire. It is a large resource that was of former importance to Cooroy Brickworks.

Significance:

This Noosa Plan currently identifies this area as a local resource area and separation area and mining lease.

The site was of significance to Cooroy Brickworks in the past but with its closure the significance is reduced, particularly now the owners are looking at fill and redevelopment opportunities.

Separation Area:

The separation area is 200m around the boundary of the local resource processing area.

Transport route:

There is no identified transport route.

Special considerations:

The site contains some areas of environmental protection and bushfire hazard under the overlays. State interests include biodiversity, water quality and natural hazard risk and resilience.

Recommendation:

It is recommended White Pit continue to be included as a local resource area and separation area and mining lease until such time as there is a decision on the future of the site, as the mining leases are still valid.

The future use of White Pit can be considered as part of preparing the new planning scheme and should involve engagement with the local community.

4.2.5 Glenwood

Location:

666 Louis Bazzo Drive Ringtail Creek
2/RP160124 Ringtail Creek - (adjacent Louis Bazzo Dr and Hessen Pl).



Extractive resource:

Clay and shale

Status:

The site does not appear operational – however a renewal lease is currently lodged with the Department of Natural Resources and Mines which indicates an intention to keep the site active.

Approvals and permits:

CSR Building Products Pty Ltd. ML3709 expired on 31/5/16.

A renewal lease is currently lodged with the Department of Natural Resources and Mines.

Extractive resource description:

Small area of light firing clays

Significance:

The site has some significance as a resource for light firing clays.

This is noted as a mining lease over part of the local resource processing area, local resource processing area and separation area in The Noosa Plan 2006.

Separation Area:

The separation area is 200 m around the boundary of the local resource processing area.

Transport route:

No transport route has been identified in The Noosa Plan.

Special considerations:

The site contains some areas of environmental protection and bushfire hazard under the overlays. State interests include biodiversity, water quality and natural hazards risk and resilience.

Recommendation:

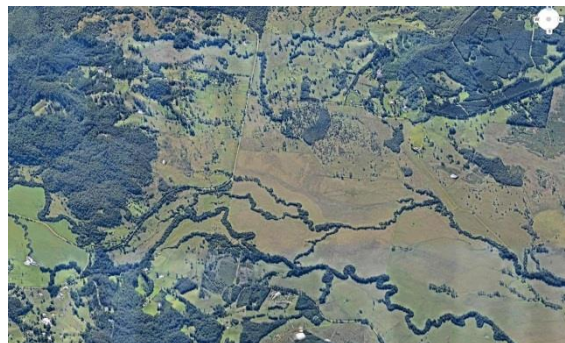
It is recommended that Glenwood be included in the new planning scheme as a local resource area and separation area, subject to the mining lease being approved.

4.2.6 Kin Kin Creek

Location:

Kin Kin Creek (between Gympie, Kin Kin Rd and Dr Pages Road).

2SP149484, 1RP817498, 1RP885196, 2RP885196, 4SP239219, 383M371134, 4MCH3264, 249MCH618, 3RP893389, 4SP149484, 4SP239219, 4RP836655, 4RP894914, 5SP129690, 1RP849541.



Extractive resource:

Sand, gravel, loam

Status:

Not commenced or active.

Approvals and permits:

None

Extractive resource description:

Large sand resource in the area where Kin Kin Creek discharges onto the broader plain.

Significance:

This is noted as local resource processing area, local resource processing area and separation area in The Noosa Plan 2006. The site is not identified as having regional or state significance as a KRA under the SPP.

Whilst there are sand resources in the southern end of the Sunshine Coast region at Meridan Plains, long term sand resource for Noosa Shire is in limited supply.

Separation Area:

The separation area is approximately 500 m around the boundary of the local resource processing area

Transport route:

No transport route has been identified

Special considerations:

The site contains waterways, environmental protection, riparian buffer areas and is partly within a water catchment under the overlays. Separation areas are in the bushfire hazard overlay. There may be downstream impacts on the Noosa River if the site was to be developed. Drainage and stormwater management is a key issue.

Recommendation:

It is recommended the Kin Kin Creek sand resource be excluded from the new planning scheme for the following reasons:

- the reducing demand for sand resources in Noosa given its projected low growth;
- extensive availability of sand resource south of Noosa;
- the site contains no approval or permits and is not operational;
- the site's distance to market and identified lack of commercial viability;
- environmental constraints and potential environmental impacts.

4.2.7 Brogden's Pit

Location:

334 Old Tewanin Road Tewanin 137/MCH392



Extractive Resource:

Brick clay

Status:

The site is abandoned and appears to have not had activity for some time. There is regrowth occurring.

Approvals and permits:

There is no mining permit for the site. ML3751 expired 28/2/2010.

Extractive resource Description:

Weathered sandstone which is used for an additive to the brick clay.

Significance:

The Willmott Report in 2001 proposed no specific protection for Brogden's Pit as the resource was small and there was widespread alternative supplies of the resource. The Noosa Plan 2006 does not identify the site as a local resource but does identify the mining lease.

Separation areas:

There are no separation areas.

Transport route:

There are no transport routes.

Recommendation:

It is recommended Brogden's Pit not be included in the new planning scheme for the following reasons:

- the site was not identified as significant in the 2001 Willmott report;
- the site has not been active for some time;
- the mining lease expired over 6 years ago;
- the site is not identified as a local resource in The Noosa Plan.

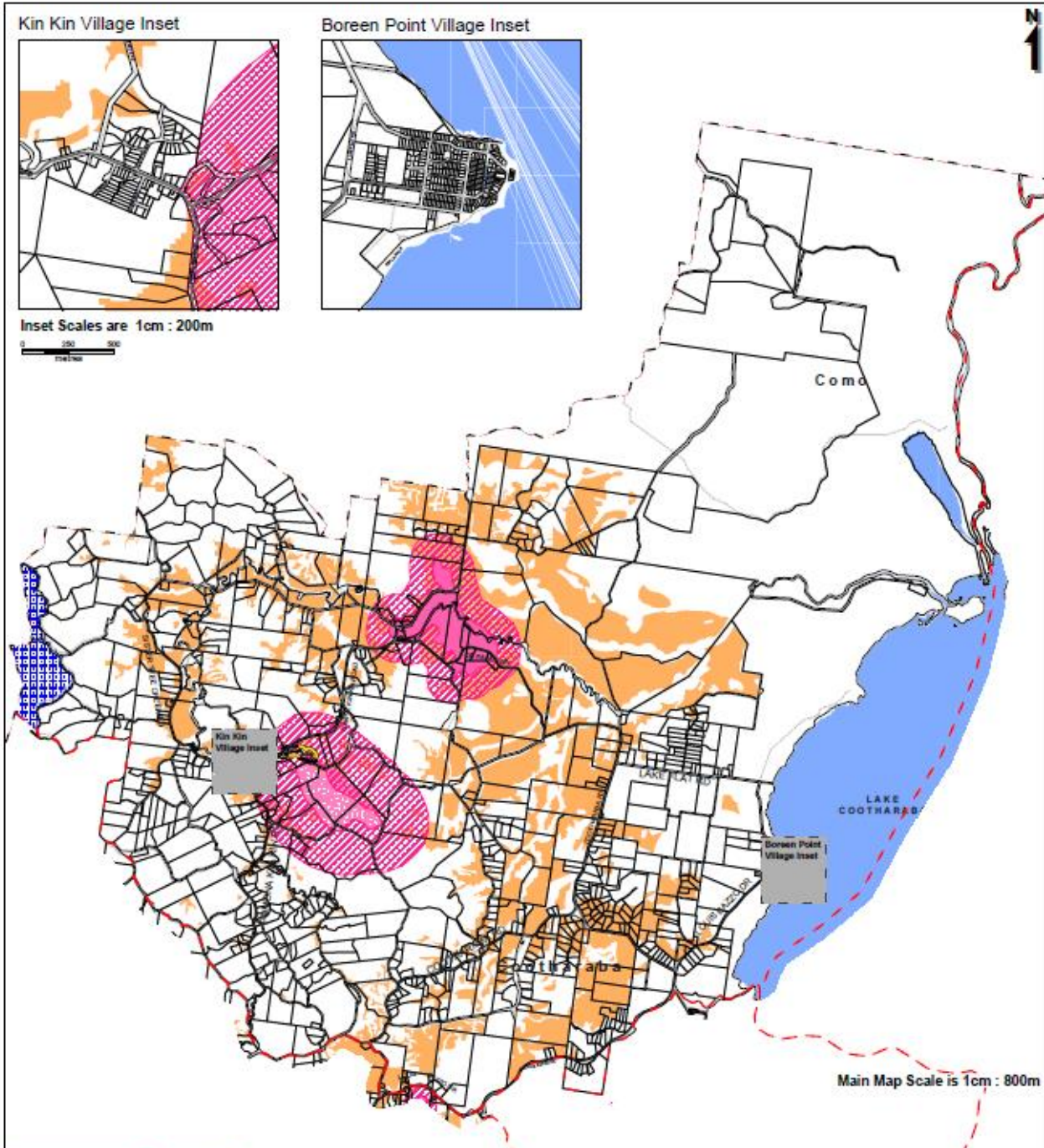
4.3 Recommendations for new planning scheme

The following recommendations are made with regard to the inclusion or exclusion of resources to be identified and protected in the new planning scheme:

12. Include KRA 56 and KRA 57 in the Extractive Resource and Mining Overlay consistent with the SPP mapping.
13. Include the following sites as mining lease³ and local resource areas and separation area in the Extractive Resource and Mining Overlay:
 - Nandroya (subject to current lease renewal approval)
 - Glenwood (subject to current lease renewal approval)
 - McGilchrist's Pits (300 Kennedy's Road only – review boundaries)
 - White Pit (subject to review of future use of the site)
14. Exclude the following sites as local resource areas from the Extractive Resource and Mining Overlay:
 - Ringtail Creek
 - Kin Kin Creek sand
 - McGilchrist's Pits (309 Kennedy's Road)
15. Exclude the following mining lease designations from the Extractive Resource and Mining Overlay:
 - McGilchrist's Pits (309 Kennedys Road)
 - Brogden's Pit
16. Make clear statements in the Strategic Framework regarding extractive industry and mining in Noosa Shire. Make specific reference to the use, extent and transport routes for KRAs and local resources.

Appendix 1 – The Noosa Plan – Natural Resources Overlay – Extractive resources and Mining

³ Designation as mining lease is subject to further discussion with the State regarding the potential use of the Mines Online Mapping site as the mining overlay.

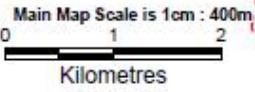
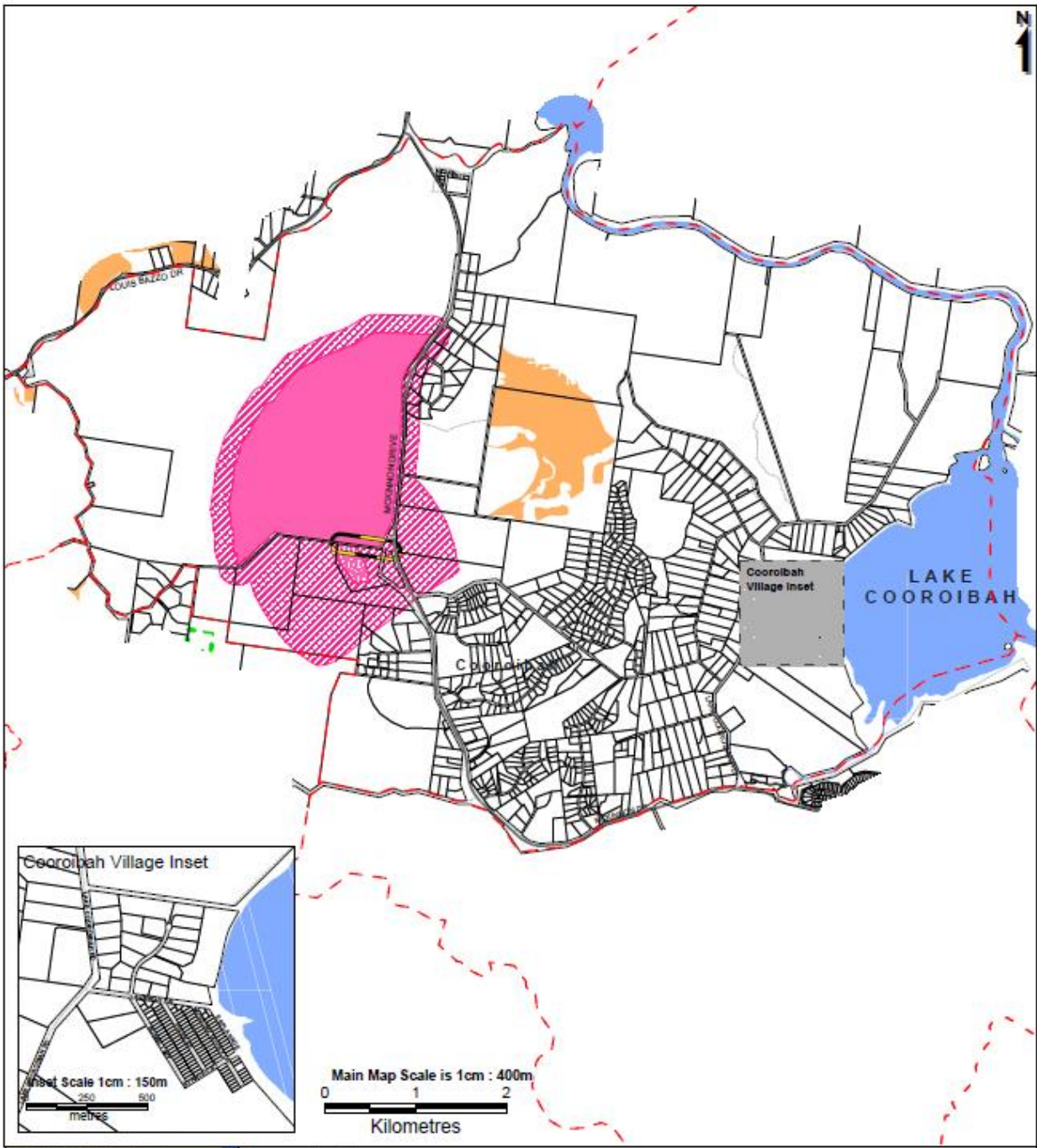


Boreen Point, Kin Kin & Cootharaba Natural Resources Overlay (Map OM1.5)

The Noosa Plan
Version: March 2008
Approved: Council 23 November 2007 (revised) 11 May 2008
This map is a reproduction from Council's 2008. It has a scale of accuracy of 1:25,000, although data on which it is based was gathered at much finer scales. Please be aware that boundaries may differ to those indicated on the survey. Council Copyright Reserved.
Workshop Location: NaturalResources_8900.rvt

- - - - Noosa Shire Boundary
 - ==== Railway Line
 - ==== Major Road Network
 - Gas Pipeline
 - Easement & Buffer
 - Haulage Route Separation Area
 - Mining Leases
 - Key Resource/Processing Area
 - Local Resource/Processing Area
 - Resource/Processing Separation Area
- - - - Localities
 - - - - Boundaries
 - Property Boundaries
 - Major Waterbodies
 - Water Supply Catchment
 - Coastal Protection Area
 - Agricultural Land Conservation Area (ALCA)
 - Inset

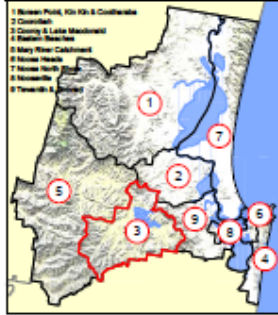
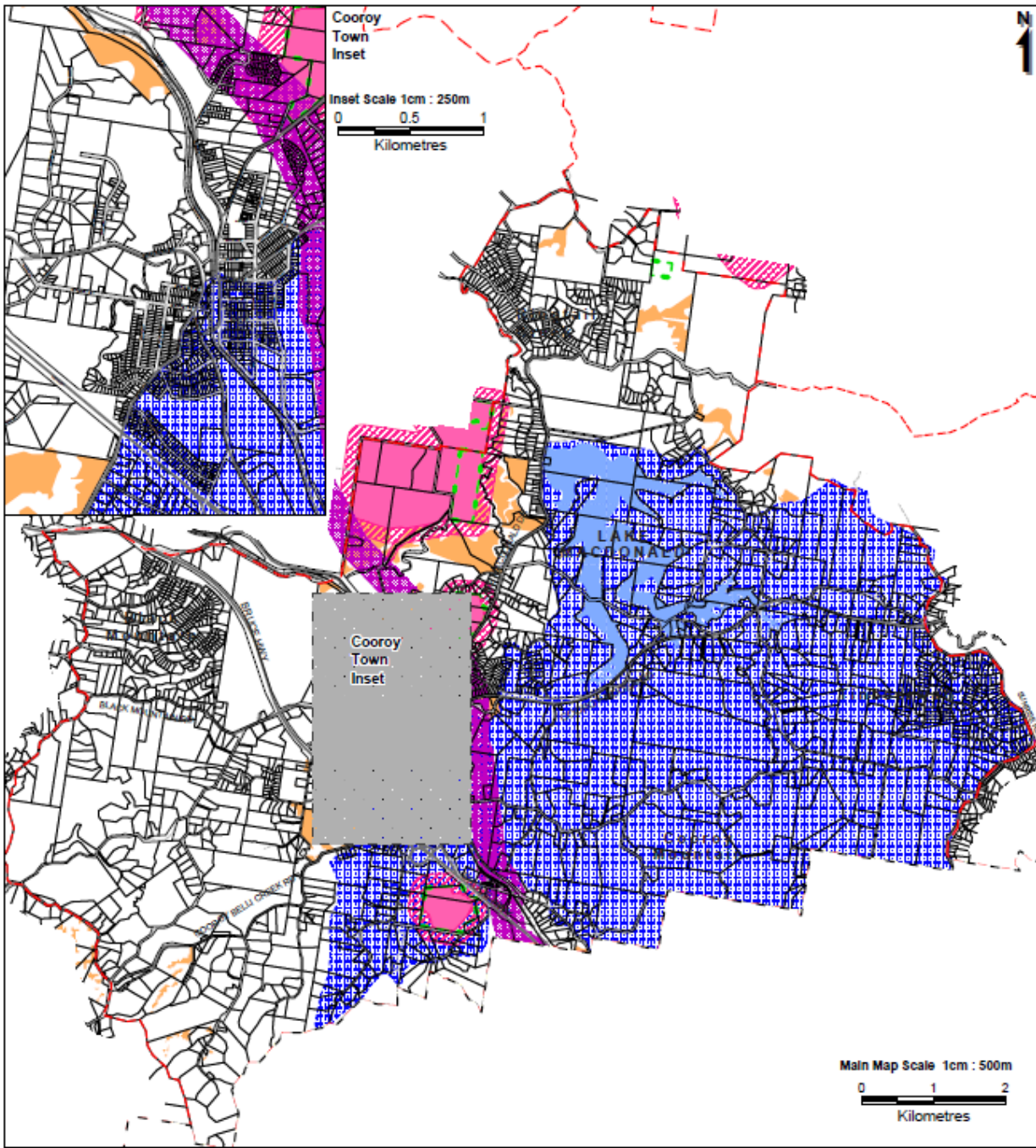
Provision of this 200m of land included within the Agricultural Land Conservation Area may trigger assessment under the National Resources Overlay Code. Refer to Assessment Table in Part 10.



Coorobah Natural Resources Overlay (Map OM2.5)

The Noosa Plan
 Version: March 2008
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 Workspace Location: NaturalResources_Coorobah.mxd

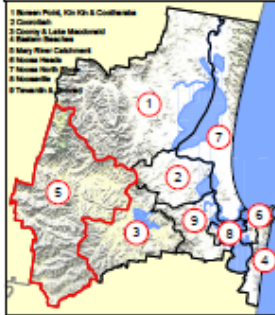
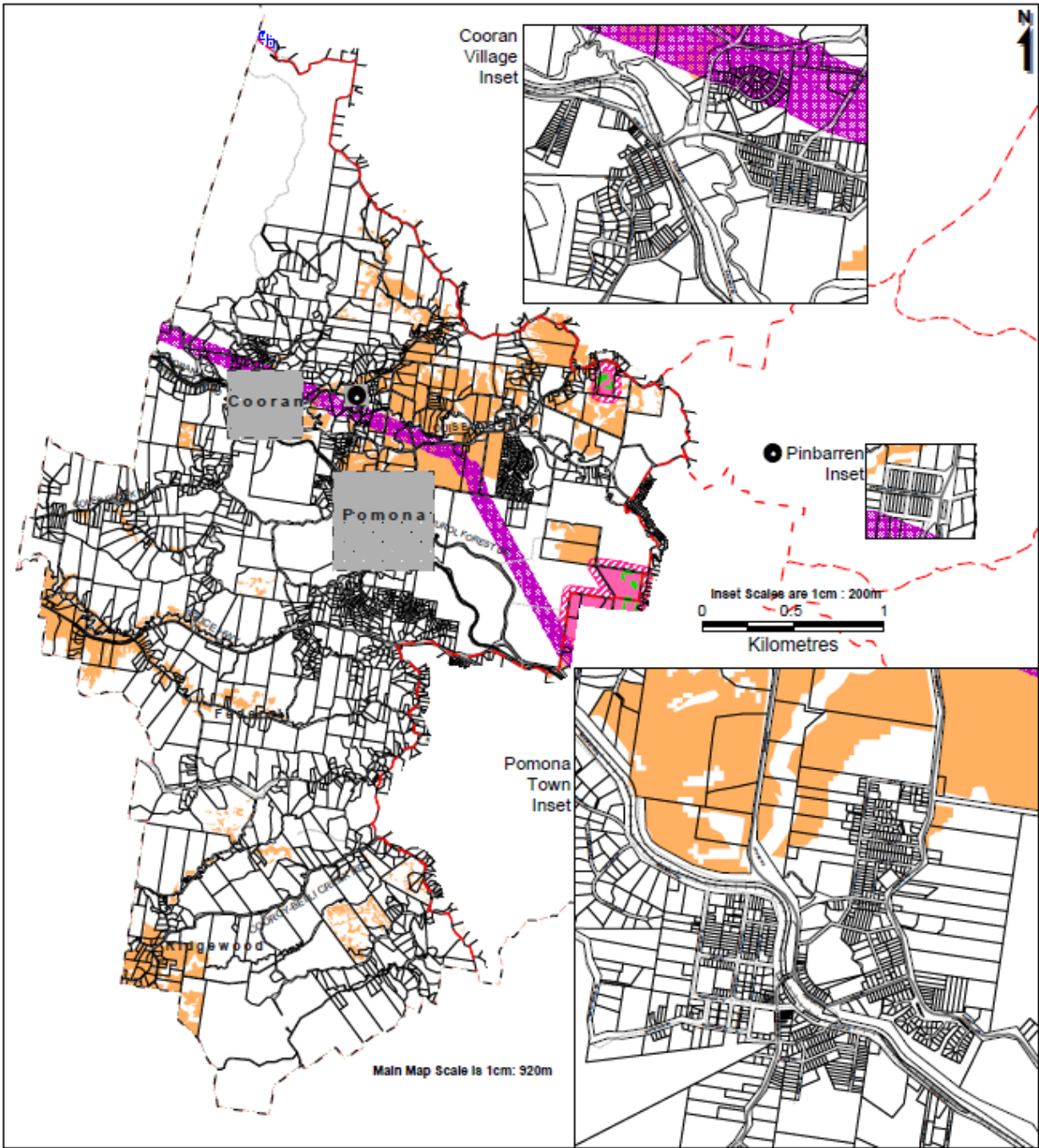
- - - Locality Boundaries
- - - Property Boundaries
- Major Waterbodies
- Water Supply Catchment
- Coastal Protection Area
- Agricultural Land Conservation Area (ALCA)
- Inset
- - - Noosa Shire Boundary
- - - Railway Line
- - - Major Road Network
- Gac Pipeline Easement & Buffer
- Haulage Route Separation Area
- Mining Leases
- Key Resource/ Processing Area
- Local Resource/ Processing Area
- Extractive Resource Separation Area



Cooroy & Lake Macdonald Natural Resources Overlay (Map OM3.5)

The Noosa Plan
 Prepared March 2009
 Version: Round 2 Amendments (commenced 11 May 2009)
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 Filepath: Location: NaturalResources_Cooroy_andLakeMac

- - - Locality Boundaries
- - - Property Boundaries
- Major Waterbodies
- Water Supply Catchment
- Coastal Protection Area
- Agricultural Land Conservation Area (ALCA)
- Inset
- - - Noosa Shire Boundary
- Railway Line
- Major Road Network
- Gas Pipeline Easement & Buffer
- Haulage Route Separation Area
- Mining Leases
- Local Resource/Processing Area
- Key Resource/Processing Area
- Resource Separation Area



**Mary River Catchment
Natural Resources Overlay
(Map OM5.5)**



Project: March 2008
Version: Noosa 2 Amendment commenced 11 May 2008
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Workplace Location: NaturalResources_MaryRiver.nsw

- - - Locality Boundaries
- - - Property Boundaries
- Major Waterbodies
- Water Supply Catchment
- Coastal Protection Area
- Agricultural Land Conservation Area (ALCA)
- Inset
- - - Noosa Shire Boundary
- Railway Line
- Major Road Network
- Gas Pipeline
- Easement & Buffer
- Haulage Route Separation Area
- Mining Leases
- Key Resource/ Processing Area
- Local Resource/ Processing Area
- Resource/Processing Separation Area

Appendix 2 - Definitions

Mineral Resources Act 1989

Meaning of mineral

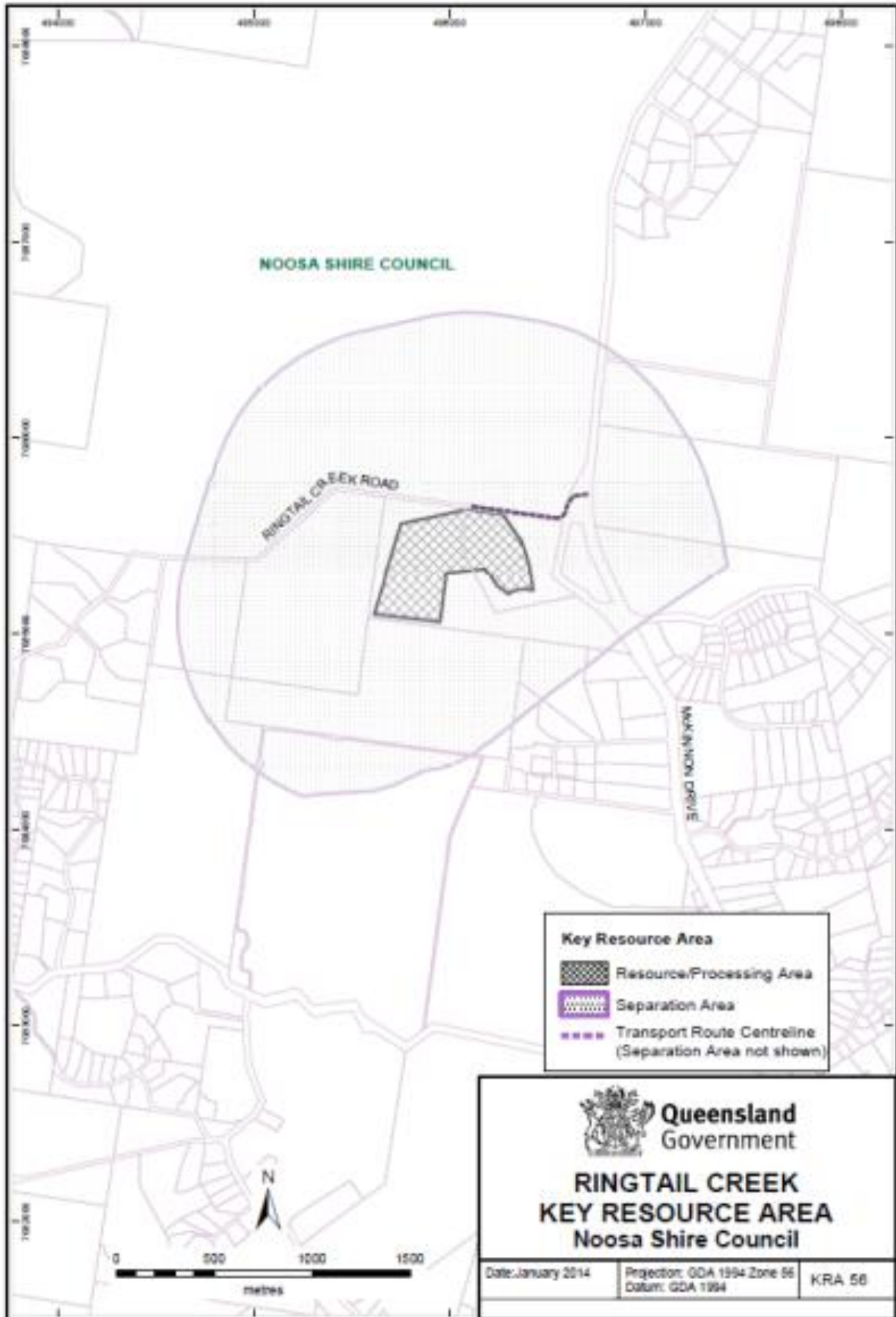
- (1) A mineral is a substance—
- (a) normally occurring naturally as part of the earth's crust; or
 - (b) dissolved or suspended in water on or within the earth's crust; or
 - (c) that may be extracted from a substance mentioned in paragraph (a) or (b).
- (2) Subject to subsection (3), each of the following is a mineral—
- (a) any type of clay;
 - (b) foundry sand;
 - (c) coal seam gas;
 - (d) limestone;
 - (e) marble;
 - (f) a product that may be extracted or produced by an underground gasification process for coal or oil shale (mineral (f)) and another product that may result from the carrying out of the process (also mineral (f));
*Examples of underground gasification processes—
combustion, consumption, heating, leaching and reaction
Example of another product—
gas desorbed as a result of an underground gasification process*
 - (g) peat;
 - (h) salt, including brine;
 - (i) oil shale;
 - (j) silica, including silica sand;
 - (k) rock mined in block or slab form for building or monumental purposes.
- (3) Despite subsections (1) and (2)—
- (a) clay (other than kaolin and bentonite) is only a mineral if it is mined for use for its ceramic properties; and
*Examples of uses of clay for its ceramic properties—
• for brick or tile making
• for pottery making*
 - (b) limestone, silica and silica sand is only a mineral if it is mined for use for its chemical properties; and
 - (c) mineral (f) is only a mineral if—
 - (i) the coal or oil shale, from which it is extracted or produced, is held under a mineral development licence and it has been added to the licence under section 208; or
 - (ii) the coal or oil shale, from which it is extracted or produced, is held under a mining lease and it is specified in the lease; and
 - (d) each of the following is not a mineral—
 - (i) soil, sand, gravel or rock (other than rock mentioned in subsection (2)(k)) if it is to be used, or to be supplied for use, as sand, gravel or rock, whether intact or in broken form;
 - (ii) living matter;
 - (iii) steam or water.

Meaning of mine

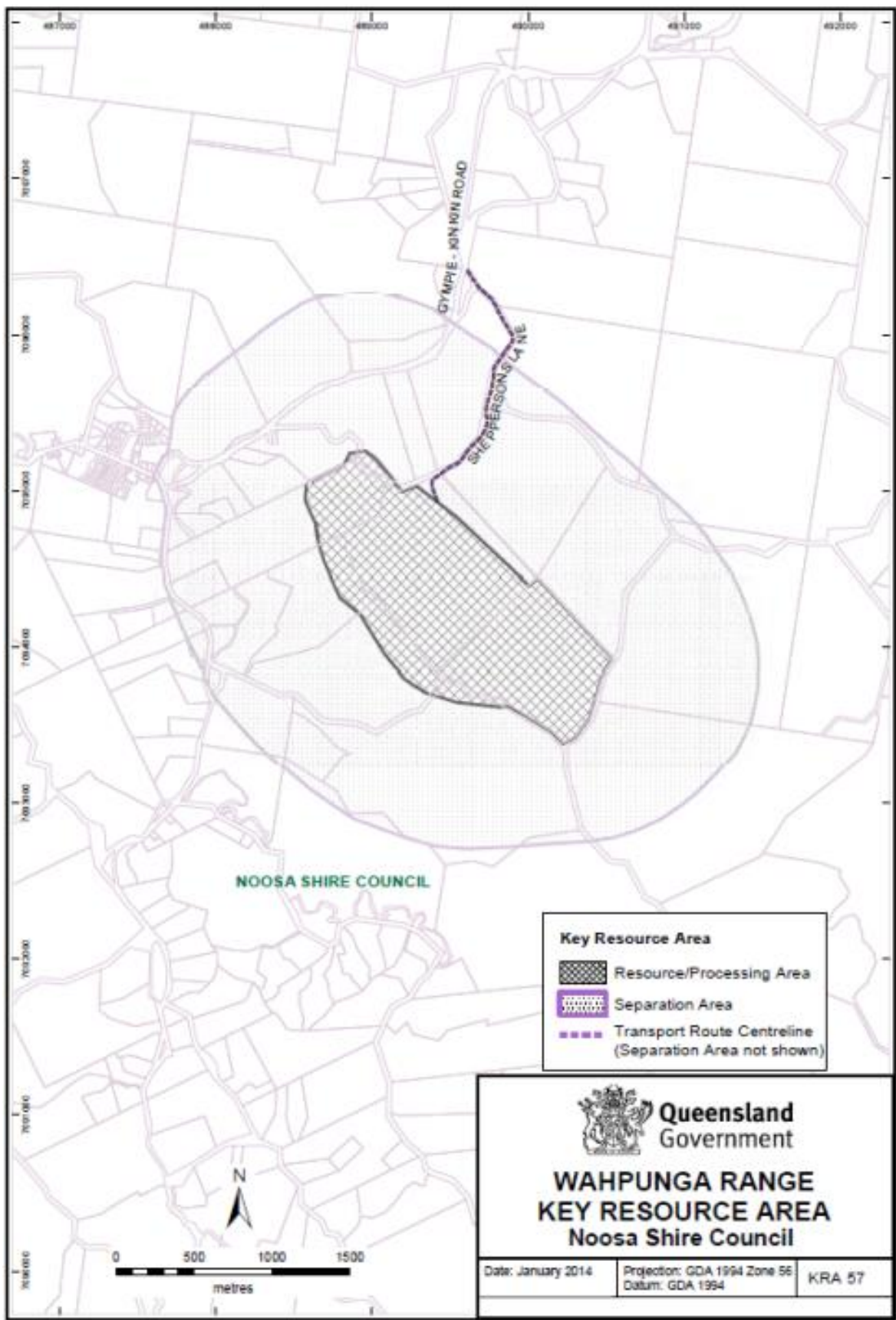
- (1) Mine means to carry on an operation with a view to, or for the purpose of—
- (a) winning mineral from a place where it occurs; or
 - (b) extracting mineral from its natural state; or
 - (c) disposing of mineral in connection with, or waste substances resulting from, the winning or extraction.
- (2) For subsection (1), extracting includes the physical, chemical, electrical, magnetic or other way of separation of a mineral.
- (3) Extracting includes, for example, crushing, grinding, concentrating, screening, washing, jigging, tabling, electrowinning, solvent extraction electrowinning (SX-EW), heap leaching, flotation, fluidised bedding, carbon-in-leach (CIL) and carbon-in-pulp (CIP) processing.

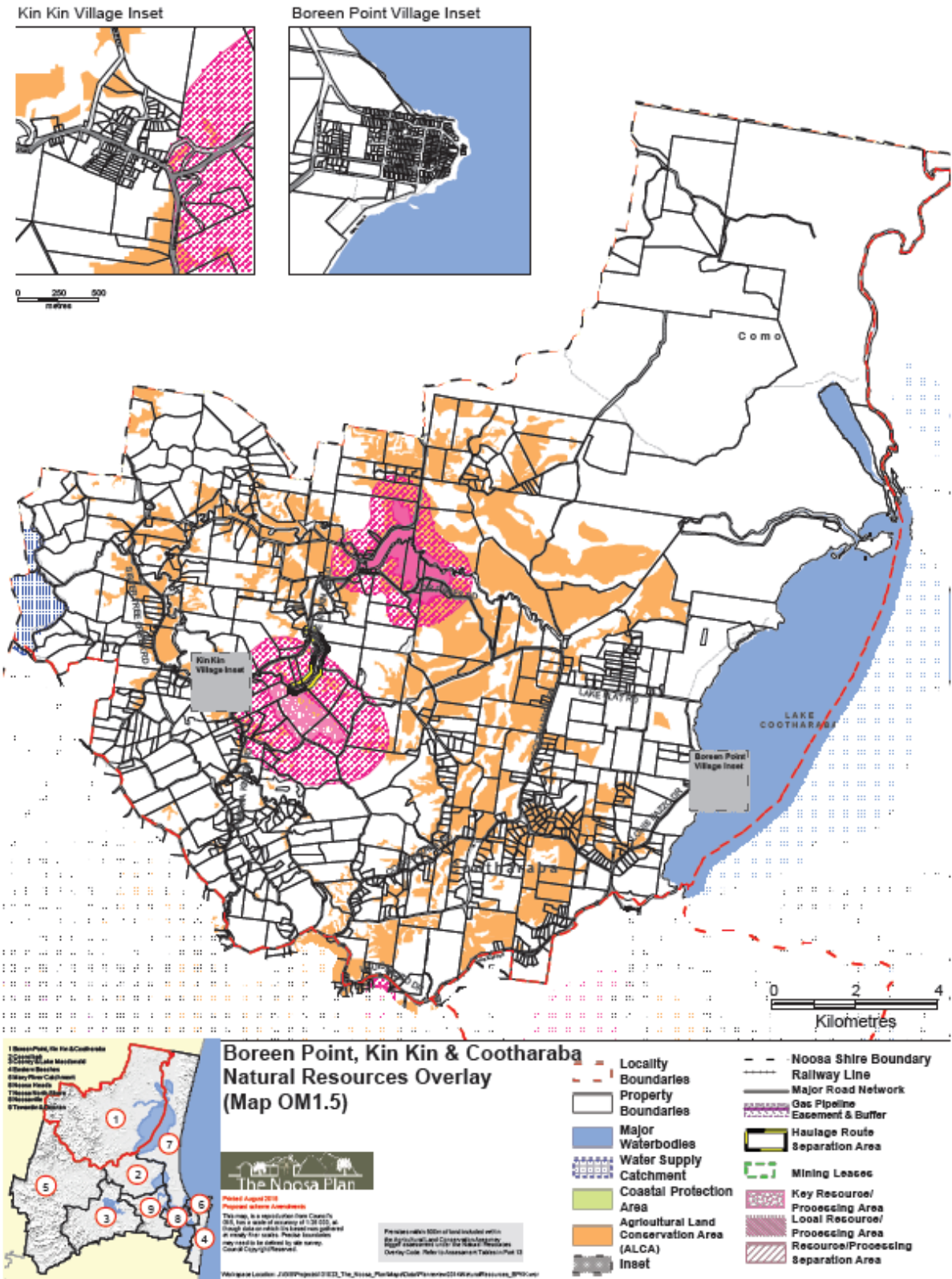
- (4) However, extracting does not include—
- (a) a process in a smelter, refinery or anywhere else by which mineral is changed to another substance; or
 - (b) testing or assaying small quantities of mineral in teaching institutions or laboratories, other than laboratories situated in the area of a mining lease; or
 - (c) an activity, prescribed under a regulation, that is not directly associated with winning mineral from a place where it occurs.
- (5) For subsection (1), disposing includes, for example, the disposal of tailings and waste rock.
- (6) A regulation under subsection (4)(c) may prescribe an activity by reference to the quantities of minerals extracted or to any other specified circumstances.

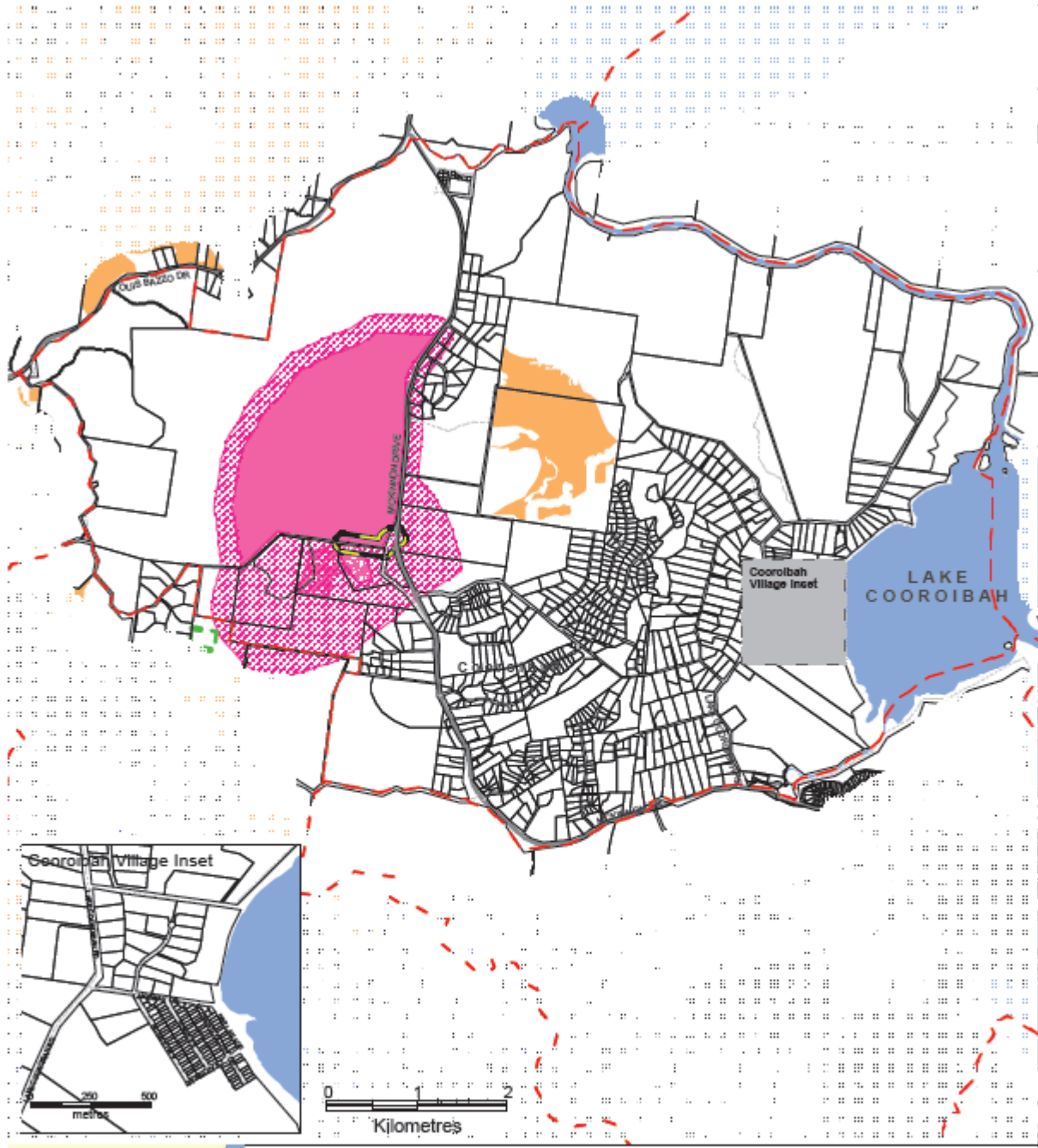
Appendix 3 – KRA 56 – Ringtail Creek



Appendix 4 – KRA 57 – Wahpunga Range Kin Kin







Coorobah Natural Resources Overlay (Map OM2.5)



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 though not an exact scale based on ground
 or aerial photography. Possible inaccuracies
 may need to be taken by site survey.
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Properties within 100m of land in this overlay
 are subject to a Local Conservation Area may
 trigger assessment under the State of Resources
 Overlay Code. Refer to Assessment Terms in Part 10.

Mappage Location: J:\GIS\Projects\2015_The_Noosa_Plan\GIS\MapPages\OM2\MapResources_Coorobah.mxd

- Locality Boundaries
- Noosa Shire Boundary
- Railway Line
- Major Road Network
- Property Boundaries
- Major Waterbodies
- Water Supply Catchment
- Coastal Protection Area
- Agricultural Land Conservation Area (ALCA)
- Inset
- Gas Pipeline
- Easement & Buffer
- Haulage Route
- Separation Area
- Mining Leases
- Key Resource/ Processing Area
- Local Resource/ Processing Area
- Extractive Resource Separation Area

13.42 Overall outcomes for the Natural Resources Overlay Code

13.42.1 The overall outcomes are the purpose of the Natural Resources Overlay Code.

13.42.2 The overall outcomes sought for the Natural Resources Overlay Code are—

- a) for agricultural land conservation areas—
 - ~~i~~ agricultural land in the rural zone is protected from fragmentation, alienation or diminished agricultural productivity.
 - ~~ii~~ good quality agricultural land in the rural zone is protected for agricultural uses.
 - ~~iii~~ the use of good quality agricultural land for agriculture is not adversely affected by other forms of development; and
 - ~~iv~~ uses that are able to be located elsewhere do not locate within agricultural land conservation areas;

- b) for extractive resource areas—
 - ~~i~~ development ensures that resource/processing areas and transport routes are protected from encroaching development that is not a compatible extractive industry use of the extractive resource area.
 - ~~ii~~ development for a sensitive or incompatible use maintains an effective separation from a key resource area and does not encroach within a key resource area's separation area and its transport route separation area.
 - ~~iii~~ development, other than for an extractive industry, is buffered from and is able to mitigate impacts likely to occur as a result of an extraction of resources from a extractive resource area.
 - ~~i~~ development does not adversely affect the ongoing use of existing extractive or mining industries or the development of extractive resources;
 - ~~ii~~ development does not constrain the transportation of the extracted material to markets; and
 - ~~iii~~ iv a high level of amenity for residents and land uses in the vicinity of extractive resources, extractive industry operations and transportation routes is maintained;

- c) for water supply catchment areas—
 - ~~i~~ Lake Macdonald and Cedar Pocket dam water supplies are not adversely affected by development or the effects of development
 - ~~ii~~ the Mary River drinking water intake is not adversely affected by development or the effects of development;
 - ~~iii~~ any development that is unavoidable within the water supply catchment is planned, designed, constructed and operated to manage stormwater, wastewater and any other pollutants in in a manner which contributes to maintaining and improving the water quality in those catchments;
 - ~~iv~~ v costs of water treatment and infrastructure maintenance are minimised;
 - ~~iv~~ v the expected life of dam infrastructure is maximised; and
 - ~~iv~~ vi the visual amenity of Lake Macdonald is not adversely affected by development; and

- d) for areas in proximity to existing and future bulk water supply infrastructure and corridors (including easements):
 - i. development does not compromise the corridor integrity, and the efficient delivery and functioning of the identified infrastructure; and
 - ii. bulk water infrastructure is protected from encroachment by sensitive land uses where practicable.
- e) for areas in proximity to gas pipelines—
 - i. development does not compromise the safety of people or property and is located to avoid dangers associated with gas pipelines; and
 - ii. development does not adversely affect the operation of gas pipelines and the supply of gas; and
- f) for Coastal Protection Areas, development —
 - i. does not adversely impact upon natural coastal processes; and
 - ii. is designed and sited to protect the natural beach experience and visual amenity enjoyed by residents and others.
 - iii.

Table 14-16 Industrial Business Type 3 Extractive

Column 1 Specific Outcomes	column 2 Probable solutions (if code assessable)
14.26 Effects of Use	
<p><u>Buffers, Separation and Amenity</u></p> <p><u>O87 The extractive industry is adequately separated from sensitive uses to minimise potential for nuisance or complaint.</u></p> <p><u>O88 The design, operation and staging of the extractive industry promotes the efficient utilisation of the resource.</u></p> <p><u>O89 The design, operation and staging of the extractive industry mitigates vibration, noise, dust, lighting and other impacts on the surrounding area.</u></p> <p><u>O90 The design, operation and staging of the extractive industry reduces impacts on natural environmental values to the greatest extent reasonably practicable and where impacts cannot be avoided the loss or decrease in values is minimised or offset.</u></p> <p><u>O91 The design, operation and staging of extractive industry optimises potential alternative land uses after the cessation of extractive activities.</u></p> <p><u>O92 The design, operation and staging of the extractive industry has regard to the desired visual character of the locality.</u></p>	<p><u>No Solution Provided</u></p>

Column 1 Specific Outcomes	column 2 Probable solutions (if code assessable)
<p><u>Management of Operations</u></p> <p><u>O93 On-site drainage is designed, constructed and maintained to:</u></p> <p>a) <u>minimise erosion;</u></p> <p>b) <u>avoid pollution of groundwater and surface water;</u></p> <p>c) <u>provide opportunities to conserve and reuse water on the site; and</u></p> <p>d) <u>prevent additional flooding or inundation.</u></p> <p><u>O94 Noise, vibration and dust emissions from the development are managed to acceptable levels.</u></p> <p><u>O95 Operations minimise lighting impacts on roads and other properties</u></p> <p><u>O96 Public access to the site is managed appropriately</u></p> <p><u>O97 Development is designed in a manner which will not compromise the stability, safety or operation of infrastructure.</u></p> <p><u>O98 Development is designed and managed to minimise the risk and impact of any accidental spills and / or releases of chemicals and other materials that may contaminate soil, stormwater, groundwater and/or air.</u></p>	<p><u>No Solution Provided</u></p>
<p><u>Landscaping</u></p> <p><u>O99 Landscaping complements biodiversity values of the adjoining area.</u></p>	<p><u>No Solution Provided</u></p>
<p><u>Hours of Operation</u></p> <p><u>O100 Extractive industry activities occurs at times that will not result in disturbance at surrounding uses.</u></p>	<p><u>No solution provided</u></p>
<p><u>Traffic and Transport</u></p> <p><u>O101 The transportation of materials is undertaken in a way which:</u></p> <p>a) <u>maintains the safety and efficiency of the roads comprising the transport route; and</u></p> <p>b) <u>minimises amenity impacts on premises within the transport routes separation area.</u></p>	

Column 1 Specific Outcomes	column 2 Probable solutions (if code assessable)
<p><u>Rehabilitation</u></p> <p><u>O102 Rehabilitation of the site, over the life of the project and on its completion:</u></p> <p>a) <u>provides for progressive/ staged rehabilitation works;</u></p> <p>b) <u>includes appropriate clean-up works (taking particular account of areas of possible soil or water contamination);</u></p> <p>c) <u>results in a stable final landform;</u></p> <p>d) <u>provide suitable drainage and hydraulic conditions; and</u></p> <p>e) <u>achieves a suitable degree of revegetation consistent with potential post-extraction land uses.</u></p> <p><u>O103 Rehabilitation allows for suitable use of any water storage created through the extraction process, having regard to water quality, hydraulic conditions, land form and vegetation.</u></p>	<p><u>No solution provided</u></p>
<p>O86<u>O104</u>Resource extraction activities in proximity to the Noosa River system only occur where—</p> <p>a) there is a clear demonstrated need;</p> <p>b) no feasible and prudent alternatives are available; and</p> <p>c) it can be demonstrated that the intrinsic natural values and resources of the river system can be managed and protected in an ecologically sustainable manner.</p>	<p>No solution provided</p>
<p>O87<u>O105</u>Industrial business Type 3 Extractive are designed, located and operated to ensure—</p> <p>a) haulage routes associated with extractive resources—</p> <p>i are located on roads where the haulage route will minimise adverse impacts on residential and urban residential amenity;</p> <p>ii are located on roads which are of adequate construction and which may be upgraded as part of the utilisation of the extractive resource; and</p> <p>iii are adequately maintained as a part of the utilisation of the extractive resource; and</p> <p>b) the utilisation of any extractive resource does not result in adverse visual impacts from major roads; and</p> <p>c) the rehabilitation of extractive industry sites, prior to or in conjunction with land use changes on the site of the resources or within buffers to the resource.</p>	<p>No solution provided</p>