

APPENDIX 2



SOCIAL IMPACT ASSESSMENT

Fennell Bay, NSW

Newstan Modification

PREPARED FOR: CENTENNIAL COAL

FEBRUARY 2011

**SOCIAL IMPACT ASSESSMENT
CENTENNIAL COAL
PROPOSED MODIFICATION NEWSTAN COLLIERY**

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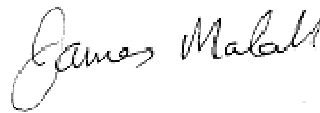
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EXECUTIVE SUMMARY

Centennial Newstan Pty Limited (Centennial Newstan) owns and operates the Newstan Colliery located approximately four kilometres north of the township of Toronto within the Lake Macquarie Local Government Area (LGA). Centennial Newstan is a wholly owned subsidiary of Centennial Coal Company Limited (Centennial Coal). Centennial Newstan is proposing a modification to the Newstan Colliery to allow for the recommencement of first workings bord and pillar mining in an area referred to as Main West located beyond the existing Development Consent boundary.

The recommencement of underground mining at the Newstan Colliery within the proposed Main West mining area will allow for the Newstan Colliery to generate revenue while ongoing assessments for future mining within the Newstan mine lease area are undertaken.

In the development of this Social Impact Assessment it was found that many residents and stakeholders across the community had a general distrust of Centennial Coal and the intent of the proposed modification. This was largely due to the history of pollution in LT Creek and recent proposals for open cut and auger mines in the local area.

As a result the Social Impact Assessment has identified the following:

-  Any change (increased discharge) to LT Creek will create angst with the community. A strategy for the management of LT Creek needs to be developed and implemented (refer appendix 1). This should be undertaken in consultation with the community.
-  The community have been provided with a mix of information regarding future plans for mining in the area and were therefore confused as to the scope of this proposal, or what the future plan was in relation to ongoing operations in the area. Without this direction being clearly outlined, there was very little support for the project.
-  A social impact will be experienced with any change to the current status (or operations) of the Newstan Colliery.

The management of the social impacts needs to be addressed in a more strategic manner. This is represented as follows:

-  Centennial Coal has undertaken some responsible actions regarding the future management of discharge into LT Creek. However the benefits identified as part of this proposal seem to be lost; and there seem to be a number of stakeholders who sit silent with regard to the management of LT Creek. It may be beneficial for the future management of LT Creek to be placed in the hands of an independent facilitator who has the authority to bring all stakeholders together – including those government agencies that have been silent to date. This role may be best placed with the Regional Coordinator from the NSW Premiers Department.
-  Centennial should move towards a position where the community do not need to ‘fight’ to preserve the intrinsic value they have in their communities. The community need to be satisfied that Centennial operate on the principles of:
 - Open communication regarding the future (ie what will and what will not be proposed). There is also great fear now that old agreements will not be honoured and these should be addressed – eg “not pull the pillars from under Awaba”.
 - Improve the operation of the Newstan Community Consultative Committee (CCC). This could include:

- Improving communication flow to the Newstan CCC of other Centennial operations within the area (ie Newstan, Awaba, Mandalong).
- There needs to be improved operational procedures for the Newstan CCC such as sending an agenda to members prior to the meeting. Without this, the community is not able to plan for the meeting and sees the process as being token gesture.
- All enquiries, and how they are managed need to be presented to the CCC. The downgrading of complaints to enquiries is not seen as being acceptable. Rather than enter this debate, present all enquiries.



There needs to be a clear direction presented to the community which shows the plan for Centennial Coal into the future. This will not prevent the community from acting against any future proposal but will take away the current angst felt by some of the community and focus the issues towards those who have a specific issue on the matters at hand.

These issues have been discussed and workshopped with Centennial staff and a clear action and management strategy has been subsequently developed for the issues relating to:

1. LT Creek
2. Centennial Coals future plans for this project
3. Management of the CCC.

The management strategies are outlined in Section 6 of this report.

CONTENTS

1. Introduction:	1
1.1 Overview	1
2. Social Impact Assessment Guidelines and Methodology	3
2.1 LMCC DCP Requirements	3
2.2 Methodology	4
3. Overview of Newstan Operations	6
3.1 Introduction	6
3.2 Development Proposal	6
3.3 Identified Impacts – Project Briefing Paper	6
4. Assessment of Social Impacts	10
4.1 Regional Assessment	10
4.1.1 Environment and Economy	13
4.1.2 Health	14
4.1.3 Do The Benefits Outweigh Negative Impacts	15
4.2 Conclusion Regional Assessment	15
4.3 Local Assessment	16
4.3.1 Overview	16
4.3.2 Lake Macquarie General Characteristics	17
4.3.3 Population Characteristics	19
4.3.4 What Are The Social Impacts	23
4.3.4.1 Introduction	23
4.3.4.2 Sense of Place and Community	23
4.3.4.3 Changing Environment	28
4.3.4.4 Change to Identified Intrinsic Value	29
4.3.4.5 Relationship Between Centennial Coal and Community	30
5. Conclusion of Social Impacts	32
6. Management of Social Impacts	34
Appendix 1: LT Creek Water Quality Management Plan	37

1. INTRODUCTION

1.1 Overview

Lantz Marshall has been engaged by Centennial Newstan to undertake a Social Impact Assessment (SIA) of a proposed modification to the Newstan Colliery. Newstan Colliery is seeking a modification to allow for the recommencement of first workings bord and pillar mining in an area referred to as Main West located beyond the existing Development Consent boundary.

A map of the proposed Project area in relation to the current Development Consent boundary is below.

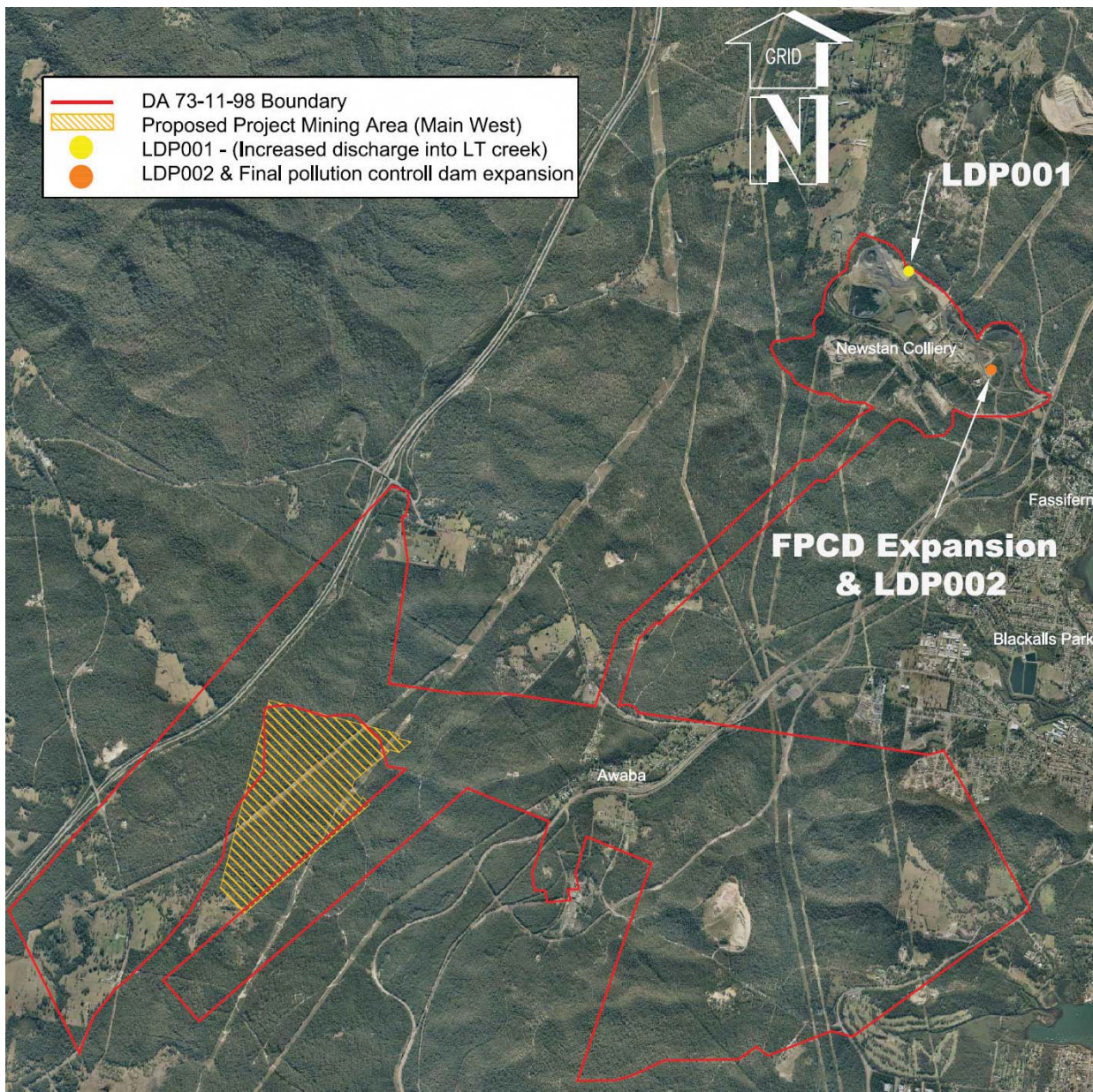


Figure 1: Main West mining area in relation to the current Development Consent boundaries

The recommencement of underground mining at the Newstan Colliery within the proposed Main West mining area will allow for the Newstan Colliery to generate revenue while ongoing assessments for future mining within the Newstan mine lease area are undertaken.

The proposed Project currently being assessed will provide full time employment for approximately 50 personnel and assist Centennial in meeting current contract supplies of coal to both the domestic and export markets.

In addition, the proposed Project will provide a positive economic impact to the local, regional and state economies through direct and indirect employment and royalties.

2. SOCIAL IMPACT ASSESSMENT GUIDELINES AND METHODOLOGY

2.1 Lake Macquarie City Council DCP Requirements

Newstan Colliery is located within the Lake Macquarie Local Government Area (LGA) and therefore the SIA has been prepared and written in accordance with the Lake Macquarie City Council (LMCC) Development Control Plan (DCP) No. 1, Part 2.2 – Social Impact Guidelines.

Under the DCP the Project fits within Category 2 which has specified performance criteria that need to be addressed. This will ensure that the assessment has taken into account local policies on such matters as well as required consultation processes etc (it should be noted that the DCP is consistent with the standard guidelines for such impact assessments).

The DCP states that Social Impact Assessment focuses on the human dimension of environments. It seeks to address the question “what will be the impact of a project/development on people” and to anticipate outcomes that may flow from a proposed development which are likely to affect people’s way of life, their culture and/or their community. Within these guidelines the purpose of the Social Impact Assessment is to:

-  Assist in establishing the full facts about the development, to support a well-informed decision about the appropriateness of the development proposal,
-  Minimise adverse impacts and maximise beneficial impacts of the development,
-  Assess the impacts of the development on future generations,
-  Inform the community and facilitate participation by the community in the planning and development assessment process,
-  Facilitate the consideration of alternative development proposals, and
-  Enhance existing data to inform the planning and development assessment process.

In the preparation of the Social Impact Assessment Report it is required to give consideration to:

-  The scale, complexity, time frame and nature of the proposal,
-  Social issues likely to be relevant to the proposal,
-  The degree of significance of the identified issues, such as the number of people or size of the area likely to be affected:
 - The communities likely to be affected by the proposal,
 - An identifiable effect on the availability and use of existing community services, facilities and land and/or may require the provision of such services, facilities and land,
 - An identifiable effect on the social composition and/or character of the locality, and
 - A distinct (either positive or negative) effect on a particular social group either residing on or in the vicinity of the site.

The preparation will take into account:

1. Review of existing studies relating to the planning and growth strategies for the area and surrounds including but not limited to:
 -  Lower Hunter Regional Strategy (LHRS)
 -  Lake Macquarie 2020 Vision Plan
 -  Lake Macquarie Community Plan 2008 - 2018
 -  Demographic review derived from the 2001 and 2006 ABS Census.

2. Liaise with identified key stakeholders and special interest groups including the Newstan Community Consultative Committee (CCC), Environmental Coordinator and others to assess the possible impacts arising from the development.
3. A statistical assessment of the area including an analysis of the demographic characteristics and population growth forecasts in the area and the changes, if any, of the overall characteristics arising from this development.
4. Assessment of existing social infrastructure and services as well as opportunities in surrounding area.
5. Information concerned with the development application for the proposed development and its context within the LMCC LGA as well as the wider sub-regional context assessing the potential impacts (both negative and positive) arising from the proposed development.
6. Identification of needs and social sustainability strategies.
7. Management strategies for impacts with those being identified as having an adverse or detrimental affect having associated mitigation strategies where possible. It should be noted that it is not always possible to manage all adverse impacts however identification of these impacts and how they can be managed must be taken into account. Similarly impacts that are identified as being positive need to also be identified and capitalised upon where possible and appropriate. This allows for an assessment as to whether the proposal meets net community benefit criteria.
8. Strategies to monitor identified impacts will be identified to ensure that management strategies are adhered to and those cumulative impacts are identified, monitored and taken into account with further development.

2.2 Methodology

A SIA is required for development matters which are identified to bring about changes to a particular locality where the development will occur. While there are numerous definitions of a SIA, in broad terms a SIA is an analysis of the likely effects that the development (or policy / program) will have on the social fabric of a community. It investigates who is affected and how. The aim of the SIA is therefore used to assist determine the scale of change, if any, within the community (it must be noted that social impacts can be both positive and negative). For example:-

-  The desirable and undesirable social impacts,
-  The intentional and unintentional social impacts, and
-  The distributional social impacts (impacts experienced by different people and different parts of the community).

Notwithstanding the requirements of the Lake Macquarie City Council (LMCC) Development Control Plan (DCP) No. 1, Part 2.2 – Social Impact Guidelines, a SIA is a systematic, staged approach of enquiry with the core stages being:

1. Profiling: This involves the understanding of the scale and scope of the project, parameters of the SIA, identification of the stakeholders (determined by the areas of affectation).
2. Scoping: This involves the identification of the likely impacts arising from the development and includes consultation and feedback from identified stakeholders. Consultation is undertaken in a range of ways and may include informal consultation, stakeholder engagement, surveys etc.
3. Assessment: This section explores the likely impacts that will arise. The scope of the assessment is determined by the likely impacts and as a guide may include (but not be limited to):
 -  Changes to the population and characteristics of the area,
 -  The community structure, its character or beliefs,
 -  The health and safety of those living and working in the vicinity of the development,
 -  An assessment of safety as it relates to crime, anti social and nuisance behaviour,
 -  Social cohesion, in particular the quality of life of those living in the vicinity of the development,

- 
- Accessibility,
 - Sense of Place and community, and
 - The impact on existing services.

4. Management: All impacts should be identified and those that are identified as having an adverse or detrimental affect need to be managed and mitigated where possible. It is not always possible to manage all adverse impacts however identification of these impacts and how they can be managed must be taken into account. Similarly impacts that are identified as being positive need to also be identified and capitalised upon where possible and appropriate. This allows for an assessment as to whether the proposal meets net community benefit criteria.
5. Monitoring: Strategies to monitor identified impacts may need to be identified to ensure that management strategies are adhered to and those cumulative impacts are identified, monitored and taken into account with further development.

3. OVERVIEW OF NEWSTAN OPERATIONS

3.1 Introduction

Newstan Colliery began mining operations in 1887 prior to the implementation of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and operated under continuing use rights pursuant to section 109 of the EP&A Act.

On 14 May 1999, the (then) Minister for Urban Affairs and Planning granted Development Consent to the Newstan Colliery under Part 4 of the EP&A Act for the Newstan Colliery Life Extension Area pursuant to Development Application 73-11-98 (DA 73-11-98) and the activities detailed and assessed within the Newstan Colliery Life Extension Project Environmental Impact Statement (Newstan EIS).

The approved Newstan Colliery operations primarily include underground mining using longwall mining techniques (following first workings development with continuous miners), processing three to four million tonnes per annum on-site, with coal transported to domestic and export markets by road and rail. Underground mining at the Newstan Colliery has been undertaken in the Young Wallsend, Great Northern, Fassifern, Borehole and West Borehole coal seams and produces semi soft coking coal and/or thermal coal for both the domestic and export markets.

In 2009 Newstan Colliery ceased underground mining production however continues to operate the Newstan Colliery Surface Facilities Area to process and handle coal from other Centennial operations.

3.2 Development proposal

The Project Briefing Paper (S75W Modification; September 2010) states that Newstan Colliery is an underground coal mine owned and operated since 2002 by Centennial Newstan Pty Limited (Centennial Newstan), a wholly owned subsidiary of Centennial Coal Company Limited (Centennial Coal).

Newstan Colliery is regionally located approximately 25 kilometres south-west of Newcastle and 140 kilometres north of Sydney within the Lake Macquarie Local Government Area (LGA). The Newstan Colliery pit top and Surface Facilities Area is located approximately four kilometres north of the township of Toronto.

Newstan Colliery is seeking a modification to DA 73-11-98 subject to Section 75W of the EP&A Act for the proposed Project to allow for the recommencement of first workings bord and pillar mining in an area referred to as Main West located beyond the existing Development Consent boundary (refer to Figure 1).

3.3 Identified Impacts of the Proposal – Project Briefing Paper

The Project Briefing Paper (S75W Modification; September 2010) has identified a number of factors relating to the proposed Project. These are summarised below (refer Table 1) and are being used to understand the potential social impacts arising from the development.

Note specific reports relating to the environmental impacts are available which detail the technical data relating to the impact on the environment and how these impacts will be mitigated (if required).

Table 1. Comparison of Newstan Project compared to Existing Approved Operations

Key Feature	Existing Approved Operations	Proposed Modification
Mining Areas	Mining within the area of the consolidated Development Consent boundary of DA 73-11-98. Mining within the approved longwall 22, 23 and 25 mining areas.	First workings bord and pillar mining within an area beyond the existing Development Consent boundary referred to as Main West.
Production	Up to four million tonnes per annum	Up to one million tonnes per annum of ROM coal will be produced by the proposed Project per annum.
Mining Method	Extraction of coal using longwall mining methods. Development headings are formed by continuous miners	First working bord and pillar mining using up to two continuous miners. No longwall mining.
Predicted Subsidence in Mining Areas	Predicted vertical subsidence of up to 2.4 metres and up to 4 metres when longwall mining beneath Awaba workings. Maximum tilts predicted were 77 millimetres per metre. Maximum strains predicted were 17.2 millimetres per metre (tensile) and 25.7 millimetres per metre (compression).	The vertical subsidence for the proposed Main West mining area will be less than 20 millimetres.
Mining and Plant Equipment	Mining at the Newstan Colliery has been undertaken using a combination of longwall and continuous miner methods. Other mining and plant equipment generally includes equipment for transporting men and materials underground, coal handling and processing (ROM and product coal), coal loading and coal haulage.	Does not include longwall.
Mine Infrastructure and Surface Facilities	Infrastructure at the Newstan Colliery typically includes infrastructure for mine access, ventilation, administration/bathhouse, workshops, coal handling, preparation and transport (including private haul road and rail loop) and reject emplacement.	No major change (no additional infrastructure requirements for the proposed Project). Minor upgrades to approved infrastructure will be required.

Key Feature	Existing Approved Operations	Proposed Modification
Product Handling and Transport	Coal is delivered from underground to the Newstan CHPP via high capacity conveyor system. Delivered via private haul road to Eraring Power Station, or the Port of Newcastle or the Vales Point Power Station through the Newstan rail loop and the Main Northern Rail Line. Processing of up to 4 million tonnes per annum of coal from the Mandalong Mine and receiving up to 800,000 tonnes of coal per annum at the Newstan Rail Loading Facility from the Awaba Colliery.	No change (in accordance with existing approved operations).
Coal Rejects and Tailings Management	Coarse reject material is transported by truck to the Southern Reject Emplacement Area or Northern Reject Emplacement Area. Fine reject material (tailings) is pumped to the Southern Reject Emplacement Area.	No change (in accordance with existing approved operations).
Water Management	In accordance with the existing Revised Water Management Plan (RWMP).	An EPL Variation for increased discharge volumes from LDP001 will be required.
Working Hours and Workforce	Approved workforce of up to 320 personnel. Mine is operated on a 24 hour, seven days a week basis.	A workforce of up to 50 personnel will be required for the proposed Project. The mine will continue to operate on a 24 hour, seven day a week basis.

In summary the key features of the proposal are highlighted below.

3.3.1 Mining Method.

The mining method for the proposed Main West mining area will involve first workings bord and pillar mining only. This method of mining is designed to result in less than 20 millimetres of subsidence on the surface. Due to mining being designed to achieve less than 20 millimetres of surface subsidence, subsidence-related surface impacts are anticipated to be negligible.

3.3.2 Surface Infrastructure

The proposed Project will require no major changes to the surface infrastructure at the Newstan Colliery. Minor upgrades to approved infrastructure will be required.

3.3.3 Current Coal Handling

Newstan Colliery is also approved to receive and process up to two million tonnes per annum of Run of Mine (ROM) coal from the Mandalong Mine through the Newstan Coal Handling and Preparation Plant (CHPP) and receive up to 800,000 tonnes per annum of ROM coal from the Awaba Colliery.

The proposed Project will not require any changes to the current coal handling and transport systems detailed above. Volumes of coal handled at the Newstan Colliery Surface Facilities Area will not exceed the volumes assessed and approved within the Newstan EIS.

The proposed Project will not require any changes to the currently approved rejects and tailings management system at Newstan Colliery.

3.3.4 Water Management

The proposed Project will require a variation to the Newstan Colliery Environmental protection Licence to allow for an increased discharge volume from 7 ML/day to 11ML/day and up to 14 ML/day during prolonged and intense rainfall events through the sites Licensed Discharge Point 001 (LDP001).

3.3.5 Employment

Newstan Colliery operates on a 24 hour, seven day a week basis and has approval for a workforce of up to 320 personnel. The proposed Project will continue to operate 24 hours, seven days a week and require the employment of approximately 50 personnel for the life of the proposed Project with a maximum production rate of 1 million tonnes per annum of ROM coal. The proposed levels of employment and production are within the current consented limits assessed within the Newstan EIS and approved DA 73-11-98.

4. ASSESSMENT OF SOCIAL IMPACTS

Given the nature of the proposal, the assessment of social impacts has been undertaken at both a broader regional level as well as the assessment of local impacts (i.e. those living near the proposal that may be affected by the day to day operations of the mine).

The matters contained in the regional assessment are not an exhaustive list, nor are they meant to represent a technical assessment of, for example, health impacts. The areas covered have been included because they were identified as having some relevance through consultations and feedback received when undertaking this SIA.

4.1 Regional Assessment

There are 60 operating coal mines in NSW and about 30 coal projects are in development. Coal is the single largest export earner for NSW accounting for \$12.9 billion in 2008-09. Coal alone will drive the value of mineral and metal exports to record highs in excess of \$25 billion.

The NSW State Government Department of Industry and Investment state in their current NSW Growth Industry profile – Mining and Resources (<http://www.business.nsw.gov.au/invest-in-nsw/key-industries-and-industry-centres>) state that mining is New South Wales' largest export industry, counting for over 45% of the total merchandise export. The report states:

-  Coal production in 2008–2009 was 138 million tonnes with a value of \$A19.5 billion. This accounts for more than 85 per cent of the total value of mineral production in NSW.
-  Coal exports in 2008–2009 were 103 million tonnes with a value of \$A17.1 billion, mostly shipped through Newcastle Port, the largest coal export port in the world.
-  Metallic and industrial mineral production in 2008–2009 had a combined value of \$A3.3 billion, representing a further significant contribution to the State's economy.
-  In 2008–2009, private new capital expenditure in mining was \$A2.4 billion. Additionally, there are more than 50 mining and minerals projects proposed for the future and together these projects will involve a cumulative investment of more than \$A13 billion and will generate more than 9,000 direct jobs.
-  NSW also has a strong value-added minerals processing sector that has an output worth approximately \$A10 billion per annum, with much of this being exported.
-  NSW is the largest producer of steel and aluminium in Australia, with more than 75 per cent and 35 per cent of Australia's total respective steel and aluminium capacity.
-  Mining is a major employer, providing work for around 29,000 people, and nearly 81,000 people employed indirectly by the sector.
-  The largest production is from the Hunter Basin, which produces over 62 per cent of NSW coal.

There are significant coal deposits located throughout the Hunter Region with coal being mined by both open cut and underground methods. In the Lower Hunter, coal deposits are located in the areas of Cessnock, Raymond Terrace, Glendale/Cardiff through to Morisset (illustrated below). Given the location of the deposits, mining coal has had a strong influence on the growth of many

towns and villages and has had a strong influence on the social cultural character of the region in the past.

Underground mining is undertaken throughout the valley and open cut mining is generally conducted in the western area of the region in areas such as Singleton / Muswellbrook. The number of coal mines operating in the Hunter and New England Area is:

Table 2. Coal Mines Hunter Valley

Local Government Area	Coal Mines		
	Open - Cut	Underground	Combined (open cut and underground)
Singleton	11	2	4
Muswellbrook	5	-	1
Cessnock	1	1	1
Lake Macquarie	1	5	-
Wyong	-	2	-
Gloucester	1	-	-
Great Lakes	1	-	-
Gunnedah	3	-	-
Liverpool Plains	1	-	-
Narribri	2	1	-
TOTAL	26	11	6

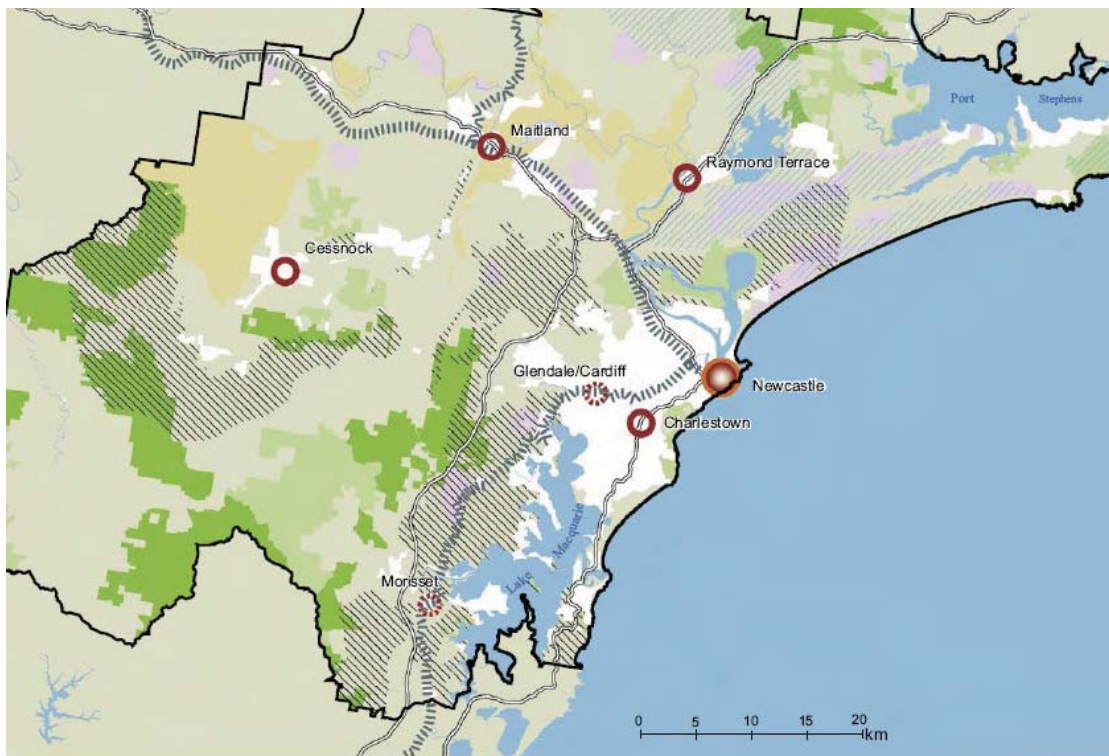
Source: Respiratory and cardiovascular diseases and cancer amongst residents in the Hunter New England Area Health Service (2010: 9).

Given the high coal resources it is fair to say that the Hunter Region is established as a significant mining region.

The economic influence of mining across the Lower Hunter has resulted in an industrial manufacturing economy with a diverse economic base and skilled workforce (although inter-dependent). In support of the Lower Hunter Regions coal industry, the Port of Newcastle has grown to be one of the world's largest coal exporting ports (in bulk terms for a range of commodities) and the world's largest coal exporting port, accounting to 96.9% of the total tonnage of exports in 2009 (Hunter Valley Research Foundation 2010 Hunter Region at a Glance).

The identified economic challenges for the Lower Hunter Region to consider into the future relate to:

-  The need to maximise the economic opportunities associated with the Lower Hunter Region's competitive advantages, in particular its economic infrastructure and specialised centres;
-  Plan to ensure sufficient employment lands are available in appropriate locations, including within centres and as traditional industrial land, to provide sufficient capacity to accommodate growth in existing and emerging industries and businesses;
-  Maintain or improve the employment self sufficiency of the Lower Hunter Region;
-  Ensure activity within the Lower Hunter Region complements rather than competes with the economies and communities of adjoining regions.



NATURAL RESOURCES MAP 2.

Map key

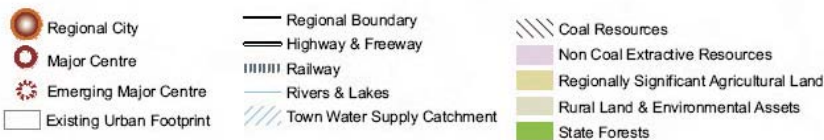


Figure 2: Natural Resources Map: Lower Hunter Regional Strategy; Page32.

The strategic direction of the Lower Hunter Region is therefore certainly aimed towards building on the economic assets to maintain a strong workforce, growing employment, healthy economy and increased investment in manufacturing, infrastructure etc. Given these characteristics, the ongoing support and growth of the coal industry will maintain the global competitiveness of the Lower Hunter Region.

With this in mind, the NSW State Government (refer Lower Hunter Regional Strategy) has identified that coal resources in the Lower Hunter Region need to be protected in order to capitalise on production and export opportunities.

This has represented a major challenge - given the need to protect and conserve areas of natural resources, preserve lands for agriculture and primary production as well as meet targets for housing and employment. In some instances there is a growing potential for land use conflict as populations grow in areas near industry.

It is identified that access to mineral resources needs to be maintained and accessed “where consideration of environmental, social and economic issues is thoroughly assessed” (Lower Hunter Regional Strategy: p32). However the call to protect other industry sectors such as agricultural lands, vignerons, horse breeders (to name a few) has gained momentum as their contribution to

the economy (at a local, regional and global level) is now recognised and therefore putting pressure on the land use conflicts generated by mineral resources.

These sectors are no longer being viewed as being of secondary importance.

The LHRS goes on to say that “land use change in the vicinity of mineral resources should only be compatible with continued access to the resource”.

However in the context of the above mentioned challenges is the need to adopt principles of sustainable development which amongst other things relate to the preservation of the area's natural resources and the need to adopt land use planning principles which avoid conflicts between land users.

Therefore the position presented above can be viewed in light of new opportunities or the continued operation and consolidation of existing projects. Continued operation of existing projects, or the use of existing infrastructure to expand mining operations beyond current approved boundaries would minimise (but not prevent) impacts to the broader community. In the case of Newstan Colliery, the operation of the mine sits within close (neighbouring proximity) to the residential areas of Fassifern and Blackalls Park in particular. The potential for land use conflict will come into play with any change to the mines operation.

4.1.1 Environment and Economy

It is stated that mining is a ‘transitional land use’ - meaning that when mining activities are complete compatible development of conservation activities can be undertaken. This point of view is strongly opposed, particularly in areas where there is a high degree of subsidence. The impact is argued to be permanent. This is certainly the view of residents in areas such as Awaba.

Mining and coal generated power has come under increased scrutiny due to the impacts on the environment, loss of biodiversity, impact on community health and the like. In this context, mining is not considered to be transitional as it results in long lasting and permanent changes to the landscape and environment.

What is occurring is that more people are seeking information about the impacts of mining; and mining operations are now coming under more scrutiny (not only by communities located in the vicinity of mine operations). This has certainly been identified in recent survey works undertaken by the LT Creek Sustainable Neighbourhood Community Attitudes Survey.

Despite the NSW State Governments overall strategic direction in building a strong economy and the associated net community benefit of mining, there is a stance against mining for mineral resources. These are via both formal and informal groups with some arguing against localised land use conflicts (dust, noise, environmental changes etc) and others call for a ‘greener’ environment in order to reduce the impact of mining on the environment.

In the Hunter Region there are a number of groups who have taken a stance against specific mining projects. Industry groups such as the Famers Association, horse breeders, vigneron etc have become more intensive lobby groups protesting against mining due to the impact on their contribution to the economy.

One example is the Bickham Coal Mine where horse breeders formed a strong alliance against the mine proposal. An article in the Newcastle Herald (15 May 2010) opens with:

THE State Government's decision to put foals before coal and reject the controversial Bickham open-cut mine near Scone could halt the advance of the coalmining industry in the Hunter.

With regard to the future of the mine, the article states:

"...Ms Keneally said any future application for mining in the shire would have to be treated on its merits but the Government would not jeopardise the growth of the thoroughbred export industry".

The article also quoted Arrowfield proprietor John Messara as saying:

"Even in the end if [the mine] hadn't affected us, the sheer perception that our water might have been polluted would have been [used against the industry],"

The protest against mining is presented as a cost (to health, amenity, environment) and the identified benefits arising from say construction of additional infrastructure, creation of jobs, role in the export economy etc is not presented as a means of outweighing the negative impacts of mining. The development of new, or expansion of existing, mining projects is presented as being unsustainable given its economic, health and environmental impacts.

The Hunter Valley Research Foundation (HVRF) undertook a Hunter Region Environmental Attitudes Survey (2009-2010). The survey found that when asked whether the benefits of the coal industry for the region outweighed the negative impacts, more than half the respondents either agreed (35%) or strongly agreed (21%) (Note 6.2% strongly disagreed; 16.1% disagreed and 18.1% neither agreed or disagreed). In the survey it was also found that there is a shift in support towards green energy (ie renewable energy). So, despite those surveyed identifying the positive impacts of mining, attitudes are shifting towards alternative options.

With this in mind, the LHRS is a strategies document which provides a framework for further planning by other government agencies – including Local Government - who may develop specific policies relating to land use planning, economic development and social / community development.

4.1.2 Health

The impact on a persons (communities) health due to dust emissions (or particulate matter) in the air as a result of mining activities is a major concern shared by communities. While dust exists naturally in the air, dust that is at increased levels due to human activities can be associated with health and amenity impacts.

NSW Health (refer www.health.nsw.gov.au/factsheets/environmental/mine_dust) states that dust from mining activities are usually coarse (large) particles and are generated by the disturbance of rock and soil materials by dragline, bulldozing, vehicles etc (rather than coal dust its self).

The health impacts usually relate to respiratory disorders which may be seen via an increase in hospital visits and admissions due to asthma to even death due to heart and lung disease.

The population groups who are more susceptible to the health effects of dust particles are:

-  infants, children and adolescents,
-  elderly,
-  people with respiratory conditions such as asthma, bronchitis and emphysema,
-  people with heart disease, and
-  people with diabetes.

Further to the health impacts are the amenity impacts from dust (usually associated with larger particles). This relates to the visibility of dust plumes and dust sources as well as the visible evidence of dust in households (such as on furniture), on washing, in water tanks, on roofs.

The evidence of dust will impact on both the amenity, and also raise concern regarding health risks amongst the community.

Various studies have been undertaken to assess the health impacts of mining. Research into the Singleton Cancer Cluster Investigation found that:

"The Singleton cluster of brain tumours is most likely due to chance, Professor Armstrong said.

Professor Armstrong based this conclusion on "the lack of any increase in brain tumour rates in the Singleton Local Government Area as a whole compared to NSW, the lack of a specific environmental hazard in the part of Singleton in which the cases lived that might be linked with brain tumour occurrence, and the reasonable probability that such a geographical grouping could occur by chance alone".

The investigation has found:

-  *The rate of these tumours in the Singleton area was not significantly different from the rate for all of NSW over this period.*
-  *The rates in nearby Local Government Areas that have long term associations with coal mining (Cessnock, Maitland and Muswellbrook) were also not different from the rate for NSW.*
-  *No specific local factor that might have caused each of the residents to develop a brain tumour.*

In its report (refer Respiratory and Cardiovascular Diseases and Cancer Among Residents in the Hunter New England Area Health Service 2010) it was found that compared to the rest of NSW, one or both of Upper Hunter and Lower Hunter, the geographical regions of the Hunter New England Area Health Service (HNEAHS) that are most affected by open-cut coal mining and power generation activities, have higher rates of:

-  emergency department attendance for asthma and respiratory disease (but also for all other conditions, which may indicate a general tendency to greater use of emergency departments in these regions),
-  hospital admission for all respiratory conditions together and for asthma (Upper Hunter Only), and
-  hospital admission for cardiovascular disease and death from all causes and cardiovascular disease (lower Hunter only).

These data may indicate an adverse health effect due to exposure to coal mining or coal-fired power generation activities in HNEAHS, or may be due to other factors (such as smoking, for example, which is higher in adults in Upper Hunter, although not statistically significantly higher). Thus they do not establish that these adverse health effects are attributable to air pollution or to any other specific exposure.

What is evident is there is growing concern relating to the health impacts of dust which is contributing to a strong body of research being undertaken. Regardless of the health outcomes, the impact on community amenity is an issue which needs to be explored in the location of coal infrastructure (including transport routes etc). This is regardless of whether industry (such as a mine) operates within approved limits.

4.1.3 Do the benefits outweigh the negative impacts?

Research undertaken by The Hunter Valley Research Foundation (refer Newcastle Herald 13 August 2009) on Upper Hunter residents attitudes to the coal industry found that while residents acknowledge the negative environmental impacts there was a general belief that the benefits of coal outweigh the negative impacts.

The article states:

Researcher Evan Stevenson attributes growing support for the coal mining industry to the global financial crisis. He says that people are concerned policies such as the Carbon Pollution Reduction

Scheme and Emissions Trading Scheme may have a negative impact on the energy industry and also on the coal mining industry.

Mining of black coal is one of Australia's most important industries, creating significant employment in regional Australia, fuel for low-cost electricity generation and steel-making, and is a vital source of export revenue. Australia is the world's biggest coal exporter, and black coal is Australia's largest export, worth more than \$A24 billion in 2007-08.

In addition to providing Australian consumers with affordable electricity, coal underpins the international competitiveness of the entire Australian economy, as well as being a major force driving the social and economic development of regional Australia.

4.2 Conclusion Regional Assessment.

The strategic assessment has been undertaken to present some of the broader views on the impacts of mining. It is evident from this review that despite the identified positive benefits to the economy, there is a rising opposition to mining from a broad range of stakeholders across the community. The impact of mining presents a strong argument for the protection of the environment and for the health and amenity of a community.

What is gaining momentum is the stated impact on other economies such as the thoroughbred industry. The article relating to the impact of the proposed Bickham project on the thoroughbred closed by saying;

Even in the end if [the mine] hadn't affected us, the sheer perception that our water might have been polluted would have been [used against the industry]."

The assessment also notes that while the community (via the Hunter Valley Research Foundation Survey) identify with the benefits of mining, there is a move towards supporting renewable energy sources. In June 2008 the Centre for Full Employment and Equity were commissioned by Greenpeace to explore the impacts of a transition to renewable energy. The report titled *A Just Transition to a Renewable Energy Economy in The Hunter Region*, Australia found that there is a net gain (jobs, infrastructure spending and community support) with the transition to renewable energy. The development of accessible renewable energy however still seems to be marginal.

The view presented in the Lower Hunter Regional Strategy that coal mining is a transitional business is not supported by residents and communities affected by issues such as subsidence, health impacts (including amenity) and land use conflict.

All of the issues identified above have been identified in the consultations undertaken in the development of this SIA. They are not issues only related to the Upper Hunter, or with open cut mining, but with mining generally. They are articulated in the vicinity of the Newstan Colliery due to its proximity to nearby residents.

4.3 Local Assessment

4.3.1 Overview

In the development of the SIA for the proposed Main West modification, consultation has been undertaken with a range of stakeholders. The nature of the consultation has been by informal and semi-formal discussions with members of the Newstan Community Consultative Committee (CCC), some of who represent groups such as Blackalls Against Mining (BAM) and No Open Cut Mine For Awaba (NOCMFA). Some of those spoken to were members of the local landcare and groups such as the LT Creek Sustainable Neighbourhood and some were not affiliated with any group but are residents of the general area.

This approach was undertaken to gain an understanding of why people liked to live in the area; understand some of the characteristics of the community as well as gaining some insight into the general feeling towards the proposed development and mining generally.

Given the establishment of the Newstan CCC it was surprising to note that there was a total lack of knowledge about the proposed Project. It was also found that there was generally a strong sentiment against Centennial Coal which is attributed to the recent proposals for the Awaba Open Cut and Olstan Auger projects. There was also a level of frustration regarding the condition of LT Creek and the lack of action over the years to address pollution.

The lack of relationship between Centennial Coal and the community was a common theme throughout the development of this SIA.

4.3.2 Lake Macquarie – General Characteristics

Within the Lake Macquarie LGA, mining accounts for 2% of employment (relative to other industries) despite mining being one of the predominant industries on which the City of Lake Macquarie was built. However, mining and mining-related businesses are still intrinsic to the region's economic strength.

Centennial Coal is the largest underground coal producer in NSW. There are good physical mining conditions in Lake Macquarie and the area is within close proximity to coal powered power stations as well as the Port of Newcastle. Therefore Centennial Coal supplies both the domestic and international markets and has a major impact on the region's economy.

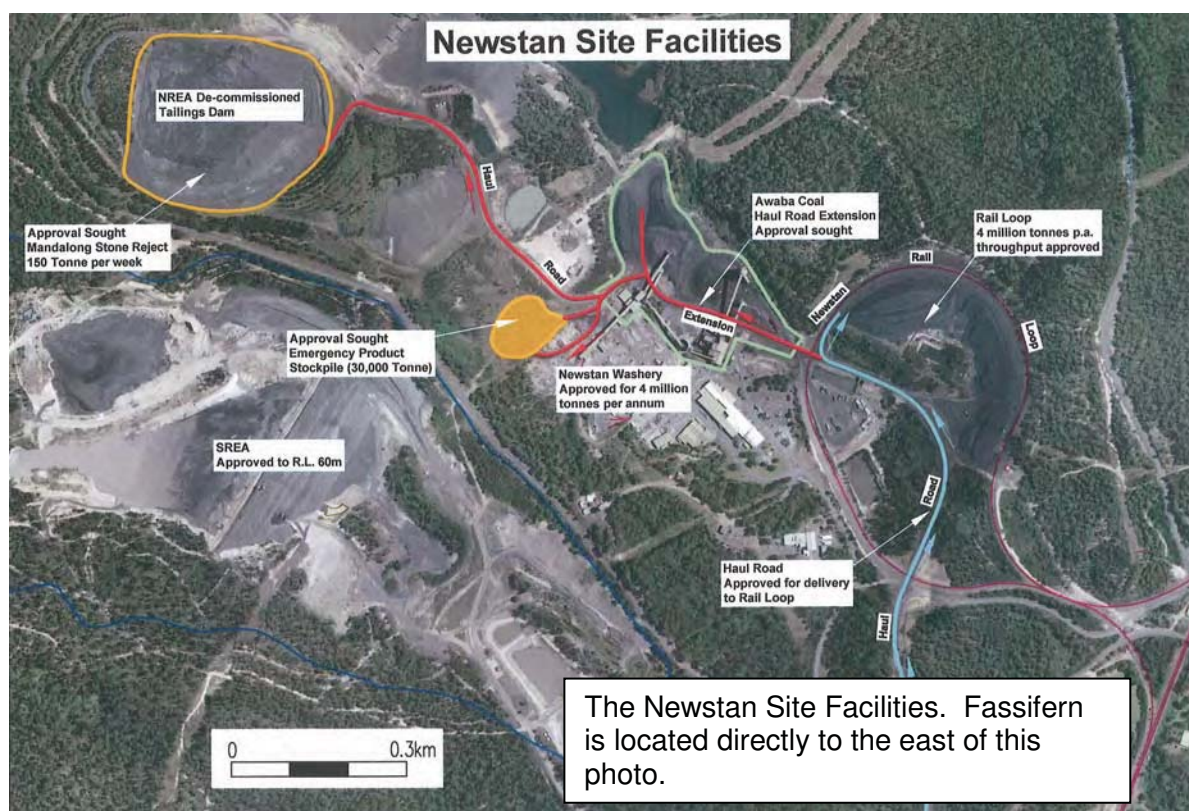
The Newstan Colliery, including its main infrastructure and Development Consent Area, is located along side the suburbs of Fassifern, Blackalls Park and Awaba. Fassifern and Blackalls Park are neighbouring residential areas, which are bounded between Awaba State Forest and the suburb of Fennel Bay.

Fassifern is characterised by older single story fibro cottages. There are larger residential lots around Fennel Bay and along the lower reaches of LT Creek.

Blackalls Park has older style homes towards its eastern boundary however on the western boundary, as it borders the Awaba State Forest, there are newer homes which have views both over Lake Macquarie to the east and west towards the Awaba State Forest. Blackalls Park has a public school and small shopping precinct (servicing local day to day needs) which would also support Fassifern.

Awaba is a small rural community on the suburban fringe of Toronto located on the Cessnock Road. It is a small collection of homes within the Awaba State Forest.

Higher order retail and commercial areas are located in Toronto and nearby suburbs of Glendale and Charlestown.





4.3.3 Population Characteristics

Newstan Colliery is located in the Lake Macquarie LGA which is part of the Hunter Region. The population summary highlights some of the local characteristics as compared to the western proportion (planning sector) of the LGA as well as the entire LGA. The purpose of this assessment at a regional and LGA level is particularly to understand the employment characteristics and on a local level the general population characteristics (in particular Fassifern, Blackalls Park and Awaba).

The population characteristics of the Fassifern, Blackalls Park and Awaba areas are relatively unremarkable with some key indicators being listed below:

- ☞ The population of Fassifern, Blackalls Park and Awaba has seen only minor changes since the 2001 census. There has been some in migration to Blackalls Park however the population across all areas is relatively stable.
- ☞ Employment profile of each suburb is within the general characteristic of the LGA and unemployment is on relative par with the western proportion of the LGA.
- ☞ Coal mining is a characteristic of the industry of employment of both Fassifern and Blackalls Park, which is proportionally higher than the western proportion of the LGA and the LGA generally.
- ☞ Residents are more likely to either own their own home or be purchasing their own home. Income levels, rental and mortgage payments suggest the area is slightly more affordable than the western proportion of the LGA generally and the remainder of the LGA. This may be characteristic of there being limited areas for new residential development.

It should be noted however that the indicators are a result of gradual change over a number of years with the community generally becoming more professional and affluent. This may represent a potential changing of attitudes - away from the past history and connection with mining and associated manufacturing; towards a community that is less tolerant of existing industry and will not tolerate any change to their current lifestyle.

The general characteristics are listed below.

Table 3: General Profile

	Fassifern	Blackalls Park	Awaba	West	LGA
Total persons	599	2,773	350	51,100	183,138
Male	49.7%	48.8%	50.0%	49.0%	48.9%
Female	50.3%	51.2%	50.0%	51.0%	51.1%
Indigenous persons	2.2%	3.5%	5.1%	2.7%	2.3%

Table 4: Age Profile

	Fassifern	Blackalls Park	Awaba	West	LGA
0-4	3.8%	6.6%	9.1%	5.5%	5.8%
5-14	15.2%	14.0%	19.7%	13.6%	13.8%
15-24	16.2%	12.8%	10.3%	12.2%	12.6%
25-54	38.2%	38.3%	43.7%	36.4%	38.4%
55-64	14.5%	12.7%	8.6%	13.3%	12.5%
65 years and over	11.7%	15.6%	9.4%	19.0%	16.8%
Median Age	39	38	33	42	40

Table 5: Labour Force Profile

	Fassifern	Blackalls Park	Awaba	West	LGA
Total labour Force	279	1,191	153	21,178	82,226
Employed Full-time	53.4%	54.7%	51.0%	55.1%	56.2%
Employed Part-time	33.7%	30.3%	35.3%	30.6%	30.8%
Unemployed	8.2%	7.9%	7.8%	7.6%	6.7%

Table 6: Employment Profile

Fassifern		Blackalls Park		Awaba		West		LGA	
Technicians and Trades Workers	18.8%	Technicians and Trades Workers	19.1%	Labourers	18.4%	Professionals	17.9%	Professionals	18.1%
Professionals	14.8%	Labourers	14.5%	Technicians and Trades Workers	17.0%	Technicians and Trades Workers	17.2%	Technicians and Trades Workers	17.3%
Clerical and Administrative Workers	14.1%	Professionals	13.1%	Professionals	14.9%	Clerical and Administrative Workers	13.7%	Clerical and Administrative Workers	15.3%
Sales Workers	12.9%	Clerical and Administrative Workers	12.2%	Sales Workers	13.5%	Labourers	11.6%	Sales Workers	11.2%
Labourers	11.3%	Sales Workers	11.1%	Clerical and Administrative Workers	12.8%	Managers	10.3%	Labourers	10.4%
Managers	9.0%	Community and Personal Service Workers	10.8%	Community and Personal Service Workers	10.6%	Sales Workers	10.2%	Managers	10.0%
Community and Personal Service Workers	8.6%	Machinery Operators And Drivers	9.6%	Machinery Operators And Drivers	5.7%	Community and Personal Service Workers	9.4%	Community and Personal Service Workers	9.0%
Machinery Operators And Drivers	8.2%	Managers	7.5%	Managers	4.3%	Machinery Operators And Drivers	8.1%	Machinery Operators And Drivers	7.1%

Table 7: Industry of Employment

Fassifern		Blackalls park		Awaba		West		LGA	
Supermarket and Grocery Stores	6.3%	Supermarket and Grocery Stores	5.7%	Supermarket and Grocery Stores	7.1%	School Education	4.7%	School Education	5.1%
Tertiary Education	4.3%	School Education	4.8%	School Education	5.7%	Hospitals	3.9%	Hospitals	4.2%
Hospitals	3.9%	Hospitals	4.7%	Hospitals	4.3%	Cafes, Restaurants and Takeaway Food Services	3.0%	Cafes, Restaurants and Takeaway Food Services	3.4%
Building Cleaning, Pest Control and Gardening Services	2.7%	Coal Mining	2.6%	Building Cleaning, Pest Control and Gardening Services	4.3%	Residential Care Services	2.9%	Supermarket and Grocery Stores	2.8%
Coal Mining	2.7%	Cafes, Restaurants and Takeaway Food Services	2.4%	Fruit and Vegetable Processing	2.8%	Supermarket and Grocery Stores	2.9%	Tertiary Education	2.1%

Table 8: Income Profile

	Fassifern	Blackalls park	Awaba	West	LGA
Median Individual Income (\$ weekly)	338	362	381	376	394
Median Household Income (\$ weekly)	882	780	930	840	922
Median Family Income (\$ weekly)	1,056	1,006	1,084	1,043	1,102

Table 9: Dwelling Characteristics

	Fassifern	Blackalls park	Awaba	West	LGA
Median Rent (\$ Weekly)	168	180	160	180	185
Median Housing Loan Repayment (\$ Monthly)	1,200	1,200	1,083	1,300	1,300

Table 10: Tenure Type

	Fassifern	Blackalls park	Awaba	West	LGA
Fully Owned	43.3%	41.8%	28.8%	38.2%	38.6%
Being Purchased	32.9%	32.3%	54.2%	31.5%	33.4%
Rented	18.1%	21.6%	13.6%	23.4%	21.9%

4.3.4 What are the Social Impacts?

4.3.4.1 Introduction

The process of exploring the impacts on place and community relates to whether the aesthetic nature of the community is affected and if people perceive a loss of aesthetic qualities of their community; if items of social and cultural heritage are affected (or at risk of); and if the development is complimentary or otherwise to the existing neighbourhood character.

In the context of this assessment it has been found that the main issue relating to the current and proposed operation of Newstan Colliery (and Centennial Coal generally) is defined as a negative impact on the sense of place and community of those who live and work in the areas of Fassifern, Blackalls Park and Awaba.

A recent survey undertaken by the LT Creek Sustainable Neighbourhood has identified what residents like about living in the area are:

-  Peace and quiet,
-  Proximity to lake, creeks, and bush land,
-  Proximity to amenities; shops, doctors etc, and
-  Having good neighbours.

It was also identified that the most important issues in the neighbourhood are:

-  Litter,
-  Siltation, water pollution, and urban runoff,
-  Mining and air pollution, and
-  Storm water and drainage infrastructure.

The survey goes on to report that:

-  Residents rated protecting and improving the natural environment as being the most important to the neighbourhood.
-  Over 60% of respondents agreed that climate change will have a direct impact on their lives in the next 20 years, and over 60% agreed that the actions of an average person can have a large impact on slowing climate change.
-  The actions and activities people were most interested in being involved in included, neighbourhood clean ups, home energy, waste, and water use audits, and community activities such as BBQs.

4.3.4.2 Sense of Place and Community

The above survey provided a valuable insight to the area, current attitudes as well as aspiration of local residents. During the consultations undertaken in the development of this SIA, people's history with the local area was discussed. Some had a direct or indirect relationship with the mine; fishing or forestry and some were newer residents who moved into this area as a lifestyle choice (any change to the current operation will have a direct impact on these residents).

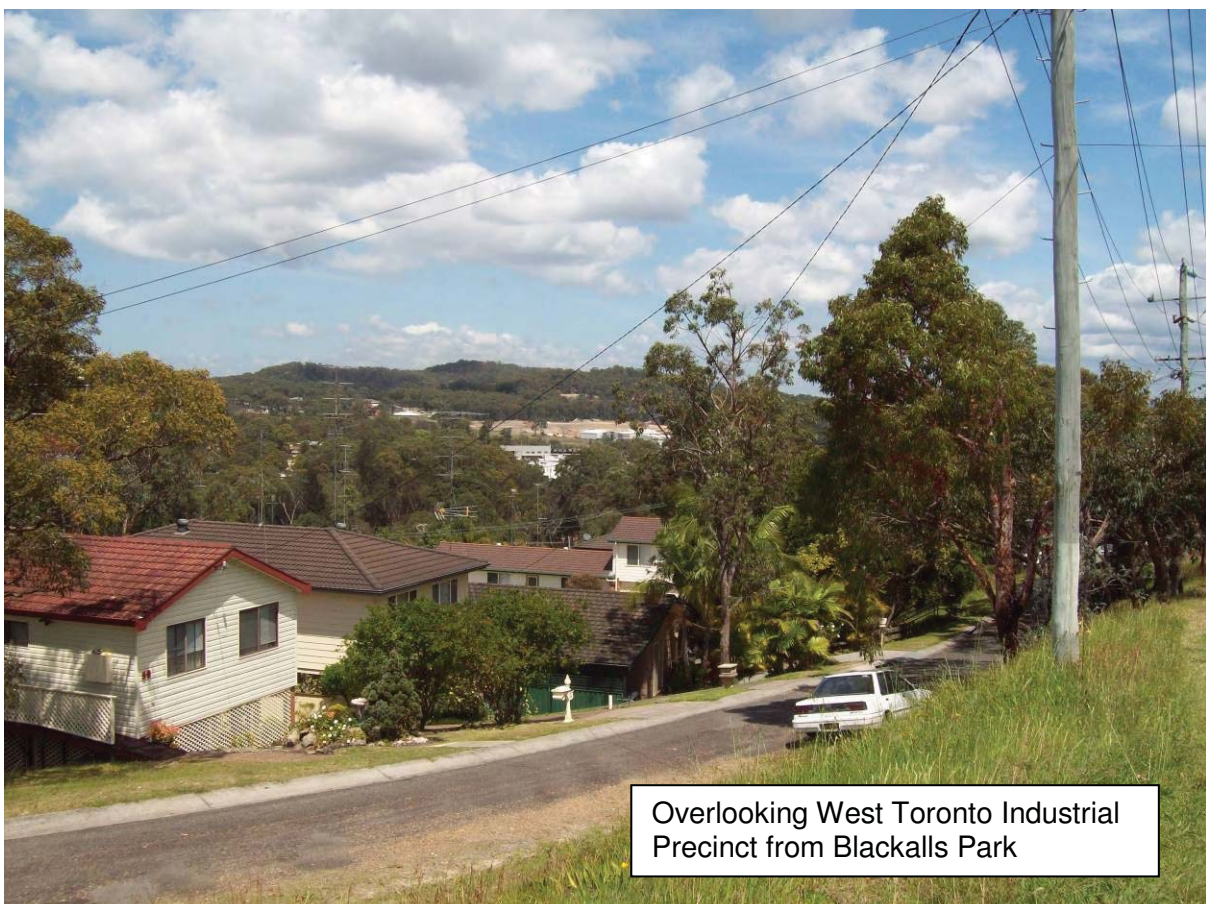
The environment was discussed as a key feature of the area – in particular the relationship to the forest and lake. The proximity to local schools, shops and close neighbouring process between residents are also key features and were attributed to why people like to live in the area. Living in the area due to proximity to work was not identified as a major factor, neither was a direct relationship with Centennial Coal or the Newstan Colliery.



Lower reaches of LT
Creek at Fennel Bay.











4.3.4.3 Changing Environment

The environment is a key feature of change to the community.

Awaba residents have access to the surrounding bush land and describe changes to the environment through subsidence; loss of access due to the haul road and other examples. This is presented as having a direct impact on their lifestyle as the area was a part of their way of life. The recent construction of a haul road was seen to be undertaken with little / no general consultation and as such has had a big impact on the local community and how they identify with (and use) the area. This issue has now spread across the communities of Blackalls Park and Fassifern.

The existing 'agreements' made by Centennial Coal - such as "not pulling the pillars from under the town" and other agreement are now being questioned. Also, there is increasing opposition to the existing mine operations and to proposed new operations (ie potential Newstan Lochiel Project) as the area is considered to be too shallow to longwall by locals. Regardless of whether this is true or not, it is the opinion of some members of the community. Given the recent history with Centennial Coal, this opinion will only be bolstered with any new proposal.

For residents of Fassifern and Blackalls Park, LT Creek has long been identified as a direct link to the Newstan Colliery operations. Many can describe the changes to the environment over the years and correlate this as a result of the surrounding land use (in particular the mine, rail corridor, etc). Changes include the decrease in fish (although these are also reported to be returning); silt and general pollution to the area.

Through the community's volunteering efforts there is a long association with this area through land care and more recently the LT Creek Sustainable Neighbourhood. The community want LT Creek to be returned to a healthy state.

It appears that there has been a vocal few who have continued to take action regarding the health of LT Creek, however with the recent events of the past few years, locals have started to identify with LT Creek and articulate issues again.

Along with LT Creek, dust from the Newstan Colliery operations and noise generated from the associated haul roads is also being raised as concerns. This is especially so with the increase in residential development on the western fringe of Blackalls Park. What is emerging is a land use conflict - regardless of the approvals that are in place.

Centennial Coal is described as being the primary source of the change to the local environment and the impact on people's way of life so will therefore receive the brunt of people's opinions.

4.3.4.4 Change to Identified Intrinsic Value

Loss in value is usually identified as a loss in property value. A negative impact on property prices was raised as a concern as a result of Centennial Coals operations and in particular due to the previous proposals for the Awaba Open Cut and Olstan Auger Mine projects in the area (in particular Blackalls Park and Fassifern).

Discussion with local real estate agents identified that the past proposals may have slowed sales rather than reducing the median price across the board.

A review of median property values over recent times has found some expected variations. Changes to the median prices are influenced by the number of sales and the price range of property values in the local area. It is found that all areas have a broad range of property value and more houses have been purchased in Blackalls Park, influencing property value.

Table 11: Median Price - Houses

	Fassifern	Blackalls Park	Awaba	Lake Macquarie LGA
August 2010	\$ 260,000	\$ 319,000	\$ 292,000	\$ 395,000
July 2010	\$ 260,000	\$ 305,000	\$ 292,000	\$ 375,000
June 2010	\$ 295,000	\$ 287,500	\$ 362,500	\$ 385,000
May 2010	\$ 515,000	\$ 295,000	\$ 362,500	\$ 390,000
April 2010	\$ 515,000	\$ 310,000	\$ 268,000	\$ 350,000
March 2010	\$ 305,000	\$ 339,250	\$ 268,000	\$ 380,000
February 2010	\$ 305,000	\$ 390,000	\$ 230,000	\$ 365,000
January 2010	\$ 305,000	\$ 252,500	\$ 230,000	\$ 392,000
December 2009	\$ 345,000	\$ 350,000	\$ 230,000	\$ 360,000
November 2009	\$ 345,000	\$ 238,000	\$ 230,000	\$ 362,000
October 2009	\$ 345,000	\$ 314,975	\$ 230,000	\$ 370,000
September 2009	\$ 345,000	\$ 290,000	\$ 230,000	\$ 349,000

Source RP data

Table 12: Capital Growth - Houses

	Fassifern % Change	Blackalls Park	Awaba	Lake Macquarie LGA
2010	-2.5%	-20.6%	27.0%	8.7%
2009	13.2%	7.6%	-21.5%	5.3%
2008	-3.5%	15.5%	4.6%	-2.5%
2007	-10.6%	-30.7%	-	3.9%
2006	-35.1%	18.2%	-	0.0%

Source RP data

A 'loss in value' is likely to be intrinsic value, rather than a financial loss. This means there is a loss of the personal value someone has on their home, their neighbourhood and / or locality and their way of life.

This loss is experienced when there are any changes that are detrimental to someone's way of life / lifestyle and can relate to anything that an individual or a community identify as being important.

In the context of this proposal; loss of intrinsic value will result from the increase in mine operations at Newstan Colliery; potential increase in dust (if it is already experienced as a problem); further degradation to LT Creek resulting from additional discharge (regardless of the increased capacity of the Final Pollution Control Dam); increased traffic on the haul road etc. All of these issues represent a negative impact and therefore a 'loss' of intrinsic value (regardless of whether it is within approved DoP; DECC, etc. limits).

This has been a major concern to residents and whilst action has been taken, many have sat (to some degree), silent on the issue. A period of 10 or so years ago saw the relationship with Centennial Coal being described as "generally positive" because more people in the local area were employed by the company; or the nearby power station; or an understanding that they have been there for a long time and the issues experienced was part and parcel of living near the mine.

In a way, Centennial Coal was identified as having some 'value'.

This general view has taken a rapid decline in recent years and is directly attributed to the past proposals of the Awaba Open Cut and also the proposed Oltan Auger Mine in nearby Blackalls Park. The past issues of the environment (subsidence and LT Creek in particular) have now been reignited as has the more generalised issues of dust, noise etc.

Centennial have now come under increased scrutiny due to past decisions that have been made. These decisions are seen to be a direct challenge to local resident's way of life.

The decisions have been made without general consultation or awareness raising with the local community. As a result scrutiny, of Centennial via the Newstan CCC has increased; local organisations such as the LT Creek Sustainable Neighbourhood has acknowledged Newstan Colliery as having an impact on the Creek, as well as impacting on community amenity via dust. Pressure groups such as Blackalls Against Mining and No Open Cut Mine For Awaba have also been formed. These groups are now taking a broader view of Centennial Coals operations.

With regard to this proposal, the impact of the volume of discharge into LT Creek will create a lot of angst regardless of the improved water management strategies that have been developed.

4.3.4.5 Relationship between Centennial Coal and the Community

There has been a complete shift in the relationship between Centennial Coal and the local community. In the past the relationship was described as 'good' and appears to be based on a physical relationship existing due to their geographic proximity.

A different process now needs to be developed which aims to build a new relationship based on trust; accurate information and a clear plan for the future.

The social impact of this proposal is that the community will generally oppose any move made by Centennial Newstan to extract coal from the area which is not within its current Development Consent.

The community will act to protect the environment – in particular relating to subsidence in the Awaba State Forest and LT Creek.

With regard to the Main West mining area, the community are aware that there are future plans to extract coal from the area via the Newstan Lochiel project and, with regard to LT Creek, the general sentiment is that the existing issues of pollution in the Creek needs to be 'fixed' before any further proposal is approved.

These issues are again not new but given the recent history and sentiment within the community; any proposal by Centennial will not be generally supported without a clear plan for the future.

The proposal to amend the current development consent was not clearly understood by members of the Newstan CCC, or by local residents. Therefore, given the recent history, this proposal was not well received and was not discussed with an open mind.

As a minimum, a clear action plan for the remediation of LT Creek needs to be developed.

5. CONCLUSION OF SOCIAL IMPACTS

The issues identified as specifically relating to the proposed modification of Newstan Colliery are:

-  Any change (increased discharge) to LT Creek will create angst with the community. A strategy for the management of LT Creek needs to be developed and implemented (refer appendix 1). This should be undertaken in consultation with the community.
-  The plan for the future. The community had been provided with a mix of information regarding future plans and were therefore confused as to the scope of this proposal, or what the future plan was in relation to ongoing operations in the area. Without this plan being placed on the table, there was very little support for the project.

This is despite the technical components of the proposal representing little impact to the community.

Any change to the current status (or operations) of the Newstan Colliery will represent a social impact. This is regardless of whether, for example, dust is well within the approved limits and may increase as a result of the proposal (but will still remain well within the approved limits). This will represent a negative social impact. This has been exacerbated given the recent history of the Centennial Coal proposals.

The increase in discharge will not be well received regardless of the improved water management strategies that are in place.

With regards to the management of the identified social impacts, Centennial Coal should consider a more strategic approach. This is represented as follows:

-  Centennial Coal has undertaken some responsible actions regarding the future of the LT Creek however due to the long standing nature of these issues it is difficult for Centennial to promote the positive actions that are being undertaken.

It is therefore suggested that one option is to place the management of the Creek in the hands of an independent facilitator who has the authority to bring all stakeholders together – including those government agencies that have been silent to date. Otherwise, Centennial Coal should clearly articulate its management strategies that are either currently being undertaken, or are planned.

-  Centennial Coal should move towards a position where the community do not need to fight to preserve the intrinsic value they have in their communities. The community need to be satisfied that Centennial operate on the principles of:

- Open communication regarding current and future operations as well as what will not be proposed. There is great fear now that old agreements will not be honoured and these need to be responded to – eg “not pull the pillars from under Awaba”.
- Improve the operation of the CCC. This would need to include:
 - Coming together of the CCC's to operate 'under one banner'. This would improve communication flow and assist manage issues across the local Centennial area. This would be of great benefit to Centennial Coal also
 - Some operational procedures need to be reviewed – for example, there needs to be an agenda sent to members prior to the meeting. Without this, the community is not able to plan for the meeting and sees the process as being token.

- All enquiries, and how they are managed need to be presented to the CCC. The downgrading of complaints to enquiries is not seen as being acceptable. Rather than get into this debate, present all enquiries and how they have been managed / monitored.



There needs to be a clear direction presented to the community which shows the plan for Centennial into the future. This will not prevent the community from acting against any future proposal but will take away the current angst felt by most of the community and focus the issues with those who have a specific issue on the matters at hand.

The final comment relating to the SIA of the proposed modification is that it does not represent an overall negative social impact. However despite the improved management of pollution, the increase in discharge alone to LT Creek will not be well received.

The proposal may result in further community action against Centennial Coal due to the recent negative impact on the relationship between Centennial Coal and the community.

6. MANAGEMENT OF SOCIAL IMPACTS

As a result of the SIA a workshop was held with Centennial Coal on 15 December 2010 to discuss the findings of the report as well as identify the management strategies that are proposed to be undertaken to address the identified social impacts.

The three areas discussed relate to:

4. LT Creek
5. Centennial Coals future plans for this project
6. Management of the CCC.

ISSUE -	LT Creek.
Management Action	Three core actions are to be undertaken. These are summarised below with further detail / information contained in specialist reports currently available or to be completed in the future as part of this strategy. 1. Centennial Newstan acknowledges that its operation have had an impact on the health of LT Creek. This impact is long standing and dates back to the commencement of operations at this site. These impacts are legacy of this long history. Centennial Newstan will commit to implement the actions outlined in the LT Creek Catchment Water Quality Management Plan (LMCC 2010). It is acknowledged that some actions have been undertaken / commenced, however this statement of commitment will aim to reduce Newstan's impacts on LT Creek. This action plan has been included as Appendix 1. 2. A Framework Assessment of LT Creek will be undertaken. This assessment will: a. review the history of operations at the Newstan Colliery; b. consolidate the information and assessments completed by Centennial on LT Creek to date which include: ▪ LDP001 Licence Variation Preliminary Geomorphic Assessment – LT Creek (April 2009) ▪ Licence Variation Temporary Discharge Requirements (June 2009) ▪ LDP001 Licence Variation Water Quality Assessment (April 2009) ▪ Sediment Sampling, LT Creek North Arm (December 2009)

	▪ Surface Water Quality Baseline Study (December 2009) c. Identify the root cause of water quality and water management issues at the Newstan Colliery; and d. Identify options for improved water management at the source of water quality issues at Newstan Colliery. The findings of the Framework Assessment will enable management actions to be undertaken at Newstan and downstream on LT Creek if determined appropriate. The Framework Assessment will be undertaken in consultation with the Newstan CCC and other stakeholders, as appropriate, such as the LT Creek Sustainable Neighbourhood Group.
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ISSUE -	Centennial Coals future plans for this project
Management Action	Centennial Newstan acknowledges that there has been a range of information presented regarding future plans for proposed underground coal mining in the area. There has been confusion caused by different names for projects as well as differing plans which are developed as part of the Centennial Coal pre-feasibility and feasibility processes. It is acknowledged that communication via the Newstan CCC is an important means to the management of the information flow. As a response to this matter the Newstan CCC was provided with a detailed presentation of the proposed Project for the Newstan Modification as well as future mining plans at its December 2010 meeting. This matter will remain an agenda item for the Newstan CCC.

ISSUE -	Improve the Operation of the CCC
Management Action	Centennial Coal will undertake steps to improve the operation of the Newstan CCC. This will include providing the CCC with an agenda and briefing paper prior to the CCC meeting. In order to provide consistency, Centennial Coal's Regional Environment & Community Manager will attend all CCC meetings to provide, where requested, information on other Centennial Coal operations in the region. This will eliminate the need for matters raised to be referred to other CCC's for a response.

It is acknowledged that any changes / amendments to Centennial Newstan's operations will represent a social impact (regardless of whether operations are kept within approved limits). With that in mind, the management actions listed in the table above represent a real and practical manner in which identified impacts can be addressed and managed.

For example, the actions being undertaken to address issues relating to LT Creek represent a net benefit to the community and are a direct response to the issues raised by local residents. The amendments to the operation of the Newstan CCC will see an improvement to communication flow and secretariat process which are again a direct response to resident concerns.

APPENDIX 1.

LT Creek Catchment Water Quality Management Plan – Status Update 17/1/11 Newstan Requirements

LT Creek Catchment Water Quality Management Plan – Status Update 17/1/11 Newstan Requirements

Recommended Activities to Improve Stream Health

Group 1: Stabilise Sediment Sources, Reduce Sediment Transport and Restore Landscape Processes.

Report Reference	Requirement	Action Required
SS3 (High priority activity)	Vigilant control of sediment sources at Centennial Newstan surface operations area and Southern Rejects Emplacement Area (Centennial Newstan, DECC, DPI).	Nil reportable environmental incidents in 2009 and no dirty water discharge events from LDP002 since September 2008. Graunch's Dam pumping infrastructure has recently been upgraded to reduce the frequency of dirty water discharge from the site via LDP001. Expansion of Final Pollution Control Dam will reduce the frequency of dirty water discharge from the site
SS4 (High priority activity)	Review and tighten the Environment Protection Licence held by Centennial Newstan, to require compliance with more stringent suspended sediment discharge limits. This will also include review of the use of flocculants and their potential impacts on the chemistry of sediments that are eventually deposited in LT Creek.	DECCW are currently reviewing Newstan's Environmental Protection Licence 395. Monitoring requirements for additional heavy metals have been included by DECCW for EPL395. Engage specialist consultant to determine the potential impacts on the chemistry and sediments of LT Creek as a result of the use of flocculants. Newstan Environment & Community Coordinator to progress.
SS9 (Longer Term Supporting Activities)	Enforce wash down requirements for trucks using the Eraring Haul Road and sweep the Haul Road on a regular basis.	Economy Sweepers are conducting haul road sweeping on weekly basis. Newstan has installed skirt plating along high risk areas of the Newstan section of haul road. Meeting scheduled for 4 February 2010 to discuss possible location and operation of a wash down bay for the Newstan section of haul road. Newstan Environment & Community Coordinator and Washery personnel to progress.
SS10 (Longer Term Supporting Activities)	Check ongoing detention capacity of sediment basins along the haul road and remove sediment as necessary.	Sediment sumps are Inspected weekly on the Newstan section of haul road and maintained as necessary.

Group 2: Manage Sediment Accumulation around the Tidal Limit to Restore Creek Form and Aquatic Habitat.

Report Reference	Requirement	Action Required
SA2 (High priority activity)	Include historic and ongoing impacts on the health of LT Creek in issues to be addressed in the decommissioning and closure plan for Centennial Newstan (DPI, Centennial Newstan).	To be addressed in next revision of Newstan Rehabilitation Strategy (document to be updated as specified in DGRs for Main West Modification).
SA1 (High priority activity)	Conduct detailed sediment and geomorphic assessments of LT Creek downstream of Fassifern Railway Station (Centennial Newstan).	Downstream assessments to be conducted with current annual sediment assessment undertaken for LT Creek within Newstan property. Newstan Environment & Community Coordinator to schedule with consultant prior to June 2011.

Group 3: Progress Review, Reporting and Adaptive Management

Report Reference	Requirement	Action Required
MER1 (High priority activity)	Report on the implementation of management actions (and monitoring results when an appropriate monitoring program has been developed) to a variety of community and agency forums including Centennial Newstan CCC, HCRCA and the Lake Macquarie Project Committee. Also Council's State of Environment Report (LMCC, HCRCA, Centennial Newstan).	This action plan detailing Newstan's progress with recommended actions will be presented to the Newstan CCC commencing in March 2011 and presented on an ongoing basis.