APPENDIX 6

Proponent's Responses to Commission's Questions 2 to 6 dated 24 March 2014

Paula Poon - Stratford Extension Project - Responses to the Planning Assessment Commission

From: "Mark Jacobs" <MJacobs@yancoal.com.au>
To: "Paula Poon" <Paula.Poon@planning.nsw.gov.au>
Date: 24/03/2014 9:11 PM
Subject: Stratford Extension Project - Responses to the Planning Assessment Commission
Attachments: Stratford Extension Project - Responses to PAC Questions 2 to 6.pdf

Hi Paula,

As discussed, please find attached responses to the Commission's questions 2 to 6 for the Stratford Extension Project.

A updated version incorporating responses to the Commission's question 1 will be provided separately.

Regards,
Mark

Mark Jacobs | General Manager, Environment, Approvals & Community Relations
Yancoal Australia Ltd
OFFICE: Level 25, 363 George Street, Sydney NSW 2000 Australia
POSTAL:
PHONE: +61 (2) 8583 5910
FAX: +61 (2) 8583 5816
MOBILE: 0408 634 613
EMAIL: MJacobs@yancoal.com.au
WEBSITE: www.yancoal.com.au

STRATFORD EXTENSION PROJECT

RESPONSES TO THE PLANNING ASSESSMENT COMMISSION

MARCH 2013
Project No. GCL-10-12
Document No. 00581234.docx

1. NOISE

Response to be provided separately.

2. AIR

2.1 The Commission States:

The Department of Health has raised concern about the ability of the Proponent to achieve the predicted 90 percent control level for dust for the proposed mine especially given the EPA PRP goal is 80 percent. Given the importance of this number in the modeling of PM10 dust levels, can you please justify how this high level of control can be achieved consistently throughout the duration of the project under all weather conditions and how, and how often, it would be monitored for ongoing compliance purposes.

Response:

Air quality modelling results for the Air Quality and Greenhouse Gas Assessment assumed 90% haul road control efficiency.

Haul road dust control monitoring undertaken in May 2013, October 2013 and January 2014 at the Stratford Mining Complex indicated that the average dust control efficiency on haul roads at the Stratford Mining Complex ranged from 92 to 93% across the three sampling campaigns (pers. comm. Pacific Environment Limited, 2014).

For the Project, SCPL will continue use of current haul road watering practices to achieve 90% dust control efficiency and where required will increase the intensity of haul road watering through increased frequency of water carts and/or implementation of a haul road spray system (i.e. along permanent haul roads).

The water balance model for the Project predicts sufficient water supply reliability for the site (99.9% average reliability over all modelled climatic scenarios) indicating adequate water availability for watering roads and work areas for the duration of the Project (i.e. water supply would not constrain haul road dust control efficiency).

Further, it is noted that based on long term averages the Stratford Mining Complex receives between approximately 100 and 160 rain days per year and total rainfall of approximately 1,000 millimetres (mm) per year (Appendix B of the EIS). In addition to having a surplus of water available to meet haul road watering demands, the high rainfall reduces the frequency and intensity of watering required to achieve 90% control.

In consideration of the above, the continued management of haul roads to achieve a dust control efficiency of 90% is considered reasonable and feasible for the Project. Additional monitoring will be undertaken on an annual basis to confirm the ongoing performance of haul road dust control or as otherwise required by the Environment Protection Licence 5161.

2.2 The Commission States:

There is a strongly held perception that mine-related dust contaminates water tanks in villages located close to open-cut coal mines. Three main issues are raised by complainants:

(i) potential health impacts;
(ii) aesthetic impacts (discoloured water); and
(iii) cost of filtration systems and maintenance of these systems.

The Commission is aware of studies indicating that health impacts are unlikely. However, there is compelling anecdotal evidence that for some residential receivers there are aesthetic impacts and costs associated with decontamination of domestic water supplies. The Commission's preliminary view is that a more robust investigation of the potential for domestic water supply contamination in Stratford is warranted, with mitigation to follow if the results indicate that mine-relate dust is the source of contamination. Alternative approaches that would deal with this issue could be considered. The Commission is prepared to receive any further submissions from the Proponent on this issue.

Response:

The Commission states the basis of this issue is "compelling anecdotal evidence". However, studies conducted to date have not identified a causal link between existing mining activities and impacts to rainwater tanks. A summary of studies conducted in the region is provided below.

Macquarie University undertook a study of private water tanks in the Gloucester and Barrington Valleys proximal and remote to mining operations to investigate potential impacts to drinking water. While the findings were not published, comments made by Professor Damian Gore as reported on the ABC website suggest the elevated contaminant levels were as a result of pipes used in plumbing, rather than any impact from the mining operations (ABC, 2011):

> *He* [Professor Damian Gore] *says it could come from lead pipes used in plumbing but it is not linked to mining in the area.*
>
> *"We tested houses from Booral in the south to north of Barrington.*
>
> *"That's about 70-80 kilometres worth of valley. Some of the houses that had the worst compliance were actually at the very ends of that study of Booral and of Barrington.*
>
> *"So what I'm thinking is that this actually has much broader ramifications for rural Australia,".*
>
> *Associate Professor Gore says significant lead and copper contamination was found in some drinking water.*
>
> *But he says it is not from mine residue.*

In addition, a study conducted by the Gloucester Shire Council (GSC) (Parkinson and Stimson, 2010) included laboratory testwork of rainwater tanks in Stratford as well as from tanks in a number of other villages remote from coal mining areas. The conclusions of the study are reproduced in full below:

> *A 'snapshot' sample of water from rainwater tanks at Stratford, Barrington and Copeland Villages was undertaken. Results of laboratory testing were compared to the Australian Drinking Water Guidelines (ADWG's) and the majority of values were within these guidelines. There were however several isolated results for zinc, aluminium and iron that exceeded the guidelines, however these parameters are aesthetic only, and do not indicate health concerns. There were two lead levels that exceeded the guideline value; however it is believed that this is attributed to the poor condition of the dwellings and tanks concerned.*
>
> *Statistical comparison of values between each village failed to indicate any significant difference in values between Stratford Village and the other villages tested.*

SCPL would continue to monitor dust deposition in Stratford Village for the Project to identity any potential changes in the rate of dust deposition that may be attributable to the Project.

3 WATER

3.1 Final Voids

The Commission States:

What mechanism is proposed to ensure that the final voids are maintained in a safe and secure condition in the long term?

Response:

The Project final voids will be located within approved mining leases and will be the responsibility of the holder of the mining leases until the mining leases are relinquished.

In accordance with the Division of Resources and Energy's (DRE) *ESG3 Mining Operations Plan Guidelines*, relinquishment of the Project mining leases would only occur once the relevant Minister(s) is satisfied that all relevant regulatory requirements (e.g. mining lease and Development Consent conditions) have been addressed. This will require SCPL to demonstrate that the site has met the approved rehabilitation objectives, completion criteria and post mining land use goals (DRE, 2013).

Rehabilitation Objectives and Completion Criteria

Rehabilitation completion criteria for the Project have been developed with regard to *Leading Practice Sustainable Development Program for the Mining Industry – Mine Closure and Completion* (Department of Industry, Tourism and Resources, 2006b). Relevant completion criteria described in the EIS are as follows:

Decommissioning

1. *Project infrastructure is to be decommissioned in accordance with the Mine Closure Plan to the satisfaction of the regulating authorities.*
2. *Any potentially contaminated areas are to be tested and where required, remediated, in accordance with the Land Contamination Management Act, 1997 following infrastructure decommissioning.*

Landform Establishment

1. *After the completion of bulk materials handling in each domain, finalised landform areas (e.g. waste rock emplacement batters) are to be re-profiled to final slopes, and drainage structures installed consistent with the requirements of the Rehabilitation Management Plan.*
2. *Final landform elevations and slopes are to be surveyed to determine compliance with the specifications (landform slopes, final elevations, etc.) set out in the Rehabilitation Management Plan prior to the placement of growth media.*

Over the life of the Project, rehabilitation completion criteria would periodically be updated and refined in consultation with relevant stakeholders to include additional quantitative criteria and reflect evolving site rehabilitation practices and standards.

Post-Mining Land Use Goals

With respect to post-mining rehabilitation and land use, the *ESG3 Mining Operations Plan Guidelines* (DRE, 2013) include the following requirements:

In determining the acceptability of the proposed post mining land use, the Government will:

- *assess the compatibility of the post mining land use in the context of the broader landscape and land use composition of the area;*
- *assess the likelihood of achieving a long term sustainable outcome with consideration of resilience from climatic variations, fire, pest and disease pressures;*
- *assess the likely period required to achieve a long term sustainable outcome;*
- *assess the acceptability of the post mining land use to the community and other stakeholders; and*
- *assess the potential for rehabilitation failure and any ongoing management requirements.*

> *The post mining land use goal should provide sufficient information for the government to assess the above requirements. The post mining land use needs to be tailored to suit the site conditions*
>
> *…*
>
> *All rehabilitation planning should address the objective of achieving an agreed post mining land use that, at a minimum, is safe, stable, non-polluting and sustainable.*

Mine Lease Relinquishment Requirements

Rehabilitation requirements and the associated security bond for the Project would be determined by the DRE based on the information provided in the Mining Operations Plan (MOP) and mining lease applications. The security bond would be held by DRE until the relevant Minister is satisfied that all relevant regulatory requirements (e.g. mining leases and Development Consent conditions) have been addressed or otherwise used to remediate potential areas where rehabilitation objectives/obligations have not been satisfied.

Closure of the Project would be conducted in accordance with the relevant sections of the *ESG3 Mining Operations Plan Guidelines* (DRE, 2013) and in consideration of the MCA Strategic Framework for Mine Closure (MCA and ANZMEC, 2000). The *ESG3 Mining Operations Plan Guidelines* (DRE, 2013) describe relinquished lands as follows:

> ***Relinquished lands –*** *Disturbed areas within the mining lease that have satisfied the mine rehabilitation and closure requirements of Government, ie. the following parameters have been met: the area is self-sustaining, has been signed off by all parties, the lease (or a portion of a greater lease) is relinquished, and the security bond (or a portion of the bond) has been returned.*

Responsibility of Land following Mining Lease Relinquishment

The Project final voids will be located within the mining leases and will be the responsibility of the holder of the mining leases until they are relinquished. Once the Project mining leases have been relinquished, SCPL would still maintain responsibility for the Project site as the current landholder until it sells the land. Any such land sale would be conducted within the real estate market at the time (i.e. the value of the property will reflect the value of the land with the final voids).

4. BIODIVERSITY

4.1 Offset Package

The Commission States:

The Commission is concerned about several aspects of the proposed offset package. The desired offset ratio if the project were to be assessed under the biobanking guidelines is 6:1. The package delivers less than this and, while the Commission accepts that biobanking was not adopted for this project, it is clear from recent court decisions that the Commission must scrutinise very carefully any offset package put forward as an alternative to impact avoidance or mitigation.

Based on advice from the Commission, it is understood that the *"…recent court decisions…"* referred to in the *Questions for the Proponent Concerning the Proposed Stratford Coal Mine Extension Project* is specifically relevant to the 2013 WEP Judgement only. Accordingly, the 2013 WEP Judgement has been considered in the following responses to questions regarding the biodiversity offset areas for the Project.

Response:

Participation in the BioBanking Scheme (and running the Biobanking calculator) is voluntary and not a requirement for the Project. It is not correct to state that the desired offset ratio would be 6:1 in the event that the Project was assessed under the Biobanking Scheme. If the Project were assessed under the Biobanking Scheme, the ratio would be dictated by the output of the Biobanking calculator which varies depending on a large number of factors. Without running the calculator for a specific development and offset area the ratio under the Biobanking Scheme is indeterminate (i.e. if the ratio was always 6:1 there would be no need for a calculator).

Impact avoidance and mitigation measures have been provided as part of the Project to reduce the scale and intensity of potential impacts. As described in the Flora Assessment (Appendix D of the EIS - FloraSearch [Dr Colin Bower]) and Fauna Assessment (Appendix E of the EIS - Australian Museum Business Services), the offset proposal is aimed at addressing the residual impacts.

The offset areas for the Project were determined by detailed ecological surveys undertaken by suitably qualified and experienced ecologists (Australian Museum Business Services (now Australian Museum Consulting) (Appendix E of the EIS) and FloraSearch (Dr Colin Bower) (Appendix D of the EIS). A number of factors are considered when developing an offset and these are outlined in the EIS (Section 4.9.4):

- *the location of the proposed disturbance relative to the proposed offsets;*
- *how the proposed offsets could complement the existing reserve system;*
- *the regional conservation priorities (e.g. corridors [DECC, 2007b]) and vegetation most in need of conservation;*
- *the available land tenure on which to locate a biodiversity offset area;*
- *the vegetation composition of the proposed disturbance area relative to the proposed biodiversity offset areas;*
- *the composition of the fauna habitats of the proposed disturbance area relative to the proposed biodiversity offset areas;*
- *the presence of threatened fauna species and their habitat requirements;*
- *the size of the biodiversity offset areas relative to the proposed disturbance area;*
- *the shape of the proposed biodiversity offset areas in relation to the spatial arrangement of existing vegetation in the landscape;*
- *the ecosystem resilience and condition of the proposed biodiversity offset areas; and*
- *existing infrastructure - roads, rail, power lines and houses.*

Ecological gains of the biodiversity offset areas are described in Section 4.9.4 of the EIS:

- *Each vegetation type proposed to be cleared by the Project is represented in the biodiversity offset areas.*
- *The proposed biodiversity offset areas are suitably located because they are local to the area proposed to be disturbed and therefore have a greater chance of maintaining and improving the biodiversity that would be impacted.*
- *The biodiversity offset areas contain a number of watercourses, namely, two reaches of the Wards River occur in the proposed Offset Area 3 (approximately 0.5 km and 0.65 km), the upper reach of the Avondale Creek in the proposed Offset Area 3 (approximately 4.4 km) and other drainage lines (Figure 4-22 [of the EIS]).*

- *When agricultural parts of the biodiversity offset areas are removed from agricultural production, remnant woodlands can be expected to begin natural regeneration.*
- *Cleared paddock areas would be planted strategically to appropriate tree and shrub species to provide habitat for recolonisation by flora and fauna.*
- *The plantings would also be designed to link isolated woodland remnants to facilitate movement of plants and animals between remnants.*
- *The biodiversity offset areas support samples of all native vegetation types within the Project disturbance area and provide a greater diversity of vegetation types*[6] *than occur in the Project area.*
- *Offset Areas 3 and 4 are bordered to the east and south-east by a very large block of largely undisturbed natural vegetation. Consequently, the biodiversity offset areas are not isolated in the landscape and the high connectivity would help to facilitate long-term viability. Conversely, the addition of the biodiversity offsets as new protected areas would enhance nature conservation in the region.*

The strategic benefits of the biodiversity offset areas (including their locations) are outlined in Table 4-28 of the EIS (and repeated in Table 1).

Table 1
Strategic Benefit of the Biodiversity Offset Areas

Component (Figure 4-22 of the EIS)	Area (ha)	Description
Offset Area 1	40	• Contains the same vegetation types and broad fauna habitat types present within the Project area. • Contains 8 hectares (ha) of Vegetation Type 8: Cabbage Gum open forest or woodland on flats of the North Coast and New England Tablelands which is 70% cleared in the CMA. • Contains cleared land that was likely to have contained Vegetation Type 8. • Adds to the overall size of vegetation in the area by expanding the area of vegetation on the opposite side of Bowens Road next to the crown reserve. • Known to contain threatened species such as the Grey-crowned Babbler (eastern subspecies) and adjoins habitat which has recorded the Squirrel Glider, Brush-tailed Phascogale, Varied Sittella, Flame Robin and Eastern Bentwing-bat.
Offset Area 2	70	• Contains the same vegetation types present within the Project area. • Contains similar habitat types present within the Project area. • Contains 3.5 ha of Vegetation Type 8: Cabbage Gum open forest or woodland on flats of the North Coast and New England Tablelands which is 70% cleared in the CMA. • Contains cleared land that was likely to have contained Vegetation Type 8. • Adds to the overall size of vegetation in the area by expanding the area of vegetation adjoining the existing Voluntary Conservation Area (VCA). • Adjoins a VCA that has records for threatened species such as the Brush-tailed Phascogale, Koala, Varied Sittella, Speckled Warbler, Eastern Freetail-bat, Eastern Bentwing-bat and Little Bentwing-bat. • Adds to the overall amount of fauna habitat in the area by expanding the area of vegetation adjoining the existing VCA.
Offset Area 3	655	• Contains the same vegetation types and broad fauna habitat types present within the Project area plus four additional vegetation types. • Contains 18.4 ha of Vegetation Type 8: Cabbage Gum open forest or woodland on flats of the North Coast and New England Tablelands. • Contains cleared land that was likely to have contained Vegetation Type 8. • Known to contain threatened species such as the Squirrel Glider, the Brush-tailed Phascogale, the New Holland Mouse, the Grey-headed Flying Fox, Eastern Bentwing-bat, Little Bentwing-bat, Eastern Freetail-bat, Southern Myotis, Grey-crowned Babbler (eastern subspecies), Scarlet Robin, Glossy Black-cockatoo, Varied Sitella and the Comb-crested Jacana. • Provides connectivity between remnant native vegetation to the south-west and the large area of native vegetation in the east and south.

[6] With the exception of Derived Grassland, which is derived as a result of previous land use activities from other vegetation types recorded in the surface development area and biodiversity offset areas.

Table 1 (Continued)
Strategic Benefit of the Biodiversity Offset Areas

Component (Figure 4-22 of the EIS)	Area (ha)	Description
Offset Area 4	170	• Contains a vegetation type that is also present within the Project area plus one additional vegetation type. • Known to contain a number of threatened species such as the New Holland Mouse, Koala, Yellow-bellied Glider, Long-nosed Potoroo, Grey-Crowned Babbler (eastern subspecies), Varied Sittella, Masked Owl, Glossy Black-cockatoo, Little Bentwing-bat and Eastern Bentwing-bat • Contains potential habitat for Glossy Black-cockatoos.

Source: After Appendices E and F.

Further, the NSW Office of the Environment and Heritage (OEH) in its submission on the Project (19 December 2012) states:

> *OEH has reviewed the biodiversity offset proposal as presented in the EIS and is of the opinion that it has adequately addressed our offset principals and as such represents a suitable compensatory package of vegetation types and habitats that are proportionate or better than those that will be lost from the subject site.*

As described in Section 3.1.2 of the EIS:

> *…the Hunter-Central Rivers CMA was consulted and was generally supportive of the biodiversity offsets strategy for the Project and its contribution to restoring linkages within an OEH recognised climate change corridor.*

Table 2 provides a review of the relevance of the 2013 WEP Judgement to the Project. Of note, no endangered ecological communities would be impacted by the Project and many of the outcomes from the 2013 WEP Judgement (in regard to *Warkworth Sands Woodland in the Sydney Basin Bioregion* Endangered Ecological Community [EEC]) do not apply. The general requirements for offsets that were raised in the 2013 WEP Judgement are described below in relation to the Project.

Notwithstanding that the area size ratios are not the primary consideration for determining suitability of an offset, the Duralie Extension Project Land and Environment Court Judgement decision resulted in court approved offset ratios of:

- 3.3:1 for existing remnant vegetation; and
- 3.2:1 for grasslands in the clearing vs offset area.

The offset ratio for the Project is higher for existing remnant vegetation:

- 4.6:1 for existing remnant vegetation in the clearing vs offset area; and
- 2.2:1 for grasslands in the clearing vs offset area.

Table 2
Relevance of the 2013 Warkworth Extension Project Judgement to the Stratford Extension Project

2013 Warkworth Extension Project Judgement		Relevance to the Stratford Extension Project
85	*As I have noted, the vegetation communities to be cleared, to a large extent, are endangered ecological communities ('EECs') listed under the TSC Act. These vegetation communities are threatened with extinction. The most at risk is the Warkworth Sands Woodland* EEC.	No EECs listed under the Threatened Species Conservation (TSC Act) would be impacted by the Project. No highly restricted vegetation or vegetation communities threatened with extinction (similar to the Warkworth Sands Woodland) would be impacted by the Project.

153	*In the case of the Project, Warkworth has proposed no avoidance measures and little mitigation measures to reduce the scale and intensity of the significant impacts on biological diversity particularly on the affected EEC. As a consequence, the significant impacts identified in the preceding section remain essentially unabated. Rather, Warkworth has proposed an offsets package in order to compensate for the significant residual impacts of the Project.*	Impact avoidance and mitigation measures have been provided as part of the Project to reduce the scale and intensity of potential impacts. As described in the Flora Assessment (Appendix D of the EIS - FloraSearch [Dr Colin Bower]) and Fauna Assessment (Appendix E of the EIS - Australian Museum Business Services), the offset proposal is aimed at addressing the residual impacts.
		
		Impact Avoidance Measures
		
		As described in Section 4.9.3 of the EIS, refinements to the Project design have resulted in avoiding additional impacts on flora and their habitats:
		
		• *Optimising the area of the open cuts that are backfilled to minimise the overall mine footprint, including complete backfilling of the Stratford Main Pit and BRNOC as well as partial backfilling of the Roseville West Pit Extension, Avon North Open Cut and Stratford East Open Cut.*
		• *Continued use of several existing features at the Stratford Mining Complex, including:*
		  - *open cut voids for water and rejects storage;*
		  - *Stratford East Dam for water management;*
		  - *CHPP; and*
		  - *rail facilities.*
		• *Avoiding clearance of areas of surrounding bushland:*
		  - *between the Stratford Main Pit, the Stratford Waste Emplacement Extension, the proposed Avon North Open Cut and the proposed Northern Waste Emplacement Extension;*
		  - *west of the Roseville West Pit Extension; and*
		  - *south of the Stratford Waste Emplacement and west of the proposed Stratford East Open Cut.*
		• *Avoiding disturbance to Avondale Creek (apart from the additional creek crossing) (Section 2.12).*
		• *Increasing the maximum height of the existing waste emplacements to minimise the overall mine footprint.*

Table 2 (Continued)
Relevance of the 2013 Warkworth Extension Project Judgement to the Stratford Extension Project

2013 Warkworth Extension Project Judgement		Relevance to the Stratford Extension Project
153	*Continued.*	***Mitigation Measures*** As described in Section 4.9.3 of the EIS, SCPL would prepare and implement a Biodiversity Management Plan for the Project that covers the following aspects: • *vegetation clearance procedures;* • *seed collection;* • *weed control;* • *bushfire prevention;* • *land management – continuation of the biodiversity enhancement area;* • *timing land clearance to minimise harm of fauna;* • *salvage and relocation of logs, vegetative material and rocks;* • *salvage and relocation of tree hollows;* • *nest box programme;* • *management of exotic animals;* • *management of artificial lighting;* • *vehicular speed limits;* • *measures specific to the New Holland Mouse, Glossy Black-cockatoo and Squirrel Glider;* • *construction and design of creek crossings; and* • *monitoring aquatic ecology.* The measures relevant to flora are discussed in Section 4.9.3 and in Section 4.9.4 of the EIS. The measures relevant to fauna and aquatic ecology are discussed in Sections 4.10.3 and 4.11.3 of the EIS, respectively.

Table 2 (Continued)
Relevance of the 2013 Warkworth Extension Project Judgement to the Stratford Extension Project

<table>
<tr><th colspan="2">2013 Warkworth Extension Project Judgement</th><th>Relevance to the Stratford Extension Project</th></tr>
<tr><td>202</td><td>Warkworth's offset package does not adequately compensate for the Project's significant impacts on the affected EECs, particularly the WSW and CHGBIW EECs, that will be lost by clearing and open cut mining.

The direct offsets (being the seven biodiversity areas and the rehabilitation area on the mined lands) would not provide sufficient, measurable conservation gain for the particular components of biological diversity impacted by the Project, particularly the affected EECs.</td><td>As stated above, no EECs listed under the TSC Act would be impacted by the Project.

The offset areas for the Project would provide a sufficient, measurable conservation gain for the particular components of biological diversity impacted by the Project:

<table>
<tr><th>Examples of Components of Biological Diversity Impacted by the Project</th><th>Conservation Gain</th></tr>
<tr><td>Vegetation</td><td>• Each vegetation type proposed to be cleared by the Project is represented in the biodiversity offset areas[7].
• The biodiversity offset areas support samples of all native vegetation types within the Project disturbance area and provide a greater diversity of vegetation types[7] than occur in the Project area.</td></tr>
<tr><td>Local Biodiversity</td><td>• The proposed biodiversity offset areas are suitably located because they are local to the area proposed to be disturbed and therefore have a greater chance of maintaining and improving the biodiversity that would be impacted.
• …the addition of the biodiversity offsets as new protected areas would enhance nature conservation in the region.</td></tr>
<tr><td>Flora and Fauna Habitat (including threatened species)</td><td>• When agricultural parts of the biodiversity offset areas are removed from agricultural production, remnant woodlands can be expected to begin natural regeneration.
• Cleared paddock areas would be planted strategically to appropriate tree and shrub species to provide habitat for recolonisation by flora and fauna.</td></tr>
<tr><td>Connectivity</td><td>• The plantings would also be designed to link isolated woodland remnants to facilitate movement of plants and animals between remnants.
• Offset Areas 3 and 4 are bordered to the east and south-east by a very large block of largely undisturbed natural vegetation. Consequently, the biodiversity offset areas are not isolated in the landscape and the high connectivity would help to facilitate long-term viability.</td></tr>
<tr><td>Other gains</td><td>• The biodiversity offset areas contain a number of watercourses, namely, two reaches of the Wards River occur in the proposed Offset Area 3 (approximately 0.5 km and 0.65 km), the upper reach of the Avondale Creek in the proposed Offset Area 3 (approximately 4.4 km) and other drainage lines (Figure 4-22).</td></tr>
</table>
</td></tr>
</table>

[7] With the exception of Derived Grassland, which is derived as a result of previous land use activities from other vegetation types recorded in the surface development area and biodiversity offset areas.

Table 2 (Continued)
Relevance of the 2013 Warkworth Extension Project Judgement to the Stratford Extension Project

2013 Warkworth Extension Project Judgement		Relevance to the Stratford Extension Project
202	*The other compensation measures would not add sufficient benefits to achieve an overall conservation outcome of improving or maintaining the viability of the affected EECs.*	No other compensation measures (e.g. monetary funding) are proposed as part of the Project.
203-205	*Remote biodiversity areas do not contain affected EECs*	As stated above, no EECs listed under the TSC Act would be impacted by the Project. The biodiversity offset areas for the Project are not remote from the disturbance area. The proposed biodiversity offset areas are suitably located because they are local to the area proposed to be disturbed and therefore have a greater chance of maintaining and improving the biodiversity that would be impacted. The biodiversity offset areas have been targeted to offset impacts on the basis of a like-for-like or better conservation outcome. The biodiversity offset areas support samples of all native vegetation types within the project disturbance area and provide a greater diversity of vegetation types than occur in the Project area.
206-207	*Remote biodiversity areas not proven to provide conservation gain for threatened fauna*	The offset areas for the Project are not remote from the disturbance area. The proposed biodiversity offset areas are suitably located because they are local to the area proposed to be disturbed and therefore have a greater chance of maintaining and improving the biodiversity that would be impacted. Surveys were undertaken in the biodiversity offset areas for the Project to demonstrate the conservation gain for threatened fauna. Numerous threatened species are known to inhabit the biodiversity offset areas for the Project (Figures 4-24 to 4-26): • six birds (Comb-crested Jacana; Glossy Black-cockatoo; Masked Owl; Scarlet Robin; Grey-crowned Babbler; Varied Sittella); • six non-flying mammals (Koala; Brush-tailed Phascogale; Yellow-bellied Glider; Squirrel Glider; New Holland Mouse; Long-nosed Potoroo); and • five bats (Grey-headed Flying-fox; Eastern Bentwing-bat; Little Bentwing-bat; Eastern Freetail-bat; Southern Myotis). Condition 32 of Schedule 3 of the draft conditions of consent states: *The Applicant shall ensure that the Biodiversity Offset Area and Biodiversity Enhancement Area provides suitable habitat for all the threatened fauna species recorded in the surface development area*.
208-212	*Distinguishing extant EECs and areas to be rehabilitated as EECs*	No EECs listed under the TSC Act would be impacted by the Project. Despite this, some revegetation areas are proposed as part of the biodiversity offset areas for the Project. The revegetation areas are described (Appendices D and E of the EIS), quantified (Tables 4-24, 4-25 and 4-26 of the EIS), and mapped (Figure 4-4 of the EIS).
213-231	*Area of extant WSW EEC in offsets less than estimated*	No EECs listed under the TSC Act would be impacted by the Project. Despite this, surveys were undertaken in the biodiversity offset areas for the Project to accurately map the extent and condition of vegetation communities (Appendix D of the EIS).
232-237	*Offset area and offset ratio for extant EECs too low*	No EECs listed under the TSC Act would be impacted by the Project. No highly restricted vegetation (similar to the Warkworth Sands Woodland) would be impacted by the Project.

Table 2 (Continued)
Relevance of the 2013 Warkworth Extension Project Judgement to the Stratford Extension Project

2013 Warkworth Extension Project Judgement		Relevance to the Stratford Extension Project
238-239	*Lower habitat quality of WSW EEC in offsets*	No EECs listed under the TSC Act would be impacted by the Project. Despite this, surveys were undertaken in the biodiversity offset areas for the Project to accurately map the extent and condition of vegetation communities (Appendix D of the EIS).
240-251	*Risk and uncertainty that derived grasslands would not become EECs*	Revegetation activities proposed in the biodiversity offset areas for the Project are not aimed at re-creating an EEC.
252-254	*Other compensatory measures offer insufficient conservation benefits*	No other compensation measures (e.g. monetary funding) are proposed as part of the Project.

The Commission States:

If the size of the package is sub-optimal (or at best at the margins), then the characteristics of the package become critically important. In this context the Commission notes that the package contains areas that are subject to existing and proposed impacts that limit their value for flora and fauna.

Response:

Size of the Offset Area

The primary consideration for an offset is not how large it is compared to the impact area (i.e. the ratio). The primary consideration is the characteristics of the offset area and its ability to maintain or improve biodiversity values of the surrounding region in the medium to long-term (as required by the Director General's Requirements [DGRs] for the Project). The offset for the Project was determined to be suitable by detailed ecological surveys undertaken by suitably qualified and experienced ecologists (Australian Museum Business Services (now Australian Museum Consulting) (Appendix E of the EIS) and FloraSearch (Dr Colin Bower) (Appendix D of the EIS) (i.e. the suitably qualified and experienced ecologists do not conclude that the offset area is sub-optimal [or at best at the margins]).

As described above, the most recent Land and Environment Court decision relating to offsets in the Gloucester Valley was for the Duralie Extension Project. The court approved offset ratio for the Duralie Extension Project was:

- 3.3:1 for existing remnant vegetation; and
- 3.2:1 for grasslands in the clearing vs offset area.

The offset ratio for the Project is higher for existing remnant vegetation:

- 4.6:1 for existing remnant vegetation in the clearing vs offset area; and
- 2.2:1 for grasslands in the clearing vs offset area.

Factors that were considered in the Land and Environment Court decision for the Duralie Extension Project offset area were vegetation communities, habitat for threatened species, shape and size of the offset area, connectivity provided by the offset, and revegetation of grasslands. Similar to the Project, and unlike the Warkworth Extension Project, no threatened ecological communities were relevant to the Duralie Extension Project.

Further, OEH in its submission on the Project (19 December 2012) states:

> *OEH has reviewed the biodiversity offset proposal as presented in the EIS and is of the opinion that it has adequately addressed our offset principals and as such represents a suitable compensatory package of vegetation types and habitats that are proportionate or better than those that will be lost from the subject site.*

Impacts from Existing and Proposed Infrastructure

The Gloucester Valley has a long history of agricultural land use such that extensive areas of the valley floor have existing infrastructure (roads, rail lines, power lines, fences and houses). It would be difficult (if not impossible) to find a similar size area of land (935 ha) in the Gloucester Valley with the desired biodiversity characteristics (vegetation types, threatened species habitat etc.) and without any influence from existing infrastructure that is available for use as an offset.

As described above, a number of factors were considered when developing the offset and these are outlined in the EIS (Section 4.9.4). Two of these factors were *'… regional conservation priorities (e.g. corridors [NSW Department of Environment and Climate Change (DECC), 2007b])…'* and '*…existing infrastructure - roads, rail, power lines and houses…'.* The largest offset area (Offset Area 3) has the most influence from existing infrastructure but this area was selected as it is located within an OEH recognised climate change corridor (DECC, 2007b) (i.e. a priority area for conservation in the Gloucester Valley).

As described in Section 3.1.2 of the EIS:

> *…the Hunter-Central Rivers CMA was consulted and was generally supportive of the biodiversity offsets strategy for the Project and its contribution to restoring linkages within an OEH recognised climate change corridor.*

The impacts from existing infrastructure are assessed in Section 7.2.10 of Appendix F of the EIS. It was concluded by Australian Museum Business Services (now Australian Museum Consulting) (Section 7.2.10 of Appendix F of the EIS) that the potential impacts from existing infrastructure within the biodiversity offset areas would not preclude the areas from being suitable offset for the Project. The existing infrastructure would not preclude the areas from being a suitable offset for the Project because the offset would still maintain or improve biodiversity values of the surrounding region in the medium to long-term (as required by the DGRs for the Project). Specifically:

- biodiversity values to be impacted have been considered (i.e. the habitat proposed to be cleared within the Project area is also subject to existing and proposed infrastructure such as mining operations, roads and power lines).
- the existing and proposed infrastructure (e.g. mining operations, roads, rail lines, power lines and houses) have been excluded from the offset area calculations.
- there are large portions of the offset areas (vegetation and habitat) that are not influenced by existing and proposed infrastructure.
- the houses that are located on the same properties as the offset areas are owned/controlled by SCPL (i.e. SCPL can control the impacts of the houses on the offset area).
- the low vegetation in the power line easement still provides habitat for some species (e.g. the threatened New Holland Mouse).
- most roads are subject to low traffic volumes (e.g. Glen Road, Bowens Road and Woods Road).

As described above, the most recent Land and Environment Court decision relating to offsets in the Gloucester Valley was for the Duralie Extension Project. The Land and Environment Court approved offset area for the Duralie Extension Project provides a habitat linkage from the Buckley's Range (to the east of the DCM) across former agricultural land to habitat on the western side of the DCM. To provide this habitat connectivity, it was necessary for the offset area of the Duralie Extension Project to traverse, or be bordered by, existing infrastructure, including:

- Johnson's Creek Road which traverses the offset area;
- DCM Access Road which traverses the offset area;
- North Coast Railway which traverses the offset area;
- at least four dwellings which are adjacent to the offset area; and
- the offset area which is adjacent to the DCM.

Also of note, the location of existing or proposed infrastructure relative to an offset area is not a prerequisite consideration under the Biobanking Scheme (were the Project to be assessed under the Biobanking Scheme).

> **The Commission States:**
>
> ***It also contains significant areas requiring revegetation, the potential success of which can only be described as 'uncertain'.***

Response:

As described above, the most recent Land and Environment Court decision relating to offsets in the Gloucester Valley was for the Duralie Extension Project. The offset area for the Duralie Extension Project also requires significant areas of revegetation (390 ha) similar to the Project offset area (435 ha).

Restoring linkages within the OEH recognised climate change corridor is not possible without revegetation included in the Project Biodiversity Offset Strategy. The aim of revegetation in the offset areas for the Project is to:

- establish a range of habitat niches through revegetation (including canopy, understorey and ground cover);

- provide habitat for recolonisation by flora and fauna; and
- link isolated woodland remnants to facilitate movement of plants and animals between remnants.

The aim is also to establish revegetation that would be self-sustaining.

The aim of revegetation in the offset areas for the Project is not to re-create or restore exact ecological communities that would have occurred prior to clearing (i.e. this proposal differs from other uncertain proposals that claim to be able to re-create EECs). The 2013 WEP Judgement describes how Warkworth Mining Limited proposed to reconstruct the *Warkworth Sands Woodland in the Sydney Basin Bioregion* EEC (a highly confined community that occurs on aeolian sand deposits). No EECs would be impacted by the Project.

Pristine natural ecosystems (and EECs) are complex and are difficult to reconstruct. The restoration of the *Warkworth Sands Woodland in the Sydney Basin Bioregion* EEC is particularly uncertain because the community occurs on aeolian sand deposits and there are no current examples of a recognised area of the community which has been created by rehabilitation from derived grassland.

Revegetation proposed in the offset areas for the Project (which provides habitat resources and linkage across the valley) is likely to be successful considering:

- There is evidence that natural revegetation has occurred in the Stratford locality (as shown on historic air photos [Figures 8a and 8e of the Flora Assessment (Appendix D of the EIS - FloraSearch [Dr Colin Bower])].
- Techniques to revegetate cleared land such as direct seeding and planting are widely used in NSW. For example, revegetation comprises a significant proportion of the Great Eastern Ranges Project [a project co-funded by the State and Commonwealth governments as well as 180+ organisations] to enhance connectivity, build corridors and linkages across the landscape, and expand core areas of habitat across NSW. The Great Eastern Ranges Project has resulted in successful revegetation outcomes such as the Capertee Valley revegetation programme and Murrumbidgee Catchment revegetation programme. To acknowledge the 25th anniversary of the landcare movement, the Great Eastern Ranges Landcare Grants Program was launched by the Minister for the Environment this year in the Hunter Valley, NSW).
- Widely occurring local flora would be used in the revegetation areas.
- When agricultural parts of the biodiversity offset areas are removed from agricultural production, remnant woodlands can be expected to begin natural regeneration.
- Learnings from the revegetation of the Duralie Extension Project offset area would also be applied to the offset areas for the Project.

Further, there is certainty that the revegetation would occur considering:

- the offset area would be actively managed to achieve the aim (as described in Section 4.9.4 of the EIS, Greening Australia has been commissioned to prepare the Project Biodiversity Management Plan to facilitate the revegetation and regeneration of native vegetation and habitats and provide a framework for continued management and monitoring of the biodiversity offset areas);
- monitoring would be undertaken to track the performance of the revegetation;
- provision for annual reporting to NSW government (and input into the performance of the offset area);
- the offset would be independently audited; and
- SCPL would lodge a conservation bond with the DP&I to ensure availability of funding for implementation of the biodiversity offset strategy in accordance with the performance and completion criteria of the Biodiversity Management Plan.

Also of note, revegetation can be included in offset proposals under the Biobanking Scheme (were the Project to be assessed under the Biobanking Scheme).

The Commission States:

Added to this, the conservation value of the package in the short-medium term is limited because of vegetation maturity, yet this is when most of the impacts of mining on flora and fauna will occur.

Response:

The DGRs for the Project (Section 1.2 and Attachment 1 of the EIS) state that the EIS must include a description of the measures that would be implemented to offset the potential impacts of the Project and maintain or improve biodiversity values of the surrounding region in the medium to long-term. Despite this, as described in Section 4.9.4 of the EIS, when agricultural parts of the biodiversity offset areas are removed from agricultural production, remnant woodlands can be expected to begin natural regeneration therefore improvement would begin in the short term.

Other management measures that would be implemented to mitigate the impacts in the short-term are:

- vegetation clearance procedures (e.g. vegetation clearing would occur during late summer or early autumn where practicable to minimise impacts to a large range of fauna breeding during spring and summer, and fauna which would hibernate during winter);
- weed control;
- land management – continuation of the biodiversity enhancement area;
- relocation of habitat features (e.g. trunks, logs, large rocks, branches, small stumps and roots) would be salvaged during vegetation clearance activities and stockpiled for relocation to nearby areas to provide habitat resources for a range of fauna;
- relocation of tree hollows salvaged during vegetation clearance activities for placement in areas where habitat enhancement is required;
- nest box programme;
- control of exotic animals;
- management of artificial lighting; and
- vehicular speed limits.

The Commission States:

Mechanisms to try and mitigate these impacts (e.g. provision of nest boxes) are not considered to be fully effective, but are proposed in a 1:1 ratio. There is no apparent mechanism for maintenance of such measures despite the need for them to operate in-situ for 50-100 years.

Response

Section 6.2.3 of the Fauna Assessment by Australian Museum Business Services (Appendix F of the EIS) describes the nest box programme to be implemented for the Project. Australian Museum Business Services is currently undertaking a similar nest box programme for the DCM. Monitoring undertaken at the DCM shows that approximately 90% of nest boxes are being used.

The nest box programme developed for the Project proposes to monitor and manage nest boxes within existing trees within the biodiversity offset areas during the life of the mine. Nest boxes installed as part of the Project's nest box programme would require management (including maintenance and replacement) and would be monitored by suitably qualified personnel. A monitoring report assessing the nest box programme would be prepared annually and would include a summary of previous monitoring reports. The monitoring results would be reported in the Annual Report.

Nest boxes would be installed at a minimum ratio of 1:1 (i.e. one nest box of appropriate size to replace one hollow of similar size and properties) (Table 4-29 in Section 4.9.4 of the EIS and Section 6.2.3 of Appendix F of the EIS). This ratio of nest boxes is consistent with the Land and Environment Court decision for the Duralie Extension Project.

The next boxes are not required to operate in-situ for 50-100 years. As described in Section 6.2.3 of Appendix F of the EIS, with the part removal and decrease in livestock grazing over the past 50 years, some of the landscape surrounding the mine has begun to regenerate and may provide opportunities for fauna species that require mature trees for nesting and feeding and these opportunities are likely to improve over time. In other words, tree hollows would continue to develop in existing mature trees over a shorter time period, negating the need for nest boxes over time. Further, some fauna species recorded in the Project area (e.g. gilders, microbats) use small tree hollows (≤5 cm in diameter) which take less time to develop than larger tree hollows (e.g. greater than 30 cm).

The Commission States:

The Commission also notes that the project proposal includes mining through an area identified in Stratford's 1994 consent as forming part of a wildlife corridor. How can the Commission have any confidence that the proposed offset areas will not suffer a similar fate? (See also the comments of Preston CJ on this issue in the Warkworth case.)

Response:

The Stratford Mining Complex 'wildlife corridor' was not an offset area intended to be secured in perpetuity but rather a prescribed way in which the land would be managed (i.e. there is no conservation agreement similar to the Deed of Agreement entered into between Rio Tinto Coal Australia and the Minister for the WEP).

It should be noted, that the fate of the wildlife corridor (now referred to as the biodiversity enhancement area) is that it would be re-designed to accommodate the Project but expanded in size (from approximately 207 ha to 240 ha). Despite the change, the wildlife corridor still provides for possible linkages through the mining lease and across the post-mine landforms.

Confidence in the long-term security of the Project offset areas is provided by provision of a security mechanism and conservation bond as described in Section 4.9.4 of the EIS:

> *An arrangement would be made for the protection in perpetuity and management of the biodiversity offset areas within 12 months of grant of Development Consent.*
>
> *…*
>
> *SCPL would lodge a conservation bond with the DP&I to ensure availability of funding for implementation of the biodiversity offset strategy in accordance with the performance and completion criteria of the Biodiversity Management Plan.*

Condition 31 of Schedule 3 of the draft conditions of consent requires SCPL to make suitable arrangements to protect the Biodiversity Offset Area in perpetuity and Condition 34 of Schedule 3 of the draft conditions of consent requires SCPL to lodge the conservation bond. In other words, SCPL would be required to maintain the offset area as described in the Development Consent (in the short to medium term until after the mine closure process) and in accordance with the mechanism used to secure the offset area in perpetuity.

5 ECONOMICS

5.1 Coal Prices and the Calculation of Project Benefits

The Commission States:

The Commission recognises that there may be other significant economic or strategic considerations that would influence Yancoal's decision to proceed with the project, despite the current outlook for the project considered in isolation (i.e. it may be sound business strategy to proceed with the project even if it is not a profitable enterprise on its own in the short term).

The Commission wishes to ascertain whether such factors exist and whether they are significant enough for the Proponent to proceed with the project if conditional approval were to be granted. If the project proceeded under current coal prices (or current estimates of long-term trends in coal prices), what would be the estimated impact on projected royalty payments to NSW, the projected employment figures and the direct benefits to the regional and NSW communities as described in the EA.

Response:

The economics of any commercial coal mining venture are impacted by the changing coal market. However, in respect of this Project in particular, this does not consider the following key significant economic factors:

- Existing Take-or-Pay contracts for port, "below rail" and "above rail", which involve contractually binding rolling 10-year commitment to pay for access based on forecast annual tonnages of product coal , irrespective of whether that quantum is used or not.
- The availability of Project coal for blending with coal from DCM, which maximises the value of the available resources from both operations.
- A large proportion of the thermal coal from Stratford-Duralie is under long term contract, locked in at prices well above the current "spot" market for that type of coal.

A detailed description of these key significant economic factors is provided in the response to the Commission's Question 1.3.

The potential loss of revenue from the Stratford and Duralie Coal Mines from the removal of night time mining has been quantified and is significant. Accordingly, Yancoal considers this information to be commercially in confidence and has elected not to report the potential devaluation in these responses to the Commission's queries. It is proposed these impacts would be discussed with the Commission in person.

We note that coal is not a homogenous resource. SCPL produces a number of different coal products with widely differing characteristics. The product mix is produced by segregating pits (and seams), by differential washing and by discrete blending. With respect to the coal price assumed in the economic analysis presented in the EIS, it should be noted this coal price is based on SCPL's long-term coal price projections over the 11 year Project life. SCPL's view on long-term coal pricing is informed by long-term broker views, guidance from the major trading houses and customers, and by procuring commercially available long-term forecasts from independent industry experts.

These projections have regard to the estimated world prices for thermal and metallurgical coal (which are typically estimated in United States Dollars [USD]) and likely future movements in the USD/AUD exchange rate.

Current and historical prices are of little relevance to the 11 year period of the economic analysis. As described in Section 2.6 of the Socio-Economic Assessment (Appendix P of the EIS), there is considerable uncertainty around the future economic value of coal. Consequently, the Socio-Economic Assessment includes a coal price sensitivity analysis with a 20% sustained reduction in coal price over the life of the Project, and under this assumption, the Project would still have a positive NPV.

5.2 Significance of the Resource

The Commission States:

The Mining SEPP requires consideration of significance of the resource. The Commission notes that the size of the resource is not particularly significant, either as a proportion of NSW coal production or of NSW coal reserves. What characteristics of the project resource would establish it as a significant resource for the purposes of assessment? In this context an unsubstantiated statement of the kind found on p2 of the Department's PAR will not be sufficient for the Commission's purposes.

Response:

The *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (the Mining SEPP) requires the consideration of the significance of a resource with regard to the economic benefits **at a state and regional level**.

Specifically Clause 12AA of the Mining SEPP states:

> *(1) In determining an application for consent for development for the purposes of mining, the consent authority must consider the significance of the resource that is the subject of the application, having regard to:*
>
> *(a) the economic benefits, both to the State and the region in which the development is proposed to be carried out, of developing the resource, and*
>
> *(b) any advice by the Director-General of the Department of Trade and Investment, Regional Infrastructure and Services as to the relative significance of the resource in comparison with other mineral resources across the State*
>
> *(2) The following matters are (without limitation) taken to be relevant for the purposes of subclause (1) (a):*
>
> *(a) employment generation,*
>
> *(b) expenditure, including capital investment,*
>
> *(c) the payment of royalties to the State.*

Response 1.3 describes the significance of the Project on the viability of the DCM.

Collectively, the Stratford Mining Complex and DCM operations comprise 100% of the coal production within the Gloucester Basin, and therefore, are significant to regional employment and the regional economy.

The Project would increase the direct workforce to up to 250 on-site. This is significant, particularly within the Gloucester Local Government Area (LGA), which according to the 2011 Australian Bureau of Statistics census had a total labour workforce of 1,963, including 130 people employed in the mining industry. Comparison with Yancoal's employee records shows that the vast majority (almost 100%) of mining industry employees in 2011 would have been employed at the Stratford Mining Complex or DCM.

In addition, the Project would result in the following benefits to the regional economy (defined as the Gloucester and Great Lakes LGAs):

- 105 indirect jobs.
- Up to $45M per annum direct expenditure.
- Additional employment and economic stimulus to other sectors and businesses due to flow-on effects.
- Contributions to local councils for the provision of infrastructure and services.

The Project would result in the following benefits to the NSW economy:

- 464 indirect jobs in NSW.
- Capital Investment Value of $75M.
- State royalties of $130M over the life of the Project.

- $340M per annum direct and indirect output in the NSW economy.

Clause 12AA of the Mining SEPP also states:

> *(3) The Director-General of the Department of Trade and Investment, Regional Infrastructure and Services is, in providing advice under subclause (1) (b), to have regard to such matters as that Director-General considers relevant, including (without limitation):*
>
> *(a) the size, quality and availability of the resource that is the subject of the application, and*
>
> *(b) the proximity and access of the land to which the application relates to existing or proposed infrastructure, and*
>
> *(c) the relationship of the resource to any existing mine, and*
> *(d) whether other industries or projects are dependent on the development of the resource.*

Size, Quality and Availability of the Resource

The size of the Project raw coal resource is 21.2 million tonnes (Mt) from the open cut pits and 1.3 Mt from the CHPP rejects co-disposal area. In addition, as discussed in Response 1.3, the value of the DCM resource is dependent on the Project proceeding. The remaining raw coal at the DCM is approximately 10 Mt.

The Project coal is readily available to be mined, as the Project involves an extension of mining activities at the Stratford Mining Complex, including cutback of the existing Roseville West Pit. In addition, the Project would make use of available existing fixed infrastructure (e.g. CHPP and rail loop) for the coal processing and transportation.

Conversely however, the Project coal is not available to be replaced by other Yancoal operations as the **coking properties of the Project coal resource are unique in the Hunter Valley**, allowing the product coal to be sold into the higher value Japanese, Korean and Taiwanese markets (rather than the lower value Chinese market). As described in Response 1.3, the specific properties (e.g. fluidity) of the Project coal result in the best coke properties of any of the Hunter Valley coals, thus the classification of Stratford coal as a semi-hard coking coal.

In addition, there is no substitute/alternative source of coal with the unique properties of the Project coal (i.e. lower sulfur content while maintaining the excellent coking properties) meaning any attempt to do so would result in devaluation of the Project because its coal is blended with Duralie coal to produce the high value semi-hard coking coal that is essential for customer acceptance in the higher value Japanese, Korean and Taiwanese markets.

If the Project were not to proceed, the value of the Duralie coal would be materially diminished, placing significant pressure on the economic viability of that project.

Proximity to Existing Infrastructure

The Project involves the continuation and extension of mining at the Stratford Mining Complex, and would use the following existing infrastructure (with some augmentations):

- CHPP for ROM coal processing;
- ROM coal and product coal stockpiles;
- rail loading and unloading infrastructure;
- rail loop;
- haul roads;
- administration facilities;
- waste rock emplacements;
- water storage infrastructure; and
- existing mining voids (i.e. for water storage and/or waste emplacement).

Relationship to Existing Mines

As described above, the Project would involve the continued use of existing infrastructure at the Stratford Mining Complex.

In addition, both coking and thermal coal product from the Project are essential to the viability of the DCM.

Relationship with Other Industries and Projects

The dependent relationship between the Project and the DCM is described above.

In addition, collectively, the Stratford and Duralie operations comprise 100% of the coal production within the Gloucester Basin, and therefore, are significant to regional employment and the regional economy.

Economic benefits to other industries in the regional and NSW economies due to the economic flow-on effects of the Project are described above with respect to Clause 12AA (1) and (2) of the Mining SEPP. These flow-on effects would provide economic stimulus to other sectors and businesses, including retail, hospitality, technical services, health services and machinery hiring/leasing.

6 TRANSPORT

6.1 Traffic and Contributions

The Commission States:

There are discrepancies between Yancoal's and Gloucester Shire Council's (Council) traffic counts. The traffic counts directly affect the heavy vehicle percentage which may affect contributions to Council for road maintenance and resealing.

In order to obtain accurate heavy vehicle traffic data, Council has recommended that an inductive loop vehicle classifying counting system should be installed at three locations: two on The Bucketts Way (one each side of the mine access road), and a third across the mine access road inside the mine gate to monitor all heavy vehicle movements (including heavy vehicles from the mine and existing heavy vehicles).

...

In relation to the contribution formula in Appendix 4 of the draft recommended conditions of consent, the figure for road resealing is $48,000/km and the figure for road maintenance is $3,000/km. Please provide further information as to where these figures were sourced.

Council states that the cost to rehabilitate the road at the end of its design life (assuming 30years) for The Bucketts Way south of the mine access road is $1,063,830/km and for The Bucketts Way north of the mine access road is $922,426/km. Contract costs to reseal the pavement is $48,370/km which is required three times within the economic life of the pavement. Council considers that contributions should be calculated as follows:

(15.13km*(($922,426/km)+($48,000/km*3))/30*HV% southbound))+(4.12km*(($1,063,830/km+($48,000/km*3))/30*HV% northbound))

Response:

Heavy vehicle traffic on the Bucketts Way generated by the Project would be limited to deliveries (e.g. diesel deliveries), and therefore, is expected to be minor in comparison to all heavy vehicle usage of the Bucketts Way. As the Commission is aware, the Project would not involve the transportation of coal by public road.

The contributions which would be paid in accordance with the draft conditions of consent would be based on Yancoal's **actual heavy vehicle use** determined by a Traffic Monitoring Programme to be prepared in consultation with the GSC. The basis for Yancoal's contributions is outlined in its letters to the GSC (9 August 2013 and 9 October 2013) and DP&I (28 October 2013) (Attachments 6, 7 and 8). In principle, Yancoal has no objections to the basis of the monitoring programme as described by GSC to the Commission.

As outlined in the 28 October 2013 letter to DP&I, the resealing rate of $48,000/km was proposed based on advice from Ditchfield Contracting Pty Ltd which was undertaking works for GSC on the Bucketts Way at Craven. The maintenance rate of $3,000/km was proposed based on an estimated cost provided in the Ulan Road Strategy (ARRB Group, 2011).

As discussed in the GSC's submission on the Project EIS (GSC, 2013), the Bucketts Way was originally constructed in the 1950s with road pavement rehabilitation works carried out in the late 1970s and early 1980s. GSC (2013) states that "*the Bucketts Way pavement design in 1980 was adequate for the design traffic existing and foreseen at that time. With no increase in heavy vehicles the pavement would have continued with a reduced level of service for a number of years past its design life (2000).*"

Based on the above, the Bucketts Way should have been upgraded **13 years ago** as the design life was exceeded in 2000 (i.e. well before the Project proposal). SCPL acknowledges that a portion of the traffic using the Bucketts Way during 1995 to 2000 would have been from the Stratford Mining Complex, however, it is evident that the Bucketts Way pavement rehabilitation would have been required even without any contribution from SCPL because the design life of the road has been exceeded by more than a decade. As stated above, SCPL makes annual contributions to the GSC to provide community infrastructure and services and will continue doing so for the Project.

While Yancoal acknowledges that the Bucketts Way has exceeded its design life, it does **not** accept under any circumstances that it is Yancoal's responsibility to fund the **capital** renewal of this piece of NSW State Government infrastructure. Accordingly any contribution proposal based on renewal costs of $1,063,830/km to the south of the mine and $922,426/km to the north of the mine is irrelevant.

The GSC's contribution proposal has assumed a 30 year design life as the basis for calculating contributions. However, the current design life of the Bucketts Way is 20 years based on the information provided in GSC submission on the EIS (GSC, 2013). Further, the GSC acknowledges that road resealing would be required approximately every ten years (i.e. once during the Project life). Despite this, the GSC's contribution proposal is based on SCPL providing funding for three reseals. Accordingly, any contribution proposal based on a 30 year reconstruction design life of the Bucketts Way and three reseals over the life of the Project is unreasonable and unsubstantiated.

SCPL has offered to contribute to the maintenance and resealing of the Bucketts Way in proportion to actual heavy vehicle traffic load attributable to the Project. However, it is noted that other heavy road users have not been requested to contribute towards either the reconstruction or the maintenance of the Bucketts Way. SCPL notes that based on the AGL Gloucester Gas Project approval (08_0154), there does not appear to be any contribution proposed by AGL for the Gloucester Gas Project. Further, a large portion of heavy vehicle movements along the Bucketts Way are generated by the logging and agricultural industries. SCPL is not aware of any agreements between GSC and the relevant companies from these industry sectors for maintenance of the Bucketts Way. Assuming this is the case, it is also unreasonable for SCPL to contribute to the capital renewal of the Bucketts Way in addition to the proposed contribution to maintenance/resealing when other projects are not required to make any contribution.

Yancoal considers its offer to the GSC to be fair and reasonable, on the basis that:

- It is consistent with the contribution requirements of other mining projects in the state (as described in the letter dated 9 August 2013).
- The proposed offer has been developed in consideration with the then Department of Infrastructure, Planning and Natural Resources' Practice Note for Development Contributions (issued July 2005), and as such, addressed both **direct** potential impacts to community infrastructure (i.e. Project heavy vehicles using the Bucketts Way) and **indirect** potential impacts to community infrastructure (i.e. infrastructure used by Project employees/contractors).

In addition to the proposed contributions for Enhancement Infrastructure and the Bucketts Way maintenance and resealing detailed above, Yancoal would continue to pay the GSC rates. These moneys could be used at GSC's election for the repair of the Bucketts Way.

ATTACHMENT 6

LETTER TO THE GLOUCESTER SHIRE COUNCIL AND DEPARTMENT OF PLANNING AND INFRASTRUCTURE – BUCKETTS WAY CONTRIBUTIONS (9 AUGUST 2013)

YANCOAL
兖煤澳大利亚有限公司

STRATFORDCOAL
Part of the Yancoal Australia Group

POSTAL: PO Box 168 Gloucester NSW 2422
PHONE: +61 2 6538 4200
WEBSITE: www.stratfordcoal.com.au
ABN 26 064 016 164

9 August 2013

Danny Green
Gloucester Shire Council
89 King Street
GLOUCESTER NSW 2422

Dear Danny

RE: STRATFORD EXTENSION PROJECT – PROPOSED CONTRIBUTIONS

Background

In the letter from the Gloucester Shire Council (GSC) to Stratford Coal Pty Ltd (SCPL) dated 10 January 2013, GSC proposed a contribution package which involves SCPL contributing a total of **$13.77 Million** (M) over the 11 years of the Stratford Extension Project (SEP) to the GSC, assuming that the SEP is approved.

It is SCPL's position that there is no rational economic basis for a contribution to be made on the basis of additional demands on infrastructure caused by the SEP. To the extent that additional people are drawn into the local government area as a result of the SEP, GSC will receive additional revenue from rates and taxes, and from developer contributions to the extent that additional housing is required.

Notwithstanding this position, SCPL is prepared to make a contribution to an "Enhanced Infrastructure" fund on an "ex gratia" basis and as a significant enterprise within the Shire.

In addition, SCPL is prepared to make a contribution towards the maintenance of The Bucketts Way in proportion to the traffic generated by the Project.

SCPL Proposed Contributions

It is relevant to note that SCPL currently makes contributions to the GSC of $86,000 (1998 dollars) and $16,250 (2001 dollars) per annum in accordance with the requirements of the Stratford Coal Mine Development Consent (DA No. 23-98/99) and Bowens Road North Open Cut Development Consent (DA No. 39-02-01), respectively. These contributions are for the provision of community infrastructure and services.

SCPL is committed to developing a contributions package for the SEP with the GSC to fund enhanced community infrastructure for the benefit of the local community..

To this end, SCPL proposes a contributions package, to be formalised under a Voluntary Planning Agreement based on:

- the number of employees/contractors at the SEP; and
- SCPL's contribution to heavy vehicle traffic on the Bucketts Way.

SCPL would seek acknowledgement of contributions made to the GSC.

Stratford Extension Project Enhanced Infrastructure Fund

SCPL is pleased to offer financial contributions to the GSC for an Enhanced Infrastructure Fund of **$550 per employee per annum** for each full-time equivalent employee/contractor at the site. Our suggested condition for any Voluntary Planning Agreement, would be in the following terms:

1(a) Subject to paragraph (b), the Proponent shall, pay to Council a total of $550 (in 2013 dollar value) per annum for each full-time equivalent employee/contractor at the site associated with the Project, with payments to:

- *be calculated from the commencement of mining operations based on the number of full-time equivalent employees/contractors at the site at this time;*
- *be re-calculated each year based on the average number of full-time equivalent employees/contractors on site during the 12 months preceding the anniversary date;*
- *be payable each year, 120 days after the anniversary date;*
- *conclude when mining operations cease, with the final part-payment to be pro-rated if not a complete 12 months; and*
- *be indexed in accordance with the Sydney "All Groups" CPI for the December quarter of the previous year (except for the initial payment).*

Notes:

1) mining operations is defined as "the removal of overburden and the extraction of coal associated with the SEP open cut pits described in the SEP Environmental Impact Statement (SCPL, 2012) and authorised by the Part 4 Approval".

2) The anniversary date is the date on which mining operations (see Note 1 above) commence.

3) For example, if the average number full-time equivalent employees/contractors during the first year is 250, within 120 days after the anniversary date, the Proponent must pay Council, an amount calculated as follows:

(250) x $550 = $137,500.00

(b) In the event that there is a s 75L merits appeal and/or a judicial review challenge in respect of the Part 4 Approval, the Proponent is not required to enter into the abovementioned agreement with Council unless the final determination of any such proceedings results in a Part 4 Approval on terms similar to the one originally granted and acceptable to GSC..

Based on the above and expected 250 employees/contractors for the SEP, SCPL would contribute a total of **$1,512,500** to the GSC over the life of the SEP. It should be noted that under the proposed terms above, contributions would be based on the actual number of employees and therefore the total contribution may change.

As shown in Table 1, this contribution is comparable to contributions from other coal mines in other Local Government Areas on the basis of the contributions per employee per annum.

Table 1
Comparison of Contributions for NSW Coal Mines

Development Feature	Wilpinjong (MODS 3 and 4)	Moolarben (Stage 2 Offer)	Ulan (MOD 2)	SCPL SEP Proposal	GSC SEP Proposal*
Development Life	20 Years	24 Years	21 Years	11 Years	11 Years
Maximum number of employees associated with the contribution	250	122	300	250	250
Capital investment value of development (CIV)	NA	$120M	$881M	$75M	$75M
Maximum final contribution that could be levied under Section 94A of the EP&A Act (i.e. 1% of CIV)	NA	$1.2M	$8.81M	$0.75M	$0.75M
Contribution as a percentage of the development CIV	NA	1.25%	0.394%	2.017%	18.4%
Contributions per employee per annum	$600	$512.29	$551.57	$550	$5,007.27

* The GSC proposes modification and conditions to the SEP that would remove the Roseville West Pit Extension and night-time operations in the Avon North or Stratford East Open Cuts. This would result in a significant reduction in employees and therefore the contribution per employee per annum is expected to be higher than that shown for the GSC's proposal.

Table 1 shows that SCPL's proposed contribution is 2% of the CIV for the SEP. This is discussed further below.

The Bucketts Way Maintenance Fund

Over and above the Enhanced Infrastructure Fund contribution, SCPL is also prepared to make an annual financial contribution for maintenance of the Bucketts Way, based on its pro rata traffic load on this road.

Based on work undertaken from first principles by Yancoal, SCPL estimates that the average annual maintenance cost of a regional road is **$6,000 per kilometre (km) per annum,** provided that the road has been constructed and maintained to a suitable standard.

GSC (2013) states that the RMS provides a funding subsidy to the GSC for maintenance based on average vehicle numbers for the lengths of road within the shire. This is currently an annual contribution of **$8,340 per km per annum**.

SCPL's projected heavy vehicle movements on the Bucketts Way during the SEP are **2.8%** and **8.6%** of the total heavy vehicle movement to the north and south of the mine, respectively. It is also noted that the length of the Bucketts Way from the mine entrance to the southern GSC boundary is 4.12 km and from the mine entrance to Gloucester is 15.13 km (GSC, 2013).

SCPL offers to match the maintenance contribution provided by the RMS (i.e. $8,340 per km per annum) for its contribution to heavy vehicle traffic on the Bucketts Way (i.e. as a percentage of total heavy vehicle traffic). Therefore, from commencement until the completion of mining operations associated with the SEP, SCPL would contribute:

$8,340 x 4.12 km x 8.6% = $2,955.03 per annum for heavy vehicle traffic to the south of the mine access road.

$8,340 x 15.13 km x 2.8% = $3,533.16 per annum for heavy vehicle traffic to the north of the mine access road.

Therefore, a total contribution of **$6,488.19** is proposed. SCPL would require that this annual contribution be paid into a trust fund specifically established for maintenance of the Bucketts Way.

SCPL notes that the GSC has proposed a contribution for the rehabilitation of the Bucketts Way based on the future volumes of heavy vehicle traffic. It is noted that GSC states in its submission on the EIS (2013) that the Bucketts Way should have been upgraded 13 years ago as the design life was exceeded in 2000 (i.e. well before the SEP proposal). SCPL does not accept that it has a responsibility to provide capital for the reconstruction of a road which is at the end of its economic life. Consequently, SCPL does not accept the proposed contribution for the rehabilitation of the Bucketts Way because:

- reconstruction and rehabilitation of regional roads within the Gloucester LGA is the responsibility of the GSC and RMS;
- rehabilitation of the Bucketts Way would have been required irrespective of the presence of the mine;
- SCPL has made annual contributions for road maintenance since the commencement of the Stratford Coal Mine (i.e. SCPL has compensated GSC for all impacts on roads to date); and
- the SEP is not predicted to result in any significant impacts on the performance, capacity, efficiency or safety of the road network (Halcrow, 2012).

.

SCPL also notes that GSC has proposed that the Bucketts Way and Wenham Cox Road intersection be upgraded to provide protected right-hand and left-hand turn lanes on the Bucketts Way, and the Bucketts Way and Bowens Road intersection be upgraded to provide a protected right-hand turn lane on the Bucketts Way (GSC, 2013). The need for any upgrade is not supported by the analytical data contained in the SEP EIS.

The Road Transport Assessment (Appendix N of the EIS) includes an assessment of potential road safety impacts associated with the SEP. Section 4.12 of Appendix N of the EIS states (emphasis added):

> *... with the additional traffic expected to be generated by the Project, the operation of the road system would remain satisfactory with regard to both midblock capacities, and the operation of the key intersections. The review of the history of road crashes has not identified any locations with inherent safety concerns which may be exacerbated by the additional traffic generated by the Project.*
>
> *Measures to provide additional capacity or improve the safety of the road system, either midblock or at intersections, are therefore not considered to be warranted.*

Given the above, it is not proposed to upgrade the Bucketts Way intersections at Wenham Cox Road or Bowens Road.

Contributions Package Proposed by Gloucester Shire Council

SCPL does not consider that GSC's proposed contributions package is appropriate or justifiable.

The sum of the proposed contributions (**$13.77M**) represents a contribution in the order of **18.4%** of the CIV for the SEP (estimated to be $75,000,000). This is far in excess of the maximum permissible financial contribution which could be levied under Section 94A of the *Environmental Planning and Assessment Act, 1979* (i.e. 1%) and in accordance with the GSC's Development Contributions Plans (GSC, 2006 and 2010). Indeed, in accordance with Section 15 of *Section 94 Development Contributions For All Development Applications and Complying Developments 2010* (GSC, 2010) and Section 1.9 of *S94A Development Contributions Levy Plan 2006* (GSC, 2006), a maximum levy of $750,000 could be imposed. SCPL's proposed contribution is approximately twice the amount which GSC would be entitled to levy under Section 94A.

In addition, when GSC's proposal is expressed on the basis of a "per employee per annum" contribution, this amount is approximately an order of magnitude greater than SCPL's offer and other contributions made to other councils for other NSW mining projects.

Further, GSC has indicated it would only support a significantly modified project which is altered and/or conditioned such that:

- the proposed Roseville West Pit Extension is removed from the SEP;
- 24-hour operation of the Stratford East and Avon North Open Cuts is removed from the SEP; and
- the landscape is restored to more closely align with the pre-mining condition, including reducing the number of voids.

These proposed modifications and conditions would render the SEP unviable and consequently no contributions would be forthcoming to the GSC.

Further justification for why GSC's proposed contributions package is not accepted and not in accordance with the EP&A Act is provided in Attachment A and in the Stratford Extension Project Responses to Submissions (SCPL, 2013).

Please do not hesitate to call should you wish to discuss these matters further.

Yours sincerely

Mark Jacobs
General Manager – Environment and Community Relations

cc: Mr David Kitto – NSW Department of Planning & Infrastructure

ATTACHMENT A

The Bucketts Way – Pavement Rehabilitation

SCPL accepts that it should fund a component of the reasonable maintenance costs associated with The Bucketts Way. However, it does **not** accept that it should be asked to make a contribution towards the reconstruction of any regional roads.

The GSC proposes that SCPL contribute **$1,940,000** for the rehabilitation of the Bucketts Way pavement within the Gloucester Shire Local Government Area.

As discussed in the GSC's submission on the Stratford Extension Project EIS (GSC, 2013), the Bucketts Way was originally constructed in the 1950s with road pavement rehabilitation works carried out in the late 1970s and early 1980s. GSC (2013) states that "*the Bucketts Way pavement design in 1980 was adequate for the design traffic existing and foreseen at that time. With no increase in heavy vehicles the pavement would have continued with a reduced level of service for a number of years past its design life (2000).*"

Based on the above, the Bucketts Way should have been upgraded **13 years ago** as the design life was exceeded in 2000 (i.e. well before the Stratford Extension Project proposal). SCPL acknowledges that a portion of the traffic using the Bucketts Way during 1995 to 2000 would have been from the Stratford Mining Complex, however, it is evident that the Bucketts Way pavement rehabilitation would have been required even without any contribution from SCPL because the design life of the road has been exceeded by more than a decade. As stated above, SCPL makes annual contributions to the GSC to provide community infrastructure and services and proposes to continue doing so for the Stratford Extension Project. This funding is provided for the provision of community infrastructure and services, which could include maintenance and rehabilitation of the Bucketts Way and local roads.

Notwithstanding the fact that GSC acknowledges the design life of the Bucketts Way has been exceeded, the GSC submission goes on to calculate a potential contribution by SCPL for the capital cost of the rehabilitation of the Bucketts Way pavement. In SCPL's view, the capital cost of the reconstruction of a regional road must be borne by RMS and the relevant LGA.

SCPL has offered to contribute to the maintenance of The Bucketts Way in proportion to the heavy vehicle traffic load attributable to the SEP. However, we note that other heavy road users have not been requested to contribute towards either the reconstruction or the maintenance of The Bucketts Way. SCPL notes that, based on the AGL Gloucester Gas Project approval (08_0154), there does not appear to be any contribution proposed by AGL for the Gloucester Gas Project. Assuming this is the case, it is also unreasonable for SCPL to contribute in this way when others are not.

Further, a large portion of heavy vehicle movements along the Bucketts Way are generated by the logging and agricultural industries. SCPL is not aware of any agreements between GSC and the relevant companies from these industry sectors for maintenance of the Bucketts Way.

The Bucketts Way – Overtaking Lanes

The GSC proposes that SCPL contribute **$1,600,000** for the construction of overtaking lanes north and south of the Stratford Mining Complex mine access road.

The Road Transport Assessment (Appendix N of the Environmental Impact Statement [EIS]) includes a description of road safety in the vicinity of the Stratford Mining Complex. This review found (Section 4.10 of Appendix N of the EIS):

> *The review of the safety history of the roads in the vicinity of the Stratford Mining Complex (refer to Section 3.3) found that there was no identifiable causation factors in the local area which would contribute to the accidents which have occurred. The increases in traffic resulting from the Project are only moderate, and when considered in the context of the overall changes in traffic conditions resulting from general background growth, the GGP* [Gloucester Gas Project]*, the Rocky Hill Project and Duralie Extension Project, future traffic volumes are not considered likely to result in safety concerns on the surrounding road network.*

The Road Transport Assessment (Appendix N of the EIS) also includes an assessment of potential roads safety impacts associated with the Project. Section 4.12 of the Road Transport Assessment (Appendix N of the EIS) states:

> *... with the additional traffic expected to be generated by the Project, the operation of the road system would remain satisfactory with regard to both midblock capacities, and the operation of the key intersections. The review of the history of road crashes has not identified any locations with inherent safety concerns which may be exacerbated by the additional traffic generated by the Project.*
>
> *Measures to provide additional capacity or improve the safety of the road system, either midblock or at intersections, are therefore not considered to be warranted.*

Therefore, there is no rational basis for the requirement of overtaking lanes as a consequence of the SEP. In consideration of the above, SCPL proposes no contribution for overtaking lane upgrades to the Bucketts Way.

Road – Maintenance

The proposed Enhanced Infrastructure Fund and the Bucketts Way Maintenance Fund would provide for such infrastructure.

Gloucester Community Enhancement Program

The proposed Enhanced Infrastructure Fund would provide for such services.

Council Environmental Assessment

The GSC proposes that SCPL contribute **$30,000 per annum** for a Council Environmental Assessment.

It is inappropriate for SCPL to fund GSC's assessment of any SCPL application or application for any other proponent.

Gloucester Agricultural Enhancement Fund

The GSC proposes that SCPL contribute **$300,000 per annum** for a Gloucester Agricultural Enhancement Fund.

It is noted that the New South Wales (NSW) Department of Primary Industries (DPI) is the relevant authority for agricultural related matters in NSW. It is also noted that the DPI concur that the Project does not include highly productive soils, nor does it include areas of high value strategic agricultural lands. The DPI did not raise any issues that would justify further action than the mitigation and management measures proposed in the EIS.

Further, Section ES4.6 of the EIS concludes:

> *No Class 3, 2 or 1 Agricultural Suitability lands have been identified within the Project disturbance areas. Agricultural Suitability classes identified across the site included Class 4 and Class 5 lands.*
>
> *A review of the regional mapping in the Upper Hunter Strategic Regional Land Use Plan indicates that the nearest mapped strategic agricultural land is located on the Avon River approximately 2 kilometres to the west of the Project. Based on the agricultural limitations identified in the site soil survey, Rural Land Capability mapping, Agricultural Suitability mapping and review of regional mapping of strategic agricultural lands, the Project area does not include highly productive soils, nor does it include areas of high value or strategic agricultural lands.*

The rehabilitation and mine closure strategy for the Project includes restoration of approximately 300 ha of agricultural land suitable for grazing (as has already been successfully demonstrated at the Stratford Mining Complex). This re-establishment of agricultural lands would be undertaken progressively as a component of the Project rehabilitation programme.

A rehabilitation security bond would be held by the Division of Resource and Energy within the NSW Department of Trade and Investment, Regional Infrastructure and Services until the relevant Minister(s) is satisfied that all relevant regulatory requirements (e.g. Mining Lease (ML) and Development Consent conditions) have been addressed or otherwise used to remediate potential areas where rehabilitation objectives/obligations have not been satisfied. Upon grant of MLs, SCPL expects to be required to provide the security bond for the Project.

In addition, a Property Management Strategy would be prepared by suitably qualified persons to facilitate the management of agricultural land in the Project area and on adjoining SCPL-owned lands. The Property Management Strategy includes property and grazing management measures, erosion, weed and pest controls to be applied across all of the lands controlled by SCPL within the Gloucester Basin.

In consideration of the above, SCPL proposes no contribution for the Gloucester Agricultural Enhancement Fund.

Gloucester Community Education Fund

The proposed Enhanced Infrastructure Fund would provide for such services.

Gloucester and Avon River Surface & Groundwater Plan

The GSC proposes that SCPL contribute **$100,000 per annum** for the development of a Gloucester and Avon River Surface Water and Groundwater Plan.

It is noted that the NSW Office of Water (NOW) and Environment Protection Authority (EPA) are the relevant authorities for surface water and groundwater related matters in NSW. It is also noted that NOW and the EPA did not raise any concerns in their EIS submission that would warrant the implementation of the proposed plan.

With regards to Surface Water impacts Section ES4.4 of the EIS concludes:

> *With implementation of management strategies and monitoring, the risks of elevated dissolved solids and other contaminants impacting downstream waters is considered to be low. The risk of increased suspended sediment migration downstream from erosion associated with up-catchment diversions is also considered low due to the proposed erosion control measures that both have been used successfully in the past and are proposed for future diversions.*

With regards to groundwater impacts Section ES4.5 of the EIS concludes:

> *The detailed numerical modelling predicts:*
>
> - *negligible impact on groundwater levels or groundwater yield for groundwater users with privately owned bores; and*
> - *negligible drawdown in the aquifers of the alluvial groundwater system.*
>
> *The Groundwater Assessment concludes that there is expected to be negligible change in groundwater quality as a result of mining in the short-term. Further, it is expected that groundwater quality would not be impacted by final void water quality post-mining, as the final voids would remain groundwater sinks (i.e. there would be no deleterious effect on the beneficial uses of any groundwater sources).*

Notwithstanding the above, SCPL would review and revise the existing Surface Water and Groundwater Management Plans to describe any additional monitoring and measure/procedures that would be implemented over the life of the Project to respond to any potential exceedances of criteria and contingency measures.

Further, consistent with the current Development Consent, SCPL expects a consent requirement to prepare and make publicly available an Annual Report which would include a comprehensive review of monitoring results and comparison against:

- the relevant statutory requirements, limits or performance measures/criteria;
- the monitoring results of previous years; and
- the relevant predictions in the EIS.

In consideration of the above, there is no justification for SCPL to contribute annual funding for proposed Gloucester and Avon River Surface and Groundwater Management Plan and therefore SCPL does not propose any contribution for this new concept.

ATTACHMENT 7

LETTER TO THE GLOUCESTER SHIRE COUNCIL AND DEPARTMENT OF PLANNING AND INFRASTRUCTURE – BUCKETTS WAY CONTRIBUTIONS (9 OCTOBER 2013)

YANCOAL
兖煤澳大利亚有限公司

STRATFORDCOAL
Part of the Yancoal Australia Group

POSTAL: PO Box 168
Gloucester NSW 2422
PHONE: +61 2 6538 4200
WEBSITE:
www.stratfordcoal.com.au
ABN 26 064 016 164

9 October 2013

Danny Green
Gloucester Shire Council
89 King Street
GLOUCESTER NSW 2422

Dear Danny

RE: STRATFORD EXTENSION PROJECT – PROPOSED CONTRIBUTIONS

Thank you for your letter dated 20 September 2013. In this letter Gloucester Shire Council (GSC) proposed a contribution package which involves Stratford Coal Pty Ltd (SCPL) contributing a total of **$8,472,085** over the 11 years of the Stratford Extension Project (SEP) to the GSC, assuming that the SEP is approved.

As was noted in SCPL's letter dated 9 August 2013, the GSC's proposed contribution is far in excess of the maximum permissible financial contribution which could be levied under section 94A of the *Environmental Planning and Assessment Act, 1979* and in accordance with the GSC's Development Contributions Plans (GSC, 2006 and 2010). Indeed, in accordance with section 15 of *Section 94 Development Contributions For All Development Applications and Complying Developments 2010* (GSC, 2010) and Section 1.9 of *S94A Development Contributions Levy Plan 2006* (GSC, 2006), a maximum levy of $750,000 could be imposed (i.e. 1 percent [%] of the Capital Investment Value of the SEP).

SCPL has considered the GSC's revised proposal and its position has not changed since that stated in the letter to GSC dated 9 August 2013. In summary, and as previously advised, SCPL is willing to contribute:

- **$550 per employee per annum** for an **Enhanced Infrastructure Fund** (estimated aggregate value of $1,512,500 over the proposed 11 year SEP life); and
- **$6,488.19 per annum** for the **Bucketts Way Maintenance Fund** (aggregate value of $71,370.09 over the proposed 11 year SEP life).

Enhanced Infrastructure Fund

SCPL has proposed contributions based on a 'per employee' basis because any increase in demand on relevant GSC infrastructure and services would be driven by an increase in SEP personnel. SCPL considers that this method of calculating contributions is a more relevant basis than 'per tonne of coal' as it aligns more precisely with the additional demand on infrastructure and services.

SCPL acknowledges that GSC accepts SCPL's Enhanced Infrastructure Fund offer of **$550 per employee per annum** calculated in accordance with the condition proposed in SCPL's letter dated 9 August 2013.

SCPL reiterates that contributions will commence once the SEP is approved and has commenced. Any specified commencement date in any Voluntary Planning Agreement would need to reflect this. SCPL agrees that this contribution should be CPI-indexed annually from the SEP commencement date.

The Bucketts Way Maintenance Contributions

Maintenance

Yancoal **does** accept that it should make a pro rata contribution to the reasonable maintenance costs associated with The Bucketts way, based on its proportional usage of the road.

SCPL agrees that only heavy vehicle movements are relevant to impacts on road conditions and therefore contribution to the Bucketts Way Maintenance Fund should be based on heavy vehicles movements. Based on the traffic count data provided in the GSC Submission on the Environmental Impact Statement (EIS), the number of heavy vehicle movements per day **decreased** slightly between 2001 and 2011 (i.e. from 201 to 183), and also decreased as a percentage of the total traffic (i.e. 18.7% to 11.4%). Further, the two traffic surveys undertaken by GSC over 7 days in 2011 and 2013 (shown in the table appended to your letter) shows that average daily heavy vehicle traffic movements have **decreased even further** (i.e. 113 and 91 in 2011 and 2013, respectively).

Heavy vehicle traffic made up 6.5% and 5.4% of the total traffic for the 2011 and 2013 counts, respectively. These numbers are contrary to the assertion in GSC's 20 September letter about heavy vehicle use on the Bucketts Way that *"…increasing mining activity in our local area has been placing significant increase in traffic of heavy vehicles on this road* [sic]" and the assertion in GSC's submission on the EIS that *"…increase in heavy vehicle traffic which directly correlates with the investigation and construction of the extensions to the Stratford and Duralie mining complexes".* Even when accounting for the minor increase in heavy vehicle traffic for the SEP (i.e. 8 additional daily movements) and the declining background heavy vehicle traffic levels, SCPL does not accept that there will be a resultant "…*significant additional burden on both the standard and safety of the road"* generated by the SEP. Any demand for contributions towards the maintenance of the Bucketts Way because of a significant increase in heavy vehicle use caused by the SEP, therefore, is factually incorrect.

As stated in Appendix N of the EIS, the SEP will generate an increase of 6 and 2 daily heavy vehicle movements south and north of the mine access road, respectively. The SEP's contribution to the total heavy vehicle traffic on the Bucketts Way (based on total traffic movements from the Stratford Mining Complex incorporating the incremental increase from the SEP) would be approximately 8.6% and 2.8% of movements to the south and north of the mine access road, respectively.

Given the above, SCPL maintains that the proposed contribution of **$6,488.19 per annum** for the Bucketts Way maintenance is reasonable and justified.

Capital

While Yancoal acknowledges that the Bucketts Way has exceeded its design life, it does **not** accept that it is Yancoal's responsibility to fund the **capital** renewal of this piece of New South Wales (NSW) State Government infrastructure.

Yancoal's existing operations **do not** place significant additional burden on either the standard or the safety of the road. Further, despite GSC stating that "…*much of the pavement is in very poor condition and needs reconstruction"*, the existing road network capacity and safety was assessed as part of the Road Transport Assessment in Section 4.10 of Appendix N of the EIS which states:

> *The review of the safety history of the roads in the vicinity of the Stratford Mining Complex (refer to Section 3.3) found that there was no identifiable causation factors in the local area which would contribute to the accidents which have occurred. The increases in traffic resulting from the Project are only moderate, and when considered in the context of the overall changes in traffic conditions resulting from general background growth, the GGP* [Gloucester Gas Project]*, the Rocky Hill Project and Duralie Extension Project, future traffic volumes are not considered likely to result in safety concerns on the surrounding road network.*

In addition, Section 4.12 of the Appendix N of the EIS states (emphasis added):

> *… with the additional traffic expected to be generated by the Project, the operation of the road system would remain satisfactory with regard to both midblock capacities, and the operation of the key intersections. The review of the history of road crashes has not identified any locations with inherent safety concerns which may be exacerbated by the additional traffic generated by the Project.*
>
> *Measures to provide additional capacity or improve the safety of the road system, either midblock or at intersections, are therefore not considered to be warranted.*

Not only does SCPL consider that it does not have any responsibility for the capital cost associated with any upgrades or reconstruction, but also, given the above, there is **no justification** for a contribution based on capital renewal of the Bucketts Way pavement.

It is noted that the GSC submission on the EIS (GSC, 2013) states (emphasis added):

> *Thus, by 2013, a total of $44M has been committed by primarily the Federal Government but also the State Government, of the original $66M identified in the 1999 report. This then leaves a shortfall of some $22M as identified in the 1999 Program which, with CPI adjustments, now represents a program of works of approximately $33M.*
>
> *Of this $33M, approximately $1.2M of uncompleted works remains within the Gloucester Shire area, including the construction of an overtaking lane estimated to cost approximately $800,000.*

Yancoal notes that it is within the GSC's control to spend SCPL's proposed Enhanced Infrastructure Fund contributions on capital renewal or on additional maintenance of The Bucketts Way, or on any other "Enhanced Infrastructure", at its election.

Based on SCPL's offer, by the end of mining in Year 11 of the SEP, SCPL will have made a total contribution of **$1,512,500** for the Enhanced Infrastructure Fund. Even if GSC elects to preserve $286,000 of the Enhanced Infrastructure Fund as a contribution to the Gloucester Community Education Fund over the life of the SEP (see below), there would be a residual amount of **$1.22 Million** (M). We note that, based on GSC's submission, this sum would be adequate to fund the uncompleted works remaining within the Gloucester Shire (i.e. $1.2M).

Wenham Cox Road/The Bucketts Way Intersection

As shown in Table 4.3 of Appendix N of the EIS, the SEP will **not** increase the number of traffic movements along Wenham Cox Road. Section 4.12 of the Appendix N of the EIS states (emphasis added):

> *… with the additional traffic expected to be generated by the Project, the operation of the road system would remain satisfactory with regard to both midblock capacities, and the operation of the key intersections. The review of the history of road crashes has not identified any locations with inherent safety concerns which may be exacerbated by the additional traffic generated by the Project.*
>
> *Measures to provide additional capacity or improve the safety of the road system, either midblock or at intersections, are therefore not considered to be warranted.*

In consideration of the above and Responses to Submissions (SCPL, 2013), SCPL proposes no contribution for the upgrade of the Wenham Cox Road/The Bucketts Way intersection.

Gloucester Agricultural Enhancement Fund

It is unclear how the GSC proposes to *maintain the ongoing viability of agricultural activity in the Gloucester Valley* and enable *training, research and development activities to improve production and innovation.* In its capacity as a Shire Council, SCPL is not aware of the expertise relevant to these endeavours. SCPL would have expected contributions to training, research and development activities to be more relevant if the NSW Department of Primary Industries (DPI) were involved whose role is to *improve the profitability, sustainability and skills of the agriculture... deliver research, development, extension, education and industry development programs in the fields of agricultural productivity....* The DPI has reviewed the EIS and has not raised any issues which would justify further action than the mitigation and management measures proposed in the EIS.

Section 3.4 of Appendix K of the EIS concluded that there would be no significant cumulative impacts on regional agricultural production and associated support industries are anticipated to arise from the co-incident development of the Project, approved Duralie Coal Mine and the Gloucester Gas Project. If the proposed Rocky Hill Coal Project or the Stroud to Lansdowne Project are approved in the future, the cumulative impacts of these developments are also considered to be unlikely to result in significant impacts on regional agriculture or associated supporting industries.

Notwithstanding, SCPL has proposed a number of management measures to increase the agricultural production of **SCPL-owned land**. For example, Yancoal has prepared a Property Management Strategy to facilitate the management of agricultural land in the Project area and on adjoining SCPL-owned lands. The Property Management Strategy includes property and grazing management measures, erosion, weed and pest controls to be applied across all of the lands controlled by SCPL within the Gloucester Basin.

Further, SCPL has currently established lease-back arrangements with landholders to allow stock to graze on SCPL-owned land. As you would be aware, SCPL has also entered into a number of landholder agreements with properties surrounding the Stratford Mining Complex allowing for a number of grazing properties to continue.

SCPL has also reinstated mined land to productive agricultural land on the Stratford Waste Emplacement where grazing is undertaken. The rehabilitation and mine closure strategy for the SEP includes re-establishment of approximately 300 hectares of agricultural land suitable for grazing (Figure ES-9 of the EIS). This re-establishment of agricultural lands would be undertaken progressively as a component of the Project rehabilitation programme.

In consideration of the above, Responses to Submissions (SCPL, 2013) and information provided in the letter to GSC dated 9 August 2013, there is **no justification** for SCPL to contribute annual funding for a proposed Gloucester Agricultural Enhancement Fund.

Gloucester Community Education Fund

SCPL agrees to continue this funding with $26,000 per annum taken from the Enhanced Infrastructure Fund.

Gloucester and Avon Rivers Surface and Groundwater Plan

As noted in the GSC's letter, the Commonwealth Department of the Environment (DotE) is currently preparing a Bioregional Assessment for the region. The DotE has commissioned the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to assess the potential water resource impacts of coal seam gas and mining developments in the Gloucester Basin. The CSIRO has the expertise and funding to properly carry out such a study. Further, the EIS already provides a site specific assessment of the SEP and cumulative assessment of the SEP, Rocky Hill Coal Project and Gloucester Gas Project.

As outlined in our letter of 9 August 2013 and Responses to Submissions (SCPL, 2013), there is **no justification** for SCPL to contribute annual funding for the proposed Gloucester and Avon River Surface and Groundwater Management Plan. SCPL's position has not changed and, therefore, SCPL does not propose any contribution for this proposed plan.

SCPL would be willing to provide any relevant information from the EIS and ongoing monitoring if this will assist GSC in its endeavours.

Environmental Assessment Fund

It should be recognised that the SEP EIS has been developed by relevant experts, including peer review, and has been further reviewed by the following State departments and agencies and subject to scrutiny within their relevant fields of expertise:

- NSW Office of Water;
- NSW DPI;
- NSW Environment Protection Authority;
- NSW Office of Environment and Heritage (OEH);
- Division of Resources and Energy;
- Heritage Branch within the OEH;
- NSW Health;
- Transport for NSW;
- NSW Roads and Maritime Services;
- NSW Fisheries; and
- NSW Rural Fire Services.

SCPL notes that, in many cases GSC has undertaken its own separate environmental assessment for many aspects which have already been assessed by State organisations. Further environmental assessment beyond that contained in the EIS and Responses to Submissions and the scrutiny from relevant agencies, and monitoring beyond that presented/proposed in the EIS is not considered warranted.

In addition, it is inappropriate for SCPL to fund GSC's assessment of any SCPL application or application for any other proponent.

Accordingly, SCPL will not make a contribution to any Environmental Assessment Fund.

Please do not hesitate to contact me on (02) 8583 5910 if you would like to discuss.

Yours sincerely

Mark Jacobs
General Manager, Environment, Approvals & Community Relations

cc: Mr David Kitto – NSW Department of Planning & Infrastructure

ATTACHMENT 8

LETTER TO THE DEPARTMENT OF PLANNING AND INFRASTRUCTURE – BUCKETTS WAY CONTRIBUTIONS (28 OCTOBER 2013)

POSTAL: PO Box 168 Gloucester NSW 2422
PHONE: +61 2 6538 4200
WEBSITE: www.stratfordcoal.com.au
ABN 26 064 016 164

28 October 2013

Mr David Kitto
Department of Planning and Infrastructure
23-33 Bridge St
SYDNEY NSW 2001

Dear David,

RE: STRATFORD EXTENSION PROJECT – BUCKETTS WAY COUNCIL CONTRIBUTIONS

Please find below, information relevant to the proposed contributions to the Gloucester Shire Council (GSC) and Great Lakes Council (GLC) for the Stratford Extension Project (SEP). This information includes:

- comparison of the proposed per employee **Enhanced Infrastructure Fund** contributions against Yancoal's Moolarben Coal Mine and other NSW coal mines;
- Stratford Coal Pty Ltd (SCPL)'s proposed contribution to the GSC for maintenance and resealing of the Bucketts Way within the Gloucester Local Government Area (LGA);
- justification for contributing to maintenance and resealing of the section of the Bucketts Way in the Gloucester LGA between Gloucester and the southern boundary of the Gloucester LGA (i.e. contributions are not proposed for any road sealing or maintenance east of Gloucester);
- SCPL's proposed contributions to the GLC relating to maintenance and resealing of the Bucketts Way within the Great Lakes LGA; and
- consideration of the GSC and GLC Asset Management Strategies with respect to the proposed contributions.

SCPL's proposed contribution to GSC and GLC for the Bucketts Way as detailed below are **in addition** to the **Enhanced Infrastructure Fund** contribution to the GSC detailed in the letter to the GSC dated 9 August 2013 and estimated to be **$1,512,500** over the life of the SEP, dependent on actual employee numbers.

Bucketts Way Resealing and Maintenance Contributions – Formula

Gloucester Shire Council:

Resealing Contribution ($) =

$$\frac{[(15.1\text{km} \times \text{HV\% southbound to the mine}) + (4.1\text{km} \times \text{HV\% northbound to the mine})] \times \$48{,}000/\text{km}}{11 \text{ years}} \text{ per annum}$$

Maintenance Contribution ($) =

[(15.1km x HV% southbound to the mine)+ (4.1km x HV% northbound to the mine)] x $3,000/km per annum

Great Lakes Council:

Resealing Contribution ($) = $\frac{55\text{km} \times \text{HV\%} \times \$48{,}000/\text{km}}{11 \text{ years}}$ *per annum*

Maintenance Contribution ($) = 55km x HV% x $3,000/km per annum

HV% = the ratio of laden monitored heavy vehicles entering the Stratford Mining Complex to the total heavy vehicles on the Bucketts Way. The HV% would exclude heavy vehicles leaving the Stratford Mining Complex as these vehicles, in most cases, would either be unladen or travelling to other drop off points not related to the SEP.

A heavy vehicle is defined In accordance with the relevant Roads and Maritime Services definition, as a motor vehicle or trailer that has a Gross Vehicle Mass greater than 4.5 tonnes.

SCPL would prepare a Traffic Monitoring Programme in consultation with GSC and GLC and to the satisfaction of the Director-General of the Department of Planning and Infrastructure to determine the actual annual SCPL and background heavy vehicles use on the Bucketts Way.

The details of the above proposed contributions are provided below.

GLOUCESTER SHIRE COUNCIL CONTRIBUTIONS

Gloucester Shire Council – Enhanced Infrastructure Fund

SCPL proposed a contribution to an Enhanced Infrastructure Fund of $550 per employee per annum in the letter to GSC dated 9 August 2013. As shown in Table 1, this contribution is comparable to contributions from other coal mines in other LGAs on the basis of contributions per employee per annum.

Table 1
Comparison of Council Contributions for NSW Coal Mines

Development Feature	Wilpinjong (MODS 3 and 4)	Moolarben (Stage 2 Offer)	Ulan (MOD 2)	SCPL SEP Proposal
Development Life	20 Years	24 Years	21 Years	11 Years
Maximum number of employees associated with the contribution	250	122	300	250
Capital investment value of development (CIV)	NA	$120M	$881M	$75M
Maximum final contribution that could be levied under Section 94A of the EP&A Act (i.e. 1% of CIV)	NA	$1.2M	$8.81M	$0.75M
Contribution as a percentage of the development CIV	NA	1.25%	0.394%	2.017%
Contributions per employee per annum	**$600**	**$512.29**	**$551.57**	**$550**

GSC Bucketts Way Resealing

SCPL is pleased to offer a contribution to GSC for resealing the Bucketts Way once during the 11-year life of the SEP, paid progressively over the life of the SEP. The purpose of this contribution is to provide an ex gratia annual contribution to the GSC based on SCPL's actual laden heavy vehicle use on the Bucketts Way. On the basis that the expected requirement for road resealing is once every 10 to 15 years and that the SEP has a proposed 11 year life, the contribution for resealing extends to **one reseal only.**

SCPL's proposed reseal contribution is also based on a rate of **$48,000 per kilometre** (km). This rate is proposed based on advice from Ditchfield Contracting Pty Ltd which is currently undertaking works for GSC on the Bucketts Way at Craven.

Contributions for the Bucketts Way north of the Stratford Mining Complex assumes **heavy vehicle movements terminate at Gloucester**. This is on the basis that the proportion of daily SEP heavy vehicles travelling along the Bucketts Way beyond Gloucester is expected to be insignificant (i.e. approximately 1% or less) because:

1. Some SEP heavy vehicle movements to the north would be associated with exploration activities which turn off the Bucketts Way at Bowens Road or Wenham Cox Road;
2. Some SEP heavy vehicle movements start/terminate in Gloucester; and
3. Some SEP heavy vehicles travel along routes other than the Bucketts Way beyond Gloucester (e.g. Thunderbolts Way).

The remaining small percentage (i.e. approximately 1% or less) which would travel along the Bucketts Way east of Gloucester is insignificant and at a level which would not materially affect the condition of the Bucketts Way to warrant road maintenance contributions.

Therefore, SCPL proposes contributions for a total distance of 19.2 km of the Bucketts Way within the Gloucester LGA (i.e. 15.1 km north to Gloucester from the Stratford Mining Complex and 4.1 km south to the Gloucester LGA boundary from the Stratford Mining Complex).

SCPL proposes the contribution to be based on actual proportionate SEP laden heavy vehicle use (i.e. HV%). SCPL would undertake annual traffic surveys along the Bucketts Way to determine the number of:

- heavy vehicle movements coming from the north of the mine access road into the Stratford Mining Complex;
- heavy vehicle movements coming from the south of the mine access road into the Stratford Mining Complex; and
- total heavy vehicle movements on the Bucketts Way north and south of the mine access road.

SCPL proposes to undertake annual traffic surveys in accordance with a **Traffic Monitoring Programme** prepared in consultation with the GSC and GLC, and to the satisfaction of the Director-General of the Department of Planning and Infrastructure. The purpose of the monitoring programme is to determine actual SEP laden heavy vehicle use, total heavy vehicle traffic on the Bucketts Way and to account for any changes to the SEP and background heavy vehicles traffic over the life of the SEP.

Based on heavy vehicles use described in the SEP Environmental Impact Statement (EIS) (i.e. 6 laden heavy vehicles accessing the Stratford Mining Complex from the north and a total of 405 heavy vehicles on the Bucketts Way, and 18 laden heavy vehicles accessing the Stratford Mining Complex from the south and a total of 430 heavy vehicles on the Bucketts Way), an **indicative** quantum of Annual Resealing Contribution would be:

Annual Resealing Contribution ($) =

$$\frac{[(15.1\text{km} \times \text{HV\% southbound to the mine}) + (4.1\text{km} \times \text{HV\% northbound to the mine})] \times \$48{,}000/\text{km}}{11 \text{ years}} \text{ per annum}$$

$$\frac{[(15.1\text{km} \times (6/405)) + (4.1\text{km} \times (18/430))] \times \$48{,}000/\text{km}}{11 \text{ years}} = \$1{,}725 \text{ per annum}$$

GSC Bucketts Way Maintenance

In addition to the above contribution to Bucketts Way resealing, SCPL proposes to contribute to Bucketts Way maintenance within the Gloucester LGA. SCPL proposes to contribute for its proportion of laden heavy vehicles going to the Stratford Mining Complex on the Bucketts Way. SCPL proposes a contribution based on a maintenance cost of $3,000 per km per annum.

Based on laden heavy vehicles use described in the SEP EIS, an indicative quantum of Annual Maintenance Contribution would be:

Annual Maintenance Contribution ($) =

$$[(15.1\text{km} \times \text{HV\% southbound to the mine}) + (4.1\text{km} \times \text{HV\% northbound to the mine})] \times \$3{,}000/\text{km} \text{ per annum}$$

$$[(15.1\text{km} \times (6/405)) + (4.1\text{km} \times (18/430))] \times \$3{,}000/\text{km} = \$1{,}186 \text{ per annum}$$

This contribution would be **paid annually** based on SCPL proportionate heavy vehicle use as determined by the Traffic Monitoring Programme referred to above.

GREAT LAKES COUNCIL CONTRIBUTIONS

GLC Bucketts Way Resealing

SCPL proposes an ex gratia contribution to GLC for Bucketts Way resealing in the Great Lakes LGA in the same manner as proposed for the GSC.

Based on heavy vehicles use described in the SEP EIS (i.e. 18 laden heavy vehicles accessing the Stratford Mining Complex from the south and a total of 430 heavy vehicles on the Bucketts Way), an **indicative** quantum of Annual Resealing Contribution would be:

Annual Resealing Contribution ($) =

$$\frac{55\text{km} \times \text{HV\%} \times \$48{,}000/\text{km}}{11 \text{ years}} \text{ per annum}$$

$$\frac{55\text{km} \times (18/430) \times \$48{,}000/\text{km}}{11 \text{ years}} = \$10{,}047 \text{ per annum}$$

This contribution would be **paid annually** based on SCPL proportionate heavy vehicle use as determined by the Traffic Monitoring Programme which would include annual traffic surveys within the Great Lakes LGA.

GLC Bucketts Way Maintenance

In addition to the above contribution to Bucketts Way resealing, SCPL proposes to contribute to Bucketts Way Maintenance within the Great Lakes LGA. SCPL proposes to contribute for its proportion of laden heavy vehicles going to the Stratford Mining Complex on the Bucketts Way. SCPL proposes a contribution based on a maintenance cost of $3,000 per km per annum.

Based on laden heavy vehicles use described in the SEP EIS, an indicative quantum of Annual Maintenance Contribution would be:

Annual Maintenance Contribution ($) =

55km x HV% x $3,000/km per annum

55km x (18/430) x $3,000/km = ***$6,907 per annum***

This contribution would be **paid annually** based on SCPL proportionate heavy vehicle use as determined by the Traffic Monitoring Programme referred to above.

REVIEW OF GSC'S AND GLC'S ASSET MANAGEMENT STRATEGIES

SCPL has reviewed the current asset management strategies for GSC and GLC:

- Gloucester Shire Council Asset Management Strategy 2012-2022 (http://www.gloucester.nsw.gov.au/ArticleDocuments/55/Asset%20Management%20Strategy_Adopted.pdf); and
- Great Lakes Council Asset Management Strategy 2013-2023 (www.greatlakes.nsw.gov.au/files/5456abb3-09d8-4bbf-bae3-9f2800e38252/Asset_Management_Strategy_2011-2015_FINAL.pdf).

These Asset Management Strategies provide no relevant basis for calculating relevant contributions for the Bucketts Way, although it is noted that the proposed contributions could be used to alleviate the funding shortfalls identified in these strategies.

Please don't hesitate to contact me on 02 8583 5910 if you wish to discuss any of the above matters.

Yours sincerely,

Mark Jacobs
General Manager, Environment, Approvals & Community Relation