

Mr Paul Freeman  
Senior Planner  
Department of Planning & Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

MP-SSD-4966  
WB:EH  
Contact: Wayne Burgess  
Telephone: (02) 6591 7292

25 January 2013

Dear Sir,

**RE: STRATFORD EXTENSION PROJECT (SSD-4966)  
EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT**

I refer to your emails dated 1 November 2012 and 11 December 2012 regarding the above matter.

The project is proposed to be located in the Gloucester Shire Council area however, the matter was considered by Great Lakes Council staff (adjoining Local Government Area) and I provide the following attachments:

1. Attachment 'A' Submission prepared by Council's Senior Ecologist Mr Mat Bell relating to ecological matters.
2. Attachment 'B' Submission prepared by Council's Environmental Health Officer, Mr Ryan Fenning relating to noise, air quality and dust matters.
3. Attachment 'C' Submission prepared by Council's Traffic Engineer, Mr Wade Holmes relating to the upgrade and maintenance of the Bucketts Way.
4. Attachment 'D' Submission prepared by Council's Manager Natural Systems, Mr Gerard Tuckerman relating to water quality and groundwater matters.

Should you have any further enquiries regarding this matter please contact me on 02-6591 7292.

Yours faithfully



**WAYNE BURGESS**  
Manager - Development Assessments  
Planning & Environmental Services

## Attachment 'A'

Mining Projects  
Attn: Mr Paul Freeman  
Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

*Our  
Reference:  
Your  
Reference:* SSD - 4966  
  
*Contact:  
Telephone:* Mr Mat Bell  
6591 7243

25 January 2013

Dear Mr Freeman,

**Re: Comments to the Proposed Extensions to Stratford Coal Mine, Gloucester (SSD-4966)**

### Background and Intent of this Submission

This correspondence has been prepared in response to your e-mail dated 1 November 2012, in which the Department is seeking comments to the proposed Extensions to Stratford Coal Mine at Gloucester, including any recommended conditions of consent should the proposed extension be approved.

This submission relates to ecological matters.

It is important to note that the Stratford Coal Mine (and its proposed extensions set-out in SSD-4966) is not located within the Great Lakes Local Government Area (LGA) (and is confined to the Gloucester Shire Council LGA). It is however proximal to the Great Lakes LGA boundary. Given this proximity, there may be a degree of biodiversity-related impacts on the biodiversity and ecological condition and function of lands within the Great Lakes LGA associated with this proposal. This is particularly so in relation to Council's regional biodiversity planning and the cumulative effects of coal mine and coal seam gas developments in this part of the Gloucester Basin.

Given the above, the submission seeks to comment on the appropriateness and reasonableness of the proposed development on local and sub-regional ecology, assess the manner in which the development potentially impacts regional and sub-regional connectivity and ecological resilience and discuss the cumulative impacts of the proposal in relation to biodiversity and ecology.

### Broad Ecological Context

In the broader context, Great Lakes Council is developing the Tops to Lakes Initiative, which seeks to reinstate and protect connected landscapes and enhance the quality and integrity of natural landscapes to provide environmental services provisions. We recognise that partnership with surrounding Local Governments is critical in delivering the proposed aspirations and visions of this Draft initiative. Relevantly, any decisions relating to the consent (and conditions imposed therein) of the proposed activity need to recognise the existence and aspirations of Council's Draft Tops to Lakes Initiative and its aspirations.

One of the key goals of the Tops to Lakes Initiative is the establishment and protection of a connecting corridor(s) of functional, resilient natural vegetation between The Glen Nature Reserve (and associated habitats) and the foot-slopes and ranges of Barrington Tops area (via Chichester and Avon River State Forest). This is located in the vicinity of the Wards River and Avon River watersheds.

Coal mining in the Gloucester Basin cumulatively presents both a challenge and an opportunity to the achievement of this goal.

Coal mining, cumulatively, has the potential to further fragment and sever connecting habitats and make the large-scale restoration of connecting habitats and functional natural areas in the landscapes south of Gloucester practically unfeasible and unachievable. However, the strategic planning of coal mines and their associated offset areas and restored perimeter lands represents an opportunity to deliver the connectivity and ecological enhancement/ restoration that is required. This depends however on proactive, committed and strategic planning of coal mines and their associated offset lands. It also requires the timely delivery of offset requirements, in both a practical sense (ie. revegetation of degraded or modified areas) as well as in an administrative sense (public dedication, environmental zoning, conservation mechanisms, etc). Consent authorities and the community need to be assured that conservation outcomes are effectively and appropriately delivered, and managed and secured in perpetuity.

Biodiversity offsets need also consider the long-term sustainability of agricultural production land uses in the local area. This can only be considered in a strategic sense.

The strategic assessment of biodiversity values and goals in the Gloucester Basin should be addressed via a working group of relevant Local Government and agencies.

Thus, the finalisation of all spatial, temporal and administrative details associated with offsets for the proposed development should be a Deferred Commencement Condition that requires the formation and endorsement of a Final Offset Strategy, which includes input, review and acceptance of the Strategy by a convened Agency Panel that includes (but is not limited to) Great Lakes Council, as well as NSW Office of Environment and Heritage and Gloucester Shire Council.

### **The Submission of Gloucester Shire Council**

I have been provided a copy of the submission of Gloucester Shire Council to the proposed Stratford Extension, dated January 2013. I have read through the information contained in that submission. I endorse and reiterate the comments in that submission relating to flora and fauna concerns.

### **The Adequacy of Proposed Offsetting Arrangements**

In particular, I would reiterate concerns relating to the spatial location of the offset areas nominated in the EIS and the paucity of detail reflecting that offset areas will be effectively secured in proactive, in-perpetuity conservation.

It is not reasonable to proffer an apparent offset area to deal with biodiversity impacts that contains: dwelling-houses, proposed new electricity easements and future gas wells associated with coal seam gas extraction. To proffer such discredits the ability of the offset area to provide for meaningful compensation for the ecological effects of the development and undermines public perceptions as to the meaningfulness and credibility of the offsetting and biodiversity protection processes.

Thus, offset areas must be appropriately located, secured in a timely, effective manner, proactively managed for biodiversity restoration and conservation and maintained in-perpetuity. The proposal appears to fail to deliver adequate offsets in terms of location and effectiveness of conservation mechanism and actions. Novel approaches to effective conservation should be further explored (eg. public dedication of the conservation area with the provision of funding for conservation and restoration, combined with agency and conservation NGO partnership for the long-term management of the offset areas). This issue must be addressed through the consent process, should the proposal be positively-determined.

The shape and spatial location of the final offset areas must be devised to reflect cumulative ecological restoration aspirations that are practical and effective. To a degree, the existing offset areas appear to be defined through convenience rather than outcome.

In my opinion, there are some pertinent issues that warrant further scrutiny and analysis ahead of or during any positive determination of the proposal, including the following:

- It is critically important to provide a demonstrably valid and appropriate offset for the clearing of native vegetation from the proposed project. Gloucester Shire Council has presented a powerful argument for increasing the area of proposed offset to reasonably and appropriately compensating the ecological impacts of clearing and development. Therefore, on this basis, I would suggest an increase in the proposed size of the offset. This may comprise additions of parts of the company holdings or additional acquisitions of important native habitats or connectivity zones.
- There needs to be additional validation as to why there have been omissions of lands that are currently owned by the company from the proposed offset area that would enhance the value and function of the offset area.
- The critically important Offset Management Plan that would define and manage the offset area must be finalised only through involvement, input and endorsement by Great Lakes Council, Gloucester Shire Council and the NSW Office of Environment and Heritage. The native revegetation of the derived grassland parts of the proposed offset area need to be very clear about aspirations concerning climax vegetation community types and the means to achieve rationally and appropriately. Such climax vegetation community types would need to be reflective of indigenous community types considering the inherent soil, topographic and landform. Re-creation of functional and resilient, self-sustaining native vegetation from derived grasslands can be very complex and needs very prescriptive action plans to give effect to such to ensure project success.
- As part of the finalisation of the offset areas should the proposal be positively determined, there should be further scientific analysis of the functional avenues of local or sub-regional wildlife connectivity for the proposed offset areas and their contribution to agency and community aspirations. Greater attention to local connectivity opportunities and constraints and sub-regional wildlife corridor targets is required and should be utilised to place a revised offset area into a more effective, broader landscape context with regards to faunal connectivity. This should include reference to key regional corridors, the climate change adaptation corridors projects and aspirations by the relevant Local Governments. In a sub-regional context, the locality of the proposal occupies land between larger networks of remnant native vegetation, including conservation reserves associated with the Avon River State Forest/ Berrico Nature Reserve to the west and associated with The Glen Nature Reserve (and surrounding vegetated privately-held lands to the east. The Avon and Wards River Valleys (and associated tributaries) contain few conservation reserves, despite being recognised as a potentially important area for key regional corridors and/ or climate change adaptation corridors. The conservation offset arrangement proposed as part of this project should strongly consider wider landscape scale in its design process.
- The purported Offset Area Management Plan has not yet been prepared and thus cannot be reviewed for adequacy, reasonableness or predicted effectiveness. I believe it is of such importance that the Offset Area Management Plan should be at least prepared in draft form for discussion prior to positive determination of this application so that its effectiveness and validity can be assured by the relevant agencies. The EA reports that the proposed Offset Area Management Plan would contain details relating to fencing, methods of active revegetation, management of weeds and pests, management of fire, signage and restrictions on access, as well as the relocation of habitat features such as hollows and logs. Performance measurement and monitoring is identified as an important component of Offset Area management and include 5-yearly terrestrial fauna surveys (i.e. only one complete survey over the 9-year life of the project (Pg. 4-61). It does not suggest any pre-clearing capture and translocation of squirrel gliders, koalas or other pertinent threatened fauna species from the disturbance area, which may be essential to avoid harm to individual species and serious loss of local populations. Further, it does not purport to any program to compensate (at least on a 1:1 basis) for the loss of natural hollows from the disturbance area through a relocation of felled trees or artificial nesting box program. The plan should also relocate and place rocks and fallen timber into revegetation areas as cover for dependent fauna and to aid nutrient cycling and macro-invertebrate populations. Further, performance monitoring fauna surveys of the offset area should be timed at not greater than 3-yearly intervals.
- The offset arrangement does not, in my opinion, currently adequately consider the time delay between clearing and the recreation of climax habitat across the derived grasslands of the offset area. Further, there are no details as to the staging of revegetation and enhancement works or the techniques to achieve such revegetation, which can be complex and

challenging. Additional details on the offset area and its management is required (perhaps as a deferred commencement condition) and with appropriate Local Government and agency input).

- The Department needs to be satisfied that sufficient, robust and effective administrative, financial and administrative mechanisms are identified, implemented, monitored and achieved for the proposed conceptual final landform rehabilitation and proposed conservation offset areas.
- I am not satisfied that the VCA mechanism is the best and most appropriate method for conservation and management of the offset, especially over the long term, once the company has completed its mining program. The VCA is also a voluntary and negotiated. There few VCAs in the entire Great Lakes LGA and it is understood that there is reasonable complexity and difficulty in establishing such, particularly over derived grassland habitats. Alternate permanent conservation models for the approved offset area need to be considered. This should include consideration of a trust conservation arrangement or dedication to a public conservation agency upon the attainment of certain restoration milestones as required through an s88B/E instrument and Planning Agreement or Memorandum of Understanding.

It is reiterated that a deferred commencement condition such as the following should be applied that convenes an agency panel involving Great Lakes Council, Gloucester Shire Council and the NSW Office of Environment and Heritage to review, provide input and ultimately endorse an Offset Strategy prior to formal commencement of any positive determination of this application. This panel should direct offset requirements to meet long-term, cumulative aspirations in a practical, meaningful and effective manner.

Identified shortfalls to the company's provision of adequate offsets may benefit from the development of an annual cash contribution that is proffered by the company and required in consent conditions to Gloucester Shire Council for the purpose of a sub-regional conservation acquisition and management and/ or catchment management program in a manner that is similar to such negotiated between Duralie Coal and Great Lakes Council.

### **Loss and Management of Hollow-bearing Trees**

The submission of Gloucester Shire Council pertinently raises issues associated with the loss of tree hollows and the proposed mechanisms for compensating for the loss of such through the offsetting program. Tree hollows are a critical habitat resource for dependent fauna, including threatened species. As such, the comments by Gloucester Shire Council need to be carefully considered and actioned by the Department in any determination of this Application.

### **Rehabilitation Planning**

Detailed and effective rehabilitation plans that demonstrate, cost and schedule restorative actions need to be developed by the company and submitted to and approved by the relevant Local Governments and agencies, ahead of formal commencement of any operations. This should be provided for in any conditions of development consent.

### **Reference to the Duralie Extension NSW LEC Judgment**

The Department should obtain a copy and consider this application in light of the published decision by the NSW Land and Environment Court relating to the nearby Duralie Extension. This is particularly pertinent with regards to acceptable offsetting and rehabilitation management and planning.

### **Concluding Remarks**

This is a significant proposal that will cause the clearing and loss of a large area of patchily distributed native vegetation, affects local populations of a number of threatened species and removes and modifies area of habitat for biodiversity.

Notwithstanding all other concerns that I have expressed in this memo, if the project is positively determined that deferred commencement approval be granted subject to the further information collation and documentation identified herein, relevant management plan and strategy preparation, review and adoption and expert panel (including GLC, GSC and relevant agencies) analysis and determination as to the principles to be satisfied in the appropriate and reasonable offset strategy for the clearing of vegetation and habitat associated with the proposal as well as for the rehabilitation of derived grasslands. These are reasonable and pertinent concerns that should be satisfied positively prior to any commencement of the project. In my opinion, much work needs to be completed and considerable consultation and liaison needs to be established before it can be concluded that a reasonable and satisfactory development is occurring and that environmental impacts are appropriately avoided, mitigated or compensated.

Yours faithfully

**Mr Mat Bell**

Senior Ecologist – Great Lakes Council

## **Attachment 'B'**

Hi Wayne,

I refer to the Stratford Coal Pty Ltd Stratford Extension Project which is currently on public exhibition. The following information in relation to noise and dust impacts associated with the mine has been prepared for inclusion in Council's submission:

### **Noise**

Council believes that noise impacts associated with the proposed Stratford Extension Project are unacceptable and may impact upon the health and wellbeing of residents surrounding both the Stratford Coal Mine and the North Coast railway that is utilised by it.

In particular, the main areas of concern are the proposed 24 hour mining operations and the increase in noise from the transportation of coal on the North Coast railway. The 24 hour mining operations will impact upon rural properties in the Great Lakes Council area and the increase in rail noise will be borne largely by the residents of Wards River area.

The 'Noise and Blasting Assessment' (NBA) prepared by SLR Consulting Pty Ltd dated 29 May 2012 (Report Number 610.09020-R1) shows the impact of the proposed 24 hour operations on residents. According to Table 33 - 'Privately Owned Receivers with Intrusive Project Specific Noise Level (PSNL) Exceedances' there will be eighteen receivers which will experience exceedances during the evening periods and twenty-three receivers which will experience exceedances during the night time period.

Of these receivers, one residence in the Great Lakes Local Government Area (receiver No. 60 – Graeme Healy & Philip Weston Greenwood on Glen Road, Craven) has been included in the Noise Management Zone. This residence has been included in the Noise Management Zone as Intrusive Project Specific Noise Levels (PSNL) are exceeded by 1 to 2 dBA in the evening period and 3dba to 5dba in the night time period.

In relation to noise associated with the North Coast railway the NBA claims that the current average of two and a half coal train movements per day would not change as a result of the proposed Stratford Extension, however the number of peak movements would increase from five to six per day. It is also noted that the average rail noise levels are predicted to increase as larger (1,300 m) trains are proposed rather than trains up to 1,300 m as per existing operations.

The NAB claims that as a result of the proposal, approximately 9 additional receivers in the Wards River area (R11-R19) would exceed the 60dBA specified by the NSW Environment Protection Authority's (EPA) rail noise guideline 'Environment Assessment Requirements for Rail Traffic – Generating Developments' (EARRTGD) as a result of the cumulative Project (peak) rail movements. The NAB also provides that approximately 7 additional receivers in the Wards River area (R19-R26) would exceed the 60dBA trigger level as a result of the cumulative Potential (peak) rail movements.

Considering the amount of existing and proposed rail traffic on the North Coast railway that is attributed to the Stratford and Duralie Coal mines, Council does not accept SLR Consulting Pty Ltd's statement *'it is concluded that the assessment of "all feasible and reasonable noise mitigation measures" is not warranted to achieve a negligible 0.6dBA noise reduction for the project'*.

If residential receivers are experiencing noise levels above the 60dBA Council believes that an 'assessment of all feasible and reasonable noise mitigation measures' should be undertaken as noise levels are largely controlled by coal mine rail.

### **Air Quality and Dust**

Council is concerned about air quality and dust emissions from the proposed Stratford Extension Project. In addition to the potential for residents surrounding the open cut mine site to inhale dust and emissions from the operations, Council is also concerned about deposition of dust from the mining operations and the potential for heavy metal and hydrocarbon contamination of resident's rainwater tanks.

Council has also had contact with and listened to concerns raised by residents from the Wards River area in relation to dust associated with the transportation of coal on the North Coast railway. Residents have advised of the frustration associated with the deposition of coal dust on dwellings in the Wards River area as coal is transported in uncovered wagons in extremely close proximity to dwellings.

The Stratford Extension project would add to the concerns of residents in this area as peak train movements are proposed to increase from five trains to six trains per day and larger trains (1,300 m) rather than trains up to 1,300 m would be passing by their doorstep.

**Ryan Fenning**  
**Environmental Health Officer**  
**Planning & Environmental Services**



## Attachment 'C'

Wayne:

### Upgrade of The Bucketts Way:

The accompanying traffic report for the development indicates that there will be an increase in traffic along The Bucketts Way south of the mine. The report quotes figures that the heavy vehicle movements for this development will increase from 30 to 36 – which is 6 additional heavy vehicle movements. It also notes that the total heavy vehicle movements along The Bucketts Way south of the mine will be 430.

The Bucketts Way requires reconstruction in several sections in order to bring the road up to current design standards. Without this upgrade, the road would be considered unsuitable to cater for the additional heavy vehicle movements that this development is proposing. The costs of upgrading The Bucketts Way has been estimated at \$12,646,000.00

In order to create a fair and equitable situation whereby the cost of the upgrade is spread across based on development in the area, it is recommended that this development pays a contribution towards the upgrade of The Bucketts Way which is in proportion to the increase of heavy vehicles that has been nominated in the traffic report.

As a ratio, this development will be proposing  $6/430 = 1.4\%$  of the heavy vehicle numbers in the future. Given that the cost of upgrading the road will be in the order of \$12,646,000.00, Council will be seeking a contribution from this development of **\$177,044.00**

### Maintenance:

In order to assess the amount of maintenance that this development should contribute, I have examined past development applications for the Duralie Coal Mine, which has paid Council a contribution towards the maintenance of The Bucketts Way and for annual bridge inspections based on the number of heavy vehicle movements that mine generates. Currently, the Duralie mine pays Council a contribution of \$59,688.09 for maintenance and \$11,022.58 for bridge inspections. This mine contributes 36 heavy vehicles, and as such their contribution is \$1,964.18 per truck (in 2010 figures).

As this development is proposing 6 additional trucks, Council would be seeking an additional  $6 \times \$1,964.18 = \textbf{\$11,785.08 per annum}$  (2010 figures – these should be subject to CPI indexing at the time of payment) for maintenance and bridge inspections.

Thanks  
Wade

Wade Holmes  
Traffic Engineer  
Great Lakes Council  
ph: 65917369

**Attachment 'D'**



Memo

TO Wayne Burgess

CC

FROM Gerard Tuckerman

DATE 25<sup>th</sup> January 2013

SUBJECT Stratford Coal Mine Extension - SSD - 4966

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A review of the EIS poses significant questions around the cumulative impacts of the mine on groundwater particularly drawdown. It is apparent from our review of the Rocky Hill EIS (adequacy review), the AGL Coal Seam Gas Project and the Stratford Coal Mine Extension that cumulative impact of these projects is not adequately addressed. Indeed Section 7 of the EIS states that the proponents of these projects can not adequately assess the cumulative impact as different models and data are being used to suit individual project specific purposes. Issues associated with potable water supply, groundwater dependent ecosystems and future increased importance of groundwater resources for local agriculture and base stream flow in periodic drier periods under climate change scenarios warrants a more comprehensive analysis of . The analyse of cumulative impacts on groundwater falls well short of what would be considered best practice sustainable mining development. The lack of evidence in the form of a sub-regional groundwater model calls into question assumptions and predictions in regards to cumulative impacts.

Of particular concern is the lack of any discussion regarding potential mitigation regarding potential drawdown of groundwater.

The extension and existing operation will result in 4 large permanent voids. It is essential that thought be given to whether it is reasonable to create four large permanent voids in the landscape. Often the determination of the need for a void is made on the basis of economic viability. Is the viability of the mine such that it is necessary or appropriate to leave a legacy of four voids for the future community to have the responsibility for. A precautionary approach is recommended such that the need for a void is either avoided altogether by backfilling or is minimised to no more than two voids. This precaution is warranted given that the EIS make no comment in regards to potential groundwater pollution from the void acting as a saline water sink. Given the sensitive locality in a sensitive drinking water and agricultural catchment and other industries dependent on good water quality approval should not be given until this issue has been appropriately and rigorously addressed. The rehabilitation of the land inclusive of four voids is not considered to be best practice standard where the landform mimics as close as reasonably practical the natural landform.

In considering the rehabilitated landform and saline voids the conclusion of the Independent Planning Assessment Commission in considering the Maules Creek Mine in the Namoi Valley is instructive. The Commission recommended backfilling rather than leaving a void.

**Gerard Tuckerman**  
**Manager - Natural Systems**  
**Planning & Environmental Services**