Brian Gilligan,
Chair
NSW Planning Assessment Commission
GPO Box 3415
SYDNEY NSW 2001

Stephen Allen
[redacted]

3 September 2015

Re: Submission – second review Springvale Mine Extension Project

Dear Mr Gilligan,

1. Public officers in their official duties, including those of NSW Planning Assessment Commission and Department of Planning, have a public duty of care to protect the environment. In the case of the Springvale development proposal, that duty of care is stated in part in the objects of *Threatened Species Conservation Act 1995,* which include in part the "conservation" and "protection" of threatened species, populations and communities. The public holds in trust in public officials a duty to conserve and protect the endangered Temperate Highland Peat Swamps on Sandstone (THPSS). Where a public official in the exercise of official duty makes a decision to approve a development proposed, or provides advice to that effect, in the face of evidence beyond reasonable doubt that the predicted environmental degradation of the development proposed can neither be mitigated or remediated, and those impacts so predicted transpire, that official shall have conducted official duties negligently, having neglected the duty of care as reflected in the transpired harm and or losses to the environment. That official would have breached the trust the public has placed in the public official. Indeed, since predicted environmental degradation is known a priori to the transpiration of those impacts, the negligence may be construed as wilful negligence. Breaches of trust or duties of care might also be construed as maladministration where the objects and or principles of an Act call for the protection of the environment and those objects were not upheld or given regard in the decision or advice.

2. The Independent Expert Scientific Committee on Coal Seam Gas and Coal Mining (IESC) states

> "key potential impacts to THPSS include: subsidence impacts such as bedrock fracturing; changes to the hydrological (surface flow from upstream tributaries and inundation) and hydrogeological (groundwater drawdown and baseflow) regimes, peat desiccation, erosion (scour) and slumping; decline of vegetation communities and swamp extent, including EPBC Act threatened species."[1]

The IESC further states,

> "There is a high risk of potentially severe subsidence impacts to THPSS …. It is highly likely that impacts to THPSS and dependent threatened species will be severe and potentially irreparable. Further, there is no scientific literature currently available to demonstrate the effectiveness of potential mitigation or remedation measures. The only known strategy to minimise impacts to THPSS is to alter the

[1]Independent Expert Scientific Committee on Coal Seam Gas and Coal Mine Development (2014), *Advice to decision maker on coal mining project*, IESC 2014-054: Springvale Mine Extension Project (EPBC 2013/6881; SSD -5594).

> mine layout such that swamps are not undermined by longwall panels and longwalls are located such that tensile and compressive strains at these sites are below 0.5mm/m and 2 mm/m respectively. To avoid impacts to the hydrological regime of individual THPSS, this avoidance strategy would also need to be applied to any upstream tributaries that provide a significant proportion of surface flows to THPSS."[2]

While the Department of Planning has stated that during the assessment stage it has negotiated alterations to the mine layout with the proponent to minimise impacts, the Department has not provided evidence in reports or correspondence of alterations to mine layout such that no threatened peat swamp ecological communities would be undermined and that alterations to mine layout maintain tensile and compressive strains below those thresholds that current scientific evidence indicates is necessary to minimise or avoid subsidence impacts. The IESC states that "Ensuring that tensile and compressive strains are below 0.5 mm/m and 2 mm/m respectively at THPSS sites is the only measure known to prevent impacts to THPSS."

3. In view of the current evidence of the severe impacts of the proposed long wall mining and current knowledge of measures that would avoid these severe impacts, if the Department or the Commission do not recommend these measures, the Department and the Commission may be in breach of their public duty to exercise reasonable care to protect the THPSS. Now it might be argued that decision making is a balancing of the consequences of alternatives, and in this balancing a degree of impact has to be accepted. Yet, in the case of the recommendations of the Department and the Commission, the decision making has not had regard to those consequences for other highland peat swamps of previous decisions on long wall mining development proposals. The current threat status of an ecological community is in large part the result of previous decisions on development proposals that are key threatening processes, and those decisions led to either the degradation or destruction of the ecological community. These decisions progressively push an ecological community to a more severe threat status; one such threat status is "extinction." A less severe threat status is 'vulnerable'. Likewise, present decisions shall bear upon the future threat status of ecological communities. A decision regarding the future of the proposed Springvale longwall mine expansion, which at the same time seeks to 'prevent the extinction of ' the endangered THPSS ecological community[3], would have regard to the present threat status of the THPSS, the consequence for the threat status of THPSS of previous decisions on long wall mining proposals, and the consequence of a current decision on the future threat status of THPSS. Were the threat status consequence of previous decisions one that is closer to extinction and further away from vulnerable, a decision maker with a public duty to prevent the extinction of the ecological community would decide in such a way that either preserves the ecological community's present position on the threat spectrum or pushes it toward the lesser threat status of 'vulnerable.' The past, present and future threat status of ecological communities are therefore relevant considerations for the decision maker. *Protected Disclosures Act 1994* establishes unreasonable conduct and conduct contrary to the law of a serious nature as maladministration. Ombudsman New South Wales includes within "unreasonable conduct" "decisions or actions that do not take into account all relevant considerations."[4] The Department of Planning and the Commission to the extent that they have not had regard to the present, past and future threat status of THPSS have not had regard to the objects of *Threatened Species Conservation Act 1995* as they relate to the prevention of the extinction of threatened ecological communities. Such conduct could be construed as maladministration. Furthermore, the Department with a view to consenting to the proposed Springvale Mine Extension Project, which is highly likely to have severe subsidence impacts for the

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[2]Ibid, op.cit.

[3]An object of the *Threatened Species Conservation Act 1995* is to prevent the extinction of threatened species, populations and ecological communities.

[4]Ombudsman New South Wales (2010), *Maladministration,* Public Sector Agencies Fact Sheet 13.

THPSS for which there are no known remediation measures, and given the history of the severe degradation of THPSS attributable to long wall mining in the southern and western coalfields, the Department and the Commission are carrying through the extinction of the THPSS. Such conduct, which is contrary to *Threatened Species Conservation Act 1995*, might also be construed as maladministration. Although the Department proffers an offset, that it is all the offset is, a proffer. Nowhere in the draft conditions of consent is there a legally established THPSS offset. Indeed, the NSW policy for biological offsets provides for bonds in lieu of the failure of an offset proposed. A proposed offset cannot therefore be construed by a decision maker as a measure to prevent the extinction of a threatened ecological community or in the least prevent the threat pendulum swinging closer to extinction. More on offsets later.

4. An object of *Threatened Species Conservation Act 1995* is "to eliminate or manage certain processes that threaten the survival of threatened ecological communities." A key threatening process of endangered THPSS is the "alteration of habitat following subsidence due to longwall mining." Both the Planning Assessment Commission and Department of Planning propose an asserted robust "risk averse adaptive management framework" to "manage" the impacts of long wall mining associated with the Springvale Mine Extension Project on endangered ecological 'swamp' communities. Yet, neither the Commission or the Department demonstrate with evidence beyond reasonable doubt the robustness of the "Risk averse adaptive management framework", which is considered "best practice management," in its application to the environmental impacts of long wall mining. In other words, no reasonable grounds have been provided that demonstrate a priori that the approach would adequately 'manage' impacts to an acceptable level. Indeed, neither the Commission or the Department established explicitly an acceptable level of impact, or provide grounds beyond reasonable doubt for the acceptability of the 'target' level of impact. Since the Department has not proposed avoidance or mitigation measures, instead relying on "remediation" and "biological offsets", the Department by implication considers the destruction or at least severe degradation and part destruction of the endangered ecological community an acceptable impact, which by necessity demands an offset. This implied acceptable level of impact is demonstrated by the severe degradation of threatened ecological communities that is attributable to numerous other mining developments in both the western and southern coalfields that were approved by either the Department or the Commission. This implied level of impact is not an object of the Act, and indeed is contrary to the protection and conservation objects of the Act. Given that there exists predictive evidence beyond reasonable doubt that long wall mining associated with the Springvale extension project is highly likely to cause severe degradation of threatened ecological communities,[5] officers of the Department of Planning in ignoring this advice and disregarding the objects of the Act, could be construed to be conducting their official duties with maladministration, irrespective of whether severe degradation transpires.[6] Moreover, neither the Commission nor the Department reasonably assessed the suitability or otherwise of the risk averse adaptive management framework for dealing with possible environmental damage associated with long wall coalmining. Indeed, the Independent Expert Scientific Committee provides evidence that the adaptive management framework is totally unsuited to long wall coal mining[7]

> "... it would appear that it is all but impossible to modify mining operations once commenced such that further rock fracturing would not occur. If the modification of mining operations was implemented it may be beneficial in mitigating further rock

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[5]. Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development IESC 2015-068, Further advice on impacts on swamps; IESC 2014-054: Springvale Mine Extension Project (EPBC 2013/6881;SSD-5594)

[6]S. 11, *Protected Disclosures Act 1994* establishes maladministration in part as action or inaction that is "contrary to the law, or unreasonable, unjust, oppressive or improperly discriminatory, or based wholly or partly on improper motives."

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> fracturing but it is to be recognised that the detrimental impacts on swamps overlying the mining operations would in most situations already have occurred. The trigger points to mining operations would therefore predictably provide little benefit to mitigating further impacts e.g. peat loss and water holding capacity, or assist/contribute to restoration of any impacted swamp."[8]

5. Notwithstanding that neither the Commission nor the Department have provided evidence demonstrating that the risk averse adaptive management approach can be relied upon to protect endangered ecological communities in the face of dangerous long wall mining and in accordance with the objects of *Threatened Species Conservation Act 1995,* critical elements of the approach are presently unproven. Critical elements include models for predictive subsidence, performance measures and performance indicators, trigger thresholds, and trigger action response plans (TARPs), including remediation, In relation to predictive models, the DOP states that the predictive sciences of subsidence are "young and inexact." The Commission and the Department agree that significant development is still required in subsidence predictive modelling. The IESC also states its low confidence in subsidence predictions of

> "shallow manifestations of deep, underlying faults. As a result, the EIS subsidence and flora impact assessments based on the subsidence predictions do not adequately consider the potential site specific subsidence impacts to overlying individual THPSS".[9]

In relation to TARPs, the IESC assessed their effectiveness and concludes that "...TARPs were shown to be an ineffective technique to minimise impacts on upland peat swamps."[10] The IESC states that the

> "management of … impacts of [long wall mining on upland peat swamps] primarily through the use of TARPs, is fundamentally flawed because of the time lag between longwall mining and recognised impact at the peat swamp."[11]
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> "TARPs are not well suited to managing impacts that occur from mining beneath upland peat swamps, because the impacts
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> - may be small compared with impacts from other, unrelated causes,
> - may not become apparent for some time (ie prolonged time lag),
> - may only become apparent after a tipping point has been reached."[12]

The authors state that the inadequacies of TARP are increasingly being recognised within industry. For instance Gujarat NRE Coking Coal

> "noted that 'that any impacts to swamps are unlikely to become apparent until well after mining is complete which doesn't allow NRE time to make any significant change to the mining process. … TARP as a method of protecting swamps is not considered overly useful because many of the impacts are likely to be long term and difficult to detect without extended monitoring. Consequently, it is important that industry develop an appropriate technique to manage potential

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[8]Commonwealth of Australia, (2014), *Temperate Highland Peat Swamps on Sandstone: evaluation of mitigation and remediation techniques, Knowledge Report*, prepared by the Water Research Laboratory, University of New South Wales, for the Department of the Environment, Commonwealth of Australia, p. 72

[9]IESC, 2014-054, p. 3.

[10]Commonwealth of Australia, (2014), p. 94.

[11]Ibid., p.71.

[12]Ibid., pp. 67-68.

> impacts of upland peat swamps, and similarly affected ecosystems, before potentially irreversible tipping points are reached."[13]

A critical component of a TARP is the corrective management actions or remediation measures that are triggered when thresholds of performance indicators are exceeded. Yet, as the IESC states

> "To date, no information has been found through the literature review or contact with mining companies on on-ground remediation attempts for upland peat swamps that have been impacted by long wall mining. Based on the available evidence there are no proven techniques for remediation of upland peat swamps impacted by long wall mining."

In the case of the remediation of the Dendrobium swamp area, the IESC says

> "The techniques applied at the site, which potentially could be implemented in other sites, were difficult to implement and very costly. There was a lack of ongoing long term monitoring at the site [to assess whether the measures] were justifiable on a cost/benefit basis and from a swamp restoration consideration whether they were appropriate and ecologically beneficial... Experience from peat swamp restoration in the Snowy Mountains indicates that full recovery of the swamp ecosystems can take more than four decades or more but significantly any loss of peat from any impact can seldom be recovered as peat forming climatic conditions now don't exist."[14]

6. Clearly, the scientific evidence relating to the risk averse adaptive management approach proposed by the Commission and the Department demonstrates beyond reasonable doubt that the approach is unsuited to addressing the degrading impacts of long wall mining on upland peat swamps. Yet, both the Department and the Commission persist with this approach without providing reasonable grounds for doing so or giving explicit and careful consideration of the evidence to the contrary. A duty of care involves a balanced assessment of all approaches to dealing with impacts, providing reasonable grounds for the decision taken and full and fair consideration of all evidence. In the instance of the assessment of the Springvale Mine Expansion Project both the Commission and the Department have not undertaken a balanced assessment of all options, have not provided reasonable grounds for adopting the adaptive management approach or given careful consideration of evidence to the contrary. For this reason, neither the Commission nor the Department have exercised a duty of care in assessing the Springvale extension project. To approach endangered ecological communities as the subject of an experiment in risk management science, especially where the science is highly doubtful in dealing with the risks of long wall mining, is the height of an insidiously pernicious negligence.

7. To claim that adaptive management is best practice for dealing with predicted severe degradation of threatened upland peat swamps is misleading. Adaptive management is beyond reasonable doubt unsuitable for dealing effectively with such impacts. The long time lags in cause and effect relationships between long wall mining and degradation of swamps and the absence of effective remediation measures render adaptive management powerless in dealing effectively with degraded swamps. To approach endangered ecological communities such as the Temperate Highland Peat Swamps on Sandstone as subjects of an ongoing untried and untested risk management scientific experiment is reckless for the experiment offers little if no assurance of the long term survival of the species. For this reason, the Department and the Commission in adopting this approach are in contempt of the protection and conservation objectives of *Threatened Species*

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[13]Ibid., p. 68.
[14]Ibid., pp.91-92.

Conservation Act 1995.

8. Both the Department and the Commission propose that the proponent offset the irreversible impacts of the mine expansion on endangered upland peat swamps. The Department and the Commission have resolved not to demand that the mine layout achieves tensile and compressive strains below 0.5mm/m and 2 mm/m respectively at the sites of the swamps, which would avoid impacts on the swamps. Instead, the Department has consented to a layout that it considers may cause a level of degradation that warrants offset. Clearly, a layout that would achieve the desired strains is a relevant consideration in the assessment, yet, the Department has not assessed this option or has been transparent where such an assessment was undertaken. An object of *Threatened Species Conservation Act 1995* is that the impacts of actions on threatened ecological communities are "properly assessed". A reasonable person would consider that a proper assessment includes mine layouts that achieve the strains aforementioned. Yet, the Department fails to include this relevant consideration, which is contrary to the law. Maladministration includes conduct that fails to consider relevant considerations and conduct that is contrary to the law.

9. The Department relies on a contrived compensatory offset to justify consenting to a development for which there exists evidence beyond reasonable doubt that it will cause severe degradation to threatened ecological communities. Yet the Department has not provided evidence beyond reasonable doubt that the threatened ecological community is replaceable and has not provided evidence beyond reasonable doubt of the existence of a replacing swamp. If there ever were 'reasonable' grounds for an offset, the certainty of the existence of an offset must in the least match the certainty of the destruction of that which it offsets, in the case of the THPSS a high degree of certainty. The Department is unreasonable where it relies on an offset to consent to the mine expansion given that the ecological community is endangered, the mine expansion is highly likely to heighten the "endangered" status of THPSS generally, that the offset is a mere proposition, and the proposition includes a bond in anticipation of the failure of the proposition. Rather than preventing the extinction of THPSS, the Department in consenting to the mine expansion increases the likelihood of the extinction of THPSS since the consent relies on a mere proposition, which may very well fail or in the least fall short in in relation to the 'no net loss - ecological equivalence' test. In this way the Department in relying on the mere proposition of a contrived offset to consent to the mine expansion evades its public duty of care to protect the THPSS. A breach of a duty of care is considered negligent conduct where harm is the effect of this breach, in this case the loss of another threatened ecological community.

10. Notwithstanding that offsets qua offsets are contrary to the objects of *Threatened Species Conservation Act 1995* and other such legislation which seek to protect the environment since the very existence of an offset is premised on, or permits insidiously, the wilful destruction of a threatened species, population, or ecological community, or other such ecological community,[15] offsets deny the possibility of the existence or intrinsic values of an ecological community.[16] This is to say that the existence qua existence of an ecological community may be valued or that the 'value of an ecological community is that it exists in and of itself. Indeed, economists have developed an entire discipline attempting to price the existence values of the environment. Yet, the Department of Planning has not considered these relevant matters when it submits to the highly likely destruction of the endangered Temperate Highland Peat Swamp on Sandstone in Newnes State Forest. It is the height of unreasonableness and insidious neglect to approach a threatened ecological community as a subject of an economic experiment in commodity trading of biological offsets/credits, especially when the existence of this experiment is highly doubtful in its infancy. Furthermore, the Department has not provided reasonable grounds as to why this threatened

[15]More the point where simple measures are available to avoid destruction.

[16]Destruction is wilful if a development is given consent in view of evidence beyond reasonable doubt that the development would destroy.

ecological community shall be a 'sacrificial lamb' for the sake of the supposed progress of an experimental economic science. Indeed, to approach ecological communities as 'sacrificial lambs' for the mere sake of the progress of an economic science is the height of an insidiously pernicious negligence.

Yours sincerely,

Stephen Allen
3 September 2015