

Mining Law in New South Wales



DISCUSSION PAPER



Environmental Defender's Office NSW

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Cover photo: © Phil Freeman, Mount Thorley complex, Hunter Valley, February 2004.

The information is accurate as at June 2011. This paper incorporates changes made by the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011* (NSW), which repeals Part 3A, provides for transitional arrangements for projects already within the system and introduces a new framework for large-scale projects. The Act has passed, but has not been proclaimed at the time of writing.

Introduction

The regulation of coal mining and coal seam gas ("CSG") extraction in NSW is on an unsustainable path. Many aspects of the regulatory framework are outdated and fail to promote or produce sound environmental outcomes. It is clear that if current mining practices continue, the result will be irreversible damage to this State's long term environmental, social and economic wellbeing. That result is avoidable, however, and changes can be made for the better.

This paper has been drafted to encourage discussion about the legal framework for mining in NSW, and to promote positive environmental outcomes. It identifies key inadequacies with the current system and makes recommendations for legislative change to make the current processes more sustainable, robust, equitable and transparent. The paper focuses on the *Mining Act 1992* (NSW) ("*Mining Act*") and the *Petroleum (Onshore) Act 1991* (NSW) ("*Petroleum (Onshore) Act*") as well as the *Environmental Planning and Assessment Act 1979* ("*EP&A Act*"), where many of the environmental gains can be made.

Historically, the clear intention of laws on mining has been to facilitate the extraction of resources as quickly as possible. Indeed, mining in NSW (and Australia) has enjoyed a special status under the law since at least 1851, when the first mining legislation codified that the ownership of minerals vests in the Crown.

The need for a robust regulatory regime is evident given the significant and cumulative impacts that mining operations can have on local communities, human health, water resources, air quality and the environment over time. The CSIRO has noted:

The key issues in terms of cumulative impact will centre around how individual [mining] operations combine over time and over a large region to affect: water availability and variability; impacts on biodiversity; land and groundwater contamination; local and regional dewatering.¹

The impacts and concerns briefly canvassed in this paper are drawn from literature reviews, data from mining companies and case studies provided by affected communities.

These issues have been categorised into three overlapping parts:

- 1) Environmental Issues
- 2) Community Issues
- 3) Compliance and Enforcement Issues.

The need for regulatory reform is clear, particularly due to the significant area of the State that is already subject to mining activities, or potentially subject to them in the

¹ CSIRO (2009) Submission to the Senate Inquiry into the Impacts of Mining in the Murray Darling Basin available at: http://www.aph.gov.au/senate/committee/eca_ctte/mining_mdb/report/index.htm

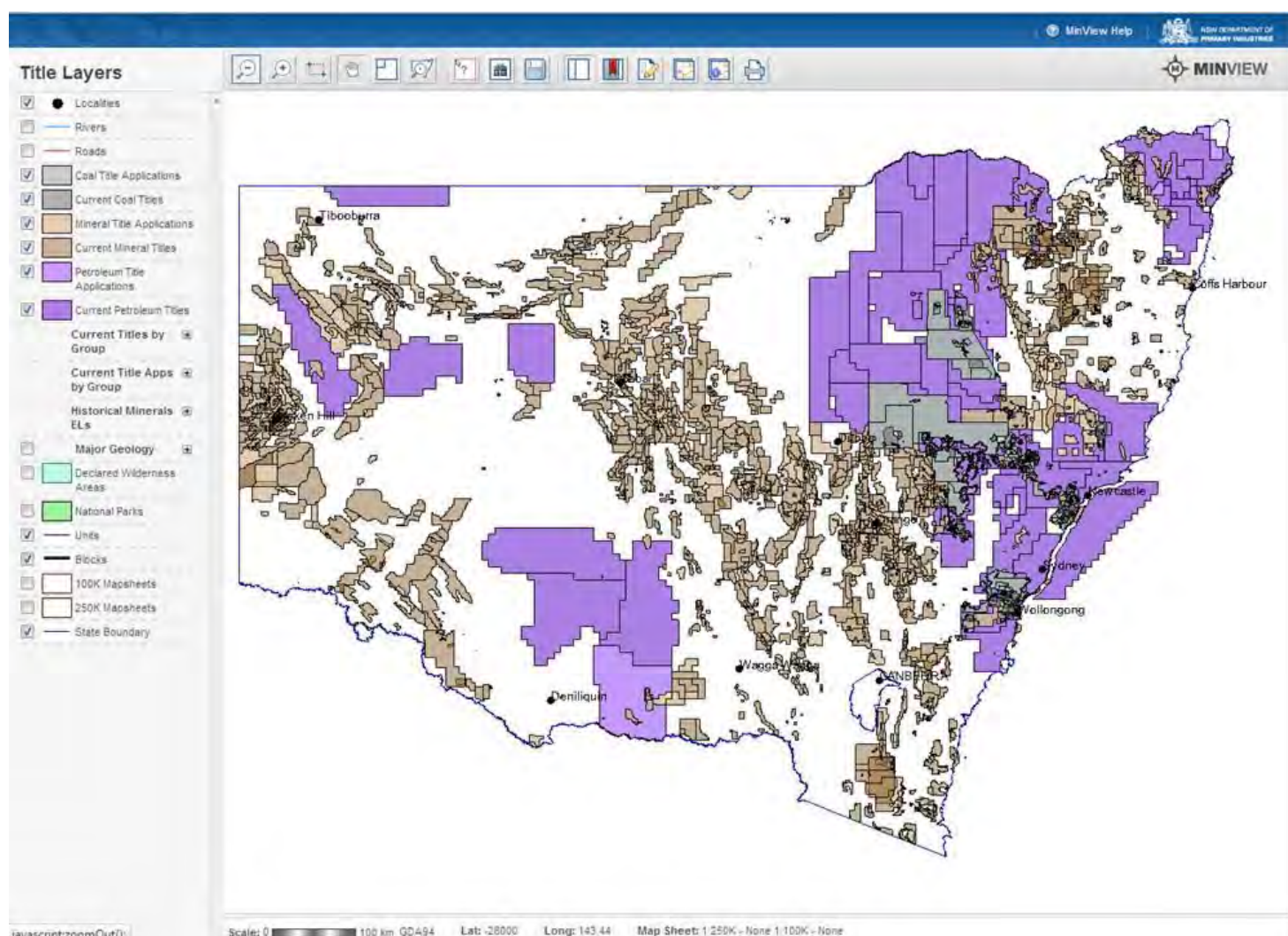
future (see **Figure 1**). Fortunately, new governments can herald new opportunities. With the change of government in NSW, there has been a commitment to a new planning system, with the repeal of Part 3A of the *EP&A Act* underway. Now is an opportune time to develop legislative provisions that improve environmental planning and assessment, decision-making, community consultation, and compliance and enforcement processes for mining activities in NSW.

Overall, the EDO supports the development of a regulatory system that is framed – or, from a resource extraction perspective, constrained – by the notion of sustainability. This essentially involves two elements. First, it involves strengthening and operationalising the established principles of ecologically sustainable development (“ESD”) within the legislative framework.

More importantly, however, it involves seeing sustainability as an end to be achieved, as well as the pre-eminent benchmark underpinning decision-making, and not merely the sum total of each ESD principle.

Legislative frameworks and policy approaches need to be built from, and reflect, this standpoint. In turn, the actions of decision-makers need to be judged against it.

Figure 1 – Titles and applications for coal, mineral and petroleum/CSG in NSW²



² Department of Primary Industries, online Minview tool, as at June 2011.

SUMMARY OF RECOMMENDATIONS

The current regulation of mining and extractive industries in New South Wales is outdated and unsustainable. The regime needs to be overhauled and significantly amended to:

- strengthen the decision-making framework to ensure sustainable outcomes
- establish transparent processes for strategic land-use planning
- enshrine comprehensive environmental impact assessment processes
- establish mandatory community consultation and public participation provisions.

Part 1 - Environmental Issues

Recommendation 1: Strengthen legislation on mining and planning by requiring that decisions under these legislative frameworks must take place within sustainable bounds whereby:

- the purpose or objective of the legislation clearly stipulates that social, cultural, economic matters etc must be managed within sustainable boundaries
- decision-makers under the legislation must exercise their powers and functions so as to achieve that purpose or objective.

Recommendation 2: Support this legislative framework through specific laws that:

- prescribe specific objective, criteria that the decision-maker must be satisfied of before approval is granted, (such as a “maintain or improve” test)
- enliven the principles of ESD in decision-making
- ensure that mining and planning decisions are informed by the best possible science and a full consideration of alternatives
- include a clear legislative requirement that greenhouse gas emissions and climate change are relevant considerations in decisions at both the strategic planning and project approval level
- adopt a whole-of-government approach to decision making, through requiring appropriate concurrences for large-scale mining projects
- allow merit appeal rights for a range of decisions.

Recommendation 3: Undertake a strategic planning process across NSW which:

- identifies competing land uses and values between mining and other uses,
- undertakes baseline studies of impacts
- takes into account potential cumulative impacts
- integrates economic, social and environmental factors in decision-making
- establishes “no-go” areas of NSW where mining operations are prohibited
- provides for comprehensive, guaranteed rights of public participation.

Recommendation 4: Place a moratorium on new applications while the first wave of strategic land use plans are completed.

Recommendation 5: While the moratorium is in place, include the strategic planning process in the mining/planning legislation, with clear criteria and outcomes, together with guaranteed rights of community involvement and review.

Recommendation 6: Recognise strategic land use plans under the law.

Recommendation 7: Introduce a suite of measures to address cumulative impacts, including:

- focussing at the strategic planning stage (as discussed above)
- requiring the consideration of cumulative impacts as a factor for consideration before decision-makers when deciding whether to approve a project
- tighter controls over the process for modifying original mining approvals and better scrutiny of licence transfers
- ongoing monitoring of environmental impacts during the operation of a mine, as well as comprehensive rehabilitation and monitoring once operations close

Recommendation 8: Review the *Mining Act* and the *Petroleum (Onshore) Act* to embed best practice environmental provisions in the legislation, including:

- a broader definition of environmental impact
- recognising the importance of previous environmental performance of the titleholder
- improving mine rehabilitation practices
- introducing statutory requirements for environmental reporting
- clarification of definitional issues

Part 2 - Public Participation and Community Issues

Recommendation 9: Ensure comprehensive, guaranteed rights of community consultation and public participation in the *Mining Act* and *Petroleum (Onshore) Act*, including for large-scale projects. Requirements should include:

- direct notification of exploration licence applications to potentially affected landowners
- merits review of exploration licence decisions
- adequate public consultation periods, and timely notification of mining activities generally
- improved land access provisions that ensure the free, prior and informed consent of landowners – assisted by a template outlining landowners' rights and mining company responsibilities (for example, in relation to access, exploration, approval, and land acquisition).
- seeking consent to underground mining activities (not just surface activities) very close to homes, gardens and significant improvements.

Recommendation 10: Adopt mandatory community consultation and participation processes as part of revised planning law provisions for large-scale projects. The new assessment and approval process should include:

- effective community engagement and transparency in strategic State-wide land use planning processes
- a requirement that the decision maker must take into account public submissions when assessing a mining project application
- provision for merits appeal rights and judicial review rights for objectors and proponents
- open standing rights to apply to the Land and Environment Court for stop work orders, interim protection orders and notices regarding threatened species, heritage and pollution in relation to mining projects.

Recommendation 11: Establish a robust and transparent compensation regime for mine-affected landowners, with similar protections to Commonwealth and other land acquisition laws. In particular:

- recognise underground and broader impacts, not only impacts on the land surface
- extend compensation to loss of amenity, loss of opportunity or profits or decreased market value
- where a mining company acquires the land, the valuation needs to compensate landowners for the true cost of resuming the same activities elsewhere.

Recommendation 12: Enable the jurisdiction of the Land and Environment Court to:

- arbitrate compensation disputes
- undertake valuations (per Class 3 of the Court's jurisdiction)
- impose conditions on the mining approval (per Class 8 of the Court's jurisdiction).

Part 3 - Compliance and Enforcement Issues

Recommendation 13: Initiate an independent performance audit of compliance and enforcement activities in relation to mining in NSW, including consideration of adequate resourcing. The audit should be conducted by the NSW Auditor-General and/or NSW Ombudsman, with the results made public.

Recommendation 14: Increase ongoing monitoring and responsiveness to community reporting, to identify breaches of conditions of mining operations.

Recommendation 15: Establish a process to independently audit mining operators' performance against Environmental Assessment predictions, statements of commitment, Subsidence Management Plans and mine site rehabilitation.

Recommendation 16: Adopt a tiered enforcement framework for mining and planning legislation, to ensure breaches of mining approvals and conditions result in punishment that deters misconduct. The framework should include categories of serious offences, mid-range (strict liability) offences and minor (absolute liability) offences.

Recommendation 17: Planning laws should give prosecutors and courts a wider range of innovative enforcement tools as in other environment and pollution laws. These tools should include orders to pay investigation costs; undertake works for environmental benefit, including fund environmental organisations; complete audits, training and financial assurances; publicise offences or notify certain people; and remove any monetary benefit of the crime.

Recommendation 18: Provide the Planning Minister with powers to suspend or revoke mining approvals for breaches of conditions. In addition, establish a process for landowners to apply to revoke their consent to land access if mining operations breach conditions.

Recommendation 19: Increase resourcing for relevant compliance and enforcement divisions in order to improve rates of audits, investigations and prosecution.

Recommendation 20: Review the adequacy of noise impact guidelines.

Recommendation 21: Introduce compulsory environmental bonds.

Part 1: Environmental Issues

This part of the discussion paper addresses three aspects of mining in NSW – namely:

- identifying some of the major environmental impacts that result from mining activity in NSW (1.1)
- assessing how the current laws are failing to prevent, or even mitigate, such environmental damage (1.2).
- making recommendations for law reform aimed at improved environmental outcomes (1.3).

1.1 Environmental impacts of mining and CSG extraction

The prospecting and extraction of coal and CSG has the potential to cause large-scale, long lasting detrimental impacts on the environment. A range of environmental impacts from mining have been recognised, including impacts on biodiversity, water quality, habitat alteration and species composition, and air quality. The Canadian group Mining Watch has identified potential impacts over a mine's lifecycle in Table 1. As the table indicates, potential impacts are manifold, wide-ranging and context specific:

Table 1 – Environmental impacts of mining³

Development Phase	Potential Activities	Environmental Issues (subject to mitigation/prevention measures)
<i>Exploration</i>	airborne and ground-based geochemical, and geophysical surveys, prospecting, claim staking, line cutting, stripping, drilling and trenching, road/trail building and/or helicopter transport, bulk sampling	land alienation from protection options, camp garbage, trail/road and trenching erosion, access-related over harvesting and fishing, habitat disruption, noise pollution, acid mine drainage
<i>Mining and Milling</i>	environmental impact assessment, mine design and construction, stripping/storing of "overburden" of soil and vegetation, ore extraction, crushing/ grinding of ore, flotation or chemical concentration of ore, mine and surface water treatment, storage of waste rock and tailings	wildlife and fisheries habitat loss, changes in local water balance, sedimentation, containment of toxins in tailings ponds and/or leaching solutions, tailings ponds or leaching pads stability failure, potential acid generation from waste rock and pit walls, heavy metal leaching from acid mine drainage, cyanide solution containment at heap leach operations, wind borne dust
<i>Smelting and Refining</i>	processing of mineral concentrate by heat or electro-chemical processes	sulphur dioxide emissions contribute to acid rain, toxic chemical (e.g., ammonia, sulphuric acid) use for processing, high energy requirement
<i>Mine Closure</i>	recontouring of pit walls, and waste dumps, covering of reactive tailings dumps, decommissioning of roads, dismantling of buildings, re-seeding/planting of disturbed areas, ongoing monitoring and possible water quality treatment	seepage of toxic solutions into ground and surface water contamination from acid mine drainage, wildlife and fisheries habitat loss, revegetation failure, wind borne dust, slope and tailings impoundment failure

³ Available at: <http://www.miningwatch.ca/en/emcbc-mining-and-environment-primer-environmental-impacts-mining>.

A number of reports have been released identifying environmental impacts from specific mining activities in NSW, including a Total Environment Centre study on longwall mining.⁴ A further report on *The impacts of coal mining in the Gardens of Stone* provides a case study of area-specific environmental impacts from mining activities.⁵ This paper briefly discusses some of the major environmental impacts in relation to water, carbon emissions, rehabilitation measures, biodiversity and habitat, cultural heritage, and specific impacts of CSG below.

a) Water

Mining projects often have significant impacts on water resources, whether they be open cut, long-wall, CSG or coal. Large volumes of groundwater can seep into mine pits from adjacent aquifers. For example, at the Bowens Road North Open Cut Mine (near Gloucester, north of Newcastle), seepage into the open pit was expected to occur at a rate of 2.7 to 13.3L/second.⁶ This equates to a minimum of 233ML/day or 85,147ML/year. Such water is often used for other purposes on a mine site (for example, dust suppression, cleaning and processing) but needs to be stored and, potentially, any surplus water released. The groundwater is often naturally saline; the groundwater seeping into Bowens Road North Open Cut Mine was predicted to be between 1300 and 3100 μ S/cm (by comparison, the national water quality guidelines describe NSW rivers as having values up to 350 μ S/cm).⁷

Water from mines can also contain elevated levels of suspended solids and heavy metals such as copper, cobalt and zinc. There are also concerns about chemical releases which occur when large amounts of rock containing sulphide minerals are excavated during the extraction process, and interact with water and oxygen to create compounds like sulfuric acid. There are also concerns about heavy metal contamination such as from arsenic, cobalt, copper, cadmium, lead, silver and zinc that occur naturally in many ores, which are released during the mineral extraction process.⁸

The hydrological impacts caused by movement in the ground's surface (subsidence) that is associated with long-wall coal mining can be devastating and far-reaching. The following quotations have been extracted from a report by the NSW Scientific

⁴ Total Environment Centre (2007) *Impacts of Longwall Coal Mining on the Environment in New South Wales*. Available at: http://www.tec.org.au/component/docman/doc_view/201-longwall-rep07. Longwall mining is an underground coal mining technique which involves removing a portion of an underground coal seam. See:

<http://www.environment.nsw.gov.au/threatenedspecies/LongwallMining.htm>,

⁵ Muir K (2010) *The impacts of coal mining in the Gardens of Stone* Colong Foundation for Wilderness, available at: <http://www.colongwilderness.org.au/>

⁶ Resource Strategies (2002) Bowens Road North Open Cut Coal Mine Site Water Management Plan at p 8.

⁷ Ibid. For the national water quality guidelines, see ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Table 3.3.3.

⁸ See *Guidebook for Evaluating Mining Project EIAs* (2010) Environmental Law Alliance Worldwide, 1st Edition. Chapter 1 'Overview of Mining and its Impacts.' Available at: <http://www.elaw.org/files/mining-eia-guidebook/Chapter1.pdf>

Committee (established by the *Threatened Species Conservation Act 1995*) which highlights some of the key problems:⁹

Mining subsidence is frequently associated with cracking of valley floors and creeklines and with subsequent effects on surface and groundwater hydrology... Subsidence-induced cracks occurring beneath a stream or other surface water body may result in the loss of water to near-surface groundwater flows.

Cracking and subsequent water loss can result in permanent changes to riparian [adjacent to water] community structure and composition.

Subsidence can also cause decreased stability of slopes and escarpments, contamination of groundwater by acid drainage, increased sedimentation, bank instability and loss, creation or alteration of riffle and pool sequences, changes to flood behaviour, increased rates of erosion with associated turbidity impacts, and deterioration of water quality due to a reduction in dissolved oxygen and to increased salinity, iron oxides, manganese, and electrical conductivity.

There are also a host of issues associated with water in the context of CSG extraction. These are discussed in more detail at f) below.

The flow-on economic and social impacts arising from environmental degradation can be extensive, especially on rural communities living in close proximity to mining operations. The impacts of subsidence, and compensation for landowners suffering impacts to surface infrastructure, are discussed in Part 2 below.

b) Carbon emissions

Australia's per capita greenhouse gas emissions are the highest of any OECD country, and among the highest in the world.¹⁰ Mining, and the subsequent burning of coal, gas and oil, makes a significant contribution to Australia's emission levels,¹¹ which the Australian Government has committed to reduce by 5-25% by 2020.¹² Substantial emissions also arise from the burning of Australian mineral resources overseas.

⁹ NSW Scientific Committee (2005) – *Final Determination. Alteration of habitat following subsidence due to longwall mining - key threatening process listing*. Available at:

<http://www.environment.nsw.gov.au/determinations/LongwallMiningKtp.htm>

¹⁰ Garnaut R (2008) *The Garnaut climate change review: Final report*. Melbourne, Cambridge University Press.

¹¹ Department of Climate Change and Energy Efficiency (2010) *Australian National Greenhouse Accounts. National Greenhouse Gas Inventory 2008*. Department of Climate Change and Energy Efficiency. Canberra.

¹² Australian Government commitment: see

<http://www.climatechange.gov.au/en/government/reduce/national-targets.aspx>

For example, the recently approved continued operation of Ulan Coal Mine will produce 183 million tonnes (Mt) of coal, 81% of which will be exported.¹³ The coal from Ulan Coal Mine burnt domestically will produce 5.2 Mt of carbon dioxide equivalent (CO₂-e) each year – nearly 1% of Australia's annual emissions¹⁴ – and 104 Mt CO₂-e over the mine's life. The emissions from burning the exported coal will be four times the amount (446 Mt CO₂-e) from the coal burnt in Australia.¹⁵

As scientific evidence of human-induced climate change mounts year by year,¹⁶ reforms are needed to ensure that the consideration of greenhouse gas emissions from mining is built into mining law and the NSW planning and assessment process. This would be consistent with the principles of ESD, and help to ensure that decision-makers are presented with the pros and cons of plans and projects from multiple standpoints. At the project level, it would also provide an incentive to mitigate greenhouse pollution from mining activities and assist the transition to a less emissions-intensive economy.

c) *Rehabilitation measures*

The impacts of abandoned and decommissioned mines often have ongoing environmental consequences which go well beyond the life of the mining lease itself. One example of this is the current inability to get derelict fossicking sites remediated in the Lightning Ridge area.

d) *Biodiversity and habitat loss*

Mining operations can impact on biodiversity in a number of ways. The NSW Scientific Committee has listed the alteration of habitat following subsidence due to long-wall mining as a key threatening process¹⁷ because of hydrological impacts on upland swamps, and the threatened species and ecological communities they support.

¹³ Ulan Coal Continued Operations Project Environmental Assessment, Appendix 14, Energy and Greenhouse Assessment 2009.

¹⁴ Approximately 0.9%, based on 2008 figures from Department of Climate Change and Energy Efficiency, 2010. Australian National Greenhouse Accounts, State and Territory Greenhouse Gas Emissions 2008.

¹⁵ Ulan Coal Continued Operations Project Environmental Assessment, Appendix 14, Energy and Greenhouse Assessment 2009.

¹⁶ See, for example, *The Critical Decade* (2011), a report by the Climate Change Commission at <http://climatecommission.gov.au/science-and-impacts/>; Australian Academy of Science, Science Policy – Climate Change, at <http://www.science.org.au/policy/climatechange.html>; Garnaut Review Update Paper 5 (March 2011), at <http://www.garnautreview.org.au/update-2011/update-papers/up5-key-points.html>; NSW Government, "Regional projections and impacts - NSW Climate Impact Profile", (<http://www.environment.nsw.gov.au/climateChange/RegionalImpactsOfClimateChange.htm>).

¹⁷ See <http://www.environment.nsw.gov.au/determinations/LongwallMiningKtp.htm>. A key threatening process is a process that threatens, or could threaten, the survival or evolutionary development of species, populations or ecological communities – in particular if it adversely affects two or more threatened species, populations or ecological communities; or could cause species, populations or ecological communities that are not currently threatened to become threatened.

Clearing of vegetation for mining operations can result in the loss of native vegetation, including listed ecological communities, and loss of habitat for listed threatened species. For example, in a single region southwest of the Goulburn River National Park, three different coal mines will clear a total of 264 hectares of White Box Yellow Box Blakely's Red Gum Woodland¹⁸ – listed as an endangered ecological community under the *Threatened Species Conservation Act*, and as a critically endangered ecological community nationally.¹⁹ The habitat loss caused by land clearing on sites for mining activities is followed by a range of ongoing impacts as operations proceed, including ancillary clearing for subsequent approval variations and modifications.²⁰

e) Cultural heritage concerns

Mining can have significant impacts on Aboriginal cultural heritage in NSW.²¹ The EDO has separately identified a number of problems with current laws regarding cultural heritage protection and this paper does not detail the specific impacts of mining on cultural heritage here.²²

f) Environmental concerns specific to CSG extraction

Throughout the process of coal formation, large quantities of methane-rich natural gas are generated and stored on internal surfaces of the coal. As the coal has large fractures (or cleats) it can store large volumes of methane-rich gas. The extraction and capture of this by-product is now causing many farmers, environmentalists, scientists and communities a great deal of concern.

In order to understand the potential environmental impacts associated with the extraction of CSG, it is firstly necessary to provide a brief overview of the process by which it currently occurs. This is set out in **Figure 2**.

¹⁸ See Wilpingjong Coal Mine Environmental Impact Statement pp 4-51; Moolarben Coal Project Stage 2 Environmental Assessment s 5-86; Ulan Continued Operations Project Director-General's Environmental Assessment Report, Table 7.

¹⁹ Under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

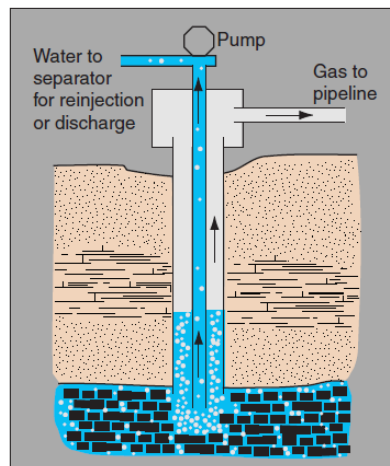
²⁰ See, for example, *Minister for Planning v Moolarben Coal Mines Pty Ltd* [2010] NSWLEC 147.

²¹ For example, see *Williams v Director General of National Parks and Wildlife Service and Ors* [2003] NSWLEC 121 in relation to impacts of a gold mining operation on cultural heritage at Lake Cowal.

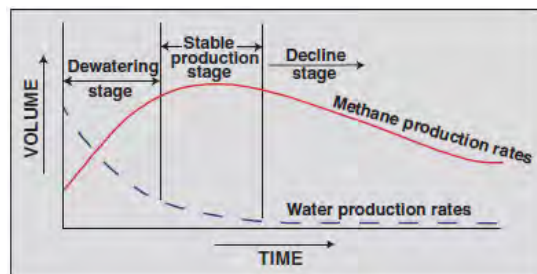
²² See, for example, the EDOs *Reforming NSW Laws for the Protection of Aboriginal Cultural Heritage – Discussion Paper* and the *Caring for Country. A Guide to Environmental Law for Aboriginal Communities*, “Managing Mining” p 29; available at www.edo.org.au. The EDO Aboriginal solicitor is also part of the NSW Office of Environment and Heritage (OEH) Aboriginal Cultural Heritage Working Party looking into comprehensive law reform.

Figure 2 - Overview of CSG extraction²³

Large quantities of methane, carbon dioxide and water are generated during the coal formation process over geological time. Most of the gas and water migrates away, but some methane is retained within the coal seam. Most of this is absorbed onto the coal surface. The remainder exists as free methane in the natural fracture (cleat) system of the seams, or is dissolved within the seam water. Water in the seam traps methane within the coal and has to be drawn off (a process called dewatering) before the methane is extracted:



As the amount of water in the seam decreases, methane production increases:



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In order to increase the amount of gas captured through dewatering, mining companies may use a method called hydraulic fracturing (fracking²⁵). In this process, water is pumped into the coal seam under high pressure to blast (fracture) it open, and keep it open. Sand and a mixture of chemicals are added to the water to assist the fracking process – sand to keep the new fractures open, and chemicals to alter the properties of the water.

²³ Diagram showing the production scheme of gas and water for a typical coal-bed methane well. Available at: <http://pubs.usgs.gov/fs/fs123-00/fs123-00.pdf>.

²⁴ Typical production curves for coal-bed methane well showing relative volumes of methane and water through time. Available at: <http://pubs.usgs.gov/fs/fs123-00/fs123-00.pdf>.

²⁵ Also known as fracture stimulation, fraking, fracking, hydrofracking and fracturing.

The current legislation, technology and environmental impacts related to the extraction of CSG in NSW is characterised by uncertainty. Specifically, there is uncertainty about:

- the baseline data of the natural systems being impacted
- the nature and extent of the potential impacts
- the chemicals used in the process.

The National Water Commission recently released a position statement saying:

The Commission is concerned that CSG development represents a substantial risk to sustainable water management given the combination of material uncertainty about water impacts, the significance of potential impacts, and the long time period over which they may emerge and continue to have effect.²⁶

Furthermore, the Commission identified five areas of potential risk to sustainable water management:²⁷

1. Extraction of large volumes of water, which will impact on connected groundwater and surface water systems
2. Impacts on other water users and the environment due to depressurisation of the coal seam. Impacts include:
 - changes in pressures of adjacent aquifers, and resulting changes in water availability
 - reductions in surface water flows in connected systems
 - land subsidence over large areas, affecting surface water systems, ecosystems, and agricultural lands;
3. Production of large volumes of treated waste water, if released to surface water systems, could alter natural flow patterns and significantly affect water quality, river and wetland health. There is an associated risk that, if water is overly treated, 'clean water' pollution of naturally turbid systems may occur
4. Hydraulic fracturing has the potential to induce connection and cross-contamination between aquifers, with impacts on groundwater quality
5. The reinjection of treated waste water into other aquifers has the potential to change the beneficial use characteristics of those aquifers.

Recent assessments of the impacts of CSG extraction have also identified the need to fill key knowledge gaps, and have emphasised the importance of assessing cumulative impacts at a regional level.²⁸ Given these knowledge gaps, the assessments also

²⁶ National Water Commission (2010) Coal Seam Gas and Water Position Statement. Available at: http://www.nwc.gov.au/resources/documents/Coal_Seam_Gas.pdf

²⁷ National Water Commission (2010) Coal Seam Gas and Water Position Statement (link above).

²⁸ Centre for Waters in the Minerals Industry, Sustainable Minerals Institute 2008 Scoping study: *Groundwater impacts of coal seam gas development – assessment and monitoring*. Available at http://www.industry.qld.gov.au/documents/LNG/Groundwater_impacts_of_coal_seam_gas_developm

highlight the need for transparent assessment processes, and the importance of detailed testing, monitoring and effective adaptive management, to continually increase the understanding of the impacts of CSG on surface and groundwater systems.²⁹

This underscores community concern about extraction techniques, including the potential impacts of hydraulic fracturing (or fraccing) and use of chemicals such as BTEX. As legal regulation and monitoring struggles to keep pace with industry expansion, there is concern that such techniques may be used without sufficient emphasis on a precautionary approach.³⁰

Likewise, communities, environmental groups and the agricultural industry have raised concerns about the environmental impacts of CSG extraction related to the extraction and disposal of large volumes of (often saline) water from aquifers.³¹

Running counter to these concerns, the federal Environment Minister released a report on CSG in South East Queensland in December 2010 stating that the report found that changes to regional groundwater balances “may be relatively minor”.³²

Note: This paper does not go into potential health concerns relating to CSG extraction, but community concerns around land-use conflicts and impacts on agricultural land are discussed further below.

1.2 Environmental assessment for mining and CSG processes

The potential environmental impacts of mining activities can be significant, and as such there should be robust checks and balances in place to ensure that operations are carried out in a manner that minimises or ameliorates the impacts. It is clear that the legislation has been skewed in favour of the efficient extraction of resources, at the expense of comprehensive environmental assessment. Both must be accommodated

[ent.pdf](#); National Water Commission’s 2010 Coal Seam Gas and Water Position Statement; Geoscience Australia & M. A. Habermehl 2010 Summary of advice in relation to the potential impacts of coal seam gas extraction in the Surat and Bowen Basins, Queensland. Available at: <http://www.environment.gov.au/epbc/notices/pubs/gladstone-ga-report.pdf>

²⁹ Ibid. Adaptive management however cannot be seen as a replacement for effective regulatory oversight.

³⁰ It is understood the NSW Government is considering a ban on BTEX (benzene, toluene, ethylbenzene and xylene) from CSG extraction – although it is equally important that new generations of chemicals are rigorously tested and proven safe for use.

³¹ See, for example, the NSW Farmers Association media release “Better checks needed for Coal Seam Gas”, 16 November 2010 at

http://www.nswfarmers.org.au/_data/assets/pdf_file/0018/68013/211.10nr.pdf.

³² See the media release “Impacts of coal seam gas activities on water flows in South East Queensland”, The Hon Tony Burke MP, Minister for Sustainability, Environment, Water, Population and Communities. Available at:

<http://www.environment.gov.au/minister/burke/2010/mr20101210b.html>.

to ensure the long-term sustainability of NSW communities, the environment and the mining industry.

Both the *Mining Act*³³ and the *Petroleum (Onshore) Act*³⁴ pay lip-service to environmental assessments, requiring only that the Minister take into account the need to protect and conserve aspects of the immediate, physical environment in deciding whether to grant an authority to allow mining or petroleum activities. The substantive environmental assessment provisions are found under the *EP&A Act*. State Environmental Planning Policies, such the Major Developments SEPP and the Mining SEPP, largely determine how mining projects are to be dealt with.³⁵

This part of the paper outlines the current environmental assessment requirements for, and issues regarding:

- a) exploration or prospecting
- b) a low-impact exploration licence or low-impact prospecting title
- c) a mining or petroleum lease (with reference to Part 3A and recent changes)
- d) water use and disturbance
- e) modifications

a) Environmental assessment of exploration and prospecting activities

Overview

Development consent is generally not required for exploration, although certain CSG projects are a notable exception.³⁶

³³ Section 237 of the *Mining Act 1992* (NSW).

³⁴ Section 74 of the *Petroleum (Onshore) Act 1991* (NSW).

³⁵ Formally known as the *State Environmental Planning Policy (Major Development) 2005* and the *State Environmental Planning Policy (Mining, Petroleum and Extractive Industries) 2007*, respectively. Note the Major Development SEPP in particular may be amended or replaced in the current overhaul of major project assessment processes.

³⁶ Clause 6 of the Mining SEPP provides:

Development permissible without consent

Development for any of the following purposes may be carried out without development consent:

- (a) mineral exploration and fossicking,
- (b) rehabilitation, by or on behalf of a public authority, of an abandoned mine site,
- (c) mining within a mineral claims district pursuant to a mineral claim under the [Mining Act 1992](#),
- (d) petroleum exploration,
- (e) the construction, maintenance or use (in each case, outside an environmentally sensitive area of State significance) of any pollution control works or pollution control equipment required as a result of the variation of a licence under the [Protection of the Environment Operations Act 1997](#), being a licence that applies to an extractive industry, mine or petroleum production facility in existence immediately before the commencement of this clause.

Note. Development to which this clause applies may require approval under Part 3A of the Act or be subject to the environmental assessment and approval requirements of Part 5 of the Act.

For the CSG exception, see cl 5(1) of the Major Development SEPP.

As a consequence, the environmental assessment obligations for most mineral and petroleum exploration titles fall on the Minister for Planning.³⁷ The Minister has a statutory duty to examine and take into account the likely impacts of any exploration on the environment.³⁸ This is usually done through a short review (called a review of environmental factors, or “REF”).³⁹

If an exploration title is likely to have a significant impact on the environment, then more detailed assessment is needed and the applicant must provide the Minister with an Environmental Impact Statement (“EIS”).⁴⁰ A number of factors must be taken into account when considering the impact of an activity on the environment, such as any transformation of a locality, any environmental impact on the ecosystems of the locality, and any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.⁴¹ This process is not required to be made public.

Environmental assessment is not required for the transfer of exploration licences.⁴²

Analysis

The two main points to emphasise here are that the decision-making process needs to be made more transparent; and that the transfer of exploration licences needs to be brought within the environmental assessment framework. Further issues relating to exploration activities are examined in Part 2.

b) Environmental assessment of low-impact exploration licence or low-impact prospecting titles

Overview

“Low-impact” exploration licences or prospecting titles⁴³ may be granted by the Minister for Resources and Energy where exploration activities are unlikely to have a

³⁷ That is, they are dealt with under Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW).

³⁸ Section 111(1) of the *Environmental Planning and Assessment Act 1979* (NSW).

³⁹ Administratively, the Department has established the following three categories for the assessment of applications for mineral or petroleum exploration:

- Category 1 exploration activities - low-impact exploration activities: these can be carried out without further assessment or approval.
- Category 2 exploration activities - medium-impact activities: these require the applicant to lodge a Surface Disturbance Notice. The Department then assesses the notice and decides whether a Review of Environmental Factors is required.
- Category 3 exploration activities - higher-impact activities: applicant must submit a Surface Disturbance Notice and a Review of Environmental Factors (REF). If the Department finds that there is likely to be a significant environmental impact, then a full EIS is required.

⁴⁰ Section 112 of the *Environmental Planning and Assessment Act 1979* (NSW).

⁴¹ Clause 228(2)(e) of the *Environmental Planning and Assessment Regulation 2000* (NSW) and sections 237-239 of the *Mining Act 1992* (NSW).

⁴² This was confirmed in the recent decision *Caroona Coal Action Group Inc v Coal Mines Australia Pty Ltd & Minister for Mineral Resources* [2010] NSWLEC 1.

significant impact on the relevant land. The Minister determines the types of activities that are unlikely to have a significant impact and which may be permitted by order published in the NSW Government Gazette.⁴⁴

Currently, the types of activities which may be authorised by a low-impact exploration licence or prospecting licence are:⁴⁵

- aerial surveys
- geological and surveying field work that does not involve clearing
- sampling by hand methods
- ground based geophysical surveys that do not involve clearing
- drilling and activities associated with drilling and the establishment of a drill site, that do not involve clearing or excavation,⁴⁶ other than the minimum necessary to establish a drill site,⁴⁷ and
- environmental field work that does not involve clearing.

Analysis

There are no significant law reform issues in this area.

c) *Environmental assessment of mining or petroleum leases*

Overview

Where a mining or petroleum lease is sought in conjunction with development consent under the *EP&A Act*, the Minister will have regard to the environmental assessment prepared under the planning laws. The approval requirements are discussed below.

A mining lease carries the right to prospect and mine those minerals specified in the lease.⁴⁸ In addition, mining lease holders have the right to:

- carry out primary treatment operations designed to separate out the mineral (for example, crushing, sizing, grading, washing and leaching)

⁴³ See section 32B of the *Mining Act 1992* (NSW) and section 45A of the *Petroleum (Onshore) Act 1991* (NSW).

⁴⁴ Section 32C of the *Mining Act 1992* (NSW) and section 45C of the *Petroleum (Onshore) Act 1991* (NSW).

⁴⁵ Section 32C of the *Mining Act 1992* (NSW); Section 45C of the *Petroleum (Onshore) Act 1991* (NSW); Government Gazette No 120 of 15.10.1999, p 10011 and 10012.

⁴⁶ "Excavation" means the use of machinery to dig below the "topsoil horizon" (i.e. the top layer of soil which is generally less than 30cm thick) but does not include: minor levelling of a site to allow a drill rig to operate on a level surface for safety reasons e.g. to provide a safe working area or for fire prevention; or the construction of a small sump for operational purposes: Gazette No 120 of 15.10.1999, p 10011.

⁴⁷ Not including side hill excavation for access or drill pads, as would be necessary on steep slopes; drilling in a watercourse or any stream diversion; cutting down or pushing over trees; clearing of densely vegetated areas; clearing or excavating for the purpose of obtaining access to drill sites: Gazette No 120 of 15.10.1999, p 10011.

⁴⁸ Sections 51 and 73(1)(a) of the *Mining Act 1992* (NSW).

- carry out mining purposes (a range of developments and activities ancillary to mining operations) on the land.

Mining leases can be granted solely in relation to ancillary mining purposes, as long as these are to be carried out in connection with and in the immediate vicinity of a mining lease or mineral claim.⁴⁹ While it is commonplace for these activities to be carried out under a mining lease or mineral claim, there is actually no requirement under the *Mining Act* for a title to be held in order to carry them out. However, development consent or project approval under the *EP&A Act* would still be required.

Most mining activities in recent years have required development consent under Major Project provisions.⁵⁰ For mining this includes:

Development for the purpose of mining that:

- (a) is coal or mineral sands mining, or
- (b) is in an environmentally sensitive area of State significance, or
- (c) has a capital investment value of more than \$30 million or employs 100 or more people.⁵¹

For CSG this covers:

Development for the purpose of drilling and operation of petroleum wells (including associated pipelines) that:

- (a) has a capital investment value of more than \$30 million or employs 100 or more people, or
- (b) is in an environmentally sensitive area of State significance, or
- (c) is in the local government areas of Camden, Wollondilly, Campbelltown City, Wollongong City, Wingecarribee, Gosford City, Wyong, Lake Macquarie City, Newcastle City, Maitland City, Cessnock City, Singleton, Hawkesbury, Port Stephens, Upper Hunter or Muswellbrook, but only if the principal resource sought is coal seam methane.⁵²

The Part 3A Major Project provisions have been repealed, although a number of mines will be dealt with under transitional provisions. In the near future, most mining activities will be dealt with as “State Significant Development” (see below), pending a full review of the planning system.

These two assessment streams (Part 3A transitional provisions and the new system) are dealt with below.

⁴⁹ Section 63(5) of the *Mining Act 1992* (NSW).

⁵⁰ Part 3A of the *Environmental Planning and Assessment Act 1979* (NSW). Designated development (under Part 4) has survived in name only, while small-scale activities might be dealt with by Councils (also covered by Part 4), or exempt under the Mining SEPP (such as for exploration).

⁵¹ See clause 5(1) of the *SEPP (Major Development) 2005*.

⁵² See clause 5(1) of the *SEPP (Major Development) 2005*.

i) Environmental Assessment for Major Mining Projects (Part 3A projects still in the system)

In recent years, most mining projects have been assessed under Part 3A of the *EP&A Act*.⁵³

Part 3A has now been repealed (subject to its proclamation).⁵⁴

However, under transitional arrangements, approximately 44 mines and 3 CSG projects will continue to be dealt with under Part 3A. This is because these mines had already lodged their applications and progressed to the relevant threshold.

The following sets out the law that applies to those 47 mining projects until the matters are finally determined.

The issues that the project proponent must address under a Part 3A environmental assessment are determined by the Director-General of Planning on a case-by-case basis (known as Director-General's Requirements or "DGRs").⁵⁵

Once the proponent has satisfactorily completed the environmental assessment, it must be made publicly available for at least 30 days.⁵⁶

The environmental assessment is then given to the Planning Minister, along with a copy of any report conducted by the Planning Assessment Commission ("PAC"), and any comments by the Director-General or other public authorities. The report does not have to include public submissions, or even an overview of these.

The Planning Minister must then decide whether to approve or refuse the project. Approvals under other laws (such as cultural heritage, native vegetation and water management) are not required.⁵⁷ However, environment protection licences are still required, for example, regarding pollution discharge, dust etc.

Note: At any time, the Planning Minister can request the PAC to conduct a review into an application for a mining or petroleum lease. Upon receiving a report from the PAC, the Planning Minister considers the report's findings and advises the Minister for

⁵³ Mining projects could be brought within Part 3A in two ways. The first way was to fit within the category identified upfront under the *SEPP (Major Development) 2005* (namely, "Mining, petroleum production, extractive industries and related industries"). If the Planning Minister formed the opinion that a project met the criteria in the Major Development SEPP, then the project was assessed under Part 3A. Alternatively, the Minister for Planning could also form the opinion that a specific mining project was of State or regional planning significance: see section 75B of the *Environmental Planning and Assessment Act 1979* (NSW).

⁵⁴ At the time of writing the repeal is still subject to proclamation: see section 2 of the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011* (NSW). This usually occurs 6-8 weeks after assent, which was given on 22 June 2011.

⁵⁵ The *EP&A Act* permits the issuing of Ministerial guidelines that the Director-General must have regard to, but no such guidelines have been made.

⁵⁶ Section 75H(3) of the *Environmental Planning and Assessment Act 1979* (NSW).

⁵⁷ Section 75U of the *Environmental Planning and Assessment Act 1979* (NSW).

Resources whether there are any environmental grounds that would preclude the carrying out of the activities under the lease. Review of a project by the PAC removes objector appeal rights under the *EP&A Act*.⁵⁸

Analysis

The problems with Part 3A – technocratic, top-down and offering limited community involvement – have been well canvassed in recent years.⁵⁹ Although those problems will not be revisited in detail here, suggestions for reforms to restore the legitimacy of planning laws for large-scale projects, including mining, are addressed below (at **1.3**).

ii) Environmental Assessment for State Significant Development (the new system)

In June 2011, the NSW Parliament passed new laws⁶⁰ that:

- repeal Part 3A and introduce a revised system to assess projects, including mining, that are “State Significant Development”
- set out a separate procedure for assessing projects that are “State Significant Infrastructure”,⁶¹ and
- set out the transitional arrangements for projects already within the Part 3A system. (These are understood to include around 47 mining and CSG projects).

The revised system of assessing State Significant Development is expected to commence shortly.

As in Part 3A, the Minister is still the consent authority for State Significant Development. However, the current Minister has indicated he will delegate this power to the PAC.⁶²

⁵⁸ Section 75L of the *Environmental Planning and Assessment Act 1979* (NSW).

⁵⁹ The EDO has written a number of papers, presentations and reports on Part 3A over the past few years. For recent examples see EDO (2010) *The State of Planning in NSW* and Ruddock K (2010) “Why major projects legislation is bad for the environment and public participation - the NSW experience” *Australian Environment Review* Vol 25(9&10) at p 5. These are available on the EDO website at www.edo.org.au. See also Davies R (2007) ‘Public participation in environmental planning decisions: an examination of Part 3A of the EPAA and the Sydney desalination project’ *Polemic* No.16 at pp 23-30.

⁶⁰ The *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW) available via: <http://www.parliament.nsw.gov.au/prod/parlment/nswbills.nsf/V3BillsListCurrent>.

⁶¹ State Significant Infrastructure is defined by what is declared in the new State and Regional Development SEPP (section 115U(2)). However, it has to be infrastructure, or otherwise would have required an EIS under Part 5 of the *EP&A Act*. The Minister can also declare something to be State significant infrastructure (section 115U(4)). Infrastructure is defined to include railways, roads, electricity transmission or distribution, pipelines, ports, wharf or boating facilities, telecommunications, sewerage systems, stormwater management systems, water supply works, waterway or foreshore management activities, flood mitigation works, public parks or reserves management, soil conservation works or other purposes prescribed in the Regulations (section 115T). The Minister’s powers to approve State significant infrastructure are essentially the same as Part 3A and therefore his discretion is very broad and fairly unconstrained by environmental criteria (section 115ZB).

⁶² See Department of Planning and Infrastructure, Policy Statement, *Proposed State Significant Development and Infrastructure classes*, June 2011, available at:

Future mining projects which would formerly have been captured by Part 3A will now fall under the definition of State Significant Development. This can include a class of development (as with mining), or development on a particular site. These classes and sites are declared through a new State Environmental Planning Policy (SEPP)⁶³ to replace the pre-existing Major Development SEPP.⁶⁴ If the Minister wants to "call-in" a project that is not already within the SEPP, advice must be sought from the PAC.⁶⁵

Specifically, the new categories of State Significant Development will include most large mining and petroleum projects (including oil, gas and CSG); as well as mining-related road, rail and transport facilities; other extractive industries; and mineral processing works (among others).⁶⁶

Analysis

Much of the detail of how the environmental impact assessment requirements will work, requirements for public submissions, as well as what will be publicly available in respect of applications is to be set out in the revised *EP&A Regulation*, which is not available at the time of writing.⁶⁷ The analysis below considers what remains similar to Part 3A and what elements appear to have improved.

What remains of Part 3A in the new State Significant Development provisions

The amendments make clear that State Significant Development does not require the same concurrences or consultation requirements for bushfire as other development under Part 4 of the *EP&A Act*.⁶⁸ In fact, the same concurrence removals that were set out in s 75U of Part 3A will continue (although new 'aquifer interference' approval will be needed⁶⁹).⁷⁰ Similarly, the approvals that must be applied consistently with a Part 3A approval remain.⁷¹ This appears to significantly limit the role of other Government agencies in regulating State Significant Development.

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

⁶³ Proposed to be called the State and Regional Development SEPP.

⁶⁴ *State Environmental Planning Policy (Major Development) 2005* ("Major Development SEPP").

⁶⁵ See section 89C of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁶⁶ See Department of Planning and Infrastructure, Policy Statement, *Proposed State Significant Development and Infrastructure classes*, June 2011, available at:

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

⁶⁷ See section 89G of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁶⁸ Section 79B(2A) and 79BA (IB) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁶⁹ That is, approval will be required under the Government's forthcoming aquifer interference legislation, following representations from farming and conservation groups. See sections 89J(1)(g) and 115ZG(1)(g) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷⁰ Through section 89J and section 115ZG of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷¹ See sections 89K (similar to section 75V) and 115ZH of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

Merits appeals continue to be limited, with objector rights limited to those matters that would have been otherwise “designated development” and *do not go to a public hearing* as part of PAC review.⁷² Proceedings similarly must still be challenged within three months of public notice of the approval.⁷³

While the EDO is aware of examples of the PAC process getting better results in relation to mining projects (such as Bickham, Metro Coal and Bulli Coal Seam), two potential problems are:

- the potential for inconsistent decision making by PACs, and
- the unlikely prospect of merits appeal being available for large mining projects – as a result of the Minister delegating his determination authority for State Significant Development to the PAC.

Judicial review rights under s 123 of the *EP&A Act* will continue to apply to State Significant Development applications.⁷⁴

Finally, the Minister still retains significant powers to approve a development that is in conflict with the provisions of an environmental planning instrument (EPI), by considering amendments to that EPI. The Director-General can effectively deal with spot rezonings as part of this process.⁷⁵ Development consent can also be granted if the development is partially prohibited by an EPI. In many cases it will be difficult to find a *complete* prohibition in an EPI. Any spot rezonings to facilitate completely prohibited development will have to go before the PAC.⁷⁶

Improvements over Part 3A

The Minister has less discretion to make a development “State Significant Development”. The Minister has a power to stage development and send parts back to the Council for determination.⁷⁷

Applications for State Significant Development will need to be accompanied by an Environmental Impact Statement (“EIS”), in the form required by the Regulation.⁷⁸ The adequacy of the EIS requirements will depend on the integrity of the Regulation. However, it is understood that:

- the Regulations will require the Director-General to consult with relevant State agencies prior to issuing DGRs for environmental assessment

⁷² Section 98(5) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷³ Section 115ZJ of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷⁴ See Department of Planning and Infrastructure, Policy Statement, *State Significant Development - procedures*, June 2011, at:

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

⁷⁵ Section 89E(5) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷⁶ Section 89E(6) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷⁷ Section 89D of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁷⁸ Section 78(8A) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

- a species impact statement will not be required, although the DGRs will require applicants to assess biodiversity issues.⁷⁹

Perhaps most importantly, there are clearer constraints on the Minister's power to approve or refuse State Significant Developments.⁸⁰ The Minister has a clear discretion to modify and place conditions on developments. Consent cannot be granted if the development is "wholly prohibited" in an EPI but it may be granted if it is partially prohibited. Section 79C (which sets out matters for the decision-maker to consider) also applies to the determination of a development application for State Significant Development.⁸¹

It is understood this will ensure the decision-maker is required to consider:

- EPIs, Development Control Plans, Coastal Zone management plans
- public submissions, the public interest and ecologically sustainable development (ESD)
- the likely impacts of the development including environmental impacts on both the natural and built environment
- social and economic impacts in the locality
- the suitability of the site for the development.

This will provide a clearer basis for decision-making and will mean the considerable body of law on interpreting s 79C that has been developed over the years will apply to State Significant Development consents, including, for example, consideration of cumulative impacts. The decision-maker must consider the findings and recommendations of the PAC in determining a development application.⁸²

In relation to enforcement, some powers of other Government agencies seem to have been restored. For example, there is no restriction on the ability of the Office of Environment and Heritage (OEH) to issue stop work orders under the *National Parks and Wildlife Act 1974* and *Threatened Species Conservation Act 1995*, as well as environment protection notices under the *Protection of the Environment and Operations Act 1997* in relation to a State Significant Development.

The Planning Minister now has a specific power to require a proponent to acquire biobanking credits that are to be retired as part of the proposal, and to comply with the conditions of a biobanking statement. In particular, the Minister has the power to

⁷⁹ See Department of Planning and Infrastructure, Policy Statement, *State Significant Development - procedures*, June 2011, at:

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

⁸⁰ See section 89E of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁸¹ Section 89H of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

⁸² Section 80(6) and (7) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

make them retire biodiversity credits that will restore or improve the biodiversity values of the development.⁸³

d) Regulation of water use and disturbance

Overview

The two primary laws that control the use of water in NSW are the *Water Management Act 2000* (WMA 2000) and the *Water Act 1912* (Water Act). The WMA 2000 regulates the water use from those rivers and aquifers where water management plans have commenced. The Water Act continues to operate in all other areas, and is gradually being phased out.⁸⁴

The objectives of the WMA 2000 highlight a clear intention to ensure that water is used sustainably. Specifically, the Act provides for the water of the State to be managed to “protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality”.⁸⁵ Furthermore, the objectives are to apply the principles of ecological sustainable development⁸⁶ and provide for the sustainable and integrated management of the water sources of the State.

Generally, any use of surface water (i.e. from river systems) for mining activities should require a water access licence,⁸⁷ a water management work approval⁸⁸ and a water use approval.⁸⁹ Furthermore, any excavation, interference with or the use of aquifers⁹⁰ (i.e. groundwater) should require an activity approval.⁹¹

However, for large mines approved under Part 3A of the *EP&A Act* works approvals under the Water Act or the WMA 2000 are not required.⁹² This has constrained the ability of the WMA 2000 to achieve its objectives in relation to mining.

⁸³ Sections 89I and 115ZC of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW). Biobanking is a NSW Government scheme for biodiversity impact offsetting, established in 2008 under Part 7A of the *Threatened Species Conservation Act 1995*.

⁸⁴ The Water Act now has only a limited role in regulation and it will be repealed in its entirety once the whole of the *Water Management Act 2000* (NSW) becomes operational.

⁸⁵ Section 3(b) of the *Water Management Act 2000* (NSW).

⁸⁶ Section 3(a) of the *Water Management Act 2000* (NSW).

⁸⁷ Section 60A of the *Water Management Act 2000* (NSW).

⁸⁸ Section 90 of the *Water Management Act 2000* (NSW).

⁸⁹ Section 89 of the *Water Management Act 2000* (NSW).

⁹⁰ For example, mine dewatering and the use of bores for groundwater monitoring will require an activity approval.

⁹¹ Section 91 of the *Water Management Act 2000* (NSW).

⁹² Section 75U of the *Environmental Planning and Assessment Act 1979* (NSW). The following typical water use approvals under the *Water Management Act 2000* (NSW) ceased to apply: a water use approval under section 89, a water management work approval under section 90 or an activity approval under section 91.

Analysis

When it comes to mining and water use, the extraction of coal and gas has been prioritised, while the laws designed to regulate and protect the State's water quantity and quality have been overridden and inadequate. The subordination of water quality and quantity in favour of mining was evident under Part 3A, which removed the concurrence power for certain approvals. The inadequacy of the regulatory framework is demonstrated by the Cadia goldmine near Orange where "sleeper licences" were reactivated for the use of the mine, threatening the water security of the area.

Another consistent problem observed from community feedback and analysis of approval conditions, is the lack of enforcement of any breaches; and the lack of regulation as to the amount of water being taken or interfered with by open cut operations. Calga Quarry is a good example where there was unauthorised interference with groundwater and no enforcement action taken.⁹³ Compliance and enforcement are discussed further in Part 3.

e) Modification of approvals

Overview

Ongoing modifications and variations of project approvals are not subject to the same level of scrutiny as the original approval.

Analysis

A range of problems exist with relevant planning and assessment processes (especially under Part 3A-approved projects), and it is difficult for the community to track modifications of development applications, environment protection licences and conditions. The Government provides information to the community, such as the steps of the approval process,⁹⁴ however this does not include post-commencement steps to help the community engage in processes relevant to modifications and variations.

Variations to licences can have significant environmental impacts. For example, in December 2010, Ulan Coal Mine's Environmental Protection Licence was varied to permit emergency discharges of water resulting from extreme weather conditions.⁹⁵ The licence variation allowed discharges to take place from 20 December 2010 to 30 March 2011, and permitted the mine to significantly increase the salinity of the Goulburn River. The salinity trigger level in the Goulburn River downstream of the mine was 1200µS/cm, more than three times the acceptable level of salinity under the

⁹³ Umwelt (2009) Independent Environmental Compliance Audit: Calga Sand Quarry 2005-2008 at p 3.3. Available online at:

http://quarry.rocla.com.au/1029384756/10780/R01_-_Rocla_Calga_Audit_20081_V2%20FINAL.pdf

⁹⁴ For example, see Department of Primary Industries flowchart, available at: <http://www.dpi.nsw.gov.au/minerals/resources/mineral/development-coordination/mining-project-development>.

⁹⁵ See EPL394 Licence issued 17/12/10.

ANZECC water quality guidelines.⁹⁶ No trigger level was set for any other pollutant (for example, total suspended solids).

1.3 Reforms to protect the environment

It is clear that mining and CSG activities have the potential to degrade the environment unless impacts are properly avoided, mitigated or ameliorated. At present, there are insufficient checks and balances built into the decision-making framework. Indeed, the legislative framework for mining and planning in NSW has been replete with examples of broad Ministerial or other discretion. This approach is not conducive to positive environmental outcomes, nor to fair and balanced decision-making.

This part discusses the following key areas for reform:

- a) Decision-making frameworks and ESD
- b) Strategic planning
- c) Cumulative impacts
- d) Best practice environmental provisions under mining laws.

a) *Decision-making frameworks and ESD*

Mining activities have long been privileged over other land uses and the protection of the environment. In fact, this privileged relationship is reflected in the objects of the *Mining Act*:

to encourage and facilitate the discovery and development of mineral resources in New South Wales, having regard to the need to encourage ecologically sustainable development⁹⁷ [emphasis added]

There is an abiding need to reverse this relationship, so that mining takes place within a sustainable framework. Put another way, mining needs not to take place where it is inconsistent with ESD.

There are a range of legislative mechanisms that can be used to help facilitate this paradigm shift and properly account for the State's environmental assets.

First, legislation must require that decisions about mining, natural resource management and planning must take place within the bounds of sustainability. This takes the legislative recognition of ESD beyond merely "having regard to" "encouraging" or "promoting", as is currently found under NSW law. Rather, it would require that:

⁹⁶ ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Table 3.3.3.

⁹⁷ Section 3A of the *Mining Act 1992* (NSW).

- the purpose or objective of the legislation clearly stipulates that social, cultural, economic matters etc must be managed within sustainable boundaries
- decision-makers under the legislation must exercise their powers and functions so as to achieve that purpose or objective.

The *Resource Management Act 1991* (NZ) provides an example.⁹⁸ Its purpose is to promote the sustainable management of natural and physical resources. More specifically, the definition of “sustainable management” – and the word “while” – are instructive as to how the legislation is designed to work:

sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.⁹⁹ [emphasis added]

Decision-makers are given the mandate to achieve the Act’s purpose, and to this end are required to recognise and provide for matters such as the protection and preservation of the coast, natural landscapes, native vegetation and habitats, heritage and customary rights;¹⁰⁰ as well as to have regard to matters such as the ethic of stewardship, the intrinsic value of ecosystems and the benefits of renewable energy.¹⁰¹

As a *second* way to promote a more ESD-centred framework, and to clarify the decision-makers’ role, legislation should bind discretion through specific criteria or benchmarks that the decision-maker must be satisfied have been met before granting approval.¹⁰² At present, as Bates has observed, “environmental control within the mining legislation tends to be fairly vague, or non-existent”.¹⁰³ This is certainly the case in NSW. For example, where a decision is to be made under mining law on whether to approve an exploration application, there is merely a requirement to “take into

⁹⁸ This paper is not making claims about the success or otherwise of this legislation. Rather, it is using it as a legislative model.

⁹⁹ Section 5 of the *Resource Management Act 1991* (NZ).

¹⁰⁰ Section 6 of the *Resource Management Act 1991* (NZ).

¹⁰¹ Section 7 of the *Resource Management Act 1991* (NZ).

¹⁰² A similar approach would be to establish “legislative limits” – whereby if an action is going to have a specified, unacceptable impact on the environment, an executive decision-maker will not have the power or jurisdiction to allow it to proceed: see Bullen E (2006) “Legislative limits on environmental decision-making: The application of the administrative law doctrines of jurisdictional fact and ultra vires”, *Environmental and Planning Law Journal*, Vol.23(4) at pp 265-280.

¹⁰³ Bates G (2010) *Environmental Law in Australia* (7th edition) Lexis Nexis Butterworths at pp 404-5.

account” the need to protect natural resources.¹⁰⁴ Similarly, there is an open discretion as whether environmental studies are done, conditions imposed or mining sites rehabilitated.¹⁰⁵ For major mining projects, the planning legislation has also given Ministers wide discretion in recent years.

The “maintain or improve” test is one useful approach used in NSW (albeit in a variety of contexts and structures).¹⁰⁶ For instance, this test is in place for the management of native vegetation in rural areas. The test, applied through a scientific methodology, ensures that the clearing of native vegetation does not take place unless it demonstrably has a neutral or positive environmental outcome. It imports a high, objective and scientifically-based threshold before clearing is allowed.¹⁰⁷

Third, legislation must better activate the principles of ESD to achieve the overall goal of sustainability. For example, the precautionary principle has been elevated in the decision-making framework at both the planning and project approval stage:

- under the *Great Barrier Reef Marine Park Act 1975*, where the Marine Park Authority was required to have regard to the protection of World Heritage values of the Marine Park and to the precautionary principle in preparing Plans of Management.¹⁰⁸
- under the *Environment Protection and Biodiversity Conservation Act 1999*, where the Minister must take account of the precautionary principle in making certain decisions under the Act.¹⁰⁹

However, a better standard would be to require a decision-maker to be satisfied that the decision was consistent with the precautionary principle. The elevation of the precautionary principle is particularly important in the context of land use conflicts around mining, agriculture, water security and the protection of the environment. It is also important in ensuring that the proponent bears the onus of showing that substances (such as BTEX – benzene, toluene, ethylbenzene and xylene) and processes (such as fracking) or their successors will not cause environmental harm.

Moreover, the principle of full cost accounting should be a key tool at both the strategic planning as well as assessment and approval stages. Accounting for some land uses, including ecological services (like biodiversity protection, crop growth,

¹⁰⁴ See section 237(1) of the *Mining Act 1992* (NSW) and section 74(1) of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁰⁵ See section 237(2), 238 and 239 of the *Mining Act 1992* (NSW) and section 74(2), 75 and 76 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁰⁶ For example, see sections 126O and 126P of the *Threatened Species Conservation Act 1995* (NSW) (for biocertification); section 127ZL of the *Threatened Species Conservation Act 1995* (NSW) (for biobanking) and clause 26 of the *Native Vegetation Regulation 2005* (NSW) (for native vegetation).

¹⁰⁷ See clause 26 of the *Native Vegetation Regulation 2005* (NSW).

¹⁰⁸ This provision used to be section 39Z but is no longer in force. Rather, the Park now has a Zoning plan. This Plan takes account of the World Heritage values of the Marine Park and the principles of ecologically sustainable use (a vaguer standard) in having regard to its objects.

¹⁰⁹ See section 391 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

carbon sequestration and salinity prevention), is not yet used to full potential.¹¹⁰ The introduction of a more integrated approach to the granting and rejecting of approvals based on economic, environmental, and social factors is needed to develop a more sustainable approach to land use, including mining, in NSW. Mechanisms such as the proper valuation of the environment and ecological services can greatly assist decision-making in this regard.

Similar considerations apply to other principles of ESD. Properly enlivened under a clear legislative framework, they have the potential to deliver clear environmental benefits. The polluter pays principle is an obvious example in the area of mining law.

Fourth, legislation should ensure that mining and planning decisions are informed by the best possible science and a full consideration of alternatives. For example, for significant mining proposals, the Minister or decision-maker should be required to consider a report and recommendations from an independent scientific commission that assesses the mine against broad environmental, social and economic criteria. Transparent reasons should also be required if the decision is at odds with the expert advice.

Fifth, legislation should include a clear legislative requirement that greenhouse gas emissions and climate change are relevant considerations in decisions at both the strategic planning and project approval level.

Sixth, adopt a whole-of-government approach to decision-making, through requiring appropriate concurrences for large-scale mining projects. These would include concurrences in relation to water approvals, cultural heritage, native vegetation, and coastal protection. Despite the latest overhaul of major projects assessment, we are yet to see a systemic acceptance of concurrences as a check on unsustainable developments.

Finally, allow merit appeal rights for a range of decisions. The benefits of merits review have been identified as including: enhancing the quality of reasons for decisions; providing a forum for full and open consideration of issues of major importance; increasing the accountability of decision-makers; clarifying the meaning of legislation; ensuring adherence to legislative principles and objects by administrative decision-makers; focusing attention on the accuracy and quality of policy documents, guidelines and planning instruments; and highlighting problems that should be addressed by law reform.¹¹¹

¹¹⁰ See, for example, Wentworth Group of Concerned Scientists (2008) *Accounting For Nature: A Model for Building the National Environmental Accounts of Australia*; Cork SJ and Shelton D (2000) "The Nature and Value of Australia's Ecosystem Services: A Framework for Sustainable Environmental Solutions", CSIRO Wildlife and Ecology, Canberra, Queensland Environment Conference, May 2000. Available at: http://www.ecosystemservicesproject.org/html/publications/docs/Qld_Env_Conf_Paper.pdf.

¹¹¹ Preston, B. and Smith, J, "Legislation Needed for an Effective Court" *Promise, Perceptions, Problems and Remedies. The Land & Environment Court and Environmental Law 1979-1999*, NCC Conference Proceedings, December 1999.

A 2010 report by the Independent Commission Against Corruption (ICAC) similarly found that the opportunity for appeal rights is an important check on executive government's use of such discretionary decision-making. Put another way, even though only a small percentage of matters go to appeal, the fact that the right exists helps to ensure decisions are properly made throughout the system.

b) Strategic planning

Mining is, in a very real sense, in competition with other land uses such as food production and tourism:

While mining is a temporary land use... it is an invasive process. The arrival of mining in a locality, whilst boosting the local economy... directly conflicts with the pre-mining land uses creating a competition for land use.¹¹²

There is a recognised need to ensure that decisions made about mining are integrated as part of best practice decision-making. The various environment, natural resource and planning Acts and regulations that apply to mining in NSW have not been applied in an integrated or strategic way in recent years. Instead, what has occurred is a disintegration between the different legislative instruments, with the focus instead being on streamlining and expediting approval processes.¹¹³ The approach to water management outlined above is a good example of the lack of integration (see 1.2(d)). It has been suggested that NSW requires a much more integrated mode of operating:

these impacts cannot be managed by the *Water Management Act* alone... [I]ntegrated strategic planning through the range of approvals that a coal mine needs ... including planning and environmental impact approval, a mining lease and a licence to discharge water, is essential for the effective management of water resources in New South Wales.¹¹⁴

The importance of strategic planning is amplified in an economic climate where coal mining and CSG activities are increasing significantly.¹¹⁵

NSW is currently in the process of developing a policy for addressing land use conflicts in the context of mining.¹¹⁶ The Government's Strategic Regional Land Use Policy has

¹¹² White S (1999) 'Compensation for Mining in Australia' *AMPLA Yearbook 1999* at pp 324-355.

¹¹³ For example, see Part 3A of the *EP&A Act*.

¹¹⁴ Webb R (2008) 'Water management and the coal mining industry in New South Wales', *Environmental and Planning Law Journal* Vol 25(4) at pp 272-283.

¹¹⁵ As the former NSW Government's *Coal and Gas Strategy Scoping Paper* (March 2011) noted, "there has been a significant increase recently in coal seam gas exploration... This exploration could result in a substantial increase in coal seam gas production over the next 25 years."

¹¹⁶ Queensland is also going down this path: see Queensland Department of ERM (2010) "Strategic cropping land: Policy and planning framework", Discussion Paper. Available at: <http://www.dip.qld.gov.au/croppingland>. May 2011 update available at: <http://www.derm.qld.gov.au/land/planning/strategic-cropping/index.html>.

committed to “triple bottom line” assessment in strategic land use planning; improved monitoring and compliance; and tougher interim assessment measures.¹¹⁷

Notwithstanding this purported focus, it is clear that the tenor of the Policy privileges agricultural protection, as opposed to environmental protection (despite their interdependence). Environmental protection and full cost accounting for ecological values must be seen as key pillars of any “triple bottom line” approach to planning law. The effectiveness of the interim measures will depend on how they are given ongoing effect; how they fit with State Significant Development reforms (replacing Part 3A of the *EP&A Act*); and any further government announcements or proposals.

Properly done, the strategic planning process should:

- identify competing land uses and values between mining and other uses, (including the environment, environmental services, tourism and agriculture)
- undertake baseline studies of impacts, including independent water studies to collate cumulative impacts data
- take into account potential cumulative impacts
- integrate economic, social and environmental factors in decision-making
- establish “no-go” areas of NSW where mining operations are prohibited, based on an assessment of environmental, water supply, social and agricultural value criteria
- provide for comprehensive rights of public participation.

Ideally, of course, all this would be done over a period of time sufficient to engage properly with the community and commence appropriate studies where knowledge gaps exist etc. Rather, the government only imposed a 60-day moratorium on exploration licences while conservation and farming groups also advocated for moratoria of differing ilks.¹¹⁸

From a legal standpoint, a moratorium on new applications makes sense while the strategic land use plans are completed.¹¹⁹ Furthermore, during this period the strategic planning process should be embedded in the mining/planning legislation, with clear criteria and outcomes, together with guaranteed rights of community involvement and review. It is recognised that some strategic planning processes are already underway. This is not, however, an impediment. Rather, the lessons learnt from the process can

¹¹⁷ See NSW Liberals & Nationals policy, “Strategic Regional Land Use...”, at <http://grip.org.au/documents/doc-47-strategic-regional-land-use-policy---document.pdf>. See also the Hon Brad Hazzard MP, Minister for Planning and Infrastructure, media release, “NSW Government Adopts Rigorous Strategic Approach to Regional Land Use Planning”, 21 May 2011, available at <http://www.nsw.liberal.org.au/news/planning/nsw-government-adopts-rigorous-strategic-approach-to-regional-land-use-planning.html>

¹¹⁸ See, for example, NSW Farmers’ Association (2010) Framework for Sustainable Development – Planning for Agriculture and Extractive Industries and the private members Bill, Coal Seam Gas Moratorium Bill 2011 brought forward by Jeremy Buckingham, Greens MLC.

¹¹⁹ For an example of where legislation empowers a Ministerial moratorium pending completion of management plans see s 392C of the *Great Barrier Reef Marine Park Act 1975* (Cth).

be fed into the template for future processes, while the plans can be recognised under law at their completion.

c) Cumulative impacts

An ongoing concern in areas impacted by mining and CSG operations is that cumulative impacts of multiple projects in one area have not been adequately assessed or managed. In fact, to date there has been no overarching strategic planning framework by which this can be done (as discussed above). The net result is an ad hoc, patchwork approach with adverse impacts on the ground, such as where three mines are proposed for a State forest in the Boggabri area; and in Camberwell a study found no cumulative impacts despite a proposed mine being surrounded by mining operations on all sides.¹²⁰

A more fundamental concern, as new technologies emerge and industries develop, is that the cumulative impacts are not understood. For example, CSG is expected to extract 7500 gigalitres from groundwater systems in the next 25 years (with current extraction from the Great Artesian Basin being 540 gigalitres per year).¹²¹ The effects of this are not known.

To best deal with cumulative impacts from a legal perspective, the following is required.

First, the assessment of cumulative impacts needs to be focussed at the strategic planning stage to head off impacts and land use conflicts (as discussed above). This process is currently being embarked upon but needs to be based on the best available science.

Second, the need to consider cumulative impacts needs to be a factor for consideration before decision-makers when deciding whether to approve a project (for example, under section 79C of the *EP&A Act*).

Third, there needs to be tighter controls over modifications and variations.

Finally, there needs to be ongoing monitoring of environmental impacts during the operation of a mine, as well as comprehensive rehabilitation and monitoring once operations close. Without these measures, a true picture of cumulative impacts cannot be developed, nor strategies developed.

¹²⁰ Available on the Department of Planning website at:
<http://www.planning.nsw.gov.au/Development/Independentplanningassessmentandreviewpanels/tabid/70/language/en-US/Default.aspx#camberwell>.

¹²¹ Randall A (2011) "Novel Intentions, Risk and Precaution – Towards a Risk Management Framework for Coal Seam Gas". Paper delivered at ACCEL Conference, Regulating Coal Seam Gas: Implications, for Energy, Food and Water Security, 17 June 2011.

d) Best practice environmental provisions under mining laws

It is clear that amendments need to be made to both the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* to ensure better environmental standards are adhered to throughout the exploration, production and rehabilitation processes.

i) Broader definition of environmental impact

Both the *Mining Act* and the *Petroleum (Onshore) Act* contain provisions on the need to consider the immediate, physical environment. These provisions refer to taking into account the need to protect “the flora, fauna, fish, fisheries, and scenic attractions, and the features of Aboriginal, architectural, archaeological, historical or geological interest in or on the land over which the authority or claim is sought.”¹²² This should be improved in two ways. First, the legislation should be amended to include provisions requiring mining activities to take into account off-site environmental impacts, as the impact of mining is often significant outside this area. Furthermore, the provisions should be based on a broader definition of the “environment”, and not simply cover certain elements.

ii) Recognise the importance of previous environmental performance of the titleholder

Another proposal to ensure better environmental practice is the inclusion of provisions into legislation that require decision makers to take into account the previous environmental performance of a title holder when determining whether to renew a title, or grant a new title. Such provisions should also include consideration of the environmental performance of parent and sister companies operating in NSW, elsewhere in Australia, and also overseas.

Legislation that puts mining companies on notice that their current environmental practices will directly impact upon the likelihood of obtaining future titles, has the potential to drive more positive environmental outcomes. We would suggest the adoption of the “fit and proper person” test, as used in the *Protection of the Environment Operations Act 1997*(NSW). This is an established and clear legal test, and provides a clear deterrent to non-compliance.

iii) Improve mine rehabilitation practices

The *Mining Act* currently provides the rehabilitation conditions following mining that may be attached on a discretionary basis.¹²³ To improve environmental outcomes, the legislation needs to be amended to ensure that rehabilitation of mine sites is a standard mandatory practice that forms an integral part of the overall mining process. The legislation should also be amended to ensure that rehabilitation operations are completed to specified standards in the opinion of an independent accredited auditor. These standards and criteria by which rehabilitation efforts are to be measured, should

¹²² See sections 237(1) and 238 of the *Mining Act 1992* (NSW) and section 74 of the *Petroleum (Onshore) Act 1991* (NSW).

¹²³ Section 239(1) of the *Mining Act 1992* (NSW).

be set out in accompanying regulations. Finally, as noted above, the consequences of off-title impacts should also be addressed in rehabilitation conditions to ensure that the full range of potential environmental impacts is adequately addressed.

iv) Introduce statutory requirements for environmental reporting

There is a need for both the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* to introduce statutory requirements for mandatory annual environmental reporting. Such reporting should be “triple bottom line” reporting and of standard that is in line with those developed under the Global Reporting Initiative (GRI) – *Mining and Metals Sector Supplement Guideline*.¹²⁴ This would greatly assist in increasing transparency to ensure operations are being carried out in accordance with the environmental conditions imposed on any mining operation.

v) Clarification of definitional issues

The *Petroleum (Onshore) Act* applies to all petroleum, helium and carbon dioxide existing in a natural state on or below the surface of any land in the State.¹²⁵ Petroleum is defined to mean any naturally occurring hydrocarbon, or mixture of hydrocarbons, whether in gaseous, liquid or solid state. The Act therefore covers CSG and its extraction.

However, there is potential for overlap between certain petroleum and mining titles, namely:

- exploration licences, assessment leases or production leases for CSG under the *Petroleum (Onshore) Act*
- exploration licences, assessment leases or mining leases for coal under the *Mining Act* because coal is a mineral under the *Mining Act* (even though it is strictly a hydrocarbon).¹²⁶

This overlap needs to be clarified to ensure it is clear which environmental assessment processes apply, to avoid any potential for inconsistent treatment and/or “forum shopping”.

¹²⁴ Available at: <http://www.globalreporting.org/guidelines/sectors/mining.asp>.

¹²⁵ Section 6(1) of the *Petroleum (Onshore) Act 1991* (NSW).

¹²⁶ Blake Dawson – Resources & Energy Law Update. Available at: http://www.blakedawson.com/Templates/Publications/x_article_content_page.aspx?id=57791&terms=coal+seam+gas.

1.4 Recommendations on Environmental Planning and Assessment Issues

Recommendation 1: Strengthen the legislative framework for mining and planning by requiring that decisions under this legislation must take place within sustainable bounds whereby:

- the purpose or objective of the legislation clearly stipulates that social, cultural, economic matters etc must be managed within sustainable boundaries
- decision-makers under the legislation must exercise their powers and functions so as to achieve that purpose or objective.

Recommendation 2: Support this legislative framework through specific laws that:

- prescribe specific objective, criteria that the decision-maker must be satisfied of before approval is granted, (such as a “maintain or improve” test)
- enliven the principles of ESD in decision-making
- ensure that mining and planning decisions are informed by the best possible science and a full consideration of alternatives
- include a clear legislative requirement that greenhouse gas emissions and climate change are relevant considerations in decisions at both the strategic planning and project approval level
- adopt a whole-of-government approach to decision making, through requiring appropriate concurrences for large-scale mining projects
- allow merit appeal rights for a range of decisions.

Recommendation 3: Undertake a strategic planning process across NSW which:

- identifies competing land uses and values between mining and other uses,
- undertakes baseline studies of impacts
- takes into account potential cumulative impacts
- integrates economic, social and environmental factors in decision-making
- establishes “no-go” areas of NSW where mining operations are prohibited
- provides for comprehensive, guaranteed rights of public participation.

Recommendation 4: Place a moratorium on new applications while the first wave of strategic land use plans are completed.

Recommendation 5: While the moratorium is in place, include the strategic land use planning process in the mining/planning legislation, with clear criteria and outcomes, together with guaranteed rights of community involvement and review.

Recommendation 6: Recognise strategic land use plans under the law.

Recommendation 7: Introduce a suite of measures to address cumulative impacts, including:

- focussing at the strategic planning stage (as discussed above)
- requiring the consideration of cumulative impacts as a factor for consideration before decision-makers when deciding whether to approve a project
- tighter controls over the process for modifying original mining approvals and better scrutiny of licence transfers
- ongoing monitoring of environmental impacts during the operation of a mine, as well as comprehensive rehabilitation and monitoring once operations close.

Recommendation 8: Review the *Mining Act* and the *Petroleum (Onshore) Act* to embed best practice environmental provisions in the legislation, including:

- a broader definition of environmental impact
- recognising the importance of previous environmental performance of the titleholder
- improving mine rehabilitation practices
- introducing statutory requirements for environmental reporting
- clarification of definitional issues.

Part 2: Community Issues

Mining projects in regional areas can provide benefits to local communities, including employment. However, the introduction of mining operations into an area can also cause a great deal of concern amongst community members, and potentially long term social and environmental disruption. This part discusses:

- public participation and consultation, and its limitations in the decision making process (2.1)
- the compensation process for mining and CSG extraction in NSW, the lack of landowner rights and the inadequacy of compensation (2.2), and
- reforms needed to improve public participation and address community issues (2.3).

2.1 Public participation and consultation on mining in NSW

Undoubtedly one of the greatest concerns around mining in NSW is the lack of public participation and consultation throughout the process, from exploration to extraction and remediation. This is despite public participation being recognised as an essential part of decision making in the *Environmental Planning & Assessment Act* (“EP&A Act”), other Australian legislation and internationally. Principle 10 of the *Rio Declaration on Environment and Development* (1992), to which Australia is a signatory, provides that:

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Effective public participation plays an important role in the environmental decision making process, and community confidence in that process.¹²⁷ Indeed, one objective of the *EP&A Act* is “to provide increased opportunity for public involvement and participation in environmental planning and assessment”.¹²⁸ Despite this objective, the *EP&A Act* underwent a series of reforms (most notably the introduction of Part 3A in 2005) that all but stripped local communities of the opportunity to effectively participate in decision making. The repeal of Part 3A together with the full review of

¹²⁷ For example see: EDO submission to the NSW Government concerning reforms to the NSW planning system. Available at:

http://www.edo.org.au/edonsw/site/pdf/subs08/reforming_planning_nsw080107.pdf.

¹²⁸ Section 5 (c) of the *Environmental Planning and Assessment Act 1979* (NSW).

the NSW planning system represents an important opportunity to put in place robust, transparent and equitable reforms to guarantee genuine public participation in mining approval processes.

There are three primary reasons that community participation is important.

First, community participation helps to ensure that better decisions are made, as the views of all stakeholders are taken into account. Community involvement gives decision makers valuable information about the public's preferences so they can play a part in the decisions about projects, policies or plans. This leads to improved decision making because the community's knowledge is incorporated into the calculus of the decision.¹²⁹

Second, public participation can gain the buy-in of the community as people are more likely to accept decisions if they have been given a proper opportunity to be heard.

Third, and related to the above, public participation helps to ensure fairness, justice and accountability. In relation to fairness and access to justice, certain groups' needs and views can often go unrecognised through normal government processes. Such needs may only appear on the radar once an open public participation process occurs. This is particularly the case for environmental and Aboriginal cultural heritage interests. In relation to accountability, public involvement is essential to the workings of a democratic system of government:

If a planner can say, 'we held a dozen public hearings and reviewed hundreds of comments and everyone who wanted to had a chance to say his piece,' then whatever they decide to do is, at least in theory, democratic and therefore legitimate.¹³⁰

Unfortunately, the reality for mining approval in NSW is that the system places minimal emphasis on public participation and consultation throughout the decision making process. Community members can feel alienated, confused and let down by this system.

Relevant to community interaction, there are three basic consents required throughout the mining and CSG extraction process:

- an **exploration licence** for coal¹³¹ or CSG¹³² allows the holder to prospect on the land specified for the substance specified in the licence.
- an **assessment lease** (though not an essential step) is designed to retain rights over an area where a significant coal or CSG deposit has been identified, but which may not be commercially viable yet. Assessment leases allow the lessee

¹²⁹ Innes J and Booher D *Public Participation in Planning: New Strategies for the 21st Century*, Working Paper 2000-07, University of California at p 6.

¹³⁰ Ibid at p 7.

¹³¹ Section 29(1) of the *Mining Act 1992* (NSW).

¹³² Section 29 of the *Petroleum (Onshore) Act 1991* (NSW).

to prospect¹³³ on the land, and assess the minerals or CSG¹³⁴ as specified in the lease.

- a **mining lease** for coal or other minerals permits the lessee to prospect, carry out primary treatment operations to separate minerals (crushing, washing, leaching etc), and carry out any mining purposes on that land.¹³⁵ Similarly, a **production lease**¹³⁶ (for CSG and other petroleum) grants the holder the exclusive right to conduct petroleum mining operations in and on the land.¹³⁷

This part of the paper discusses the opportunities for public participation and community consultation in five areas:

- a) Exploration activities
- b) Access arrangements with landholders
- c) Assessment leases
- d) Extraction and petroleum production
- e) Implications of Part 3A.

a) Exploration activities¹³⁸

Overview

The *Mining Act* itself does not require proponents to directly notify landholders or other stakeholders who might be affected by an application for a mineral exploration licence. Rather, departmental guidelines require that applicants publish notice of their application in a newspaper before a licence is granted.¹³⁹

¹³³ Under the definition section of the *Mining Act 1992*, 'prospect' means to carry out works on, or to remove samples from, land for the purpose of testing the mineral bearing qualities of the land, but does not include any activity declared not to be prospecting by a regulation under section 11A or by a declaration made under such a regulation.

¹³⁴ Section 33 of the *Petroleum (Onshore) Act 1991* (NSW).

¹³⁵ Section 73 of the *Mining Act 1992* (NSW).

¹³⁶ Section 41 of the *Petroleum (Onshore) Act 1991* (NSW).

¹³⁷ In addition the holder has the right to construct and maintain on the land such works, buildings, plant, waterways, roads, pipelines, dams, reservoirs, tanks, pumping stations, tramways, railways, telephone lines, electric powerlines and other structures and equipment as are necessary for the full enjoyment of the lease or to fulfil the lessee's obligations under it.

¹³⁸ As noted above an exploration licence gives a person the exclusive right to prospect for minerals or petroleum in the area covered by the licence. An exploration licence for minerals can be granted for an initial term of up to five years (six years for petroleum), and may be renewed.

¹³⁹ The advertisement must be placed in the "The Land" newspaper and in another newspaper where circulation covers the biggest population base of interested parties where the exploration licence application has been lodged. See: <http://www.dpi.nsw.gov.au/minerals> for newspaper notice guidelines. See also: Department of Primary Industries (DPI), Application Form and Instructions for Completing Application for an Exploration Licence. DPI and the Office of Resources and Energy are Divisions of the Principal Department of Trade and Investment, Regional Infrastructure & Services (see www.dpi.nsw.gov.au/aboutus).

Similarly, the *Petroleum (Onshore) Act* does not require proponents to directly notify landholders or other stakeholders affected by an application for a petroleum exploration licence. Again, Departmental guidelines require applicants to publish notice of such an application in a newspaper¹⁴⁰ before a licence is granted.¹⁴¹

In May 2011, the new NSW Government announced interim policies affecting exploration licences, including certain public exhibition requirements. The policies announced included:

- a 60-day moratorium on granting new coal, CSG, and petroleum exploration licences in NSW;
- a requirement that all such licence applications be exhibited for public comment;
- public notification of Guidelines to inform the assessment of development impacts on strategic agricultural land;
- a requirement that all new coal, CSG, and petroleum extraction applications must be accompanied by an Agricultural Impact Statement.

Analysis

There are a number of problems with the current framework for community participation in relation to exploration licences.

Publication of exploration licence applications in a newspaper is insufficient given the potential impacts on affected land. The lack of opportunity to participate also means that local knowledge about critical issues (such as aquifer location) is not captured or fed this into the decision making process.¹⁴² Finally, an exploration licence is currently presented to the community as a *fait accompli*, as NSW mining laws do not currently allow a relevant landowner to challenge the merits of a decision to grant such a licence.

It is submitted that opportunities for informed consultation and participation need to be increased, including:

- direct notification of potentially affected landowners

¹⁴⁰ The advertisement must be placed in the “The Land” newspaper and in another newspaper where circulation covers the biggest population base of interested parties where the exploration licence application has been lodged. See: http://www.dpi.nsw.gov.au/minerals/titles/guidelines_for_diagrams for newspaper notice guidelines.

¹⁴¹ Note that the application forms for a petroleum exploration licence and assessment lease do not specify this requirement. The Department of Primary Industries confirmed that it also requires notice of petroleum applications to be published in a newspaper.

¹⁴² The existing process is contrary to best practice community consultation and public participation procedures. For example, see Productivity Commission research report, *Performance Benchmarking of Australian Business Regulation: Planning, Zoning and Development Assessments* (April 2011). One of the seven leading practices identified by the Commission was “Engaging the community early and in proportion to likely impacts”, with an emphasis on strategic planning and ongoing engagement (see pp xxxvii-xxxviii and xlv).

- proper, guaranteed public exhibition periods
- merits review of exploration licence decisions.

It is difficult to assess the efficacy of the interim exploration measures introduced by the government in May 2011. It is certainly the case that they propose steps towards greater consultation.

b) Access arrangements with landholders

Overview

Mining proponents must have an access arrangement with the landholder before mineral or petroleum exploration activities can commence (under a licence or assessment lease). Failure to do so is a breach of the *Mining Act* and the *Petroleum (Onshore) Act*. To obtain an access arrangement, the holder of an exploration licence must first serve a notice on each landholder.¹⁴³

Access arrangements can be written or oral and may provide for:¹⁴⁴

- periods during which access may be permitted
- parts of the land on which prospecting may be undertaken and means of access
- kinds of operations that may be carried out
- compensation to be paid to the landholder (see 2.2 below)
- manner of resolving disputes
- manner of varying the agreement
- any other matter the parties may wish to include.

If a landholder does not agree to an access agreement, the *Mining Act* and the *Petroleum (Onshore) Act* enable a licence holder to secure an access arrangement through arbitration.¹⁴⁵ If either party does not agree with the arbitrator's interim determination on land access, they may apply to the arbitrator for reconsideration, or for variation of any draft access arrangement the arbitrator prepared.¹⁴⁶ The arbitrator must continue the hearing and provide a final determination. If the arbitrator determines that a licence holder should have access to the land concerned, the

¹⁴³ Section 142 of the *Mining Act 1992* (NSW). A recent situation occurred whereby Schmidt J in the NSW Supreme Court upheld an appeal against a decision by the Mining Warden's Court that the interpretation of "landholder" was to extend to include the registered mortgagees of the relevant parcel of land. As the mining company in this instance had not therefore contacted all "landholders" therefore the access agreement was held to be invalid. As a result of this decision, some 8,000 access arrangements were potentially invalid, and so the *Mining and Petroleum Legislation Amendment (Land Access Bill) 2010* (NSW) was introduced and provided retrospective arrangements to validate those potentially invalid leases.

¹⁴⁴ Section 141 of the *Mining Act 1992* (NSW); section 69D of the *Petroleum (Onshore) Act 1991* (NSW). Access arrangements under the *Petroleum (Onshore) Act 1991* (NSW) may also contain provisions for protection of the environment while carrying out prospecting activities. Also, we note there may be certain areas on a property that cannot be accessed, for example, 200m from a house.

¹⁴⁵ Part 8, Division 2 of the *Mining Act 1992* (NSW); Part 4A of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁴⁶ Section 150 of the *Mining Act 1992* (NSW); section 69M of the *Petroleum (Onshore) Act 1991* (NSW).

arbitrator must also determine a final access arrangement.¹⁴⁷ Each party to arbitration is to bear their own costs, and the licence holder also needs to pay the arbitrator's costs.¹⁴⁸

Should either party be "aggrieved"¹⁴⁹ by the arbitrator's final determination regarding an access arrangement for prospecting titles, the *Mining Act* and *Petroleum (Onshore) Act* provide avenues for review (of those determinations and other disputes¹⁵⁰) in the Land and Environment Court.

Analysis

The EDO notes there has been a shift in the way access arrangement disputes are dealt with. Previously, relatively informal proceedings were held in the Mining Warden's Court, and legal representation was not often utilised. However, since April 2009, all proceedings relating to mining disputes must now be commenced in the Land and Environment Court.¹⁵¹ This requirement for a more formal setting is appropriate given the ramifications that mining activities can have on an area; and it recognises that access disputes can involve environmental concerns. However, as court proceedings have potentially extensive costs implications, there are concerns regarding the financial capacity of landholders to object to access arrangements through this avenue. It is noted that this process is intended to be a cost effective option, with no requirement for representation, hearings in regional areas, and each party to bear their own costs.

Currently, NSW mining laws are geared towards facilitating exploration activities and ensuring access arrangements are established. Therefore, if arbitration occurs, in practice the determination often relates to what conditions will be attached to access arrangements, as opposed to whether an access arrangement should be granted at all. There needs to be a recognition that access arrangements are unacceptable in some pre-determined areas, highlighting the need for proper strategic planning, including the development of no-mining zones (as discussed in **Part 1**). There is also a need for clear protocols to direct mining companies in their dealings with landowners; and protections for landowners in access negotiations given their unequal bargaining power.¹⁵²

¹⁴⁷ Section 151 of the *Mining Act 1992* (NSW); section 69N of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁴⁸ Section 152 of the *Mining Act 1992* (NSW); section 69O of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁴⁹ Section 155 of the *Mining Act 1992* (NSW).

¹⁵⁰ Section 293 of the *Mining Act 1992* (NSW); section 115 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁵¹ All civil proceedings allocated to a newly created class 8 of the Land and Environment Court's jurisdiction (heard and determined by a judge of the Court, one or more Commissioners, or a judge assisted by one or more Commissioners). All criminal proceedings have been allocated to the existing Class 5 of the court's jurisdiction and are determined by a judge.

¹⁵² For example, the EDO is aware of one Gloucester landowner who was offered a very small amount of compensation for drilling when the Minerals Council had published a rate 2-3 times what was on offer.

c) Assessment leases

As noted, an assessment lease¹⁵³ for minerals or petroleum gives an exclusive right to prospect and assess any mineral or petroleum deposit on the land.¹⁵⁴ The Minister may grant an assessment lease under the *Mining Act* for a maximum period of five years¹⁵⁵ and up to six years under the *Petroleum (Onshore) Act*. These terms can be extended if the lease is renewed.¹⁵⁶ In terms of notification, both Acts provide that applications for assessment leases are to be published in a newspaper.¹⁵⁷

d) Extraction and petroleum production

Overview

Once a mineral or petroleum deposit is identified, the holder of an exploration title is required to obtain a mining lease (for minerals) or a production lease (for petroleum/CSG) before they are entitled to extract the resource.¹⁵⁸

The mining company must notify those landholders whose land will be covered by a mining lease within 21 days of applying.¹⁵⁹ Furthermore, before granting a mining lease, the Minister must publish a notice¹⁶⁰ in a State-wide newspaper that a mining lease application has been received.¹⁶¹ The same notification provisions apply where the Minister has sought tenders for mining leases. For petroleum or CSG, a proponent must publish a notice in a State-wide newspaper that they have lodged, or intend to lodge, an application for a production lease.¹⁶²

The *Mining Act* entitles landholders to object to an application for a mining lease or a request for tenders on the basis that the land is agricultural land.¹⁶³

Any member of the community can lodge an objection to a mining lease, subject to certain circumstances. Unfortunately, from a community standpoint, these

¹⁵³ Assessment leases are granted by the Minister(s) administering the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* respectively.

¹⁵⁴ Section 47 of the *Mining Act 1992* (NSW); section 33 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁵⁵ Section 45 of the *Mining Act 1992* (NSW).

¹⁵⁶ Sections 31 and 35 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁵⁷ Applications must be published in a newspaper circulating in the vicinity of the area over which the lease is sought and in a newspaper circulating generally in the State: section 36 of the *Petroleum (Onshore) Act 1991* (NSW); and section 30A of the *Mining Act 1992*.

¹⁵⁸ Section 5 of the *Mining Act 1992* (NSW); section 7 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁵⁹ Schedule 1, clause 21(3) of the *Mining Act 1992* (NSW).

¹⁶⁰ There are variations on notifications if the mine falls within the category of designated development, as additional provisions for the public to be notified of designated developments will apply. In addition, some forms of integrated development are also advertised development. This means that the consent authority must give written notice, as soon as practicable after receiving the development application, by: publishing a notice in a local newspaper; giving written notice to persons who own or occupy adjoining land; and notifying any other public authorities that may have an interest in the development application.

¹⁶¹ Schedule 1, clause 24(3) of the *Mining Act 1992* (NSW).

¹⁶² Section 43 of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁶³ Schedule 1, clause 22 of the *Mining Act 1992* (NSW).

circumstances may remove objection rights for the vast majority of mining lease applications.¹⁶⁴ The Minister must take into consideration any objection in deciding whether to grant a mining lease.¹⁶⁵

Without the written consent of the occupier, an exploration licence, assessment or mining lease cannot be granted for the surface of land within 200 metres of a person's home, 50 metres of a garden, or on land on which there is a "significant improvement".¹⁶⁶ Similar provisions exist for CSG activities.¹⁶⁷ It is important to note that these provisions only relate to operations on the surface of land, and make no reference to those underground operations that may cause equally, or more serious, environmental impacts.

Although the legislation provides a number of landholder rights with regards to objecting to mining operations on their land, landholders are often unaware of these rights or how to go about exercising them. For most landowners, the first time they receive a notification of mining activity occurring in or around their land will be their first exposure to such activities. As such, landowners need to be informed of the processes and options available to them – with sufficient time to assess their options and exercise their rights.

Analysis

Reforms are needed to ensure that in practice, landowner consent means free, prior and informed consent. One good suggestion to increase the understanding of individuals directly impacted by mining activities, is to introduce standard procedures at the point where a landowner is notified of a mining lease (for example, a standard notification template). This would highlight the rights and responsibilities of landowners and mining companies, and the sections of the *Mining Act 1992* or *Petroleum (Onshore) Act 1991* that require the landowner's consent to be obtained. Providing comprehensive information to landowners before granting a mining lease should be a shared responsibility between the Government and mining companies. A mandatory notification template, developed by the Department following

¹⁶⁴ For example, there is no right if development consent is required for the mining operation and the person has already had an opportunity to object during the development assessment process: see Schedule 1, clauses 26(1) and 28 of the *Mining Act 1992* (NSW).

¹⁶⁵ Schedule 1, clause 27 of the *Mining Act 1992* (NSW).

¹⁶⁶ See sections 31, 49 and 62 of the *Mining Act 1992* (NSW).

¹⁶⁷ Section 72 of the *Petroleum (Onshore) Act 1991* (NSW).

(1) The holder of a petroleum title must not carry on any prospecting or mining operations or erect any works on the surface of any land:

(a) on which, or within 200 metres of which, is situated a dwelling-house that is a principal place of residence of the person occupying it, or

(b) on which, or within 50 metres of which, is situated any garden, vineyard or orchard, or

(c) on which is situated any improvement (being a substantial building, dam, reservoir, contour bank, graded bank, levee, water disposal area, soil conservation work, or other valuable work or structure) other than an improvement constructed or used for mining or prospecting operations, except with the written consent of the owner of the dwelling-house, garden, vineyard, orchard or improvement (and, in the case of the dwelling-house, the written consent of its occupant).

consultation, would help to level the playing field and provide more certainty for all parties.

e) Public Participation for Major Mining Projects (Part 3A projects still in the system)

Overview

Part 3A has now been repealed (subject to its proclamation).¹⁶⁸ However, under transitional arrangements, around 40 coal mines, 4 gold mines and 3 CSG projects that had already been lodged will continue to be dealt with under Part 3A. The opportunities for public involvement in these 47 projects are as follows.

First, once the proponent has satisfactorily completed the environmental assessment, it must be made **publicly available** for at least 30 days.¹⁶⁹ Following this period, the Director-General must give the assessment to the Planning Minister, along with a copy of any report by the PAC; and any comments by the Director-General or other public authorities.¹⁷⁰ The report to the Minister does not, however, have to include public submissions, or even an overview of them.¹⁷¹

Second, prima facie, **merit appeals** would exist for some of these mining projects.¹⁷² However, the Planning Minister has already stated that these will be dealt with by the PAC.¹⁷³ This extinguishes the right to a merits appeal.

Third, **judicial review** rights would also be available if there were grounds.¹⁷⁴

Analysis

Part 3A only survives for a limited number of projects. However, the lessons learnt live on. The introduction of Part 3A evidenced a fundamental shift in the former Government's attitude towards community involvement in mining decisions. It sent the message that public participation was seen as an administrative and bureaucratic burden, rather than a process that can add value to decision-making, foster public trust and promote ESD. That message was at odds with best practice and community sentiment. Moreover, the community felt disempowered, and this erosion of spirit extended to the planning system as a whole.

¹⁶⁸ At the time of writing the repeal is still subject to proclamation: see section 2 of the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011*. This usually occurs 6-8 weeks after assent, which was given on 22 June 2011.

¹⁶⁹ Section 75H(3) of the *Environmental Planning and Assessment Act 1979* (NSW).

¹⁷⁰ Section 75H of the *Environmental Planning and Assessment Act 1979* (NSW).

¹⁷¹ Section 75I of the *Environmental Planning and Assessment Act 1979* (NSW).

¹⁷² See 75L(1)(d) of the *Environmental Planning and Assessment Act 1979* (NSW).

¹⁷³ See the media release from the Hon Brad Hazzard Returning Planning Powers to Local Communities (12 May 2011).

¹⁷⁴ The exception would be for critical infrastructure projects, although these have never been declared for mining projects: see 75T of the *Environmental Planning and Assessment Act 1979* (NSW).

In the EDO's view, planning provisions for major mining projects need to ensure genuine participation under legislation by measures such as:

- requiring the Minister or decision-maker to have regard to public submissions when determining whether to approve a project
- allow full merits appeal rights and judicial review rights for objectors and proponents for large-scale projects (notwithstanding the involvement of bodies such as the PAC)
- the need to give reasons for the decision
- allow the public to apply to the Land and Environment Court for stop work orders, interim protection orders, and notices regarding threatened species, heritage and pollution in relation to major projects.

The review of the planning system will provide an opportunity to fully address these issues more generally. Importantly also, the process by which the government engages with stakeholders under the review is likely to have a direct bearing on the legitimacy of the new planning system.

f) Public Participation for Major Mining Projects (the new system)

Detail of requirements for public submissions, as well as what will be publicly available in respect of State Significant Development applications, is to be set out in the revised EP&A Regulation (not currently written).¹⁷⁵

Subject to the content of the Regulation, the public participation processes do not appear to be much improved. Applications and accompanying documents must go on public exhibition for at least 30 days (which may extend to 45 days over school holidays¹⁷⁶).¹⁷⁷ There is a right to copy and inspect these documents during that time. Objections must be in writing and set out the grounds of the objection.¹⁷⁸ The public availability of documents is the same as under Part 3A.¹⁷⁹

In relation to landowners' consent, it is understood that the EP&A Regulation will *not* require such consent for applications for mining or petroleum production projects; or where the application relates to a project on land with multiple owners.¹⁸⁰ Generally Part 4 of the *EP&A Act* would require the landowner's consent to carry out projects on their land.

¹⁷⁵ See section 89G) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

¹⁷⁶ See Department of Planning and Infrastructure, Policy Statement, *State Significant Development - procedures*, June 2011, at:

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

¹⁷⁷ Section 89F of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

¹⁷⁸ Section 89F(3) of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

¹⁷⁹ Section 115Z of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

¹⁸⁰ Department of Planning and Infrastructure, Policy Statement, *State Significant Development - procedures*, June 2011, at:

<http://www.planning.nsw.gov.au/DevelopmentAssessments/Majorprojectassessments/tabid/203/language/en-US/Default.aspx>

As noted previously, merits appeals continue to be limited, with objector rights limited to those matters that would have been otherwise “designated development” and *do not go to a public hearing* as part of PAC review.¹⁸¹ Proceedings similarly must still be challenged within three months of public notice of the approval.¹⁸²

2.2 Compensation framework for mining and CSG extraction in NSW

This section outlines the scope of compensation for land impacts in NSW and the way compensation is determined, then analyses the adequacy of these provisions and processes.

a) Ambit of compensation

Overview

There are three main laws dealing with compensation for mining activities in NSW. Under the *Mining Act* and *Petroleum (Onshore) Act*, compensation is available to landowners affected by activities under mining leases and petroleum production leases. If the damage is caused by mine subsidence, compensation is payable under the *Mine Subsidence Compensation Act 1961* (NSW) (“MSC Act”).

i) Mining Act 1992

Under the *Mining Act*, once an exploration licence, assessment lease or mining lease is granted, the landholder “becomes entitled to compensation for any compensable loss suffered, or likely to be suffered, by the landholder as a result of the exercise of the rights conferred”.¹⁸³ Furthermore, on the grant of a mining lease, a landholder whose land may be affected by the mining activity becomes entitled to compensation for any loss caused by the mining or access arrangements.¹⁸⁴ The compensable loss is narrowly defined in the legislation, to mean loss caused or likely to be caused by:

- a. damage to the surface of land, to crops, trees, grasses or other vegetation (including fruit and vegetables) or to buildings, structures or works, being damage which has been caused by or which may arise from prospecting or mining operations, or
- b. deprivation of the possession or of the use of the surface of land or any part of the surface, or
- c. severance of land from other land of the landholder, or
- d. surface rights of way and easements, or

¹⁸¹ Section 98(5) of the *Environmental Planning and Assessment Act 1979* (NSW).

¹⁸² Section 115ZJ of the *Environmental Planning and Assessment (Part 3A Repeal) Act 2011* (NSW).

¹⁸³ Sections 263 to 265 of the *Mining Act 1992* (NSW).

¹⁸⁴ Section 265(1) of the *Mining Act 1992* (NSW).

- e. destruction or loss of, or injury to, disturbance of or interference with, stock, or
- f. damage consequential on any matter referred to in paragraph (a)–(e).

but does not include loss that is compensable under the *Mine Subsidence Compensation Act 1961* (NSW).¹⁸⁵

ii) *Petroleum (Onshore) Act 1991*¹⁸⁶

Similar factors regulate the availability of compensation under the *Petroleum (Onshore) Act*.¹⁸⁷ Part 11 of the *Petroleum (Onshore) Act* provides that the holder of a petroleum title is “liable to every person having any estate or interest in any land injuriously affected, or likely to be so affected, by reason of any operations conducted”.¹⁸⁸ Importantly, the *Petroleum (Onshore) Act* provides that landowners are not entitled to compensation where the operations “do not affect, and are not likely to affect, any portion of the surface of the land”.¹⁸⁹

iii) *Mine Subsidence Compensation Act 1961* (“MSC Act”)

The *MSC Act* can assist landholders seeking compensation as a result of subsidence (damage from land collapses or sinks) due to underground mining operations. Subsidence under the *MSC Act* means subsidence due to:

- (a) the extraction of coal or shale, or
- (b) the prospecting for coal or shale carried out within a colliery holding by the proprietor of the holding, and includes all vibrations or other movements of the ground related to any such extraction or prospecting (whether or not the movements result in actual subsidence), but does not include vibrations or other movements of the ground that are due to blasting operations in an open cut mine and that do not result in actual subsidence.¹⁹⁰

¹⁸⁵ Sections 262 and 264 of the *Mining Act 1992* (NSW).

¹⁸⁶ The focus of this section of the paper is community issues and so the analysis will focus on compensation between petroleum title holders and landowners, as opposed to the compensation provisions that exist between petroleum title holders.

¹⁸⁷ Section 109 provides (1) If compensation is assessed under this Act by the Land and Environment Court, the assessment is to be of the loss caused or likely to be caused:

- (a) by damage to the surface of land, and damage to the crops, trees, grasses or other vegetation on land, or damage to buildings and improvements on land, being damage which has been caused by or which may arise from prospecting or petroleum mining operations, and
- (b) by deprivation of the possession or of the use of the surface of land or any part of the surface, and
- (c) by severance of land from other land of the landholder, and
- (d) by surface rights of way and easements, and
- (e) by destruction or loss of, or injury to, or disturbance of, or interference with, stock on land, and
- (f) by damage consequential on any matter referred to in paragraphs (a)–(e).

¹⁸⁸ Section 107(1) of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁸⁹ Section 107(3) of the *Petroleum (Onshore) Act 1991* (NSW).

¹⁹⁰ Section 4 of the *Mine Subsidence Compensation Act 1961* (NSW).

The *MSC Act* provides for compensation or repair services where infrastructure is damaged by these limited categories of subsidence (analysed further below).

b) How compensation is determined

Overview

The *Mining Act 1992* sets out the typical process for compensation in NSW. The *Mining Act 1992* stipulates that a mining title leaseholder and the landholder should attempt to reach agreement about appropriate compensation, which must be recorded in writing.¹⁹¹ Where agreement cannot be reached within 28 days of the mining lease taking effect, either party can apply to the Land and Environment Court to resolve the issue.¹⁹² Work cannot begin under a mining lease until the issue of compensation has been resolved.¹⁹³ The *Mining Act* and *Mining Regulation* set out the procedure for assessing how much compensation is payable based on aspects of the land.¹⁹⁴ However, the compensation payable “must not exceed” the *market value* of the land, and any buildings, structures or other works on the land.¹⁹⁵

Analysis of the compensation framework in NSW

There are a myriad of issues arising out of the compensation regime for mining activities in NSW. This paper will briefly look at just three related issues.

First, compensation is a blunt tool that cannot properly assess the variety of circumstances and motivations of landowners. As Amey has noted:

It may be that in the areas sought to be drilled and mined, a price can be placed on the value of the crops destroyed, or prevented from being planted but it may well come to being very close to a case where no amount of compensation can put the farmer in the position he was in prior to mining.¹⁹⁶

¹⁹¹ Section 265(2) of the *Mining Act 1992* (NSW).

¹⁹² Section 265(3) of the *Mining Act 1992* (NSW); Clause 74, *Mining Regulation 2010* (NSW).

¹⁹³ Section 265(4) of the *Mining Act 1992* (NSW).

¹⁹⁴ Sections 271-278 of the *Mining Act 1992* (NSW); Clauses 74 of the *Mining Regulation 2010* (NSW). Under the Regulation, cl 74(2), the manner of assessing compensation is by making an assessment that has regard to:

- (a) the nature, quality, area and particular characteristics of the land concerned,
- (b) the proximity of the land to any building, structure, road, track or other facility,
- (c) the purpose for which the land is normally used,
- (d) the use of the land that is approved under any development consent that is in force in respect of the land.

¹⁹⁵ Section 272(1)(c) of the *Mining Act 1992* (NSW).

¹⁹⁶ Amey P (2009) ‘Legal processes involving the balancing of landholders’ rights against the right of access of miners to private land’ *The Australian Resources and Energy Law Journal* No 28(3) at pp 385-394.

The following letter from a landowner to the EDO demonstrates a similar point firsthand:

From the time the Exploration Licence is granted, the lives of affected landholders are effectively placed in limbo. They face many unanswerable questions about what might happen and how best to deal with the situation, for example, should they commit to capital improvements or will this be a waste of money. A great sense of uncertainty and anxiety is ever present.

The most insidious impact is the fact that the landholders' capital investment in their properties is now frozen. Proximity to a coal mine and the possible future development of a coal mine does not attract buyers. Real estate agents freely admit that properties in these areas are not able to be sold. The mining company is the only buyer in the market – and it won't be making an offer until it is good and ready.

What of those landholders who need to sell because they become too old or infirm to manage a rural property?

What of those landholders whose life plan anticipated selling this property within the next decade?

What of those landholders who bought with a view to spending the rest of their lives here? If they are eventually forced to sell, how can they be recompensed for the years spent improving their properties and nurturing the land? No-one can give these years of their lives back to them

Second, the ambit of compensation in NSW is severely limited. In fact, NSW has been seen to have the most complex and restrictive compensation regime and that its 'compensable loss' concept is the narrowest.¹⁹⁷

The key restrictions under the laws governing compensation for coal and CSG impacts are: firstly, compensation is limited to impacts that occur on the surface of the land; and secondly, it is limited to the boundaries of the property. A similar issue arises for mine subsidence, where subsidence is defined only in relation to the extraction of and prospecting for coal and shale.

The impacts of CSG highlight these limitations. Many of the concerns associated with the prospecting for and extracting CSG do not necessarily cause visible damage to the surface of the land. Instead they may have impacts on underground systems, such as disturbance to aquifers and water flows (see Part 1). In NSW, much of the CSG and coal extraction and exploration activities are located in areas of high environmental and/or agricultural value. Any disturbances to aquifers and environmental flows can have

¹⁹⁷ White S (1999) 'Compensation for Mining in Australia', *AMPLA Yearbook 1999* at pp 324-355.

serious ramifications. Similarly, any subsidence due to CSG prospecting and extraction is not currently covered under the MSC Act because of its limited terms.¹⁹⁸

A less restrictive compensation regime would go some way to resolving the problems above. For example, extending compensation beyond surface impacts would mirror mining rights and thus be more equitable. Also, compensation could extend to loss of amenity, loss of opportunity or profits or decreased market value, as in other jurisdictions.¹⁹⁹ Extended in these ways, the NSW mining compensation regime would be both more just, and begin to reflect landowners' expectations.

The *third* major compensation issue is that there will often be a clear bargaining disparity between powerful mining companies and individual landowners. In limited circumstances, compensation or land acquisition may be a condition of development consent. In other cases, the outcome may reflect the power differential and negotiating experience more than a just agreement. Once mining operations have commenced, the balance tips even further in the mining companies' favour – amenity may be reduced and the mining company may be the only interested buyer. This places landowners in a very weak bargaining position.

To redress this imbalance, landowners need a robust and transparent compensation regime with additional protections similar to Commonwealth land acquisition laws. For example, the *Land Acquisition Act 1989* (Cth) takes a more expansive and equitable approach, where the value of the land is taken to be the *greater of*:

- the market value on the day of acquisition; and
- the “net acquisition cost” of the new land to be purchased.

Significantly, the “net acquisition cost” includes the likely cost of buying a new area of land, *plus* expenses incurred by closing operations and reopening them on the new land, *minus* any substantial saving gained by relocation.²⁰⁰

As a further measure to improve the equity of compensation negotiations in NSW, mine-affected landowners should be allowed to apply to the Land and Environment Court to arbitrate compensation disputes, and undertake valuations (as is already done in class 3 of the Court's jurisdiction). If the landowner wishes to stay on their land throughout the mining process, the Court should also be able to determine the conditions attached to the mining approval (through class 8 of the Court's jurisdiction, which deals with mining matters).

¹⁹⁸ The EDO has also been made aware, by anecdotal evidence, of problems in proving that specific mining activities caused cracks and damage to property.

¹⁹⁹ See, for example, section 3 of the *Mineral Resources Development Act 1995* (Tas) and section 281(4)(d) of the *Mineral Resources Act 1989* (Qld).

²⁰⁰ See section 58 of the *Land Acquisition Act 1989* (Cth). The formula for net acquisition cost (“CA + E – FI”) is at subs 58(3). “CA” is the cost, or likely cost to the person in acquiring the interest in a new area of land. “E” is the amount of expenses incurred, or likely to be incurred, as a result of ceasing to use the old (acquired) land and commencing use of the new land for the same purpose. Finally “FI” is the present value of any real and substantial saving gained by the person as a result of the relocation.

2.3 Recommendations on Public Participation and Community Issues

Recommendation 9: Ensure comprehensive, guaranteed rights of community consultation and public participation in the NSW *Mining Act* and *Petroleum (Onshore) Act*, including for large-scale projects. Requirements should include:

- direct notification of exploration licence applications to potentially affected landowners
- merits review of exploration licence decisions
- adequate public consultation periods, and timely notification of mining activities generally
- improved land access provisions that ensure the free, prior and informed consent of landowners – assisted by a template outlining landowners' rights and mining company responsibilities (for example, in relation to access, exploration, approval, and land acquisition).
- seeking consent to underground mining activities (not just surface activities) very close to homes, gardens and significant improvements.

Recommendation 10: Adopt mandatory community consultation and participation processes as part of revised planning law provisions for large-scale projects. The new assessment and approval process should include:

- effective community engagement and transparency in strategic State-wide land use planning processes
- a requirement that the decision maker must take into account public submissions when assessing a mining project application
- provision for merits appeal rights and judicial review rights for objectors and proponents
- open standing rights to apply to the Land and Environment Court for stop work orders, interim protection orders and notices regarding threatened species, heritage and pollution in relation to mining projects.

Recommendation 11: Establish a robust and transparent compensation regime for mine-affected landowners, with similar protections to Commonwealth and other land acquisition laws. In particular:

- recognise underground and broader impacts, not only impacts on the land surface
- extend compensation to loss of amenity, loss of opportunity or profits or decreased market value
- where a mining company acquires the land, the valuation needs to compensate landowners for the true cost of resuming the same activities elsewhere.

Recommendation 12: Enable the jurisdiction of the Land and Environment Court to:

- arbitrate compensation disputes
- undertake valuations (per Class 3 of the Court's jurisdiction)
- impose conditions on the mining approval (per Class 8 of the Court's jurisdiction).

Part 3: Compliance and Enforcement of Mining Activities

3.1 Key issues regarding compliance and enforcement

Considerable community concern about mining in NSW revolves around the inadequacy of compliance and enforcement actions.

The *first* aspect of this relates to the inadequacy of approvals and licence conditions, as well as levels of monitoring. Regular and comprehensive monitoring of mining operations is a precondition of effective compliance and enforcement. However, levels of monitoring are low, with only seven inspections of coal mines in 2009-10 (out of 63 operating mines in NSW). There is also a lack of independent monitoring of complaints made to mine operator and pollution hotlines, while current approval conditions average the noise and dust impacts across days, weeks or months, masking spikes in pollution. Monitoring efforts should also extend to independently auditing mine rehabilitation management; the accuracy of predictions made in environmental assessment reports; the statement of commitments made when conditions are negotiated; and Subsidence Management Plans.²⁰¹ Currently, there is no clear follow up on these issues. All these aspects undercut the efficacy of enforcement efforts, as well as their legitimacy in the public eye.

Second, there is a broad concern about lack of enforcement action. It is only recently that the Department of Planning has had a dedicated enforcement unit, despite the advent of the *EP&A Act* over 30 years ago. In fact, it was not until 2008 that a case involving the failure to comply with a condition of approval by a coal mine was before the Land and Environment Court. In 2009-10, the Department undertook 7 inspections/audits and 18 enforcement actions in relation to coal mines. Of the latter, 12 were warning letters and 3 were negotiated outcomes (over 80%). There was one order and one prosecution. These figures are, on their face, at odds with community inquiries to the EDO. Through its Telephone Inquiry Line, the EDO is aware of a multitude of breaches and instances of poor compliance with conditions, as noted by local communities but seemingly overlooked or not prioritised by regulatory authorities.²⁰² The process for getting a complaint recorded can also be complex and time consuming, with the onus on the community to demonstrate the bona fides of the complaint. One Camberwell resident spent six years of registering complaints to get results in relation to early start times for the local mine.

Finally, there is a perceived lack of proportionality between the seriousness of the offence and the penalty. This is, of course, difficult to demonstrate empirically due to the myriad of mitigating and aggravating factors that inform sentencing decisions. Nevertheless, cases such as *Minister for Planning (NSW) v Coalpac Pty Limited* and *Minister for Planning v Hunter Quarries Pty Ltd* bring into question the deterrence

²⁰¹ In this latter respect, see Muir K (2010) *The impacts of coal mining on the Gardens of Stone*, Colong Foundation for Wilderness.

²⁰² For example, ongoing noise offences at Wilpinjong mine.

functions that underpin sentencing. Both these cases involved substantial exceedences of approved levels of production. However, the penalties imposed by the Court would arguably not serve to deter further exceedences either by the companies involved or, more generally, across the industry. Further details on these cases are found in the case studies below.

To fully assess the risks of non-compliance with mining approval conditions, the adequacy of enforcement, and resourcing of mining compliance and enforcement divisions – the EDO recommends an independent audit be conducted by the NSW Auditor-General and/or the NSW Ombudsman. Precedents for such environmental audits can be found in the Auditor-General’s 2002 and 2006 performance audits of native vegetation protection.²⁰³

Case studies on penalties imposed by the Land and Environment Court:

Minister for Planning (NSW) v Coalpac Pty Limited [2008] NSWLEC 271

In this case, Coalpac Pty Limited (Coalpac) carried out development for an approved project in a manner that was contrary to one of the conditions of the approval. That condition was that the mine would produce no more than 350,000 tonnes of saleable coal in a year. During the approval year in question, the amount of saleable coal produce was 635,277 tonnes – about 80% more than permitted. Justice Biscoe agreed with the prosecution that:

“The original development application for production of up to 350,000 tonnes per annum was such that the environmental assessments which were carried out in relation to dust, noise and traffic impacts to support it were based upon the premise that that would be the maximum extraction from the mine in a year.”²⁰⁴

As such, the illegal operations were carried out in a way that would obviously have a greater environmental impact than was initially approved. Moreover, the Court held that Coalpac had “acted quite intentionally over a significant period of time... in committing this offence, in order to derive substantial financial advantage”.²⁰⁵ The Court also noted that the defendant’s actions had caused “damage to the integrity of the planning system”.²⁰⁶

The Court imposed a fine of \$200,000, acknowledging that “the defendant is quite likely to be ahead financially”.²⁰⁷

²⁰³ NSW Auditor-General’s Report (2006) *Regulating the Clearing of Native Vegetation – Follow-up on the 2002 Performance Audit* available at:

http://www.audit.nsw.gov.au/publications/reports/performance/2006/native_vegetation/native_vegetation.pdf

²⁰⁴ *Minister for Planning (NSW) v Coalpac Pty Limited [2008] NSWLEC 271* at 37.

²⁰⁵ *Ibid* at 56.

²⁰⁶ *Ibid* at 55.

²⁰⁷ *Ibid* at 57.

On its face, \$200,000 is a substantial fine. However, in the context of probable financial advantage it appears to offer little in terms of deterrence.

***Minister for Planning v Hunter Quarries Pty Ltd* [2010] NSWLEC 246**

The mine was permitted to extract 500,000 tonnes of product per year. However, between August 2008 and July 2009, 784,527 tonnes had been extracted. This equates to a 50% excess in the amount of product extracted. Despite the Court finding that this represented a systemic failure of the company to monitor its production and transportation records, only a \$70,000 fine was issued.

3.2 The enforcement toolkit

In order to enforce laws properly, enforcement agencies need to have a full suite of enforcement powers – an enforcement toolkit. Currently, these include warning letters, notices, enforceable undertakings, penalty notices and prosecutions. However, it is suggested that there are four broad areas where the enforcement of breaches can be improved.

First, both mining and planning laws in NSW should adopt the well-recognised enforcement framework provided by the seminal *He Kaw Teh* case.²⁰⁸ In that case the High Court provided guidance on how to interpret criminal offence provisions in statutes by confirming the common law presumption that *mens rea* (a guilty mind through intention, recklessness or negligence) is an essential element of every criminal offence, unless expressly or impliedly displaced by statute. The court classified statutory offences into three categories as follows:

- Category 1 (serious offences) – *mens rea* applies in full and therefore proof of a person's intention is necessary in order to convict a person of a crime
- Category 2 (mid-range offences) - strict liability where only the *actus reus* (the guilty act causing a proscribed effect) needs to be proved to convict a person of a crime. The only defence to a strict liability offence is a pleading of 'honest and reasonable mistake of fact' (the defendant was not aware of the facts that led to the commission of the offence)
- Category 3 (minor offences) - absolute liability where there is no defence that can be pleaded.

This framework provides a much more nuanced approach to enforcement, which should be adopted in the relevant legislation.²⁰⁹ At one extreme, in cases where there has been a deliberate and wanton disregard for the law, gaol and/or substantial fines can be imposed. Strict liability offences, however, have the distinct advantage of being

²⁰⁸ *He Kaw Teh v R* (1985) 157 CLR 523.

²⁰⁹ See Part 17A of the *Mining Act 1992* (NSW), Part 17A and Part 6 of the *Environmental Planning and Assessment Act 1979* (NSW).

easier to prosecute; and are often suitable where the offender has been placed on notice to guard against a contravention (as with a mining lease or development conditions).²¹⁰

Second, planning law should arm the Court with a specific range of innovative orders like those available under pollution and mining law.²¹¹ These should include orders to pay investigation costs; undertake works for environmental benefit, including fund environmental organisations; complete audits, training and financial assurances; publicise offences or notify certain people; and remove any monetary benefit of the crime.²¹² Furthermore, provisions allowing for the suspension or revocation of approvals, or even landowners consent, would help to ensure that conditions are taken seriously and safeguards met.²¹³

Third, monitoring, enforcement and compliance efforts must be properly resourced. This may mean examining the current funding model for regulatory divisions as part of the audit recommended at 3.1 above; increasing base funding for those divisions; and considering supplementing this with an industry funded cost-recovery model.

Fourth, there is also a need to ensure compliance well after mining operations have finished. In NSW, environmental bonds merely form part of the mining lease, and there is discretion around how they are applied as part of the conditions of the mining lease. That is, there are no legal requirements to impose such bonds, but the Minister has discretion to do so. By contrast, in other States such as Western Australia,²¹⁴ environmental bonds are used as a form of security to ensure compliance with approval conditions that are imposed for the rehabilitation of sites after mine closure.

The idea of making environmental bonds compulsory aligns with the polluter pays principle of ESD, whereby the polluter should bear the cost of carrying out measures decided by public authorities to ensure the environment is returned to an acceptable state. Long-term environmental bonds also form part of the National Water Commission's proposed principles on CSG and water protection.²¹⁵ Due to the potential for environmental degradation arising from extractive industries, the amounts of money required to conduct sufficient rehabilitation work following the decommissioning of the mine are likely to be extensive. For these reasons, the EDO recommends reforms to provide for compulsory environmental bonds so as to ensure that adequate funds are available to perform this rehabilitation.

²¹⁰ Australian Government Attorney General's Department (2007) *A Guide to Framing Commonwealth Offences, Civil Penalties and Enforcement Powers* available at: http://www.ag.gov.au/www/agd/agd.nsf/Page/Publications_GuidetoFramingCommonwealthOffences,CivilPenaltiesandEnforcementPowers

²¹¹ Currently, the Court's power to make orders is wide-ranging but general, which may discourage innovation: see s 124, *Environmental Planning and Assessment Act 1979* (NSW).

²¹² See, for example, sections 248-250 of the *Protection of the Environment Operations Act 1997* (NSW).

²¹³ Section 144 and 145 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

²¹⁴ Under the *Mining Act 1978* (WA).

²¹⁵ See above notes.

3.3 Common law damages

a) *Private nuisance*

The focus of this paper is on legislative reform to ensure better environmental outcomes throughout the exploration and extraction process for coal and CSG. However, the paper also conducts a short analysis of the common law developments relevant to these processes. In the absence of enforcement action, landowners in close proximity to mining operations may need to look to common law actions for a remedy. It has been argued that the current environmental statutory regimes operating in Australia are “not comprehensive and that development of the Australian common law as a useful complement to the States is not precluded”.²¹⁶

One such common law action available is in private nuisance. The remedies for this can include injunction, abatement, or monetary damages. In this context, private nuisance is committed when the actions of one person, outside the boundaries of a property, interfere with a second person’s interest in the beneficial use of his or her property. An action for nuisance is available where substantial and unreasonable damage occurs to the second person because of the first person’s actions. The most obvious forms of nuisance from mining include dust, noise, vibration, interference with the flow of water, and light. Whether the mining operations (whether for coal or CSG) amount to nuisance is a matter of degree and will depend on the circumstances.²¹⁷

The following case study illustrates some of the potential issues, using noise as an example of nuisance.

Case study: Noise Nuisance (letter from affected landowner)

“The current noise disturbance from the Stratford coal mine to me and my neighbours living five or more kilometres from the source has shown the impacts predicted by the original noise assessment for the mine’s approval to be grossly underestimated.

Excessive noise is the most commonly received complaint by Gloucester Coal. In a 2007 survey of 350 households living within 10km of Gloucester Coal’s operations, noise was the most frequently identified problem and nominated by 85% of respondents as being of concern.

Noise complaints arise from all aspects of Gloucester Coal’s operations including: heavy vehicle warm-up procedures; vehicle movements, blasting, extracting material from the pit, processing and washing of coal, stockpile dozer operations, loading and unloading of coal and train movements. Comments from residents indicate that the number of complaints received by Gloucester Coal does not reflect the level of disturbance being experienced. Some have given up complaining because “nothing results from their

²¹⁶ Pontre T (2010) “Common Law Damages for Public Environmental Harm” *Australian Resources & Energy Law Journal* Vol 29 at, pp 188-222.

²¹⁷ *Halsey v Esso Petroleum Co Ltd* [1961] 2 All ER 145 at 151, 155 per Veale.

complaints” while others choose to wait until they are “at their wits end” before lodging a complaint.

Noise monitoring appears to focus on assessing noise from the perspective of contributing to industrial deafness rather than from the perspective of noise as a nuisance which causes loss of amenity. Another weakness of noise measurements is that they focus on levels of noise without regard for the source or type of noise. For example, a rushing waterfall in a bush setting may create a sound pressure level that could be described as loud. However, this would be far less intrusive and upsetting than an identical (or lesser) sound pressure level caused by industrial machinery operating in that same environment. Similarly, the sudden, raucous call of a nearby Kookaburra would be louder but less intrusive than a persistent, low level and distant industrial hum.

Heavy mine vehicles and machinery emit very low frequency noise which is not being monitored. This low frequency noise is an important source of disturbance because its wavelength is of the type that resonates in cavities such as the rooms of houses, the skull and chest cavities.

I believe that there needs to be a comprehensive review of noise impact guidelines. The mining impact footprint is far greater than has been acknowledged to date.”

The relevant noise impact guidelines are the Industrial Noise Policy, which commences background noise at 30 decibels even when it has been measured as low as 11 decibels. A mine can then legally operate at 35 decibels and in recent cases (for example, Wilpinjong Mine), the consent conditions trigger compulsory acquisition of land at 40 decibels. This is a significant increase of noise impact before a breach occurs. Monitoring and reporting of noise impacts is managed (for example, averaged across a period of time) so that the full range of noise levels and intensities is not recognised.

The abatement measures provided by mining companies in response to these concerns (such as night time mining, noise and dust concerns) do not deal with the concerns raised by the community, and the EDO regularly receives calls from affected landowners. For example, concerns surrounding dust are often met with the “solution” of providing those impacted properties with air-conditioning units so landowners need not open their doors and windows. Likewise, landowners are offered the installation of double glazed windows to deal with noise. These proposed “solutions” fundamentally misunderstand the significant restriction on amenity they impose on landowners and do not allow them the full use and enjoyment of their home and land. Below are two case studies highlighting these issues.

Case study: Mangoola Mine approval and conditions

The EDO acted for affected residents of Wybong Hall Road, in Wybong. The following is an extract from an EDO letter to the Director General of Planning in relation to the approval and conditions:

“As you would be aware, there are a number of residents affected by the proposal by Xstrata to build Mangoola Coal mine that was approved by the then Minister for Planning on 7th June 2007 under Part 3A of the Environmental Planning and Assessment Act 1979 (EP & A Act).

Clause 8 in particular of the development consent states that “Upon receiving a written request from a landowner of the land listed in the table to Appendix 5,... the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner. These additional mitigation measures must be reasonable and feasible. It goes on to state that if, within three months of receiving this request, the proponent and landowner cannot agree on measures to be implemented, or there is a dispute about implementation of these measures, then either party may refer the matter to the Director-General for resolution.

The [clients] have been negotiating with Xstrata Mangoola Pty Limited since January 2009 to ensure that appropriate noise mitigation measures are adopted for their premises. They want to remain living in their property and have full use and enjoyment of it. They bought the property as an investment for their retirement. The [clients] intended to use the property to generate income from the building of tourist cabins on part of their property and growing olives on another part of it, as well as enjoying the quiet bush environment in Wybong. For this reason they have sought appropriate mitigation measures to enable this to occur. They have engaged, at considerable expense to themselves, an expert noise consultant to provide Xstrata with a report on the options for mitigating noise on their property. Despite two meetings with Xstrata to discuss these options including one with their expert there has been little attempt made by Xstrata to resolve this situation and provide appropriate noise amelioration measures on their property such as a bund wall and other noise measures suggested by their expert. To date Xstrata have offered to double glaze and air condition their property. The [clients] have been very patient with Xstrata and made clear their wishes but are becoming increasingly frustrated at the lack of practical action from Xstrata to address their concerns.

We therefore are referring this matter in accordance with clause 8 of the development consent for resolution of the appropriate noise amelioration measures for the [clients] properties and those in the surrounding area.”

Unfortunately, in this matter the Department refused to do anything about the nuisance, and the client was not offered anything substantially different. An action for breach of conditions is being considered as noise mitigation measures are still not in place and works are about to commence.

It is highly unsatisfactory and inequitable that community members are forced to pursue common law actions such as private nuisance (at their own considerable expense), as a result of the breaches of conditions of consent by mining operations. There is a need for a comprehensive review in areas such as noise impact guidelines, as well as an increase in the monitoring and enforcement of breaches of operations.

b) *Public nuisance*

Some commentators have begun to advocate for the introduction of common law damages for environmental harm. Pontre²¹⁸ has proposed that the Attorney-General, as representative of the public, should have a right of action in public nuisance for damages due to environmental harm that interferes with environmental public rights. The reasoning is that although there are some established avenues for remediating private environmental harm, the actions and remedies available for public harm are significantly more restricted, only extending to either an injunction or declaration. It has been proposed that these remedies should be extended to include an award of damages, sought by the Attorney-General under “public interest” standing; and that the tort of public nuisance should develop to allow such an award. These sorts of concepts are in need of development, but may well begin to gain traction in the absence of legislative reforms to better protect environmental assets and amenity.

²¹⁸ Pontre T (2010) “Common Law Damages for Public Environmental Harm” *Australian Resources & Energy Law Journal* Vol 29 at pp 188-222.

3.4 Recommendations on Compliance and Enforcement Issues

Recommendation 13: Initiate an independent performance audit of compliance and enforcement activities in relation to mining in NSW, including consideration of adequate resourcing. The audit should be conducted by the NSW Auditor-General and/or NSW Ombudsman, with the results made public.

Recommendation 14: Increase ongoing monitoring and responsiveness to community reporting, to identify breaches of conditions of mining operations.

Recommendation 15: Establish a process to independently audit mining operators' performance against Environmental Assessment predictions, statements of commitment, Subsidence Management Plans and mine site rehabilitation.

Recommendation 16: Adopt a tiered enforcement framework for mining and planning legislation, to ensure breaches of mining approvals and conditions result in punishment that deters misconduct. The framework should include categories of serious offences, mid-range (strict liability) offences and minor (absolute liability) offences.

Recommendation 17: Planning laws should give prosecutors and courts a wider range of innovative enforcement tools as in other environment and pollution laws. These tools should include orders to pay investigation costs; undertake works for environmental benefit, including fund environmental organisations; complete audits, training and financial assurances; publicise offences or notify certain people; and remove any monetary benefit of the crime.

Recommendation 18: Provide the Planning Minister with powers to suspend or revoke mining approvals for breaches of conditions. In addition, establish a process for landowners to apply to revoke their consent to land access if mining operations breach conditions.

Recommendation 19: Increase resourcing for relevant compliance and enforcement divisions in order to improve rates of audits, investigations and prosecution.

Recommendation 20: Review the adequacy of noise impact guidelines.

Recommendation 21: Introduce compulsory environmental bonds.
