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Coal and Gas Strategy Department of Planning and Infrastructure GPO Box 39 Sydney NSW 2001

## NSW Coal and Gas Strategy – Scoping Paper

The Sydney Coastal Councils Group<sup>1</sup> (SCCG) would like to take this opportunity to provide comment on the *NSW Coal and Gas Strategy – Scoping Paper* (the Scoping Paper). In making this submission the SCCG would like to comment and make recommendations on the following issues relevant to SCCG Member Councils:

- 1. Movement to a low carbon economy in NSW
- 2. Community concerns related to social, environmental, economic and health impacts
- 3. Addressing land-use conflicts
- 4. Determining the full range of impacts from Coal Seam Gas Extraction
- 5. The impacts on offshore extraction activities, in particular the security of offshore sand reserves for potential beach nourishment;
- 6. Need for the Strategy to address coordination between State and Federal authorities, particularly in off-shore waters.

The Strategy will guide the development of future coal and coal seam gas project as well as provision of the associated infrastructure. Therefore, the impacts on community services, the environment and alternative energy sources must be considered and addressed in greater detail in the final Strategy than in the Scoping Paper. The SCCG believes the comments and recommendations articulated below will assist in achieving this.

### 1. Movement to a low carbon economy in NSW

The need for NSW to pursue a low carbon economy is acknowledged in the Scoping Paper. In contrast to this, the future projections in the scoping paper for Coal and Coal Seam Gas extraction assume unmitigated growth in both areas at the expense of the promotion and regulation of more sustainable low carbon options.

To address this, the final Strategy must articulate the actions that will be undertaken to ensure that the commitment to reduce greenhouse gas emissions by 60% by 2050, including a target of 20% renewable energy consumption by 2020 is delivered. Whilst the SCCG acknowledges the need to utilise coal seam gas as part of a transition strategy to a low carbon economy, the expansion of coal extraction at the expense of more sustainable alternative options is not sustainable and will not secure affordable energy provision to present and future residents of NSW.

**Recommendation:** The final Strategy must articulate the actions that will be undertaken to ensure that the commitment to reduce greenhouse gas emissions by 60% by 2050, including a target of 20% renewable energy consumption by 2020.

# 2. Community concerns related to social environmental, economic and health impacts

The Scoping Paper notes that the coal industry in NSW is comprised of "a large and mature mining industry and a small but emerging coals seam gas industry." As such, extensive areas of NSW have been exposed to a range of impacts that accompany the introduction of traditional coal mining activities into an area. The Scoping Paper raises concerns about the following issues:

- fundamental issues about the use of coal and impacts on climate change;
- concerns of cumulative impacts;
- competing land use issues (mining and food/thoroughbred horse industry/ vineyards);
- concerns of scaling up of mining operations;
- subsidence impacts on natural water systems and subsequently on water supply;
- coal seam gas operations and the potential impact on aquifers, waste water and chemical additives; and
- concerns over industry compliance with conditions on planning approvals, environmental protection licences and mining leases.

The final Strategy needs to go beyond simply identifying the environmental, social, economic and health issues associated with coal and coal seam gas extraction. To address this clear criteria and processes for the identifying, monitoring and addressing impacts as well as conflicts needs to developed and implemented through the final Strategy and underpinned by amendments to the relevant legislation to ensure an appropriate level of community consultation as well as enforcement and compliance.

### **Recommendations:**

The final Strategy establish clear criteria and processes for the identifying, monitoring and addressing impacts for coal and coal seam gas extraction.

The implementation of such criteria be underpinned by amendments to the relevant legislation to ensure an appropriate level of enforcement and compliance.

## 3. Addressing land-use conflicts

The Scoping Paper notes the value of a triple bottom line cost benefit analysis in analysing impacts of mining, and recognising a range of land use values. It states that such an assessment *"could be carried out in particular regions where coal mining or gas extraction may have the potential to displace or adversely impact other high value existing land uses."* The SCCG believes that such a comprehensive assessment must take place and not focus on the financial bottom line of the cost/benefit analysis, but be a balanced and comprehensive assessment of a broad range of indirect, direct and cumulative impacts and values.

Additionally, the Scoping Paper states that the results of a triple bottom line cost benefit analysis "could be used to make decisions about whether coal mining should be allowed to move into new areas or what scale of coal mining activity may be appropriate" in a region. It is essential that this level of assessment must be undertaken for all future

mining activities and be utilised for impact assessment and community consultation, to further manage the potential land use conflicts that can arise between mining activities and other operations such as conservation or agricultural activities.

Queensland have embarked on a process to develop a land use conflict policy to identify high value areas, such as those of high agricultural value (strategic cropping land), which have the potential to preclude mining operations from operating in an area. The proposed Queensland policy seeks to ensure that decisions are made within a clear planning framework and according to stated criteria. More information can be found at www.dip.gld.gov.au/croppingland

The development of a similar detailed policy in NSW would assist in ensuring that appropriate land use options are developed and that areas of high agricultural, environmental or cultural value are recognised. This recognition of other values besides mining opportunities needs to be undertaken consistently in NSW and documented openly and transparently.

**Recommendation:** A NSW landuse conflict Policy be developed for all extractive industries.

### 4. Determining the full range of impacts from Coal Seam Gas Extraction

Due to the infancy of the coal seam gas industry in NSW, there is a great deal of uncertainty surrounding the specific short and long term impacts that may arise from the mining the resource in both regional and urban centers, including within the SCCG region.

Despite the uncertainty, some key potential impacts have been identified. The National Water Commission identified the following potential risks to sustainable water management in their Coal Seam Gas Position Statement.

- Extracting large volumes of low-quality water will impact on connected surface and groundwater systems, some of which may already be fully or over allocated, including the Great Artesian Basin and Murray-Darling Basin.
- Impacts on other water users and the environment may occur due to the dramatic depressurisation of the coal seam, including:
  - changes in pressures of adjacent aquifers with consequential changes in water availability
  - o reductions in surface water flows in connected systems
  - land subsidence over large areas, affecting surface water systems, groundwater dependant ecosystems, irrigation and grazing lands.
- The production of large volumes of treated waste water, if released to surface water systems, could alter natural flow patterns and have significant impacts on water quality, and river and wetland health. There is an associated risk that, if the water is overly treated, 'clean water' pollution of naturally turbid systems may occur.
- The practice of hydraulic fracturing, or fracking, to increase gas output, has the potential to induce connection and cross-contamination between aquifers, with impacts on groundwater quality.
- The reinjection of treated waste water into other aquifers has the potential to change the beneficial use characteristics of those aquifers.

In addition to these water management risks, coal seam gas extraction development could also cause significant social impacts by disrupting current land-use practices and the local environment and amenity through infrastructure construction and access.

Similarly, a recent report developed by the Australian Department of Sustainability, Environment, Water, Population and Communities also highlights concerns around issues of coal seam gas extraction and its potential interference on hydrological systems, and recommends:

"Given the resulting levels of uncertainty in relation to... a number of coal seam gas extraction developments, a precautionary approach should be taken in relation to approving proposed and potential coal seam gas extraction developments, recognising the fundamental principle that excessive rates of groundwater extraction will have impacts on groundwater and connected surface water systems"

The potential impacts of coal seam gas extraction were also highlighted by the former NSW Premier Kristina Keneally in the Labor Party's 10-point plan for coalmining and coal seam gas exploration. On 25 March 2011 Premier Keneally announced that use of the chemicals benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) used hydraulic fracturing would be banned in NSW. The SCCG supports this ban and calls for the incoming NSW Government to ban the use of BTEX chemicals in hydraulic fracturing.

Due to uncertainty surrounding the impacts of hydraulic fracturing, the SCCG believes there is a need for the development of baseline data to provide a benchmark for ongoing monitoring of environmental systems. The hydrological implications alone provide sufficient reason to obtain such information, however when combined with the range of other potential impacts that arise from the coal seam gas extraction, the need for this information is clear.

Without sufficient baseline data on environmental systems (such as sub-artesian water flows and locations) it is impossible to accurately ascertain the true impact being caused by processes associated with coal seam gas extraction. This data collection is a crucial part of undertaking a comprehensive triple bottom line assessment, as proposed in the Scoping Paper, to ensure that all potential environmental and social impacts are also identified. The NSW Natural Resources Commission and each of the States 13 Catchment Management Authorities must be consulted as to potential integration of such information into the monitoring and assessment processes for meeting the water (surface and groundwater) management and biodiversity targets articulated in Catchment Action Plans.

#### **Recommendations:**

NSW Government to ban the use of BTEX chemicals in hydraulic fracturing.

The final Strategy establish clear criteria and processes for the identifying, monitoring and addressing impacts for coal and coal seam gas extraction.

The implementation of such criteria be underpinned by amendments to the relevant legislation to ensure an appropriate level of enforcement and compliance.

The NSW Natural Resources Commission and each of the States 13 Catchment Management Authorities must be consulted on the integration of coal and coal seam gas extraction impacts into the monitoring and assessment processes for meeting the water (surface and groundwater) management and biodiversity targets articulated in Catchment Action Plans

# 5. The impacts on offshore extraction activities, in particular the security of offshore sand reserves for potential beach nourishment

The Scoping paper identifies the potential for offshore extraction of coal and gas without articulating where this will occur or how the assessment of impacts will be undertaken. The SCCG believes that such works should not be undertaken on the grounds that:

- The potential environmental impacts on the near and off shore environments are not able to fully assessed based on information currently available and assessment techniques; and
- Approval of the applications would be inconsistent with the intent of all spheres of government to ensure the efficient and sustainable use of energy as outlined in documents including the NSW Greenhouse Plan (to be replaced by the NSW Climate Change Action Plan) and Local Government Strategic Plans.

If the viability of offshore extraction activities were to be considered, the SCCG considers that the Strategy will need to address in detail the impacts of offshore extraction of coal and gas on a range of social and environmental factors. In particular, the impact on offshore sand reserves coal and gas extraction may have and how this may impact the availability of this sand for potential beach nourishment.

Additional detail on potential for off shore sand for beach nourishment can be found through the SCCG recently released project titled *Beach Sand Nourishment Scoping Study: Maintaining Sydney's beach amenity against climate change sea level rise* available at: http://www.sydneycoastalcouncils.com.au/node/53.

### **Recommendations:**

Offshore extraction activities not be undertaken due to:

- The potential impacts on near and off shore environments; and
- The inconsistency of such an action with the intent of strategies including the NSW Greenhouse Plan.

If the viability of offshore extraction activities were to be considered, the Strategy will need to address in detail the impacts of offshore extraction of coal and gas on a range of social and environmental factors. In particular, the impact on offshore sand reserves coal and gas extraction may have and how this may impact the availability of this sand for potential beach nourishment.

# 7. Need for the Strategy to address coordination between State and Federal authorities, particularly in off-shore waters.

The Scoping Paper does not articulate what measures the NSW Government will undertake to coordinate NSW policies and management measures with Federal policies and management measures. This is particularity important for marine based activities given that Federal authorities assume responsibility for management of the marine environment at a seaward distance of three nautical miles (1.8 kilometres). The SCCG urges the NSW Government to ensure the Strategy provides for coordination between the two levels of government.

**Recommendation:** The NSW Government to ensure the Strategy provides for coordination between the NSW and Australian Governments.

I trust that the information provided in this submission will receive appropriate attention. If you wish to clarify any matter in this correspondence or require further information, please contact me directly or the Group's Senior Coastal Projects Officer, Craig Morrison on 9246 7702 or <u>craig@sydneycoastalcouncils.com.au</u>

Yours sincerely,

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Clr Wendy McMurdo **Chairperson** 

<sup>&</sup>lt;sup>1</sup> The SCCG consists of 15 member councils with sea and harbour frontages in Sydney including, Botany Bay, Hornsby, Leichhardt, Manly, Mosman, North Sydney, Pittwater, Randwick, Rockdale, Sutherland, Sydney, Warringah, Waverley, Willoughby and Woollahra. Collectively we represent over 1.4 million Sydneysiders. The Group is concerned with the promotion of cooperation and coordination of member councils to achieve the sustainable management OF the urban coastal environment.