



MINERALS COUNCIL OF AUSTRALIA

RESPONSE TO THE NATIONAL WASTE POLICY CONSULTATION PAPER

13 MAY 2009

Executive Summary

Members of the Minerals Council of Australia (MCA), representing over 85% of minerals production in Australia, have a long-standing commitment to sustainable development including the responsible stewardship of natural resources. Whilst only impacting on 0.3% of the Australian landscape, and using less than 3% of water resources, minerals operations contribute:

- 8% national GDP
- 42% of goods and services exports; and
- Tax and royalties in 2007/8 of \$13.04 billion and in 2008/9 of \$21.019 billion.

In this submission, the MCA does not seek a diminution of measures to protect the environment, but rather promotes improvements to the efficiency and co-ordination of legislation and policy instruments within and between jurisdictions.

Members of the MCA are signatories to *Enduring Value* which is framework for implementing sustainable development through all aspects of operations, with a strong emphasis on supporting continual improvement. This framework provides a consistent, effective and transparent framework for meeting the expectations of the community for the economic, social and environmental performance of the Australian minerals industry. The management of waste in an effective and efficient manner that minimises the risk to human and environmental health is one of the key areas of focus within the Australian minerals industry, particularly through a materials stewardship approach.

The key components of the business case for implementing stewardship policies and programs include:

- reducing the quantity and cost of waste streams;
- gaining the full value from products;
- reducing the cost of production;
- maintaining and enhancing the industry's social licence to operate and market products;
- providing proactive leadership on sustainability issues. this negating the need for additional regulation; and
- the desire to see more efficient use of energy, water and limited materials.

The vast bulk, by volume, of by-products from minerals production are typically stored on site, either in purpose built surface storages (e.g. tailings storage facilities), or in disused extractive areas on the surface (completed pits) or underground. In all operations, these processes are managed through existing regulatory instruments, including:

- State project assessment and approval processes (i.e. where production systems, waste products, and cleaner production initiatives are outlined for public and government scrutiny and approval);
- Commonwealth legislation regarding environmental protection (e.g. EPBC Act for nuclear materials, National Pollutant Inventory for community right to know);
- State dangerous and hazardous goods regulations (i.e. which determine how hazardous materials are handled and managed);
- legislated technical design standards for waste storage facilities;
- licenses for operations which determine pollution discharge conditions, waste management and disposal requirements, and environmental monitoring and reporting requirements (i.e. 'traditional EPA requirements' covering water, land, and air quality); and
- requirements for annual environmental management reports to be furnished to minerals departments (i.e. usually additional to 'traditional EPA requirements').

Waste management options need to be carefully assessed for their total environmental, social and economic cost to avoid potentially perverse outcomes. The MCA considers that the application of a materials stewardship approach that properly considers the full value chain leading to the creation of wastes is the most effective approach when considering additional government intervention in waste management issues.

The MCA strongly supports the National Waste Policy in its efforts to:

- 'identify best practice in waste management and resource recovery and to ensure that Australia has the right mix of incentives and regulation...';
- provide a framework of guiding principles and strategies to reduce energy and water use, support jobs and invest in future long term economic growth; and
- deliver more consistent regulation across jurisdictions, and address unnecessary or poorly designed regulation.

Additionally, the MCA broadly supports the goal put forward for the National Waste Policy. The MCA considers key opportunities for the National Waste Policy to add value to existing resource use efficiency programs include:

- the development of the National Waste Framework, which will provide clarity and certainty for stakeholders around the role of different levels of government, and ensuring any interventions are at a fit-for-purpose scale and nature for remedying identified market failures;
- provision of improved data, analysis, information and understanding such that perceived market failures can be objectively assessed, and intervention activities can be implemented with formal benchmarks and efficiency reviews;
- improving coordination, communication, review and refinement of existing government intervention across all jurisdictions;
- through improved coordination and communication, promote efficiency of resourcing of government programs; and
- deliver more consistent regulation across jurisdictions, and address unnecessary or poorly designed regulation.

However, until the comprehensive national waste report is completed, and the National Waste Framework is settled, the MCA considers it is premature to begin to explore particular opportunities, beyond those that relate to the two overarching initiatives (e.g. ensure access to comprehensive national data and analytical tools on waste).

The National Waste Framework will be fundamental for disentangling many of the problems raised in the discussion paper Overview. Until this framework is settled, which must happen quickly, the MCA considers that there is little apparent merit in progressing with particular programs or other interventions.

The Australian Minerals Industry and Resource Use Efficiency

The Australian Minerals Industry

Members of the Minerals Council of Australia (MCA), representing over 85% of minerals production in Australia, have a long-standing commitment to sustainable development including the responsible stewardship of natural resources (see www.minerals.org.au for a complete list of MCA members).

Whilst only impacting on 0.3% of the Australian landscape, and using less than 3% of water, the minerals industry contributes:

- 8% national GDP (Australian Bureau of Statistics, National Accounts 5206, and Mining Indicators, 8417, MCA calculations)
- 42% of goods and services exports (ABS International Trade in Goods and Services 5368, ABARE Commodity Statistics, September Quarter 2008); and
- Tax and royalties in 2007/8 of \$13.04 billion and in 2008/9 of \$21.019 billion (est.; pending publication: Access Economics, Tax Contribution of the minerals industry).

Through taxation and natural resource royalty payments, Australian minerals business' provide one in every ten tax-payer dollars spent on the management of environmental externalities in Australia.

Most minerals operations are in regional and remote Australia, and their environmental performance, including waste management, is tightly regulated through existing State and Commonwealth legislation. Additionally, members of the MCA have committed to the International Council of Mining and Metals Sustainable Development Principles, and are signatories to [Enduring Value](#), which commits them to [amongst others]:

- integrate sustainable development considerations within the corporate decision-making process.
- implement risk management strategies based on valid data and sound science.
- seek continual improvement of our environmental performance.
- facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
- implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

In this submission, the MCA does not seek a diminution of measures to protect the environment, but rather promotes improvements to the efficiency and co-ordination of legislation and policy instruments within and between jurisdictions.

The MCA strongly advocates the principle of minimum effective regulation – that the development of good regulatory process should be informed by the following principles:

- regulatory approaches should not be used unless a clear case for action exists, including an evaluation of why existing measures are not sufficient to deal with the issue;
- a range of policy options (including self-regulatory and co-regulatory approaches) have been assessed and found wanting;
- the regulation represents the greatest net benefit to the community;
- the regulation developed is the most efficient means of achieving the desired outcome at least cost to industry;
- effective guidance is provided for both regulators and stakeholders to ensure that the regulations are correctly implemented and monitored;

- mechanisms such as sunset clauses or periodic reviews are built into the legislation to ensure that the regulations remain relevant over time; and
- there is effective consultation with stakeholders at key stages of the development and implementation of the regulation.

Resource Use Efficiency in the Minerals Industry

There is a clear business case for minerals operations to minimise waste generation, using the waste or environmental management hierarchy, through mine planning and management and the development of new technologies. As each operation can reduce costs associated with water access, energy use and direct disposal or recycling costs (e.g. landfill levies, chemical and physical treatment etc.), returns to shareholders are increased and environmental footprints are reduced.

Through both voluntary initiatives and regulatory instruments there is an ongoing emphasis on the promotion of cleaner production in the minerals industry. This includes reducing inputs and by-products, substitution of inputs, better mine planning to minimise resource requirements, better accounting of water and energy flows, enhanced communication to promote reuse and recycling opportunities, and public reporting of performance to promote ongoing improvements. Life cycle analysis of an operations, inputs, outputs and by-products, is increasingly being used to identify opportunities to minimise input requirements and waste production.

The vast bulk, by volume, of by-products from minerals production are typically stored on site, either in purpose built surface storages (e.g. tailings storage facilities), or in disused extractive areas on the surface (completed pits) or underground. These by-products are comprised of the ore body remnants after the minerals are removed by physical and chemical processing, or rock and other overburden material that is removed to access the ore body. Other minor volumes of waste, including tyres and domestic refuse, are managed differently depending on the local circumstances (i.e. usually related to degree of isolation from municipal services). In all operations, these processes are managed through existing regulatory instruments, with volumes of key substances emitted, or transferred to waste facilities for containment, annually reported to the National Pollutant Inventory.

- In 2000-2001, annual current expenditure by minerals operations on solid and liquid waste management was \$78.6 million, accounting for 28% of total current expenditure on environmental protection¹;
- In 2000-2001, annual capital expenditure by minerals operations on solid and liquid waste management was \$71.4 million, accounting for 67% of total capital expenditure on environmental protection; and
- This scale of expenditure is similar to that collectively reported by governments on fees for the treatment and disposal of waste in 2003² (\$154.9 million).

Minerals Industry and Materials Stewardship

To provide a framework for articulation and implementation of the industry's commitment to sustainable development, the MCA has developed *Enduring Value – The Australian Minerals Industry Framework for Sustainable Development*. Developed with the input of over 900 stakeholders, *Enduring Value* provides an operational framework for the integration of environmental, economic and social considerations into mining and minerals processing operations at the site level. Commitment to *Enduring Value* is a condition of membership of the MCA, however non-MCA companies are also eligible for signature to this framework.

Enduring Value comprises ten principles and forty six elements covering the key aspects of sustainable development in the Australian context. Additional support has been provided through the development of detailed guidance for implementation, outlining the key policies and actions that need to be applied at a company and site level.

¹ABS (2002) Environment Protection, Mining and Manufacturing Industries 2000-2001. Cat 4603.0

²ABS (2004) Waste Management Services, Australia 2002-2003. Cat 8698.0

Commitment to *Enduring Value* includes several obligations, including:

- the progressive implementation of international principles of sustainable development;
- public reporting of site-level performance, on a minimum annual basis, with reporting metrics self-selected from the Global Reporting Initiative (GRI), the GRI Mining and Metals Sector Supplement, or self developed; and
- assessment of the systems used to manage key operational risks.

Specifically, *Enduring Value* supports the safe and responsible management of wastes at site level, as outlined in Principle 8, which requires signatories to facilitate and encourage the responsible product design, use, re-use, recycling and disposal of our products.

Element 8.2, which sits under this principle, states that signatories should conduct or support research and innovation that promotes the use of products and technologies that are safe and efficient in their use of energy, natural resources and other materials, including through:

- supporting research to innovate the eco-efficiency of production processes and products;
- reviewing and innovating to reduce waste through cleaner production processes, recycling and re-use of materials; and
- collaborating in industrial ecology activities to develop synergies in resource use.

These links from principle to operational implementation guidance illustrate the central function of *Enduring Value*: to support the site level implementation of international sustainable development principles throughout the Australian minerals industry, including the efficient and effective management of waste issues.

The development of *Enduring Value* has provided the industry with a principles based framework for implementing sustainable development through all aspects of operations, with a strong emphasis on supporting continual improvement. This framework provides a consistent, effective and transparent framework for meeting the expectations of the community for the economic, social and environmental performance of the Australian minerals industry. The management of waste in an effective and efficient manner that minimises the risk to human and environmental health is one of the key areas of focus within the Australian minerals industry, particularly through a materials stewardship approach.

Materials stewardship is the management of materials, resources and products throughout their life cycle to maximise value and minimise the environmental and social impacts of operations. A concept underlying the development and implementation of materials stewardship programs is an appreciation of the cyclic flows of materials through their value chain – from initial production and processing, to uses in products and processes, through to eventual recycling, re-use and disposal. As a participant at the top of the minerals value chain, the Australian minerals industry is in a key position to influence downstream users to implement stewardship programs.

The key components of the business case for implementing stewardship policies and programs include:

- reducing the quantity and cost of waste streams;
- gaining the full value from products;
- reducing the cost of production;
- maintaining and enhancing the industry's social licence to operate and market products;
- providing proactive leadership on sustainability issues. this negating the need for additional regulation; and
- the desire to see more efficient use of energy, water and limited materials.

The MCA considers that waste management options need to be carefully assessed for their total environmental, social and economic cost to avoid potentially perverse outcomes. A scientifically robust, risk-based approach, should be used to examine the nature of the waste product, its location, and potential influence on social and environmental values, to determine whether an externality exists.

The MCA considers that the application of a materials stewardship approach that properly considers the full value chain leading to the creation of wastes is the most effective approach when considering government intervention in perceived waste management issues.

Towards a National Waste Policy

The MCA strongly supports the National Waste Policy in its efforts to:

- 'identify best practice in waste management and resource recovery and to ensure that Australia has the right mix of incentives and regulation...';
- provide a framework of guiding principles and strategies to reduce energy and water use, support jobs and invest in future long term economic growth; and
- deliver more consistent regulation across jurisdictions, and address unnecessary or poorly designed regulation.

Additionally, the MCA broadly supports the goal put forward for the National Waste Policy, especially a clear articulation of the objectives of waste management and the roles of governments and enhanced collaboration between jurisdictions. Accordingly, the MCA considers key opportunities for the National Waste Policy to add value to existing waste management and resource use efficiency programs include:

- the development of the National Waste Framework, which will provide clarity and certainty for stakeholders around the role of different levels of government, and ensuring that any interventions are at a fit-for-purpose scale and nature for remedying identified market failures;
- provision of improved data, analysis, information and understanding such that perceived market failures can be objectively assessed, and intervention activities can be implemented with formal benchmarks and efficiency reviews;
- improving coordination, communication, review and refinement of existing government intervention across all jurisdictions;
- through improved coordination and communication, promote efficiency of resourcing of government programs; and
- deliver more consistent regulation across jurisdictions, and address unnecessary or poorly designed regulation.

The Role of Government

The MCA highlights that the role of government in intervening in any perceived social or environmental externality, and the nature of that intervention, needs to be carefully considered. The Productivity Commission recently highlighted:

'Because there are market incentives to reduce waste and undertake recycling, the scope for effective government intervention is limited mainly to circumstances where these incentives do not reflect the true costs and benefits to the community that are associated with waste. That is, where there is a market failure³.'

³ Productivity Commission (2006) Waste Management – Productivity Commission Inquiry Report.

The Productivity Commission (2006) then notes four types of market failure relevant to waste management: managing public goods, externalities, information failures and natural monopolies. Where there is a market failure, government intervention may be warranted, but does not necessarily lead to an efficient outcome; the benefits to the community from government intervention must outweigh the costs (social, environmental and economic) of the intervention (Productivity Commission 2006).

In the context of resource use efficiency and waste management in Australia, there is a raft of existing regulatory and non-regulatory government interventions, in addition to market forces. For a minerals operation, waste management is a 'whole of operation and whole of life cycle' issue, which is primarily managed through voluntary cleaner production initiatives, including:

- Mine planning (i.e. operations plan what activities occur where, and when, to minimise wasted resources);
- Industry codes of practice (e.g. Enduring Value, the International Cyanide Code);
- Investment in research and development (i.e. new, more efficient techniques);
- Promoting a cleaner production culture within business units (e.g. communication programs, building resource use key performance indicators into personnel accountabilities);
- Partnering with other business' that can beneficially reuse by-products (e.g. 'waste water', excess energy); and
- Public transparency and accountability to share-holders and other stakeholders.

However, there is also an existing plethora of regulatory instruments that are used to support a baseline of minimum environmental performance, regarding resource use efficiency and waste management, including:

- State project assessment and approval processes (i.e. where production systems, waste products, and cleaner production initiatives are outlined for public and government scrutiny and approval);
- Commonwealth legislation regarding environmental protection (e.g. EPBC Act for nuclear materials, National Pollutant Inventory for community right to know);
- State dangerous and hazardous goods regulations (i.e. which determine how hazardous materials are handled and managed);
- Legislated technical design standards for waste storage facilities;
- Licenses for operations which determine pollution discharge conditions, waste management and disposal requirements, and environmental monitoring and reporting requirements (i.e. 'traditional EPA requirements' covering water, land, and air quality); and
- Requirements for annual environmental management reports to be furnished to minerals departments (i.e. usually additional to 'traditional EPA requirements').

The MCA expects that the National Waste Policy includes the development of the 'National Waste Framework', a framework that determines the conditions under which a market failure is identified and government intervention is warranted⁴. This framework should align with COAG commitments to reduce regulatory burdens and inefficiencies, and identify the existing variety of regulatory and non-regulatory approaches to managing market failures across sectors.

Improved Coordination, Review and Refinement of Existing Government Intervention

Applying the principles of minimum effective regulation to the development of National Waste Policy is of critical importance, due to the potential for the Commonwealth to provide an overarching framework that drives the

⁴ EPHC: 17th Meeting of EPHC Communiqué 7 November 2008.

development of regulation and other approaches across all jurisdictions. In applying these principles to the development of waste policy, to maximise efficient outcomes, governments should establish:

- whether or not there is a market failure, and a clear definition of the extent of market failure and the causal factors;
- the best instrument, or mix of instruments to address the key risks to human and environmental health, with specific consideration given to:
 - voluntary industry initiatives;
 - co-regulatory approaches; and
 - direct regulatory intervention.
- the minimum effective level of intervention required to address the direct effects of market failure and to support the development of self-sustaining market solutions; and
- effective systems for consultation with industry and other key stakeholders throughout the intervention process.

The clear focus of government intervention should be on assessing whether voluntary industry initiatives will provide an effective pathway for the management of risks to human and environmental health. Where voluntary initiatives are shown to be unviable, the next preferred option should be on the development of co-regulatory schemes, with direct regulation being the least preferred option.

Whilst the MCA understands that some stakeholders will advocate expansion of Commonwealth Government intervention beyond providing nationally consistent management of the risks to human and environmental health, the MCA does not support such expansion without consideration:

- that there remains a significant shortfall in the resourcing and development of existing Commonwealth programs;
- of the variety existing regulatory controls (Commonwealth and State) and voluntary initiatives; and
- that the inclusion of additional objectives within the policy framework without expansion of resources, will dilute other initiatives, potentially resulting in poorer environmental outcomes.

Across environmental themes, there is an outstanding requirement to improve communication and coordination across jurisdictions. The Commonwealth is the best-suited for implementing enhanced coordination and communication to stakeholders. For national companies, national consistency provides considerable efficiencies compared with the alternative of needing to understand and comply with different requirements in different jurisdictions. Therefore, a key role for the Commonwealth is the promotion of national consistency in waste management, through communication, coordination, and targeted programs.

Improved Data, Analysis, Information and Understanding

The recent development of national waste management instruments has highlighted the need for better data to enable objective assessment of the environmental externality being targeted, particularly its breadth and depth. Once the scale of the problem is quantified, the potential benefits of different intervention options can also be identified, with clear targets for measuring intervention success. In the assessment of any intervention, the environmental and social impacts must be documented, as per the requirements of the Office of Best Practice Regulation⁵.

For the assessment of alternative waste management options, life cycle analysis is an especially effective technique that can be used to ensure that government intervention is not unacceptably impacting other environmental or social values. Additionally, life cycle analysis can be used to determine the most efficient

⁵ Australian Government 2007, Best Practice Regulation Handbook, Canberra.

location in the value chain for government intervention and examine cost-benefits for different interventions. Once these drivers are quantified, a balanced assessment of the proposed intervention can be made by government, following consultation with stakeholders.

Enhanced data capture, coordination and analysis is fundamental to assessing waste management options for their total environmental, social and economic costs to avoid potentially perverse outcomes. A scientifically robust, risk-based approach, should be used to examine the nature of the waste product, its location, and potential influence on social and environmental values, to determine whether an externality exists. Without investment in capability and capacity to undertake such analyses, to support government's policy choices, sub-optimal outcomes are risked.

The MCA considers that the National Waste Policy should clearly articulate the research capability and capacity needs of governments to enable evidence-based policy decisions, so that the appropriate resources can be allocated.

Targeted Outcomes, Reporting and Adaptation

Government interventions, via regulatory or non-regulatory approaches, should be clear and transparent in:

- the externality or public good they are attempting to manage, including its location, scale and stakeholders;
- the assessment and recommendations regarding the most efficient intervention mechanisms;
- quantified benchmarks to measure progress of the intervention, against the desired environmental or social outcomes;
- trade-offs related to any intervention, and the consultation mechanisms employed; and
- a realistic timetable and parameters for implementation, review and adaptation.

The MCA has previously highlighted concerns regarding Commonwealth implementation of environmental commitments, particularly the ability of government to adequately resource the development and implementation of existing commitments. The MCA considers this a significant weakness in the current regime, at all levels of government, and has recommended a range of remedies, including:

- greater focus on calculating the likely costs and resourcing needs associated with measures during the Regulatory Impact Statement process;
- consideration for setting minimum consultation periods to ensure adequate consultation with industry on potential approaches, including better estimation of the associated costs; and
- improved supporting materials, including direct training and development of guidelines, to ensure the cost-effective and consistent implementation of government intervention within jurisdictions.

The development of science and risk-based approaches to key environmental issues remains a priority for the MCA, and as a consequence there is strong support for the continued use of a scientific evidence base to ensure that any government intervention is informed by the best available science.

Calls for Specific Actions

Based on the current Commonwealth commitment to an evidence-based policy approach, calls for feedback on specific action items in the Discussion Paper, are premature until the national comprehensive report on waste is delivered. Additionally, the proposed 'National Waste Framework [will provide a mechanism] for determining if a waste issue is a priority for concerted national action'⁶. Subject to the findings of that report, and the application

⁶ EPHC: 17th Meeting of EPHC Communiqué 7 November 2008.

of the National Waste Framework, should additional areas of intervention be proposed for the National Waste Policy, these should only be considered where:

- there is a clear need to provide national consistency in the management of risks to human and environmental health, and that market instruments will not deliver this consistency;
- comprehensive consultation with industry and other stakeholders has established that little scope exists for the development of voluntary or co-regulatory approaches to address these issues; and
- the expansion of activity into these areas will not compromise the resourcing and continuous improvement of existing initiatives, or alternatively, there is an explicit and transparent agreement to reduce government intervention in other areas.

The MCA considers that recommendations for specific actions on particular wastes are premature until the comprehensive national report is complete, and the National Waste Framework is settled. A structured and robust approach to agreeing national priorities can then be implemented to strategically identify the best value-for-money intervention opportunities.

Conclusion

The MCA strongly supports the National Waste Policy in its efforts to:

- 'identify best practice in waste management and resource recovery and to ensure that Australia has the right mix of incentives and regulation...';
- provide a framework of guiding principles and strategies to reduce energy and water use, support jobs and invest in future long term economic growth; and
- deliver more consistent regulation across jurisdictions, and address unnecessary or poorly designed regulation.

Additionally, the MCA broadly supports the goal put forward for the National Waste Policy. However, the MCA considers that until the comprehensive national waste report is completed, and the National Waste Framework is settled, it is premature to begin to explore particular opportunities, beyond those that relate to the two overarching initiatives (e.g. ensure access to comprehensive national data and analytical tools on waste).

The National Waste Framework will be fundamental for disentangling many of the problems raised in the discussion paper Overview. Until this framework is settled, which must happen quickly, there seems little merit in progressing with particular programs or other interventions.

The National Waste Policy presents an opportunity for an agreed vision, frameworks and principles, which will enable efficient government intervention to protect the health of communities and the environment, while preventing unnecessary distortions to business decisions and the operation of markets. Many of the goals of the waste strategy directly align with the Australian minerals industry's approach to sustainable development, particularly the ongoing focus on life cycle analysis, support for more clearly linking quantified parameters with intervention activities' outcomes, and increasing resource use efficiency. The MCA considers that this policy platform provides an important opportunity to improve both the implementation and review of existing interventions as well as placing more efficient and effective procedures in place for the development of any new activities.