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**Project Manager – Queensland’s Waste Strategy Consultation**

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To the Project Manager – Queensland’s Waste Strategy

**RE: Environmental Earth Sciences Qld Submission – Queensland’s Waste Strategy Consultation**

I am writing to make a submission as part of the consultation process for the Queensland Waste Strategy currently being undertaken by the Queensland Department of Environment and Resource Management (DERM) on behalf of Environmental Earth Sciences QLD. Environmental Earth Sciences believes that, in its current form, the proposed Waste Strategy lacks the potential positive gain the strategy could have on the land development industry. A number of issues within the proposed Waste Strategy are discussed in this letter and Environmental Earth Sciences QLD requests that DERM seek further input from us as a key stakeholder as the Waste Strategy is further developed and refined.

**1.0 Understanding of Proposed Strategy and Levy**

It is understood that the main objective of the Queensland Waste Strategy is to implement a "process to help meet current and future waste management and resource recovery challenges". The goals of the strategy as stated in the Waste Avoidance and Recycling Consultation Draft (DERM 2010) are to:

1. Avoid and reduce waste;
2. Optimise recovery and recycling;
3. Develop sustainable waste industries and jobs; and
4. Foster sustainable partnerships.

As part of the proposed Queensland Waste Strategy, it is understood that a Waste Levy will be introduced. The Proposed Industry Waste Levy Consultation Draft (DERM 2010) (Levy Consultation Draft) states that the application of a levy will provide:

- a price signal to encourage waste generators to change behaviour;
- a source of funding to assist local government, business and industry establish better waste avoidance and resource recovery practices, and to improve waste management overall;
- an incentive for industry investment in resource recovery infrastructure;
- a disincentive for unnecessary landfill disposal; and



- a level playing field with waste disposal costs compared to other states.

The Levy Consultation Draft also states that the "levy funds will deliver one of the most advanced waste management and resource recovery programs in Australia".

In principle, we are in agreement with these goals and objectives and we would support any initiatives to improve environmental management and apply sound sustainable practices in Australia and internationally. We also appreciate the complexities in the practical implementation of the multiple facets of sustainability where environmental, social and financial aspects all require consideration.

## 2.0 Potential Benefits

Environmental Earth Sciences QLD has considered that the proposed Waste Strategy and associated Waste Levy may have the following potential benefits in both general terms and specifically for the contaminated land industry:

- Improved waste management practices generally - through the further development of workable procedures aimed at the waste and resource management hierarchy;
- The waste strategy is currently limited to the coastal strip of QLD and allows for better self-regulation by local government authorities and more confidence in environmental practitioners to appropriately advise both their private and public sector clients;
- The re-enforcement of the waste hierarchy, as proposed in the 2000 waste strategy for reduction, re-use and recycle of waste materials in QLD;
- The reduction in the volume of materials going to landfill that could be beneficially re-used - through a change in the philosophy of considering 'waste' more as a resource.
- To give waste generators alternatives to landfill disposal and the generation of hazardous wastes - through financial disincentives and financial and administrative assistance (direct or indirect) from regulators to waste generators;
- A more transparent process in the application of waste classification practices - through use of expected new waste classification guidelines and changing the apparent current practice of ad hoc application of Brisbane City Council Waste Guidelines and / or adoption of specific landfill Licence Conditions by other landfills;
- Improve resources for local government and DERM to implement the waste guidelines;
- An opportunity to introduce waste classification guidelines in QLD and the new waste legislation and guidelines to refer to contaminated land and other guidelines such as (but not limited to) the Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (Department of Environment 1998), Queensland Acid Sulfate Soil Technical Manual (ASSQ, QLD NRM and NHT) and the pending update of the National Environment Protection Measure (NEPM) for Assessment of Site Contamination (National Environment Protection Council);
- An opportunity to develop a robust and transparent waste classification system for the classification of waste material in QLD; and
- An opportunity to fund research programs / community programs etc., from the waste levy.



Environmental Earth Sciences QLD also envisages that a direct benefit to the contaminated land industry will be the raising of additional resources for DERM to enforce and monitor the performance of DERM approved SMPs.

It is considered that the implementation of the Waste Levy will result in a greater number of sites remediating contaminated soils on site rather than disposal to landfill and the improved use of bioremediation techniques in QLD in line with neighbouring states.

There will be an increased number of sites with residual contamination and an expected increase in the use of SMPs to manage and monitor residual contamination. Currently, we believe that there is insufficient monitoring and enforcement of existing SMPs by DERM and, therefore resources for DERM should be increased if demand for the management of on-site soils increases due to the increase levy charges.

We are staunch believer in the concepts of 'Beneficial Reuse' and 'waste as a resource' and it is expected that a robust and transparent process for approving the beneficial re-use of materials will replace the strategy of land filling materials unnecessarily by the industry.

### **3.0 Supporting Requirements**

Environmental Earth Sciences QLD considers that a new legislative framework will be required to successfully implement the Waste Strategy and welcomes this for the perceived benefits presented above.

It is stated in the Waste Avoidance and Recycling Consultation Draft (DERM 2010) that "new legislation is needed to provide regulatory underpinning for the strategy...". It is expected that through the implementation process, regulators will need to develop guidelines for but not necessarily limited to: Waste Classification, Beneficial Re-use, Waste Avoidance and Reduction, Management of Hazardous Wastes, Asbestos Management, Soil Remediation Technologies, Bio-solids, Prescribed Industrial Wastes and Specific Waste Stream Management Guidelines.

Such guidelines have been developed by other states such as NSW and Victoria, where waste levies have already been implemented. It is acknowledged by DERM that "relying on the levy as a price signal alone, without supporting programs, is less successful at achieving behavioural change".

It is also stated in the Levy Consultation Draft that "Further work will be undertaken prior to the levy starting in order to classify the lower and higher hazard regulated waste. This will be undertaken in consultation with stakeholders...".

Environmental Earth Sciences QLD believe that a comprehensive waste classification legislation is required to underpin the Waste Strategy.

Currently the classification of contaminated soil remains unclear and there is an opportunity to introduce a waste classification system similar to NSW or VIC in QLD, which does not rely, as currently undertaken, on landfills (license agreements) classifying soils as unlined, lined or mono-cell. Rather a more comprehensive system of waste classification should be considered by QLD Government. This should encompass differing levels of contamination in soils and will create financial incentives to use the waste hierarchy including further development remediation techniques in QLD.



## 4.0 Issues Identified with the Strategy as Proposed

Environmental Earth Sciences QLD has considered the Strategy as proposed by DERM and identified a number of issues with the proposed strategy with the potential to result in improved outcomes to the environment, community and industry. A discussion of these issues is provided below.

### 4.1 Cost of Levy

The proposed costs of the levy (minimum \$35/tonne) will result in a higher costs for disposal of soil to unlined and lined landfills with a minimum net increase to soil disposal costs to rise by 400% (currently ~\$15/tonne) and 100% (currently ~\$35/tonne) respectively.

Such an increase is expected to result in the following outcomes:

- increase of the development and use of on-site remediation techniques;
- an increase of contaminated sites for use as industrial rather than residential use by the current practise of land filling soil;
- the increased use of risk assessment in QLD to produce site specific criteria and more appropriate use of management techniques to manage contaminated soils in the state; and
- the increased use of innovative remediation techniques involving the management of soils on site.

### 4.2 Application of Levy to Contaminated Soils

The application of the levy does not currently differentiate between low, medium or high levels of hazardous contaminants being disposed of to landfill. The guidelines should encourage the use of remediation or recycling activities to be undertaken prior to landfill disposal. Currently the levy has the same disposal cost to landfill for the different environmental risks being posed by the materials.

We would encourage the development of a 'tiered' system of charges for differing levels of soil contamination. This will deter the disposal to landfill of untreated contaminated soil and will encourage the producer of the waste to consider reduction of the contaminant levels in soils prior to disposal to landfill.

The increase in levy charges will also increase the prevalence of the use of risk assessments, particularly on sites with historic filling of gasworks or power station waste, which has been identified as widespread across Brisbane suburbs including Brisbane, Newstead, New Farm, West End and South Brisbane. These sites often do not pose a risk to human health or the environment if good science techniques are applied, the risk is quantified, and the correct management strategies are applied to the site. The use of cheap landfill costs has often resulted in large quantities of inert material being disposed of into precious landfill space with no community benefit, only a cheap solution for developers.

### 4.3 Application of Levy to Acid Sulfate Soils

The waste levy should encourage appropriate remediation techniques for acid sulfate soils or potential acid sulfate soils (ASS/PASS) and ensure landfill would be the last management



option. See the table below for a hierarchy that Environmental Earth Sciences apply Australia-wide. We also believe over-liming to be an issue on these sites, and consider that only CPSS accredited soil scientists should write management plans on ASS. Thus, the levy is also good news for ASS management, so long as it is regulated correctly.

Other points include:

- the risks of runoff to sensitive ecosystems would only occur in poorly managed soils;
- the use of good science in assessing ASS/PASS in the first place often negates the use of excessive application of lime.

**TABLE 1 MANAGEMENT HIERARCHY**

| No. | Management Option                               | Description   |
|-----|---|---|
| 1.  | Avoidance of disturbance                        | Remove risk by avoiding disturbance                                       |
| 2a. | Prevention of oxidation (on-site)               | Reduce risk by strategic reburial below water table on-site               |
| 2b. | Prevention of oxidation (off-site) <sup>1</sup> | Reduce risk by strategic reburial below water table off-site <sup>1</sup> |
| 3.  | Neutralisation                                  | Reduce risk by buffering for potential acid production on-site            |
| 4.  | Disposal off-site                               | Reduce risk by disposing of ASS off-site for treatment                    |

**Note(s):** <sup>1</sup> for off-site reburial, materials tracking is an important and vital component

#### 4.4 Concluding Comments

Environmental Earth Sciences QLD thanks DERM for the opportunity to provide this submission for the proposed Queensland Waste Strategy. Based on our understanding of the proposed Queensland Waste Strategy, we believe that:

- The implementation of a properly formulated waste management strategy will result in improved outcomes for the environmental, community and industry;
- The Queensland Waste Strategy currently proposed will not achieve all of the possible benefits;
- The Queensland Waste Strategy currently proposed is a basis for improved waste classification systems in QLD;
- In its current form, the Queensland Waste Strategy does not provide sufficient detail to allow a complete understanding of the likely outcomes of the implementation of the strategy;
- The nature of the proposed levies applied to the disposal of contaminated soils will change the management of soil contamination in Queensland to more sustainable practices;
- Significant additional resourcing both within DERM and within the contaminated land industry would be required to ensure the effective management and regulation of such changes; and
- Environmental Earth Sciences experience and technical background of soil science means it is well placed to continue to contribute to the further development and improvement of the Queensland Waste Strategy.

Should you have any further queries, please do not hesitate to contact us on (07) 3852 6666



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On behalf of  
**Environmental Earth Sciences QLD**

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