RESEARCH PRIORITIES
REGIONAL WASTE & CONTAMINATED LAND FORUM

This is a living document prepared by members of the Regional Waste and Contaminated Land Forum. The critical issues and research needs were compiled using an online forum and meeting held on the 12th of October 2010. The priorities were ranked by representatives of each council present at that meeting (quorum obtained), and an average calculated to obtain the final overall priority for each critical issue.

This document will be updated at successive meetings and eventually integrated into a Research Strategy for the Contaminated Land and Waste Forum.

CONTAMINATED LAND

Average priority ranking allocated	Critical Issue	Research needs
1.50	Ecological effects of land contaminants	Specific New Zealand soil guideline values (SGV's) for ecological effects of some soil contaminants. Additional to the NES
2.57	Sheep dips	Identifying sheep dips
		Prioritising areas for identifying sheep dips
		Remediation/management methods (other than dig and dump)
		Educating farmers and developers
2.67	Communication and information sharing	Sharing information between agencies (e.g. FSA, DHBs, MoH etc), overcoming privacy and commercial sensitivity issues to achieve common purpose.
3.00	Contaminated Land remediation technologies	Hydrocarbon remediation (other than dig and dump)
		Reducing volumes of contaminated soil disposal at landfill
		Sustainable remediation
		Use of bioavailability as a management tool
3.00	Effect of CCA fence posts on land contamination and suitability for sensitive land uses	CCA treated fence posts create localised hotspots. At sites of high density fence posts (e.g. vineyards, kiwifruit orchards, and livestock yards) can these hotspots pose a risk to human health when land use changes to residential?
3.33	Public perceptions of contaminated land	Effect of HAIL on property values
		Perceptions of 'potential contamination'
		Community engagement in large scale investigation/remediation projects
3.83	Minimum soil sampling standards for site investigations	It is time that CLMG #5 is reviewed. In depth research/consideration is required to determine a) how far standards can go without being unrealistic; and b) what standards should be used. The findings of this research may be used in MfE's review of Guideline #5.
4.50	Nationally consistent database for contaminated land	A uniform structure for the storage of contaminated and potentially contaminated land that will ensure consistent information capture and national reporting.
4.60	Contaminated land classification and information management protocols	It is time that CLMG #4 is reviewed. In depth research/consideration and consultation with stakeholders is required to ensure that the classification method chosen is suited to the majority of users, and that it fulfills MfE requirements for national reporting. Information management protocols need to be set so that the public can have a consistent expectation of what information is available from regional councils and via the LIM process. The findings of this research may be used in MfE's review of Guideline #4.
6.00	Monitoring of the cadmium management	After the Cadmium management strategy is adopted, there needs to be a long-term programme in place enabling monitoring of the

	strategy	accumulation of cadmium in soil to ensure that the management strategy as written is effective in achieving its objectives. The findings of this research may be used to either support the strategy long term, or provide technical advice as to improvements that could be made.
10.00	Lakes and Rivers	Arsenic in the Waikato River- presence and effect on recreation, evaluation of risk

WASTE

Average priority ranking allocated	Critical Issue	Research needs
1.22	Waste tyres	Recycling opportunities, disposal options, potential effects on the environment, cost/benefit analysis of options (including business case).
2.20	Organic materials being landfilled; not only are they using up valuable landfill space, they produce methane & hence contribute to GHG emissions, & the nutrients they contain are not being returned to the soil.	Pasture growth and nutrient content for the compost industry (and possibly carbon sequestration potential as well). Analyses of pasture grown using commercially produced compost compared with that grown using inorganic/chemical fertilisers, not just NPK & sugar but more comprehensive. This would provide data the compost industry could use to promote their products to agriculture & horticulture, and hence help diversion of green waste and putrescibles from landfill. The group has not done a full review of what has been done already, but nothing like this is known of by members present at the 12th Oct meeting. C sequestration is likely to be very useful research for ETS. The use of organic composts builds soil structure, and has been shown to store significant C compared with systems based on inorganic fertilisers - research has been done on this elsewhere but probably not in NZ. The production volumes and factors effecting methane production from organic materials may also be a topic for consideration.
2.25	Contaminated soil	Alternative remediation options to reduce the amount of contaminated soil going to landfill e.g. mine waste, tailings, hydrocarbon impacted soils.
2.67	Emergency responses to waste management	Planning emergency responses (in conjunction with Civil Defence) for all types of wastes, incl. C & D waste, animal products in the event of foot and mouth disease, hazardous wastes etc.
2.83	C & D waste	Disposal options and potential environmental effects of treated timber; reuse options, cost/benefit analysis for the reuse of old material vs. virgin materials, bylaws.
3.00	Waste information collection and release	How to implement consistent information collection across the country, overcome commercial sensitivity issues and ensure that the information is being used to its full potential.
3.50	Product stewardship schemes	New opportunities
		Collaboration opportunities within industry
		Efficiency and uptake of schemes by their target audience
6.00	E-waste	Recycling opportunities, disposal options, potential effects on the environment, cost/benefit analysis of options (including business case).
6.00	Public perceptions	Changing behavior towards waste, recycling and reuse; incentives, triggers for behavioral change.
7.00	Review of priority waste matters.	The Ministry for the Environment may still consider formalising a list of priority waste streams, information on what those should be based on volume vs. risk arguments could be useful.