**Waste 2017 Abstract Submission**

**Biosecurity concerns relating to the land application of waste**

*My presentation is relevant to the following topic area(s).*

🞎 Circular economy 🞎 Overseas experiences

🞎 Collection (inc MUD’s, transient population areas) 🞎 Problem/Hazardous waste (inc asbestos, clinical &

🞎 Container Deposit Schemes medical, ocean plastics, paint, tyres etc)

🞎 Economics (inc business cases, data gathering, 🞎 Product Stewardship

monitoring performance) 🞎 Regional issues

🞎 Education (inc community engagement) 🞎 Recycling (inc CRC’s, collection)

🞎 E-Waste ✓ Regulations and levies

🞎 Grants (outcomes and processes) 🞎 Social enterprise

🞎 Infrastructure (inc major waste grants, EfW, organics) 🞎 State based issues (eg. Fit for the Future NSW)

🞎 Innovative projects (case studies preferred) 🞎 Technology

🞎 Landfill (inc operations, regulations) 🞎 Tenders and contracts

🞎 Litter and/or illegal dumping (inc litter initiatives) 🞎 Other ✓Organics (inc collection, processing)

**Presenter information**

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**Biography**

Julie Cattle works in the Waste Strategy and Innovation Section of the NSW EPA. Her role involves providing advice on scientific aspects of applying waste to land. Julie has a PhD in soil science with a research background in contaminants in both urban soil and naturally enriched environments. Prior to this she worked in the NSW EPA's Science Branch. She has also worked for the French National Institute for Agricultural Research and as an environmental consultant in contaminated site assessment.

**Abstract Summary**

Biosecurity is the protection of the economy, environment and community from the negative impact of pests, diseases, weeds and contaminants. The Biosecurity Act 2015 and the Biosecurity Regulation (soon to be finalised), administered by the NSW Department of Primary Industries (DPI), will commence in 2017. This legislation will affect the way the NSW Environment Protection Authority (EPA) regulates waste. DPI and EPA legislation and regulation intersect when wastes are land applied as a fertiliser or soil amendment on agricultural land. The broad definition of biosecurity matter captures any waste that contains a meat or animal product, physical contaminants such as glass and plastic, chemical contaminants, and plant propagules.

**Abstract**

Biosecurity is the protection of the economy, environment and community from the negative impact of pests, diseases, weeds and contaminants. The Biosecurity Act 2015 and the Biosecurity Regulation (soon to be finalised), administered by the NSW Department of Primary Industries (DPI), will commence in 2017. The Act will provide a statutory framework for the prevention, elimination and minimisation of biosecurity risks.

This legislation will also affect the way the NSW Environment Protection Authority (EPA) regulates waste. Wastes land applied as a fertiliser or soil amendment are typically used on current or future agricultural land. There is a clear intersection here between DPI and EPA legislation and regulation.

Some key definitions are necessary to help understand the concerns surrounding biosecurity and waste application to land. *Biosecurity matter* is an all-encompassing term for any part or product of a living thing, disease or disease agent, prion or contaminant. *Prions* are agents that cause transmissible spongiform encephalopathy (TSE) diseases such as “mad cow disease”. *Restricted animal material (RAM)* is any vertebrate product (except milk or tallow/gelatin) including blood, meat, poultry, fish, feather, and bone meal, and compounded feeds made of these products. RAM is banned from feeding to ruminant animals such as cattle, sheep and goats to minimise the risk of TSE and also Foot and Mouth disease. The broad definition of biosecurity matter therefore captures any waste that contains a meat or animal product, physical contaminants such as glass and plastic, chemical contaminants, and plant propagules.

The EPA’s Resource Recovery Order and Exemption mechanism facilitates the land application of waste for beneficial reuse. The Orders and Exemptions currently include some controls to minimise biosecurity risks, however to increase protection to an acceptable level they will require some changes to improve the processing of organic wastes and better control land management practices. A range of organic wastes will be scrutinised, including food wastes, rapidly decomposed or dehydrated food wastes, compost, vermiculture outputs, mixed waste organic outputs, grease trap waste, biosolids, manure, pasteurised garden organics and mulch. The different methods of processing recycled organic wastes must be rigorous enough to destroy disease causing agents and pests that may cause a biosecurity impact.

Recent examples of joint efforts by DPI and the EPA include investigation of livestock grazing on land with active waste application, and a site where cattle were found eating food waste illegally dumped in a paddock.