



Government of **Western Australia**  
Department of **Health**

Enquiries: Chemical Hazards (08) 9222 2000

Department of Water and Environmental Regulation  
Locked Bag 10  
JOONDALUP DC WA 6919

Via email to: [wastereform@dwer.wa.gov.au](mailto:wastereform@dwer.wa.gov.au)

## **FEEDBACK ON LEGISLATIVE FRAMEWORK FOR WASTE-DERIVED MATERIALS**

The Department of Health (DOH) welcomes the opportunity to provide comment on the issues paper '*Waste not, want not: valuing waste as a resource*'.

The Environmental Health Directorate of the DOH wishes to thank the officers at the Department of Water and Environmental Regulation (DWER) involved with this very important piece of work. Comments are attached for their consideration.

In addition, to support this legislative direction, the DOH urges the DWER to progress amendments to the *Environmental Protection Act 1997* and the *Waste Avoidance and Resource Recovery Act 2001* which would allow risk-based reuse of material.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Matthew Lester'.

Matthew Lester  
**A/EXECUTIVE DIRECTOR**  
**ENVIRONMENTAL HEALTH DIRECTORATE**



## Department of Health feedback on legislative framework for waste-derived materials

### Issues paper: 'Waste not, want not: valuing waste as a resource'

The DOH supports the principles of a “circular economy” and the reuse of waste material where it is demonstrably *suitable for use* and does not represent an *unacceptable risk to public health*.

The DOH is aware that poorly managed movement, stockpiling, treatment and disposal of waste material can give rise to significant public health impacts and heightened community concern, which can also give rise to physical and psychological harm.

The DOH favours a legislative framework that results primarily in the minimisation of waste creation, and thereafter, the strict application of the *waste hierarchy* (i.e. waste-prevention>reuse>recycle>energy-recovery>safe-disposal). The current proposal, which seeks to minimise the creation of new waste through the beneficial reuse of existing waste material, appears to be consistent with this important principle.

In order to support this principle, the DOH would favour a legal definition of ‘waste’ that reflects its *suitability for use*, rather than its perceived usefulness at the point of creation. This approach would allow material that is considered to be *useless* at the point of creation, to be redesignated as a valuable resource if it becomes demonstrable *suitable for use* by another person. In particular, “surplus material” that is *suitable for use* should not be defined as waste at all.

This approach appears contrary to the judgement in the Eclipse Case, which focusses on the usefulness attributed by the person creating the ‘waste’, rather than the usefulness or intrinsic worth of that material to others. The DOH believes that a legislative framework which allows for the re-designation of material, based on a test of ‘*suitability for use*’, may assist and support industry in realising the intrinsic value of such material and therefore promote its reuse.

*For example*, putrescible waste may be taken out of the definition ‘waste’ where it is *suitable for use* as a feedstock for biogas/compost production. Demolition wastes may fall out of the definition of waste if hazardous materials are effectively removed or treated to the extent that the material is demonstrably *suitable for use* as “granular sub-base”. Surplus topsoils removed from a ‘greenfield’ development site that is demonstrably *suitable for use* without further treatment should not be defined as waste at all.

The DOH recommends that the *suitability for use* of material should be determined prior to use, through a robust health (and environmental) risk assessment process. The risk assessment should consider not only the level of hazardous substances within the material (e.g. asbestos, lead, arsenic), but also the *likelihood* that those substances will harm those who come into contact with the material and future users of the material.





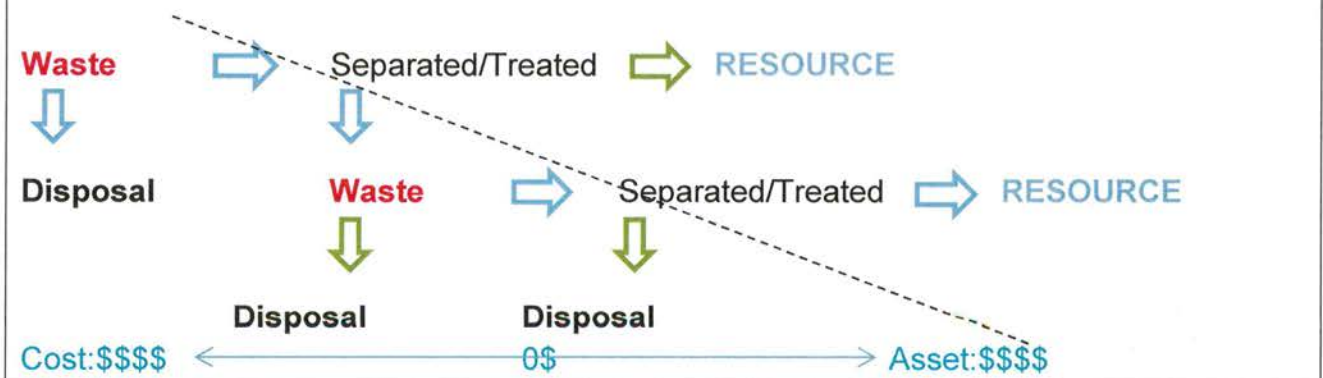
*For example, demolition rubble containing asbestos may be suitable as granular fill if it is buried >3m below a development platform, or where incinerator ash containing heavy metals may be suitable for use in concrete block manufacture, provided the metals have been stabilised or converted into low solubility forms within the concrete matrix.*

This risk-based approach is consistent with current modern, proportionate and sustainable regulatory decision-making processes and has been established in Australian public health (enHealth, 2012), environmental protection (NEP(ASC)M) and occupational health and safety regulatory standards; and State contaminated sites, asbestos in soils, non-potable water guidance.

The adoption of a consistent risk-based approach to the definition of waste will provide a clear pathway to facilitate the suitable reuse of materials previously regarded as waste, attribute intrinsic value to such material as a resource, encourage effective waste separation and treatment at source, and promote investment in new and more effective waste treatment technologies, with associated environmental health, social and economic benefits.

It is acknowledged that, in the first instance, the separation and treatment of mixed or uncontrolled waste-streams may be complex. The DOH therefore emphasises the importance of effective materials management and handling processes at the point of waste creation, so that valuable resources can be separated from waste streams at the earliest stages, and cross-contamination of the resource stream can be minimised.

*For example, the effective identification and separation of hazardous materials from a building prior to demolition may prevent cross-contaminating the whole load of demolition waste, allowing its reuse as valuable granular fill resource, without further assessment or treatment, eg.:*





### Case Study

The DOH is aware of a recent Appeal Court case, Environment Protection Authority v Grafil Pty Ltd; Environment Protection Authority v Mackenzie [2019] NSWCCA 174 <https://www.caselaw.nsw.gov.au/decision/5d41081be4b079006a129d20>.

The NSW Appeal Court found that the estimated presence of 634grams of asbestos containing material (ACM) within 44,000tonnes of demolition rubble (i.e. 0.0000014%w/w asbestos by weight) would be “*sufficient to cause severe risk to human health if people were to be exposed to [it]*”, and under the existing NSW *Protection of the Environment Operations Act 1997*, that material should be regarded as *waste* required to be disposed to landfill.

As this material contained less asbestos than the NEP(ASC)M and WA Health 2009 guidelines, currently set at 0.001%w/w fibre (0.01%w/w bonded asbestos cement) for all land uses, the DOH suggests that under a *modern, risk-based waste definition* the material would not be regarded as a hazardous waste, but rather it should be considered as a valuable resource *suitable for use* as a clean fill.

### Broader Public Health Issues

In order to fully realise the potential for a *circular economy*, Western Australia’s waste treatment and reuse sector may need to be significantly up-scaled. The DOH is aware that the separation, sorting, screening and treatment of waste material can, itself, give rise to public health impacts. The operational management of such sites would require careful and robust management and regulation to ensure that operations are effective and sustainable, and uncontrolled accumulations of waste prevented. This should include significant community/stakeholder engagement.