

Guidance on the resource recovery order and exemption for mulch

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1. Introduction

<u>The mulch order 2016</u> (the order) and <u>The mulch exemption 2016</u> (the exemption), issued under the Protection of the Environment Operations (Waste) Regulation 2014 (2014 Waste Regulation), apply to the supply and land application of mulch as a soil amendment. *Guidance on the resource recovery order and exemption for mulch* should be read in conjunction with the order and the exemption and applies only to mulch as defined therein. Provided all the conditions in the order and the exemption are met, any person in New South Wales can apply mulch to land.

1.1 Resource recovery framework

In New South Wales, if you intend to:

- apply waste to land
- use waste in connection with a process of thermal treatment
- · use waste as a fuel

you generally need to hold an environment protection licence and/or pay the waste levy for waste disposal depending on your location. However, the NSW Environment Protection Authority (EPA) has the power to release a **consumer**¹ from these requirements and permit the waste to be re-used for the above three purposes, subject to strict conditions. We issue two kinds of documents for this purpose – **resource recovery orders (RROs)** and **resource recovery exemptions (RREs)**. These documents address different parts of the waste re-use supply chain and are released as a package. First, however, it must be shown that the waste can be re-used safely and beneficially.

1.2 The beneficial land application of mulch

Mulch as a ground cover or a soil amendment improves underlying soil moisture retention, reduces soil erosion and compaction, maintains soil temperatures and suppresses weeds (which reduces the need for pesticides) (Chalker-Scott 2007). However, there is evidence linking the transmission of weeds, diseases and pests from mulch to the soil and living plants. Hence the use of mulch promotes benefits but may also inadvertently cause harm to the receiving environment and living plants.

Land applying mulch that contains a weed, disease or pest can cause their introduction or their spread in the receiving environment. This can cause serious losses to crop and livestock production, harm the health of communities, and threaten ecological communities (Blackmore 2008). It is the EPA's regulatory responsibility to protect against these risks and to achieve this we have developed an order and exemption for the land application of mulch as a soil amendment.

Mulch can be applied directly to land without any treatment; therefore it is essential to have measures in place that identify and mitigate any potential risks. The inappropriate land application of mulch can have wide ranging negative impacts including some affecting the wider community. While we all have a vested interest in the minimisation of the potential harm of land applied mulch, the order and exemption are based on the idea that the suppliers and consumers of mulch are responsible for minimising the potential harm its land application can cause.

1.3 About these guidelines

Guidance on the resource recovery order and exemption for mulch provides advice and management options for mulch. It further explains the order and exemption and will assist you in understanding your responsibilities. Guidance on the resource recovery order and

¹ The definitions of **terms in bold** are provided in the glossary.

exemption for mulch seeks to assist both processors who supply mulch to consumers and consumers who land apply mulch, to comply with their respective conditions and obligations. Certain sections will be more pertinent to your specific operations.

To facilitate the beneficial land application of mulch, the EPA has adopted a risk-based strategy that requires you to consider the likelihood and consequence of the presence of weeds, diseases and pests in mulch. Under this approach, the processor must develop a written risk management protocol to minimise the potential for the land application of mulch to cause:

- harm to the environment, and
- the introduction, presence, spread or increase of any weed, disease or pest.

The risk management protocol allows for strategies to mitigate the known and unknown risks, recognising the variations in the quality of mulch generated in New South Wales. The requirement to identify weeds, diseases and pests ensures the potential risks are recognised upfront, allowing the mulch to be managed accordingly.

The order and exemption specifically protect areas of high ecological, social and economic value (i.e. **environmentally sensitive areas**) from mulch that poses a substantial risk of causing adverse impacts.

Guidance on the resource recovery order and exemption for mulch deals with the supply and land application of mulch under the order and exemption only. You should read it alongside relevant legislation and guidelines. It is your responsibility to seek any necessary legal advice to ensure that all your regulatory responsibilities are met including whether your activity requires EPA approval.

If you engage a person to manage and supply your mulch, you have a responsibility to ensure the activity carried out is consistent with all conditions in the order and exemption. Similarly, the *Protection of the Environment Operations Act 1997* (POEO Act) requires waste to be transported to a place that can lawfully accept it. The owner of the waste is legally responsible for proving it was transported to a lawful place.

Other relevant legislation with requirements that must be observed but which are outside the EPA's regulatory control includes, but are not limited to, <u>Plant Diseases Act 1924</u>, <u>Noxious Weeds Act 1993</u> and <u>Threatened Species Conservation Act 1995</u>.

2. What is mulch?

Mulch means plant material shredded and/or screened to a preferred particle size grading for particular applications. Mulch, by virtue of the nature and source of the plant material, must pose minimal risk of the presence of physical and chemical contaminants.

Mulch may include urban wood residues and forestry and sawmill residues. Mulch does not include plant material from kerbside waste collections.

Mulch can be generated, for example, by councils from the general maintenance of parks and reserves, by arborists in the course of their work for the community, as well as by businesses undertaking land clearing projects.

2.1 Restrictions and exclusions

The processor is responsible for ensuring that mulch supplied to a consumer contains no asbestos, engineered wood products, preservative treated or coated wood residues or physical contaminants such as glass or plastics. You can establish and implement quality control procedures to protect against the possibility of these contaminants being present in the mulch you supply. In most circumstances, mulch produced from well-managed, small-scale arboriculture activities is considered unlikely to contain physical or chemical contaminants.

Some waste generated from plant material falls outside the scope of the order and exemption, including:

- · kerbside waste collections
- storm-generated plant material
- orphan plant material or mulch.

Kerbside waste collections are a variable waste stream. They can contain a high occurrence of physical and chemical contamination as well as plant material with a wide range of unidentified weeds, diseases and pests from domestic and commercial generators. The quality of the input plant material impacts greatly on the quality of the resulting mulch.

RROs and RREs address the land application of commonly used and distinct waste streams in New South Wales. The management of waste, including **plant material from storm events or other natural disasters**, should be guided by a specific emergency management plan.

In the case of **orphan plant material or mulch** it is not possible to assess the source of the plant material, as this is usually unknown. The potential presence of physical and chemical contaminants is also a risk, therefore this material is excluded from this order and exemption.

It may still be possible to beneficially land apply these three wastes under other RROs and RREs as outlined in the next section.

2.2 Weeds, diseases and pests

The EPA recognises that mulch containing a weed, disease or pest may provide some benefit to the soil when land applied under clearly defined circumstances. The land application of mulch containing a weed, disease or pest is permitted by the order and exemption through the preparation and implementation of a risk management protocol. This activity needs to be given appropriate consideration to minimise the potential to cause harm to the environment by the introduction or spread of a weed, disease or pest.

While the application is permitted under the conditions of the order and exemption, it is the strong recommendation of the EPA that mulch containing a weed, disease or pest, along with mulch that has a significant risk of the presence of physical and chemical contaminants, be assessed against and comply with the conditions of <u>The pasteurised garden organics order</u> 2016 and <u>The pasteurised garden organics exemption 2016</u>, or <u>The compost order 2016</u> and <u>The compost exemption 2016</u>.

The land application of **pasteurised garden organics** and **compost** also have specific measures to mitigate risk. This suite of documents utilises treatment methods to ensure plant material, along with other wastes, does not cause an adverse impact on the environment, human health or the quality of agricultural products. The EPA considers pasteurisation to be the minimum treatment needed to significantly reduce the risk posed by weeds, diseases or pests in mulch. Keeping a record of the process, as well as sampling and testing, are also conditions of the supply and land application of pasteurised garden organics and compost.

The first section of the flowchart in Figure 2 provides a summary of the options available for the management of plant material under the resource recovery framework.



Figure 1: Mulch

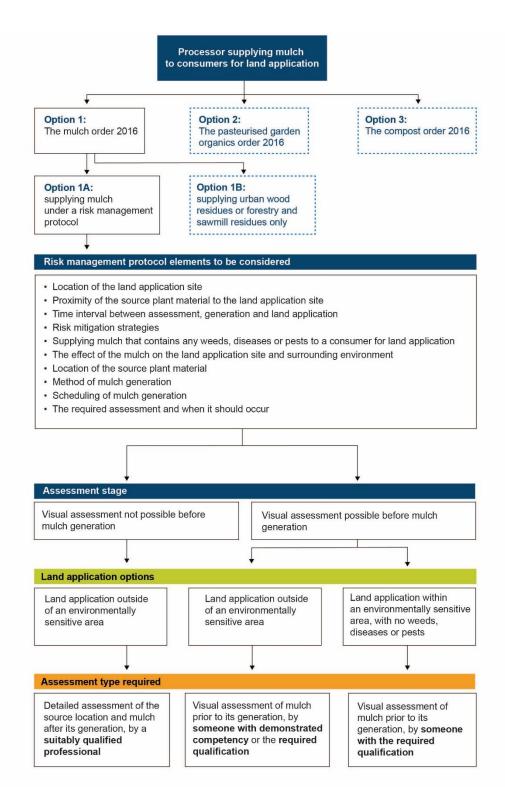


Figure 2: Flowchart of the options available for the management of plant material under the resource recovery framework, the elements of a risk management protocol and aspects of mulch assessment

3. What are environmentally sensitive areas?

Environmentally sensitive areas are assets that have significant environmental, economic and social value to New South Wales. They provide social and lifestyle amenities to communities, sustain biodiversity and support industries such as aquaculture and forestry (Department of the Environment and Water Resources 2007). They can be sensitive to negative impacts and once impacted, the severity of harm can be devastating.

As required by Part 3 of the *Environmental Planning and Assessment Act 1979*, each local government area in New South Wales produces a local environmental plan (LEP). Each LEP contains a comparable definition for *environmentally sensitive area*. That definition is reproduced in the order and in the glossary of this document.

Each local government is given the opportunity to include additional environmentally sensitive areas in their own LEPs, which are readily available to the public. This is taken into account in the order in clause (k) of the definition. Agricultural land has also been included in clause (l) of the definition. This is due to the importance of primary industries, and interrelated industries, to land managers and to the overall health of New South Wales.

The <u>Protected Matters Search Tool</u> is a web-based search tool that will help you identify environmentally sensitive areas, publically available through the Australian Government Department of the Environment and Energy website.



Figure 3: White Box Grassy Woodland (*Eucalyptus albens*) remnants, a critically endangered ecological community within the grounds of Marrar Cemetery and a native woodland of national environmental significance

3.1 How are environmentally sensitive areas protected?

The order restricts the supply options open to a processor based on the type of assessment carried out and the intended land application site. This approach is designed to provide maximum protection to environmentally sensitive areas. The land application of mulch in environmentally sensitive areas is only permitted by the order if, prior to mulch generation,

the plant material is assessed by a person who has achieved Australian Qualifications Framework Units AHCPMG301A (Control weeds), AHCPMG302A (Control plant pests, diseases and disorders), or AHCPCM303A (Identify plant specimens), or an equivalent qualification, and no weed, disease or pest is subsequently detected.

It is important to note that pasteurised garden organics and compost can be land applied in environmentally sensitive areas under *The pasteurised garden organics order 2016* and *The pasteurised garden organics exemption 2016*, along with *The compost order 2016* and *The compost exemption 2016*.

Some recommended practices for suppliers

The following best practice models, a mobile and fixed service, are recommended if you plan to operate a mulch or wood chipping service under the order and exemption.

Providing advice on plant material accepted by your service, which can be specific to your area, would reduce the risk of adverse inputs to the mulch. Where possible, you should communicate this advice to users of the service. You can also quiz the owner of the waste about whether any weeds, diseases or pests are present in their plant material.

The segregation of acceptable plant material is an important part of both models so that cross-contamination can be mitigated. Effective hygiene procedures for tools and machinery also reduces the risk of cross-contamination.

Education strategies for consumers about where and how the mulch can be land applied is advised. Informing the consumer that the mulch may contain weeds, diseases or pests is worthwhile; however, this is not an acceptable risk mitigation strategy as it does not remove the potential for the land application of the mulch to cause harm to the environment.

Continuous education and training for persons operating the mulch services should be provided.

Mobile service

The mobile service model involves the use of a mobile chipper where the source plant material is located. Plant material must be visually assessed prior to mulching, to identify weeds, diseases or pests, by a person with a suitable level of qualification as outlined in the order. This model is preferable because the mulch is land applied near to where it is sourced, and therefore, is unlikely to cause the introduction or spread of any weed, disease or pest in the receiving environment.

Fixed service

This involves a central facility operated on an ongoing basis where plant material can be regularly dropped off. Plant material must be visually assessed prior to mulching, to identify weeds, diseases or pests, by a person with a suitable level of qualification as outlined in the order. This model allows the processor to directly manage all plant material received and mulch produced, enabling land application in accordance with the risk management protocol and the order.

4. Writing a risk management protocol

Before mulch is supplied to a consumer, the processor must develop and implement a written risk management protocol. The limited circumstances where a risk management protocol is not required are discussed in the next section. The aim of the risk management protocol is to reduce the potential to cause harm to the environment at the land application site, and the introduction, presence, spread or increase of any weed, disease or pest.

Harm to the environment means any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, as defined in the POEO Act.

The protocol should describe how potential risks from the land application of mulch will be identified, as well as how the management of the mulch will be modified in response to those risks. It ensures the processor considers all phases of their mulch activities on or before supply, or if possible on or before generation. Once implemented, mulch must be land applied in accordance with the risk management protocol and the order.

4.1 Restrictions and exclusions

Mulch that is comprised only of **urban wood residues** and **forestry and sawmill residues** is excluded from the need for a risk management protocol. These waste streams pose a minimum risk of introducing or spreading any weed, disease or pest through their land application because of the manufacturing and handling processes they are subject to. Additionally, forestry operations have suitable management and control measures in place to safeguard this highly valued commodity, and diseased plant material is likely to be excluded from these waste streams at initial stages. However the supply and land application of such residues is still regulated by all other conditions of the order and exemption.

4.2 What should a risk management protocol include?

The risk management protocol must include a:

- version
- date
- signature of approval
- scope.

The scope should describe what activities are covered, where they take place, the source plant material and the type of land application sites involved. A risk management protocol can be prepared for one or a number of the following: a recurring or one-off activity, a source of plant material, a person, a class of persons or an area. The content of a risk management protocol can be tailored to your operational needs. Procedures and systems you already have in place within your organisation may meet the conditions of the order and exemption, or may need amending.

The order lists considerations to be addressed by the risk management protocol; however, the level of risk associated with each consideration should be assessed by the processor and justification for this provided. The following considerations as listed in the order are expanded below to help users gain a better understanding; they are by no means exhaustive.

Location (refer to condition 6.3.1 of the order)

The processor must keep a record of the location of the source plant material. For ongoing activities these can be detailed in the risk management protocol as work orders, or as a defined location for a single project. All potential locations should be identified. A number of locations that are close to each other and possess similar characteristics (or are of a similar type) can be identified and grouped.

Composition of the mulch (refer to condition 6.3.2 of the order)

The method of mulch generation, or following on from this, the composition of mulch, is an important factor that affects its risk profile. For example, the presence of soil can cause harm if soil-borne diseases are present. Additional consideration should be given to supplying and land applying mulch that has recently come into contact with pesticides, either before or after generation. Some pesticides are residual in action and continue to be effective for days, weeks or months after their application.

Proximity (refer to condition 6.3.4 of the order)

Weed propagules, plant disease-causing pathogens and pests can be transported from one area to another by various non-human means including physical contact between growing plants, wind-borne transfer, the independent movement of water and soil erosion by water, and the movement of animals. Weeds, diseases or pests can be actively spread by human activities through the use of mulch in areas outside their natural range. The EPA therefore encourages the land application of mulch in close proximity to where it was sourced. Regardless of human intervention, incidental infestation or infection is likely to occur by other means in close proximity to these areas. This consideration will be dependent on the specific weed, disease or pest involved.

Time intervals (refer to condition 6.3.5 of the order)

The risk management protocol should take into account the appropriate period of time between each step in the re-use supply chain for mulch. Considerations include changes to plant material at the source site and the decomposition of stockpiled mulch prior to land application.

The effect on the land application site (refer to condition 6.3.6 of the order)

The intended land application site(s) and the surrounding area should be identified and considered in the risk management protocol. Factors that may impact negatively upon them and their susceptibility to these impacts should be taken into account. These include, but are not limited to, the presence of environmentally sensitive areas, the effect on current land use (e.g. is the area of social value to the local community or bordering a farm that is a primary producer?), the risk of spreading a weed, disease or pest through human activities after the mulch is applied to land, and the risk of bushfires in the area.

Buffer zones for the land application of mulch adjacent to environmentally sensitive areas have not been specified in the order. The EPA recommends that identified risks are communicated to the consumer of the mulch by the processor through written measures, if required. Also a distance of at least 100m should be maintained between the land upon which mulch is applied and environmentally sensitive areas.

Mulch containing any weed, disease or pest (refer to condition 6.3.8 of the order)

The decision to land apply mulch that contains a weed, disease or pest must be carefully thought out and based on evidence to minimise its potential to cause the introduction or spread of these components. Justification for the decision must be documented and records kept in line with the order. The supplier may need to seek expert scientific or technical advice on whether the land application may cause harm. The risk management protocol can specify a suitably qualified professional to undertake this task.

Risk mitigation strategies (refer to condition 6.3.9 of the order)

Risk mitigation strategies can be developed and implemented by the processor to minimise potential adverse impacts of the mulch on the environment. Such controls can include the creation and implementation of education strategies by local governments for residents, or the development of, and adherence to, hygiene procedures for arborists.

Appropriate hygiene procedures help to minimise the introduction and spread of weeds, diseases and pests arising through human activities. The application of appropriate hygiene procedures is recommended for any items that can process / transport mulch. This includes items such as industrial machinery, vehicles, tools, footwear, construction materials, road-building materials and water.

The centre section of Figure 2 provides a summary of the elements of a risk management protocol.

4.3 Continuous improvement

Weeds, diseases and pests can be specific to certain areas of New South Wales and the situation is constantly evolving. Equally, once implemented, measures provided in your risk management protocol may not remain suitable for identifying or reducing potential environmental risks. Therefore you are required to routinely assess your risk management protocol to ensure its measures remain relevant and effective.

There are many sources of information and expertise available to processors developing a risk management protocol. The <u>NSW Department of Primary Industries</u> (DPI) takes the lead on biosecurity within the NSW Government. <u>Local Land Services</u> (LLS) works with landholders, industry and the community to uphold biosecurity. Local knowledge from volunteer groups or businesses is indispensable and should be utilised. Expertise may also be available from within your organisation.



Figure 4: Mulch equipment

5. Assessing the mulch

Keeping records of the scientific or common name and extent of any weed, disease or pest detected is required by the order to guarantee the appropriate management action is selected.

If the processor does not have knowledge of the land application site on or before the supply of mulch to a consumer, it cannot be guaranteed that the land application site is not in an environmentally sensitive area. For this reason, it is the responsibility of the processor to ensure the consumer is aware of all of their obligations. To achieve this the processor must supply the consumer with relevant written measures required of them by the risk management protocol and the order. If this is impractical the alternative is to supply mulch that can be land applied without constraints.

The inclusion of more advanced qualifications in future revisions of the order is likely to be considered. At present their inclusion is deemed impractical for the broader industry. This is because the number of qualified persons is unlikely to be able to meet demand and a gradual approach to the new risk-based strategy is preferable. More advanced qualifications would help to raise standards for managing mulch in New South Wales.

Progressive levels of qualifications are needed for the assessment of the source plant material / mulch, to expand the options available for its land application. This must be a requirement of the risk management protocol. Following this, an informed decision can be made on the management requirements for the mulch.

There are three levels of qualifications set out in the order:

- demonstrated competency
- required qualification
- suitably qualified professional.

The lower half of Figure 2 shows land application options and the assessment type required for each.

5.1 Assessment types

Under the order, a visual assessment of the source plant material prior to mulch generation, by a person with demonstrated competency or a required qualification, is a practical and efficient method of identifying weeds, diseases or pests, and ensures that the mulch is well characterised.

Demonstrated competency

A person with demonstrated competency in identifying weeds, diseases or pests significant to their enterprise can carry out a visual assessment of the source plant material. Competency can be demonstrated in a range of ways through documented education and/or experience in your relevant enterprise, undertaking practical examinations or assessments, keeping evidence from third parties, or participating in structured assessment activities (Australian Qualifications Framework Council 2012).

Required qualification

Plant material assessed by a person who has achieved Australian Qualifications Framework Units AHCPMG301A (Control weeds), AHCPMG302A (Control plant pests, diseases and disorders), or AHCPCM303A (Identify plant specimens), or an equivalent qualification, can be land applied as mulch anywhere in New South Wales provided no weed, disease or pest is detected. Plant material intended to be land applied in an environmentally sensitive area must be assessed, at a minimum, by a person with these qualifications.

However, where possible, the EPA recommends higher qualifications than those required by the order for a visual assessment of source plant material that is intended to be land applied in an environmentally sensitive area. Ideally the diagnosis and assessment of plant health should be carried out by a person who has achieved AHCPCM501A (Diagnose plant health problems) or AHCARB503A (Diagnose tree diseases), or an equivalent qualification. A list of all relevant qualifications included in the order and exemption can be found at www.training.gov.au, which is managed by the Australian Government, Department of Education and Training.

The order encourages a visual assessment of plant material prior to generation, however, this is not always a workable option.

Suitably qualified professional

In instances where a visual assessment cannot be carried out prior to mulch generation, the mulch generated and the location where the plant material was sourced must be assessed prior to supply. A **suitably qualified professional** can assess the risk posed by the land application of mulch, based on their expert opinion, by taking into account influences such as the probable or confirmed presence of any weed, disease or pest in the mulch, the location where the plant material was sourced and the effect on the intended land application site. This may involve the collection and testing of samples from the source location and/or the mulch. An assessment using this method is difficult to complete comprehensively, therefore any mulch assessed under these circumstances cannot be land applied in an environmentally sensitive area.

It is advisable that a person employed to undertake such assessments is a member of a relevant association. This would allow them access to a broader range of up-to-date information and peer support networks to facilitate continuous improvement.



Figure 5: Cats claw creeper (Macfadyena unguis cati), a Class 3 environmental pest plant

6. Glossary

application or apply to land

applying to land by:

- (a) spraying, spreading or depositing on the land
- (b) ploughing, injecting or mixing into the land, or
- (c) filling, raising, reclaiming or contouring the land.

asbestos

the fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite.

compost

any combination of mulch, garden organics, food waste, manure and paunch that has undergone composting as defined in *The compost order 2016* and *The compost exemption 2016*.

consumer

a person who applies, or intends to apply, mulch to land.

disease

anything declared by order under section 28B of the <u>Plant Diseases Act 1924</u> to be a disease.

engineered wood products

engineered, painted, treated or composite wood products such as particleboard, oriented strand board, plywood, laminated veneer lumber, glulam or fibreboard that are manufactured with glues, resins, water repellents, fire retardants, fungal inhibitors and/or other chemicals.

environmentally sensitive area

any of the following:

- (a) land to which <u>State Environmental Planning Policy No 14—Coastal Wetlands</u> or State Environmental Planning Policy No 26—Littoral Rainforests applies
- (b) land within a wetland of international significance declared under the <u>Ramsar Convention on Wetlands</u> or within a World heritage area declared under the <u>World Heritage Convention</u>
- (c) land reserved as an aquatic reserve under the <u>Fisheries Management Act 1994</u> or as a marine park under the <u>Marine Parks Act 1997</u>
- (d) land within 100 metres of land to which paragraph (a), (b) or (c) applies
- (e) land identified in any environmental planning instrument as being of high biodiversity significance
- Iand reserved under the <u>National Parks and Wildlife Act 1974</u> or land acquired under Part 11 of that Act
- (g) land reserved or dedicated under the <u>Crown Lands Act 1989</u> for the preservation of flora, fauna or for other environmental protection purposes
- (h) land identified as being critical habitat under the <u>Threatened Species</u> <u>Conservation Act 1996</u> or Part 7A of the <u>Fisheries Management Act 1994</u>
- (i) land dedicated or set apart under the <u>Forestry Act 2012</u> or the former Act as a flora reserve
- (j) land (including subterranean lands) declared to be a wilderness area under the <u>Wilderness Act 1987</u> or the <u>National Parks and Wildlife Act 1974</u>
- (k) any additional areas listed as an environmentally sensitive area in a relevant Local Environmental Plan, and
- agricultural land being land used for broad acre cropping, pasture, horticulture, growing fruit and keeping livestock.

forestry and sawmill residues

untreated and uncontaminated plant materials from forestry operations such as logging, silviculture and sawmilling. Forestry and sawmill residues include materials such as bark, woodchip, sawdust and wood fibre that are collected as a source separated material stream for processing.

harm to the environment

any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, as defined in the POEO Act.

mulch

plant material shredded and/or screened to a preferred particle size grading for particular applications. Mulch, by virtue of the nature and source of the plant material, must pose minimal risk of the presence of physical and chemical contaminants.

Mulch may include urban wood residues and forestry and sawmill residues. Mulch does not include plant material from kerbside waste collections.

orphan waste

waste, as defined in the POEO Act, which has been dumped, and the person who dumped the waste (responsible party) and the source location cannot be identified.

pasteurisation

a process to significantly reduce the numbers of plant and animal pathogens and plant propagules. Pasteurisation requires that the entire mass of organic material be subjected to either of the following:

- (a) appropriate turning of outer material to the inside of the windrow so that the whole mass is subjected to a minimum of three turns with the internal temperature reaching a minimum of 55°C for three consecutive days before each turn. Where materials with a higher risk of containing pathogens are present, including but not limited to manure and food waste, the core temperature of the material mass should be maintained at 55°C or higher for 15 days or longer, and during this period the windrow should be turned a minimum of five times
- (b) an alternative process of pasteurisation that guarantees the same level of pathogen reduction, and the reduction of plant propagules as in (a). Any such alternative process must be clearly defined in writing and validated by a suitably qualified person before claiming compliance with this order. A written record of the validation report must be kept for a minimum period of six years

as defined in *The pasteurised garden organics order 2016* and *The pasteurised garden organics exemption 2016*.

pasteurised garden organics

mulch and/or garden organics that have undergone the process of pasteurisation as a minimum as defined in *The pasteurised garden organics order 2016* and *The pasteurised garden organics exemption 2016*.

pest

anything declared by order under section 28B of the $\underline{\textit{Plant Diseases Act 1924}}$ to be a pest.

preservative treated or coated wood residues

wood residues that are preservative treated with chemicals such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigmented emulsified creosote (PEC) and light organic solvent preservative (LOSP) and/or coated with substances such as varnish or paint.

processor

a person who processes, mixes, blends, or otherwise incorporates mulch into a material in its final form for supply to a consumer.

resource recovery exemptions (RREs)

contain conditions which consumers of waste must comply with to use the waste outside various waste regulatory requirements. They may include how to re-use the waste, record-keeping, reporting and other conditions. All exemptions are made under clauses 91 and 92 of the 2014 Waste Regulation.

resource recovery orders (RROs)

include conditions which generators and processors of waste must meet prior to supplying the waste to a consumer. They may include specifications, record-keeping, reporting and other conditions. All orders are made under clause 93 of the 2014 Waste Regulation.

suitably qualified professional

a person with appropriate qualifications and relevant experience to possess expertise in:

- (a) determining the presence of any weed, plant disease or pest in any mulch
- (b) making judgements about the suitability of the land application site, and
- (c) meeting the requirements of this order.

The suitably qualified professional may be a plant pathologist, ecologist, or other professional depending on the assessment required.

urban wood residues

untreated, unpainted and uncontaminated urban derived timber and wood material that is collected as a separate material stream for processing. Urban wood residues include materials such as off-cuts, saw dust, wood shavings, packaging crates and pallets.

weeds

any of the following:

- (a) weeds declared to be noxious in Schedules 1 5 of the Noxious Weeds (Weed control) Order 2014 under the <u>Noxious Weeds Act 1993</u>, but only within the land to which the Noxious Weeds (Weed control) Order 2014 applies,
- (b) weeds identified under the Australian Weeds Strategy as either Weeds of National Significance or National Environmental Alert List weeds, and
- (c) any additional weeds identified in regional pest management strategies but only within the designated area.

waste

as defined in the dictionary of the POEO Act.

7. References

Australian Qualifications Framework Council 2012, *Recognition of Prior Learning: An Explanation*, Australian Qualifications Framework Council, available at: www.aqf.edu.au/wp-content/uploads/2013/06/RPL-Explanation.pdf

Blackmore, P 2008, *Primefacts: Noxious weeds or just obnoxious?*, NSW Department of Primary Industries, Armidale, available at:

www.dpi.nsw.gov.au/__data/assets/pdf_file/0017/210590/Noxious-weeds-or-just-obnoxious.pdf

Chalker-Scott, L 2007, 'Impact of mulches on landscape plants and the environment—a review', *Journal of Environmental Horticulture* 25(4), pp. 239–249.

Department of the Environment and Water Resources 2007, *The Australian Weeds Strategy:* A national strategy for weed management in Australia, Department of the Environment and Water Resources, Canberra, available at:

www.environment.gov.au/biodiversity/invasive/weeds/publications/index.html

8. Contacts for further advice

For any queries or to discuss your proposal, please contact the EPA's Environment Line on 131 555 or email waste.exemptions@epa.nsw.gov.au