Model operating conditions

ERA 53(a)—Organic material processing by composting

Queensland Government

Version history

Version	Date	Description of changes
1.00	26 May 2014	Document first published
1.01	24 November 2015	Updated corporate style
1.02	10 December 2015	Minor changes (e.g. adding publication number ESR/2015/1665—previously EM1192)
1.03	8 June 2016	Updated corporate style
1.04	3 July 2017	Updated reference from *Sustainable Planning Act 2009* to *Planning Act 2016*.
2.00	07 September 2017	Condition numbers updated to reflect the DES condition library numbering (Connect conditions). Minor amendments made to some conditions for consistency with other model conditions.
2.01	29 September 2017	Minor formatting changes.
2.02	25 June 2018	Document rebranded to align with machinery of government changes.
3.00	29 November 2018	Updated for Environmental Protection (Waste ERA Framework) Amendment Regulation 2018.
3.01	08 October 2019	Updated to reflect the Environmental Protection Regulation 2019 remake

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Contents

Context

This document provides advice to potential environmental authority holders on the model operating conditions that will be applied to their environmental authority for environmentally relevant activity (ERA) 53(a).

Key terms and/or phrases used in this document are defined in the definitions section and bolded throughout this document.

For each condition **you** will find guidance on the intent and how to comply. These sections provide basic information on the reason for inclusion of a condition and what compliance may or may not look like. **You** may find this information helpful in managing your **activity** to ensure that **you** remain in compliance with your approval conditions. However, this additional information will not form part of your final approval conditions and is provided in this document as guidance only. **You** must decide on the level of risk associated with your **activity** and ensure that the **measures** implemented are appropriate to manage the environmental outcome or particular requirement set out within each condition of your approval.

1 Introduction

The *Environmental Protection Act 1994* (EP Act) provides for the granting of environmental authorities for organic material processing **activities** by composting (i.e. ERA 53(a)) or anaerobic digestion (i.e. ERA 53(b)).

These model operating conditions provide a framework of conditions that will apply to site specific applications for an environmental authority to carry out ERA 53(a) in the State of Queensland.

In giving an approval under the EP Act for ERA 53(a), the **administering authority** must address the regulatory requirements set out in the Environmental Protection Regulation 2019 and the standard criteria contained in the EP Act. The **administering authority** considers the regulatory requirements in the context of information about the environmental impacts of a project, provided through application documentation for an environmental authority.

Conditions in your environmental authority will generally state what is and what is not permitted as part of the **activity**. They will relate to the operation of the **activity** and also cover rehabilitation requirements. Where **you** also require a development permit for your **activity** under the *Planning Act 2016,* the conditions in your environmental authority will not deal with land-use issues, as these will be assessed and conditioned in your development approval.

An environmental authority approves the carrying out of an **activity** and does not approve any environmental harm unless a condition stated by the authority specifically states that an action or event can occur.

The **administering authority** may amend the conditions in this guideline to ensure that they are current and appropriate (although conditions in your approval will only change in the circumstances set out in the EP Act).

2 How to use this guideline

2.1 New project applications

These model operating conditions provide a framework of conditions that will be applicable to all new environmental authorities for ERA 53(a).

As the model operating conditions are a framework only, additional conditions can be applied at the discretion of the **administering authority** to address risks that are specific to a particular operation or a particular site (e.g. where specific **environmental values** may be impacted). Also, if a particular model operating condition does not apply to an operation, then it will not form part of the conditions placed on the environmental authority.

The applicant can also request the addition of conditions or removal of model conditions to tailor the environmental authority to their particular operation. These requests are to be made through the site specific application for an environmental authority supported by a justification for the change requested.

In some circumstances, payment of financial assurance may also be required. If financial assurance is required, it will be stated as an additional condition on the environmental authority.

2.2 Amendments

Where an amendment application involves altering **activities** covered by the model operating conditions, negotiation with **you** should take place before the original conditions are amended to reflect the model operating conditions. An amendment application is not an opportunity for the **administering authority** to impose these model operating conditions on an existing project, except to the extent that **you** seek to adopt the model operating conditions.

3 Obligations under the EP Act

At all times **you** must meet your obligations under the EP Act. The following information is provided to help **you** understand some of the key environmental obligations under the EP Act which may relate to the operation of your **activity**. This is not an exhaustive list of all of the environmental obligations. Environmental obligations which **you** must comply with include:

1. general environmental duty—s. 319
2. duty to notify environmental harm—ss. 320-320G.

3.1 General environmental duty

A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable **measures** to prevent or minimise the harm. This is a person's general environmental duty.

You have the responsibility to work out what **you** need to do to make sure that **you** manage your environmental risk and achieve the outcomes set out in your environmental authority.

Failure to comply with the general environmental duty is not, itself, an offence. However causing an **environmental nuisance** or causing serious or material environmental harm is an offence unless **you** can prove:

- that the environmental harm was not unlawful; and
- **you** have complied with the general environmental duty.

3.2 Duty to notify of environmental harm

The duty to notify requires a person to give notice where serious or material environmental harm is caused or there is a risk of such harm and that harm is not authorised by the **administering authority**.

For more information on the duty to notify requirements, including who must be notified, how and when to notify, refer to the guideline "The duty to notify of environmental harm" (available at www.qld.gov.au using the publication number ESR/2016/2271 as a search term).

4 Offences under the legislation

This section sets out some of the offences that **you** should be aware of as **you** are carrying out your **activity**. If **you** commit one of these offences, **you** could be fined, prosecuted, or required by the **administering authority** to take a particular action. This list does not include all of the environmental offences under the legislation.

If **you** do commit an offence while carrying out your **activity**, the **administering authority** will take enforcement action in accordance with its Enforcement guidelines.

4.1 Contravention of a condition of an environmental authority

It is a legal requirement that **you** comply with the conditions in your environmental authority. **You** must also ensure that anyone operating under the environmental authority also complies with the conditions. This might include contractors visiting the site temporarily or transport operators loading and unloading materials on site, and all staff employed at the site. Multiple people may be prosecuted if an offence is committed.

If **you** think that **you** have breached a condition of your environmental authority, it is your responsibility to correct the problem and bring yourself back into compliance with the condition. **You** should not wait for the **administering authority** to tell **you** what to do. **You** may also be legally required to contact the **administering authority** by the conditions in your environmental authority and the duty to notify requirements under the EP Act.

Penalties for a breach of a condition of an environmental authority vary from penalty infringement notices (PIN) for one-off offences that are easily rectified, through to the issuing of statutory notices—such as an environmental evaluation, transitional environmental program or an environmental protection order. In serious cases the **administering authority** may initiate court proceedings to have a court order issued or may prosecute those responsible for the breach.

4.2 Causing material or serious environmental harm

Material environmental harm has the meaning as defined in s. 16 of the EP Act. In summary, material environmental harm is environmental harm that costs more than $5,000 to clean up, or that causes (or has the potential to cause) more than $5,000 worth of damage to property.

Serious environmental harm has the meaning as defined in s. 17 of the EP Act. In summary, it is harm that is irreversible; has a high impact or widespread effects to the environment; is caused to an area of high conservation significance; or causes clean-up costs or property damage worth more than $50,000. Material and serious environmental harm excludes **environmental nuisance**.

4.3 Causing environmental nuisance

Environmental harm includes **environmental nuisance**. **Environmental nuisance** is unreasonable interference with an **environmental value** caused by aerosols, fumes, light, noise, odour, particles or smoke. It may also include an unhealthy, **offensive** or unsightly condition because of contamination. For activities that need an environmental authority, the most common causes of **environmental nuisance** are dust, noise and odour.

4.4 Depositing a prescribed contaminant in waters

Prescribed water contaminants includes a wide variety of contaminants from inert substances such as earth, clay, gravel and sediment to substances such as chemicals, contaminants with a high or low pH, construction and building waste, gas, oil and sewage. For a full list of **prescribed water contaminants** see Schedule 10 of the Environmental Protection Regulation 2019.

It is your responsibility to ensure that **prescribed water contaminants** do not enter a waterway, roadside gutter or stormwater drain. This includes making sure that the **prescribed water contaminants** are not left in a position where they could enter one of those places. **You** also need to ensure that stormwater falling on or running across your site does not leave the site contaminated. Where stormwater contamination occurs **you** must ensure that it is treated to remove contaminants. **You** should also consider where and how **you** store material used in your processes onsite to reduce the chance of water contamination.

5 Model operating conditions

Model operating conditions for ERA 53(a)	
GENERAL	
PMG010 (G1)	**Activities** under this environmental authority must be conducted in accordance with the following limitations: 1. <INSERT extent, nature or limitations of the **activity** approved> <REPEAT for all relevant **activities** approved>.
	Intent This condition sets limits for the **activity** and will ensure that the level of risk posed by the **activity** according to the submitted application is not exceeded. For example, if **you** propose to process 7,000 tonnes of organic material by composting in a year and the environmental risks assessed during the application process are based on this total, this condition may stipulate a limit of 7000 tonnes for the environmental authority. Similarly, site plans denoting operational areas may be referred to within this condition should the **activity** need to be conducted within a specific area on site in order to minimise the risk of environmental harm to a specific **environmental value**, such as a watercourse.
	How to comply **You** must conduct the **activity** within the stipulated limits that the condition sets out. Should **you** wish to have flexibility in particular aspects of the **activity,** for instance the ability to move operational areas around the site or increase product tonnage over time, **you** need to outline this within your application so that the environmental risks of the **activity** can be properly assessed at the time of application. If at any time it is unlikely that **you** can continue conducting the **activity** within the limits stipulated within this condition **you** must apply to amend your environmental authority to remove or change this condition.
PMG008 (G2)	All reasonable and practicable **measures** must be taken to prevent or minimise environmental harm caused by the **activities**.
	Intent This condition is necessary and desirable for all **activities.** It is intended to ensure that all of the **activities** and all operational and management actions are undertaken in a way which does not cause or threaten to cause environmental harm.
	How to comply **You** must ensure that all actions taken and the equipment used to undertake the **activity** are conducted in a way that prevents the risk of environmental harm. For example, if **you** are storing chemicals onsite, **you** must store them in a way that minimises the chance of any release of these chemicals to the surrounding environment. This may include things like storing the chemicals away from busy trafficable areas where they are more likely to be punctured or knocked over, keeping the chemicals in an appropriately bunded area and complying with any best practice or Australian standards relevant to chemical storage such as AS1940. If **you** had a release of chemicals which resulted in **environmental nuisance** or harm and **you** had not taken all reasonable and practicable **measures** to reduce the

	potential for the release, **you** will be in non-compliance with this condition.
PMG007 (G3)	Any breach of a condition of this environmental authority must be reported to the **administering authority** as soon as practicable within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions undertaken.
	Intent This condition will ensure that all instances of non-compliances are promptly made known to the **administering authority**, even those considered to be minor in nature. This notification will help capture non-compliances that may result in nuisance, or ongoing minor non-compliances which may pose longer term risks to the environment. This will allow action to be taken as necessary to protect the environment. The record keeping requirement will ensure that these non-compliances are documented.
	How to comply **You** must report any breach of a condition of your approval to the **administering authority** as soon as practicably possible within 24 hours of becoming aware of the breach. In most instances, this can be done by contacting the Pollution Hotline on 1300 130 372. When reporting through the Pollution Hotline **you** will be asked to provide details of the breach and this information will be forwarded to the department's relevant regional office the following business day. By reporting you will have complied with your condition requirements, even if the regional office is made aware of the issue after 24 hours. When reporting through the Pollution Hotline **you** should also consider if the breach is an emergency pollution incident, in which case **you** should request that the issue be escalated by requiring the department's attendance. In making this decision you may wish to consider your duty of care requirements. Depending on the breach, the **administering authority** may require further detail in a follow up email which can be sent to the Pollution Hotline email address, PollutionHotline@des.qld.gov.au. **You** are required to keep records, including full details of the release or event, any potential environmental risks resulting from the release and any actions taken to rectify the event. To demonstrate that **you** have met your general environmental duty in relation to this condition, **you** may want to consider the following options: • report possible breaches to the **administering authority** as soon as **you** are made aware of them, even if **you** are unsure if a condition of the environmental authority has been breached. • ensure communication systems or procedures are in place to allow staff members to communicate breaches to site managers quickly.
PMG014 (G4)	Other than as permitted by this environmental authority, the **release of a contaminant into the environment** must not occur.
	Intent This condition is necessary and desirable to ensure that contaminants are not released to the environment, other than as permitted through the conditions of the authority. For emissions such as odours or airborne contaminants where a complete avoidance of a release is not possible, **you** must ensure that **you** avoid causing **environmental nuisance** from these emissions as required in condition PMA001 (A1).

	How to comply **You** must ensure that contaminants resulting from the **activity** are not released to the environment, unless expressly permitted within your approval. To avoid releasing contaminants unlawfully into the environment **you** must actively manage the risks of emissions from the **activity**. Some ways to manage these risks are to: • where there is the potential for **leachate** to be generated, have an effective and reliable **leachate** management system in place. For example where a **leachate** collection pond is being used, ensure it is appropriately designed to prevent **leachate** being able to flow directly off site. • store finished product in areas that have adequate drainage • store fuel and chemicals in an area with secondary containment • have a spill kit available on site at all times and make sure staff are trained in its use • ensure any transfer areas where materials that are loaded or unloaded are covered and have an appropriate surface to prevent the release of contaminants to land or **waters**.
PMG018 (G5)	All information and records required by the conditions of this environmental authority must be kept for a minimum of five years with the exception of environmental monitoring results which must be kept until surrender of this environmental authority. All information and records required by the conditions of this environmental authority must be provided to the **administering authority** upon request and in the format requested.
	Intent This condition will ensure that all documentation held in relation to the environmental authority is available if required by the **administering authority**. This may be necessary to identify or resolve any environmental issues which may arise as a result of the ongoing operation of the **activity**.
	How to comply All information and records required to be kept by the conditions of your environmental authority must be kept for at least five years. This includes monitoring reports, details of releases and any other necessary information **you** must keep to comply with and to demonstrate compliance with the conditions. The **administering authority** can require this information to be provided upon request. If electronic data is provided through systems such as the Wastewater Tracking and Electronic Reporting System (WaTERS), data will need to be provided in the required electronic format. **You** must keep environmental monitoring results until the surrender of the environmental authority as these will be required as part of the surrender application process.
PMG015 (G6)	An **appropriately qualified person(s)** must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
	Intent The requirement that an **appropriately qualified person** undertake any monitoring is intended to ensure that the monitoring is conducted properly and that the results are reliable. Relevant guidelines, Australian standards, or other documents relating to the monitoring will be listed as associated monitoring requirements and must also be adhered to.

	How to comply **You** should check the qualifications and experience of the person and satisfy yourself that they are qualified to carry out the monitoring. This could include industry accredited courses, recognised competency or training records. Any monitoring should be carried out in accordance with the relevant best practice guideline or other relevant standards as per the associated monitoring requirements listed in the relevant monitoring conditions. Monitoring includes sampling and analysis and also extends to the handling, transportation and verification of the samples. In addition, the information gathered must be interpreted and recorded by people with the relevant qualifications. The monitoring, interpretation and recording need not all be undertaken by the same person, provided they are appropriately qualified.
PMG009 (G7)	When required by the **administering authority**, monitoring must be undertaken in the manner prescribed by the **administering authority**, to investigate a complaint of **environmental nuisance** arising from the **activity**. The monitoring results must be provided within 10 business days to the **administering authority** upon its request.
	Intent The intent of this condition is to ensure that complaints are appropriately investigated by the operator of the **activity**.
	How to comply Undertake the monitoring and reporting as prescribed by the **administering authority**.

PMG020 (G8)	**You** must record the following details of all environmental complaints received: 1. date and time the complaint was received 2. name and contact details of the complainant when provided and authorised by the complainant 3. nature of the complaint 4. investigation undertaken 5. conclusions formed 6. actions taken.
	Intent It is to ensure that a minimum level of record keeping is carried out in relation to complaints received as this will help to identify whether there is an operational issue causing **environmental nuisance** that **you** need to address. This condition also allows the **administering authority** to access these records when required to identify whether there has been a history of complaints made about a particular issue and whether **you** have attempted to resolve the issue appropriately.
	How to comply **You** must keep minimum records of any complaints received including the details as required within this condition.
PMG017 (G9)	The **activity** must be undertaken in accordance with written procedures that: 1. identify potential risks to the environment from the **activity** during routine operations, closure and an emergency 2. establish and maintain control **measures** that minimise the potential for environmental harm 3. ensure plant, equipment and **measures** are maintained in a proper and effective condition 4. ensure plant, equipment and **measures** are operated in a proper and effective manner 5. ensure that staff are trained in and aware of their obligations under the *Environmental Protection Act 1994* 6. ensure that reviews of environmental performance are undertaken at least annually.
	Intent This condition ensures procedures are established and followed which manage the environmental risks associated with carrying out the **activity** on the site.
	How to comply Parts 1 & 2: It is recommended that an environmental risk assessment be conducted of the **activity** and site prior to commencement. This assessment should identify the environmental risks that need to be managed and the control measures that need to be employed. For example **you** may identify the risk of spontaneous combustion from the composting material due to the following factors: • types of feedstock and associated biological activity • moisture content • dry pockets within the composting material • large well insulated piles • non-uniform mix of materials • limited air flow • time for temperature to build up.

	To manage these risks a management system should be documented and implemented that includes: • monitoring composting material for hotspots, vents, smoke or burning smells • ensuring temperature monitoring equipment can reach the centre of the piles • ensuring adequate ventilation by turning the material at an appropriate frequency • maintaining an appropriate moisture content within the material to release heat • avoiding the development of large piles. Parts 3, 4 & 5: Operational procedures that detail how and when to calibrate equipment to ensure that they are regularly serviced and maintained, should be implemented. This includes all equipment, such as onsite vehicles and monitoring equipment. Written operational procedures should form the basis for staff training during activities such as induction programs, on the job mentoring and 'toolbox talks'. Part 6: Environmental performance must be reviewed at least annually however the frequency of review should be dependent on the risk of the **activity**. For example, if the **activity** has the potential to cause dust and the site is near a sensitive receptor such as a residential area, a dust monitoring program could be implemented and reviewed every three months to ensure it is adequate. This review could include conducting an audit of compliance against the environmental authority. For further guidance on conducting a risk assessment refer to SA/SNZ Handbook 89-2013 Risk management – Guidelines on risk assessment techniques.
PMG019 (G10)	All reasonable and practicable **measures** must be taken to exclude vectors and pest species to the extent necessary to prevent: 1. **environmental nuisance** to occupiers of neighbouring premises 2. any danger or risk to the health of any persons.
	Intent Vectors and pest species can be attracted to the incoming feedstock and/or the composting process. The intent of this condition is to ensure that vectors and pest species do not cause an **environmental nuisance** or present a danger or risk to the health of any persons.
	How to comply All reasonable and practicable **measures** must be taken to ensure that the **activity** does not encourage, promote or attract vectors and pest species. Reasonable and practical **measures** would usually include: • preventing **leachate** or water from pooling in the work areas • managing the **activity** in a way which minimises the generation of odours • developing and implementing a pest and vector management and monitoring program • reducing the time from when feedstock is delivered to when it is introduced into the composting process.
ACOUSTIC	
PMN001 (N1)	Noise generated by the **activity** must not cause **environmental nuisance** to any **sensitive** or **commercial place.**
	Intent This condition will ensure that noise caused by or resulting from the **activity** does not cause nuisance to the community or the environment.

	How to comply
	To comply with this condition **you** will need to identify and manage the potential sources of noise from your site if there is potential for **environmental nuisance** to occur.
	When considering if this condition has been complied with the **administering authority** will consider any existing and approved land uses. The single state planning policy references a need to consider protecting existing and approved land uses from encroachment. Likewise, where the operation of the **activity** is approved, there is a need to recognise that future encroachment of more sensitive land uses (while approved) may reduce the operator's ability to comply with this condition, through no change in their **activity**.
	This condition will also set out (through the definitions of **sensitive** and **commercial place**) where nuisance must not occur. Depending on the application, the definitions for **sensitive place** and **commercial place** may be altered to ensure that the appropriate definitions apply based on the location and surrounding uses of the particular site. For example, where a composting operation is approved within an industrial area with other noisy industries, the **commercial place** component of this condition may be removed.
	The following list identifies some of the ways that emissions can be managed. It is not exhaustive, and each holder of the environmental authority is responsible for working out which **measures** are necessary to adequately manage the risk from the **activity**,
	• Consider the location and design of noise generating activities onsite to minimise the potential for noise, for example
	  ○ avoid constructing tracks or roads on severe gradients or where speed changes are required
	  ○ route onsite roads as far away from sensitive places as possible
	  ○ minimise the distance that materials need to be moved by conveyors or trucks
	  ○ minimise the height from which materials are dropped into storage bins or trucks
	  ○ avoid placing staff lunch areas or vehicle queuing areas near noise-sensitive places.
	• To help determine if neighbours might be impacted by noise, engage an acoustic consultant to conduct a noise impact assessment before commencing a new noise generating operation.
	• Avoid work involving noise at times when it is most likely to cause **environmental nuisance**, such as night time, Sundays or public holidays.
	• Switch off equipment when not in use, or limit the hours of operation.
	• Select the quietest machinery and equipment available and find quieter processes or ways of performing tasks (e.g. investigate whether there are suitable alternatives to reversing alarms on vehicles, and select vehicles with low noise emissions).
	• Install appropriate acoustic screens or noise reduction barriers.
	• Ensure that roads have a suitable and well-maintained surface and limit the amount, type, times and speed of vehicle movements.
	• Start plant and vehicles sequentially rather than all at the same time.
	• Investigate whether it is possible to fit noise reduction features onto equipment (e.g. noise absorbent panelling or rubber lining).
	• Use existing screens or features to advantage and if the noise is directional point the source away from noise-sensitive locations).
	• Use enclosures around noisy plant such as pumps or generators.
	• Ensure that plant, vehicles and acoustic screens or other noise mitigation devices are properly maintained.
	• Ensure that each staff member is aware of his/her responsibilities to reduce noise emissions, and how this can be achieved.

	• Periodically monitor noise at the **sensitive places** impacted by the **activity** to ensure that noise mitigation strategies are effective. • Undertake monitoring, at a sufficient frequency, to demonstrate that the **activity** is not causing or likely to cause environmental harm. This may include background monitoring of a sufficient period to demonstrate a background level, taking into consideration natural and seasonal variations. Choose monitoring parameters that are relevant to the potential environmental impacts of the **activity**. • Engage the community by holding consultation and stakeholder engagement forums.
AIR	
PMA001 (A1)	Other than as permitted within this environmental authority, odours or airborne contaminants must not cause **environmental nuisance** to any **sensitive** or **commercial place**.
	Intent The intent of this condition is to ensure that odours or contaminants released to air as a result of the **activity** do not cause **environmental nuisance**. **You** must not cause unreasonable interference or likely interference with the qualities of the air environment that are conducive to protecting an **environmental value** such as: • health and biodiversity of ecosystems • human health and wellbeing • public amenity such as the aesthetics of the environment (including the appearance of buildings, structures and other property). Unreasonable interference might include creating an unhealthy, **offensive** or unsightly condition because of your release. While **environmental nuisance** is subjective and cannot always be defined by putting a limit on a set contaminant release, **you** may consider the air quality objectives within Schedule 1 of the Environmental Protection (Air) Policy 2019 to help determine if your release is likely to cause a **environmental nuisance**. Not all contaminants likely to cause **environmental nuisance** are listed within the Environmental Protection (Air) Policy 2019. Contaminants may include odour, aerosols, fumes, particles, smoke, steam or dust. They may be visible or not. The most common **environmental nuisance** complaints resulting from releases to air relate to odour and dust.
	How to comply To comply with this condition **you** will need to identify and manage the potential sources of odour and other air contaminants from your site if there is potential for **environmental nuisance** to occur. When considering if this condition has been complied with the **administering authority** will consider any existing and approved land uses. The single state planning policy references a need to consider protecting existing and approved land uses from encroachment. Likewise, where the operation of the **activity** is approved, there is a need to recognise that future encroachment of more sensitive land uses (while approved) may reduce the operator's ability to comply with this condition, through no change in their **activity**. This condition will also set out (through the definitions of **sensitive** and **commercial place**) where nuisance must not occur. Depending on the application, the definitions for **sensitive place** and **commercial place** may be altered to ensure that the appropriate definitions apply based on the location and surrounding uses of the particular site. For example, where a composting operation is approved within an industrial area with other odour generating industries, the **commercial place** component of

	this condition may be removed.
	
	The following list identifies some of the ways that emissions can be managed. It is not exhaustive, and **you** are responsible for working out which **measures** are necessary to adequately manage the risk from your **activity**.
	• Use appropriate management techniques to avoid creating odours, for example
	  ○ mix putrescible feedstock materials immediately into the compost process, if not pre-treated or dried
	  ○ regularly turn compost windrows to prevent anaerobic conditions
	  ○ ensure that the biological balance of certain odour generating systems is not disturbed
	  ○ promptly clean up spilled odorous materials
	  ○ install adequate odour control equipment.
	• Limit the amount of exposed soil on site (e.g. seal road surfaces, trafficable areas, holding areas and parking areas).
	• Stabilise areas of exposed soil (e.g. mulching and spreading cleared vegetation, re-establishing ground cover, establishing a cover crop, undertaking progressive rehabilitation of disturbed ground).
	• Use water sprays or dust suppressants on unsealed areas and stockpiles, keep stockpiles to low heights, align them parallel to the predominant wind direction to reduce the surface area exposed to prevailing winds, and cover dust generating areas including trucks transporting material offsite.
	• Enclose equipment or activities which produce dust or emissions.
	• Consider the wind speed and direction prior to undertaking work that is likely to generate dust and reschedule work if wind is likely to transport contaminants to a **sensitive** or **commercial place**.
	• Design, create and maintain wind breaks.
	• Schedule activities for times when they will have least impact (e.g. avoid undertaking odour-generating activities such as turning windrows of compost at times when it is windy and the odour might carry to a **sensitive** or **commercial place**).
	• Periodically and proactively check that emission control devices and management practices are working.
	• Do not burn any wastes such as surplus feedstock, feedstock packaging or litter.

LAND	
PML006 (L1)	Land that has been disturbed for **activities** conducted under this environmental authority must be rehabilitated in a manner such that: 1. the potential for erosion is minimised 2. the quality of water, including seepage, released from the site does not cause environmental harm 3. the potential for **environmental nuisance** caused by dust is minimised 4. the water quality of any residual water body does not have potential to cause environmental harm 5. suitable native species of vegetation for the location are established and sustained for earthen surfaces where beneficial for the end land use.
	Intent This condition outlines the rehabilitation standards expected by the department for the site, or any part thereof, which is no longer being used to conduct the **activity**. The condition ensures that rehabilitation is undertaken to achieve a safe, non-polluted and non-polluting landform upon completion of the **activity**. It complements condition PMG008 (G2) by stipulating the reasonable and practical rehabilitation measures required to prevent the likelihood of environmental harm.

	In some instances sites which require very specific rehabilitation requirements (usually in relation to the final land use, design and vegetation) will have site specific conditions developed by the assessing officer in relation to rehabilitation.
	How to comply Once you have stopped conducting the **activity** on the site or part of the site **you** must rehabilitate the land in the manner stated. Some ways to comply with this condition are: • ensuring a rehabilitation plan is developed and implemented by an **appropriately qualified person** • remediating contaminated land • re-establishing surface drainage lines • reinstating the top layer of the soil profile • establishing groundcover to ensure that erosion on site is minimised • undertaking rehabilitation in a manner such that any actual and potential acid sulfate soils in or on the site are either not disturbed, or submerged, or are treated to prevent and/or minimise environmental harm • progressively monitoring the rehabilitation and undertaking maintenance to ensure that the site will achieve a safe, non-polluting landform. If **you** wish to cease the **activity** and surrender your environmental authority, **you** will be required to submit a surrender application including a final rehabilitation report and compliance statement. Where no suitable native species of vegetation for the location have been established and sustained for earthen surfaces **you** will need to include information within your report about why this action is not beneficial to the end land use for the site for consideration by the **administering authority.** Where it is beneficial for the end land use **you** must: • establish native vegetation of floristic species composition found in nearby sites • actively manage weeds.
WATER	
PMW008 (WT1)	The stormwater runoff from **disturbed areas**, generated by a storm event up to and including a **24 hour storm event with an average recurrence interval of one-in-ten years** must be retained on site or managed to remove contaminants before released offsite.
	Intent This condition ensures that stormwater runoff from d**isturbed areas** generated by (up to and including) a **24 hour storm event with an average recurrence interval (ARI) of one-in-ten years** is retained on site and reused beneficially for the **activity** where possible. A release of this water may only be carried out where there is no risk of contaminants being present or at concentrations which may cause environmental harm to the receiving environment. Where feedstock other than green waste is being accepted, any stormwater which filters through composting piles or stored feedstock must be managed as **leachate**. This condition manages the risk of dirty stormwater, which may also be contaminated by **leachate**, being released offsite and causing environmental harm.
	How to comply **You** must retain all stormwater from **disturbed areas**, generated by (up to and including) a **24 hour storm event with an ARI of one-in-ten years** and re-use this stormwater runoff beneficially on site

	where possible, for example within the composting process to maintain windrow moisture content. Where **you** cannot manage dewatering by reuse and a release is required**, you** must be aware of and manage the quality characteristics of the retained stormwater runoff prior to any release to ensure contaminants are not present or in concentrations which may cause environmental harm. Under s.440ZG it is also an offence to unlawfully deposit a prescribed water contaminant to waters. **Prescribed water contaminants** are listed in Schedule 10 of the Environmental Protection Regulation 2019. Most composting sites across Queensland will be considered a high erosion hazard site, i.e. there is limited hardstand or protective groundcover, and soil erosion is expected. Best practice stormwater management measures should be implemented to prevent environmental harm or assist **you** to meet your general environmental duty. These include: • Stormwater should be diverted away from or around **disturbed areas** where possible. **Disturbed areas** are those areas where the **activity** is conducted or impacts upon. This may include, but may not be limited to, areas such as roads, parking areas, any gravel or non-hardstand areas, areas for stockpiling, composting, infrastructure, machinery and equipment or those which are not rehabilitated or remain in stage of rehabilitation. • Stormwater basin(s), also commonly referred to as sediment basins, should be installed and maintained to collect stormwater runoff from all **disturbed areas** of the site(s) approved as part of the ERA application, and areas in which any earthen material is stored. • A stormwater basin must be operated in such a manner that the required design capacity of the **upper settling volume** is available for capture and storage of stormwater runoff from the next rainfall event as soon as possible. • Any stormwater basin should have a spillway, designed, constructed and effectively armoured to convey anticipated flows. Design for a 50 year ARI critical event is considered a minimum. • Any stormwater basin should be also designed and maintained with a **sediment storage zone** equal to 50% of the **upper settling volume.** It is important that this volume is not exceeded as it will cause a corresponding reduction in the basin's stormwater retention capacity. • Erosion protection and sediment control measures should be installed for all stages of the **activity** to minimise erosion and the release of sediments. • Areas of disturbed or exposed soil should be managed through revegetation and/or use of other stabilisation techniques to minimise the loss of sediment. • All concentrated stormwater flows (including 'clean' stormwater and 'dirty' stormwater) should have concentrated flow paths, such as drainage lines, diversion drains, channels and batter chutes (where applicable) designed, constructed, effectively armoured and maintained to convey the runoff from events up to and including the ARI of a one-in-ten critical duration storm event without causing water contamination; sheet, rill or gully erosion; sedimentation; or damage to structures or property. • The release stormwater for events up to and including a **24 hour storm event with an ARI of one-in-ten years** must achieve a total suspended solids (TSS) concentration of no more than 50mg/L[1].

[1] Within the Fitzroy Basin, values may exceed 50mg/L. Reference should be made to the F*itzroy River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Fitzroy River sub-basin, September 2011*.

	• The use of a coagulant of flocculent to treat sediment laden stormwater must not cause harm to receiving waters. Where feedstock other than green waste is accepted, any retained stormwater from **disturbed areas** which contains **leachate** will also need to be managed in accordance with condition PML007 (L2). **You** must have a separate **leachate** management system in place for collecting and storing **leachate** to avoid contaminants within **leachate** directly entering the stormwater basin and to also avoid the requirement for the stormwater basin to be impervious in accordance with condition PML007 (L2). In addition to the requirements of condition PML007 (L2), **leachate** should be stored in a roofed area where possible. Where **leachate** storage facilities are not roofed, for example where **you** have an open **leachate** collection pond, this should be adequately sized to minimise the potential for **leachate** to overtop into the stormwater basin during rainfall events. In situations where **leachate** enters, or has entered, the stormwater basin and **you** need to release retained stormwater for the purposes of dewatering, **you** need to take all reasonable and practicable **measures** to dewater the stormwater basin/s as soon as possible and **you** must ensure that contaminants are not present or in concentrations which may cause environmental harm to the receiving environment. **You** should be aware of the potential contaminants within **leachate** generated by the **activity** based on the feedstock which **you** accept and use. If a release of stormwater runoff is required sampling and analysis of the water quality characteristics by an **appropriately qualified person** should be carried out to confirm that there are no contaminants present or at concentrations which may cause environmental harm. A receiving environment monitoring program should also be implemented at an appropriate frequency and location/s should any release of stormwater runoff occur. The Environmental Protection (Water and Wetland Biodiversity) Policy 2019 (EPP Water) has established **environmental values** and water quality objectives for many waters (see Schedule 1). This is useful in ensuring that your release does not cause environmental harm. For waters not included in Schedule 1, the EPP Water provides a process for determining the **environmental values** and water quality objectives. In areas where no water quality objectives are scheduled in the EPP Water, the Queensland Water Quality Guidelines (QWQG) apply as default objectives.. A condition which sets stormwater quality characteristic release limits and monitoring requirements may be imposed on your approval, should the risks posed by your operation, in particular the types of feedstock **you** are proposing to accept and also the **environmental values** of the receiving environment warrant it. For events larger than **24 hour storm event with an ARI of one-in-ten years you** are not required to retain all stormwater runoff, however all reasonable and practicable **measures** must be taken to minimise the release of **prescribed contaminants**. For example, where a large rainfall event is predicted and there is the possibility of **leachate** overtopping a collection pond, **measures** should be implemented to remove and dispose of **leachate** likely to cause environmental harm.

5.1 Additional model operating conditions—when feedstock other than green waste is accepted

These conditions will apply, in addition to the conditions set out in section 5, if **you** accept and use feedstock other than green waste.

PML007	An area which provides an impervious barrier to subsoil and **groundwater** must be used for: 1. receiving, mixing and storing processing materials for the **activity**

(L2)	2. collecting and storing **leachate**.
	Intent This condition requires impervious storage and operational areas for those materials that have the potential to cause environmental harm to subsoil and **groundwater**.
	How to comply The following areas must be impervious to prevent subsoil and **groundwater** contamination: • areas used for receiving, mixing and storing of feedstock • active composting • collecting **leachate** • storing **leachate**. The appropriate design of the impervious area will be determined by: • the nature of the materials being contained • the properties of the earth between the ground surface and **groundwater** (permeability, fractures or bedding planes in surface rock, vulnerability to subsidence and structural instability, acid sulfate soils) • the characteristics and properties of **groundwater** (depth, rate of recharge, hydraulic conductivity). • whether the area is roofed • structural support required for equipment, machinery and vehicles. An acceptable impervious area for storing feedstock might range from a compacted earth area which is sufficiently graded and bunded through to a concrete hard stand area for containing liquids. Composting pads, **leachate** collection and storage areas must have a **leachate** barrier system such as a compacted clay liner of adequate thickness or asphalt cement pad capable of supporting any machinery or equipment. Any area used for directing and collecting **leachate** should be adequately sloped to maximise runoff and reduce pooling and infiltration. **You** must be able to demonstrate with sufficient information that the design, construction and use of the impervious area prevent the infiltration of contaminants to subsoil and **groundwater**.

6 Definitions[2]

Note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

NOTE: Where the prefix 'PD' accompanies a definition (e.g. PD077), this code refers to a Connect business key. Where there is no Connect business key, the definition provided below is not included in a condition rather the definition relates to the supporting text in this document.

PD075 - 24 hour storm event with an average recurrence interval (ARI) of 1 in 10 years means the maximum rainfall depth from a 24 hour duration precipitation event with an average recurrence interval of once in 10 years. For example, an Intensity-Frequency-Duration table for a 24 hour duration event with an average recurrence interval of 1 in 10 years, identifies a rainfall intensity of 8.2mm/hour. The rainfall depth for this event is therefore 24 hour x 8.2mm/hour = 196.8mm.

PD077 - Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

PD078 - Administering authority means the Department of Environment and Science or its successor or predecessors.

PD085 - Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirement using the relevant protocols, standards, methods or literature.

PD099 - Commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

PD110 - Disturbed areas includes areas:

1. that are susceptible to erosion;
2. that are contaminated by the **activity**; and/or
3. upon which stockpiles of soil or other materials are located.

PD123 - Environmental nuisance as defined under Chapter 1 of the *Environmental Protection Act 1994.*

PD124 - Environmental value as defined under Chapter 1 of the *Environmental Protection Act 1994.*

PD129 - Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

PD140 - Leachate means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the site that contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

PD144 - Measures has the broadest interpretation and includes plant, equipment, physical objects, monitoring, procedures, actions, directions and competency.

Offensive means causing offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive.

Prescribed water contaminants means contaminants listed within Schedule 10 of the Environmental Protection Regulation 2019.

PD163 - Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

[2] Note to administering authority officers: These definitions have been developed for consistent use across the State. However it is recognised that in rare circumstances, a definition might need to be amended to fit a particular type of operation. You should also carefully consider the definitions of **sensitive place** and **commercial place** when issuing an environmental authority and if both definitions are appropriate to be included in condition PMA001 (A1) or PMN001 (N1) given the proposed location of the **activity.**

PD167 - Release of a contaminant into the environment means to:

(a) deposit, discharge, emit or disturb the contaminant
(b) cause or allow the contaminant to be deposited, discharged, emitted or disturbed
(c) fail to prevent the contaminant from being deposited, discharged emitted or disturbed
(d) allow the contaminant to escape
(e) fail to prevent the contaminant from escaping.

Sediment storage zone means the storage available in the bottom section of the stormwater basin designed to retain settled sediments.

PD176 - Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
6. a public park or garden; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.

Upper settling volume means the volume of the stormwater basin designed to capture surface runoff from storm events up to the design event.

PD199 - Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water, natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and **groundwater** and any part thereof.

PD202 - You means the holder of the environmental authority.