

General beneficial use approval for Biosolids

Waste Reduction and Recycling Act 2011

Prepared by: Industry and Development Assessment, Environmental Services and Regulation Division, Department of Environment and Heritage Protection

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October 2016

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Explanatory statement

This notice of a general approval for biosolids has been issued by the Department of Environment and Heritage Protection (the department) in accordance with section 163 of the *Waste Reduction and Recycling Act 2011* (WRR Act).

This general beneficial use approval (BUA) states the conditions for using biosolids for certain beneficial uses. It supports the vision of [Queensland's Waste Avoidance and Resource Productivity Strategy \(2014-2024\)](#), for Queensland to become a national leader in avoiding unnecessary consumption and waste generation by adopting innovative resource recovery approaches and managing all products and materials as valuable and finite resources.

If biosolids are not being used in accordance with this approval, or another type of permit that allows for their use, they are a waste and must be disposed of appropriately at a facility that is lawfully able to receive them.

Legislative framework

Waste is defined in the *Environmental Protection Act 1994* (EP Act) as including anything that is left over, or is an unwanted by-product, from an industrial, commercial, or domestic activity. There are a range of requirements that are placed on the management of waste depending on its type or composition.

The waste and resource management hierarchy¹ needs to be considered when determining the options for managing waste. Reusing a waste is one of the preferred management options, second only to avoiding or reducing the amount of waste generated. Waste and recovered resources should also be managed as close to the source of generation as possible.

Under the WRR Act, a waste can be approved for reuse as a resource if the chief executive of the department ('the chief executive') considers that it has a beneficial use other than disposal. If a waste is approved as a resource, it is no longer considered a waste for the purposes of the EP Act. These approvals are commonly called beneficial use approvals (BUAs).



Approval types

There are two types of BUAs—a general approval and a specific approval.

This notice of an approval is a general approval. A general approval has clear standards which, if complied with, do not require individual assessment by the department. Anyone can operate under this type of approval provided they are using the resource in accordance with the conditions of the approval. There is no need to lodge an application to the department to be able to operate under the approval however there are requirements in the conditions for certain persons to notify the department that they intend to operate under the approval.

A specific approval is applied for by a person and the department conducts an individual assessment of the proposal. Only the holder of that approval can operate under it once approved. You can find more information on specific approvals in the department's guideline [Approval of a resource for beneficial use - ESR/2015/1626 \(formerly EM1719\)](#).

Both general and specific BUAs include conditions that are considered necessary and desirable to ensure the waste is used in a sustainable manner and does not pose a significant risk of environmental harm.

¹ In order of most preferable to least preferable – Avoid; Reduce; Re-use; Recycle; Recover; Treat; and Dispose (s. 9 of the WRR Act)

Complying with the conditions of this approval

Any person operating under this approval must comply with the conditions of the approval. It is an offence to not comply with the conditions, carrying a maximum penalty of 1665 penalty units for an individual and 8325 penalty units for a corporation².

Biosolids

Biosolids are the organic products from sewage treatment processes (sometimes referred to as sewage sludge). They include treated tank sludges and residues from municipal sewage treatment plants (also called waste water treatment plants) including sedimentation tank and clarifier sludge, aerobically and anaerobically digested sludge and filter cake products from those sewage treatment plants.

The requirements under this general approval are largely derived from *the New South Wales Environmental Protection Authority Environmental Guidelines: Use and Disposal of Biosolids Products, 2000 (NSW Guidelines)*.

How this general approval works

This approval is a general approval for which anyone who operates under it has the benefit. The approval conditions have five parts:

- I. *Conditions of Approval*—these conditions apply to any person operating under the approval, unless otherwise stated in a condition.
- II. *Requirement for producers* – these conditions apply to producers.
- III. *Requirement for transporters* – these conditions apply to transporters.
- IV. *Requirement for users* – The requirements under this section only apply to users of the resource for agriculture, forestry, or soil and site rehabilitation purposes where the biosolids are classified as Restricted Use 1 or Restricted use 2.

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

If complied with, this general approval approves biosolids as a resource and not a waste within Queensland. Transport of biosolids interstate is not authorised under this general approval.

The granting of this approval does not warrant or imply the lawfulness of the activity under all legislation, or that approvals necessary under other legislation have or will be approved. It is the responsibility of each person operating under this approval to identify and obtain all other approvals necessary for the proposed activity.

The granting of this approval also does not remove the obligation to take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused (the 'general environmental duty' in accordance with s. 319 of the *Environmental Protection Act 1994* (EP Act)).

Environmental harm is any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. It also does not remove the obligation to comply with the notification provisions contained in the EP Act where an event causes or threatens to cause serious or material environmental harm.

² As at 1 September 2016. The value of a penalty unit is stated in the Penalties and Sentences Regulation 2005 (Qld).

General beneficial use approval – Biosolids

Period of approval

This approval takes effect from 07 November 2016 and remains in force until **31 December 2018** unless otherwise cancelled.

Conditions of approval

I. General conditions

1. Any **producer** or **user** operating under this approval must notify the **chief executive** using the approved form³ at least 10 business days prior to beginning to supply or use the resource under this approval.
2. Any breach of a condition of this approval must be reported to the **chief executive** as soon as practicable within 24 hours of becoming aware of the breach⁴.
3. The approved resource is the waste which meets the stated criteria in Table 1: Approved resource.

Table 1: Approved resource

Resource	Criteria
Biosolids	<ol style="list-style-type: none"> 1. Generated from sewage treatment plants within the State of Queensland and licensed under the <i>Environmental Protection Act 1994</i> (EP Act) for the relevant activity with total daily peak design capacity of >1500 equivalent persons. 2. Biosolids meet the quality characteristic requirements for one or more of the classifications in Table 2.

4. The **relevant person** must ensure that the resource is only applied to land as a fertiliser or soil ameliorant for the allowable land application use according to its classification stated in Table 2: Biosolids classification requirements.

Table 2: Biosolids classification requirements⁵

Biosolids classification	Allowable land application use	Biosolids quality characteristics
Unrestricted use	Home lawns and gardens Public contact sites Urban Landscaping Agriculture Forestry	<ol style="list-style-type: none"> 1. The quality of the resource meets the following requirements: <ol style="list-style-type: none"> a) Maximum contaminant limit (MCL) in column 'Grade A' of Table 3; and b) At least one pathogen reduction requirement and one vector reduction requirement for 'Stabilisation Grade A' of Table 4: Biosolids stabilisation requirements c) Enteric viruses <1PFU per 4 grams (total dry weight) d) Helminth ova <1 per 4 grams (total dry weight)

³ The approved form is available on the department's website at www.ehp.qld.gov.au, use the search term ESR/2015/1638.

⁴ The primary responsibility of reporting the breach would be of the relevant person who is in charge of the resource at the time.

⁵ Under the conditions of this approval, it is the **producer's** responsibility to ensure the quality of the resource has been determined before providing it to the **user**. It is the user's responsibility to ensure that biosolids are of a quality that is suitable for the land application use they will be undertaking.

		<ul style="list-style-type: none"> e) E-coli <100 MPN per grams (dry weight) f) Faecal coliforms <1000 MPN per gram (dry weight) g) Salmonella species – Not Detected
Restricted use 1	Public contact sites Urban Landscaping Agriculture Forestry Soil and site rehabilitation	1. The quality of the resource must meet the following requirements: <ul style="list-style-type: none"> a) MCL in column 'Grade B' of Table 3; and b) At least one pathogen reduction requirement and one vector reduction requirement for 'Stabilisation Grade A' of Table 4: Biosolids stabilisation requirements c) Enteric viruses <1PFU per 4 grams total dry weight d) Helminth ova <1 per 4 grams total dry weight e) E-coli <100 MPN per gm dry weight f) Faecal coliforms <1000 MPN per gm dry weight g) Salmonella species – ND
Restricted use 2	Agriculture Forestry Soil and site rehabilitation	1. The quality of the resource must meet the following requirements: <ul style="list-style-type: none"> a) MCL in column 'Grade C' of Table 3; and b) At least one pathogen reduction requirement and one vector reduction requirement for 'Stabilisation Grade B' of Table 4: Biosolids stabilisation requirements

ND = Not detected

NS = Not stated

PFU = Plaque-forming unit

MPN = Most probable number

Table 3: Maximum contaminant limits

Quality characteristic	MCL (dry mass) in mg/kg		
	Grade A	Grade B	Grade C
Arsenic	20	20	20
Cadmium	3	5	20
Chromium (total)	100	250	500
Copper	100	375	2000
Lead	150	150	420
Mercury	1	4	15
Nickel	60	125	270
Selenium	5	8	50
Zinc	200	700	2500
Total Organic Fluorine	0.39	0.39	0.39
DDT/DDD/DDE	0.5	0.5	1.00
Aldrin	0.02	0.2	0.5
Dieldrin	0.02	0.2	0.5
Chlordane	0.02	0.2	0.5
Heptachlor	0.02	0.2	0.5
HCB	0.02	0.2	0.5
Lindane	0.02	0.2	0.5
BHC	0.02	0.2	0.5
PCBs	ND	0.3	1.00

ND = PCB's not detected at a limit of detection of 0.2 mg/kg

Table 4: Biosolids stabilisation requirements

Pathogen Reduction Process	Vector Attraction Reduction Requirements
Stabilisation Grade A	
<p><u>Biosolids have been treated using one of the following methods:</u></p> <p><u>1. Thermally treated biosolids</u></p> <p>a) Biosolids > 7% solids with temperature at least 50° C. The equation for the time -temperature requirement is: $D = (131,700,000) / (10^{0.1400t})$, where D = time required in days, t = temperature in degrees Celsius. This option includes pasteurisation at 70°C for 30 mins;</p> <p>b) Biosolids > 7% solids. This option includes composting at 55°C for 3 consecutive days.</p> <p>c) Biosolids > 7% solids that are small particles heated by contact with either warmed gases or an immiscible liquid. The temperature should be at least 50°C for at least 15 seconds using the equation above. This option includes biosolids in contact with a hot gas stream in a rotary drier or biosolids dried in a multiple-effect evaporator system.</p> <p>d) Biosolids < 7% solids and less than 30 minutes contact time. Use equation 1 for contact times > 15 seconds and < 30 minutes.</p> <p>e) Biosolids < 7% solids and > 30 minutes contact time at 50° C or higher use equation (2) below: $D = (50,070\ 000) / (10^{0.1400t})$ This option includes thermophilic aerobic digestion.</p> <p><u>2. High pH—high temperature process</u></p> <p>The pH of the biosolids product is to be raised to greater than or equal to pH 12 and remain above pH 12 for 72 hours. During at least 12 hours of the 72-hour period, temperature of the biosolids product has to be greater than 52°C. After 72 hours biosolids product must be air dried to a solids content of more than 50%.</p> <p><u>3. Biosolids from unknown processes</u></p> <p>For biosolids where the history of processing is not known, the product will be subject to a program of testing for the microbiological parameters contained in Table 2.</p>	<ol style="list-style-type: none"> 1. Mass of volatile solids in the biosolids have been reduced by a minimum of 38%. 2. Anaerobically digested biosolids which do not meet requirement 1 above must have no more than 17% further volatile solids reduction when incubated under anaerobic conditions in a bench scale reactor for an additional 40 days at 30-37° C. 3. Aerobically digested biosolids which do not meet requirement 1. above must have no more than 15% further volatile solids reduction when incubated under aerobic conditions in a bench scale reactor for an additional 30 days at 20°C (typically used for extended aeration processes). 4. Specific oxygen uptake rate for biosolids treated by an aerobic process have been less than 1.5 mg O₂/hour/g total solids at 20°C. 5. The pH value of the biosolids have been raised to 12 and without the addition of further alkali shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours. 6. For biosolids which contain stabilised solids only, the proportion of dry solids must be at least 75%. 7. For biosolids which contain unstabilised solids generated in a primary wastewater treatment process the proportion of dry solids have been at least 90%. 8. Biosolids have been treated in an aerobic process for at least 14 days. During that time, the temperature of the biosolids have been >40°C and the average temperature >45° C. This option relates primarily to composted biosolids.
Stabilisation Grade B	
<ol style="list-style-type: none"> 1. Anaerobic digestion 2. Aerobic digestion 3. Air drying 4. Composting 5. Lime stabilisation 6. Extended aeration 7. Other processes accepted by the EPA 	<p>One of the vector attraction reduction requirements from Stabilisation A above or one of the following requirements:</p> <p><u>Process Option (for Stabilisation B only)</u></p> <ol style="list-style-type: none"> 1. At least 20 days continuous or intermittent extended aeration including aerobic digestion time followed by six (6) months storage of biosolids in a lagoon or equivalent process. <p><u>Barrier Options (for Stabilisation B only)</u></p> <ol style="list-style-type: none"> 2. Biosolids will be injected below the surface of the land. 3. Biosolids applied to the land surface must be incorporated within six hours of application on the land.

5. The resource must not be released directly or indirectly to land, air, or **waters** in a way that is not in accordance with the conditions of this approval and causes or may cause actual or potential environmental nuisance or environmental harm.
6. The **release** of noxious or offensive odours, or dust or any other airborne particulate matter must not cause a **nuisance** at a **sensitive place**.
7. Noise generated from the use of the resource must not cause a nuisance at a sensitive place.
8. All complaints received regarding the use and transport of the resource must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available on request to the chief executive within 10 business days.
9. The following records must be kept by the **relevant person** for each load of the resource transported:
 - a) origin of the resource;
 - b) quantity (in tonnes);
 - c) date of collection;
 - d) date of delivery; and
 - e) destination (including the site address and name of the **user**).
10. All records required by this approval must be kept for a period of at least five years and provided upon request to the **chief executive** within 10 business days.

II. Requirements for producers

11. The **producer** of the resource must ensure that the classification of the resource has been determined according to the **biosolids** quality characteristics stated in Table 2: Biosolids classification requirements.
12. Prior to the initial supply of the resource to a **user** and following any variation of the quality of the supply, the **producer** must make the **user** aware in writing of the classification of the resource.
13. Monitoring and analysis undertaken to determine the classification of the resource must be conducted with samples⁶ taken at least every 120 dry tonnes of the resource to be used.
14. Where the composition of the resource has changed or is likely to change, more frequent monitoring must be conducted to sufficiently detect the extent of any change⁶.
15. Any monitoring to determine the quality of the resource must be carried out on samples that are representative of the resource to be used.
16. The **producer** must record details of the following:
 - a) the determination of the classification of resource as required by condition 11;
 - b) results of ongoing sampling and characterisation; and
 - c) a written agreement between the **producer** and **user** to **use** the resource in accordance with the conditions of this approval⁷.
17. All analyses undertaken as a part of this approval must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses.
18. Sampling and analysis conducted as a requirement of this approval must be undertaken by an **appropriately qualified person**.

⁶ Resource sampling and analysis should be conducted in accordance with the procedures detailed in the latest version of the **NSW Guidelines**.

⁷ In cases where the **producers** are the users, the written agreement does not need to be in place.

III. Requirements for transporters

19. The resource must be handled in a manner that prevents the **release** of the resource into the environment during transport.

IV. Requirements for users

20. **Users** must comply with this section (i.e, section *IV Requirements for users*) of this approval where **biosolids** classed as Restricted Use 1 or Restricted Use 2 are being used in agriculture, forestry or soil and site rehabilitation.

Written Procedure

21. The use of the resource must be undertaken in accordance with the written procedures that:

- a) identify potential risks of **environmental harm** from using the resource during routine operations and **emergencies**;
- b) establish and maintain control measures that minimise the potential for **environmental harm**; and
- c) ensure that reviews of environmental performance are undertaken at least annually.

Storage of the resource

22. The resource must not be stored on application sites for a period exceeding 30 days.

23. The resource must be stored in areas located outside the buffer distances stated in *Table 6: Minimum buffer zones to sensitive receptors*.

24. All areas used to store the resource must be bunded so that overland flow of stormwater is excluded from either entering or leaving the bunded area.

25. Water that is collected within bunded storage areas must be irrigated to the resource application area in a manner that prevents release to waters.

Site suitability

26. The suitability of each resource application area must be assessed by an **appropriately qualified person** before each application.

27. The suitability assessment required by condition 26 must include:

- a) An assessment of the existing soil nutrient and contaminant levels and determination of the assimilative capacity of the soil in accordance with the **NSW Guidelines**.
- b) A determination of the soil pH level at depths 0 –10 cm and 0 – 45 cm in accordance with the soil sampling procedure given in NSW Guidelines.
- c) A determination of the groundwater (standing water level) during both wet and dry seasons.
- d) An assessment of seasonal climate and flood risk⁸.

28. The details of any assessment undertaken in accordance with conditions 26 and 27 must be provided on request to the **chief executive** within 10 business days.

29. The resource must not be applied to land that:

- a) has a soil pH of less than 3.5_(CaCl₂ method);
- b) has groundwater (standing water level) located lesser than 3 metres below the surface (during either wet or dry seasons);
- c) has a surface rock outcrop of greater than 10% of the area to which the resource is applied.

⁸ Resource application must be avoided within the identified exclusion period for identified flood risk area.

30. Consultation about the application of the resource must be conducted with any landholders or occupiers of the neighbouring land where the resource application is to occur.

Land application of the resource

31. The application of the resource to land must be conducted at an agronomic loading rate determined in accordance with the latest version of the **NSW Guidelines**⁹, taking into consideration the limits for the parameters listed in *Table 5: Maximum allowable soil contaminant concentrations*.

32. The application of the resource to land must not result in soil contaminant concentrations exceeding the limits for the parameters listed in *Table 5: Maximum allowable soil contaminant concentrations*.

33. The resource must be spread on land at a uniform rate and incorporated into the soil within 36 hours of spreading.

34. Any excess **biosolids** (following application) are considered to be **regulated waste**, and must be taken to a location lawfully able to accept the material, and must not be stored or re-applied to the application areas of each site.

35. The following records must be kept for each resource application:

- a) details of the land on which the application occurs (e.g. GPS locations of the farms and blocks);
- b) date and time when the resource is applied;
- c) the calculated application rate at which the resource is to be applied; and
- d) the actual application rate.

Table 5: Maximum allowable soil contaminant concentrations

Contaminant	Maximum allowable soil contaminant concentration (mg/kg dry weight of soil)
Arsenic	20
Cadmium	1
Chromium (total)	100
Copper	100
Lead	150
Mercury	1
Nickel	60
Selenium	5
Zinc	200
Total Organic Fluorine	0.005
DDT/DDD/DDE	0.50
Aldrin	0.02
Dieldrin	0.02
Chlordane	0.02
Heptachlor and heptachlor epoxide	0.02
Hexachlorobenzene	0.02
Lindane	0.02
Benzene hexachloride	0.02
PCBs	Not detected*

*at a limit of detection of 0.1mg/kg

Buffer distances

36. The minimum buffer distances stated in *Table 6: Minimum buffer zones to sensitive receptors* must be kept between all application areas and sensitive receptors.

37. All buffer zones must be stable and covered with suitable vegetation that will limit the transfer of the resource from the application area to neighbouring areas.

⁹ The agronomic loading rate should be no greater than the lower of the nitrogen limited biosolids application (NLBAR) or the contaminant limited biosolids application rate (CLBAR) according to NSW Guidelines as of 31 August 2016.

Table 6: Minimum Buffer Zones to Sensitive Receptors

Sensitive Receptor	Minimum buffer distance (meters)		
	Flat (<3% or <2°)	Downslope ¹ (>3% or >2°)	Upslope ¹
Surface waters	50	100	5
Farm dams	20	30	5
Drinking water bores	250	250	250
Other bores	50	50	50
Farm driveways, forest roads & fence lines	5	5	5
Native forests & other significant vegetation types	10	10	5
Animal enclosures , property boundaries or land used for food production	25	50	25
Occupied dwelling	50	100	50
Residential zone	250	500	250

¹ Downslope refers to the situation where the sensitive receptor is at a lower point on the slope than the **biosolids** application area. Upslope refers to the situation where the sensitive receptor is at a higher point on the slope than the **biosolids** application area.

Application timeframes

38. The resource must not be applied to land within the timeframes stated in *Table 7: Land use and harvesting timeframe restrictions*.

Table 7: Land use and harvesting timeframe restrictions

Land use		Timeframe in which the resource must not be applied
Human food crops	Harvested parts do not touch the resource	30 days prior to harvesting
	Harvested parts touch the resource but are above the land surface (e.g. lettuce)	18 months prior to harvesting
	Harvested parts are below the surface of the land (e.g. carrots)	5 years prior to harvesting
Animal feed & fibre crops		30 days prior to harvesting 30 days prior to grazing by animals Poultry and pigs must not be allowed to graze on biosolids application areas.
Animal withholding		90 days prior to grazing by lactating (including milk for human consumption) and new born animals
Turf		1 year prior to harvesting
Public access	Where there is high potential for public exposure	1 year prior to access
	Where there is low potential for public exposure	30 days prior to access

Definitions

Words and phrases used throughout this approval are defined below:

aerobic digestion means the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by micro-organisms in the presence of oxygen.

agriculture means the current or future use of land for agriculture which includes horticulture, turf and any purpose of husbandry. This includes keeping or breeding livestock, and growing fruit, vegetables, field crops or pastures.

anaerobic digestion means the biochemical decomposition of the organic matter in sewage sludge into methane gas and carbon dioxide by micro-organisms in the absence of oxygen.

animal enclosure means an enclosure for intensive husbandry of livestock such as pigs, cattle and poultry; and does not include grazing purposes.

appropriately qualified person means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

biosolids means treated tank sludges and residues from a municipal sewage treatment plant (also called a waste water treatment plant) including sedimentation tank and clarifier sludges, aerobically and anaerobically digested sludge and filter cake products from those sewage treatment plants.

chief executive means the Department of Environment and Heritage Protection or its successor.

composting means the aerobic, biological decomposition of the organic constituents of **biosolids** and other organic products under controlled conditions. The rate of composting is dependent upon a number of factors, but key factors include: moisture content, carbon to nitrogen ratio, aeration, temperature and microbial population.

contaminant (as defined in Section 11 of the *Environmental Protection Act 1994*), unless authorised under this approval means —

- (a) a gas, liquid or solid; or
- (b) an odour; or
- (c) an organism (whether alive or dead), including a virus; or
- (d) energy, including noise, heat, radioactivity and electromagnetic radiation; or
- (e) a combination of contaminants.

daily peak design capacity for sewage treatment works means the higher equivalent person (EP) for the works calculated using each of the following formulae:

- a) $EP = V/200$, where, V is volume, in litres, of the average dry weather flow of sewage that can be treated at the works in a day;
- b) $EP = M/2.5$, where, M is the mass, in grams, of phosphorous in the influent that the works are designed to treat as the inlet load in a day.

emergency(ies) means a situation where either human health or safety is threatened, or serious or material environmental harm has been or is likely to be caused; and urgent action is necessary to protect the health or safety of persons, or prevent or minimise the harm, or rehabilitate or restore the environment because of the harm.

environmental harm means environmental harm as defined in Chapter 1 of the *Environmental Protection Act 1994*.

NSW Guidelines means the New South Wales Environmental Protection Authority *Environmental Guidelines: Use and Disposal of Biosolids Products* (2000) or any updated edition.

nuisance means environmental nuisance as defined in Section 15 of the *Environmental Protection Act 1994* and means unreasonable interference or likely interference with an environmental value caused by—

- (a) aerosols, fumes, light, noise, odour, particles or smoke; or
- (b) an unhealthy, offensive or unsightly condition because of contamination; or
- (c) another way prescribed by regulation.

occupied dwelling means a room or suite of rooms occupied on the property receiving **biosolids** or the adjoining property.

person(s) means an individual or a corporation.

producer(s) means a person who sells or gives away the resource to be used under this approval.

public contact site(s) means land with a high potential for contact by the public, including public parks, fields, cemeteries, plant nurseries and golf courses.

regulated waste means regulated waste as defined in Section 65 of the Environmental Protection Regulation 2008.

release(d) of a contaminant into the environment, includes —

- (a) to deposit, discharge, emit or disturb the contaminant; and
- (b) to cause or allow the contaminant to be deposited, discharged, emitted or disturbed; and
 - (i) to allow the contaminant to escape; and
 - (ii) to fail to prevent the contaminant from escaping.

relevant person means the **producer, transporter** or **user** of the resource who is in control of the material at the time.

residential zone means land identified in an environmental planning instrument as being predominantly for residential use, including urban, village or living area zones, but excluding rural residential zone.

sensitive place means —

- c) a dwelling, mobile home or caravan park, residential marina or other residential place; or
- d) a motel, hotel or hostel; or
- e) a kindergarten, school, university or other educational institution; or
- f) a medical centre or hospital; a protected area; a park or garden; or
- g) a place used as an office or for business or commercial purposes and includes the curtilage of any such place; or
- h) a public park or garden.

stabilisation means the process of **biosolids** to reduce or eliminate the potential for putrefaction and which, as a result, reduces pathogens, vector attraction and offensive odours.

surface water means waters excluding groundwater.

transporter(s) means a person who is transporting the resource.

urban landscapes means landscaping undertaken for aesthetic or rehabilitation purposes within an urban environment, and include all public landscaping but not residential areas.

user(s) means a person who has entered into a written agreement with a producer to use the resource in accordance with the conditions of this approval, and includes the producer who uses the resource.

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.

- END OF CONDITIONS -

Approved By

Signature

Chris Hill
Director, Industry and Development Assessment
Delegate of the Chief Executive
Waste Reduction and Recycling Act 2011

28 October 2016

Date

Enquiries:

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