Waste Reduction and Recycling Act 2011

Request for further information/validation

Use this checklist when reviewing the information provided with an application for a new, transfer or amendment of an approval of a resource made under s.157 (new application) or s.168 (transfer or amendment) of the *Waste Reduction and Recycling Act 2011*. Completion of this checklist is evidence that a review of the information provided has been conducted and that any further information requested is reasonable.

EHP PROJECT NO: 409312	**EHP FILE NUMBER:**
EHP PERMIT NO:	ENBU05261913
NAME OF APPLICANT:	Nugrow Roma Pty Ltd
ABN/ACN:	88 151 756 517
REGISTERED ADDRESS:	4/7 Sonia Court, Raceview Qld 4305
Generator	**Company Name:** Various generators throughout SE Qld
Transporter	**Company Name:** Unknown
Site of Beneficial Use	**Site Address:** Iona Park, Millbank Boundary Rd, Kogan Qld 4406 Western Down LGA **Site lot and plan:** Lot 3 on DY117

CRITICAL DATES	DATE
VALID APPLICATION RECEIVED	Not valid – application received 20/11/13

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This is relation to requiring further information for an application for a–

Please check the relevant box:

☒ **New** specific approval (Complete Part A and Part B).
☐ **Transfer** of an existing specific approval (Complete Part A and Part C).
☐ **Amendment** of an existing specific approval (Complete Part A and Part D).

Part A: General details

To be completed for all applications.

1. Summary of the proposed use of the resource

Proposed use

Nugrow intend to apply a number of waste materials to land as part of a soil rejuvenation program at Iona Park, Millbank Boundary Road, Kogan Qld 4406. A summary of the proposed uses is provided in *Figure 1 – Proposed beneficial uses*. The waste materials include a mix of regulated wastes under the EP Act and non-regulated wastes.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

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The resource will be accepted on the site and then vetted (including visual inspections and sampling and analysis) prior to use. Any material that does not meet any acceptance criteria imposed by BUA conditions will be removed and taken to a facility licenced to receive the waste. If the material does not meet the acceptance criteria then it is not considered a resource and the transport and storage on the Farmstead may not be a legal activity. This matter will need to be considered when a valid application is made.

Site detail summary

Iona Park is approximately 5.13km^2 (513.28 ha) and is located on Millbank Boundary Road, Kogan, approximately 10km from the township of Kogan. Iona Park has been used for grazing over a number of years and has been identified as significantly lacking minerals and nutrients which has resulted in a lower carrying capacity. The overall quality of the soil is poor with no defined topsoil layer. The present soil quality indicates that cropping would be difficult and the land at best is only suitable for sporadic grazing with the spelling of pastures.

Fees

The fee that has been paid for this application is $15211.00, this being for the highest fee for the irrigation of a liquid resource to land as a soil conditioner or fertiliser if the resource is a result of coal seam gas extraction. The application involves the use of multiple resources including:

- Green waste
- Biosolids and manures
- CSG drill and production waters
- Camp sewage effluent (untreated and treated)
- Camp food waste (solid and liquid), including grease trap waste and kitchen washing waters (grey water).

The WRR Act does not specifically mention that only the highest fee needs to be paid where there are multiple resources involved. Based on the resources stated other fees could also apply (refer to exert from the WRR Reg provided in Attachment A):

- Use of camp sewage effluent—Irrigation of a liquid resource to land as a soil conditioner or fertiliser (ii) otherwise…$6088.00
- Use of camp food waste, biosolids and manures—Application of sludge or soil resource to land as a soil conditioner or fertiliser (ii) otherwise… $6088.00

If all fees were to be paid the total amount would be $27 387.00. The position that has been reached is that EHP will only apply the highest applicable fee on the grounds of the application of the principle that where there is uncertainty, ambiguity or where legislation is silent, it is to be interpreted in a way that leads to less red tape and a lesser regulatory burden for business. This is consistent with the government and departments' strategic agenda, and a previous Directors memo issued by Omar Ameer (Director, Environmental Regulatory Practice and Support), dated 30 May 2012.

Other approvals potentially required

The mulching of green waste may trigger ERA 33 Crushing, milling, grinding or screening if it's conducted at a rate of >5000t/yr. A mobile grinding service will be contracted.

The treatment of untreated sewage effluent by sand filtration may trigger ERA 63 Sewage treatment if treating >21 EP. While it is not necessary to make a valid application, Nugrow will need to confirm whether the activity will trigger ERA 63 as this will impact on whether a beneficial use is occurring for that material.

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The application also states (Page 7, Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources) that as well as improving the quality of the soils at the Farmstead, Nugrow will also be promoting the sequestration of atmospheric carbon by… producing biochar (at its Gracemere Facility) and ploughing it in the soils at the Farmstead. Biochar is soil conditioner that has been produced through high temperature treatment of green waste. The department has previously considered this activity to trigger ERA 53 Composting and soil conditioner manufacturing if production >200t/year. This biochar (provided it does not contain regulated wastes) is considered a product. Confirmation should be provided by the applicant as to whether the biochar is to be considered as a part of this BUA application, however is not considered necessary to make the application valid.

Part B: New application details

Does this section apply? ☒Yes ☐No

To be completed for new applications for a specific approval.

The following information is to be provided at the time of making an application for a specific approval for the application to proceed. If all of the information is provided, please check the **Yes** box. If not, please check the **No** box and give a description of the information to be requested from the applicant and the reasons why the information is required. Note that a further indication of the information to be provided is included in the guideline *Approvals of a resource for beneficial use* (EM1719).

1. Possession of resource

Under *s.* 157(1) of the *Waste Reduction and Recycling Act 2011* a person may apply to the administering authority for a specific approval of a resource if –

(a) the person possesses the resource when the application is made; OR (b) the person has consent to make the application from the person who, when the application is made, has possession of the resource.	*Is the applicant eligible to make the application?* ☐ Yes ☒ No

Nugrow intends to source the wastes from various South East Queensland STPs and various CSG camps and facilitiesin the vicinity of Iona Park. Consent is addressed in s. 7 *Resource generators' permissions* of Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources (pp. 47-48). See below.

a) Toxfree has written a letter dated 19/11/13 giving permission to use the following wastes that they receive:

- CSG drill and production waters;
- Camper sewage effluent (treated and untreated)
- Camp food waste (solid and liquid), including grease trap waste and kitchen washing waters (grey water)

Need to confirm whether Toxfree has possession of the resource at the time of making the application.

b) The application states that permission was sought and received from Toowoomba Regional Council for the use of the Wetalla biosolids data for the proposal. There is no evidence of permission given from council to make an application for the use of biosolids from its STPs. Evidence of permission given to make an application needs to be provided.

c) No evidence has been provided in the application that Nugrow possesses or has consent from whoever has possession of the green waste or manures. It is expected that green waste will be sourced both onsite and various locations offsite and manures will be sourced from various places including holding yards, feedlots and abattoirs. Evidence of the above will need to be provided.

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2. Information about resource

Under *s.* 157(2) of the *Waste Reduction and Recycling Act 2011* an application for a specific approval must include the following information about the resource –

Information required under s. 157(2)(b)	*Has all of the information been provided?*
(i) a description of it, including, for example , its physical state and its components and their concentrations;	☒ Yes ☐ No A description of the resources is included in s. 6 *Description of the Resources* of Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources (pp. 42-47). Further information should be requested in an information request on the characteristics of manures, particularly in relation to their potential to contain unwanted contaminants. For example, manure sourced from holding yards may contain high levels of arsenic if the yards are used in dip/spray race operations and soil is collected with the manure. If Nugrow proposes to include quality control measures (i.e. limitations on where the manure is sourced) then these should be provided.
(ii) details of any of its environmentally significant characteristics;	☐ Yes ☒ No The application has not indicated whether any of the resources have environmentally significant characteristics. Nugrow need to confirm whether any of the resources are explosive, flammable, oxidising, poisonous, infectious, corrosive or toxic (see Schedule A, List 2 of the National Environmental Protection (Movement of Controlled Waste Between States and Territories) Measure as varied December 2004).
(iii) details of its origin, including, for example, its place of production and the type of activity resulting in its production;	☒ Yes ☐ No Only general information has been provided on the origin of the resource. No information has been provided on which companies/locations the wastes will be sourced from, apart from six CSG mining camps being located within 30km of the Farmstead (Page 98, Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources). Further information should be requested in an information request but is not necessary to make the application valid.
(iv) details of persons, premises or industry intended to receive it;	☒ Yes ☐ No Refer to Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources, in particular s. 5 *Site selection and suitability* (pp. 23-41).
(v) details of the form of transportation, storage, re-use, recycling, energy recovery, reprocessing or other use proposed for it;	☐ Yes ☒ No Details on the form of transportation of the resources to the site have not been provided. Nugrow will need to provide details on the form of transportation to be used.
(vi) details of the benefits, and any end product, or its proposed use;	☒ Yes ☐ No Refer to sections 3 *The benefit of applying multiple*

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	resources and 4 *The benefits of individual resources* of Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources (pp. 14-23).
(vii) the quantity of it proposed to be used;	☐ Yes ☒ No No details have been provided on the expected quantities of the resource to be used. Nugrow will need to provide details of the expected quantities to be used.
(viii) details of any relevant waste minimisation scheme, waste management plan or industry code relevant to it;	☐ Yes ☒ No No details have been provided as to whether there is any relevant waste minimisation scheme, waste management plan or industry code relevant to the resources. Nugrow will need to provide details of the existence and applicability any such scheme, plan or code. Reference should be made to the departments *Coal Seam Gas Water Management Policy* (2012) and how the proposal meets the outcomes of the policy. Information has been provided on the relevance of the IGAE, NSESD and relevant Queensland legislation in s. 11 *Items to be considered* of Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources, in particular s. 5 *Site selection and suitability* (pp. 91-96). The supporting information also refers to the NSW Environmental guidelines on the use and disposal of biosolid products.
(ix) any Australian or industry standards relevant to its end product;	☐ Yes ☒ No No information has been provided on whether there are any Australian or industry standards relevant to its end use. Nugrow will need to provide details of the above, including information on how the departments' guideline *Approval of coal seam gas water for beneficial use* (2013) has been considered.
(x) an assessment of the potential for material harm, serious environmental harm or environmental nuisance arising from its proposed use;	☒ Yes ☐ No Refer to section 12 *Identification of potential environmental impacts* of Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources (pp. 107-110).
(xi) an assessment of its alternative uses having regard to the waste and resource management hierarchy;	☒ Yes ☐ No While there is no detailed assessment of alternative uses for the resources, supporting material has identified that the proposed use is 'reuse' on the waste management hierarchy in s.9 of the WRR Act which is one of the most preferred management option, third to avoid and reduce.
(xii) an assessment of the best practice environmental management for its proposed use;	☒ Yes ☐ No Refer to section 11.4 *Best practice environmental management (BPEM)* of Part A: Support and

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	Substantiation for a Beneficial Use Approval for Multiple Resources (pp. 104-105).
(xiii) an assessment of commonly available technologies, methods or processes relevant to its proposed use; and	☒ Yes ☐ No Details of the technologies to be adopted in the use of the resources have been provided throughout Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources and Part B: Site Based Management Plan for a Beneficial Use Approval for Multiple Resources.
(xiv) other information required under a regulation.	☒ Yes ☐ No There is no other information required under a regulation.
Information required under s. 157(2)(c)	*Has all of the information been provided?*
Details of proposed measures to ensure the applicant's proposed use of the resource is not likely to result in material environmental harm, serious environmental harm or environmental nuisance.	☒ Yes ☐ No Refer to Part B: Site Based Management Plan for a Beneficial Use Approval for Multiple Resources of the applicants supporting information.

Part C: Transfer information

Does this section apply? ☐ Yes ☒ No

To be completed for applications for a transfer of benefit of a specific approval.

Has the signed consent of the transferee been received?	☐ Yes	☐ No
Is any further information required for the transfer to proceed?	☐ Yes	☐ No

Part D: Amendment information

Does this section apply? ☐ Yes ☒ No

To be completed for applications to amend a specific approval.

Is the application to amend a condition of an approval?	☐ Yes	☐ No
Does the application state the amendment sought?	☐ Yes	☐ No
Does the application state the reasons for the amendment?	☐ Yes	☐ No
Is there any further information required for the amendment to proceed?	☐ Yes	☐ No

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Part E: Recommendation and approval

Details of the recommendation:

It is recommended that:

a) ☒ the application is considered not valid as it does not meet the requirements for making an application under s. 157 of the *Waste Reduction and Recycling Act 2011*.

Please note that this checklist only identifies the information necessary to make a valid application. Further information may be requested in an information request.

OR

b) further information is requested from the applicant in accordance with–

☐ s. 158 of the *Waste Reduction and Recycling Act 2011* for a new application for a specific approval.

☐ s. 169 of the *Waste Reduction and Recycling Act 2011* for an application for a transfer or amendment of an existing specific approval.

A notice requesting further information has been drafted and is attached for the delegate's signature.

OR

b) ☐ No further information is required.

Simone Ventura Principal Project Officer, WLCA		
Assessing Officer	**Signed**	**Date**

Review and endorsement

Insert any comments relevant for the delegate's consideration:		
Kate Armstrong A/Manager, WLCA		
Manager/Supervisor	**Signed**	**Date**

Approval

I approve the recommendation stated above for the reasons set out in this report.		
Lindsay Delzoppo Director, SEA		
Delegate	**Signed**	**Date**

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Appendix A

Schedule 7 Fees

section 45

		$
1	Application for accreditation (Act, s 89(2)(c))	333.00
2	Application for a specific approval of a resource (Act, s 157(2)(d))—	
	(a) for irrigation of a liquid resource to land as a soil conditioner or fertiliser—	
	(i) if the resource is a result of coal seam gas extraction	15 211.00
	(ii) otherwise	6 088.00
	(b) for application of sludge or soil resource to land as a soil conditioner or fertiliser—	
	(i) if the resource is biosolids	2 288.00
	(ii) otherwise	6 088.00
	(c) for using a resource for an industrial activity—	
	(i) if associated with the carrying out of an ERA	3 048.00
	(ii) otherwise	4 568.00
	(d) for using a resource for augmenting water supply	53 218.00
	(e) otherwise	2 288.00
3	Application to transfer the benefit of an approval (Act, s 168(2)(d))	110.30
4	Application to amend an approval (Act, s 168(2)(d))—	

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Assessment report

Approval of a resource for beneficial use

Use this assessment report when deciding applications for approval of a resource under section 159 of the Waste Reduction and Recycling Act 2011 or when deciding application to transfer or amend an approval under section 168 of the Waste Reduction Act. Preparation of this assessment report is evidence that the criteria has been taken into consideration when making a decision.

EHP PROJECT NO: 409312	**EHP FILE NUMBER:**
EHP PERMIT NO:	ENBU05261913
NAME OF APPLICANT:	Nugrow Roma Pty Ltd
ABN/ACN:	88 151 756 517
REGISTERED ADDRESS:	4/7 Sonia Court, Raceview Qld 4305
Generator	**Company Name:** Various generators throughout SE Qld
Transporter	**Company Name:** Nugrow Roma Pty Ltd and other contractors
Site of Beneficial Use	**Site Address:** Iona Park, Millbank Boundary Rd, Kogan Qld 4406 Western Down LGA **Site lot and plan:** Lot 3 on DY117

CRITICAL DATES	**DATE**
VALID APPLICATION RECEIVED	16/12/13
INFORMATION REQUEST ISSUED	
RESPONSE TO INFORMATION REQUEST RECEIVED	
Has an extension of time been approved? NOTE: Only one extension of time up to 20BD can be approved. An extension cannot be approved for an amendment or transfer application.	☐ Yes ☒ No
DECISION DUE	14/2/14

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This is an assessment report relating to an application for a—

Please check the relevant box:

New specific approval
Transfer of an existing specific approval
(NOTE: for a transfer application, a reference to the applicant in the criteria is taken to be a reference to the proposed transferee)
Amendment of an existing specific approval

Part A: General details

Summary of the proposed use of the resource

Proposed use

Nugrow intends to apply a number of waste materials to land as part of a soil rejuvenation program at Iona Park Millbank Boundary Road, Kogan Qld 4406. A summary of the proposed uses is provided in *Figure 1 – Proposed beneficial uses*. The waste materials include a mix of regulated wastes under the EP Act and non-regulated wastes. A BUA application can be made for any type of waste regardless of whether it is regulated or not (s.13 EP Act)

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

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The resource will be accepted on the site and then vetted (including visual inspections and sampling and analysis) prior to use. Any material that does not meet any acceptance criteria imposed by BUA conditions will be removed and taken to a facility licenced to receive the waste. If the material does not meet the acceptance criteria then it is not considered a resource and the transport and storage on the Farmstead may not be a legal activity

It is expected that no more than 1,000,000 litres of liquids (both CSD drill and production waters and effluent) will be received per day. Biosolids will be accepted on an as needs basis in accordance with determined application rates Green waste will be accepted occasionally when it becomes available. Manures will be accepted when biosolids are unavailable.

Site summary

Iona Park is approximately 5.13km^2 (513.28 ha) and is located on Millbank Boundary Road, Kogan, approximately 10km from the township of Kogan. Iona Park has been used for grazing over a number of years and has been identified as significantly lacking minerals and nutrients which has resulted in a lower carrying capacity. The overall quality of the soil is poor with no defined topsoil layer. The present soil quality indicates that cropping would be difficult and the land at best is only suitable for sporadic grazing with the spelling of pastures. Further information on the site can be found in Section 5 *Site Selection and Suitability* of Part A of the supporting material.

Wastes not considered in this approval

Biochar—The application states (Page 7, Part A of the supporting material) that as well as improving the quality of the soils at the Farmstead, Nugrow will also be promoting the sequestration of atmospheric carbon by… producing biochar (at its Gracemere Facility) and ploughing it in the soils at the Farmstead. Biochar is soil conditioner that has been produced through high temperature treatment of green waste. The department has previously considered this activity to trigger ERA 53 Composting and soil conditioner manufacturing if production >200t/year. This biochar (provided it does not contain regulated wastes) is considered a product and as such has not been considered as a part of this approval.

Untreated sewage effluent—The applicant has request that untreated sewage effluent be considered for approval Information provided with the application proposes that that semi treated and untreated sewage will be received on the site and treated by a sand filtration unit prior to use. The treatment of such sewage will require approval under either the:

> *Plumbing and Drainage Act 2002*— for operating a sewage treatment plant, being equipment for the biological, physical or chemical treatment of sewage; **or**
>
> *Environmental Protection Act 1994*— if operating sewage treatment works that has a total daily peak design capacity of at least 21 Equivalent Persons, being equal to or greater than 4200L Average Dry Weather Flow per day or treating an inlet load of equal to or greater than 52.5 grams of Phosphorous in a day. Refer to the definition of Environmentally Relevant Activity (ERA) 63 Sewage treatment in the Environmental Protection Regulation 2008.

The granting of a BUA will not remove the need for Nugrow to obtain other relevant environmental approvals for the proposed project. It is Nugrow's responsibility to obtain all the relevant local and state government approvals prior to commencing the activity.

Approvals for sewage treatment would cover irrigation/disposal on the land. It is proposed that the BUA not include semi treated or untreated sewage, as it is not the appropriate legislative mechanism for considering sewage treatment activities.

Valid application

The application has been considered to have met the requirements for making an application under s.157 of the WRR Act.

It is noted that consent from specific providers of green waste and manures have not been provided, however it is proposed that the application be taken to include these wastes as their use is low risk, supply and use does not normally require an environmental approval and it is preferred that the proposal be managed on a whole of project basis. Obtaining permission for the use of these low risk wastes would not contribute towards achieving a positive environmental outcome. The inclusion of these wastes in the approval would encourage the use of these wastes in a sustainable manner. A condition has been included on the approval which requires Nugrow to obtain written consent to use the resource from the person who possesses the resource prior to its use.

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Summary of environmental risks

The following environmental risks are present from the use of the resource:

Leaching of contaminants to groundwater – refer to Attachment 2 of this report

Contamination of surface waters – refer to Attachment 2 of this report

Contamination of land (e.g. heavy metals and high salinity affecting environmental values of the land) – refer to Attachment 2 of this report

Health risks from pathogens and viruses – refer to Part B, Section 6 *Likelihood of harm* of this report

Dust nuisance – refer to Attachment 2 of this report

Noise nuisance – refer to Attachment 2 of this report

Odour nuisance – refer to Attachment 2 of this report

Documents and mapping considered in the assessment

Indicate the mapping documents considered in this assessment:

- ☒ Applicant maps supplied
- ☒ Applicant site plan supplied
- ☒ Ecomaps with relevant layers
- ☐ Other <provide details>
- ☐ Local government maps (including overlays from local planning schemes)

Indicate the plans/programs/other documents that have been considered in this assessment:

- ☐ Site management plan (contaminated land)
- ☒ Site based management plan / activity based management plan
- ☐ Stormwater management plan
- ☐ Noise management plan
- ☐ Dust management plan
- ☒ Monitoring programs
- ☐ Environmental Impact Study (or other study assessing the impacts on the environment)
- ☐ Resource Management Plan
- ☐ Applicant design drawings
- ☐ Other: Supporting material provided with the application including:

Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources, Located on Iona Park, Millbank Boundary Road, Kogan Qld 4406 on lands described as Lot 3 on DY117, prepared by The LZ Environmental Company Pty Ltd, dated 20/11/13.

Part B: Site Based Management Plan for a Beneficial Use Approval for Multiple Resources, Located on Iona Park, Millbank Boundary Road, Kogan Qld 4406 on lands described as Lot 3 on DY117, prepared by The LZ Environmental Company Pty Ltd, dated 20/11/13.

Letter to EHP from The LZ Environmental Company Pty Ltd, *Re: Response to information request – beneficial use approval of multiple resources – Iona Park, Millbank Boundary Road, Kogan*, dated 16 December 2013.

Provide a brief description of any further information that was submitted following a request for further information:

A formal information request under the WRR Act was not issued. A letter however was sent from the department to the applicant, dated 11 December 2013, detailing further information required to make the application valid. The department received a response from the LZ Environmental Company Pty Ltd, *Re: Response to information request – beneficial use approval of multiple resources – Iona Park, Millbank Boundary Road, Kogan*, dated 16 December 2013, which provided sufficient information to make the application valid.

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Associated activities/history of applicant

Nugrow operates commercially in providing bulk soils, sand and gravels for home or commercial use and has been doing so for over 26 years. Ecotrack shows that Nugrow Roma Pty Ltd operates a composting facility which has been approved to conduct Environmentally Relevant Activities 53 Composting and soil conditioner manufacturing and 58 Regulated waste treatment (Environmental authority number EPPR01422513) at Roma. This facility accepts and reuses regulated wastes in manufacturing their products.

Nugrow Regional Pty Ltd (associated company) conducts a similar operation at Gracemere under Environmental authority number EPPR01322213.

Prelodgement meeting, consultations, site inspections

A prelodgement meeting was conducted on 29 August 2013 between representatives of Nugrow and EHP. Refer to the file note titled *NuGrow, Kogan Creek proposal*, dated 3 September 2013.

Draft conditions were provided to the applicant and comments received and considered. Refer to Part B *Section 160(2) of the Waste Reduction and Recycling Act 2011* of this report.

Advice received

Internal advice was received from the following units:

Environmental Regulatory Practice and Support – Reviewed draft conditions for consistency with the departments Regulatory Strategy and model conditions – Vanessa Hughes, Manager, Mining ERP&S

Energy Assessment s – EA provided advice that the use of water as proposed would not fit within the criteria for operating under the existing general approval for associated water. Draft conditions were provided to EA for comment; suggestions provided by Janet Menzies in an email dated 23/1/14 were taken into consideration.

IMPORTANT NOTE

The conditions of approval have been drafted with particular consideration of the department's Regulatory strategy, with a strong focus on only including outcome focussed conditions. The approval should also not be considered an approval of an activity; rather it is the approval of a resource to be used for a purpose and does not authorise environmental harm under s. 493A of the EP Act.

It is expected that the applicant implement best practice environmental management. The applicant has stated that the use of the resources is not expected to cause environmental harm or release of the resource beyond the boundary of the site. The applicant is also expected to provide evidence that demonstrates their compliance with the conditions of this approval when compliance and enforcement actions are being undertaken. Where the applicant is causing environmental harm, or is otherwise not conducting the use of the resource in accordance with the conditions of approval, consideration should be given to suspending or cancelling the beneficial use approval

PART B: ASSESSMENT CONSIDERATIONS

Section 160 of the *Waste Reduction and Recycling Act 2011* (the Waste Reduction Act) outlines the criteria for decision. In addressing these considerations reference should be made to any subsequent conditions contained imposed on the approval.

NOTE that when deciding an application for a transfer or amendment the chief executive may consider the criteria under s. 160.

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Under s. 160(1) of the Waste Reduction Act, in deciding whether to grant or refuse an approval, the administering authority must consider the following:

Waste and resource management hierarchy

s. 160(1)(a) the waste and resource management hierarchy (as prescribed in s. 9 of the Waste Reduction Act – AVOID, REDUCE, REUSE, RECYCLE, RECOVER, TREAT, DISPOSE)

Please also refer to Part 8 *Alternative uses*, of this assessment report for an assessment of the alternative uses for the resource in relation to the waste and resource management hierarchy.

- The use of the resources is considered as *reuse* and is a more preferred waste management option to disposal, which is what predominantly happens.

Waste and resource management principles

s. 160(1)(b) the waste and resource management principles (as prescribed in s. 4 of the Waste Reduction Act, including the polluter pays principle (s. 10), the user pays principle (s. 11), the proximity principle (s. 12) and the product stewardship principle (s. 13).

- The applicant has addressed how the proposal meets the waste and resource management principles in section 11.3.2 *Waste Reduction and Recycling Act 2011 (WR&R Act)* of Part A of the supporting material.

3. Standard criteria

As defined in Schedule 4 of the *Environmental Protection Act 1994*.

s. 160(1)(c) - SC (a) the following principles of environmental policy as set out in the Intergovernmental Agreement on the Environment—(i) the precautionary principle; (ii) intergenerational equity; (iii) conservation of biological diversity and ecological integrity;

- The applicant has addressed how the proposal meets the principles of environmental policy as set out in the Intergovernmental Agreement on the Environment in section 11.1 of Part A of the supporting information.
- The applicant has stated that "*if it is plausibly perceived that an activity at Iona Park is causing or threatening environmental harm, but there is yet actual scientific proof that harm is occurring, the activity will be abated or altered until proof to the contrary is obtained.*" (Page 92, Part A of the supporting material)

SC (b) any Commonwealth or State government plans, standards, agreements or requirements about environmental protection or ecologically sustainable development;

- N/A

SC (c) any relevant wild river declaration;

- N/A

SC (d) any relevant environmental impact study, assessment or report;

- An assessment of the land on which the resources will be used that was provided in the supporting material for the application was considered in developing the conditions. Based on the information provided, it is considered that the use of the resource will improve the quality of land.

SC (e) the character, resilience and values of the receiving environment;

- The land on which the resources will be used is significantly degraded agricultural land. Details of the character, resilience and values of the receiving environment are included in sections 5 and 11.5 of Part A of the supporting information provided with the application.
- Use of the resource is expected to improve the quality of soils for agricultural use.

Also refer to Attachment 2 of this report.

SC (f) all submissions made by the applicant and submitters;

- Supporting information provided by the applicant has been considered in assessing the application. There are no

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submitters' for this type of application as defined in the *Environmental Protection Act 1994*

SC (g) the best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows—
(i) an environmental authority;
(ii) a transitional environmental program;
(iii) an environmental protection order;
(iv) a disposal permit;
(v) a development approval;
The proposed conditions have been developed considering pest practice environmental management and conditions imposed through previously issued BUAs for similar resource uses.

Also refer to Part B, Section 5, *Best practice environmental management* of this report.

SC (h) the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument;

- The financial implications of the requirements of the conditions of approval are consistent with other BUAs for similar operations where the resource will be applied to land. The applicant has reviewed the conditions and not expressed any difficulty regarding the financial implications from the requirements of the approval

SC (i) the public interest;

- The site is located adjacent to residential dwellings. The applicant does not propose any releases off site. The conditions of approval do not approve the release of contaminants off site. Noise associated with the use of the resource is not expected to exceed that which would be generated if non-waste material was being used Conditions have been proposed requiring the resource not to be released directly or indirectly to land, air or waters in a way or at a concentration that would cause environmental harm (including nuisance); noise not to cause a nuisance; and odours or airborne contaminants not to cause a nuisance. It is considered that the interests of the public are protected if the resource is used in accordance with the conditions of approval

SC (j) any relevant site management plan;

- No site management plans have been approved for the site under Chapter 7, Part 8 of the EP Act

SC (k) any relevant integrated environmental management system or proposed integrated environmental management system;

- The applicant has provided a Site Based Management Plan by which they propose to conduct the use of the resource. The proposed conditions of approval do not conflict with the SBMP.

SC (l) any other matter prescribed under a regulation.

- Section 53A of the Environmental Protection Regulation 2008 states—For schedule 4 of the Act, definition standard criteria, paragraph (l), an environmental objective assessment relating to an environmental management decision is prescribed.

  Refer to Part B, Section 4, *Regulatory requirements* under the *Environmental Protection Act 1994* of this report for an environmental objective assessment.

Regulatory requirements under the *Environmental Protection Act 1994*

s. 160(1)(d) any regulatory requirement under the EP Act that an administering authority under that Act must comply with in relation to an application for an environmental authority for a prescribed ERA under that Act and for that purpose the requirement applies–

(i) with any necessary or convenient changes; and

(ii) (A) as if a reference to the administering authority were a reference to the chief executive and; (B) an application for an environmental authority for a prescribed ERA were a reference to an application for a specific approval.

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s. 51 – Matters to be considered for environmental management decisions—prescribed ERA

(2)(a) Environmental objective assessment (Schedule 5, Part 3, Table 1 EP Reg) - see Attachment 2 of this report

(2)(b) (1)(b) *Environmental values declared under the EP Reg*
(The only declared environmental values are in relation to wetlands - s.81A EP Reg)

Use of the resource will not impact on wetlands.

(1)(c) *EPP Air – management hierarchy, environmental values, quality objectives, management intent—*

The applicant addresses the EPP Air in s. 11.3.3.1 of Part A of the supporting material. Conditions have been proposed that require the resource to not be released directly or indirectly to air in a way that may cause actual or potential environmental nuisance or environmental harm. The environmental values listed in s.7 of EPP Air will be protected. The air quality objectives will not be adversely affected. Dust emissions will be primarily managed by avoidance which is the most preferred management option in the hierarchy. Also refer to Attachment 2 of this report.

EPP Noise - management hierarchy, environmental values, quality objectives, management intent—

The applicant addresses the EPP Noise in s. 11.3.3.3 of Part A of the supporting material. Emissions resulting from the use of the resource are not expected to be greater than that which would be generated should non-wastes be used at the site. Conditions have been included requiring noise not to cause a nuisance. The Environmental values for the acoustic environment will be protected and acoustic quality objectives not adversely affected. Also refer to Attachment 2 of this report.

EPP Water – management hierarchy, environmental values, quality objectives, management intent—

The applicant addresses the EPP water in s. 11.3.3.2 of Part A of the supporting material. There is no planned discharge to waters. Environmental values in relation to groundwater and surface water have been considered. Conditions have been proposed that require the resource to not be released directly or indirectly to water (including groundwater) in a way that may cause actual or potential environmental nuisance or environmental harm. Also refer to Attachment 2 of this report.

s. 52 – Conditions to be considered for environmental management decisions

Relevant considerations made are listed below:

(a) Condition 9 details the outcomes which written procedures must meet. These outcomes were included as opposed to requiring a management plan as a part of outcome focussed conditioning in accordance with the department's regulatory strategy. The written procedures are to include prescriptive measures that will be undertaken to manage the use of the resource in accordance with the conditions of the approval.

(b) No specific measures have been included in the conditions for avoiding or minimising the release of the resource. The proposed conditions have tried to remain outcome focussed in accordance with the departments Regulatory Strategy to allow for the approval holder to maintain best practice environmental management.

(e) Conditions regarding composting conditions have been included to ensure that sufficient pathogen reduction occurs prior to the use of compost that contains biosolids. Also refer to Part B, Section 6 *Likelihood of harm* of this report.

(f) The resource must only be used if it meets the criteria in Table 1 of the conditions. The criteria have been imposed to ensure that the resource is beneficially used and not disposed onto land (also refer to Part B, section 6 *Likelihood of harm* of this report). Condition 2 requires the resource not to have any properties or contain any other contaminants in concentrations which may cause environmental harm when used in accordance with the conditions of approval. Condition 22 also requires liquid resource to be of a quality suitable for irrigation, having been determined by an appropriately qualified person. These conditions regarding restricting the type, quality, quantity, concentration or characteristic of the resource to be used are considered appropriate to minimise the risk of environmental harm. Conditions regarding the release of contaminants have not been included as BUAs are not an instrument under s. 493A of the EP Act which can authorise environmental harm.

(i) See above s.51 *Matters to be considered for environmental management decisions—prescribed ERA* for consideration of environmental values and quality objectives under relevant EPPs.

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s. 53 – Matters to be considered for decisions imposing monitoring conditions

Specific conditions stating limits which must not be exceeded have not been included as this would indicate a level of harm which can be caused, which a BUA can not legally authorise. The requirement to develop monitoring programs, parameters to be monitored and frequency of monitoring have also not been included as these are only a way of demonstrating compliance and are not an outcome in themselves. In place of listing specific monitoring parameters and frequencies, conditions require an annual assessment of groundwater and soil quality. Guidance for monitoring programs has been provided in Appendix B of the approval

s. 58 Release of water or waste to wetlands for treatment

There will be no release of water or waste to wetland for treatment.

s. 63 Activity involving direct release of waste to groundwater

There will be no direct release of waste to groundwater.

Best practice environmental management

s. 160(1)(e) the best practice environmental management for the proposed use of the resource

The conditions of approval have been developed with the purpose of being outcome focussed to allow the applicant to adopt best practice environmental management in achieving the desired outcomes

Refer also to above consideration of part (g) of the standard criteria.

Likelihood of harm

s. 160(1)(f) the likelihood of any material environmental harm, serious environmental harm, or environmental nuisance happening because of the proposed use of the resource

If the use of the resources is conducted in accordance with the conditions of approval, there is a low likelihood of any material or serious environmental harm, or nuisance happening because of the proposed use

Environmental risk associated with the use of the resource can be minimised through ensuring that the resource is of a suitable quality and is used appropriately. In ensuring that the resource is of a suitable quality for a particular use, the applicant must meet the criteria in *Table 1 – Resource criteria* in order to use the resource

Also refer to Part B, section 7 *Benefit and sustainability* of this report.

Table 1 – Resource criteria

Resource	Criteria	Based on
Green waste	Green waste will only be utilised in the following scenarios: (a) in onsite composting; (b) applied as mulch to the surface layer of the ground surface; and/or (c) incorporated within the soil (top 10cm	Considered low risk – criteria proposed by the applicant in response to draft conditions
Food waste	Food waste (liquid and solid) will only be incorporated in onsite composting windrows.	Considered low risk – criteria proposed by applicant in response to draft conditions
Livestock manure	Livestock manure will be applied directly to land or used in manufacturing compost.	Considered low risk
Biosolids	Biosolids will be applied directly to land or used	New South Wales Environmental Protection Authority *Environmental*

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	in manufacturing compost. Biosolids to be directly applied to land meet at least *Stabilisation Grade B*[1]. and *Contaminant Grade C*[2] classified as suitable for *Restricted Use 2* under the New South Wales Environmental Protection Authority *Environmental Guidelines: Use and Disposal of Biosolids Products* (2000) (the NSW Guidelines). Biosolids to be used in manufacturing compost meet at least *Stabilisation Grade B*[3]. and *Contaminant Grade D*[4] under the NSW Guidelines.	*Guidelines: Use and Disposal of Biosolids Products* (2000) Proposed and agreed to by the applicant in response to draft conditions. Applicant also proposed that NSW Guidelines be used to imit quality of compost applied to land however biosolids already meet Stabilisation Grade B (suitable for direct land application) prior to composting and conditions require the compost to meet AS4454.
Treated sewage effluent	Treated sewage effluent: (a) will be released to the main dam for storage prior to irrigation; and (b) does not have *Escherichia coli* (E. Coli) concentrations that exceed 10000 cfu/100mL found in 95% of the samples taken for a 12 month period; and (c) will not be used on food crop including minimally processed food crop.	Department of Energy and Water Supply (2008) *Water quality guidelines for recycled water schemes*, available at <www.dews.qld.gov.au>, and Class D - *Public Health Regulation 2005*. Consistent with applicants proposal.
Coal seam gas (CSG) drill and production waters	CSG drill and production waters used: (a) have a pH of at least 6 but not more than 10.5: and (b) have an electrical conductivity of less than 15,000 µS/cm.	Environmental Protection Regulation 2008

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Resource Monitoring

Conditions stating the frequency of monitoring required have not been included as it is the applicants responsibility to ensure that sufficient monitoring has been conducted to ensure that the waste meets the criteria for being a resource and the conditions of the approval (e.g. condition 19 where compost must meet AS4454 and condition 22 where liquid resource must be of a quality that are suitable for irrigation). Conditions 4-7 provide further outcomes that must be met when undertaking resource monitoring and are considered sufficient to allow flexibility due to different resource types and technology available, without compromising the environmental outcomes to be achieved.

Advice regarding resource monitoring frequency has been included in Appendix B of the conditions of approval.

Pathogens and viruses

10000cfu/100mL and not to be used on food crop including minimally processed food crop. This is consistent with the suitable uses for Class D water in accordance with the Department of Energy and Water Supply (2008) *Water quality guidelines for recycled water schemes*, available at <www.dews.qld.gov.au>, and the *Public Health Regulation 2005*. Conditions have also been included requiring the irrigation of liquid resources not to generate aerosols or cause spray drift which has been included to mimimise the potential for release of pathogens and viruses off site. The safety of employees on the site is addressed by OH&S legislation.

[1] Biosolids must meet at least one of the requirements for pathogen reduction and the vector attraction requirements in Table 3–3 *Biosolids Stabilisation Requirements* of the NSW Guidelines.
[2] Biosolids must not exceed the contaminant acceptance concentration limits for Grade C listed in Table 3–1 *Contaminant Concentration Thresholds* of the NSW Guidelines.
[3] Biosolids must meet at least one of the requirements for pathogen reduction and the vector attraction requirements in Table 3–3 *Biosolids Stabilisation Requirements* of the NSW Guidelines.
[4] Biosolids must not exceed the contaminant acceptance concentration limits for Grade D listed in Table 3–1 *Contaminant Concentration Thresholds* of the NSW Guidelines.

Compost – For the use of biosolids in agriculture, the biosolids must meet Stabilisation grade B in the NSW Guidelines. The criteria for the use of biosolids in composting under the approval is that they meet Stabilisation grade B. Compositing biosolids will further reduce pathogen and virus levels in the biosolids. Condition 18 requires biosolids used in the compost to be treated in an aerobic process for at least 14 days. During that time, the temperature of the biosolids must be >40° C and the average temperature >45° C. This is in accordance with vector attraction reduction requirements relating to compositing for Stabilisation grade B

Condition 24 also imposes a physical barrier by prohibiting animals to graze on land on which biosolids or treated sewage effluent have been applied, for a period of at least 30 days after application. This is in accordance with requirements for biosolids application under the NSW Guidelines

Benefit and sustainability

s. 160(1)(g) the benefit and sustainability of the proposed use of the resource

The resources provide a number of benefits as described by the applicant in sections 3 *The Benefit of Applying Multiple Resources* and 4 *The Benefits of Individual Resources* of the document *Part A: Support and Substantiation for a Beneficial Use Approval for Multiple Resources.*

It is considered that the wastes applied for have a beneficial use other than disposal if they are to be used as proposed (s. 13 EP Act).

The following condition has been included to ensure that the resources are beneficially used in a sustainable manner:

8. The use of the resources must ensure that:
- *a) the soil structure, stability and productive capacity of the land on the site is maintained or improved*
- *b) there are no toxic effects to either crops or pasture plants; and*
- *c) yields and produce quality are maintained or improved*

Alternative use

s. 160(1)(h) any alternative use of the resource

- There are no other alternative uses of the resource that are considered more appropriate or suitable to that which is proposed.
- There is a general beneficial use approval existing for the use of associated water, including coal seam gas water. The use of the resource however has not been deemed to meet the criteria for operating under the approval and it has been recommended by Energy Assessments that the use of the CSG water be managed under the specific approval (see email for sch4p4(6) Personal information to Simone Ventura, dated 16/1/14)

Matters prescribed under a regulation

s. 160(1)(i) another matter prescribed under a regulation

- There are no matters prescribed under the WRR Regulation at this time.

Under s. 160(2) of the *Waste Reduction and Recycling Act 2011*, in deciding whether to grant or refuse an approval the administering authority may consider the following. These criteria however should be considered where applicable.

Considered

- A search of Ecotrack has not shown any matters in the applicant's environment that should result

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in the refusal of this application.

s. 160(2)(b) the applicant's ability to comply with any proposed conditions of the approval; **Considered**

- The proposed conditions do not impose any greater restrictions than that proposed by the applicant in the Site Based Management Plan provided with the application. The applicant was given opportunity to comment on the draft conditions (email from Lindsay Delzoppo to Luke Zambelli, dated 20/1/14). Luke Zambelli provided comments on the draft conditions in which it was not indicated that the applicant could not comply with the conditions (see email from LZ to LD, dated 21/1/14).

s. 160(2)(c) whether a disqualifying event has happened in relation to— **Considered**

if the applicant is an individual—the applicant or another person who is the applicant's partner; or

if the applicant is a corporation—the corporation, any of the corporation's executive officers, or another corporation of which any of the corporation's executive officers is, or has been, an executive officer.

- The applicant has not had a disqualifying event that should result in the refusal of this application.

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PART D: RECOMMENDATION

Details of the recommendation:

For the reasons stated in this report, it is recommended that the chief executive (check the applicable statements)

- ☒ **approve** the **new specific approval** application in accordance with s. 156 of the Waste Reduction Act
  (Subsequently the waste is to be considered as a resource under s13 of the *Environmental Protection Act 1994*.)
- ☐ **grant** the **amendment/transfer** application in accordance with s. 168 of the Waste Reduction Act
- ☐ **approve** the **transfer** application in accordance with s. 156 of the Waste Reduction Act
- ☒ impose conditions on the approval in accordance with s. 166 of the Waste Reduction Act
  (Proposed conditions and Notice of approval accompany this assessment report. The legislative considerations included in Attachment 1 – Conditions of this report have been made when drafting the proposed conditions.)
- ☐ **refuse** the application in accordance with s. 156 of the Waste Reduction Act
  (A notice of refusal including a statement of reasons accompanies this assessment report)

Simone Ventura
Principal Project Officer, WLCA

sch4-Signature

23/1/14

Assessing Officer **Signed**

Review and endorsement

Insert any comments relevant for the delegates consideration:

Manager/Supervisor **Signed**

Approval

I approve the recommendation to approve with conditions based on the reasons stated in this report

Lindsay Delzoppo
Director, Statewide Environmental Assessment

sch4-Signature

2014.

Delegate **Signed**

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Attachment 1— CONDITIONS

LEGISLATIVE CONSIDERATIONS

Waste Reduction and Recycling Act 2011
Section 166 of the Waste Reduction Act states that:

(1) The chief executive may impose conditions on an approval that the chief executive considers necessary or desirable.
(2) Without limiting subsection (1), the conditions may relate to any of the following —
    (a) The characteristics of the resource, including, for example, its physical state and its components and their concentrations:
    (b) The origin and destination of the resource;
    (c) Transporting or storing the resource;
    (d) Any treatment or process for re-using, recycling, energy recovery, reprocessing or other use of the resource:
    (e) Any waste resulting from a treatment or process mentioned in paragraph (d)
    (f) The quantity of the resource that may be used under the approval and time frames relating to its use;
    (g) Sampling, analysis, monitoring and reporting in relation to the resource;
    (h) Measures or action to be taken to minimise against or remediate environmental impacts from the use of the resource, including material environmental harm, serious environmental harm or environmental nuisance.
(3) A condition may be expressed to apply to anyone who has the benefit of the approval.
    Without limiting subsection (3) a condition of a general approval may be expressed to apply to the producer, receiver, re-user, recycler or energy recoverer of the resource to which the approval relates.

Environmental Protection Regulation 2008
As a part of considering the Regulatory requirements under the *Environmental Protection Act 1994* (see s. 160(1)(d) of the Waste Reduction Act).

Section 52 of the regulation states that the administering authority must, for making an environmental management decision relating to an activity, consider whether to impose conditions about the following matters—

(a) implementing a system for managing risks to the environment;
(b) implementing measures for avoiding or minimising the release of contaminants or waste;
(c) ensuring an adequate distance between any sensitive receptors and the relevant site for the activity to which the decision relates:
    Examples of a condition for paragraph (c)— — a condition requiring riparian buffers, noise buffers or buffers for protecting endangered regional ecosystems
(d) limiting or reducing the size of the initial mixing zone or attenuation zone, if any, that may be affected by the release of contaminants;
(e) treating contaminants before they are released;
(f) restricting the type, quality , quantity, concentration or characteristics of contaminants that can be leased:
(g) the way in which contaminants may be released;
    Examples of a condition for paragraph (g)—
        a condition restricting the release of a contaminant at a particular temperature, velocity or rate or during particular meteorological conditions or water flows
        a condition restricting the release of a contaminant to a depth below the level of surface waters
(h) ensuring a minimum degree of dispersion happens when a contaminant is released;
    Example of a condition for paragraph (h)— a condition requiring the use of a diffuser for releasing a contaminant

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(i) protecting environmental values, and meeting quality objectives, under relevant environmental protection policies;
(j) recycling, storing, transferring or disposing of waste in a particular way;
(k) rehabilitating land to achieve particular outcomes; and
measures for the ongoing protection of environmental values that are, or may be, adversely affected by the activity.
(m) if under an environmental objective assessment, the assessor is not satisfied an environmental objective has been achieved, measures for minimising the adverse effects of not achieving the environmental objective.

Section 53 of the regulation states that the administering authority must, for making an environmental management decision relating to an activity, consider whether to impose monitoring conditions about the release of contaminants from the activity on the receiving environment. For considering whether to impose a monitoring condition, the administering authority must consider the following matters—

(a) the potential impact on the receiving environment of–
(i) the activity to which the decision relates; and
(ii) the release of the contaminant;
(b) the characteristics of the contaminant;
(c) the potential for a control measure to fail and the effect of a failure of a control measure on the receiving environment;
(d) the protocols relevant to monitoring the release of the contaminant;
(e) whether the monitoring should be continuous or intermittent

Monitoring condition, about the release of contaminants from an activity on the receiving environment, means a condition about any of the following matters—
(a) monitoring the quantity, quality, characteristics, timing and variability of the release;
(b) monitoring indicators of the effective operation of control measures;
(c) monitoring the characteristics of the receiving environment;
(d) assessing the effectiveness of remedial or rehabilitation measures;
(e) monitoring the impact of the release on the values, objectives and biota in the receiving environment;
(f) analysing monitoring data against objective and standards including, for example, by predictive modelling;
(g) reporting the results of monitoring in a stated form and timeframe; and
(h) reporting on the time and way in which the release is made to the receiving environment

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DRAFTING INSTRUCTIONS FOR CONDITIONS

and Enforceable Conditions (EM2417)[5],, should be followed.

Before developing a condition, it should be considered whether a condition is necessary to achieve the desired environmental outcomes. Following this, conditions should be developed using the **SMART** principles

In summary, the "SMART" principles are

Letter		Details of the rule
	Specific	What must be done (including details of where it must be done)? Who must do it?
	Measurable	It must be possible to know whether the person has complied with the condition.
	Achievable	It is capable of being complied with.

[5] This is the publication number. The publication number can be used as a search term to find the latest version of a publication at

Reasonable/Relevant	There is a connection between the requirement and the operation/development proposed. That requirement is not unreasonable obligation, having regard to the activity proposed
Time Specific	When it must be completed by (or, if it is an ongoing obligation, clearly state that).

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Attachment 2 – Environmental objective assessment

Environmental Objective
The activity will be operated in a way that protects the environmental values of air.
Performance Outcomes
1 There is no discharge to air of contaminants that may cause an adverse effect on the environment from the operation of the activity.
2 All of the following—
(a) fugitive emissions of contaminants from storage, handling and processing of materials and transporting materials within the site are prevented or minimised:
(b) contingency measures will prevent or minimise adverse effects on the environment from unplanned emissions and shut down and start up emissions of contaminants to
(c) releases of contaminants to the atmosphere for dispersion will be managed to prevent or minimise adverse effects on environmental values.

Environmental objective ☒ Yes ☐ No

The applicant has stated that they are committed to ensuring that dust and particulates generated on site do not pass the site boundary (Part A of the supporting material, p.112), and have listed a number of measures in the SBMP (Part B of the supporting material) and Part A of the supporting material to be implemented for the control of dust and odour emissions. Conditions have been included requiring odours and airborne contaminant which are noxious and offensive or otherwise unreasonably disruptive to public amenity or safety not to cause a nuisance to any sensitive place or commercial

Water

Environmental Objective
The activity will be operated in a way that protects environmental values of waters.
Performance Outcomes
1 There is no actual or potential discharge to waters of contaminants that may cause an adverse effect on an environmental value from the operation of the activity.
2 All of the following—
(a) the storage and handling of contaminants will include effective means of secondary containment to prevent or minimise releases to the environment from spillage or leaks:
(b) contingency measures will prevent or minimise adverse effects on the environment due to unplanned releases or discharges of contaminants to water;
(c) the activity will be managed so that stormwater contaminated by the activity that may cause an adverse effect on an environmental value will not leave the site without prior treatment;
(d) the disturbance of any acid sulfate soil, or potential acid sulphate soil, will be managed to prevent or minimise adverse effects on environmental values:
(e) acid producing rock will be managed to ensure that the production and release of acidic waste is prevented or minimised, including impacts during operation and after the environmental authority has been surrendered;
(f) any discharge to water or a watercourse or wetland will be managed so that there will be no adverse effects due to the altering of existing flow regimes for water or a watercourse or

Environmental objective ☒ Yes ☐ No

There is a risk that the dam in which the liquid resource is stored may overflow during a rainfall event. The applicant has stated that the main dam will be constructed with capacity for 20 days' worth of wet weather storage (equivalent to 20 megalitres) and will be maintained with at least a 0.5m freeboard. The depth of freeboard will allow for a 1 in 100 year 72 hour rainfall event (Section 8.6 Part A, supporting material).

There is an unnamed ephemeral watercourse that partially goes onto the property. This watercourse is buffered by existing dense vegetation and is likely used for stock watering.

The applicant has proposed a number of measures for minimising impacts on the environmental values of groundwater and surface water, including proposing to keep a 50m buffer around the creek, consistent with the NSW guidelines, keeping a 20m buffer to the property boundary (with the exception of compost), and having no planned discharges to the creek or offsite. The applicant has stated that if the measures in the SBMP are implemented then the environmental values of the creek will only be improved (s.11.3.3.2).

Conditions have been included requiring the resource not to be released directly or indirectly to waters in a way or at a concentration that does not cause environmental

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wetland;
(g) for a petroleum activity, the activity will be managed in a way that is consistent with the coal seam gas water management policy, including the prioritisation hierarchy for managing and using coal seam gas water and the prioritisation hierarchy for managing saline waste:
(h) the activity will be managed so that adverse effects on environmental values are prevented minimised.

Wetlands

Environmental Objective
The activity will be operated in a way that protects the environmental values of wetlands.
Performance Outcomes
1 There will be no potential or actual adverse effect on a wetland as part of carrying out the activity.
2 The activity will be managed in a way that prevents or minimises adverse effects on wetlands.

Groundwater

Environmental Objective
The activity will be operated in a way that protects the environmental values of groundwater and any associated surface ecological systems.
Performance Outcomes
1 Both of the following apply—
(a) there will be no direct or indirect release of contaminants to groundwater from the operation of the activity;
(b) there will be no actual or potential adverse effect on groundwater from the operation of the activity.
2 The activity will be managed to prevent or minimise adverse effects on groundwater or any associated surface ecological systems.
Note—Some activities involving direct releases to groundwater are prohibited under section 56 of this regulation.

harm. Conditions (25 & 26) have also been included regarding stormwater management and use of any collected stormwater that has come in contact with the resource. Compliance with these conditions is considered to protect the environmental value of waters.

Environmental objective ☒ Yes ☐ No

There are no identified wetlands potentially affected.

Environmental objective ☒ Yes ☐ No

The applicant has identified the potential for groundwater contamination and proposed control measures in the SBMP to prevent contamination of groundwater. Groundwater in that area has been identified for use in stock watering and agriculture. There will be no direct releases to groundwater. Indirect release may occur from over application of the resource on land, leaching from the dam or leaching from the stand on which composting occurring.

Conditions have been included requiring the resources not to be released directly or indirectly to land, air or waters in way or at a concentration that would cause environmental harm. In meeting this condition it is expected that the dam in which liquid resources is kept is designed and constructed by an appropriately qualified person. Details of the dam's construction and maintenance are provided in section 8.6 of Part A of the supporting material

Conditions have also been included requiring the application of biosolids, manures and compost to land to be at an agronomic rate that is no lower than the NLBAR or CLBAR having been calculated in accordance with the NSW Guidelines, and for liquid resources to be irrigated in a way that ensures that percolation of the resource beyond the plant root zone is minimised and does not exceed plant fertiliser requirements. Compliance with these conditions will minimise the potential for deep drainage of nutrients.

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Noise

Environmental Objective
The activity will be operated in a way that protects the environmental values of the acoustic environment.
Performance Outcomes
1 Sound from the activity is not audible at a sensitive receptor.
2 The release of sound to the environment from the activity is managed so that adverse effects on environmental values including health and wellbeing and sensitive ecosystems are prevented or minimised.

Environmental objective ☒ Yes ☐ No

Noise generated is not expected to exceed that which would be normally generated if non-wastes were used. Conditions have been required requiring noise resulting from the use of the resource not to cause an environmental nuisance, thereby protecting the environmental values of neighbouring residences.

Waste

Environmental Objective
Any waste generated, transported, or received as part of carrying out the activity is managed in a way that protects all environmental values.
Performance Outcomes
1 Both of the following apply—
(a) waste generated, transported or received is managed in accordance with the waste and resource management hierarchy in the *Waste Reduction and Recycling Act 2011*;
(b) if waste is disposed of, it is disposed of in a way that prevents or minimises adverse effects on environmental values.

Environmental objective ☒ Yes ☐ No

All of the resource will be used on site and it is not expected that waste other than general waste will be generated. The use of the resources supports the waste and resource management hierarchy. Refer to Part B, section 1 *Waste and resource management hierarchy*.

Conditions have also been included regarding transport of the resource to minimise the potential for releases that may cause environmental harm

Land

Environmental Objective
The activity is operated in a way that protects the environmental values of land including soils subsoils, landforms and associated flora and fauna.
Performance Outcomes
1 There is no actual or potential disturbance or adverse effect to the environmental values of land as part of carrying out the activity.
2 All of the following—
(a) activities that disturb land, soils, subsoils, landforms and associated flora and fauna will be managed in a way that prevents or minimises adverse effects on the environmental values of

(b) areas disturbed will be rehabilitated or restored to achieve sites that are—
(i) safe to humans and wildlife; and
(ii) non-polluting; and
(iii) stable; and
(iv) able to sustain an appropriate land use after rehabilitation or restoration:

Environmental objective ☒ Yes ☐ No

The land has been used for agricultural purposes for a number of years and the applicant has provided information stating that is has degraded in quality. The purpose of the application of the resources is to improve the agricultural value of the land. In using the resources however there is the potential for land to be contaminated, including contamination by heavy metals and lt

The following conditions have been included which are considered appropriate to ensure the environmental values of the land are protected:

The resource must of a suitable quality for use. Refer to:
condition 1 and the criteria in *Table 1 – Resource criteria*
condition 2 – must not have any properties nor contain contaminants at concentrations which may cause environmental harm
condition 19 – compost manufactured must meet Australian Standard 4454

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(c) the activity will be managed to prevent or minimise adverse effects on the environmental values of land due to unplanned releases or discharges, including spills and leaks of contaminants;
(d) the application of water or waste to the land is sustainable and is managed to prevent or minimise adverse effects on the composition or structure of soils and subsoils.

Composts, soil conditioners and mulches. The applicant has stated that compost procedures have been designed such that the end product produced from the windrow composting complies with or betters AS4454.

The resource must be used at appropriately calculated rate. Condition 20 requires biosolids, manures and compost to be applied at an agronomic rate in accordance with the NSW Guidelines.

Irrigation of the liquid resource must meet certain outcomes including not harming vegetation, not causing soil erosion or soil structure damage and not producing visible salting – Condition

Use of the resource must not result in contaminated soil on the site when investigated in accordance with the NEPM – Condition

The resources must not be released directly or indirectly to land in a way or concentration that would cause environmental harm – Condition

Also refer to Part B, section 7 *Benefit and sustainability* of this report.

EHP RTI DL Release

Notice

Approval of resource for beneficial use

This notice is issued by the chief executive, pursuant to section 159 of the *Waste Reduction and Recycling Act 2011* to advise you of a decision by the chief executive and your review and appeal rights.

Nugrow Roma Pty Ltd
4/7 Sonia Court
RACEVIEW QLD 4305

Our reference PR: 409312, App. no. 543076

Application for approval of a resource by Nugrow Roma Pty Ltd for the beneficial use of multiple wastes in a soil rejuvenation program

Your application for an approval of a resource for beneficial use, received by this office and considered valid on 16 December 2013 has been granted.

This approval (ENBU05261913) is a specific approval of which Nugrow Roma Pty Ltd (ABN 88 151 756 517) has the benefit and it is subject to the conditions set out in the attached schedule, issued in accordance with section 166 of the *Waste Reduction and Recycling Act 2011*.

The approval of the resource remains in force until **23 January 2019** (the period of the approval) unless the approval is replaced, suspended or cancelled.

The issuing of this approval for the beneficial use of a resource does not warrant or imply the lawfulness of the activity under other legislation, or that all approvals necessary under other legislation have or will be approved. It is the responsibility of the applicant to identify and obtain all other approvals necessary for the proposed activity.

The issuing of this approval also does not remove the obligation for the holder of the approval to take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused (the 'general environmental duty', see s. 319 of the *Environmental Protection Act 1994*). 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.

Guidance on acceptable approaches to monitoring compliance with this approval is provided in Appendix B of this document.

You may apply to the chief executive for a review of this decision within 14 days of receiving this notice. Applications must be made using the approved form, "Application for Internal Review of an Original Decision" (EM219), which is available at <www.ehp.qld.gov.au> using the publication number EM219 as a search term. The completed form must be sent to the address on the form.

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An application to review a decision does not stay the original decision. If you apply for an internal review of this decision you can also apply to the chief executive (using the same form) or the Queensland Civil and Administrative Tribunal (using form 44, "Application to Stay a Decision" available at <www.qcat.qld.gov.au>) for a stay of the original decision.

Sections 174-179 of the *Waste Reduction and Recycling Act 2011* cover the internal review process.

Should you have any queries in relation to this Notice, please contact Simone Ventura in the telephone number listed below.

Yours sincerely,

sch4-Signature

23/01/2014

Signature

Lindsay Delzoppo
Director, Statewide Environmental Assessments
Environment and Heritage Protection

Enquiries:
Simone Ventura, Principal Project Officer
Waste and Land Contamination Assessment
Level 9, 400 George Street, Brisbane Qld 4000
GPO Box 2454, Brisbane Qld 4001
Ph: (07) 3330 5729
Fax: (07) 3330 5875

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SCHEDULE: CONDITIONS

Limitations of approval

The approved resources are limited to those listed that meet the respective criteria for use listed in *Table 1 – Resource criteria*[1], that are to be applied to land by Nugrow Roma Pty Ltd (holder of the approval) for the improvement of soils located at Iona Park, Millbank Boundary Road, Kogan Qld 4406 (Lot 3 on DY117) (the

Table 1 – Resource criteria[2]

Resource	Criteria
Green waste	Green waste will only be utilised in the following scenarios: (a) in onsite composting; (b) applied as mulch to the surface layer of the ground surface; and/or (c) incorporated within the soil (top 10cm only).
Food waste	Food waste (liquid and solid) will only be incorporated in onsite composting windrows.
Livestock manure	Livestock manure will be applied directly to land or used in manufacturing compost.
Biosolids	Biosolids will be applied directly to land or used in manufacturing compost. Biosolids to be directly applied to land meet at least *Stabilisation Grade B*[3], and *Contaminant Grade C*[4] classified as suitable for *Restricted Use 2* under the New South Wales Environmental Protection Authority *Environmental Guidelines: Use and Disposal of Biosolids Products* (2000) (the NSW Guidelines). Biosolids to be used in manufacturing compost meet at least *Stabilisation Grade B*[5], and *Contaminant Grade D*[6] under the NSW Guidelines.
Treated sewage effluent	Treated sewage effluent: (a) will be released to the **main dam** for storage prior to irrigation; and (b) does not have *Escherichia coli* (E. Coli) concentrations that exceed 10000 cfu/100mL found in 95% of the samples taken for a 12 month period'; and (c) will not be used on food crop including **minimally processed food crop**.
Coal seam gas (CSG) produced water and drilling fluids	CSG produced water and drilling fluids used: (a) have a pH of at least 6 but not more than 10.5; and (b) have an electrical conductivity of less than 15,000 µS/cm.

Any resource that is not used as stated in condition 1 is considered a waste and must be managed in accordance with the *Environmental Protection Act 1994* and *Waste Reduction and Recycling Act 2011*, and their subordinate legislation.

Resource sampling and analysis for biosolids should be conducted in accordance with the procedures detailed in *Schedule 1— Biosolids sampling and analysis procedures* and *Schedule 2— Grading, sampling and compliance procedures* of the NSW Guidelines.

[3] Biosolids must meet at least one of the requirements for pathogen reduction and the vector attraction requirements in Table 3–3 *Biosolids Stabilisation Requirements* of the NSW Guidelines.

[4] Biosolids must not exceed the contaminant acceptance concentration limits for Grade C listed in Table 3–1 *Contaminant Concentration Thresholds* of the NSW Guidelines.

[5] Biosolids must meet at least one of the requirements for pathogen reduction and the vector attraction requirements in Table 3–3 *Biosolids Stabilisation Requirements* of the NSW Guidelines.

[6] Biosolids must not exceed the contaminant acceptance concentration limits for Grade D listed in Table 3–1 *Contaminant Concentration Thresholds* of the NSW Guidelines.

[7] Based on the Department of Energy and Water Supply (2008) *Water quality guidelines for recycled water schemes*, available at <www.dews.qld.gov.au>, and the *Public Health Regulation 2005.*

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The resources must not have any properties nor contain any other contaminants at concentrations which may cause environmental harm[8] when used in accordance with the conditions of this approval.

Prior to the use of any resource under this approval, the holder of the approval must obtain written consent to use the resource from the person who possesses the resource, and keep records of the consent.

Resource monitoring

Any monitoring to determine the quality of resources applied to land on the site must be carried out on samples that are representative of the resources to be used.

Where the composition of a resource has changed or is likely to change, sufficient monitoring must be conducted to detect and characterise the extent of any change.

An **appropriately qualified person** must monitor, record and interpret all parameters listed in *Table 1 – Resource criteria* as part of this approval.

All analyses undertaken as a part of this approval must be carried out by a laboratory that has NATA certification, or an equivalent certification, for such analyses.

Use of the resources

8. The use of the resources must ensure that:
   a) the soil structure, stability and productive capacity of the land on the site is maintained or improved;
   b) there are no toxic effects to either crops or pasture plants; and
   c) yields and produce quality are maintained or improved.

The use of the resources must be undertaken in accordance with written procedures that:

a) identify potential risks to the environment from the use of the resource during routine operations, closure and an emergency
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.

The use of the resources must not result in soil on the site being contaminated soil, when investigated in accordance with the current of the National Environment Protection (Assessment of Site Contamination) Measure 1999.

The resources must not be released directly or indirectly to land, air, or **waters** in a way or at a concentration that would cause environmental harm.

Records

12. All information and records that are required by the conditions of this approval must be kept for a minimum of five (5) years, and must be provided to the **chief executive** upon request.

Noise

Noise resulting from the use of the resource must not cause an environmental nuisance.

Odours or airborne contaminants which are noxious or offensive or otherwise unreasonably disruptive to public amenity or safety must not cause nuisance to any **sensitive place** or **commercial place**.

[8] See section 14 of *Environmental Protection Act 1994*. Environmental harm includes any adverse effect or potential adverse effect on public amenity and safety, waters, and health of stock grazed and plants grown on land ameliorated by the resource.

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Transportation of resources

The resources must be handled and transferred in a manner that prevents the release of those resources during transporting, loading and unloading.

The following information must be recorded for each load of resource transported to the site:

a) origin of the resource;

date of pickup of the resource;

date of delivery of the resource; and

d) quantity of the resource.

Compost manufacturing

Compost in which the resources are used must be manufactured a rate of less than 200t per year[9].

Biosolids used in the compost must be treated in an aerobic process for at least 14 days. During that time, the temperature of the biosolids must be >40 °C and the average temperature >45 °C.

Any compost manufactured must meet the requirements for producing compost contained in Australian Standard 4454 *Compost, soil conditioners and mulches.*

Solid resource application to land

The application of biosolids, manures and compost to land must be conducted at an agronomic loading rate no greater than the lower of the nitrogen limited biosolids application rate (NLBAR) or the contaminant limited biosolids application rate (CLBAR) as determined in accordance with the NSW guidelines.

The following records must be kept for each land application of resources:

details of the land on which the application occurs;

date and time when the resource is applied;

the calculated application rate at which the resource is to be applied; and

d) the actual application rate.

Liquid resource application to land

The **liquid resources** to be irrigated to land must be of a quality that are suitable for irrigation, having been determined by an appropriately qualified person in accordance with the relevant assessment procedure isted in Appendix A.

Liquid resources irrigated to land on the site must only be sourced from the main dam and must:

not generate aerosol or cause spray drift;

not harm vegetation surrounding the irrigation area;

not cause soil erosion and soil structure damage;

not produce visible salting;

not cause surface ponding of the resource;

not result in surface runoff:

ensure that percolation of the resource beyond the plant root zone is minimised; and

not exceed plant fertiliser requirements.

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[9] Manufacturing compost or soil conditioners at a rate of greater that 200t per year constitutes Environmentally Relevant Activity 53 Composting or soil conditioner manufacturing and requires an Environmental Authority under the *Environmental Protection Act 1994*.

Withholding period

Animals must not be allowed to graze on land on the site, on which biosolids or treated sewage effluent have been applied, for a period of at least 30 days after application.

Storage of the resources

The resources must be stored in a manner to prevent contact with stormwater runoff.

Any water that has come in contact with the resources in either storage or composting areas must be collected and recycled or irrigated to land in a manner that complies with conditions 8, 10, 11 and 23 as if it were a resource.

Impact assessment

An annual assessment of groundwater quality must be undertaken to determine any detrimental impacts of the use or if any environmental harm has, or is likely to be, caused by the use of the resources.

An annual assessment of soil quality of land where the resources have been applied must be undertaken to determine if any impact or environmental harm has or is likely to be caused by the use of the resources.

Monitoring undertaken to assess impacts of the use of the resources on groundwater or soil quality must be compliant with the chief executive's most recent monitoring and sampling manual.

EHP RTI DL Release

DEFINITIONS

Words and phrases used throughout this approval are defined below. Where a definition for a term used in this approval is sought and the term is not defined within this permit the definitions provided in the relevant legislation shall be used.

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 including sedimentation tank and clarifier sludges, aerobically and anerobically digested sludge and filter cake products from those sewage treatment plants.

Coal seam gas (CSG) production waters has the meaning in section 15A of the *Petroleum and Gas (Gas Production and* Safety*) Act 2004* and means CSG water or associated water for a petroleum tenure. It does not include the waste water resulting from simulation activities.

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

Commercial place means a workplace used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees' accommodation or public roads.

Drilling fluids means liquids used in a drilling process for petroleum activities that are returned to the surface. It does not include residual drilling material or restricted stimulation fluids.

Liquid resources mean treated sewage effluent and CSG drilling fluids.

Main dam means the dam located on the site which is used for the storage of treated sewage effluent and CSG drilling fluids.

Minimally processed food crop means a crop for a food product that—

(a) may be eaten raw; or
(b) will be subjected to a minimal food process only.
Examples of a minimal food process—washing, cutting, peeling, packaging.

Residual drilling material means waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.

Restricted stimulation fluids has the meaning in section 206 of the *Environmental Protection Act 1994* and means fluids used for the purpose of stimulation, including fracturing, that contain the following chemicals in more than the maximum amount prescribed under a regulation—

(a) petroleum hydrocarbons containing benzene, ethylbenzene, toluene or xylene;
(b) chemicals that produce, or are likely to produce, benzene, ethylbenzene, toluene or xylene as the chemical breaks down in the environment.

Sensitive place means:

(a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
(b) a motel, hotel or hostel; oran educational institution; or
(c) a medical centre or hospital; or
(d) a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
(e) a public park or gardens.

Site means Iona Park, Millbank Boundary Road, Kogan Qld 4406 (Lot 3 on DY117).

Treated sewage effluent means sewage that has undergone treatment by sewage treatment works approved under the *Environmental Protection Act 1994* or the *Plumbing and Drainage Act 2002*.

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Waters includes any 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 sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part-thereof.

- END OF CONDITIONS -

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Appendix A

Quality parameter	Assessment procedure
electrical conductivity sodium adsorption ratio	Salinity Management Handbook, with reference to Chapter 11; and/or Australian and New Zealand Guidelines for Fresh and Marine Water Quality, with reference to Volume 1 Chapter 4 and Volume 3 Chapter 9. The assessment should consider: soil properties within the root zone to be irrigated (e.g. clay content, cation exchange capacity, exchangeable sodium percentage) water quality of the proposed resource (e.g. salinity, sodicity) climate conditions (e.g. rainfall) leaching fractions average root zone salinity (calculated) crop salt tolerance (e.g. impact threshold and yield decline) management practices and objectives (e.g. irrigation application rate, amelioration techniques) broader landscape issues (e.g. land use, depth to groundwater) any additional modelling and tests undertaken to support the varied water quality parameters.
heavy metals	Australian and New Zealand Guidelines for Fresh and Marine Water Quality, with reference to Volume 1 Chapters 3 and 4 and Volume 3 Chapter 9. The assessment should aim to derive site specific trigger values (e.g. cumulative contaminant loading limit) based on the methodology provided in the above mentioned procedure.

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Appendix B

Advice

Please find following advice regarding the development of any monitoring programs used to help determine compliance with the conditions of approval. Monitoring programs and any written procedures for the use of the resources should be developed in accordance with best practice environmental management standards and reviewed regularly to ensure that current best practice is being implemented.

It is recommended that:

Monitoring of biosolids to determine compliance with condition 1 should be conducted with samples taken at least every 120 dry tonnes[10].

Monitoring of treated sewage effluent to determine compliance with condition 1 should be undertaken at least weekly.

Monitoring of CSG drilling fluids and produced waters to determine compliance with condition 1 should be undertaken at least fortnightly.

Groundwater

Any groundwater monitoring program developed should provide for:

a) Installation and monitoring of bores installed in accordance with relevant Australian standards in aquifer(s) potentially affected by the use of the resource; and

b) The determination and keeping records of groundwater height and quality by sampling for at least the parameters, and at the frequency, stated in *Table 1 – Groundwater monitoring parameters*

Table 1 - Groundwater monitoring parameters

Parameter	Frequency
Standing groundwater level (metres AHD)	6 monthly
Arsenic	6 monthly
Cadmium	6 monthly
Chromium (Total)	6 monthly
Copper	6 monthly
	6 monthly
	6 monthly
Nitrate	6 monthly
Chloride	6 monthly
Electrical conductivity (in-situ)	6 monthly
pH (in-situ)	6 monthly
E. Coli	6 monthly
Calcium	6 monthly
Nitrogen (total)	6 monthly
Phosphorous (total)	6 monthly
Sodium	6 monthly
Total Dissolved Solids	6 monthly

[10] Resource sampling and analysis for biosolids should be conducted in accordance with the procedures detailed in *Schedule 1— Biosolids sampling and analysis procedures* and *Schedule 2— Grading, sampling and compliance procedures* of the NSW Guidelines.

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Any soil monitoring program should provide for monitoring of at least the parameters, and at the frequency, stated in *Table 2 – soil monitoring parameters*.

Table 2 - Soil monitoring parameters

Parameter	Frequency
Electrical conductivity (EC)	6 monthly
	6 monthly
Exchangeable Cation Exchange Capacity (ECEC)	Annually
Exchangeable Sodium Percentage (ESP)	Annually
Sodium Adsorption Ratio (SAR)	Annually
Arsenic	Annually
Cadmium	Annually
Chromium (total)	Annually
Copper	Annually
	Annually
Mercury	Annually
Nickel	Annually
Selenium	Annually
	Annually
DDT/DDD/DDE	Annually
Aldrin	Annually
Dieldrin	Annually
Chlordane	Annually
Heptachlor and heptachlor epoxide	Annually
Hexachlorobenzene (HCB)	Annually
Lindane	Annually
Benzene hexachloride (BHC)	Annually
PCBs	Annually

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Irrigation

Liquid resource being irrigated to land from the main dam should be monitored for at least the quality parameters and at the frequency specified in *Table 3 – Main dam monitoring parameters*.

Table 3 - Main dam monitoring parameters

Quality parameter	Frequency
Electrical conductivity	Fortnightly
Sodium absorption ratio (SAR)	Fortnightly
	Fortnightly
E. Coli	Monthly
Alkalinity (bicarbonate, carbonate and hydroxide)	Quarterly
Arsenic	Quarterly
Aluminium	Quarterly
Boron	Quarterly
Cadmium	Quarterly
Chromium (total)	Quarterly
Copper	Quarterly

Release

Cobalt	Quarterly
	Quarterly
	Quarterly
Lithium	Quarterly
Manganese	Quarterly
Mercury	Quarterly
Molybdenum	Quarterly
Nickel	Quarterly
Selenium	Quarterly
Strontium	Quarterly
Vanadium	Quarterly
Zinc	Quarterly
Ammonium (NH_4^+)	Quarterly
Nitrate + nitrite	Quarterly
Total Kjeldahl Nitrogen (TKN)	Quarterly
Total Nitrogen	Quarterly
Total phosphorous	Quarterly
BTEX	Quarterly
Total dissolved solids (TDS)	Quarterly
Total petroleum hydrocarbons (TPH)	Quarterly
Flouride	Quarterly
Sulphate	Quarterly
Hardness (calculated)	6 monthly
Calcium, magnesium, sodium, and potassium	6 monthly
Chloride	6 monthly
Ortho phosphorous	6 monthly

EHP RTI DL Release

Queensland Government

Department of
Environment and Heritage Protection

Ref PR:409312 / ENBU05261913

11 December 2013

Nugrow Roma Pty Ltd
PO Box 4353
RACEVIEW QLD 4305

Attn: Mr Roy Wilson

Dear Mr Wilson,

The Department of Environment and Heritage Protection (EHP) received, on 20 November 2013, an application from Nugrow Roma Pty Ltd seeking approval for multiple wastes to be beneficially used as resources at Iona Park, Kogan. The application has been reviewed and it has been determined that it does not at this time, meet the criteria for a valid application in accordance with section 157 of the *Waste Reduction and Recycling Act 2011* (WRR Act).

In order for EHP to consider the application valid the following matters would need to be addressed:

1. Section 157(1)(b) of the WRR Act requires that the person, when making the application, either possesses the resource or has consent to make an application from the person who possesses the resource. In order for your application to meet this criteria, EHP requires:
   - Confirmation that Toxfree is in possession of the nominated resources, the subject of the application, at this time.
   - A letter of consent from Toowoomba Regional Council (and any other council where biosolids may be sourced) to use the nominated resource, this is in their possession.
   - Letters of consent from the person or persons who have agreed to provide the green waste or manures, the subject of the application, confirming that that resource is in their possession.
2. Section 157(2)(b)(ii) of the WRR Act requires that details of any environmentally significant characteristics of the resource be provided in the application. In order for your application to meet these criteria, EHP requires information about the explosive; flammable; oxidising; poisonous; infectious; corrosive; or toxic nature of the resources the subject of the application, as detailed in Schedule A, List 2 of the National Environmental Protection (Movement of Controlled Waste Between States and Territories) Measure as varied December 2004.
3. Section 157(2)(b)(v) of the WRR Act requires details of the form and manner in which the resource will be transported. Please provide details of both how the resource will be transported from the sites where it is generated to the site where it is to be used, and who will be responsible for that transport.

Level 9
400 George Street Brisbane
GPO Box 2454 Brisbane
Queensland 4001 Australia
Telephone + 61 7 3330 5530
Facsimile + 61 7 3330 5875
Website www.ehp.qld.gov.au
ABN 46 640 294 485

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4. Section 157(2)(b)(vii) of the WRR Act requires details of the quantity of resource proposed to be used. Please provide details of the expected quantities proposed to be used.
5. Section 157(2)(b)(viii) of the WRR Act requires details of any relevant waste minimisation scheme, waste management plan or industry code relevant to the resource. Please provide details of the existence and applicability of any such scheme, plan or code. Reference should be made to the departments *Coal Seam Gas Water Management Policy* (2012) and how the proposal meets the outcomes of that policy.
6. Section 157(2)(b)(ix) of the WRR Act requires details of any Australian or industry standards relevant to its end product. Please provide details of any relevant standards and how the proposal complies with those standards. Reference should be made to the departments' guideline *Approval of coal seam gas water for beneficial use* (2013).

Once the information detailed above is provided, your application will be valid and EHP can begin the assessment of your application.

Please forward the additional information to:

Waste and Land Contamination Assessments
Environment and Heritage Protection
GPO Box 2454
BRISBANE QLD 4001

Should you have any further enquiries, please contact Simone Ventura of the department on telephone (07) 3330 5729.

Yours sincerely

Kate Armstrong
A/Manager, Waste and Land Contamination Assessment and Project Support

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