

The proponent is required to provide the Coordinator-General with a response to the information requested below, which relates to inadequacies in the application material provided; the scope of the proposed development; the impacts of the proposed development, and mapping requirements.

Responding comprehensively to this request is required to assist in streamlining the assessment process.

No.	Issue	Information Requested
Pavement impact assessment – state transport interests		
1	Contribution Schedule	The Pavement Impact Assessment Report carries out the assessment over a 20 year period with different productivity rates based on a total production rate of 400,000tpa. This has determined a total contribution value of \$2,018,427 over the 20 years of operation. However, a Contribution Schedule has not been proposed as part of the assessment. A Contribution Schedule is required to clarify how the pavement impact assessment will be addressed over the 20 year period, noting the assessment identified that the first 5 years of operation may not have any significant impacts to trigger any contributions. 1) The proponent is requested to provide a proposed Contribution Schedule that details how the contributions will be paid (e.g. payment per tonne, payment amount over a particular time period, payment over a specific threshold of vehicles / material haulage etc.) for review and endorsement by the Department of Transport and Main Roads.
On-site wastewater management		
2	Risk rating	The effluent disposal area will be located approximately 52 metres from a stream order 1 watercourse, therefore the treatment standard is required to be upgrade to achieve compliance. To achieve the required medium risk rating and enable full assessment of the design under Seqwater's Land use risk tool (LURT), an amended Site and Soil Evaluation is required.

		1) The proponent is requested to provide an updated Site and Soil Evaluation report that includes the following: - upgrade of the treatment standard of the wastewater treatment system to 'advanced secondary with nutrient reduction' - provide borehole log results over the proposed effluent disposal area showing a minimum depth of one (1) metre to bedrock and groundwater. <i>Note: This item was requested as part of Seqwater's response to the draft documentation.</i>
3	Storage of Chemicals	Seqwater Development Guidelines for Water Quality Management in Drinking Water Catchment (dated October 2024) AO28.2 requires that dangerous/hazardous substances stored in quantities above 200kg/200L maintain a minimum 100m setback to all watercourses. The planning report (page 35) states that the maintenance and storage shed are within 40-50m of a watercourse and will involve the following goods stored in quantities over 200kg/200L: • bunded storage of waste oil 1000L • above-ground self-bunded diesel storage and dispensing tank 34000L • above-ground Adblue storage and dispensing tank 5000L. Given the large quantities of the material stored, further justification of the reduced setback is required. Further, it is noted that the Environmental Management Plan: • does not provide an assessment of unmitigated and mitigated risk to surface waters associated with spills for each stage of development (construction - section 6.3.1.4 Table 12, operation - section 6.3.2.3 Table 13), discussing only risk to groundwater from this type of incident • rates unmitigated risk to groundwater from hazardous material spills as 'moderate' for both the construction and operational phases, which is not considerate of the site's location within a drinking water catchment or the large quantity of diesel and Adblue stored on the site • does not discuss the risks to surface or groundwater in relation to the site's location within a drinking water catchment • does not clearly articulate mitigation measures, procedures or responsibilities in the event of a large chemical/hazardous materials spill.

		1) The proponent is requested to provide additional detail to demonstrate compliance with Performance Outcome PO28 of the Seqwater Development Guidelines and support the location of large quantities of Adblue and diesel such as: a) detailed drawings of storage facilities b) a plan showing the specific location of Adblue and diesel within the building (highest setback possible) c) building components (i.e. bunded edges, floor pad permeability rating etc) d) secondary containment methods with at least 110% spill recovery capacity, or industry standard, whichever is greatest e) product details for storage vessels f) procedures and notifications in the event of a spill g) spill kit contents, location and signage h) any other information / research / details the applicant can provide to justify the minimal setback. 2) The proponent is requested to provide an updated Environmental Management Plan that includes the following information: a) amended risk assessment and general provisions to include further discussion of the site's location within the drinking water catchment b) appropriate unmitigated and mitigated risk scores for both surface and groundwater c) clear mitigation measures, emergency actions, notifications procedures and responsibilities in the event of a large chemical/hazardous material spill d) notification procedures to include direct notification of seqwater's operations and water quality departments of any significant spills (i.e. quantities over 200L) which may enter surface waters. <i>Note: Seqwater Development Guidelines (October 2024) can be found at:</i> https://www.seqwater.com.au/planning-and-development
Site Operations		

4	Waste feedstock	Table 2.1 in the planning report identifies the following wastes to be accepted onsite: • Food Organics and Garden Organics (FOGO) • wood waste • manure. Section 4.5.2 of the planning report contains a review of potential waste feedstocks, which has additional wastes, including: • stabilised biosolids • paper pulp effluent and paper sludge dewatered • compostable polylactic acid (PLA) plastics • food processing waste (non-protein based). 1) The proponent is requested to provide a comprehensive list of types of waste that may be received on site and identify where they have been accounted for in the impact assessment. This may also require amendments to any supporting application materials if additional impacts are identified.
5	Aeration system	It is noted that there are two types of Aerated Static Piles (ASP) used in the composting industry, namely positive aeration systems (outward air flow) and negative aeration systems (inward air flow). It is unclear in the application material which type of ASP is proposed as part of this facility. 1) The proponent is requested to confirm if the facility will use a positive or negative aeration system.
6	Windrow surface area	The Air Quality Impact Assessment (AQIA) report indicates that the odour emissions from area sources such as windrows were estimated by multiplying the specific odour emission rate (SOER) and the corresponding surface area (m²). Section 4.2.3 of the AQIA report indicates that windrows have been assumed to be trapezoidal in shape and the surface area has been based on the volume of material at any one time. Detailed information about the estimation of surface areas, such as the number of windrows, their dimensions (e.g. height, width and slopes), what throughput scenario has been assumed (peak, low, average or varied depending on time of year) has not been provided and is required to assess how the surface areas of the windrows were estimated.

		1) The proponent is requested to provide detailed information on how the surface areas were estimated for individual odour sources used in the development of the emission inventory.
Odour mitigation		
7	Receival building	The receival building and decontamination area (Area C) is proposed to be covered with two sides enclosed to contain windblown litter. It is noted food waste and manure have a 'high odour rating' as prescribed in the ERA 53(a) guideline which requires consideration of a fully enclosed building with industry best practice odour mitigation. Potential odour control measures have not been identified to demonstrate that odour emissions from this source will be mitigated. 1) The proponent is requested to provide a) the proposed best practice odour controls required to mitigate potential odour impacts as a result of receiving, mechanically reprocessing and mixing feedstocks. b) the proposed maintenance of these measures to manage the risk of odour impacts from the activity.
8	Odour data	Section 7.2.1 of the AQIA report indicates that a review of similar FOGO and GO composting facilities was undertaken to identify representative odour emission rates for assessing the proposed facility. It indicates that a conservative approach has been taken in the selection of odour emission rates. However, the measured data of the similar composting facilities have not been provided to demonstrate that the adopted emission rates are conservative. In addition, the AQIA report notes that odour emission rates can vary based on many factors including odour sampling methodology, the composition of waste, age of waste, time of day and the season that the sampling is undertaken. An assessment of these factors has not been provided for the odour emission rates that have been reviewed. The use of Australian Standard <i>AS/NZS 4323.4:2009 Stationary source emissions –Method 4: Area source sampling – Flux chamber technique</i> (AS/NZS 4323.4) is not considered appropriate for the

		sampling of any active surface such as ASPs. The 'Critical Evaluation of Composting Operations and Feedstock Suitability Report' prepared by Arcadis Australia Pty Ltd in 2019 is a 'recognised entity report' under section 215(2)(l) of the Environmental Protection Act (EP Act). The literature review conducted in Phase 1 of this report indicated that the flux chamber should not be used to measure odour emissions from active phase compost windrows and that the facilities that have done so in the past are likely to have underestimated their odour emissions and impacts. The flux chamber has a very low sweeping air flow rate as compared to the active surface of ASPs that have an outward air flow. The uncertainty in this measurement can have a direct impact on the estimation of odour emission rates and the prediction of ground level concentrations (GLC). Although the AQIA report does not specify how the SOER for the aerated static pad (Area B) sources were measured, section 4.2.2 of the AQIA report indicates that odour sampling was undertaken at Soilco's Wogamia facility by Ektimo in 2019 using an isolation flux chamber. This data was then used to demonstrate the impact of best practice processes and odour controls at the Wogamia facility and indicate the conservatism of the emission inventory that has been developed for the proposed facility. 1) The proponent is requested to provide a detailed analysis of the measured odour data from similar composting facilities to demonstrate that an appropriate emission inventory has been developed. This must include: a) an assessment of the odour sampling methodology b) the composition of waste c) age of waste d) time of day and the season that the sampling was undertaken.
9	Odour monitoring period	The AQIA report does not indicate if the SOER values adopted in Table B-2 were based on sampling conducted during winter or summer. During summer the high temperatures accelerate the oxygen-uptake activities within the windrows and leachate ponds that can quickly turn these sources into anaerobic conditions. Anaerobic conditions are responsible for the generation of odorous gases such as hydrogen sulphide and methyl mercaptan. The rate at which hydrogen sulphide is generated depends on the concentration of sulphate, the level of oxygen, organic loading, pH and temperature inside the windrows and leachate ponds. In addition, it is predicted that more compost will be produced in the summer

		months. The worst-case odour emissions during summer were not discussed in the report and the estimated odour emissions may not represent the seasonal variation of potential odour impacts 1) The proponent is requested to: - confirm what time of year monitoring was undertaken to determine the odour emission rates used in the AQIA and - if monitoring was undertaken in winter, provide an updated AQIA that assess worst-case impact for the facility during summer.
10	Odour emission rate calculations	There are discrepancies in the estimation of the odour emission rates (OERs) provided in Table B-2 of the AQIA report. For example, the OER for the maturation and storage – open windrows (Area A) source is reported as 9,398 ou/s. However, the calculated OER value for this source is $16,430 \times 0.6 = 9,858$ ou/s. 1) The proponent is requested to: - review the OERs that have been calculated and confirm their accuracy - where required, provide an updated emission inventory and dispersion modelling results that accurately represent the proposed activities and potential extent of impact.
11	Emission scaling factor	Table B-2 of the AQIA report includes a footnote to explain that the emission scaling factor adjusts the emission factors based on the expected area of the odourous material in the windrows divided by the area of the source. A scaling factor of one (1) has been applied to all sources except for the following: - turning of aerated static pad windrows (Area B) – 0.3 - open windrows – GO (Area D) – 0.7 - turning of open windrows – GO (Area D) – 0.3 How these values have been calculated is not clear from the notes that have been provided in Table B-2 of the AQIA. 1) The proponent is requested to provide detailed information of how the emission scaling factors have been developed for each of the odour emission sources.

12	Emissions during windrow turning	The highest odour emissions are expected during the windrows turning process. The aerated static pad (Area B) windrows are proposed to be turned once during a three-week cycle (assuming the odour emission during a turning period is applicable to 25% of the total windrow area). Section 7.2.2 of the AQIA report also indicates that the turning of windrows is assumed to increase odour by 100%. However, the modelled SOERs presented in Table B-2 of the AQIA report show that the Area B windrows is reduced from 1.5 ou/m²/s to 0.4 ou/m²/s during the turning process. The SOER is expected to increase during the windrow turning process. The SOER for the turning of the Area B windrows is also not included in Table 7-1 where the odour emission inventory is summarised. In addition, the odour emissions from turning the maturation and storage – open windrows (Area A) are not included in either Table 7-1 or Table B-2, so appear to not have been modelled. 1) The proponent is requested to: a) review the SOER calculations for the turning of windrows to confirm their accuracy and update where required b) provide an updated emission inventory and dispersion modelling results that includes all potential odour emission sources.
13	Shredding and screening emissions source	The shredding and screening of organic material is not assigned an OER in Table 7-1 but is included in Table B-2 where it is noted that it has been modelled as a volume source. No source parameter details have been provided except that it has an area of 22 m² and is 21.5 m³, but how this relates to the modelling of this source is unclear. The notes provided in Table B-2 indicate that the OER has been taken from a measurement of decomposing GO, but the specific source of the OER has not been provided. As the activity will include the shredding of FOGO, not just GO, this emission source should be assigned a higher OER to accurately reflect the proposed operations. 1) The proponent is requested to provide: a) a detailed summary of the emission source parameters to demonstrate how this odour source has been represented in the dispersion model b) an updated emission inventory and dispersion modelling results that accurately represent the proposed activities and potential extent of impact.

14	Decontamination and material processing emission source	Decontamination and material processing is proposed to be located in a shed (30 x 80m or 2400m²) with two enclosed walls. The decontamination/material processing (Area C) source that is listed in Table B-2 of the AQIA report appears to have been modelled as an area source with a surface area of 4,198 m². It is unclear what this source represents as a volume source is more appropriate to model emission sources within buildings and the proposed site layout provided in Figure 2.1 of the AQIA report does not show an external waste receipt and storage area. 1) The proponent is requested to provide: a) a detailed summary of the emission source parameters to demonstrate how this odour source has been represented in the dispersion model b) an updated emission inventory and dispersion modelling results that includes all potential odour emission sources.
15	Animal manure odour emissions	The AQIA report indicates that up to 200 tonnes of animal manure will be stored at the site at any one time and that it will be blended with the composted material. Where the animal manure will be stored on the site has not been identified or included in the site plans provided (Appendix A). Animal manure is listed in the ERA 53(a) guideline with an odour rating of 'high', but this odour source has not been considered in the AQIA. 1) The proponent is requested to provide: a) an updated AQIA that includes the receipt and storage of animal manure as an odour emission source b) an updated site plan that identifies the location for the receipt and storage of manure c) the proposed storage method (covered, within a three walled bunker etc.) and approximately how long manure will be stored prior to being blended with the compost d) the proposed mitigation measures to ensure odours are minimised from the receipt, storage and blending of manure with compost.

16	CALMET Grid Origin and Domain	Section A-3 of the AQIA provides a summary of the CALMET model parameters. The domain origin is reported in both the text and within Table A.2 with a northing of 6879 km. It is understood that the northing should be 6897 km. Similarly, the text in Section A-3 indicates the CALMET domain is 20 km x 20 km but Table A.2 reports a domain size of 16 km x 16 km. Figures A.1 and A.2 appear to show that the modelling was done in the correct area over a 16 km x 16 km domain and that these are just transcription errors that have been made in the AQIA report. 1) The proponent is requested to review the modelling files and confirm the CALMET grid origin and domain size that has been included in the modelling.
17	Modelling grid resolution	Table A.2 of the AQIA report indicates that a grid resolution of 200m has been used for the meteorological and dispersion modelling exercise. This resolution is not fine enough with the complex terrain of the area. It is noted that the meteorological model (CALMET) was run in the 'hybrid' mode with upper air taken from a TAPM generated *.m3d file and surface observations from the Beaudesert Drumley Street Bureau of Meteorology (BoM) station. A large modelling domain of 16km x 16km with a 200m resolution has been selected and it appears this choice has been made to include the Beaudesert BoM station as a surface station right on the edge of the domain. To allow for a finer grid resolution without significantly increased model run times, surface observational data can be assimilated into TAPM and CALMET can be run in the 'No-Obs' mode. This is a standard methodology that is referenced in the <i>Generic Guidance and Optimum Model Settings for the CALPUFF Modeling System for Inclusion into the 'Approved Methods for the Modeling and Assessments of Air Pollutants in NSW, Australia'</i>. 1) The proponent is requested to: a) update the meteorological and dispersion modelling grid to be a finer resolution (e.g. 100m) b) provide an amended AQIA report with the revised results.

18	Model generated methodology	Section A-3-1 of the AQIA provides a review of the CALMET generated annual wind pattern. No further analysis of the CALMET generated meteorology is provided or an assessment against the Beaudesert BoM station data undertaken to confirm the representativeness of the dataset for the region. 1) The proponent is requested to provide a detailed analysis of the CALMET generated meteorological dataset (e.g. time of day and seasonal windroses, stability class, mixing height etc.) and an assessment against the Beaudesert BoM station data.
19	Dispersion modelling parameters	The AQIA report does not provide a summary of the CALPUFF dispersion model parameters. The appropriateness of the model settings that have been selected cannot be assessed. In addition, no information has been provided to describe how each of the emission sources were represented in the dispersion model (e.g. source type, sigma z, sigma z, effective height etc.) and no coordinates or figures have been provided to show the locations or sizes of the CALPUFF emission sources. How each of the emission sources have been represented in the dispersion modelling cannot be assessed without this information. 1) The proponent is requested to provide: a) a summary of the CALPUFF dispersion model parameters that have been selected b) details of how each of the emission sources are represented in the dispersion model c) coordinates and figures that show the locations of the CALPUFF emission sources.
20	Cumulative odour assessment	There are a number of significant odour sources in the area, including Bush's Proteins, Beaudesert Saleyards, the Scenic Rim Regional Council Waste Facility/Transfer Station, poultry farms and other agricultural odour sources. Some of these may contribute to cumulative odour impacts. Section 7.3.1 of the AQIA report indicates that as the odour characteristics of the background sources will be different and they are not located in close proximity of the proposed facility, the cumulative odour impacts have not

		been assessed. It is noted from Section 5.4 of the AQIA report that during a site visit, odour was observed whilst driving along Beaudesert Boonah Road including the entry of the proposed site and the source of the odour was likely Bush's Proteins. It is noted it may be difficult to model the background odour concentration in the area with limited information on emission sources. However in the absence of background modelling, more detailed odour surveys of the area should be conducted to determine the background odour concentrations and extent of existing odour impacts so the cumulative odour impacts at sensitive receptors can be assessed. 1) The proponent is requested to provide an assessment of cumulative odour impacts either through a dispersion modelling exercise or field odour surveys.
Particulate matter		
21	Particulate matter risk	Particulate matter emissions from the proposed facility have not been estimated or modelled. Section 7.4 of the AQIA identifies site activities that will generate particulate matter emissions. The AQIA report proposes mitigation measures in Table 7-3 and item number AQ3 provides mitigation measures specifically for dust during construction and operation. No mitigation measures have been proposed for windrow turning activities. 1) The proponent is requested to provide potential mitigation measures to control particulate matter emissions associated with windrow turning activities.
Greenhouse gases		
22	Greenhouse gas (GHG) assessment	Figure 4.11 of the Planning Report identifies the potential sources of GHG emissions as a result of the ASP composting process. Section 5.3.2 of the planning report indicates that a GHG assessment will be completed during the detailed design phase of the project. A GHG assessment is required to be

		conducted and provided as part of an application for an environmental authority. The Department of Environment, Tourism, Science and Innovation (DETSI) has developed a GHG emission guideline (ESR/2024/6819) to clarify existing application requirements under the EP Act and provides information about how to meet these requirements in relation to GHG emissions. This information is also required to assess how the project will comply with section 2.5.10 of the Bromelton SDA Development Scheme (December 2017). 1) The proponent is requested to provide an assessment of GHG emissions from the proposal in accordance with DETSI's GHG guideline, including: a) an emissions inventory identifying the GHGs to be emitted from the proposed activity, b) an estimate of the projected annual Scope 1 and Scope 2 CO₂-e emissions over the life of the project including both unabated emissions and emissions after all avoidance and abatement measures (as outlined in section 3.3 of the guideline) have been accounted, c) a risk assessment that outlines the scale of expected GHG emissions from the activity and how they are expected to contribute to climate change impacts on Queensland's environmental values d) if the total Scope 1 and Scope 2 emissions from the project are estimated to be more than 25,000 tonnes of CO₂-e per annum: i. estimate scope 3 emissions from the project ii. provide a GHG abatement plan.
Noise impact assessment (NIA)		
23	Noise monitoring data	The purpose of conducting a NIA is to assess if the impact from the proposed activity is acceptable to the surrounding environment. The NIA report indicates that noise levels at two locations were measured, but only limited data has been provided in Table 3.2 and no detailed analysis has been conducted. The NIA report purely refers to the deemed background level and does not adequately provide the contextual details of the environmental values of the site and the surrounding environment. Without comparing the existing noise levels against the predicted impact, it is not possible to assess the actual impact of the proposed activity. 1) The proponent is requested to provide a detailed analysis and summary of the noise monitoring

		data that has been collected during the monitoring campaign including the average, minimum and the maximum hourly figures for the parameters of L_{Aeq} , L_{A90} and L_{A10} for each of the periods (morning shoulder, daytime, evening and night).
Matters of State Environmental Significance (MSES) - regulated vegetation		
24	MSES clearing	MSES regulated vegetation is proposed to be cleared for which impacts should be assessed in accordance with either the: • Significant Residual Impact Guideline, Department of Environment and Heritage Protection 2014 (EHP (now DETSI) SRI guideline); or • Significant Residual Impact Guideline, Department of State Development, Infrastructure and Planning December 2014 (DSDIP SRI Guideline). Further information is required to demonstrate how any proposed clearing of MSES regulated vegetation will not exceed the limits within the SRI guidelines. 1) The proponent is requested to provide an assessment in accordance with either the DETSI or DSDIP SRI guidelines that demonstrates how any proposed clearing of MSES regulated vegetation will not exceed the limits within the SRI guidelines. Please include a figure specifically identifying the MSES regulated vegetation proposed to be cleared. <i>Note: DETSI SRI Guideline: https://environment.des.qld.gov.au/data/assets/pdf_file/0017/90404/significant-residual-impact-guide.pdf</i> <i>DSDIP SRI Guideline: https://dsdmipprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf</i>
25	SEQ Koala Habitat	It is not appropriate to use the Federal Significant Impact Guideline to assess the impact to an MSES. As impacts to SEQ Koala Habitat are proposed, an assessment of the project's impact and subsequent offset requirements under the Queensland Environmental Offsets Framework is required. Impacts to SEQ Koala Habitat are specifically addressed within the DETSI SRI guideline. It identifies that the

		removal of one non-juvenile koala habitat tree (NJKHT) in SEQ is a significant residual impact and is required to be offset (Section 6). The number of NJKHTs that are proposed to be impacted by the activity must be quantified as it is not acceptable that impacts to SEQ Koala Habitat are based on area calculations. 1) The proponent is requested to provide an assessment in accordance with the DETSI SRI guideline to determine the project's impact and subsequent offset requirements. The assessment must identify: a) the number of NJKHT that are proposed to be cleared, their locations and demonstrate that if there is an SRI b) all reasonable on-site avoidance and mitigation measures have been or will be undertaken to address the impacts c) if an offset is still required for the impacts after this has been considered, information on offset requirements in accordance with the Queensland Environmental Offsets Policy (EPP/2015/1658) must be provided.
Composting activities		
26	Impervious barrier	The ERA 53(a) model operating conditions (MOCs) (ESR/2015/1665) require composting activities to occur on an impervious barrier which is defined as a barrier with a thickness of at least 600 mm with an in-situ permeability (K) of less than 10^{-9} ms^{-1}. Table 5.11 of the Planning Report only indicates that hardstand areas are to be constructed with a low-permeability base. Drawing number 30034146-000-114 in Appendix A indicates that the ASP and FOGO receival shed are proposed to be concrete. The 'open windrow GO', 'FOGO maturation' and 'final screening & manufacturing' areas are only proposed to be a gravel surface. 1) The proponent is requested to confirm that an impervious barrier with a thickness of at least 600 mm with an in-situ permeability (K) of less than 10^{-9} ms^{-1} is proposed for all composting activity areas.