



ACT
Government

Hume Food Organics and Garden Organics Facility

Engagement Report

A summary of the engagement undertaken in preparation of the Environmental Impact Statement for a food organics and garden organics facility.

Acknowledgement of Country

The Australian Capital Territory (ACT) is Ngunnawal country. The ACT Government acknowledges the Ngunnawal people as the traditional custodians of the Canberra region and recognises any other people or families with connection to the lands of the ACT and region.

The region is a significant meeting place to the Ngunnawal people and other people and families who have gathered here for thousands of years.

Transport Canberra and City Services acknowledges and respects the Aboriginal and Torres Strait Islander peoples, their continuing culture and the contribution they make to the life of this city and this region, and their historic and ongoing connection to our lands, waters, and sacred sites.

We pay our respects to their Elders past, present and emerging.

Introduction

Background

The ACT Government is proposing to construct a Food Organics and Garden Organics (FOGO) facility in the Hume Resource Recovery Estate.

In the ACT, roughly one-third of household rubbish bins is food. A FOGO service will help keep food waste out of landfill, reduce harmful greenhouse gases and turn food waste into compost instead. The ACT Government is working to reduce waste to landfill and increase resource recovery.

The new FOGO facility is a central part of the draft ACT Circular Economy Strategy 2022-25. The circular economy aims to keep resources circulating in our economy for as long as possible, maximising the value of materials and reducing the need to use natural resources. There is currently no processing facility within the ACT that can accept and process FOGO material. The ACT Government is proposing to develop a FOGO facility in Hume to strengthen the Territory's circular economy and help meet ACT and Australian Government landfill diversion and resource recovery targets.

Key features of the proposal are included below.

- Waste receival hall (waste receival and decontamination/pre-sort area).
- Primary composting tunnels.
- Biofilter.
- Maturation building.

The Environmental Impact Statement (EIS) scoping document issued for the FOGO facility details the need for the proponent to consult with the community as part of the concept design and preparation of the EIS. The public engagement period took place from April to June 2023. Given the close proximity of the future FOGO facility to the proposed new Materials Recovery Facility (MRF), the public engagement phase was carried out for both facilities together to consider community feedback. Feedback on each facility has been documented separately to assist with the EIS process.

Location

The proposed FOGO facility would be located within the current bounds of the Hume Resource Recovery Estate (HRRE) on Recycling Road in Hume (Block 5, Section 26, see Figure 1.1).

The site is surrounded by industrial facilities including:

- ACT Skip Hire on the adjacent block to the south
- Soft Landing Mattress Recycling located further south, across John Cory Road
- Hume Industrial Estate located to the south and east across the Monaro Highway

- proposed new Hume MRF located to the east, across Recycling Road
- Mugga Lane Landfill located approximately 200 metres to the north-west.

The footprint of the built area is estimated to be 2.7 hectares (ha) which includes the buildings and ancillary features such as roadways. The proposed FOGO facility would be accessed via Recycling Road, which is situated to the west of the site.



Figure 1.1 Location of the proposed FOGO facility, Hume Resource Recovery Estate

Engagement Approach

A Community and Stakeholder Engagement Plan was developed to identify the objective of engagement, stakeholder groups and engagement methods.

Who we engaged

Key stakeholders located close to the future FOGO facility were identified. They included:

- the local area dominated by scattered rural dwellings and low-density residential properties to the west and east of the site
- neighbouring suburbs of Chisholm, Fadden, Farrer, Gilmore, Gowrie, Hume, Isaacs, Jerrabomberra, Macarthur and Tralee
- Hume Business District
- businesses operating on or near Recycling Road, John Cory Road, and Mugga Lane including ACT Skip Hire and Soft Landing Mattress Recycling ACT, Mugga Lane Solar Park, ACT Recycling, Corkhill Bros and the Mugga Lane Resource Management Centre (MLRMC)
- community groups including the Tuggeranong Community Council, Inner South Canberra Community Council, Jerrabomberra Residents Association and the Woden Valley Community Council
- volunteer conservation, landscape management or landcare groups active in the area including the Molonglo Conservation Group.

How we engaged

Consultation for the new FOGO facility started on 24 April and closed on 5 June 2023.

The community and stakeholders were notified through a letterbox drop and a stakeholder email inviting them to drop-in sessions about the proposal. This was supported by a project page on the City Services website and downloadable factsheets and project information.

Feedback on the proposal was encouraged via email or attendance at one of the drop-in sessions.

Letter to residents and businesses

In May 2023, a letter was distributed to around 10,690 residents and businesses located in the suburbs of Chisholm, Fadden, Farrer, Gilmore, Gowrie, Hume, Isaacs, Jerrabomberra, Macarthur and Tralee as well as to other community members who had registered to be kept informed on the proposal.

The purpose of the letter was to:

- provide information about the proposed FOGO facility and MRF
- inform the community about the start of the EIS process for the facilities
- invite the community to provide feedback on the proposals.

Email to stakeholders

In May 2023 an email was sent to around 140 businesses and community groups to inform them of the project. The stakeholders identified included:

- neighbouring services and businesses
- local community groups
- volunteer conservation, landscape management and landcare groups in the area.

Website information

A joint FOGO facility and MRF project page was created on the City Services website. The project page provided information on both proposals, contained printable resources including fact sheets on both facilities as well as fact sheets specific to odour, traffic and noise management, contact details and information regarding the community drop-in sessions. The website also encouraged the community to provide feedback which would inform the draft EIS.

Social media

Content was distributed via ACT Government channels including Facebook, Twitter and LinkedIn. The Facebook post was scheduled on 16 May 2023. It was boosted to surrounding suburbs to ensure maximum reach. It reached an audience of 1,382 with a 7.3% engagement rate, 238 reactions, 53 comments, 18 link clicks and nine shares.

Engagement activities

Community consultation sessions

Four face-to-face consultation sessions were held in May 2023. Across the four sessions, 76 people attended and registered interest in the project.

The community sessions were held across two weeks, with two sessions per week, across four different locations near the proposal sites. The community sessions are outlined below.

Session 1:	Date: Saturday 20 May 2023 Time: 10:30 am to 12:30 pm Location: Woden Library
Session 2:	Date: Wednesday 24 May 2023 Time: 3:30 pm to 5:30 pm Location: Tuggeranong Library
Session 3:	Date: Saturday 27 May 2023 Time: 10:30 am to 12:30 pm Location: Chisholm Village Shopping Centre
Session 4:	Date: Wednesday 31 May 2023 Time: 10:30 am to 12:30 pm Location: Mawson Southlands Shopping Centre

The purpose of the sessions was to allow the community to:

- understand the proposal
- ask questions and discuss issues and their concerns in the more detail
- provide feedback to inform the development of the EIS.

To support the consultation sessions, six A0 sized posters were prepared. In addition, hard copies of the project fact sheets were provided to attendees.

Engagement figures

765 There were 765 views of the project page during the engagement	Four We held four pop-ups	One Presentation to the Tuggeranong Community Council	10,000+ We delivered 10,690 letters to residents/businesses
143 We sent emails to over 140 businesses and organisations	1,382 We reached a social media audience of more than 1,300	10 We received 10 items of written feedback	76 We spoke with 76 people during the engagement

What we heard

Stakeholders and community members expressed support for the proposed FOGO facility, acknowledging its role as an important contributor to minimise organic waste going to landfill and increasing recycling opportunities within the Territory.

Concerns were raised about traffic, construction and noise impacts with development and operation as well as the potential for odour and litter associated with the nature of the proposal.

The table below outlines the written comments received during the engagement period and the ACT Government response.

Topic	Issue raised	ACT Government response
Support for the project	<p>Community supported the proposed FOGO facility.</p> <p>Support for the location of the facility stating that the FOGO facility co-located with the proposed new MRF will increase efficiency.</p> <p>Support for the construction of a new FOGO facility at the chosen site in Hume.</p> <p>Support that the sooner these facilities are established, the better.</p>	<p>The new FOGO facility is a central part of the draft ACT Circular Economy Strategy 2022-25. The circular economy aims to keep resources circulating in our economy for as long as possible, maximising the value of materials and reducing the need to use natural resources.</p> <p>The facility is to be located on Recycling Road within the Hume Resource Recovery Estate (Block 5, Section 26).</p> <p>The ACT Government is delivering the project as quickly as possible to deliver services and infrastructure for the community.</p>
	<p>Support for the project as diverting food waste from landfill is essential to reducing greenhouse gas emissions.</p>	<p>The new FOGO facility will strengthen the Territory's circular economy and help meet ACT and Australian Government landfill diversion, resource recovery and climate change targets.</p>
Traffic and development	<p>Concerns were raised over the development of Southern Memorial Park and capacity of Mugga Lane and Long Gully Road.</p>	<p>The completed draft EIS will include a Traffic Impact Assessment which will provide further detailed information regarding traffic and any required mitigation measures. Specific technical studies will be available with the draft EIS for community comment whilst on public exhibition. A Traffic Impact Assessment will also be prepared as part of the development application process for the Southern Memorial Park.</p> <p>The ACT Government will continue to monitor traffic flows and consider future road upgrades to manage any additional truck movements.</p>
	<p>Concerns were raised about the interaction with Southern Memorial Park and compatibility of development.</p>	<p>Cemeteries and crematoria require specific land zoning and, as they can never be moved, their location should be carefully considered. A number of locations were investigated as part of the development of the 2012 draft masterplan and a site off Long Gully Road and Mugga Lane was found to be most appropriate due to its size, zoning, access and proximity to existing facilities. This was supported by community consultation undertaken in 2009.</p> <p>The Southern Memorial Park is located well to the north of the current Mugga Lane landfill site and is protected by a large grassed south facing mound. The design also includes significant landscaping to screen the site. Site investigations found prevailing winds are oriented away from Southern Memorial Park.</p>
	<p>Highlighted how the site has excellent access to arterial roads and is not located near to any existing businesses or residences which would be unreasonably impacted by the facilities.</p>	<p>The Traffic Impact Assessment will consider the operational impact of the FOGO facility and MRF. The Traffic Impact Assessment is under preparation and will be included in the draft EIS.</p>

Topic	Issue raised	ACT Government response
Circular economy	Community support of the facility supporting a circular economy.	<p>The diversion of FOGO from landfill has been identified as a key action to achieve resource recovery and emissions reduction targets. The facility will help divert food waste from landfill and turn collected FOGO materials into high-quality compost.</p> <p>The FOGO facility is a central part of the draft ACT Circular Economy Strategy 2022-25. The circular economy aims to keep resources circulating in our economy for as long as possible, maximising the value of materials and reducing the need to use natural resources.</p>
	Suggest garden organics and food organics be separated.	Garden organics and food organics can be collected in the same bin and composted together. This reduces transport emissions and is more cost effective than using two bins and different technologies to process each type of organic waste.
	Will the FOGO waste be recycled into anything other than compost?	<p>At full scale operation the facility is expected to produce about 28,000 tonnes of FOGO-derived mulch, compost and soil conditioners each year. The FOGO-derived product mix would depend on market requirements.</p> <p>It is expected the products created will go back into parks and gardens across Canberra.</p>
	Suggestion to increase circular economy opportunities through additional avenues such as waste to energy.	<p>There are no plans to construct a waste-to-energy facility in the ACT. The thermal treatment of waste is prohibited under the ACT Waste-to-Energy Policy 2020-25, except for facilities already in place prior to the policy. The policy released publicly in March 2020 stated that waste reduction, reuse and recycling of materials was the primary focus in the ACT.</p> <p>Additional circular economy measures will be considered and investigated in the design development and construction planning for the new facility. The proposed educational facility that would form part of the proposal is intended to be fitted out with eco-friendly materials where practicable to support circular economy development. Substitution of less emission intense fuels will also be considered such as the use of electric/hydrogen plant and vehicles.</p>
	The FOGO facility should be designed to be modular to quickly establish initial collections then expand or dismantle as required in the future.	<p>The design of the FOGO facility would incorporate modular elements to enable the capacity and operating parameters of the tunnel composting system to be cost-effectively expanded in future to achieve the design processing capacity of 70,000 tonnes per year.</p> <p>It is expected the FOGO facility would have an initial processing capacity of at least 50,000 tonnes per year at commencement of operations. Additional tunnels would be added to expand the processing capacity as required.</p>
	The ACT Government should invest further in developing a circular economy for Canberra. This should include advocating at	The ACT Government is investigating options to progress circular economy in the ACT to design out waste and keep materials in use at their highest value. As part

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	<p>the national level for compulsory stewardship schemes across all product categories, and mandatory recycled content targets.</p> <p>Invest in research collaborations to develop solutions for complex wastes such as disposable coffee capsules, rubber tyres, electronics, medical wastes, and mattresses.</p> <p>Support transfer of materials through mapping these processes, inputs, and outputs across the ACT via an online platform that enables organisations to connect.</p> <p>Support transfer of materials through removing regulatory barriers to higher value uses (e.g. Goterra's insects could become protein for human consumption).</p> <p>Commercial food waste and household mixed FOGO should be collected separately and diverted to higher-value uses.</p>	<p>of this body of work, we will investigate opportunities to improve product stewardship for various products.</p>
Community education	<p>Community education must shift from thinking “waste management” to “circular economy”.</p>	<p>In October 2022 the ACT Government released its first draft ACT Circular Economy Strategy. The Strategy provides the initial steps towards a more circular economy through to 2025. It outlines a common language and vision to bring the ACT Government, industry, business and the community together to build a circular economy that supports a prosperous and sustainable Canberra.</p> <p>The Strategy will inform the development of a circular economy action plan and the development of new circular economy legislation for the ACT. As this is the first circular economy strategy for the ACT, it sets the high-level ambition to build on previous work to drive the initial steps towards a more circular economy through to 2025, at which point the Strategy will be reviewed and updated. The circular economy will continue to mature and expand over time as the concept becomes embedded and our understanding of the concept - and its possibilities - grows. Community education is an integral part of the success of the Circular Economy Strategy and is a key focus for the ACT Government in the roll-out of the Strategy and its associated action plan.</p>
	<p>New facilities must be supported by significant investment in community education to minimise contamination of both comingled recycling and FOGO collected from households.</p> <p>Community education could be delivered in partnership with enterprises such as Capital Scraps, the Canberra Environment Centre and SEE-Change. This education should commence well ahead of completion of the facility and the start of scaled-up collections.</p>	<p>The ACT Government through ACT NoWaste invests significantly in community education and this will continue.</p>

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Water	<p>Water flows across the site must be managed to avoid the run-off of potential toxins and particulates into the waterways.</p>	<p>In developing the EIS and technical studies, best-practice methods were identified in assessing stormwater quality impacts and an appropriate treatment strategy was developed in response. Water quality modelling undertaken for the proposal confirms that the proposed treatment strategy would achieve the requirements of the ACT Water-sensitive Urban Design Code (ACT Government, 2017) and meet ACT regulations for water quality.</p> <p>Before the commencement of FOGO operations, a detailed operational management plan will be developed and updated annually.</p> <p>The proposal site is not significantly impacted by flood flows, with flood waters generally confined to the north-western side of the site. Further run-on from other sites is not notable.</p>
	<p>Because of the topography of the area the only way to avoid, minimise and mitigate adverse impacts is to relocate the proposed facilities.</p>	<p>The FOGO is proposed to be located at a level equal to, or higher than, the 1 in 100 Annual Exceedance Probability (AEP) flood level of nearby waterways. Stormwater from local catchments is proposed to be diverted around the site, utilising existing drainage channels and infrastructure.</p> <p>Hydraulic modelling has been undertaken to inform the design and ensure that the proposed facility pad level and location would not cause flooding to extend to any adjacent landholdings or result in any notable impacts on downstream waterways. These studies will be available with the draft EIS when it is on public exhibition.</p>
Odour	<p>Concerns were raised about odour from the existing MLRMC. Concern the FOGO facility may increase the level of odour that travels towards residences in Fadden, Gilmore, Isaacs, and Macarthur more specifically.</p>	<p>The ACT Government understands neighbouring communities have experienced ongoing odour issues from the existing MLRMC. Waste management operators at the Mugga Lane waste management precinct operate under agreed protocols with the ACT Environment Protection Authority (EPA) to minimise odours and other environmental impacts.</p> <p>These parties are required to inform the EPA regarding any changes to their operations which may result in increased odour generation.</p> <p>An Air Quality Impact Assessment is currently underway for the proposal and will form part of the draft EIS. The Assessment will provide greater details on potential odour impacts and propose mitigations.</p> <p>While some proposed activities have potential for low levels of odour emissions, the proposed FOGO facility will be a fully enclosed building and therefore is not expected to result in any odour impacts in the surrounding area.</p> <p>The ACT Government will continue to monitor this issue.</p>
	<p>How will odours be managed while delivered material is awaiting movement into the sealed units?</p>	<p>The facility would be enclosed and kept under negative pressure with roller doors for truck access in and out of the waste receipt area.</p>

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		<p>As the building (including waste receival area) would be maintained under negative pressure, it would be unlikely that any odour emissions would escape from the waste receival hall doorway. In addition to the air extraction system, rapid close roller doors would be installed to further mitigate odour impacts.</p> <p>All air within the building would be treated by odour control prior to discharge in the environment.</p> <p>An Air Quality Impact Assessment, which is being prepared, will provide greater details on potential odour impacts and proposed mitigations.</p>
	<p>80 trucks a day are expected to use the facility. Even with rapid open/close doors significant odour may escape.</p>	<p>The facility would be enclosed and kept under negative pressure with roller doors for truck access in and out of the waste receival area. All process air would be treated by odour control prior to discharge in the environment. This is considered industry best practice.</p> <p>As the building would be maintained under negative pressure, it would be unlikely that any odour emissions would escape from the waste receival hall doorway. In addition to the air extraction system, rapid close roller doors would be installed to further mitigate odour impacts.</p>
	<p>How will odour be prevented from entering the environment during the composting stage?</p>	<p>Air extracted from within the composting tunnels would be introduced into the odour treatment system before being discharged into the environment.</p> <p>The extracted air would be treated prior to discharge. The proposed odour treatment system will likely consist of a number of wet scrubbers and a biofilter. Wet scrubbers are highly effective at removing particles and gaseous pollutants from the air. Biofilters use microorganisms to remove odorous compounds from the air.</p> <p>Furthermore, if required to meet odour criteria, treated air could be captured and discharged from a stack above the building roofline with increased velocity to help disperse the air into the atmosphere and reduce the potential for ground level odours.</p>
	<p>How will odour be managed? extreme heat? strong winds?</p>	<p>The facility would be enclosed and kept under negative pressure with fast opening roller doors for truck access in and out of the waste receival area. All air would be treated by odour control prior to discharge in the environment. This is considered industry best practice.</p> <p>The proposed odour control system will likely consist of a number of wet scrubbers and a biofilter. If required (to be confirmed during detailed design), treated air from the biofilter would be captured and discharged from a stack above the building roofline with increased velocity to help disperse the air into the atmosphere and reduce the potential for ground level odours.</p>

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		Extreme weather events such as strong winds and heat could impact the composting process if it were not enclosed. The enclosed facility is considered best practice for the management of odour and potential extreme events.
	What residual odour will be allowed if not able to be mitigated to a level where it cannot be detected, what if the smell is not acceptably removable? who decides what is acceptable?	As specific guidelines for odour assessment are not specified for the ACT, the odour criteria for the project were adopted from the <i>Approved methods for the modelling and assessment of air pollutants in NSW</i> (NSW EPA, 2016).
	Concern regarding fish guts from Merimbula being shipped here to be added to what is collected locally.	The facility would process ACT FOGO material and potentially accept FOGO from other areas. This is subject to the commercial arrangements of the future operator.
Legislation/regulation	Has the EPBC Act been considered?	The EPBC Act is the Australian Government's primary legislation for the protection of matters of national environmental significance (MNES). It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities, and heritage places. Heritage and ecological assessments undertaken as part of the draft EIS have confirmed the proposal is not expected to have impacts to any MNES.
Procurement process	The current proposed procurement method for a 'single contractor of substance' may not provide the best outcome for the environment or local businesses as small and medium-sized businesses may not be considered. Local businesses will not tender or provide feedback on the Early Tender Notification as a result.	The project is being expedited by undertaking a single stage tender to ensure the facility is built as soon as possible. The pre-tender notice released in May 2023 stated a preference for 'single contractor of substance' and does not preclude other types of entities in participating in the tender process.
	Regarding the Early Tender Notification - the proposed builder must be accredited under the Australian Government Building and Construction WHS Accreditation Scheme and this will remove the opportunity for many ACT businesses despite them carrying an ACT Government WHS Accreditation.	This is a requirement of the Australian Government funding contribution and is not considered onerous to obtain for this project.
	The procurement method will compromise potential benefits to the ACT. Suggestion to re-think the approach, even if it is more difficult and takes 6-12 months longer. Suggestion to use that time to consider how more local businesses can be involved and how the very latest and emerging waste management technology can be incorporated.	The ACT Government is delivering the project as quickly as possible to deliver services and infrastructure for the community. Innovation and opportunities to incorporate the latest technology will continue to be a feature of the design work as well as a consideration for the operator once the facility is up and running. Waste management technology is always evolving and the ACT will continue to look for ways to improve waste management as part of the Circular Economy Strategy.
Waste collection trucks	The Government should also ensure that collection trucks are restricted in size to safely navigate all Canberra streets without compromising mature trees and planning for active travel.	Waste collection vehicles in the ACT are considered suitable for the road network. Tree trimming is undertaken where required to ensure safety of both the operators of the vehicles and the local community. We encourage the community to report concerns and requests for tree trimming via Fix My Street.

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		Currently the Territory is tendering for a Household Waste Collection Service. The vehicle types used will be detailed through that process.
Consultation	What was the rationale behind the locations, dates and times for the face-to-face sessions?	Libraries are consistently used for community engagement activities. Two additional community sessions were added at Chisholm Village Shopping Centre and Mawson Southlands Shopping Centre following community feedback on the locations. The sessions were spread across weekdays and weekends with varying hours to provide numerous opportunities for interested community members to come along.
	A community consultative group should be facilitated for the people who will be directly impacted by the FOGO facility.	It is not the view of the ACT Government that this facility will directly impact any residential properties in the vicinity. Extensive community engagement will be undertaken during the planning and development phases of this project and community members will be able to learn about the facility and its operations. There will also be opportunities throughout the engagement phases to meet with the project team and discuss concerns.
Location	Concern regarding the appropriateness for location so close to residential and business areas – is this facility viable for operation on the proposed location?	This area is currently zoned industrial. The proposed location is within the current bounds of the Hume Resource Recovery Estate (HRRE). The area has always been identified as a material/waste recycling area. Noise modelling completed as part of the Noise and Vibration Impact Assessment confirmed no operational noise impacts above acceptable standards are expected. Odour modelling undertaken for the Air Quality Impact Assessment confirmed the predicted odour impacts complied with the odour criteria. The ACT Government has considered traffic flow in the area and will continue to monitor traffic flows and consider future road upgrades to manage any additional truck movements if required.
Project transparency	It is essential local residents be fully informed about what is proposed. The documents made available recently indicated that this proposal could be undertaken comprehensively and openly. This will be seen as essential.	The ACT Government is committed to open and transparent communication and will continue to engage on this important project at all stages throughout.
Pests and vermin	Concern about pests being attracted to the FOGO waste or potential vermin or insect infestations and how this will be mitigated, monitored, and addressed. How will this be contained and managed? How will compliance be monitored and what process will apply if these groups increase rapidly and beyond targets? What targets will apply and who will monitor?	Vehicles delivering FOGO to the facility would be required to be covered to minimise any biosecurity risks. All incoming loads would be weighed and vehicle identification, load description (material type), source and mass details would be recorded. FOGO waste would be delivered directly into the receive hall through automated fast acting roller/shutter doors and unloaded in the designated delivery areas within the building. As the operations (including receive and processing) would

Topic	Issue raised	ACT Government response
		<p>take place within enclosed buildings the likelihood birds, wildlife, pests and vermin being attracted to the proposed facility is minimal.</p> <p>Consideration would also be given as to where the FOGO material is sourced including out of region or interstate and determine if the transport, storage and processing of material would have any biosecurity implications as a result of pathogens, animals or plant diseases.</p> <p>An operational biosecurity management plan would be developed and implemented for the proposal which:</p> <ul style="list-style-type: none"> – clearly documents operational procedures, controls and ongoing monitoring and measurement of biosecurity risks associated with the proposal – outlines how pest and weeds will be managed on the site – requires the site operator to undertake routine monitoring and inspections on the operational biosecurity management plan.
Compost	<p>Where will the waste be composted? How will the composting process work and how long will it take?</p>	<p>The waste would be composted via in-vessel composting in a series of tunnel modules arranged side by side. Each tunnel would be self-operating and comprise of an air duct system, blowers, process water collection and recycling systems and various process control features (temperature, pressure etc.). The tunnel floor would allow the inflow of leachate and outflow of air into the composting material.</p> <p>Each tunnel would be self-operating and include various process control features (e.g. moisture levels, aeration, temperature and pressure) to optimise the composting process and enable production of consistently high-quality products.</p> <p>The process involves 28 days active composting residence time. The composted product would be screened following active maturation and then undergo final maturation and storage in order to meet stability requirements as necessary.</p> <p>There would be no outdoor composting.</p>
	<p>Suggestion that community scale composting should be supported to fill the gap while we wait for larger scale technology to catch up.</p>	<p>The ACT Government has made a commitment to ACT wide FOGO collection service and a facility capable of processing the material is required.</p>
	<p>Concern regarding how potentially harmful bacteria that may be present during the composting process and in the final compost produce that is available for purchase.</p>	<p>The composting would be a controlled, thermophilic process wherein the FOGO material would degrade by microbiological activity. The heat from the composting process would pasteurise the material.</p> <p>Process controls in all tunnels would be integrated, operated and controlled via a central process control system. The control system would acquire and record process data, enabling verification of processing time, temperature profile and other data for each batch as necessary for demonstrating conformance with the</p>

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		Australian Standard <i>AS 4454-2012 Composts, soil conditioners and mulches</i> (including pasteurisation). The pasteurisation process destroys pathogens.
	Concern regarding usage of in-vessel composting units. Is there evidence this is a proven technology. Where is it used and what relevant proven results were achieved?	There are many ways to process FOGO. The ACT Government conducted a detailed research feasibility study into processing methods to find out which method is best suited to the type of waste, and the proposed location in the ACT. The study identified in-vessel composting as the best option for the ACT's FOGO waste. In-vessel composting for organic waste is a mature technology which has been proven to work effectively over many years. More and more councils are moving towards using composting technology such as this for FOGO.
	Concern for in-vessel composting that the systems may produce a significant amount of methane. Suggestion to implement biofiltration for methane reprocessing.	Composting would take place within enclosed composting tunnels with forced aeration and moisture control. Process controls in all tunnels would be integrated, operated and controlled via a central process control system. This would allow oxygen levels inside the composting tunnels to be controlled to ensure optimum aeration and oxygen levels are maintained. This would help ensure the degradation process remains aerobic and thereby avoids the generation of methane. All air from the composting tunnels would be treated by odour control prior to discharge in the environment. The proposed odour control system will likely consist of a number of wet scrubbers and a biofilter, with exact details to be confirmed during detailed design.
	Suggestion and interest in the compost being sold to ACT businesses and residents.	FOGO-derived products would be available to purchase by the community and commercial avenues to go back into Canberra's parks and gardens, supporting the ACT's and Australia's circular economy.
Air quality	Will air quality assessments be undertaken? Where and how close to the site will they be taken?	An Air Quality Impact Assessment has been completed for the proposal and forms part of the draft EIS. It will be publicly available for review as part of the draft EIS public notification period.
	Will air quality measurement information be made available to the public?	
	What scientific standards will be applied in terms of acceptable air quality? Including levels of odour and release of particulates into the air.	As specific guidelines for odour assessment are not specified for the ACT, the <i>Technical framework for assessment and management of odour from stationary sources</i> (NSW Department of Environment and Conservation, 2006) and the <i>Approved methods for the modelling and assessment of air pollutants in NSW</i> (NSW EPA, 2016) have been adopted for the Air Quality Impact Assessment.
	How will the air be filtered before being released out of the facility?	All air extracted from within the building and from the composting tunnels would be treated by odour control prior to discharge in the environment.

Topic	Issue raised	ACT Government response
		<p>The proposed odour control system will likely consist of a number of wet scrubbers and a biofilter. If required, treated air from the biofilter would be captured and discharged from a stack above the building roofline with increased velocity to help disperse the air into the atmosphere and reduce the potential for ground level odours.</p>
	<p>What particulates, gases, or odours will be produced and emitted? How will release of these materials be monitored and managed? What are the health risks in relation to the type and volume of being produced and released?</p>	<p>During operation of the project, odour was identified as the key pollutant to be generated. Dispersion of odour has been modelled and assessed for operation of the project in the Air Quality Impact Assessment that forms part of the draft EIS.</p> <p>Combustion emissions from traffic and equipment would occur during both construction and operation of the project. However, these emissions are expected to be negligible in comparison with those from the high traffic volume already present on the Monaro Highway adjacent to the proposal site.</p> <p>The Air Quality Impact Assessment confirmed the predicted odour impacts complied with the odour criteria at all sensitive receptors. A number of odour mitigation and management measures have also been identified and proposed.</p> <p>Odour mitigation and management measures would include regular testing of the biofilter to confirm it is performing correctly, monitoring of oxygen levels and moisture content inside the composting tunnels to ensure optimum levels are maintained, monitoring equipment of air flow and moisture content going into the biofilter and regular (annual) odour audits.</p>
	<p>Gases and odours will need to be expelled to air and this would likely be done via a chimney stack process (to aid dispersal). How can this be guaranteed not to be noticed at local residential and business homes and facilities? Computers would monitor temperatures, air flows etc and only release gases/smells when environmental factors are within defined limits. How could this work if the facility operates under negative pressure at all times and odours and gases have to be vented for the facility to operate effectively?</p>	<p>To maintain negative pressure, fresh air would be drawn into the building by fans. Air extracted from within the building and from the composting tunnels would then be introduced into the odour treatment system before being discharged into the environment.</p> <p>If required (to be confirmed during detailed design) to meet odour criteria, treated air would be captured and discharged from a stack above the building roofline with increased velocity to help disperse the air into the atmosphere and reduce the potential for ground level odours.</p> <p>The air discharged would be treated prior to discharge from the stack. The proposed odour treatment system will likely consist of a number of wet scrubbers and a biofilter. Wet scrubbers are highly effective at removing particles and gaseous pollutants from the air. Biofilters use microorganisms to remove odorous compounds from the air.</p>
	<p>Can the facility operate effectively, and for how long if particulate matter cannot be released for a period of time? If FOGO is closed what happens to the particulate materials being created within</p>	<p>Due to the high moisture content of FOGO and as the receivals and composting facility is enclosed, particulate emissions from activities inside the building would be minimal. The maturation and refining building would also be fully enclosed.</p>

Topic	Issue raised	ACT Government response
	the facility by the materials already being processed or currently maturing within the facility?	In terms of odour, fresh air would be drawn into the building by a number of fans so there is opportunity to conduct regular and emergency maintenance activities while the other fan(s) remain in operation. 24 hour emergency maintenance agreements would also be established with equipment manufacturers to limit the impact of equipment failures.
	How will the release of particulates be managed in the event of the air pollution levels being higher than expected/approved, even if not it is not due to a catastrophic event such as bush fires/ dust storms etc.	Due to the high moisture content of FOGO and as the receivals and composting facility would be enclosed, particulate emissions from activities inside the building would be minimal. Matured compost would undergo screening and blending within the maturation and refining building which is also enclosed.
	Concern that a number of people in the area local to the proposed facility have ongoing health issues such as lung disease, heart conditions, serious asthma etc. How will this increased level of risk inherent to the FOGO facility be managed to ensure no increased health risks to these people who already have ongoing problems related to breathing and air quality.	During operation of the project, odour was identified as the key pollutant to be generated. Due to the high moisture content of FOGO and as the receivals and composting facility would be enclosed, particulate emissions from activities inside the building would be minimal. Matured compost would undergo screening and blending within the maturation and refining building which is also enclosed. The design of the facility incorporates best practice odour control. The proposed odour treatment system will likely consist of a number of wet scrubbers and a biofilter. Wet scrubbers are highly effective at removing particles and gaseous pollutants from the air. Biofilters use microorganisms to remove odorous compounds from the air. Dispersion of odour has been modelled and assessed for operation of the project in the Air Quality Impact Assessment that forms part of the draft EIS. The assessment confirmed that the predicted odour impacts complied with the odour criteria at all sensitive receptors. A number of odour mitigation and management measures have also been identified and proposed.
	Is there a plan for the management of food waste if this facility is not a success?	The ACT Government is confident in the facility's ability to process ACT's FOGO material. It will be monitored once operational and processes reviewed to ensure it continues to operate effectively.
Collection pilot	Will the existing FOGO trial be expanded?	A FOGO collection pilot is now servicing around 5,000 households in Belconnen, Bruce, Cook and Macquarie. The pilot is testing the FOGO service before it is rolled out to the wider Canberra community once the FOGO facility is operational.
Bins	Will there be changes to the existing bin arrangements?	Households will receive a lime green lid FOGO bin for garden waste and food scraps (if they don't already have a green waste bin) as well as an easy-to-use kitchen caddy to conveniently separate their food scraps. The contents of the caddy will be placed into the FOGO bin either in a certified compostable liner or tipped in loose with no liner.