Exemption from Tender and Contract Variation – Insect Farming Food Scraps Processing Trial

File No: X021464.011

Contract No: 4213

Summary

This report seeks an exemption from tender for the provision of insect farming food scraps processing services due to extenuating circumstances, and requests Council approve a contract variation to extend the Insect Farming Food Scraps Processing Trial contract (contract number 4213) for a further 18 months.

At present the City has a 12-month contract for a trial of processing residential food organics from the food scraps recycling service using insect farming technology. This contract is with Goterra Pty Ltd – ABN: 97 612 974 688 (Goterra) and it will expire on 5 January 2026 with no options for extension.

The key objective of the Insect Farming Food Scraps Processing Trial is to test the viability of this technology as a long-term processing solution for the City's residential food waste. Results of the trial will inform the procurement planned to be undertaken in 2026/27 for food organics (FO) processing services for the rollout of the FO service to all households.

To date the trial has been largely successful, however, there are some processing challenges that require more investigation. Goterra has indicated that these challenges could be resolved by system modifications that could be installed and tested. However, this would require more time than the current contract term allows and would require a contract extension.

At present, the market for FO processing is lacking both capacity and technology capability. There is only one supplier operating in NSW that can process our food organics using insect farming processing technology right now, and extending the existing contract will:

- Provide the opportunity to install and test the recommended system modifications to resolve the identified processing challenges.
- Allow time to further investigate and confirm the viability of insect farming technology as a long-term treatment option for the City's residential food waste.
- Ensure sufficient information has been gained to inform procurement for FO processing services for the full rollout of the FO service to all households.
- Continue to contribute towards the City's sustainability and waste targets.
- Continue to support innovation in business in alignment with the City's economic development strategy.

- Enable the City to keep processing residents' food waste in the local area which is a key benefit of the project.

This report recommends that Council grant an exemption from tender for the provision of insect farming food scraps processing services as a satisfactory result would not be achieved by inviting tenders and that Council approve a contract variation for Insect Farming Food Scraps Processing Trial contract.

Recommendation

It is resolved that:

(A) Council approve an exemption from tender in accordance with section 55(3)(i) of the Local Government Act 1993 for provision of insect farming food scraps processing services as a satisfactory result would not be achieved by inviting tenders;

(B) Council note that a satisfactory result would not be achieved by inviting tenders for this work because:

(i) the City's current supplier for the Insect Farming Food Scraps Processing Trial is the only suitably licensed supplier operating in NSW that can process our food organics using this specific automated insect farming processing technology;

(ii) the market settings for food waste processing are currently lacking both capacity and technology capability due to under investment and lengthy planning approval and construction timelines;

(iii) it is not anticipated that any meaningful new food organics processing facilities will be established during the term of the proposed extension;

(iv) an extension of the Insect Farming Food Scraps Processing Trial contract will provide the opportunity to resolve processing challenges identified in the trial and test solutions; and

(v) the contractor, Goterra Pty Ltd, has confirmed that it can continue to provide processing capacity for the existing services at its purpose-built facility in Alexandria and therefore continue to provide a local solution for the City's food organics;

(C) Council approve a variation to the existing contract with Goterra Pty Ltd to extend the contract term for a further 18 months, with a revised expiry date of 30 June 2027;

(D) Council note the revised contract sum for the extended term is set out in the Confidential Attachment A to the subject report; and

(E) authority be delegated to the Chief Executive Officer to negotiate, execute and administer/vary the contract relating to the Insect Farming Food Scraps Processing Trial.

Attachments

Attachment A. Financial Implications (Confidential)

Background

1. Insect farming is a circular form of food waste processing that uses black soldier fly larvae to break down food scraps and convert them to beneficial products in the form of insect protein (dried larvae) and frass (larvae manure). The insect protein is used as animal feed for poultry and aquaculture and the frass is used as a fertiliser.

2. Insect farming technology has multiple benefits including positive greenhouse gas impacts and a relatively small facility footprint. Unlike other organics processing technologies, insect farming is quite new to Australia, has limited market players, and has been proven on commercial food waste but not with local municipal feedstock.

3. On 15 May 2023, via a Lord Mayoral Minute (LMM 3.2 - Insect Farming Trial for Food Waste), Council requested that the Chief Executive Officer investigate the feasibility of implementing a trial using insect farming technology to process food scraps from the City's residential food organics (FO) recycling service.

4. The main objective of the Insect Farming Food Scraps Processing Trial is to test the viability of this technology as a long-term processing solution for residential food waste in light of the requirement to rollout food organics recycling services to meet the 2030 NSW Government Food Organics and Garden Organics (FOGO) mandate.

5. An insect farming technology investigation was undertaken and completed in 2023, and in May 2024 the City signed a contract with Goterra Pty Ltd for a 12-month insect farming processing trial under exceptional circumstances.

6. Under the contract for the trial, Goterra committed to providing a purpose-built processing facility for the City in our local area at Alexandria.

7. Construction of the insect farming facility took just over 6 months to complete and the trial commenced on 6 January 2025 and is due to end in January 2026.

8. At the Council meeting on 17 March 2025, Council endorsed implementation of a FO service to all City households (Item 7.3 - Planning For a Food Organics Recycling Service to All Households) to meet the requirements of the NSW Government's 2030 FOGO mandate.

9. Results of the Insect Farming Food Scraps Processing Trial will inform the planned procurement for food organics processing services for the rollout of the FO service to all households. This procurement is planned to take place in 2026/27.

Insect Farming Trial Outcomes

10. To date, over 350 tonnes of food scraps have been processed in the trial with good diversion rates and low odour and contamination rates.

11. Reporting from the trial has provided the City with detailed and useful contamination data that we have not had access to previously.

12. The location of the trial facility in Alexandria has resulted in reduced travel time for our collection trucks resulting in operational efficiencies and financial savings (fuel and tolls).

13. Other positive outcomes have included a very favourable response from the local community and the project is supporting an innovative tech start-up company.

14. There are 2 main challenges of the trial. They are the inability of the current system to:

    (a) Process fibrous and dense peels and seeds from fruit and vegetables (e.g. avocado seeds, mango skins, and citrus peels).

    (b) Mechanically separate compostable bags (which cannot be consumed by the larvae).

15. The volume of peels and seeds not currently processed through the primary system is around 12 to 16% of the total volume sent for processing. Whilst this material and the compostable bags have been sent for secondary processing at composting facilities (so still diverted from landfill), the aim is for the insect farming technology to process as much as possible of the FO material to maximise the amount of frass and insect protein produced and minimise additional handling and transportation.

16. Goterra believes that with modifications to the current system and further testing, the current system challenges can be resolved. The recommended modifications are installation of:

    (a) An in-line macerator to pulverise the fibrous and dense peels and seeds from fruit and vegetables to a consistency that will allow this material to flow through the system to the larvae for consumption.

    (b) A de-bagging machine that will mechanically remove and separate the compostable bags.

17. These modifications to the current system would require additional costs and time beyond the scope of the current 12-month trial contract.

Recommendation for Extension of the Trial

18. The initial trial period is now over two-thirds complete, with the current contract set to end on 5 January 2026. A decision needs to be made now regarding extension or conclusion of the trial to allow for adequate time to plan, seek approvals, and transition to either of these outcomes.

19. It is recommended that the City extend the Insect Farming Food Scraps Processing Trial contract because:

    (a) An extension will provide the opportunity to install the recommended system modifications and test them to determine whether they can resolve the identified processing challenges.

    (b) It will allow additional time to further investigate and confirm the viability of this technology as a long-term treatment option for the City's residential food waste and ensure sufficient information has been gained to inform planned procurement for food organic processing services.

    (c) The trial has been very well received by the community and aligns well with many of the City's strategies.

    (d) Supporting innovation in business and start-ups aligns with the City's economic development strategy.

    (e) An extension will allow the City to continue to process our food scraps in our own local government area which is a key benefit of the project.

20. An extension term of 18 months is recommended as this will provide sufficient time for installation and testing of the proposed system modifications.

21. On completion of the contract extension (if endorsed), the City will be able to return to processing the FO from the food scraps service at EarthPower anaerobic digestion facility in Camellia under its existing organics processing contract with Veolia (which ends in June 2028).

Performance Measurement

22. Performance measures are in place with the current provider under the current contract. The provider has met the contract requirements and will be required to meet similar requirements as part of a contract extension.

Financial Implications

23. There are sufficient funds allocated for this extension within the current year's operating budget and future years' forward estimates.

Risks

24. If this proposal is not approved, the City risks:

    (a) not having adequate information to inform the planned procurement for FO processing services for the full rollout of the FO service to all households.

    (b) reputational damage as the trial is very well supported in the community.

25. The recommendation is within the City's risk appetite and tolerance because:

    - We embrace innovative solutions and emerging technologies that enable us to minimise environmental risks and enhance sustainability. We actively explore and invest in sustainable alternatives, renewable energy sources and efficient resource utilisation.

    - We recognise the increasing role that technology plays in the delivery of our services. We embrace innovative solutions and emerging technologies that enable us to improve services and utilisation of our resources.

    - We make decisions that align with our corporate objectives, policies and strategies.

Relevant Legislation

26. The exemption from tender process has been conducted in accordance with the Local Government Act 1993 and the Local Government (General) Regulation 2021.

27. Local Government Act 1993 - Section 10A provides that a council may close to the public so much of its meeting as comprises the discussion of information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business.

28. Attachment A contains confidential commercial information which, if disclosed, would:

    (a) confer a commercial advantage on a person with whom Council is conducting (or proposes to conduct) business; and

    (b) prejudice the commercial position of the person who supplied it.

29. Discussion of the matter in an open meeting would, on balance, be contrary to the public interest because it would compromise Council's ability to negotiate fairly and commercially to achieve the best outcome for its ratepayers.

Critical Dates / Time Frames

30. The existing contract ends on 5 January 2026. It is anticipated that if the recommendations set out in this report are adopted by Council, a contract variation to extend would be in place by that date to enable continuous services to be provided.

Options

31. Alternative options have been considered to ensure the continuity of the services provided under Contract 4213. These include:

    (a) Initiating a procurement process for the ongoing provision of insect farming processing services. This approach is not recommended as it cannot be undertaken before expiry of the current contract and, due to the stage of the current trial, it is unlikely to achieve better outcomes.

    (b) Concluding the trial in January 2026 at the end of the current contract term and reverting to processing the FO at the EarthPower anaerobic digestion facility in Camellia under the City’s existing organics processing contract with Veolia.

    This is not recommended as it will not allow the opportunity to install and test the recommended system modifications to address the identified processing challenges. Addressing these challenges will help assess how insect farming technology can work as a long-term treatment option for the City’s residential food organics.

Public Consultation

32. Extending the contract will maintain processing of the FO waste stream and achieve good environmental and waste reduction benefits. There will be no change to services to the community because of this contract and therefore public consultation is not required.

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