

FUTURE FOOD WASTE TREATMENT
WDA/47/24

Recommendation

It is recommended that:

1. Members note the findings of an independent report considering an 'optimal' approach to food waste management across the Liverpool City Region;
2. Members approve the proposal for the development of a report to explore and assess the implications and options of the findings of the independent report for MRWA and its future food waste treatment solution.

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FOOD WASTE MANAGEMENT ARRANGEMENTS

WDA/47/24

Report of the Chief Executive Officer

1. Purpose of the Report

- 1.1 To inform Members of the findings of a report commissioned by the LCR Waste Partnership exploring options for an optimised, 'circular' approach to food waste management across the City Region.
- 1.2 To recommend that work now be undertaken to explore and assess the implications of the independent report for MRWA's services and the options for taking those recommendations forward.

2. Background

- 2.1 At the September 2024 Authority meeting, Members were provided with an update to the changes in legislation regarding the separate collection of household food waste (Report WDA/43/24 – Food Waste Management Arrangements). Arrangements are now underway to ensure separate collection and treatment of food waste from households across Merseyside & Halton from the statutory date of 31 March 2026.

Current arrangements

- 2.2 MRWA, as the statutory Waste Disposal Authority (WDA) for Merseyside, provide waste disposal services (including transfer facilities, transport and treatment of waste) to the District Councils of Merseyside, plus to Halton through a separate agreement. MRWA are therefore required to provide the statutory services to Merseyside's District Councils for the management of any separately collected food waste.
- 2.3 MRWA currently fulfils this obligation through the Waste Management & Recycling Contract (WMRC) – with Veolia (ES) Merseyside & Halton Ltd. (Veolia).
- 2.4 Veolia are obliged under the terms of the WMRC to provide suitable disposal arrangements for any food waste separately collected by the District Councils of the Liverpool City Region (LCR).

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- 2.5 There is currently insufficient capacity in the north-west for the treatment of the quantity of food waste that is estimated may arise from household collections in the LCR once they commence in 2026. Veolia are therefore exploring options outside of the LCR where such capacity may be available from the statutory date of 31 March 2026.
- 2.6 The WMRC is due to expire in May 2029, with an option to extend the Contract Period by up to 5 years. The future of the services currently provided through the WMRC (which includes for management of separately collected household food waste) beyond May 2029 is the subject of the separate future services (or 're-procurement') project being led by Procurement Director, Steven Foster. The detailed project proposals were set out and approved by Members at a meeting in January 2024 (Report WDA/26/24 Procurement Update).
- 2.7 The project will include a review of the options for all services currently provided through the WMRC (such as the household waste recycling centres, transfer stations and materials recycling), and will also include the provision of food waste treatment arrangements in whatever form is eventually agreed.
- 2.8 The timetable for the above project is such that any agreed re-procurement of the services is not expected to conclude with a contract award until late 2028, with mobilisation taking place to new arrangements in early 2029 to align with the expiry of the WMRC (also taking into account any extension which may be agreed).

3. LCR Partnership – independent 'food waste strategy' report

- 3.1 In consideration of the requirement to implement the mandatory services (which for all except St Helens will be a new service), the LCR Waste Partnership commissioned an independent piece of work to examine what would constitute a 'best practice', 'optimal' food waste management system (including both collection and disposal arrangements), one that is efficient, low-carbon and 'circular' along with recommendations as to how could the Partnership transition to those optimal arrangements.
- 3.2 The authorities of the LCR Partnership are now considering the implications of, and their response to, the report's recommendations for each Council's own local circumstances.
- 3.3 The work, undertaken by WRM Ltd. (an independent business specialising in environmental and sustainability consultancy services) concluded that *"development of dedicated anaerobic digestion capacity within the LCR*

region and the use of a portion of the generated biomethane in the vehicle fleet...” would be the recommended, ‘optimal’ solution based upon detailed consideration of efficiency, environmental and economic benefits.

- 3.4 The report highlights that anaerobic digestion (AD) is the principal treatment technology used to recycle food waste into products which include biogas and biofertiliser. AD is the Government’s preferred treatment option for the recycling of municipal food wastes as it allows a number of specific benefits including the general of clean ‘biogas’ which can displace traditional fossil fuels, biogas which can be used in applications such as for food waste collection vehicles and that AD allows for capture of associated carbon emissions during the manufacture process.
- 3.5 There is at present very little available AD capacity within the north-west region with just one existing facility in the LCR (Re-Food in Widnes) currently unable to provide the treatment capacity for the expected arisings of LCR household food waste. Two further potential future options have been identified (Suez at Darwen, Lancashire and Iona at Southport), but neither have been constructed or commissioned and there is therefore limited scope for local competition in AD development for the foreseeable future.
- 3.6 There are therefore two current headline options for securing or delivering future food waste treatment capacity:
1. to procure existing operational facilities on a merchant basis;
 2. to develop (or instigate the development of) new infrastructure which would be developed specifically for the capacity requirements of the Partnership (plus any commercial headroom that might be of benefit).
- 3.7 Further work is required to examine what MRWA’s options are in relation to securing local AD capacity, as follows:
- i) Undertake a site/land search for potential options for construction of local AD capacity (i.e. within, or on the periphery of, the LCR);
 - ii) Market research to understand other potential developments which may be brought forward and/or market appetite for local development subject to any procurement exercise;

- iii) Consider what the financial business case looks like for the development of either option (be that MRWA's own facility or one provided by the market);
 - iv) Clarification of a specification for local AD provision, to include (potentially) for the provision of biomethane for use by LCR waste collection authority fleet (where this may be of local interest).
- 3.8 To fully understand the deliverability and implications of expediting the local food waste treatment project (as opposed to leaving it within the existing project), a detailed options analysis therefore needs to be undertaken.

4. Options & recommendation

Option 1: Continue with developing future food waste treatment options through the existing re-procurement programme timetable

- 4.1 At present, options for food waste treatment will be developed and delivered through the ongoing WMRC new services re-procurement project. This would mean any future food waste treatment options would be the subject of a procurement and delivery to follow an agreed expiry of the WMRC.

Pros: this approach will have no impact on the existing programme and will not incur additional cost for expediting a more detailed piece of work.

Cons: it will delay the opportunity to take advantage of any 'optimal' benefits that could be expected to arise from earlier development of a local AD solution and could risk non-alignment with the approach of other LCR Partners who may choose to develop a 'circular' approach sooner than later.

Option 2: Undertake a dedicated, parallel piece of work to expedite analysis of the issues and options available for development of local food waste treatment

- 4.2 There are benefits to having a local food waste treatment option, benefits which include reduced transport costs (and associated carbon implications) and the potential to use biomethane generated to fuel food waste collection (and/or other) Council fleet vehicles.
- 4.3 Pursuing the early development of a local AD solution will bring forward the benefits that will accrue from having a local solution by 2-3 years, and

further allow District Councils seeking to take advantage of any biomethane benefit to do so at an earlier stage.

- 4.4 However, clarity is required on the availability of a local solution, the separate costs of early development of such a solution and the potential impacts of such an approach on MRWA and the services it provides the LCR partners.
- 4.5 The following work would be undertaken as 'Phase 1' of the development of a proposal for a local AD facility:
- i) Site/land search within/on the periphery of the LCR to include potentially viable land on which to develop an AD facility;
 - ii) Soft market engagement to understand the appetite and potentially plans of market providers (including both merchant providers and those who may be interested in a 'design/build/operate' solution);
 - iii) Financial feasibility study to include analysis and business case for local food waste treatment options, including the various funding options and potential opportunities from Government subsidy (such as the Green Gas Support Scheme);
 - iv) Development of a specification for the local AD solution which would include such elements as production and use of biomethane, quality output of digestate (and local markets) and options for carbon capture and useage;
 - v) Preparation of a report to the Authority which recommends the next steps (Phase 2) which could include the commencement of a procurement to secure AD services &/or facilities

Pros: this approach will enable a more detailed understanding of the implications of the WRM report for MRWA and its services, and (subject to the outcome of that report) enable earlier adoption of a local, circular approach and realising those benefits some 2-3 years earlier than might otherwise happen.

Cons: this work will be an additional, unbudgeted cost estimated (for the Ph1 work) to be in the region of £100k - £150k consultancy support.

Recommendation

- 4.6 It is recommended that MRWA proceed with Option 2 and instruct the re-procurement project team (through Procurement Director, Steven Foster) to undertake options work and to prepare a report for a forthcoming Authority meeting (potentially either February or April 2025).
- 4.7 Upon completion, the report will be brought back to the Authority for consideration of the findings and recommendations, and approval of a 'Phase 2' for the development of a local AD solution which may include running a procurement programme to secure a new facility &/or service contract for food waste disposal.

5. Risk Implications

- 5.1 The following risk analysis has been considered in relation to this report:

Identified Risk	Likelihood Rating	Consequence Rating	Risk Value	Mitigation
Resource constraints	2	3	6	1. Advisory teams have sufficient capacity to assign resources to this programme
Inability to secure government subsidises	2	4	8	1. Green Gas Support Scheme is likely to be unavailable to this project; alternative subsidies may be introduced by government. 2. The business case will be tested on a 'no-subsidy' basis.
WCA collection delays creates lack of 'feed stock' for the disposal contract	1	4	4	1. Food waste collection is mandated by 2026 so this risk should not occur.
Existing contractor seeks compensation	3	2	6	1. Engage current contractor through the development process to seek a mutually agreeable solution.
Decision delays	3	3	9	2. Delays in decision making could result in MRWA

				incurring additional costs &/or losing subsidy support. MWDA to make timely decisions to support the programme.
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6. HR Implications

6.1 There are no immediate HR implications associated with the report.

7. Legal Implications

7.1 There are no legal implications associated with the report.

8. Environmental Implications

8.1 There are no immediate environmental implications associated with the recommendation in this report. However, the development of local AD capacity is expected to bring environmental benefit from both reduced transport miles (for LCR collected food waste) and production of biomethane which could potentially be used to displace fossil-based fuels (such as diesel) used in existing and planned District Council collection fleet.

9. Financial Implications

9.1 The recommendation to proceed with the option to develop a 'Phase 1 proposal' will result in additional unbudgeted project cost of an estimated £100k to £150k depending on the level of detail required to prepare the Phase 2 recommendation paper.

10. Conclusion

9.1 Members are asked to;

- i) note the findings of work commissioned by LCR Waste Partnership exploring options for an optimised, 'circular' approach to food waste management across the City Region;
- ii) approve the proposal for the development of an options report to explore and assess the implications and options of the findings of the independent report for MRWA.

Merseyside Waste Disposal Authority

22nd November 2024

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The background documents to this report are open to inspection in accordance with Section 100D of The Local Government Act 1972 - Nil.