

SURREY COUNTY COUNCIL**CABINET****DATE: 25 FEBRUARY 2025****REPORT OF CABINET MEMBER: NATALIE BRAMHALL, CABINET MEMBER FOR PROPERTY, INFRASTRUCTURE AND WASTE****LEAD OFFICER: SIMON CROWTHER, INTERIM EXECUTIVE DIRECTOR FOR ENVIRONMENT, PROPERTY AND GROWTH****SUBJECT: SURREY MATERIALS RECYCLING FACILITY, TRUMPS FARM****ORGANISATION STRATEGY PRIORITY AREA: GROWING A SUSTAINABLE ECONOMY SO EVERYONE CAN BENEFIT/ ENABLING A GREENER FUTURE/ HIGH PERFORMING COUNCIL****Purpose of the Report:**

A separate Part 2 report contains information which is exempt from Access to Information Requirements by virtue of Schedule 12A Local Government Act 1972, paragraph 3, "Information relating to the financial or business affairs of any particular person (including the authority holding that information)".

This report recommends that a full procurement exercise is conducted to underpin the development of a Full Business Case for a Materials Recycling Facility in Surrey, to manage and separate dry recycling produced by Surrey households.

This piece of work helps Surrey County Council meet its high performing council priority objectives, enabling a greener future and growing a sustainable economy so everyone can benefit priority objectives because it seeks to respond to on-going and forecasted changes in waste policy and legislation which will have a disproportionate impact on SCC's revenue budget.

Recommendations:

It is recommended that Cabinet:

1. Approves a procurement exercise for a new Materials Recycling Facility ("MRF") initiating support from legal, financial and technical advisors, including developing the Full Business Case for the facility.
2. Approves any legal agreements that are required to secure planning permission, approval is sought for the same, subject to the oversight of any such agreement by the Director of Law and Governance.
3. Delegates authority to the Interim Executive Director for Environment, Property and Growth Place, in consultation with the Cabinet Member for Property,

Infrastructure and Waste and the Executive Director for Resources to approve the finalised Procurement Strategy and commence the procurement exercise once the planning application for the MRF has been approved.

Reason for Recommendations:

1. In 2023, the Resources and Circular Economy Team (“RCE”) had a Strategic Waste Infrastructure Plan approved by Cabinet. This plan highlighted the lack of dry mixed recycling (“DMR”) treatment infrastructure available locally and noted the strain on the existing infrastructure. Since then, the team has been working on the recommendations within that report.
2. Surrey County Council’s (“SCC”) current waste infrastructure capacity is under significant pressure. Use of third-party sites to manage and separate recyclable materials collected by the District and Boroughs on SCC’s behalf has shown to be increasingly expensive and the service has no control over costs or the separation processes (Appendix 1).
3. Imminent waste legislative changes will dramatically alter the risk profile of SCC (as the Waste Disposal Authority (“WDA”)) and requires whole system thinking. The changes will result in SCC’s infrastructure capacity coming under greater pressure as will third-party Materials Recycling Facilities (“MRF”) which will further increase potential SCC costs. Liability for additional costs will fall to SCC, of which SCC would have no control. SCC will need greater control over its supply chain and associated infrastructure.
4. SCC are proposing the development of a MRF on SCC owned land at Trumps Farm, Chertsey. An outline planning permission application has been submitted and an Outline Business Case (“OBC”), presented herein has been developed. Determination is anticipated for May 2025.
5. The OBC outlined the key drivers for the development, which are:
 - a. Legislative changes in the waste sector will dramatically alter the risk profile of SCC as the WDA. The amount and type of recycling materials collected will both increase and change over time.
 - b. The need to be able to adapt and respond accordingly to this changing legislation.
 - c. The need to build resilience and self-sufficiency within SCC’s waste infrastructure network.
 - d. Limited infrastructure capacity within the existing SCC network and the region as detailed in Strategic Waste Infrastructure Plan (Cabinet April 2023)¹.
 - e. Budgetary pressures and the need to extract greater value for money from our services.

- f. The need for whole system and frictionless working with the District and Borough (“D&B”) Waste Collection Authorities (“WCA”) to drive efficiencies and improve performance.
 - g. Reducing the carbon impact of the service, by managing Surrey’s dry recycling where it is generated, rather than sending it to treatment outlets across the country.
6. Supported by pre-market engagement SCC proposes the development of a MRF that will:
 - a. process all dry recycling SCC is currently responsible for (c.90,000 tonnes), with the ability to take additional districts’ material;
 - b. not require any changes to the current District and Borough collection regimes, unless stipulated by legislative changes;
 - c. use greater technological processes, including Artificial Intelligence (AI) to increase the quality of material and recycle more, as well as futureproofing the facility by giving it greater flexibility in its operations;
 - d. likely seek a Design, Build, Finance, Operate, (DBFO) and Collaborate/Partner delivery mechanism, to provide SCC with the control needed to mitigate the changing waste landscape. Interface risks will be the responsibility of the supplier;
 - e. reduce SCC’s revenue costs as compared to the third-party offtake contracts.
 - f. be coterminous and available from the end date of the existing contracts.
7. A full procurement strategy will be developed once approval to go ahead with the project has been granted. This will be supported by further market engagement including interviews with interested parties to ensure a full understanding of what the market can offer. Delegation is requested to approve this strategy prior to commencing the procurement exercise.
8. Therefore, the recommendation to Members is to approve the procurement exercise for a Surrey MRF, including the development of the Full Business Case (“FBC”).
9. Further, it is important for SCC, to secure planning permission as soon as possible to inform the costs and liability consequences to be assessed in the FBC and as such Cabinet is asked to approve SCC entering into any legal agreement which may be needed to secure that permission subject to oversight by the Director of Law and Governance.
10. Following completion of the procurement exercise, the Full Business Case will be required to return to Cabinet, for a decision to progress the project further.

Executive Summary:

Background

11. Surrey County Council (“SCC”) is the statutory Waste Disposal Authority (“WDA”), for Surrey. Under the Environmental Protection Act (1990) SCC is responsible for the bulking, transport, treatment, and disposal of approximately 500,000 tonnes of waste, as well as the provision of Community Recycling Centres (“CRCs”).
12. Under this legislation District and Borough (“D&B”) councils are the Waste Collection Authorities (“WCAs”) and have a statutory duty to collect the waste produced by households in Surrey. This waste comprises four overarching streams: residual ‘black bag’ waste; dry mixed recycling (“DMR”) (paper and card, plastics, metal cans and glass bottles); food waste, and garden waste.
13. To manage these waste streams, SCC’s waste infrastructure portfolio comprises:
 - a. five Waste Transfer Stations (“WTS”) - where material is bulked before heading to a treatment or disposal facility;
 - b. 14 CRCs - where residents can bring waste that is not suitable for their kerbside collections;
 - c. an anaerobic digestion (“AD”) facility treating 40,000 tonnes per year of food waste;
 - d. a gasifier facility treating 55,000 tonnes of residual ‘black bag’ waste; and
 - e. in addition to these assets, a range of third-party WTS and treatment infrastructure are used to deliver the service.
14. In April 2023, RCE developed its Strategic Waste Infrastructure Plan which was approved by Cabinet. The report stated that:
 - a. SCC’s current infrastructure network is operating at capacity, with very little contingency.
 - b. There are limited, alternative, local facilities within Surrey and the surrounding region for bulking and sorting of recycled materials.
 - c. To build resilience and allow greater control over the material collected, the report proposed the development of a business case for a new Materials Recycling Facility (“MRF”) at Trumps Farm, on SCC land adjacent to the former landfill site that SCC is responsible for.
 - d. Approval to develop the Outline Business Case (“OBC”) and to submit a supporting planning application for a MRF, was granted.
15. MRFs are specialised processing facilities taking DMR collected at the kerbside by WCAs and separating mixed items like paper, card, plastic, metal and glass into single material streams. These streams are then sent on to reprocessors to turn into new products.

16. Whilst the primary purpose of a MRF is to sort DMR, the methods used can vary greatly depending on the composition of the inputs, age, and size of the facility. These sorting methods include:

- a. manual picking, with staff identifying and physically removing materials from a conveyor belt.
- b. mechanical interventions such as a drum, which rotates material through a screen, or an over-band magnet which separates metal containers.
- c. technology solutions such as using near-infrared light to gather information about material and object recognition for identifying objects in images or videos.
 - i. This software is then linked to physical interventions such as air sorters, which emit high-powered jets of air, or robotic pickers, both of which separate an item of recycling into the relevant material category.

17. Most MRFs operate using a blend of these processing methods. However, the advent of Artificial Intelligence (AI) means that sorting technology is being bolstered significantly, with identification and classification of materials continually improving, increasing the quality of material outputs which increases the value (Appendix 2).

Dry Mixed Recycling in Surrey

18. Surrey residents produce approximately 120,000 tonnes of DMR a year. Once collected by the WCAs, this material is taken to WTS across the county before it is bulked and sent to third-party MRFs. Currently the material is recycled at several MRFs across England and the South-East.

19. Under the Environmental Protection Act (EPA) 1990, all WCAs have the right to be responsible for the bulking and processing of their DMR, with the WDA required to pay a 'recycling credit' to the WCAs for delivering this function. Alternatively, the WDA can choose to direct the material, taking responsibility for its management and determining a recycling credit alternative

20. In 2017, SCC, in agreement with nine of the eleven WCAs took on the responsibility for managing the bulking and onward treatment of approximately 90,000 tonnes of DMR per year. These authorities are Epsom & Ewell, Elmbridge, Guildford, Runnymede, Spelthorne, Surrey Heath, Tandridge, Waverley, Woking. The two remaining WCAs, Reigate & Banstead and Mole Valley, opted to retain responsibility of their DMR.

21. The financial mechanism that was agreed in 2017, when SCC took responsibility for DMR from nine of the eleven WCAs, includes a mechanism to share gate fee savings where the third-party gate fee falls below £40 per tonne and in addition, WCA's bear 50% of the cost of disposing of any rejected loads. Whilst the quality of material presented by the WCAs does influence the gate fee, the most significant driver of the gate fee is the global price of commodities.

22. In the next phases of the project, SCC will consider how it can work more effectively with WCAs to increase the quality of recycling and maximise the material and monetary outcomes, ensuring that incentivisation appropriately drives the behaviours needed.

Role of Surrey Environment Partnership (“SEP”)

23. SEP is a non-binding working arrangement between the 11 WCAs and SCC. Its primary aim is to manage Surrey’s waste in the most efficient, effective, economical, and sustainable manner. The management of SEP and its activities are provided through the Joint Waste Services (JWS) contract team, hosted at Surrey Heath Borough Council. In 2018 SCC transferred a number of recycling administrative functions (WDA Partnership Functions) to JWS.

24. In 2024, SCCs Cabinet made the decision to return the WDA Partnership Functions to SCC, with the purpose of directly managing and delivering activities and interventions needed to improve recycling in Surrey. The risks posed by policy changes (below) will disproportionately affect SCC as the WDA, therefore it is crucial that these actions and interventions be administered by SCC to ensure its strategic objectives are met.

25. The benefits that this has on the proposed MRF includes:

- a. allowing a whole system view to be taken on necessary strategies, such as behaviour change initiatives and communication campaigns, to maximise the efficiency of the system and the proposed facility.
- b. giving SCC greater control over mitigating the financial impacts of the legislative changes and maximising the EPR payments received in line with effective and efficiency measures.
- c. providing direct oversight of DMR data for the facility, allowing SCC to respond in real time.
- d. identification of low performing (e.g. high levels of contamination) areas, specific to collection rounds, where targeted campaigns and initiatives can be developed.

Legislative Drivers

26. There are significant changes to waste policy being implemented imminently, notably:

- a. The **Collection and Packaging Reforms** (under The Environment Act 2021) will significantly alter the composition of Surrey’s waste, with changes to packaging types to increase recyclability of (mostly) plastic under **Extended Producer Responsibility** (“EPR”) and the requirement to collect a broader range of materials at the kerbside under **Simpler Recycling**.
 - i. EPR will mean that packaging producers will pay local authorities for the collection and disposal of waste. Payments will be received based on how effective and efficient a local authority is at

managing this waste. A Surrey MRF will allow SCC to maximise these payments by improving effectiveness and efficiencies.

- ii. Simpler Recycling will require WCAs to increase the types of materials they collect within their current kerbside collections, i.e. plastic film, flexible plastic pouches, cartons and aerosols. This will have a knock-on effect on SCC's waste infrastructure by requiring more space at WTS and requiring SCC to amend its dry recycling contracts, at a cost. The benefit of a Surrey MRF will allow SCC: to effectively manage these new material streams without incurring additional cost; to communicate with residents and influence behaviours based on real-time evidence; to have increased flexibility in the materials processed, as well as creating space within the WTS network; to meet its WDA Statutory Duty and allowing for further opportunities to increase recycling.
 - iii. Simpler Recycling will mandate businesses to separate the same materials as households for recycling collections (paper and card, plastics including film, cartons, glass and metal cans including aerosols). Whilst there is not a requirement on SCC or the WCAs for the provision of this service, this does present commercial opportunities to the MRF development, where appropriate.
- b. The introduction of the UK Emissions Trading Scheme ('ETS') for waste will place a levy on fossil fuel-based material (e.g. plastic) that is treated thermally through means such as Energy from Waste (EfW) and gasification. The RCE service estimates that this will add an additional revenue cost to SCC of up to £10m per year. The delivery of a Surrey MRF will work to mitigate these financial pressures by increasing recycling, particularly with regard to plastics and provide revenue savings which can offset these costs.

27. These legislative changes dramatically alter the risk profile of SCC (as the WDA) and requires whole system thinking. SCC's current infrastructure capacity will come under pressure as will third-party MRF facilities, further increasing potential SCC costs. The liability for additional costs will fall to SCC, for which SCC would have no control over. SCC is of the view that it will need greater control over its supply chain and associated infrastructure.

The Outline Business Case

28. As per the Strategic Waste Infrastructure Plan, SCC developed an outline planning application for the site, which was submitted in December 2024 (Ref: PP-13642829.).

29. Alongside this, an Outline Business Case (OBC) was developed in conjunction with external financial, technical and legal advisors and SCC colleagues in Procurement, Finance, Planning, Land and Property.

30. The strategic objectives detailed in the OBC are:

- a. As a **strategic investment** that reduces the overall cost to SCC as compared to the business-as-usual alternative.
- b. To **control material and be present in decision-making** that would give SCC the opportunity to adapt to further changes in policy, changing consumption habits, and to avoid flexibility costs, associated with outsourcing this service.
- c. To **increase capacity and improve resilience** that would alleviate pressure on the waste transfer station network and reliance on third-party contractors. This would provide a series of additional benefits including:
 - i. Flexibility in processing capabilities of new materials streams collected at the kerbside.
 - ii. Creating resilience within SCC's treatment network.
 - iii. Increasing direct delivery capacity and subsequently reducing any additional burdens on the WTS network.
- d. To improve the **quality** of DMR that would reduce contamination and maximise outputs. The additional benefits of this include:
 - i. Maximising EPR payments regarding effectiveness and efficiency.
 - ii. Greater degree of control over processing costs.
 - iii. Enabling a better understanding of, and planning for changes in, material value, associated with changing global demands.
 - iv. Enabling greater collaboration with WCAs to incentivise the collection of high-quality materials and invest in processes that will reduce levels of contamination.

31. To reduce the service's **carbon impact** associated with transportation by increasing direct deliveries and in-county treatment of dry mixed recycling.

32. In the development of this OBC, SCC conducted pre-market engagement ("PME") between October and November 2024. Consequently, the outcome of which allowed for the refining of the Surrey MRF proposal, as follows:

33. **Capacity** - The proposed facility will process up to 100,000 tonnes of dry mixed recycling (DMR) that is delivered by the WCA. Unless legislative changes require, SCC are not proposing changes to current collection regimes in place with the nine D&Bs for which SCC manage the DMR. The remaining capacity provides opportunities for additional income from the two remaining Surrey authorities or trade waste customers.

34. PME responses demonstrated that the market had the capability and experience in delivering MRFs of a similar or greater capacity to that proposed here (100,000 tonnes) and is capable of delivering the sorting technology required to meet SCC's needs.

35. **Technology** - The proposed facility will use greater technological processes, including Artificial Intelligence (AI) to increase the quality of material and recycle more. As well as futureproofing the facility by giving it greater flexibility in its operations.
36. AI technology has the ability to produce high quality recyclate from a mixed source of material. Using item recognition software and rapid action robotics, mixed dry materials can be picked out and sorted efficiently into single stream fractions for onward sale. AI also provides the flexibility required for the Surrey MRF as it can be reprogrammed to target different materials without the need for any physical modifications to the plant. The purity of outputs produced by this technology is superior to those produced from current third-party MRFs.
37. PME found that the market is deploying highly technological and AI solutions to sort material as standard in new MRFs, with older facilities retrofitting older technology and reconfiguring manual interventions (Appendix 2).
38. The responses indicated that the flexibility provided by AI-enhanced technologies is broad and easily achieved, with the ability to reconfigure quickly to meet the composition of the incoming material streams.
39. The PME suggested that this technology can provide the performance and futureproofing needed for the service, delivering high quality outputs and reducing the need for manual interventions, delivering a consistent and adaptable operation.
40. **Delivery Mechanism** - SCC will likely seek a Design, Build, Finance, Operate, (DBFO) and Collaborate delivery mechanism, to provide SCC with the control needed to mitigate the changing waste landscape, at the same time outsourcing interface risks.
41. A DBFO approach appoints a single private sector contractor to design, build, finance and operate and maintain the MRF. Once the asset is successfully commissioned, the authority pays the contractor a monthly payment which pays for the provision of services by the contractor, but also the recovery by the contractor (over a long-term contract period) of the capital costs it incurred in constructing and financing the construction of the asset. The use of the private sector to deliver waste infrastructure in this way has been used extensively in the last 30 years in the UK, including Cornwall Council and Suez, Hampshire Councils and Veolia, and West Sussex and Biffa.
42. The PME provided limited experience of delivering DBFOs specifically for individual MRFs as these are not traditionally developed by local authorities. However, there are numerous examples of the DBFO models use in waste infrastructure as above.
43. There are various permutations on how to contract with the market, which will be developed through the procurement process.

44. As collectors of material to the MRF, SCC is also exploring how best to incentivise WCAs to increase recycling and reduce contamination.
45. On approval, these options will be explored further during the next round of soft market testing.
46. **Economics** - OBC cost modelling by external financial consultants identified financial savings as compared to business as usual. This will be covered in Part 2.
47. **Procurement** - A full procurement strategy will be developed once approval to go ahead with the scheme has been granted. This will be supported by further market engagement including interviews with interested parties to ensure a full understanding of what the market can offer.
48. The proposed procurement route is to use the new Procurement Act 2023 'competitive flexible procedure'. This allows a process to be designed to best fit the scale of the project allowing SCC to engage with the bidders through negotiation or dialogue phases. Dependant on the size of the market, the process also allows SCC to down select bidders and will enable best value for money to SCC and ensure a suitable partner is procured.
49. **Timeline** - It is proposed that the facilities development is coterminous with the expiry of the material offtake existing contracts in 2029. This would alleviate the need to either a) seek alternative third-party infrastructure in the interim period, b) allow for whole system benefits to be realised in line with the re-procurement of all SCC infrastructure at the same time, most notably the waste transfer station network. This provides a four-year development period for the proposed facility, necessary to cover the property, planning, procurement exercise, construction and mobilisation.
50. The procurement of the design, build and operation of this facility will be separate from the re-tendering of the existing Suez waste contract, in order to be able to access the most suitable operator.
51. If the service commencement date is missed, the service would extend their existing arrangements on a short-term basis to ensure the collection and bulking of DMR continues in the interim period.

Consultation:

52. This work has been shared with Communities, Environment and Highways (CEH) Select Committee on 12th February 2025. The outcomes were that the CEH Select Committee:
- a. Welcomes the initiative to comply with the Environment Act (2021) and the re-procurement of the Council's outsourced waste management services.

53. As detailed above PME has taken place with potential suppliers.

54. A pre-application consultation was conducted in respect of the planning application for the facility. The public, Runnymede Borough Council and local members have all been consulted (Annex 1).

55. Through this process, stakeholders raised concerns about traffic and road safety, which have been addressed in the planning application. The output of a traffic assessment identified low vehicle movements, and traffic mitigation measures have been proposed in the application.

56. Further concerns were raised regarding:

- a. pollution, particularly odour - the proposed facility will not manage odorous wastes like food or black bags. Any environmental permit will require stringent odour measures to be in place.
- b. increased noise - noise monitoring via sensitive receptors placed near neighbouring properties, of which the closest were on Trumps Green Road (150m north) and Kitsmead Lane (300m south) established that potential increases in traffic noise would be negligible and that there would be no effects anticipated from construction occurring in the daytime and evening. Nevertheless, the facility may include noise reducing measures (e.g. acoustic screens and noise dampening linings for exterior surfaces) as a condition of the environmental permit.
- c. the loss of natural habitat. It is noted that the proposed facility will be located in the green belt. The site has been designated for waste activity in the Minerals and Waste Local Plan. As such there are requirements on biodiversity loss replacement, and a nationally mandated¹ requirement to increase biodiversity above 10% of the existing levels. Within the planning submission a plan to recover any biodiversity loss and then increase this by a further 10% have been included.
- d. impacting on Runnymede Borough Council's Net Zero efforts - the planned development will consider opportunities for carbon offsetting including proposed solar panels to the roof. Additionally, the facility will allow for greater carbon benefits to be realised by reprocessing DMR close to source, reducing carbon emissions associated with additional haulage as well as the facility itself increasing recycling for Surrey as a whole.

Risk Management and Implications:

57. Risks are set out in Part 2.

¹ Schedule 7A of the Town and Country Planning Act 1990 (as inserted by [Schedule 14](#) of the Environment Act 2021)

Financial and Value for Money Implications:

58. Financial evaluation of the OBC and the associated funding proposal is set out in Part 2. It should be noted that outcome of the OBC identified financial savings to SCC for developing a Surrey MRF.

Section 151 Officer Commentary:

59. The Council continues to operate in a very challenging financial environment. Local authorities across the country are experiencing significant budgetary pressures. Surrey County Council has made significant progress in recent years to improve the Council's financial resilience and whilst this has built a stronger financial base from which to deliver our services, the cost-of-service delivery, increasing demand, financial uncertainty and government policy changes mean we continue to face challenges to our financial position. This requires an increased focus on financial management to protect service delivery, a continuation of the need to deliver financial efficiencies and reduce spending in order to achieve a balanced budget position each year

60. In addition to these immediate challenges, the medium-term financial outlook beyond 2024/25 remains uncertain. With no clarity on central government funding in the medium term, our working assumption is that financial resources will continue to be constrained, as they have been for the majority of the past decade. This places an onus on the Council to continue to consider issues of financial sustainability as a priority, in order to ensure the stable provision of services in the medium term.

61. The MRF represents a significant long-term financial commitment to the Council. Based on the attached OBC the project is expected to deliver financial and other efficiencies over the operational life of the facility, when compared to the estimated business as usual position. The financial benefits are summarised in Part 2 to this paper and further explained in the OBC, and expressed in terms of overall cost, discounted net present cost, and cost per tonne. The OBC represents an estimated position, after taking advice from relevant specialist advisors. The proposed procurement process will facilitate the development of a FBC, on the basis of which Cabinet can decide whether to proceed with the project. The cost associated with developing that FBC is estimated at £1.86m, and it is proposed that this is funded from EPR grant which the Council has been notified of.

Legal Implications – Monitoring Officer:

62. The delivery of this project will require continuing and on-going internal and external legal support to facilitate an optimal outcome for the Council. Legal, contractual, environmental, and insurable risks will need to be considered in the FBC and through the procurement process and legal advice should be sought on high risk matters as they are identified and assessed. It is understood that the contract will not be awarded until the FBC has been assessed and approved by

Cabinet. Legal agreement/s may need to be entered into to secure the planning permission and Legal Services can support with those as required.

63. In procuring the services and works outlined in this report the Council must comply with the Council's Constitution and any relevant National legislation, alongside the Council Procurement and Contract Standing Orders (PSCOs) and the Public Contracts Regulations 2015 and the Procurement Act 2023, as appropriate.

Equalities and Diversity:

64. The EIA did not identify any potential for discrimination or negative impact, and all opportunities to promote equality have been undertaken (Annex 2).

65. As the proposed MRF will be an active waste processing site that will not be open to the general public, with blanket restrictions on public access to the facility. There is no impact on or need for the acknowledgement of any protected characteristic or any group within the public.

66. For staff operating the facility, we will deliver a compliant and considered procurement process that:

- a. Engages with bidders to inform and refine the process.
- b. Emphasises bidder adherence to the Equality Act 2010.
- c. Allows bidders to detail case studies and provide accreditation on their approach to equality.
- d. Gives appropriate weighting to Social Value to mitigate and counterbalance equality challenges posed by an active waste processing facility.

67. We believe this approach takes all reasonable measures to mitigate the risk of discrimination and / or negative impacts, promoting equality wherever possible.

Other Implications:

68. The potential implications for the following council priorities and policy areas have been considered. Where the impact is potentially significant a summary of the issues is set out in detail below.

Area assessed:	Direct Implications:
Corporate Parenting/Looked After Children	N/a
Safeguarding responsibilities for vulnerable children and adults	N/a
Environmental sustainability	An ESA has been completed (Annex 3).

	<p>The greatest environmental impact the MRF has on the areas listed in the guidance is on the site itself, with the development meaning the unavoidable loss of trees and habitat. However, Biodiversity Net Gain and tree assessments have identified several opportunities for mitigation which will form a key part of the design and procurement process, as well as satisfying planning requirements and nationally mandated targets to recover biodiversity loss and increase by 10%.</p> <p>The site is in a low-risk area for flooding and is at risk from climate change in a broad sense, meaning this will form a key component of the design process.</p> <p>Consumption of construction materials, water and energy as part of the build and operation is unavoidable. However, a highly considered and market-informed procurement strategy will incentivise mitigation of these impact.</p> <p>The primary purpose of the MRF is to produce high quality recycled material streams within Surrey, reducing overall vehicle movements and ensuring waste material is treated closer to source in line with SCC's strategic objectives; all of which mitigates the carbon impact of waste materials produced by Surrey residents and the significant resources required to handle and treat it.</p>
<p>Compliance against net-zero emissions target and future climate compatibility/resilience</p>	<p>SCC has developed a carbon model for monitoring the carbon impacts of the RCE service.</p> <p>The proposed facility will reduce the transport burden associated with out of county treatment therefore reducing the haulage required. Initial modelling at the OBC stage suggests a reduction of 4,500 tonnes of carbon per annum compared to the current operation.</p> <p>We anticipate further carbon savings associated with increased performance at the facility as compared with third-party MRFs coupled with a reduction in contamination through interventions and campaigns directly managed by SCC.</p>

	These scenarios will be modelled at Full Business Case stage.
Public Health	n/a

What Happens Next:

- 69. Officers will begin preparations for soft market testing in February 2025, followed by its role out and the subsequent development of the Procurement Strategy in anticipation of planning approval in May 2025.
- 70. Following delegated approval of the Procurement Strategy, SCC will look to appoint the necessary external support and commence procurement activity, namely document preparation to October 2025.
- 71. In parallel, this information will be used to support the development of the Full Business Case. It is anticipated that the procurement will be launched in October 2025 running for a full year to October 2026.
- 72. At which point the Full Business Case will be complete and will be taken (via the necessary channels) to Cabinet in November/December 2026 seeking approval to appoint the successful contractor and commence construction.
- 73. In the event that the Full Business Case does not provide value for money to SCC, the project would cease, and opportunities to recoup the money spent on development would be sought.
- 74. Delegated authority to the Interim Executive Director for Environment, Property and Growth, in consultation with the Cabinet Member for Property, Infrastructure and Waste is requested, for the approval of the finalised Procurement Strategy, once planning approval has been received. SCC would then start the programme of work relating to the procurement activity and engagement of consultant support.
- 75. Officers will provide an update to Major Project Board in May 2025 in the first instance and at regular intervals in the intervening time to November 2026.

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Consulted:

Public and Runnymede Borough Council Members, during the pre-planning application consultation.

Annexes:

Annex 1 Statement Of Community Involvement

Annex 2 Equalities Impact Assessment

Annex 3 Environmental Sustainability Appraisal

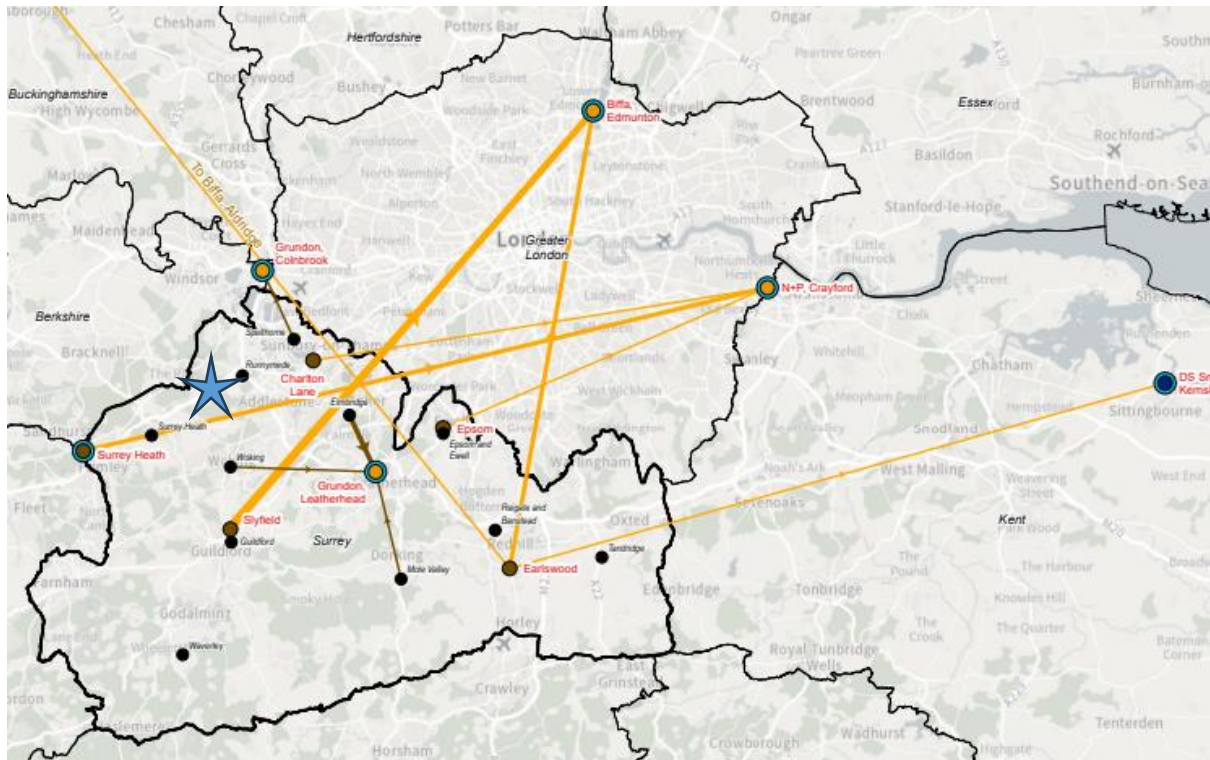
Part 2 report


Sources/background papers:

Cabinet Paper April 2023 - Strategic Waste Infrastructure Plan

CEH Select Committee, February 2025 – Resources and Circular Economy Service Update

Appendix 1: DMR Destinations, 2023-24



 Proposed Surrey MRF at Trumps Farm

Appendix 2: MRF Case Studies

MRF CASE STUDIES

Directly Relevant Case Studies

The inclusion of AI technology into the specification for the proposed Surrey MRF means that there are very few existing operating MRFs in the UK, or around the world that could be considered to be directly relevant to this project.

Sherbourne Resource Park, Coventry

Sherbourne Recycling Ltd's, Sherbourne Resource Park facility is one of the most recent, and arguably the most closely relevant development. Developed by Coventry City Council (CCC) who were considering the technical and economic viability of developing a large scale (c.175,000tpa) Materials Recycling Facility (MRF) to process household and commercial dry recycling collected by CCC and its Partner Councils, Walsall, Solihull, and the districts of North Warwickshire, Rugby, Stratford, Nuneaton and Bedworth. This facility which opened its gates in 2023, provides the opportunity for the region to increase recycling rates, enhance the quality of dry recycling outputs, deliver financial savings and increased landfill diversion in line with strategic objectives of the Councils.

The MRF process runs at 47.5 tonnes per hour and the facility comprises three main buildings: Reception Hall, Process Hall and Outfeed Hall, being 3,300m², 5,700m² and 2,850m² respectively.



The facility has adopted AI-driven technology, supplied by a Canadian Company Machinex, and is powered by renewable energy from roof mounted solar panels, and the private wire connection to the nearby Coventry energy from waste facility.

The integration of AI technology has significantly transformed material specifications enabling more precise and efficient operations by increased sorting efficiency (high

picks per minute) and recovery rates. The flexibility of the AI-driven sorting technology has been demonstrated in action by the ability to change product specifications overnight.



AI systems were able to detect and remove contaminants more effectively, ensuring recycled materials met higher purity standards. The purity of the recyclables produced has been excellent and enabled the Operator to achieve very good prices. As a result of this improved market value, it is expected that the MRF's customer base will expand in the future, generating greater revenue.

Furthermore, AI-enabled predictive maintenance has reduced downtime for equipment, increased worker safety and therefore keeps the facility running smoothly while minimising disruptions. Real-time access to operational data has also been instrumental in maintaining consistency in operations and to meet quality control and assurance requirements.

Rumpke Recycling and Resource Center, Ohio

This \$100 million facility is thought to be the largest and most technologically advanced recycling facility in North America, employing Machinex state-of-the-art recycling equipment including four ballistic separators, 19 optical scanners and Artificial Intelligence technology. However, the MRF employs 60 people in the recycling facility, with many involved in manual picking at various quality control and sampling points, which is not compatible with the ethos adopted by Surrey CC.



The facility can process 150,000-250,000 tons annually from nearly 50 Ohio counties, with processing speeds of 60 tons per hour. Expected recovery rates are 98%.

The MRF sorts all recyclable materials, including papers, cardboard, HDPE, PET, PP, and mixed plastics from local residential and commercial kerbside collections.

Interestingly, the facility incorporates a large manual sampling station, that has been designed in response to the local version of EPR, providing the opportunity for their customers to effectively measure their recycling programme's success or identify necessary adjustments.

The building is 226,000 square feet total (approx. 21,000m², which is slightly more than twice the footprint of the proposed Surrey MRF building).

FCC Environmental Services Dallas

The facility accepts comingled material from the city of Dallas and the city of University Park in Texas. The system was designed by Bollegraaf Recycling Solutions to bring Dallas closer to its goal of zero-waste by the year 2040. It successfully processed over 1,000 tons of material in its first two weeks and passed its required acceptance test for the city of Dallas prior to the contract start date of January 1st, 2017. The facility runs up to 35 tons per hour and produces recyclables of paper, cardboard, glass, plastic and metals.

MDR Reference Facility – Thornton, Dublin Ireland

Turmec Engineering manufactured and installed the DMR facility at Kileen Road, Dublin owned and operated by Thornton's Recycling in 2012, which was then upgraded in 2021 with additional and larger optical sorters. Thorntons requirement was to recycle and recover as much material as possible from the mixed waste and produce higher quality recycling material from the incoming tonnage with minimised manual input.



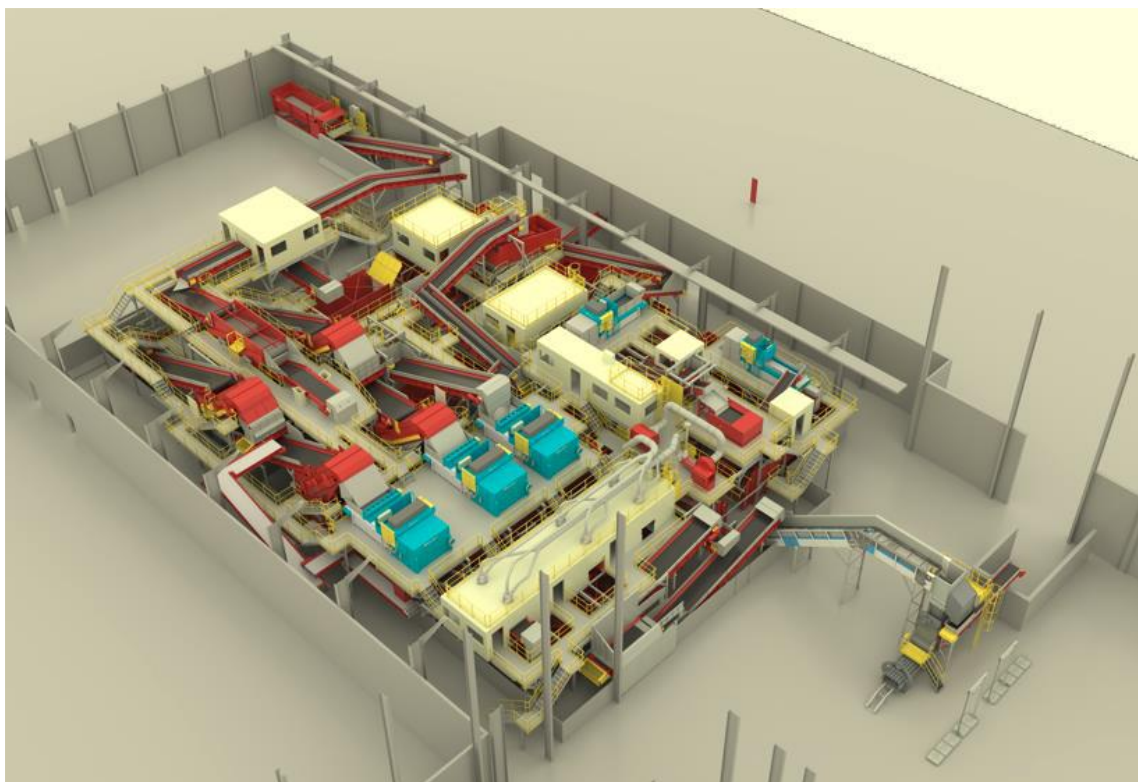
The plant receives 38,000 tonnes of materials per annum, with the operational throughput of 15 tph. The output streams are Mixed Paper, Newsprint, OCC, Ferrous and Non-Ferrous, PET, HDPE and Mixed Plastics.

No	Machine	Ejected Material	Ejection	Efficiency	Purity
1	Fibre Line Optical No. 1	Non-Fibre	Upwards	85-95%	< 5% Fibre Losses
2	Fibre Line Optical No. 1	Non-Fibre	Upwards	85-95%	< 5% Fibre Losses
3	Container Line Optical	HDPE	Upwards	85-95%	85-95%
	---	PET	Downwards	85-95%	85-95%
4	Container Line Optical No. 2	Mixed Plastics	Upwards	85-95%	85-95%

The plant operates with 85-95 % efficiency in its four optical lines. The plant produces materials with high purity, for example 85-95 % purity on Mixed plastic, HDPE and PET, and achieves less than 5% fibre losses from its two fibre lines, as shown in the table above.

DMR Reference Facility -Hills – Swindon

Turmec was commissioned to design, supply and install an advanced MRF plant in Calne, Swindon, for The Hills Group. The plant, completed in 2020 has the capacity to process 20 tph of DMR (no glass) received from kerbside collection from around 220,000 households across the region. It has the annual tonnage of approximately 80,000 per annum. The facility is equipped with various screens with optical sorters to maximise the recovery of Mixed Paper, Newsprint, OCC, Ferrous and Non-Ferrous (cans- steel & Aluminium), PET, HDPE, PTT and food cartons.



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