Surrey Material Recycling Facility: Environmental Sustainability Appraisal (ESA)

The proposed development of the Surrey MRF meets the requirements to conduct an ESA as recommended in the guidance, in that the MRF:

- requires a Cabinet decision; and
- is construction of infrastructure

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 valuable trees and habitat. However, a 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%.

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. Significant 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.

The primary purpose of the MRF is to produce high quality recycled material streams within Surrey County, 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.

Table 1 considers the key issues across the nine areas provided by the guidance, with

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Table 2 summarising issues and potential actions.

Table 1 – Key Considerations

Area	Comment
Risks from the environment	• The site lies within Flood Zone 1, which is land at very low risk of flooding (1 in 1,000 annual probability) • There is a wider risk to the infrastructure posed by climate change, exacerbating extreme temperatures and rainfall, however this is not specific or unique to the site. • Ensuring resilience to the risks posed by climate change to the construction and operation of the MRF will form a key part of the design and procurement process, with a specification informed by market engagement and discrete assessment of approach to contingency and resilience.

Designated conservation sites, protected species and biodiversity	• A site assessment established that there are:
	  ○ Five internationally designated statutory ecological sites within 10 km of the site.
	  ○ Three nationally designated statutory ecological sites within 2 km of the site.
	  ○ 11 ancient woodlands within 1 km of the site
	  ▪ Of these, one is located within the site boundary
	• A Biodiversity Net Gain Assessment has been undertaken which has established that the development will result in a loss of biodiversity and mitigation measures are being developed as part of the planning and design process to meet SCC's target of greater than 10% BNG and align with national legislation.

Materials and Water	• A significant but unavoidable amount of material will be used in the construction of the MRF. To mitigate the environmental impact this poses, the procurement strategy will detail how suppliers' approach to sustainability and sourcing of materials will be specified and assessed. This will include:
	  ○ Company policies and procedures on sustainability
	  ○ Accreditations / certification e.g. Building Research Establishment Environmental Assessment Methodology (BREEAM)
	  ○ Supply chain management and due diligence
	  ○ Track record on sustainability from previous projects
	  ○ Any case studies on rectifying / furthering sustainability in their company / operations
	• The operation of the MRF will require water use and the bidders' approach to sustainable consumption will be assessed through the procurement process and monitored as part of the operational reporting protocol.

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Area	Comment
Waste	• The primary purpose of the MRF is to process dry mixed recycling into separate material streams for reuse. The aim is to construct a technical solution deploying advanced sorting technology bolstered by Artificial Intelligence to improve recycling rates, achieving a purity level of over 97% and greatly reducing the amount of material sent for disposal as residual 'black bag' waste. • The operator will, as part of the procurement process, be required to state how they intend to minimise waste produced through their operation e.g. by staff in welfare facilities etc.
Energy	• The MRF will use a significant amount of energy, and this is unavoidable given the type of operation. However, the procurement of the MRF will assess adherence to all relevant planning policies e.g. Policy 13: Sustainable Design (Waste Local Plan). • The procurement process will incentivise mitigation of energy consumption, with high efficiency designs given greater weighting as part of the assessment process. Ongoing market engagement will inform the approach to procurement, assessing established and emerging technologies that could be deployed as part of the operation, along with key interventions such as solar panels on the roof of the MRF. • Energy consumption and mitigation will form a key part of the overall performance reporting of the operation.

Transport	• Vehicle movements will increase in the local area because of the MRF, both during construction and operation. However, there will be a reduction in overall vehicle movements within Surrey as the MRF reduces the reliance on interim facilities where material is bulked for onward transport to MRFs outside of Surrey
	• A traffic assessment established that there would be an increase of less than 8% to the total traffic in the local area and separate noise and air quality assessments have been undertaken resulting from this forecast increase:
	  ○ The noise assessment established that elevated noise levels from traffic would be *'negligible'*
	  ○ The air quality assessment indicated that the increase in traffic is *'far below the traffic threshold at which material ecological impacts are expected'* and the impact on air quality will be *'inconsequential'*.

Area	Comment
Landscape and trees	• A tree assessment identified all trees within the site, concluding that the majority of trees contribute significantly to the site and local amenity. A tree constraints plan has been developed, identifying which trees can satisfactorily be replaced and which high value trees should be protected and retained where possible. ○ An arboriculturist will advise on design as the process progresses and an Arboricultural Impact Assessment has been submitted as part of the planning application • A Landscape Visual Appraisal conducted for the site concluded that *'there would be no likely major or moderate important landscape or visual effects during either the construction or operational phases of the proposed Development.'*
Heritage	• There is no impact on heritage as per extract from planning statement: ○ *'Proposed Development would not negatively affect any heritage assets given that the Site does not coincide with any Scheduled Monuments, World Heritage Sites or Listed Buildings, or any local level heritage designations.'*
Education and awareness	• The MRF and its processes will form the core of messaging to Surrey residents to improve recycling and material quality collected at the kerbside. • The RCE service is focussed on securing Social Value returns on all its contracts and the MRF will offer the opportunity for initiatives such as school tours to learn about the processes. The social value requirements for the MRF will be developed as part of the procurement strategy, however it offers a significant educational opportunity.

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Table 2 – Actions

Area	Relevant Topic?	Issue	Possible Action
Risks from the environment	Yes	• Wider risk posed by climate change	• Ensuring resilience to the risks posed by climate change to the construction and operation of the MRF will form a key part of the design and procurement process, with a specification informed by market engagement and discrete assessment of approach to contingency and resilience.
Designated conservation sites, protected species and biodiversity	Yes	• Loss of habitat as a result of development	• Mitigation measures identified as part of the BNG assessment to be enacted once agreed.
Materials and Water	Yes	• Significant material used in construction	• Procurement strategy to detail how suppliers' approach to sustainability and sourcing of materials will be specified and assessed.
Waste	Yes	• Waste is fundamental to project	• Development of technical specification and procurement strategy informed by the market to secure a high-performing recycling facility that meets SCC's strategic objectives
Energy	Yes	• Will use significant amounts of energy in operation	• Procurement strategy to incentivise mitigation of energy consumption, with high efficiency designs given greater weighting as part of the assessment process. • Consider energy consumption and mitigation to be incorporated into reporting mechanisms and performance framework
Transport	Yes	• Increase in local traffic (reduced	• Ensure wider service is kept under review to maximise efficiency and vehicle use to reduce movements wherever possible

Area	Relevant Topic?	Issue	Possible Action
		movements overall)	
Landscape and trees	Yes	• Loss of valuable trees and habitat due to development	• Mitigation measures identified as part of the BNG and tree assessments to be incorporated into design and procurement process
Heritage	No	• n/a	• n/a
Education and awareness	Yes	• Opportunity to bolster education and awareness	• Communications to residents will be developed with MRF operation at core as part of wider SCC engagement and improvement strategy • Social value to be fed into procurement strategy

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