

Kirklees Council Outline Business Case



Report for

Kirklees Council

Main contributors

XXXX	
XXXX	
XXXX	
XXXX	
XXXX	
хххх	

Issued by

XXXX

Approved by

XXXX

Wood Group UK Limited

.....

Block 2, Level 1 Booths Park Knutsford WA16 8QZ United Kingdom Tel +44 (0)1565 652100

Doc Ref.

https://kirkleescouncil.sharepoint.com/sites/wood-obc/shared documents/obc/report/2021.10.07 waste disposal obc draft v5a (002).docx

Draft report disclaimer

This report has been prepared in a working draft form and has not been finalised or formally reviewed. As such it should be taken as an indication only of the material and conclusions that will form the final report. Any calculations or findings presented here may be changed or altered and should not be taken to reflect Wood's opinions or conclusions.

Copyright and non-disclosure notice

The contents and layout of this report are subject to copyright owned by Wood (© Wood Group UK Limited 2021) save to the extent that copyright has been legally assigned by us to another party or is used by Wood under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report. The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of Wood. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

Third party disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by Wood at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. Wood excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

Management systems

This document has been produced by Wood Group UK Limited in full compliance with our management systems, which have been certified to ISO 9001, ISO 14001 and ISO 45001 by Lloyd's Register.

Document revisions

No.	Details	Date
01	Draft Outline For Review	10-5-21
02	First Draft For Review	22-7-21
03	Bevan Brittan High Level Review of legal aspects. LH review.	31-07-21
04	Clean Copy (incl some comments). WA amends.	06-10-21

05	Clean copy with some comments. for finalising.	07-10-21
06	Tracked copy addressing comments	15-10-21
07	Updated with officer inputs	21-10-21

Executive summary

This Outline Business Case (OBC) was developed to support Kirklees Council to identify the optimal route for the procurement of a new waste treatment and disposal Services Contract. The draft project definition is that the preferred option must "Deliver a compliant and reliable waste service, suitable for the next 15 years, flexible to adapt to statutory changes, and supporting Kirklees aspirations for social value, climate change, affordability and environmental protection."

The assumed starting point is that the Council will continue to enjoy the benefits of the existing waste management infrastructure secured under their PFI contract after it reverts to the Council on natural termination of the contract. Consideration of options that do not seek to utilise the existing infrastructure were examined by the Council earlier in the process.

The original contract expiry date was 31st March 2023. This OBC takes account of these interim arrangements and it is assumed that there will be a smooth exit from the existing contract in 2025.

The current integrated contract included for the design, build, finance and operation of the following facilities or services:

- Energy from Waste facility (EfW)
- Materials Recovery Facility (MRF)
- 2 x Waste Transfer Stations (WTS)
- 5 x Household Waste Recycling Facilities (HWRC)
- 1 x Transfer Pad (for garden and other wastes)
- Management of 2 x landfill sites (now closed)

The nature and layout of these facilities is such that the various services and activities are closely interlinked, as it was designed as an integrated service. There are two critical sites for the delivery of the Contract:

- Diamond Street houses the EfW, MRF and the WTS in the south
- Weaving Lane houses the WTS in the north and HWRC.

Wood Group carried out condition surveys of these two key facilities to determine the status of the plant and the degree and extent to which maintenance has been completed by the current contractor. A summary note on these visits is included in **Appendix D**.

There are a range of new and emerging national and local policies that will impact or influence the provision of the new services. An Environment Act is expected later in 2021 and will take forward and legislate the measures and proposals outlined in England's Resource & Waste Strategy. It is currently not clear what systems the Government will chose to implement or their implementation timetable. The scope of funding support to Local Authorities also remains uncertain.

It is likely that these policies will affect the delivery of local waste services, more specifically the types and quantities of waste and recyclables being collected and bulked, the level of income from sales of recyclables, and waste composition changes to the feedstock for the EfW. These changes will also affect the direct and indirect carbon emissions, both positive and negative, from the waste service. This presents some risk; therefore, the Council will need to dialogue on this topic with bidders and seek to retain flexibility in future service provision to enable the implementation of any required changes.

The total Municipal Waste generation in 2019/2020 was 189,058 tonnes. Data from a compositional survey of household and HWRC waste streams was used in modelling the assumed future tonnages, and the potential to further increase recycling rates.

The SBC set out three options for packaging of the services as follows:

- Integrated Contract
- Multiple Disaggregated Contracts
- Disaggregation with some services delivered in house.

The detailed configuration of each of these options has been refined through the process of developing this OBC. There are three key factors that have informed the evolution of the options:

- Considerations on site constraints
- Considerations on in-house services
- Considerations on food and garden waste treatment

The Diamond Street facility currently consists of an Energy from Waste (EfW) facility, Transfer Station (WTS), and Materials Recycling Facility (MRF). The key issues which make splitting the Diamond Street site complex are;

- Vehicle Access single weighbridge operator.
- Vehicle Tipping –shared tipping hall area for the MRF, WTS and EfW.
- H&S Responsibilities difficult to align clear H&S responsibilities across different contractors in the same area, if the MRF and WTS are under the control of different contractors.
- Insurance The MRF and WTS are the same large open structure, which is connected directly to the EfW bunker. It is not clear how separate insurance policies to cover the building can be provided.
- Drainage The site is understood to have a combined drainage system. This would require review and potential upgrades to "split" the site.

Based on the original design intent for an integrated site, it is recommended to keep the Diamond Street site operating as a single integrated site.

The Weaving Lane facility currently consists of a Transfer Station (WTS) and an external Household Waste Recycling Centre (HWRC). It is considered feasible to split the HWRC and WTS activities on the site by, by for example modifications for a new access gate to allow direct access to the HWRC lower yard without passing through the WTS yard, and installation of new drainage systems and trade effluent discharge permits. Any requirements for bulking of HWRC materials in the WTS service yard would need further investigation.

Three waste management assets are accessed from Emerald Street – a HWRC, waste transfer pad, and the Council's depot for waste services. It is currently used for bin storage, trade waste vehicles street sweeping vehicles and office space. The pad is only accessible from the HWRC and it would be challenging to separate it out into a separate contract due to the impact on HWRC operations during access. There are also natural synergies with the HWRC service which also generates garden waste. It is therefore recommended to package the transfer pad and HWRC together.

The OBC workshop consultations identified several shortcomings and frustrations within the current services delivery model. Of particular concern were issues around the inflexibility of the existing arrangements to allow rapid endorsement of service variations in the light of changing circumstances, the absence of transparency around the realisation of the optimal value of recyclable materials and the

difficulties in ensuring the quality of services over time. The possibility of the Council taking control of all or part of the services, and thereby being able to operate with greater flexibility to meet changing circumstances was therefore considered to be of interest.

Insourcing or delivery in-house is when a service is under the control of the Council. Kirklees currently utilise a Direct Services Organisation (DSO) for the delivery of their waste collection services. There are a number of options for the delivery of waste management services by a Council directly, including various forms of Local Authority Trading Companies (LATC) which have greater potential to generate third party income.

Various criteria for insourcing versus outsourcing have been considered. In summary, the conclusion on whether it is considered preferable to continue to outsource each service area, or to bring it in-house, is as follows;

- **HWRC** Potential to in-source, but more detailed analysis required.
- Landfill monitoring- In-source with direct council operations
- Garden waste treatment Continue to outsource via waste disposal contractor arrangements (Note: local reception at Transfer Pad co-located within HWRC. Transport from pad to TLS/market to be arranged by contractor)
- Food Waste treatment Continue to outsource
- EfW, MRF, WTS Continue to outsource

It is recommended that the HWRC and Landfill Monitoring services be removed from the main waste services contract and subjected to further detailed consideration as to whether in-house or contracted out operational models best align with the medium-term aspirations of the council. This has been carried through into **Option 3**.

It is recommended that the procurement for waste treatment includes for the treatment of green waste and garden waste via third party composting facilities. However, the new treatment contract should include provision for this service element to be terminated (with sufficient notice) in event that the Council identifies it could realise lower costs, enhanced service delivery or greater flexibility through a direct procurement with specialist providers or in association with neighbouring authorities. These are issues that could be dialogued with bidders to explore the impact of such a variation. It is noted that the Council would bear some risks on interfaces with this arrangement, as the HWRC and associated transfer pad would sit outside the main contract in **Options 2 and 3**.

During the development of the SBC the Council held workshops to identify qualitative evaluation criteria for the assessment of the three technical options. The assessment of the commercial options considers the following criteria:

- Market interest: Will the option attract competitive bids?
- Financial (qualitative): Do the options incur differential costs or risks?
- Consents: How the options effect the site waste permits?
- Interfaces: How will Contracts/Lots interact with one another?
- Procurement: How complex/demanding is the option to procure?
- **Contract management and flexibility**: How complex/demanding is the option to manage, and how much flexibility is there for change?

• Asset management and Operational Skills: Who will fund and take risk on facility maintenance and upgrades, and does the operator have the required personnel skills?

The assessment of market interest was based on the views and experience of the project team, and includes information gathered from Soft Market Testing (SMT). A summary of the SMT results is provided as part of the Risk Workshop presentation slides (as reproduced in **Appendix E**).

A financial model was developed for the OBC, with the accompanying model provided in **Appendix C**. The workshop discussions concluded that no appetite exists for Option 2. Therefore, it was not financially modelled.

Option 1 assumes the Council reprocures all existing services within a single integrated contract. The timings of future potential changes to recycling services are built into the model. However, the cost of any new investment to accommodate these changes e.g. MRF, EfW, glass, HWRC, food, are not accounted for in the financial model. A future decision is required on whether the Council, or contractor, should finance these capital works.

A service cost model was developed to estimate the contractor's costs in delivering the waste treatment and disposal contract.

The MRF will require additional resources to support changes to the Environment Bill which will require separation of more material types in the MRF such as cartons and plastic pots, tubs and trays. This cost is not included within the financial modelling and will managed in a separate budget.

Associated amendments to waste reception infrastructure would be required for glass and food waste collection, so a provisional capital allowance has been allocated for the two Waste Transfer Stations.

The Council has an ambition for improved recycling performance at the HWRC sites. This will be subject to further consideration and design. This cost is not included within the financial modelling and will managed in a separate budget.

A further detailed assessment needs to be undertaken to fully understand the benefits of in-house or a contracted-out operation within a separate HWRC contract. However, the preliminary financial assessment indicates that this is a more costly option than letting a single integrated contract.

At the various workshops the configuration and risks associated with each option were discussed. A consensus emerged which coalesced around Option 3 as the preferred option. This option continues to have the ability to meet the selection criteria identified at the SBC stage (see Appendix A, section 3.6). Reasons the other options were not preferred were:

Option 1 (integrated):

- Performs poorly on the "contract management and flexibility" criteria for the HWRC and Landfill Monitoring service.
- There would be a reduced frequency of re-procurement to test best value on HWRC/landfill elements
- Contractors can lose focus on the smaller HWRC service elements compared to the larger treatment facilities (EfW/MRF), and it is challenging to incentivise them in a proportionate manner for this more public facing service.
- Whilst it is cheaper to integrate the HWRC service in Option 1, having it as a separate service in option 3 allows flexibility in the ability to modify service requirements as they change over time.



• The additional cost within Option 3 is largely enhanced pension costs if the service were run in-house (an outsourcing option could still be used), which is a positive societal contribution compared to potentially lower private sector pension costs.

Option 2 (Lots):

- Some of the separate packages may be too small for bidder interest.
- Higher procurement costs/complexity for up to 6 contracts.
- Council has to procure and monitor multiple contractors and interfaces.
- The Council would have to act as mediator for shared-site issues between contactors

Soft Market Testing and collective market intelligence from team members identified market constraints. Preferred Option 3 which requires waste contractors with experience in the operation and maintenance of EfW, MRF and WTS facilities and associated waste management services would be needed may only be of interest to XX to XX companies, and they will take a view on competing priorities and project risks when Kirklees goes to procurement, and one or more may choose not to bid.

The SMT exercise has suggested that there may be a larger potential bidder field for an EfW-only contract. However, the feasibility of being able to offer such an opportunity remains uncertain and would require detailed investigation of whether the MRF element could indeed be split out due to the physical and operational characteristics of the current site arrangement, and difficulties in sourcing site drawings and data. The extension to the current contract will facilitate this further investigation, and also allow further market engagement with specialist providers who did not respond to the original SMT. There may be also be potential for various companies to team up to provide a semi-integrated service (EfW + MRF + WTS), but no respondents flagged this opportunity in the SMT.

Under a separate project the Council is developing the business case for a heat network which aims to distribute low-carbon heat and electricity from the Energy-from-Waste facility to premises across the town centre. This network would be outside the scope of this procurement. However, there are technical considerations in retrofitting the current EfW which would need to be addressed in dialogue, and commercial and legal implications of connecting a heat network to the EfW.

The OBC assumes that the procurement of new suppliers for the delivery of waste services for Kirklees will allow the award of new contract(s) prior to the expiry of the existing contract, with commencement aligned to be immediately after expiry of the existing arrangements. The original contract was scheduled to conclude on 31 March 2023. Interim arrangements included a short contract extension of 2 years, taking the contract end date to 31 March 2025. An incumbent contractor would therefore be expected to take control of sites from 1st April 2025.

The various procurement routes available are explored. Experience within the waste sector would suggest that the following 2 procurement procedures are extensively used and the process understood by potential participants in the tender process;

- competitive dialogue (CD)
- competitive procedure with negotiation (CPN)

Both these procurement routes will allow for solutions to be developed in discussion with contractors, ensuring that value for money is achieved and that Council's objectives are met within medium to long term contracts awarded.

Under the CPN there is no opportunity to negotiate during the initial tender stage. It is only after submission that the negotiation begins. This can limit the ability of tenderers to fully understand the Council's views on solutions or approaches. It is recommended that further consideration be given to the use of the **Competitive Dialogue** procedure within the forthcoming procurement. This will allow dialogue to be conducted prior to the initial tender such that tenders do not embark on sacrificial work or develop solutions that are not reflective of the Councils' wishes or needs.

A project timetable that has been prepared assumes that the procurement will commence in autumn 2022, allowing 9 months for a pre-procurement phase. An 18-month period is proposed for the procurement process leading up to identification of a preferred bidder. Approximately 3 months is allocated to contract award, and 6 months for a mobilisation and TUPE process. Including contingency time, this timetable allows over 3 years from OBC approval in December 2021 to commencement of new services on 1st April 2025.

The successful progression into the procurement phase is predicated upon a number of factors including:

- Council approving OBC in December 2021.
- The Council has delegated the appropriate powers to allow the procurement to run, which would need to include an interim review or scrutiny before presentation for final endorsement or approval prior to contract award.
- By Autumn 2022, the Council is able to mobilise a procurement team, develop their tender strategy and data room, draft the principal documentation including, but not limited to, instructions to bidders, the proposed agreement and conditions of contract, detailed specifications, payment mechanism and performance management system, etc.
- In 2022, the Council taking clear and rapid decisions on risk sharing principles for the new contract, possibly without full or definitive information, to facilitate document drafting.
- Targeted dialogue, with bidders not raising issues which extend the number of meeting cycles required.
- A high quality of bid submissions which do not require significant dialogue or refinements following evaluation feedback.
- Where required external assurance will be provided by Local Partnerships, other local government associations will also be tracking progress through the Department for Environment, Food & Rural Affairs (DEFRA) Waste Infrastructure Delivery Programme (WIDP) contract management review and the Infrastructure Projects Authority (IPA) expiry health check and review.

Internal Council structures to manage the procurement project have been established. Technical subject matter expertise will be provided within the project and additional assurance is to be provided by the Waste Transformation Board & the Council's transformation team.

The contract expiry process will need to be managed alongside daily operations, putting pressure on internal resources as contract expiry will be resource intensive and requires specialist skills and knowledge. Support from internal and external technical, legal & financial services will also be required. Due to the long-term nature of waste contracts it is essential that robust record management and handover processes are in place to ensure knowledge of the contract is retained within the organisation.

Contents

1.	Background	13
1.0	Introduction	13
1.1	Current Services1.1.1Emerging drivers for waste management1.1.2Environment Bill	13 17 18
1.2	Overview of Strategic Business Case	20
1.3	Purpose of Outline Business Case	20
2.	Waste Arisings	22
2.0	Introduction	22
2.1	Baseline Arisings	22
2.2	Model Assumptions2.2.0Waste Composition2.2.1Waste growth2.2.2Future performance assumptions	23 23 23 24
2.3	Future waste flow projection	24
3.	Delivery Options	26
3.0	Development of options from SBC to OBC	26
3.1	Considerations on site constraints3.1.0Diamond Street Site3.1.1Weaving Lane Site3.1.2Emerald Street Site	26 26 28 29
3.2	Considerations on In-house services3.2.0Introduction3.2.1Overall comparison on outsourcing versus in-house options3.2.2Evaluation per waste service area	30 30 30 34
3.3	Considerations on food and garden waste treatment3.3.0Food waste treatment3.3.1Garden waste treatment	36 36 36
3.4	Option 1: Single Integrated Contract	38
3.5	Option 2: Lots	38
3.6	Option 3: Limited Lots	39
4.	Options Assessment	41
4.0	Qualitative Evaluation Criteria	41
4.1	Assessment of Options4.1.0Market Interest4.1.1Financial Assessment4.1.2Consents4.1.3Interfaces4.1.4Procurement4.1.5Contract Management and flexibility4.1.6Asset Management and Operational Skills	41 41 43 44 45 46 48
4.2	Financial Assessment of Options	49

	4.2.1 Fi 4.2.2 Fi 4.2.3 Fi 4.2.4 Su	nancial Assessment of Options nancial assessment Option 1 nancial assessment Option 3 ummary	49 50 50 50 50
4.3	Selection	of the Preferred Option	50
5.	Preferr	ed Option	53
5.0	Preferred	d Option interfaces	53
5.1	Technica 5.1.0 Co 5.1.1 Fi	l considerations ontract duration exibility of facilities	54 55 56
5.2	Risk man	agement	57
5.3	Market C	Competition	58
5.4	Environm 5.4.0 W 5.4.1 Tr 5.4.2 He	nental protection /aste treatment ransport eat network	59 59 59 59
5.5	Capital In 5.5.0 Ef 5.5.1 M 5.5.2 GI 5.5.3 Fc 5.5.4 H	npact fW Operation IRF Modifications for sorting of Cartons and Plastic Pots Tubs and Trays lass Collection pod Waste Collection WRC Upgrades	60 60 60 60 60 60
5.6	Financial	Issues	61
5.7	Procurem 5.7.0 Pr 5.7.1 Co 5.7.2 Co 5.7.3 Re	nent Approach rocurement Options ompetitive Dialogue Procedure ompetitive Procedure with Negotiation ecommended procurement route	61 61 61 62 63
6.	Contra	ct Management	64
6.0	Timetable	e/Programme	64
6.1	Governar	nce Structures	66
6.2	Management Structures6.2.0Council Oversight and Governance6.2.1External and internal Support		67 67 68
6.3	Procuren	nent Strategy	68
	Figure 1.1 Figure 1.2 Figure 3.1 Figure 3.2 Figure 3.3 Figure 3.4 Figure 4.1 Figure 4.2 Figure 5.1 Figure 6.1 Figure 6.1	Current Contract Facilities Current Waste Contract Structure Emerald Street Option 1 service map Option 2 service map Options Assessment Qualitative Criteria Summary SMT results Preferred Option service map Preferred Option service map Project governance structure Project management structure	14 15 29 38 39 40 41 42 53 65 67 67

4.2.0

Approach to modelling

Appendix AStrategic Business CaseAppendix BWaste Flow Modelling and AssumptionsAppendix CFinancial Modelling and AssumptionsAppendix DSite Visit ReportsAppendix ERisk workshop presentation slides

1. Background

This chapter provides the information on the purpose of the OBC, project definition and the work that has been undertaken on the development of the project to date.

1.0 Introduction

This Outline Business Case (OBC) is being developed to support Kirklees Council to identify the optimal route for the procurement of a new waste treatment and disposal Services Contract to replace their existing integrated PFI contract which is approaching its expiry date. The OBC is the culmination of an extended project to identify the most appropriate strategy for the continuation of waste management services and future contracting structure for the Council.

A draft project definition was developed at a multi-disciplinary workshop held on 14 June 2021, stating that the preferred option arising from the OBC must:

Deliver a compliant and reliable waste service, suitable for the next 15 years, flexible to adapt to statutory changes, and supporting Kirklees aspirations for social value, climate change, affordability and environmental protection.

This OBC has been developed by Wood Group UK Ltd (technical advisors) on behalf of Kirklees Council, supported by a wider project team comprised of:

- Officer team, across multiple departments in Kirklees Council
- Guidance provided by Local Partnerships LLP (jointly owned by Local Government Association, HM Treasury and the Welsh Government)
- Legal advisors (Bevan Brittan LLP), as part of their high-level legal review on 31 July 2021.

1.1 Current Services

The Council currently operate their waste collection services in house using a Direct Services Organisation (DSO) approach. The in-house service collects residual, recyclable and garden waste from households and falls outside of the waste management services Contract re-procurement.

The collected wastes are delivered to the contractor who manages the waste treatment and disposal contract at several strategic points. The current contractor Suez Recycling and Recovery Kirklees Ltd is a subsidiary company of Suez. The current contract is due to expire on 31st March 2023. The Contract was originally procured in 1998 to provide the required waste management services to assist with the development of several assets across the district. It was a project financed contract with a PFI Grant.

The contract included for the design, build, finance and operation of the following facilities or services:

- Energy from Waste facility (EfW)
- Materials Recovery Facility (MRF)
- 2 x Waste Transfer Stations (WTS)
- 5 x Household Waste Recycling Facilities (HWRC)



• Management of 2 x landfill sites (now closed)

The location of current assets is shown below in Figure 1.1.



Figure 1.1 Current Contract Facilities

The current sites are wrapped under a single contract management structure. The current structures and interfaces, as understood, are set out in Figure 1.2 below.



Figure 1.2 Current Waste Contract Structure

There are two critical sites for the delivery of the Contract:

- Diamond Street houses the EfW, MRF and the WTS in the south
- Weaving Lane houses the WTS in the north and HWRC.

The nature and layout of these sites is such that the various services and activities are closely interlinked, as it was designed as an integrated service. This is considered further in the options analysis.

Kirklees requested Wood Group to carry out condition surveys of the key facilities to determine the condition of the plant and the degree and extent to which maintenance has been completed by the current contractor. Wood accordingly arranged to visit the EfW, MRF and WTS at Diamond Street, Huddersfield, and the WTS at Weaving Lane, Dewsbury. A summary note on these visits is included in **Appendix D**.

As part of the condition survey process, the Council has asked for data and facilitate access to the facilities used for the delivery of the services that will revert to the Council on termination of the current contract. The condition survey is expected to be concluded in November 2021.

A brief technical summary on types of waste facility that were visited is provided in the table below

Facility	Technical overview from site visits			
Energy from	The plant is a single line conventional EfW boiler with a Martin-style grate, installed 1999-2001.			
waste facility (Diamond Street)	The grate is inclined at 15°, split into 3 lanes (left, centre & right).			
	2 Bunker cranes in place, one in service, one spare			
	Control room readings noted from the DCS screens:			
	Waste CV 12.7 MJ/kg			

Table 1.1: Technical overview of sites visited by Wood Group

Facility	Technical overview from site visits			
	• NOx 183 mg/Nm3			
	• Steam Conditions to the Steam Turbine 400°C / 40 bar.			
	Power output 10.7MW			
	• ACC pressure 0.15 bar a			
	The Site is capable of supplying steam to a district heating network from the medium pressure steam header. There is no further infrastructure on the site (heat exchangers, pumps, back-up fuel sources) which would allow a CHP network.			
	Single line process for mixed dry recyclables. The targeted materials are paper, card and containers (plastic and cans). The MRF does not process glass which is collected separately via bring banks located across the Kirklees area.			
	The process is a mainly manual operation with 4 picking cabins at various stages of the process to either remove contamination (negative pick) or to capture specific material (positive pick).			
	The plant does not currently process non-target materials such as plastic films, which cause operational issues with the Auto-sort unit.			
Materials	The MRF was originally commissioned in 2001 but the process plant had a major refurbishment and upgrade about 10 years ago.			
Facility	The key processing units are:			
(Diamond Street)	Bag Splitter			
,	Trommel			
	Auto-Sort			
	Overband Magnet			
	Eddy Current Separator			
	Waste Baler			
	There is on-site storage for completed bales.			
	The exact MRF shift pattern is currently being determined.			
WTS (Diamond Street)	The WTS occupies a shared space with the MRF and is positioned between the MRF and the EfW. The EfW bunker is to the northern edge, the MRF in the area to the south of the WTS. Access and Egress doors are approximately on the east and western faces of the WTS.			
	controlled by a banksman.			
Other (Diamond Street)	In addition to the MRF/WTS building, the Diamond Street site also includes a visitors' centre and administration block.			

Facility	Technical overview from site visits
	The Weaving Lane site contains both a WTS and the HWRC, with access from a common entrance point.
Weaving Lane– WTS and HWRC	The WTS includes welfare offices, dual weighbridges, a large operational yard, and the main Transfer Station building.
	It was reported that the WTS had been refurbished after a fire in 2016.
	Access onto and around the working yard is controlled by a banksman. The yard includes push-wall bays for garden waste, street sweepings, and construction waste. There is also a mobile plant refuelling point.
	The HWRC is a split-level site, with public vehicles separated from HGVs at the site entrance. Access to the skip area for HGVs is through the WTS operations yard.

1.1.1 Emerging drivers for waste management

There are several national and local policies that will impact or influence the provision of the new services and key drivers with direct relevance to this project are identified in table 1.2 below.

Table 1.2:Emerging drivers for waste management

Drivers	Relevance to Kirklees Council			
	The Plan sets out several proposals to achieve the Government's ambition to leave the environment in a better state than we found it, these include:			
	• Clean air targets to reduce emissions of damaging air pollutants by 2030			
	• Ending the sale of new petrol, diesel cars and vans by 2030			
25-year	Maintaining the continuous improvement in industrial emissions			
Environment Plan	• Minimising waste, reuse materials as much as we can and manage materials at the end of their life to minimise the impact on the environment.			
	Ambition of zero avoidable waste by 2050			
	Eliminating avoidable plastic waste by end of 2042			
	Meeting all existing waste targets			
	Eliminate waste crime and illegal waste sites			
	Collection service will need to be significantly expanded to meet government recycling targets			
National Resource & Waste Strategy	• Deposit return scheme (DRS) is likely to reduce tonnages of items collected from households and impact waste composition			
(RWS)	• Plastic packaging tax will reduce the calorific value of EfW feedstock			
	 Extended Producer Responsibility (EPR) should provide funding for dry recycling collection services 			

	 Consistency of recycling collections will require compliance with minimum service standards for collections which includes weekly food waste collections, fortnightly recyclables, fortnightly compostable garden waste and fortnightly residual waste. 			
	• Food waste collections are likely to be mandatory as part of the minimum service standards, with the food waste requiring an Anaerobic Digestor facility which could be Council's own or partnership facility or haulage to merchant facility. Funding to be made available based on achieved levels of recycling			
Circular Economy	• Meeting municipal waste recycling rate of 55% by 2025, 60% by 2030 and 65% by 2035 (target may be less than this when applied locally)			
Package (CEP) as transposed	• Complying with landfill reduction targets: the proposals include a ban on landfilling materials separately collected for recycling and a binding target to reduce landfilled waste to 10% or less of all municipal waste generated (by weight) by 2035.			
	Increase the amount of electric vehicle charging points			
Climate	New service to implement use of electric vehicles			
Emergency/ UK Net Zero target	• Take off energy produced by EfW or Anaerobic Digestion (AD) facility to power increasing Council fleet of electric vehicles			
	 Environmental impact of new service to be considered and contribute to Kirklees being completely carbon neutral by 2038 			
	Implementation of reuse facility/shop at HWRC sites			
Kirklees Council Resource & Waste	 Introduction of new items collected at the kerbside such as glass, food, more plastics, paper cups and cartons will require sorting, bulking facilities and outlet markets 			
Strategy	 Introduction of home composting will marginally reduce amounts of collected food waste 			
	 Waste minimisation and reuse education programme to reduce waste levels, but expected to have a marginal impact on annual tonnages, particularly alongside housing growth estimations 			
Local Plan	New service will need to accommodate predicted waste growth from new build properties			
District heat	• There is a desire to implement a DHN that can take heat from the EfW plant			
(DHN)	EfW will needs sufficient guaranteed feedstock to supply the heat			

1.1.2 Environment Bill

The Environment Bill (2021) is a key piece of legislation for delivering the commitments made in the 25 Year Environment Plan, and for setting long-term legally binding environmental targets, plans and polices for protecting and improving the natural environment in the UK.

The resulting Environment Act is expected later in 2021 and will take forward and legislate the measures and proposals outlined in England's Resource and Waste Management Strategy (RWMS), changing the way government, businesses and individuals produce and consume products. Together the national RWMS and Environment Bill aim to make it easier for people to recycle, improve recyclate quality and make way for a more circular economy. These changes will reflect increased complexity in collection and disposal arrangements for Local Authorities. The Act is expected to allow the Government to:

- Deliver consistent and frequent recycling collections across England;
- Ensure councils operate weekly separate food waste collections, preventing food waste from going to landfill or being incinerated;
- Introduce clearer labelling on certain products so consumers can easily identify whether products are recyclable or not;
- Expand the use of charges on single use plastics, following the successful introduction of the carrier bag charge and will introduce a deposit return scheme on drinks containers, subject to consultation; and
- Introduce new extended producer responsibility schemes to make producers responsible for the full net costs of managing their products when they are ready to be thrown away.

The Bill was supported by a series of proposals, which are subject to consultation. Those of interest to the Council include the following:

- 'Consistency of Household and Business Recycling Collections in England'; a core set of materials to be collected by all local authorities and waste operators to make services more consistent across the country;
- 'Extended Producer Responsibility (EPR) for packaging'; and
- 'Introducing a Deposit Return Scheme (DRS)' to incentivise consumers to reduce litter and increase recycling.

Further details are set out in the Council's waste strategy. The second consultation started in April 2021, and it is currently not clear what systems the Government will chose to implement, nor what funding will be available to Local Authorities. This presents some risk; therefore, the Council will need to dialogue on this topic with bidders and seek to retain flexibility in future service provision to enable the implementation of any required changes.

These will impact on the delivery of future waste services, but until the consultations are complete, and the Government has provided its direction, there is uncertainty around what changes will result. It is likely that the outcomes will affect the delivery of local waste services, more specifically:

- The collection service implemented to ensure compliance with Minimum Service Standards;
- The waste collected under a DRS may reduce the quantity of waste and recyclables collected through the council's kerbside collection services and may also impact the composition through the removal of key recyclables;
- Impact on waste composition feedstock EfW (in particular the removal of food waste);
- Impact on expected contract income for the Contractor (recyclate income); and
- The infrastructure (depots and treatment facilities) in place to accommodate the above changes.

• These changes will also affect the direct and indirect carbon emissions of the waste service, and this may be either a carbon benefit or disbenefits. These net changes will depend on several factors including fuel type, mileage travelled, efficiency and performance of treatment facilities and the type of treatment process.

1.2 Overview of Strategic Business Case

The Council have already developed a Strategic Business Case (SBC), as presented in **Appendix A**, which has been approved under the existing governance processes. The SBC sets out the Councils preferred approach to utilise the existing energy from waste facility, and an indicative Contract term of 10 years plus up to 5 years extension.

These decisions have been tested with Council officers and members and have been identified as the preferred approach to the delivery of the service. The SBC set out the Councils preference to procure a replacement Contract or Contracts. Such contracts will include any requirements to refurbish, or upgrade and modify the existing infrastructure and facilities make fit for the delivery and treatment of wastes collected through the new collection approaches. The existing facilities and infrastructure along with the existing sites will transfer back to the Council on termination of the existing contract. In addition, with the proposed separate collection of food waste there will potentially be a requirement to develop or provide an Anaerobic Digester (AD) facility for the treatment of separately collected food waste, which may, if appropriate, be developed within Kirklees.

The SBC sets out three potential options for the delivery of the new services all based around a 10-year Contract standard term with the option for up to 5 years additional extension. The options identified consider how the elements of the existing service can be best packaged and delivered to ensure sufficient competition to drive best value form the market. The options considered are:

- New integrated Contract
- Multiple Disaggregated Contracts
- Disaggregation with some services delivered in house.

These options are considered in further detail in Chapter 3. In addition to these options there is consideration of a Strategic Variation within the existing contact, to extend the existing contract by up to 5 years. The decision on this was made during development of this OBC 2021.

1.3 Purpose of Outline Business Case

This OBC sets out the basis of determining a preferred option for the procurement of the replacement waste services contract, and the analysis underpinning the commercial case that the Council will adopt.

This OBC accepts the positions set out by the Kirklees Council within their SBC as the starting point for the assessment and therefore does not consider the formal 5-model "Green Book" in terms of the wider Strategic or Economic model aspects (as these are both finalised within the SBC). This OBC instead focusses on the Commercial, Financial and Management aspects.

The assumed starting point is that the Council will continue to enjoy the benefits of the existing waste management infrastructure secured under their PFI contract after it reverts to the Council on natural termination of the contract. Consideration of options that do not seek to utilise the existing infrastructure were examined by the Council earlier in the process.

The original contract expiry date was 31st March 2023. In Autumn 2021, the Council and Suez have agreed interim arrangements (explained later in this document) taking the contract to 31st March 2025. This OBC



sets out some for the rationale for these interim arrangements the modelling takes account of it. It is assumed that there will be a smooth exit from the existing contract in 2025.

2. Waste Arisings

This chapter provides an overview on the waste generated by the Council and the anticipated waste flows to be managed under the Contract.

2.0 Introduction

A waste flow model has been produced by Wood Group, projecting waste arisings from 2019/2020 through to 2045. A summary of the key elements of the model is provided in the sections below, with a full set of technical assumptions provided in **Appendix B**.

2.1 Baseline Arisings

The background waste flows have been provided by Kirklees from 2019/2020, and are shown in table 2.1.

 Table 2.1
 Kirklees Council Waste Flows 2019/2020

	52015/2020	
Туре	Category	Tonnes
Kerbside Refuse Collection	Household Waste	83,955
Kerbside Dry Recyclables	Household Waste	20,560
Organic Garden Waste (Kerbside Collected)	Household Waste	3,210
Other Scrap Metal	Household Waste	101
WEEE Recycling Collections	Household Waste	134
Street Cleaning	Household Waste	6,089
Litter Bins	Household Waste	1,876
Other Dry Recyclables (Bring Sites)	Household Waste	4,420
Household Bulky Collection	Household Waste	3,832
Household Waste Recycling Centres (HWRC)	Household Waste	34,763
C&I Recycling	Commercial Waste	221
C&I Residual	Commercial Waste	28,348
Clinical Waste	Non Household Waste	59
Plasterboard	Non Household Waste	81
Fly Tipped Council Land	Non Household Waste	36
Highway Maintenance	Non Household Waste	759
Rubble	Non Household Waste	478
Asbestos Collections	Non Household Waste	136
TOTAL		189,058

The total Municipal Waste generation in 2019/2020 was 189,058 tonnes. The tonnages detailed in table 2.1 are divided into four waste arising categories 'Household waste', 'Commercial waste', 'Non-Household waste', and 'HWRC'. The total baseline waste arising tonnages for each fraction can be seen in figure 2.1.

Figure 2.1 Distribution of Municipal Waste divided into main waste arising categories



2.2 Model Assumptions

2.2.0 Waste Composition

A compositional survey of household and HWRC waste streams was conducted for the Council in November 2020. This data was used in modelling the assumed tonnages of various fractions of each waste stream, and the potential to increase recycling rates.

Some potential effects from the pandemic were noted in the survey, such as more cardboard packaging. It is assumed this composition will continue due to a move to on-line purchasing. The model does not seek to change or evolve the waste composition in the future as this is challenging to predict. Therefore, it is assumed that any future changes would not generally result in a drop-in recycling performance (or that any DRS/EPS schemes would continue to target similar materials, and not result in further diversion of residual waste beyond that modelled).

2.2.1 Waste growth

The projected percentage increase of households (from ONS data) was used as an indicator for the increase in waste generation. It is assumed that the waste generation per household are not reduced over the timespan. Thus, if the number of households increases by 1% the waste generation is also increased by 1%.

Overall, the anticipated increases in household numbers in the Kirklees Council area between 2019 and 2045, could lead to about a 10% increase in waste arisings, or 0.5% per year. Historic waste growth rates have not consistently tracked housing growth and can include confounding factors such as changes in collection schemes. However, in the absence of other reliable indicators it is commonly used in projections.

The waste yield per capita or household is influenced by several factors, including the growth of the economy and impacts of economic activity, legislation, environmental awareness and waste reduction initiatives, all of which may influence an individual's behaviours.

Economic growth and increasing economic activity can have an inflating effect on the quantity of waste generated per capita and more generally, increased consumption and affluence in a population often results in higher levels of waste generation. However, in the future this may be tempered by increased awareness of environmental issues or external factors. This balance is more challenging to predict, so no additional economic growth is included in the model.



Another factor that could influence waste generation is the impact of the COVID-19 pandemic. Whilst the underlying data used is the 2019-20 data (concluding just ahead of the pandemic) the longer-term impacts of the pandemic on waste generation are at present unclear.

2.2.2 Future performance assumptions

The model assumes continued use of current Council waste assets, at similar performance levels. Therefore, the current waste processing facilities are utilised in the future (MRF and HWRCs), with most of the residual waste being sent to an Energy from Waste (EfW) facility.

The modelled performance of the MRF is 90% capture of paper, card, ferrous and non-ferrous containers, and 70% capture of HDPE/PET bottles. When pots, tubs and trays are added to the dry recyclable mix, the modelled capture rate is 65%.

The timing and nature of future changes to the recycling services is subject to final Council approvals. In carrying out the waste flow modelling the following assumptions have been made.

HWRC diversion

It is assumed that the HWRC has an improved recycling rate in 2024 resulting from a new service specification, meaning that 6% of the waste is diverted from EfW and is recycled instead.

Collecting Plastic Pots Tubs and Trays

It is estimated that in 2022 the addition of plastic pots, tubs and trays to the range of materials recycled will increase the amount of plastic collected. This has been modelled by increasing the capture rate of plastic waste from ~17% in 2023 to 29% in 2024 in order to divert it from residual waste.

Glass Collection

By introducing a separated kerbside collection of glass bottles and containers it is estimated that 75% of the glass currently collected from the Bring sites will be diverted into the kerbside collection.

Food Waste Collection

In 2025 the collection of separate food waste is assumed. The separated food waste is modelled to start at the lower collection rate of 1 kg/household/week but rising to 1.5 kg/household/week with a linear increase from 2025-2030. This has been modelled by increasing the capture percentage over that period.

Garden Waste Collection

Collection of garden waste may change around 2025, however there are no details of the form of this change which is still dependent on government regulations. The change may be associated with stopping the subscription model to providing a universal service as part of the overall waste collection scheme. The impact of this change has not been quantified or modelled.

2.3 Future waste flow projection

As a consequence of the above modelling assumptions the future annual output tonnages to primary treatment destinations are shown in figure 2.2.

Figure 2.2 Waste flows (tonnes) and destinations, 2019 - 2043



The modelled waste arisings trajectory is summarised for every five year in table 2.2. The results of the future performances assumptions are included i.e., the reduction of Kerbside Residual Waste and HWRC from 2024-2029 being diverted into Kerbside Recyclables, Garden waste, and Food waste.

Table 2.2 F	-lousehold and	municipal	waste trajectory	/ for every	/ five years	s, 2019-2043
-------------	----------------	-----------	------------------	-------------	--------------	--------------

	2019	2024	2029	2034	2039	2043
Total Waste Arisings [tonnes]	188,737	193,363	198,027	202,286	206,065	208,807
Kerbside Household Residual Waste [tonnes]	87,030	87,710	73,087	73,549	74,924	75,920
Kerbside Household Recyclables [tonnes]	17,254	17,640	18,065	18,454	18,799	19,049
Kerbside Household Garden Waste [tonnes]	3,441	3,526	3,611	3,688	3,757	3,807
Kerbside Household Food Waste [tonnes]	0	0	13,548	14,778	15,054	15,254
HWRC [tonnes]	34,547	35,394	36,247	37,027	37,719	38,220
Non-Kerbside Residual Waste [tonnes]	41,372	42,386	43,409	44,342	45,171	45,772
Non-Kerbside Recyclers [tonnes]	4,656	1,340	1,372	1,402	1,428	1,447
Non-Kerbside Special Landfill [tonnes]	136	139	143	146	148	150
Non-Kerbside Landfill [tonnes]	81	83	85	87	88	89
Non-Kerbside MRF [tonnes]	221	226	232	237	241	244

3. Delivery Options

This chapter explains in detail the alternative strategic options considered within the OBC. It sets out the key considerations influencing the structure of the options, and the anticipated structure and interfaces within each option.

3.0 Development of options from SBC to OBC

The SBC set out three options for packaging of the services as follows:

- Integrated Contract
- Multiple Disaggregated Contracts
- Disaggregation with some services delivered in house.

The detailed configuration of each of these options has been refined through the process of developing this OBC. There are three key factors that have informed the evolution of the options, as further assessed in the subsequent sections below:

- Considerations on site constraints
- Considerations on in-house services
- Considerations on food and garden waste treatment

3.1 Considerations on site constraints

When determining future approaches to the delivery of services, the current site constraints are an important factor. The site layouts and related considerations are explored in the sections below.

3.1.0 Diamond Street Site

The Diamond Street facility currently consists of an Energy from Waste (EfW) facility, Transfer Station (WTS), and Materials Recycling Facility (MRF). Note the environmental permit and previous contract refers to "Vine Street" for these facilities, but to avoid confusion with the nearby Vine Street Council depot, "Diamond Street" is commonly used in council communications and is also used in this report.

The main access, site weighbridges, site perimeter and roads sit within the MRF/WTS operations; the EfW is an island within the site.

There are two environmental permits, one for the EfW, and one for the remainder of the site including the MRF/WTS.

All waste arriving at the site goes over the weighbridge then progresses along the canal-side road to the WTS. Entry to the tipping hall is controlled by traffic signals and a banksman. The waste is then tipped within the WTS, either into the EfW bunker, WTS storage bays, or the MRF input bays. Vehicles, either empty, or with loads from the MRF or WTS, leave the WTS along the railway-side road, then across the weighbridge to exit the site.

The current layout and operational splits are shown in Figure 2.1 (see accompanying key below).



Diamond Street Layout

Figure Key:

	Area
1.	In – Out Weighbridges; Weighbridge Office.
2.	Site Workshops
3.	EfW
4.	Transfer Station
5.	MRF
6.	Amenities: Offices, parking, Visitor Centre, plus MRF firewater tank

The key issues which make splitting the Diamond Street site complex are;

- Vehicle Access The site has a constrained one-way system and needs to deal with vehicles on a first-come, first-served basis. This means that, provided the weighbridge operator has a performance obligation to process vehicles, all vehicles should be able to progress onto the site without hinderance.
- Vehicle Tipping There is a shared tipping hall area for the MRF, WTS and EfW.

27

- H&S Responsibilities The site has shared roads and a shared tipping hall area. It would be difficult to align clear H&S responsibilities across different contractors in the same area, if the MRF and WTS are under the control of different contractors.
- Insurance The MRF and WTS are the same large open structure, which is connected directly to the EfW bunker. It is not clear how separate insurance policies to cover the building can be provided if there are separate contractors involved. If there is a fire event in the shared tipping hall it may not be clear if this is associated with the MRF, the WTS or the EfW.
- Drainage The site is understood to have a combined drainage system. This would require review and potential upgrades to "split" the site.

Based on the original design intent for an integrated site, it is recommended to keep the Diamond Street site operating as a single integrated site.

3.1.1 Weaving Lane Site

The Weaving Lane facility currently consists of a Transfer Station (WTS) and an external Household Waste Recycling Centre (HWRC).

Public traffic is separated from works traffic at the roundabout, with works traffic diverted left to the weighbridge, public traffic diverted right to the HWRC. The public is kept segregated from all the site activities and is restricted to a narrow area of site along the western edge of the site.

The current Weaving Lane site layout is shown in figures 1.2



Figure 3.2 Weaving Lane Site

It would be possible to split the HWRC and WTS activities on the site by:

- Creating an access lane direct to the HWRC service vehicles through a gate on the western edge of the WTS. This access lane would allow direct access for service vehicles to the HWRC lower yard without passing through the WTS yard. The access lane would restrict access to the common fuelling system which may require modification.
- Installation of new drainage systems and trade effluent discharge permits.

These modifications are relatively minor, and it is considered possible to separate the HWRC operations from the WTS operations. Any requirements for bulking of HWRC materials in the WTS service yard would need further investigation.

3.1.2 Emerald Street Site

Three waste management assets are accessed from Emerald Street – a HWRC, waste transfer pad, and the Council's depot for waste services. The depot is one of the sites being explored for potential alternative uses. It is currently used for bin storage, trade waste vehicles street sweeping vehicles and office space.

The transfer pad is used for tipping of kerbside garden waste, street sweeping waste solids, and gully waste solids. The pad is also used for transfer loading street cleaning waste in the south. All street sweeping vehicles discharge water at consented discharge locations, then tip off waste solids at the compost pad. Any gully emptying completed by the Council's highways team undertake the same process

The pad is only accessible from the HWRC and it would be challenging to separate it out into a separate contract due to the impact on HWRC operations during access. There are also natural synergies with the HWRC service which also generates garden waste. It is therefore recommended to package the transfer pad and HWRC together.



Figure 3.1 Emerald Street

3.2 Considerations on In-house services

3.2.0 Introduction

The workshop consultations identified several shortcomings and frustrations within the current services delivery model. Of particular concern were issues around the inflexibility of the existing arrangements to allow rapid endorsement of service variations in the light of changing circumstances, the absence of transparency around the realisation of the optimal value of recyclable materials and the difficulties in ensuring the quality of services over time. The possibility of the Council taking control of all or part of the services, and thereby being able to operate with greater flexibility to meet changing circumstances was therefore considered to be of interest.

Insourcing or delivery in-house is when a service is under the control of the Council. Kirklees currently utilise a Direct Services Organisation (DSO) for the delivery of their waste collection services. There are a number of options for the delivery of waste management services by a Council directly, including various forms of Local Authority Trading Companies (LATC) which have greater potential to generate third party income.

Kirklees Council could therefore seek to in-source one or more elements of their waste service requirements that is currently included within their wastes service contract with the private sector, and the sections below present various considerations for the Council services.

The future scope and shape of the overall procurement model and whether to continue as a single comprehensive service awarded within a single lot or dividing the current services into multiple service areas to be let individually or as multiples is discussed below. However, there are other considerations around whether the Council may wish to directly run some of or all the services rather than engage private sector contractors. This section contains some of the issued considered when exploring the appetite and ability of the Council to directly provide and run their waste management services.

An Institute for Government Report on outsourcing (June 2020) identified four tests in which insourcing could be considered:

- The market from which the service is being procured is not healthy or competitive.
- The Local Authority needs flexibility to make frequent or significant changes to the design and scope of the service, in view of changing policy and budget priorities.
- The Local Authority lacks the commercial skills to procure or manage an outsourced contract successfully.
- The service could be improved and/or savings made by integrating it with another service

In addition, it has been identified that the following additional criteria may also apply:

- i. Extent of Control that could be exercised by the Council
- ii. Risk Ownership and transfer
- iii. Deliverability within timeframe (services to be operational by April 2023 when existing contract expires)
- iv. Level of innovation and flexibility to adjust for uncertainty
- v. Capability to provide contingencies (e.g. in the event of a facility becoming unavailable)

3.2.1 Overall comparison on outsourcing versus in-house options

The following Table 3.1 sets out a general assessment of outsourcing and insourcing against each evaluation criterion.

Table 3.1: Matrix evaluation

Criteria	Outsourced considerations	In-house (DSO) considerations
Criteria The market from which the service is being procured is not healthy or competitive	Outsourced considerations There is no evidence to suggest that the waste market is uncompetitive, subject to price fixing or subject to a market collapse in companies willing to engage. Market testing indicated an interest in all services, albeit more limited for an integrated service. However, there could be a limited number of bidders for smaller scale services such as separate HWRC management. However, the waste sector is currently going through a period of consolidation and change which has seen increased activity in both mergers and acquisitions and private equity investment. This may impact on the market's interest in the sector and approach to risk. Soft Market Testing and early market engagement has suggested that there is interest and capacity at the present time, however the positions that will be taken by future owners or these respondents are uncertain.	In-house (DSO) considerations The waste tonnages in Kirklees Council are broadly in alignment with the capacity of the existing infrastructure that will revert to the council on expiry of the existing contract. However, a DSO would need be competing with private waste service providers in order to gain access to offtake markets for recyclables and disposal or treatment capacity for residues and non-treatable wastes. Given the relatively low waste volumes to be managed by the Council there is a risk that they may be amongst the first customers affected by falls in market prices, when compared to larger operators with greater access to UK and overseas markets on more competitive terms.
The local authority needs flexibility to make frequent or significant changes to the design and scope of the service, in view of changing policy and budget priorities	Government policy is currently entering a period of transition and there remains much uncertainty around both the scope of future policy and the timetable for implementation. It is therefore currently challenging to draft and award a contract without recognising that substantial changes may be required over the lifetime of any contract. Once a contract is signed, the scope of contract variations is generally restricted, as the service has been publicly procured. Reaction to changing circumstances can therefore be difficult but the Council can seek to build flexibility into contract documentation, including the specification, to prioritise or adapt services to foreseeable potential changes. In managing a change, the Council may encounter both the cost of the change as well a cost to manage the change, and full transparency of contractor costs can be difficult to assess in practise.	Where there is no formal contract in place, as in the case of a DSO, then there is maximum flexibility to adapt and deliver service change, albeit that the council would be required to directly cover all costs associated with the design and implementation of any required service changes. However, insourcing does not result in flexibility at zero cost; management resources will need to be deployed to structure and manage each change.
Local Authority Skills	There are no immediate concerns with the Councils ability to procure and subsequently manage the waste services. Kirklees officers have demonstrable experience in managing the delivery of the current outsourced services through the management of the existing contract arrangements. However, it is noted that modern contracts typically require more monitoring than older style contracts, so additional resources may be required.	The Council do not have direct experience in the management and operation of waste treatment and disposal services, although they do have skills in managing the in-house waste collection services. There are transferable skills in management, HR support, and vehicle drivers, but expertise in the operation and management of complex waste management infrastructure would have to be developed and/or recruited.

		The Council have considerable experience in general procurement but additional expertise in waste specific areas related to process plant operation and maintenance and securing offtake contracts for recyclables and residues will be required. Specialist external support would likely be required for operation and maintenance of the MRF and EfW, and the availability of such services is unknown at present.
Service improvement through integration with another service	A medium contract term could allow the Council to focus on delivering wider service changes and infrastructure developments, whilst making use of the technical support, innovation and expertise available within the private sector.	Council could seek synergies with the collection services, for example in having multi-skilled cover for unexpected absences at the HWRCs. Savings from integrated central support services (HR etc) may take time. Other improvements may become apparent once collection service changes are implemented and could be introduced to facilitate the collection of other recyclable materials.
Resilience for unforeseen events	Larger contractors often have effective contingency plans and access to a pool of resources from other public and private contracts, which can be drawn upon for managing unforeseen events like a pandemic, driver shortage, or major equipment outage. They are often able to upskill and redeploy within their workforce whilst relying on vehicles/plant/manpower from within their wider business and rapid resupply from trusted national partners.	In house service provision may not be able to readily access additional or alternative resources due to the limited scale of their operations.
Extent of Control exercised by the Council	Services are delivered by a contractor and administered by a client team against a clearly defined specification and service contract. The contractor agrees to deliver the specified services for a defined sum. If services are not delivered to the specified standards a performance deduction to the payment may be made, or general contractual remedies applied. It is the contractor's responsibility to deliver the services for the agreed costs. Typically, only if the Council requires services that differ from those specified in the contract or there is a change in law, is a change in the payment regime applicable. Council initiated changes would need to go through a defined process of negotiation and the necessary corporate approvals process which may take a considerable time to conclude.	The direct delivery of waste services by the Council should allow for the rapid development of service changes without the need for negotiations with an external body. Any amendment and variation will be subject to the Councils rules and procedures. The standards for the service and management structure would need to be agreed within the DSO and Council, alongside a budget, as in any other delivery model. Liaison with trade unions is advisable due to potential changes in terms and conditions and any service changes. Amendments to the daily work programme may be deliverable from day to day, providing these changes neither diminish the overall service performance nor require additional budget. Where changes require additional budget then these would need to

		be approved through normal council procedures.
		For large scale changes (e.g., requirement for new infrastructure or plant), any changes will be subject to the same lead times as outsourced services.
		There is a risk that with the direct control there is a loss of clear lines of communication and service management, and that directors and/or elected members may be tempted to short-circuit the management structure to
		speak directly to those delivering the services.
Risk Ownership	 The Competitive Tendered commissioning model has a clear assignment of risk ownership between the Council and contractor. Tenderer's solutions are evaluated and against the stated evaluation criteria. Included within the technical criteria, the Council assesses the competency of contractors to complete the services across a suite of Service Delivery Plans. The risk of delivering the service rests with the private contractor, who takes responsibility not only for delivering services, but also in the areas of health and safety legal compliance with permits and planning anagement and training acquisition of all necessary licences and permits insurances vehicle maintenance and licencing facility maintenance management and sale of recyclables and products arising from the service risks associated with recyclable market fluctuations. The Council would need to satisfy itself that the Contractor can deliver the services in a safe and legally compliant manner. This is affected through the procurement exercise itself and then through ongoing contract management. The Council is not liable for breaches made by the Contractor. 	As the service is currently privately outsourced there are two "pots" of risk to consider: that of transitioning the service to an in-house delivery model, and that of delivering the service. The transition will entail many activities. The Council will have to invest in resources to ensure they have the appropriate and legally robust management structures in place. These structures need to be fully accountable for the risks the Council will become responsible for as a waste facility operator and waste services provider. The delivery of the waste service under an in- house model would expose the Council to several new liabilities and risks that it was not exposed to previously. These liabilities include direct health and safety responsibilities (noting that the waste sector has a higher- than-average accident rate) operation and maintenance of facilities, securing and monitoring recyclate markets and direct responsibility for any shortfall in performance.
	Through the current integrated contract, there are dedicated Safety, Health, Environment, HR, Accounts and Quality departments. They support the operations managers and directors providing expert advice on corporate and contract specific issues.	
Deliverability	The process to procure a competitively tendered	It will be challenging to bring the waste
within	service is set out within regulations and all	services in-house before expiry of the current
timeframe	procurements must be compliant in order to avoid	contract in April 2023, given the current gaps

	the risk of challenge. Investment in new services will not commence until after formal award of a contract. Waste management contractors are experienced in mobilising new contracts and implementing service change. Many have dedicated teams to manage such processes together with established sub-contractors to manage the communications and logistics. They are therefore able to deploy a skilled labour force to this critical period, including HR, communications and procurement specialists within weeks of an award being formalised.	 in data on the current assets and services, and the provisions for their transfer set out within the existing contract, but deliverable with sufficient dedicated resources. The Council would need to establish a fully resourced and dedicated team to manage the transition. The Council would need to plan in establishing a management structure that enables efficient delivery of service requirements Service delivery plans will need development which clearly sets out how the services will be delivered and method statements and procedures for day-to-day operations. There would be a need to draw on Council support functions promptly including HR (including TUPE), Procurement, IT, Customer Services etc.
Level of innovation	Contracted services can bring innovation and investment to service delivery, and contracts can be drafted to provide for continuous improvements in service over time. A new contracted option may open more opportunities to explore and exploit innovation with limited risk to the council. Contractors can be innovative in proposing new solutions across services which are cost effective. However, the financial benefits of innovation they later implement within the contract after award may not be fully shared with the Council.	In-house service providers are single entities and unconstrained by contractual obligations with a client. Therefore, they may be able to rapidly adapt and innovate. They may be able to share knowledge with other Council functions, or to amend services to adopt innovative working methods or new technologies. However, such opportunities may be constrained by employees' terms, investment approval processes, access to sufficient resources to invest in innovative solutions, and the approach to risk within the authority.
Capability to provide contingencies	Private sector operators, with a portfolio of projects, have access to a far wider network of support for the implementation of contingency plans, without incurring additional costs. Given that the Contractor will be required to maintain service standards throughout the contract period, the costs of implementation of the contingency plan will have been included within the tendered costs.	The DSO will not have long-term relationships with contingency providers (e.g., during periods of facility unavailability) and in the worst-case materials may need to be combusted or landfilled, on more expensive terms (as dictated by short term market drivers) Implementation of the contingency plan will have a direct cost to the Council. This may necessitate holding reserves for unplanned expenditure at short notice and negotiating contacts for support to be drawn upon when required. Alternatively, contingency stores and equipment may be held in reserve, although never required.

3.2.2 Evaluation per waste service area

Workshop discussions and a high-level assessment has considered whether it is feasible or desirable to take some of the waste operations in-house. After taking into consideration the practicalities around split

operations at some of the waste facility sites the following work packages were identified as being appropriate for consideration:

- 1) EfW, MRF & WTS
- 2) Garden waste composting
- 3) Food waste treatment
- 4) HWRC x 5 and Transfer Pad
- 5) Landfill monitoring

With regards to the criteria above, the council currently does not have the Local Authority Skills required to operate and manage complex waste management infrastructure such as an EfW, Anaerobic Digestor or MRF, nor experience in the processing, manufacture and marketing of recyclables, food waste digestate or garden waste compost (items 1 to 3 above). Neighbouring authorities have expertise in these areas and, if required, could offer learning opportunities to Kirklees teams, or indeed, the service could be shared between more than one authority. The degree of Risk Ownership would be very high, as the consequences of any facility failures and alternative treatment would fall solely on the Council. The Council would also not have ready Capability to provide contingency as it would not have control of similar facilities elsewhere (which the private sector typically does), nor established relationships.

In-house operation of the HWRC sites remains a possibility, with benefits against the criteria for Extent of Control exercised by the Council and Flexibility for change. However, it must be recognised that the requirement to identify, secure and monitor outlets for the deposited materials is not without challenges on Local Authority Skills, and Risk Ownership would be very different to the current contract, with the Council taking on of risk around commodity prices. There is a need to further understand the benefits of in-house or a contracted-out operation (within a separate HWRC contract) which requires further detailed assessment. The Deliverability within timeframe will need detailed analysis and assessment as there are a lot of activities involved in transitioning this service, which will involve multiple Council departments.

Landfill monitoring services are already undertaken by the Council (Local Authority Skills) and the addition of further sites to their portfolio with the expiry of the existing contract should be feasible.

A summary of the conclusions on whether it is considered preferable to continue to outsource each service area, or to bring it in-house, is shown in Table 3.2.

Service area	Summary conclusion
HWRC	Potential to in-source, but more detailed analysis required.
Landfill monitoring	In-source with direct council operations
Garden waste treatment	Continue to outsource via waste disposal contractor arrangements (Note: local reception at Transfer Pad co- located within HWRC. Transport from pad to TLS/market to be arranged by contractor)
Food Waste treatment	Continue to outsource
EfW, MRF, WTS	Continue to outsource

Table 3.2Summary of assessment for in-house operations

It is recommended that the HWRC and Landfill Monitoring services be removed from the main waste services contract and subjected to further detailed consideration as to whether in-house or contracted out operational models best align with the medium-term aspirations of the council. This has been carried through into **Option 3** below.

3.3 Considerations on food and garden waste treatment

When determining future approaches to the delivery of services, the introduction of food waste by the Council needs consideration. With the potential separation of HWRC operations from the main services contract, the management of garden waste also needs to be addressed. Related considerations are explored in the sections below.

3.3.0 Food waste treatment

The Council has completed an initial feasibility assessment for development of a new Anaerobic Digestion (AD) facility within the District. A recent review of the local plan identifies only one available site for waste management development. This is the area beyond the compost pad at Emerald St which is a former inert landfill site. Initial findings indicate the site would not be suitable for development of an AD due to the limited size of the developable area.

It is therefore recommended that the new procurement allows for the future offtake of food waste to third party treatment facilities. The new treatment contract could also have flexibilities built into it to allow food waste to be removed from the contract in event that the Council pursues a local or regional new-build solution. These are issues that could be dialogued with bidders to explore the impact of such a variation and give the Council the benefit of a pre-agreed fixed price for implementing a variation.

This recommendation has been carried through into **Options 1 to 3** below.

3.3.1 Garden waste treatment

The Council currently offers and will continue to offer a collection service for garden waste. Garden waste is also collected at the HWRCs. While a charge is made for the kerbside collection of Garden waste, National requirements for the collection and management of garden waste in England have recently been consulted on by government and their final form remains uncertain at the current time. This may require the introduction of a free garden waste collection, which if confirmed, in other Councils has led to an increase in garden waste arisings requiring management (due to some householders starting to divert it from their residual waste, or some reducing usage of their home composting units). This would also impact on wider infrastructure needs such as depot space required.

Collected garden waste is delivered to and bulked at the Transfer Pad (north of the Emerald Street HWRC). The current contractor then transports it to third party facilities for composting. There is no dedicated waste treatment facility that was developed under the current contract that will revert upon contract expiry. Alternative arrangements with a third party will therefore need to be secured on expiry of the existing contract. Consideration will need to be given to the waste transfer capacity at the existing TLS sites should a free garden waste service be required.

The future alternatives available to the Council are:

- a) The council develops its own dedicated composting facility and either operates it directly or lets a contract for operations
- b) The council procures a separate contract just for garden waste treatment
- c) The procurement for waste treatment includes for the treatment of garden waste via third party composting facilities

Alternative (a) would entail more risk in needing to find and purchase a suitable site, obtain planning and permitting, and procure a design and build contract. The current low tonnages generated by the Council (3-4k tonnes per year) would not warrant the costs involved, and not offer best value for money as such a facility would not benefit from economies of scale compared to large commercial operations. Operation of

the service in-house has been ruled out due, in part, to it being outside existing competencies of the Council's current workforce and contracting out of operations is likely to be expensive due to the small scale of the operations. It would also fall upon the Council to ensure product quality and compliance, market the compost product and identify and secure suitable outlets.

Alternative (b), although attractive, would require the Council to incur some additional costs for procurement and management of a separate garden waste treatment contract compared to alternative (c). Some UK councils have pursued this approach as it can increase competition from specialist providers, but this has generally been for county areas generating much larger volumes. For Kirklees it is considered that as the anticipated tonnages are low, tangible benefits may not be realised due to the need for a separate procurement and the subsequent separate contract management and administrative obligations. The main treatment bidders will seek to partner with specialist providers and are experienced in negotiating subcontracts.

Alternative (c) mirrors current arrangements and has been demonstrated to deliver the council's requirements over several years. The inclusion of garden waste management within the contract consolidates the Council's project administration within a single waste services contract whilst allowing the benefits of the flexibility available from a market-based service offering. The contractor will be responsible for product quality and compliance and the marketing and distribution of the compost product. However, there are questions around the ability of such arrangements to provide flexibility if government policy impacts on the characteristics and quantities of garden waste. It is suggested that such eventualities could be managed through contract drafting that periodically requires such services to be market tested or withdrawn from the overall contract as a pre-determined variation on serving a notice.

In conclusion it is recommended that alternative (c) is pursued. The new treatment contract should include a provision and procedure for this service element to be terminated (with sufficient notice) in event that the Council identifies it could realise lower costs, enhanced service delivery or greater flexibility through a direct procurement with specialist providers or in association with neighbouring authorities. These are issues that could be dialogued with bidders to explore the impact of such a variation and give the Council the benefit of a pre-agreed fixed price for implementing a variation.

This recommendation has been carried through into the principal **Options 1 to 3** below.

It is noted that the Council would bear some risks on interfaces with this arrangement, as the HWRC and associated transfer pad would sit outside the main contract in Options 2 and 3. The arrangements would likely entail;

- The transfer Pad receives and stores garden waste, street sweeping (SS) and gully emptying (GE) solids. This pad could be separately operated by the Council. The transfer pad operator loads outgoing waste into HGVs.
- An HGV haulier transports waste to a treatment facility. Either the Transfer Pad operator or treatment contractor could organise this, but it is recommended that it may sit best with the latter, as they will control more of the interface and associated risks.
- The third-party composting site (currently located outside the district) receives the waste for treatment and then markets and find outlets for the compost products (meeting relevant PAS100 or other identified standards).

If a future procurement resulted in the composting site being sufficiently close for direct delivery by Council vehicles, then the interface arrangements could be updated accordingly.

3.4 Option 1: Single Integrated Contract

Option 1 was identified within the SBC and assumes that the Council will reprocure all the existing services within a single integrated contract.

The reprocured Contract will require an option to incorporate the treatment of any food waste separately collected, following the implementation of the Councils proposed collection service changes.





3.5 Option 2: Lots

Option 2 assumes that the Council will reprocure all the existing services across multiple separate Contracts. This solution was identified to allow smaller specialist waste management companies to be directly involved in the delivery of the Contracts and broaden the potential bidders away from the limited market of combined waste management service providers.

The separation of the HWRC service element allows the Council to more effectively manage the performance of these public facing aspects of the waste service. Whether this is an outsourced or in-house operation will be subject to a separate business case.

The reprocured EfW treatment contract will require an option for food waste, as per Option 1.

There are challenges on the site permit boundary limitations and service interfaces between the operation of the EfW, WTS and MRF on Diamond Street that would arise from delivery of this Contract structure.



Figure 3.3 Option 2 service map

3.6 Option 3: Limited Lots & In-House

Option 3 also disaggregates the Contract, but the Council could assume the responsibility for delivering certain aspects of the services.

Option 3 was developed following the completion of the SBC to attempt to reduce the number of complex contract interfaces that would be required under option 2, whilst still retaining the overarching aim to disaggregate the contracts to smaller packages to make them more widely appealing to the market and allow the HWRC performance to be managed effectively.

The operation of the EfW would continue to be let in the commercial market however the remaining aspects of the services may be brought in house. The exact way those aspects will be delivered internally would need to be determined through further assessment, to include the Council's appetite for accepting risks.

The reprocured EfW treatment contract would require an option for food waste, as per Options 1 and 2.

The Diamond Street site is allocated within the main Contract as per the recommendation in section 3.2. The Weaving site could be split. The costs, practicalities and risks associated with this would need to be further considered, to identify the approach which will provide best value.



Figure 3.4 Option 3 service map

4. **Options Assessment**

This chapter sets out the evaluation of the options undertaken and the identification of the preferred option for the delivery of the services.

4.0 Qualitative Evaluation Criteria

During the development of the SBC the Council held workshops to identify qualitative evaluation criteria for the assessment of the technical options. These were considered in the development of the Options Appraisal for the commercial options identified. These criteria are vital to determining the most appropriate contractors to deliver the services and will form part of the tender evaluation. For the purposes of the assessment of the commercial options the following criteria were considered to be the key differentiators.

Category	Considerations
Market interest	Will the option attract competitive bids?
Financial (qualitative)	Do the options incur differential costs or risks?
Consents	How the options effect the site waste permits?
Interfaces	How will Contracts/Lots interact with one another?
Procurement	How complex/demanding is the option to procure?
Contract management and flexibility	How complex/demanding is the option to manage, and how much flexibility is there for change?
Asset management and Operational Skills	Who will fund and take risk on facility maintenance and upgrades, and does the operator have the required personnel skills?

Figure 4.1 Options Assessment Qualitative Criteria

4.1 Assessment of Options

The following section set out the assessment of the options against each of the above criteria.

4.1.0 Market Interest

The assessment of market interest is based on the views and experience of the project team, and includes information gathered from Soft Market Testing (SMT). A summary of the SMT results is provided in Figure 4.2, and as part of the Risk Workshop presentation slides (as reproduced in **Appendix E)**.



Figure 4.2 Summary SMT results

XXXX

Table 4.1	Market interest assessment		
	Strengths / advantages	Weaknesses / disadvantages	
Option 1	 High value contract should raise interest. SMT results: X respondents may tender for the integrated contract, however X of these do not appear to have prior experience in all elements. SMT: All respondents expected a long term Integrated contract of at least 10 years and up to 25 years 	 Limiting market to larger waste management companies - those with proven track record in operating and maintaining EfWs. Some generally have a preference to build their own facilities and be reluctant to provide only O&M services. SMT results: For the X respondents likely to subcontract some elements, food would be the likely element. Only X indicated internal canability on food 	
Option 2	 Maximises market interest between smaller and larger waste management companies Opens competition up to specialist companies SMT results: Most respondents may tender, with X contractors opting to choose only some lots. SMT: Three current EfW operators also have integrated WTS & MRF capabilities. SMT: The preferred contract length depends upon the facility, some as short and 3 years up to long term options. 	 Small value contracts may not have same level of interest from larger organisations – for example the separate HWRCs may be too small for bidder interest. Packaging of MRF with EfW may affect market interest SMT results: One specialist EfW operators would not want to operate WTS, and X would not want to operate MRF. Likely to sub-contract food as per option 1. 	
Option 3	 More likely to attract specialist waste contractors. The large value contract area should raise interest SMT results: Most respondents would choose some lots, with X respondents potentially bidding for all lots (note that 1 of these do not appear to have prior experience in EfW operations). Could attract specialist sub-contractors for food waste, garden waste, street sweepings 	 Packaging of MRF with EfW may affect market interest – see SMT results in option 2. Likely to sub-contract food as per option 1. 	
Strategic Variation (extension)	 Enables more time to engage wider market and deliver a value for money outcome. 	Increase to current contract rates.	

4.1.1 Financial Assessment

Table 4.2 Financial assessment Strengths / advantages Weaknesses / disadvantages **Option 1** Open competition should drive New bidders will not fully understand • added value cost-base for facilities, and ongoing Market testing value for money lifecycle costs, so may risk price Capex could be funded by Council May result in change in risk profile on Financial support from recycling market prices Government bodies to support Longer term contracts offer better implementation of national value for money Potential for increased gate fee and strategy Lower management costs for disposal costs integrated contract Diversion and recycling targets can be built into the contract negating the need for a separate incentive scheme **Option 2** Maximises competition New bidders will not fully understand May be able to leverage lower cost-base for facilities, and ongoing cost on more straightforward lifecycle costs, so may risk price service elements Higher management costs for separate Allows market testing on value for contracts Duplicates overheads - multiple money managers etc. May result in change in risk profile on recycling market prices In tender evaluation it can be more difficult to assess benefit of awarding multiple lots to single contractor **Option 3** No payment of contractor profit New bidders will not fully understand • margin for in-house elements cost-base for facilities, and ongoing lifecycle costs, so may risk price Need to assess value for money for inhouse services Higher management costs for separate contracts LGPS pensions for in-house elements likely to increase wage costs and Terms & Conditions may not align to **Council Single Status Handbook** Council takes risk on HWRC recycling market prices Strategic Existing contract maintenance Not market testing services to Variation costs remain with contractor demonstrate value for money (extension) Retains value for money gate fee Potential for changes to the current Retains good value for money on contract resulting in higher costs basic contract requirements Extension to current contract allows potential to lever in additional investment with 5 years longer payback time

4.1.2 Consents

Table 4.3	Consents assessment	
	Strengths / advantages	Weaknesses / disadvantages
Option 1	 No permit changes envisaged. No requirement to split more complex MRF/EfW elements 	 Permit transfers needed. Need to consider liabilities for site contamination
Option 2	• None	 Need to split site permit at WTS North for WTS & HWRC Need to consider liabilities for site contamination May need to split WTS South from MRF (combined permit)
Option 3	• No requirement to split more complex MRF/EfW elements.	 Complicated to split site permit at WTS North for WTS & HWRC Council responsible for compliance on own sites Need to consider liabilities for site contamination
Strategic Variation (extension)	No permit changes or transfers needed	None

4.1.3 Interfaces

Table 4.4	Interfaces assessment	
	Strengths / advantages	Weaknesses / disadvantages
Option 1	 One contract means no interface risk between different facilities and/or different contractors or site operators Clear assignment of overall responsibility with single interface between Council and Contractor 	• None
Option 2	• None	 Complicated to split sites between contractors with shared assets/amenities (see section 3.2) Multiple interfaces between contractors Increased likelihood of disputes between contractors
Option 3	Council has limited interfaces between itself and waste management service providers to manage	 Complicated to split sites with shared assets/amenities Council must manage HWRC interface with EfW and compost pad activities Council must manage some haulage arrangements to treatment/recycling/disposal
Strategic Variation (extension)	 Present arrangements retained, with no interfaces between contractors 	None

4.1.4 **Procurement**

Table 4.5	Procurement assessment	
	Strengths / advantages	Weaknesses / disadvantages
Option 1	 Similar service requirements to current provision, so familiar arrangements and understood by officers Only one procurement to manage Leverage more social value gains on large contract Ability to Include materials/services not covered in existing contract Re-procurement of facilities could be reconfigured more effectively with one operator Opportunity to introduce modern contract and specification including KPIs, clear handback provisions and effective remedies 	 Procurement costs incurred for one major contract Significantly limited tenderers for integrated contract which could arguably become just a few tenderers following an upcoming merger Limited time available for procurement Implementation of national waste strategy objectives could change what services are required and by when
Option 2	 Focus on smaller services (like HWRCs) not lost in wider contractual issues Ability to Include materials/services not covered in existing contract Opportunity to introduce modern contract and specification including KPIs, clear handback provisions and effective remedies 	 Higher procurement costs/complexity for up to 6 contracts Capacity to manage concurrent procurements Complicated TUPE assignments to Lots Loses leverage for social value with multiple smaller value contracts
Option 3	 Similar service requirements to previous procurement Simplified re-procurement process Individual procurements can be configured to best match the life of the assets Ability to Include materials/services not covered in existing contract Opportunity to introduce modern contract and specification including KPIs, clear handback provisions and effective remedies 	 Some additional procurement costs incurred (up to 4 contracts) Limited officer capacity to develop various detailed method statements for the operation of in-house services such as HWRCs. As per Option 1, there are significantly limited tenderers for a semi integrated contract (MRF & EfW) which could arguably become just a few tenderers following an upcoming merger.
Strategic Variation (extension)	 No procurement costs (but will incur advisory costs) Extending current contract by some period of years would tactically provide more time for a transition phase to move to a new contract. It would extend the new 	 Not a long-term solution - "Kicking the can down the road" Need to consider legal scope of any variation

•	procurement timetable enabling the Council to use extra dialogue time to explore key commercial issues with bidders, as a means to achieving better VfM. Contingency option in event delays in implementing other options Allows time for potential clarity on national targets and collection
	national targets and collection options for Council, so can tie in with the national waste strategy

4.1.5 Contract Management and flexibility

Table 4.6	Contract management assessment	
	Strengths / advantages	Weaknesses / disadvantages
Option 1	 Ability to improve current arrangements via re-procurement, including adaptation for national waste strategy. One contract is easier for Council to manage (e.g. more contracts means more monthly contractor meetings, payment checks, interface issues, etc.) Enables improvements to management of contract with updated performance mechanisms e.g. inclusion of recycling performance targets, penalties and bonuses Removes limitations of existing contract Performance and contingency risks lies with contractor Potential opportunity with an operate-only contract that contactor will take some recycling/investment risk Opportunity to include district heating connection within contract Single point of liaison in the event need to implement contingency arrangements 	 Unknown local and national waste strategy outcomes/collection system Wraps up 'smaller' services into longer term contract required for EfW, hence reducing frequency of re-procurement to test best value / innovation. Difficult to introduce flexibility if Council requirements change over time
Option 2	 Ability to improve current arrangements via re-procurement, including adaptation for national waste strategy. 	 Council must monitor multiple contractors and interfaces Reporting complex due to multiple IT systems

	 A smaller lot allows changes more easily than if under one umbrella contract A smaller lot with a clear and limited scope of requirements potentially allows more frequent retendering Opportunity to include district heating within contract Performance risk lies with contractor Small contractors may be interested in bidding Contingency risk lies with contractor 	 Additional contract management resources will need to be engaged by the Council
Option 3	 Ability to improve current arrangements via re-procurement, including change mechanisms to adapt to national waste strategy Direct control over in-house operations Flexibility to change in-house operations More flexibility to introduce social value benefits within in-house service elements, when Council identifies opportunities. EfW O&M could be re-procured prior to the finalisation of the national waste strategy Limits contractual impacts of upcoming national waste strategy changes Simple contract management allows better performance management Opportunity to realign contract with modern waste management practice Opportunity to include district heating within contract Opportunity to include district heating within contract 	 Need internal governance for in-house elements Council must manage offtake contacts for HWRC recyclables (or let separate contract) Loss of direct synergies between facilities and services Co-dependencies between elements of the contracts could lead to complex contract management Risk of in-house facility performance lies with the Council. Council has no direct contingency backup access to other local waste management facilities for services run in-house (but typically not required for HWRC services).
Strategic Variation (extension)	 Avoids risks from transition to new contractor(s). Single point contact for implementation Maximises current contract Retains integrated nature of contract 	 Annual extensions only (up to max 5 yrs). Need a minimum 2-year lead into any new procurement Limited ability to improve current arrangements and adapt to national waste strategy.

48

- Allows time for council to concentrate on other services issues
- Allows time to prepare to bring services in-house
- Allows more time for procurements leading to potentially better outcomes

4.1.6 Asset Management and Operational Skills

Table 4.7Asset management and Operational Skills assessment

	Strengths / advantages	Weaknesses / disadvantages
Option 1	 Assets will be managed/maintained by one new contractor Synergies between facilities (shared maintenance & equipment) Maximise remaining life expectancy of facilities -EfW has potential to operate for 25 yrs beyond 2023, subject to existing condition of assets. Opportunity to include district heating 	 Council may be liable if condition of facilities not as expected / unexpected upgrades Unknown infrastructure requirements to support new waste collection service
Option 2	 Maximise remaining life expectancy of facilities -EfW has potential to operate for 25 yrs beyond 2023 Assets managed by specialist contractors Changing contractors may encourage innovation with shorter Lot packages. 	 Council may be liable if condition of facilities not as expected / unexpected upgrades Miss out on some synergies of shared maintenance & equipment) Cycle of learning is broken when moving from one contractor to another on shorter term Lot packages
Option 3	 EfW/MRF (which require majority of maintenance activities) will be managed by single contractor (with shared equipment) Council can sub-contract in-house elements Maximises remaining life expectancy of facilities -EfW has potential to operate for 25 yrs beyond 2023, subject to existing condition of assetts Opportunity to include district heating 	 Council may be liable if condition of facilities not as expected / unexpected upgrades Council takes all risk for maintenance and unexpected repairs/upgrades for in-house elements
Strategic Variation (extension)	 No change from present - managed by contractor (shared maintenance and equipment) 	 Reduced flexibility to improve/adapt current arrangements for government and local policy etc



- May be opportunity for investment in the MRF, giving potential flexibility to amend service/range of recyclables in short term.
- Age of plant/equipment might not be so attractive to market 2 years later – increased risk to incoming contractor.
- List of obsolete parts increases exponentially.

4.2 Financial Assessment of Options

A summary of the key elements of the financial model is provided in the sections below.

4.2.0 Approach to modelling

The waste flow compositions, growth projections and performance assumptions highlighted in Section 1 have been applied within the financial assessment of options. Information gathered from the condition survey process has been used to estimate lifecycle and annual maintenance costs for each type of waste facility. EfW performance is based on the 2019 Environmental Report.

In developing the financial model, Wood Group and officers have applied best estimates for specific cost categories e.g. insurance, environmental compliance, office expenses, utility & mobile plant, haulage, contract administration, sales team and general overhead. Revenues generated from material and energy sales is based on unit rates sourced from LetsRecycle, Ofgem etc.

Recent workshop discussions concluded that no appetite exists for Option 2 (see section 4.4 below). Therefore it has not been financially modelled.

4.2.1 Financial Assessment of Options

The Financial Model and Key Assumptions are summarised in Appendix C.

Examples of assumptions on which the service cost model is based, include:

- The contract is extended 2 years until 31st March 2025. A new contract is procured for a 10 year term with an option for an additional 5 years (potential end date 31st March 2040)
- Annual inflation is 1.5%
- Landfill diversion rates of circa 95% are maintained throughout the contract period based on the operational record from 2019-20 performance
- Sensitivities are considered for lower diversion rates.
- EfW availability is high, with only 3-4wks of planned downtime per annum.
- NNDR is treated as a pass through. The model applies actual costs.
- Waste growth is 0.5% p.a in accordance with predicted housing growth from Local Plan
- Recycling market prices are stable over the contract period

Recycling market pricing remains an unquantified risk, as market process for recyclates have been volatile over recent years, and further uncertainty from changes to post-Covid markets and the planned introduction of further influential UK policies on recyclates, such as DRS and minimum recycled plastic content on new products

4.2.2 Financial assessment Option 1

Option 1 assumes the Council reprocures all existing services within a single integrated contract. The timings of future changes to recycling services, as highlighted in 1.2.2, are built into the model. However, the cost of any new investment to accommodate these changes e.g. MRF, EfW, glass, HWRC, food, are not accounted for in the financial model. A future decision is required on whether the Council, or contractor, should finance these capital works.

The service cost model estimates the contractor's costs in delivering the waste treatment and disposal contract.

4.2.3 Financial assessment Option 3

Bringing the service in-house will increase internal management overheads and require a new sales team with the necessary skills to identify, let, and administer material offtake contracts. To mitigate some of this, the Council could explore inter-authority arrangements whereby nearby experienced local authorities can deliver some of these services on the Council's behalf. This could include management and administration of material offtake.

The number of materials collected at HWRC could equate to 40 items. Each material will require a contract in place with a re-processor setting out the duty of care associated with (end-of) waste transactions. Resources will also be required to carry out admin duties associated with multiple dispatches of materials, coordination of empty containers, and processing invoice payments/receipts.

Actual requirements will be dependent on the marketing strategy and length of off-take contracts. More resources being required if each batch of a material is pushed to market for the best daily individual price rather than obtaining flatter rates through a longer-term contract with a re-processor.

The expectation is that removing the HWRC service from the main contract will lower the contractor's general overheads.

The model assumes that the Council faces diseconomies of scale compared to other waste contractors operating a HWRC service in that it is inexperienced in managing the activity, the relatively small scale of the facilities, and the challenge in competing with the private sector to attract a skilled workforce e.g. sales team.

In addition to the above, a one-off capital cost is required to split the WTS and HWRC at Weaving Lane e.g. fencing and fuelling depot.

If the Council takes on responsibility for managing the remaining two closed landfill sites i.e. Hollins Hey and Honley Wood Northside, it is assumed this can be achieved at overall nil cost. Direct costs to the Council would increase but with a commensurate saving through the contractor payment mechanism.

4.2.4 Summary

Option 3 delivers the same recycling and diversion rates as Option 1 but is more expensive.

A further detailed assessment needs to be undertaken to fully understand the benefits of in-house or a contracted-out operation within a separate HWRC contract. However, the preliminary financial assessment indicates that this is a more costly option than letting a single integrated contract.

4.3 Selection of the Preferred Option

At the various workshops the configuration and risks associated with each option were discussed. A consensus emerged which coalesced around Option 3 as the preferred option. This option continues to

have the ability to meet the selection criteria identified at the SBC stage (see Appendix A, section 3.6), namely:

- > Contribute to the climate change emergency agenda and reduce carbon emissions to meet targets.
- Achieve value for money in modernising facilities to ensure the quality of collected products achieve the best market value and financial benefit of EfW energy output is maximised.
- Provide technical solutions for the MRF that are reliable and use proven technology to process new waste streams and are flexible to meet future recycling landfill diversion targets.
- Support local jobs and job growth, providing opportunities for local third sector recycling businesses with good working conditions and living wage.
- Increase Social Value by reaching out to communities through school visits, apprenticeships, training, inclusion and diversity different cultural groups and sub-groups, low income.
- Maximise use of the visitor centre to support community education on waste hierarchy, sustainability, waste avoidance and minimisation and influence culture / behaviour change.
- Improve customer service at HWRC sites with a customer focused system that is easy for residents to use.
- Prioritise reuse through education and reuse shops at HWRC sites, partnered with community groups to support community needs and low-income families.
- > Facilitate waste minimisation to meet recycling and landfill targets.
- Contribute positively to the local circular economy. For example, helping local energy-intensive industries or extracting useful materials to be used locally.
- > Provide opportunities to increase recycling of our waste.
- Affordability and deliverability.

Key reasons the other 2 options were not preferred were:

Option 1 (integrated)

- Performs poorly on the "contract management and flexibility" criteria for the HWRC and Landfill Monitoring service.
- There would be a reduced frequency of re-procurement to test best value on HWRC/landfill elements
- Contractors can lose focus on the smaller HWRC service elements compared to the larger treatment facilities (EfW/MRF), and it is challenging to incentivise them in a proportionate manner for this more public facing service.
- Whilst it is cheaper to integrate the HWRC service in Option 1, having it as a separate service in option 3 allows flexibility in the ability to modify service requirements as they change over time.
- The additional cost within option 3 is largely enhanced pension costs if the service were run in-house (an outsourcing option could still be used), which is a positive societal contribution compared to potentially lower private sector pension costs.

Option 2 (Lots)

- Some of the separate packages may be too small for bidder interest.
- Higher procurement costs/complexity for up to 6 contracts.
- Council has to procure and monitor multiple contractors and interfaces.
- The Council would have to act as mediator for shared-site issues between contactors.

A strategic extension to the current contract for a short period of time was considered desirable, as the assessment above notes a number of advantages, including time for council to;

- Resolve current limitations within the current contract with respect to handover of assets and contract expiry
- Concentrate on other concurrent service changes
- Explore the feasibility of bringing HWRC services in-house

There are a number of issues and risks to consider for Option 3, as covered in the next section of this report.

5. Preferred Option

This chapter sets out the considerations associated with the delivery of the Preferred Option.

5.0 Preferred Option interfaces

The Preferred Option (option 3), would have a number of new interfaces between different contracts, associated with the movement of waste from one service provider to another. A service map is set out in Figure 5.1.



Figure 5.1 Preferred Option service map

Amongst the key interfaces between service areas that will require more detailed consideration in future contract drafting and preparation are:

- Waste collection service delivery of waste to the WTSs. It is anticipated that this will be similar to the current arrangements, but with facility modifications to accommodate food waste.
- The Council may have to co-ordinate the loading of garden waste at the Transfer Pad into haulage vehicles. The best party to manage this haulage activity requires more detailed consideration. It is anticipated that the Contractor will manage delivery patterns/timings to third party composting outlets. The location of any offtake and opportunities for direct delivery will not be known until the contract is procured.
- Weaving Lane WTS interface with the separate HWRC service (whether outsourced or in-house);
 - \circ $\;$ Potential shared amenities.
 - Potential unhindered access of HWRC operator through WTS yard to collect HWRC containers (unless and until a new dedicated access is provided), subject to agreed transport plan



- Allowing movement and emptying of any HWRC waste containers into WTS (for example residual waste), with WTS contractor required to break down bulky items to render them suitable for energy recovery
- property/lease arrangements of different parties in relation to rights of occupation, access etc.
- potential contamination risk of recycled materials with different parties on the site and determining which party is responsible.
- The waste treatment contractor to provide contractual options for the separate offtake and treatment of food and garden waste through third parties. The waste treatment contractor will control these interfaces. If Council directs waste to a new arrangement, then they will take responsibility for the co-ordination of delivery patterns/timings between the Contractor and third party delivering or removing garden waste from the Transfer Pad. The Contractor would be required to manage movements from the northern Weaving Lane WTS.
- Waste treatment contractor to provide and manage market outlets for recycling etc.

The interfaces for other Service elements are:

- Waste collection service delivery of garden waste to Transfer Pad. This is anticipated to be as per the current arrangements, but the Council will need to manage interface with the HWRC operator, who will also be managing the pad. If the HWRC service is operated in-house this would be a purely internal interface so outside of the treatment contract. If there is a change in national policy requiring free collection, then the storage area may need revisiting to accommodate extra arisings.
- The Council will be required to arrange haulage for HWRC materials and procure and manage interfaces with re-processing and recycling outlets.

5.1 Technical considerations

Technical considerations that need to be managed as part of a future procurement process for the new Transfer and Treatment Contract include:

- > Interfaces between separate service elements (as outlined above)
- Works required for splitting Weaving Lane HWRC, timing before or after contract award, and interim operating conditions if shared access.
- > Permit transfers and application for new separate permit at Weaving Lane HWRC
- Contractual approach to upgrades of WTS required for reception and management of separate food waste and mixed plastics.
- > Need to consider and assign historic and future liabilities for site contamination
- New bidders will not fully understand cost-base for facilities, and ongoing lifecycle costs, so may risk price
- Developing the best approach to build in scope for future flexibility in order to accommodate changes related to future change in law or changes to council services over the next 10-15 years.

With regards to the separate HWRC service, a number of considerations are noted within the assessment in section 4.2, and summarised below;

- Limited time available for service transition (either re-procure or in-source)
- Need to further assess value for money for in-house or contracted out services
- Limited officer capacity to develop Service Delivery Plans for in-house services
- The Council will be required to take risk on HWRC recycling market prices
- Need to develop internal governance and procedures for in-house elements
- The Council will have to secure and manage offtake contacts for HWRC recyclables (or let a separate contract)
- LGPS pensions for in-house elements likely to increase council payroll costs
- The Council will be responsible for permit and H&S compliance on their own sites
- The Council will have to directly manage some haulage arrangements associated with transfers between treatment/recycling/disposal facilities
- Risk of in-house facility performance lies with the Council.
- The Council has no direct contingency backup access to other local waste management facilities for services run in-house (but this may not be required for HWRC services if temporary service disruption is acceptable).
- The Council may be liable if the condition of facilities not as expected or unexpected repairs or upgrades are required
- The Council takes all risk for maintenance and unexpected repairs and upgrades for any in-house elements.
- Insurance and fire protection risk

5.1.0 **Contract duration**

The total EfW lifespan cannot be accurately predicted, but experience at other UK facilities indicates 40 to 50 years should be achievable. This would be around 25 years from 2023, or until around year 2048.

The SBC proposed that the contract has a 10 year duration with the option for up to a further 5 year extension. Key factors to consider in determining the length are;

- \circ $\;$ The extent of refurbishment required and which party is expected to fund it
- How material price risk will be shared between the parties and the duration of risk which contractor is expected to take
- The expected lifespan of any new equipment/vehicles used in the service, and seeking to avoid expensive replacements toward the end of the contract
- What sort of change protocol will be included in the contract targets and payment mechanism to accommodate and changes that extended producer responsibility, deposit return scheme and consistent collections

• The level of investment made by bidders in tendering, and their reluctance to regularly bid and potentially lose new contracts

The soft market testing requested industry views on the duration, which concurred with a range between 10 to 15 years. Focussing on the companies considered most likely to tender for EfW operations, and/or a semi-integrated services the responses were:

- If the Authority wants the new contractor to fund and deliver any refurbishment works during the contract term, we would expect at least a 15 year contract term to allow sufficient time to recoup any investment.
- Minimum 15 year term with an option to extend beyond this. This allows for capital investment (e.g. refurbishment costs) to be written down over a reasonable period of time.
- Minimum term 10 years.
- Preference is long term contracts with an extension by mutual agreement. For the EfW, 10 + 5 years may be appropriate based on the residual life of the facility.

A factor flagged by X respondents is the level of capital investment needed for upgrades or maintenance. This has been only broadly estimated in this OBC due to the time that has passed since the last condition survey in 2017. A condition survey is currently in progress and results will be available to support development of the pre-procurement phase. If the investment needed is significant then 10 years may be too short to repay without unaffordable gate fees. Alternatively, the Council could choose to use prudential borrowing funding for major upgrade refurbishment and this could be written into the next contract.

Whilst a longer term 15 year contract seems more attractive in order to lower the annual gate fee, the remaining life of the EfW facility also needs to be considered. A longer 15 year contract would leave around a remaining 10 year life for the EfW facility, a period in which it has potential to be less reliable as it ages. This may reduce bidder interest, and if there were no market interest in a new contract, then there is a risk the facility would need to be taken over by the Authority, or closed.

Another factor is the level of national changes in waste management that are expected within the next 10 years, until around year 2030. Such changes are likely to result in some contractual Change Events with the incumbent bidder, but with no ability to open market test the price for accommodating such changes. The opportunity to let a new contract sometime after 2030 would provide the Council with the opportunity to seek competitive quotes for a revised service. By that time the remaining lifespan of the EfW facility could also be assessed, and an informed choice made on whether to extend the 10 year period, or let a new contract. For this reason a new 10 year contract, with options for yearly extensions up to 5 year is still recommended.

5.1.1 Flexibility of facilities

The preferred option has considerable flexibility through the EFW and the MRF to cope with fluctuations in both material tonnages and composition, and the range of the HWRC network allows good access to the general public. The positioning of the TLS allows onward transport of materials to the required destinations, which would allow any contractor flexibility to place contracts for a variety of recovery/recycling processes.

It is understood that the EFW has already been upgraded to meet the tighter emissions limits proposed within the current BAT/Bref note.

Two foreseeable issues which would need to be considered through the procurement process are the possibility of an energy from waste tax, and any future requirements to retrofit Carbon Capture and Storage (CCS) on the EfW. There are no specific dates for either of these to come forwards, nor any details of what this may require, including specification, timescales for implementation, derogations and exceptions.

5.2 Risk management

The Council retains a live Project Risk Register in a RAID log (Risks, Assumptions, Issues, and Dependencies). This is periodically updated by officers, managed by the central Transformational Team, and regularly reviewed at the Waste Transformation Board.

A risk workshop was held on 14th June 2021 to discuss the current risks on the RAID log and identify any refinements or additions in relation to the emerging Preferred Option 3. Breakout groups were held on a number of themes as shown in Table 4.7.

Risk Category	Considerations
	memes & categories for Misk analysis

1. Programme Management	Internal delivery of waste transformation programme To include insourcing HWRC
2. Resources & Waste Strategy	National policy/strategy
3. Current Contract – Handback Phase	Expiry of current contract in April 2023
4. Waste Contract Procurement	Procurement activity for new contract
5. Infrastructure	Technical issues related to each waste asset – HWRCs, EfW, MRF, WTS, AD
6. Commercial	Contractual risk allocations for new contract - to be developed later with legal support (not addressed in workshop)

It is to be noted that the future procurement will itself require a series of detailed Contract Risk Registers and a risk matrix for the allocation of risk within a contract and separately developed around the delivery of each discreet work package or lot. These will focus on the allocation of contractual risks between the Council and Contractor(s). They will consider what happens in various circumstances, such as

- Physical condition and "Fitness for purpose" of operational plant and equipment transferred over, timebound limits of liability, Latent defects, etc.
- Change of law and Legislative or regulatory changes
- Changes in the volume of demand for services
- Changes in waste characteristics, including volume, CV and composition
- Electricity generation and price risk
- EfW performance, maintenance and lifecycle risk

- Protester action
- Industrial action
- Default by contractor or a sub-contractor
- changes in predicted recyclate or energy income
- Financial and commercial risk profile changes (opex, inflation, insurance, interest, taxation)
- Force Majeure
- "Compensation Events"
- "Relief Events"
- Poor or Non-performance of services
- Termination due to default
- and many others.

This matrix and associated register will then be used to inform detailed drafting of the Contract conditions and can form the basis for early dialogue with bidders on how various risk are managed.

It is worth noting that many contract risks that are typical to major waste infrastructure projects have already been addressed or managed in Kirklees over the life of the existing contract. Risks that have been successfully managed under the current contract include;

- Planning permissions for new facilities
- Environmental permits
- Funding for new assets
- Design of complex waste treatment facilities
- Construction including management of ground conditions/contamination
- Latent defects after construction
- Ongoing operations and maintenance.

Some of these will carry through into the new contract, as well as those previously mentioned. Of particular interest will be those risks associated with the transfer of assets to an incoming contractor and the level of performance required under any new arrangements.

5.3 Market Competition

The project team has considered the SMT responses received by the Council, and collective market intelligence from team members engaged on other similar projects.

The Preferred Option would mean that waste contractors with experience in the operation and maintenance of EfW, MRF and WTS facilities and associated waste management services would be needed. Analysis would suggest that there are around X to X companies who could be potential bidders, but they will take a view on competing priorities and project risks when Kirklees goes to procurement, and X or more could choose not to bid.

The SMT exercise has suggested that there may be a larger potential bidder field for an EfW-only contract. However, the feasibility of being able to offer such an opportunity remains uncertain and would require detailed investigation of whether the MRF element could indeed be split out due to the physical and operational characteristics of the current site arrangement, and difficulties in sourcing site drawings and data. The deed of variation to the current contract facilitates this if desired, and also allow further market engagement with specialist providers who did not respond to the original SMT.

There may also be potential for various companies to bid together to provide a semi-integrated service (EfW + MRF + WTS), but no respondents flagged this opportunity in the SMT, so we do not have sight of their appetite for such strategic arrangements.

5.4 Environmental protection

5.4.0 Waste treatment

The proposed solution seeks to make best use of the exiting assets that have been developed and used in the delivery of the existing services for over twenty years. All of the identified options use a similar method of service delivery and only vary in their procurement and contract delivery structures. As such there are no material differences in the environmental impacts between the alternative structures. It was therefore agreed that comparative environmental performance was of limited value as a means of assessment between options and not a viable means of comparison. It was also noted that the Council have already undertaken Strategic Environmental Assessment as part of their development of the Strategic Outline Business Case and waste strategy that set the terms of reference for this OBC.

The technical solution seeks to deliver a sustainable waste management solution through a combination of reuse, recycling and recovery of collected municipal waste, and thus limits disposal to landfill to treated residues and fractions that cannot be treated by other means. The EfW facility emissions are understood to be complaint with the current requirements of the Environment Agency albeit that regulations may be periodically reviewed by government and other areas of improvement introduced around carbon capture and storage.

Carbon efficiency through the recovery of energy from the combustion of waste is continued and will be further enhanced through measures now included within the council's waste management strategy. These include the recovery of additional kerbside collected plastics for recycling in preference to combustion, the recovery of energy through the treatment of food waste through anaerobic digestion, which is potentially more carbon efficient, and further measures to increase the collection levels for recyclable materials at the kerbside.

5.4.1 Transport

Bulk transportation of materials is currently reliant upon diesel fuelled HGV vehicles. Although commercial scale operations are in their infancy, it is recommended that bidding contractors should be invited to explore the potential for powering their fleet with alternative fuels, within their tender submissions.

5.4.2 Heat network

Heat networks offer a way to make use of local 'wasted' energy and heat sources in a resilient and low carbon way.

Under a separate project the Council is developing the business case for a heat network which aims to distribute low-carbon heat and electricity from the Energy-from-Waste facility to premises across the town centre.

This will provide competitive advantages to the council, partners, businesses, and other users located in the town centre by cutting energy costs by an anticipated 10-15% and help maximise the added benefits to the district derived from how we process our waste. The heat network would also reduce carbon emissions associated with energy generation, increase energy security, and create construction and maintenance jobs. Heat offtake will also further increase the efficiency of the thermal conversion process.

This network would be outside the scope of this procurement. However, there are technical considerations in retrofitting the current EfW which would need to be addressed in the future procurement, including construction and installation of network connection infrastructure and any short-term disruption from site works to install the pipework.

There are also commercial and legal implications of connecting a heat network to the EfW, including the impact on electricity generation and heat demand risk.

5.5 Capital Impact

5.5.0 EfW Operation

5.5.1 MRF Modifications for sorting of Cartons and Plastic Pots Tubs and Trays

The MRF will require additional resources to support changes to the Environment Bill which will require separation of more material types in the MRF such as cartons and plastic pots, tubs and trays. For example, an initial capital allowance is likely to be required to allow the reconfiguration of the "phase 1" picking cabin with re-ordered metals capture, then a NIR scanner to target additional plastics. A full design for this modification will be needed to confirm that this option is deliverable. This cost is not included within the financial modelling and will managed in a separate budget.

5.5.2 Glass Collection

The proposal is to change from glass largely being collected through the network of bring sites to being a separated kerbside collection of glass bottles and containers. This will incur a capital cost to provide households with additional glass recycling containers, and additional capital for the associated collection vehicles. This will be managed in a separate budget.

5.5.3 Food Waste Collection

The collection of separate food waste is a new service. This will require additional household containers and additional capital for the collection vehicles. This will be managed in a separate budget.

Associated amendments to waste reception infrastructure would be required, so a provisional capital allowance has been allocated for re-configured tipping bays at the two Waste Transfer Stations. Further investigation is required into containment, capacity and permitting implications.

5.5.4 HWRC Upgrades

The Council has an ambition for improved recycling performance at the HWRC sites. It is expected that to improve the recycling performance the HWRCs will require a programme of refurbishment/ upgrade, covering signage, layout, organisation of containers and similar arrangements. The overall aim would be to improve the waste segregation behaviours of the public using the sites. This will be subject to further consideration and design. This cost is not included within the financial modelling and will managed in a separate budget.

5.6 Financial Issues

5.7 Procurement Approach

5.7.0 **Procurement Options**

The Public Contract Regulations 2015 implemented the EU Public Sector Procurement Directive 2014/24/EU. The different procurement procedures that can be used for the award of contracts are:

- The Open Procedure;
- The Restricted Procedure;
- Competitive Dialogue;
- Competitive Procedure with Negotiation; and
- Negotiated Procedure (without prior publication).

The adoption and use of the Open and Restricted procedures are generally reserved for relatively simple procurement exercises where the works and services being procured can be specified in detail or the services are being re-procured without substantial change or any need for innovation. The procedure does not allow for any negotiation or dialogue with bidders during the course of the procurement, with engagement being limited to items of clarification only. As a consequence, this procedure offers a direct response to the tender enquiry documentation with virtually no flexibility or opportunity to optimise specifications, shape bidder solutions, adjust risk allocation or modify price in relation to affordability. It is therefore not considered appropriate for the waste services which Kirklees Council will need to procure, as dialogue and negotiation will likely be required on a wide range of issues and risks (as noted in section 5.1).

The Competitive Dialogue and Competitive Procedure with Negotiation are procedures that are generally employed in circumstances where the contracting authority is unable or does not wish to fully specify its requirements and/or where there is risk and uncertainty on how the project may be delivered and/or financed (for instance bidders may have different ways of achieving a specified output depending on their risk appetite). Given the characteristic of the services and lots that will be included within the procurement the project team consider these options the most appropriate for the procurement of waste services required by Kirklees and are explored further below. The Council is satisfied that the requirements of regulation 26(4) of the PCR 2015 will be met by the new procurement, meaning it may use either Competitive Dialogue or Competitive Procedure with Negotiation.

Although once a more commonly used approach, the Negotiated Procedure is now only used in very limited circumstances, for example where the initial approach to a procurement has failed. This is primarily because the approach tended to result in lengthy and protracted negotiations late in the process, once a single bidder had been selected. In part due to the maturity and understanding of the Councils' requirements it is not deemed appropriate for the Council's needs and is therefore not considered further in the sub-sections below.

5.7.1 Competitive Dialogue Procedure

The competitive dialogue (CD) procedure is reserved for relatively complex projects, recognising a need for dialogue with bidders to develop the final solution that meets the authority's procurement objectives and affordability requirements.

Competitive dialogue processes usually make use of an enhanced SQ stage to identify bidders with an appropriate level of financial standing and track record/experience in delivering projects of a similar nature,

whilst also limiting the number of bidders that will be invited to participate in dialogue (ITPD) to manageable and pragmatic level.

The CD process is conventionally conducted in a series of stages that allow a competitive process and bidder solutions to evolve up to the 'final tender' stage (ideally with at least 2 bidders remaining in the process to retain competitive tension). Deselection can be exercised at each stage (outline tenders, detailed solutions) which is commensurate with increasingly detailed solutions being submitted for evaluation. There is no limit to the number of dialogue events that are held during each stage although there is always a need to be fair and equitable to all bidders. When a contracting authority is satisfied that it has solutions that meet its requirements it formally declares the dialogue closed and invites those tenderers remaining to submit final tenders.

Competitive dialogue allows solutions, pricing and risk allocation to evolve through dialogue, although this can take time. As a consequence, the service specification will typically be more output orientated in nature. Competitive dialogue is best suited to situations where the contracting authority, at the outset of the tender process, cannot objectively define the technical means of satisfying its needs/objectives, wishes to remain technologically neutral or open to innovation at the outset and/or cannot specify the detailed legal or financial make-up of the project.

A key feature of the CD process is that it allows the contracting authority to drive up the technical content and quality of proposals and agree risk transfer issues during the dialogue phase so that they all meet a high or acceptable standard prior to close of dialogue. As a consequence, the bidder submitting the most economically advantageous tender should be awarded the contract.

Other features of CD are that it provides for greater flexibility (if required) at various stages of the procurement compared to CPN, e.g.

- negotiations under CD can commence immediately after the selection/prequalification stage, whereas under CPN no negotiations are permitted at this point
- after the submission of final tenders, the received bids can be clarified, specified and optimised at the request of the contracting authority but changes that can be accommodated at this point are very limited
- Once a preferred bidder has been selected from the evaluation of the bids, there is a further opportunity (though no requirement) to negotiate with the preferred bidder to confirm financial commitments or other terms contained in the tender in order to finalise the terms of the contract provided this does not materially modify essential aspects of the tender or the procurement requirements and risks distorting competition or causing discrimination

5.7.2 Competitive Procedure with Negotiation

The competitive procedure with negotiation (CPN) is a relatively new procurement vehicle however is becoming more prevalent in the procurement of Environmental Services. CPN is essentially a hybrid of the restricted procedure and competitive dialogue procedures designed to provide a more efficient alternative to competitive dialogue that limits the scope for negotiation, whilst giving more flexibility than the restricted procedure. A key feature of CPN is the ability to award the contract on the basis of initial tenders received without having to invoke and carry out a subsequent negotiation phase to improve the tenders. This means the procedure in theory could complete early after evaluating the initial tenders, thereby shortening the process for bidders and the procuring authority alike.

The CPN procedure, similar to the restricted procedure, can make use of a pre-qualification process (SQ) to identify bidders with an appropriate level of financial standing and track record/experience in delivering projects of a similar nature, whilst also limiting the number of bidders that will be invited to negotiate.



The contracting authority must have assembled a detailed input specification and all necessary information for supply to bidders at the point of tender that describe and establish the minimum requirements for the goods or services. These minimum requirements cannot be subject to negotiation, and this effectively limits the scope of the negotiation phase.

Bidders are invited to submit initial tenders that as a minimum fulfil the minimum requirements and these initial proposals may then be discussed and revised during negotiations. In CPN initial tenders are offered by bidders without a negotiation phase and those initial tenders are used as the basis of negotiations in a subsequent negotiation phase under this procedure (if required. The contracting authority is under no obligation to engage in negotiation and may award the tender following submission and evaluation at any stage of the process (initial, revised or final tender).

Negotiation may cover several cycles and involve re-issue of the procurement documentation and subsequent receipt of revised bid submissions. However, the contracting authority must be clear in the procurement documentation as to how many stages of negotiation may be undertaken. Following the closure of the negotiations, bidders are required to submit their final tender for evaluation. The CPN procedure does not provide for any negotiation after final tenders have been received.

5.7.3 Recommended procurement route

Experience within the waste sector would suggest that both the CD and CPN procurement procedures are extensively used and the process understood by potential participants in the tender process. These procurement routes will allow for solutions to be developed in discussion with contractors, ensuring that value for money is achieved and that Council's objectives are met within medium to long term contracts awarded. When making the choice of procedure decision, the Council should have formed a view on the likelihood of being able to award the Contract after the initial tender stage. If negotiation is required, then one of the main advantages of CPN is unlikely to be relevant.

The indicative procurement timeframes are set out in section 6.0. Given the work required to submit a tender, the initial period for tender returns under the CPN or CD would be in the order of twelve weeks; tenderers will require time to establish the basis of their solution (including inspection of the transferring facilities, and identifying off-takers and re-use partners), negotiate outline contractual terms so as to prepare prices, and write their outline Service Delivery Plans (SDPs).

Under the CPN there is no opportunity to discuss with tenderers their solution during this period. If (for example) bidders identify an issue early on in the process that they cannot accept (e.g. the risk profile on a certain issue), it will have a significant impact on their overall bid (e.g. price) and this inability under CPN to negotiate during the initial tender stage may not be the most effective use of time where the procurement timetable is constrained' It is only after submission that the negotiation begins. This can limit the ability of tenderers to fully understand the Council's views on solutions or approaches.

It would also appear prudent that consideration be given to the use of the **Competitive Dialogue** procedure within the forthcoming procurement. This will allow dialogue to be conducted prior to the initial tender such that tenders do not embark on sacrificial work or develop solutions that are not reflective of the Councils' wishes or needs. It is to be noted that although there can be a perception that CD can become unwieldy and protracted, both CD and CPN allow for a similar level of flexibility in how the dialogue/negotiation phase is structured/conducted. Indeed, CD can be used to deliver a "targeted" dialogue/negotiation phase with a limited list of negotiation/dialogue topics.

6. Contract Management

6.0 Timetable/Programme

The OBC assumes that the procurement of new suppliers for the delivery of waste services for Kirklees is required to allow the award of new contract(s) prior to the expiry of the existing contract, with commencement aligned to be immediately after expiry of the existing arrangements.

The original contract was scheduled to conclude on 31 March 2023. Interim arrangements included a short contract extension of 2 years, taking the contract end date to 31 March 2025. An incumbent contractor would therefore be expected to take control of sites from 1st April 2025.

The timetable assumes that the procurement will commence in autumn 2022, allowing 9 months for a preprocurement phase. An 18 month period is proposed for the procurement process leading up to identification of a preferred bidder. Approximately 3 months is allocated to contract award, and 6 months for a mobilisation and TUPE process. Including contingency time, this timetable allows over 3 years from OBC approval in December 2021 to commencement of new services on 1st April 2025.

The successful progression into the procurement phase is predicated upon a number of factors including:

- Council approving OBC in December 2021.
- The Council has delegated the appropriate powers to allow the procurement to run, which would need to include an interim review or scrutiny before presentation for final endorsement or approval prior to contract award.
- By Autumn 2022, the Council is able to mobilise a procurement team, develop their tender strategy and data room, draft the principal documentation including, but not limited to, instructions to bidders, the proposed agreement and conditions of contract, detailed specifications, payment mechanism and performance management system, etc.
- In 2022, the Council taking clear and rapid decisions on risk sharing principles for the new contract, possibly without full or definitive information, to facilitate document drafting.
- Targeted dialogue, with bidders not raising issues which extend the number of meeting cycles required.
- A high quality of bid submissions which do not require significant dialogue or refinements following evaluation feedback.



Figure 6.1 Preferred Option service map



Table 6.1 Detailed Indicative Timetable

Activity	Commence	Complete
SQ S	Stage	
Deadline for production of required	03/01/22	09/12/22
documentation		
Prepare SQ & Descriptive documentation (SQ	12/12/22	27/01/23
Stage)		
Prepare FTS Contract Notice Notification	30/01/23	17/02/23
Publish Contract Notice on FTS		20/02/23
Publish SQ documentation		20/02/23
Tenderers prepare responses (30 days)	20/02/23	22/03/23
Receive SQ response		22/03/23
SQ evaluation & Approvals	22/03/23	26/04/23
Notify bidders		27/04/23
Dialogu	ue Stage	
Issue ITPD and Interim Tender (ITPD and ISIT		27/04/23
stage)		
Dialogue Meetings Rounds 1	28/04/23	23/06/23 plus 4
		weeks
Tenderers development of interim tender	28/04/23	21/07/23 plus 4
		weeks
Close Dialogue		14/07/23
Issue ISIT		14/07/23
Interim Tender returned		21/07/23
IT clarifications & evaluation	24/07/23	28/08/23
Internal governance	21/08/23	28/08/23
De-selection/ notification		29/08/23
ISIT Feedback	30/08/23	06/09/23
Dialogue Meetings Round 2	07/09/23	26/01/24

October 2021

Development of final solutions	07/09/23	16/02/24	
Close Dialogue		02/02/24	
Invitation to submit Final tender		02/03/24	
ISIT Returned		16/02/24	
Final Tender clarifications and evaluation (Final	19/02/24	11/03/24	
Tender stage)			
Moderation	11/03/24	18/03/24	
Issue recommendation report	18/03/24	25/03/24	
Award Stage			
Notify results to tenderers		26/03/24	
Standstill Period	27/03/24	10/04/24	
Preferred Tenderer	11/04/24	11/07/24 up to	
		November	
Contract Award		12/07/24	
Mobilisation	19/07/24		
Contract Start		April 2025	

6.1 Governance Structures

The governance structure for Kirklees Council is typical of most single tier local authorities with collection and disposal responsibilities. As a result of its impact on all wards and the high value of waste disposal services, the Outline Business Case requires approval from Cabinet. The approvals pathway for the OBC from working group to Cabinet is shown in the figure below. Regular 6-weekly progress updates are provided at Management Group level, with key decisions pushed upwards toward Cabinet. Approval of the OBC requires a Cabinet decision before commencement of a procurement process. Cabinet is also expected to take a decision on appointment of preferred bidder before any contract documentation is signed.

Figure 6.2 Project governance structure



Historically, PFI waste projects were subject to Gateway Reviews in advance of all key milestones. This reprocurement exercise is not supported by PFI credits, however, it continues to benefit from limited central government support.

Some external assurance continues to be provided by Local Partnerships as part of the current PFI contract. Other local government associations are also tracking progress through the Department for Environment, Food & Rural Affairs (DEFRA), Waste Infrastructure Delivery Programme (WIDP), and the Infrastructure Projects Authority (IPA). These central government organisations have a particular interest in contacts coming to their natural expiry and the preparedness of local authorities for re-procurement and have completed a contract management review and expiry health check review specifically for Kirklees Council.

In November/December 2020 DEFRA completed a contract management review and the Infrastructure Projects Authority (IPA) completed a health check on contract expiry and re-procurement. The recommendations report From both these exercises have fed into the details of this OBC.

6.2 Management Structures

6.2.0 Council Oversight and Governance

Internal Council structures are set out in Figure 6.3. Technical subject matter expertise will be provided within the project and additional assurance is to be provided by the Waste Transformation Board & the Council's transformation team.





6.2.1 External and internal Support

The contract expiry process will need to be managed alongside daily operations, putting pressure on internal resources as contract expiry will be resource intensive and requires specialist skills and knowledge. Consultant advisors will provide specialist legal, financial and technical waste industry expertise to assist in the procurement process.

Support from internal technical, legal & financial services will also be required and throughout the procurement process consultants will work alongside key in-house officers to ensure that they fully understand the contractual documentation that is developed including specifics of the final tender submission. Due to the long-term nature of waste contracts it is essential that robust record management and handover processes are in place to ensure knowledge of the contract is retained within the organisation.

The following procured consultant advisors will provide relevant support and industry expertise instruction to the programme as required and development of documentation as requested.

- Technical Wood Group UK Ltd
- Legal Bevan Brittan LLP
- Financial New Networks

6.3 **Procurement Strategy**

Following approval of this OBC, a significant number of work packages will need to be completed before starting the procurement exercise. The more information that is available to bidders, the more interest received from the market, leading to an improved value for money position. The Council will have less than 12 months from December 2021 to prepare documentation for bidders to support the procurement exercise. Some examples of which are provided below:

- Detailed contract specification documents outlining the Council's requirements. This should not reflect what is delivered now, but what the Council expects to be delivered in future which would include new or amended services expected to deliver the requirements of the Kirklees Resources and Waste Strategy, as well as any emerging national requirements of the Environment Bill.
- Detailed service delivery plans outlining requirements for all services required in future at all associated sites.
- Data library (virtual) to support a value for money bid.
- Development of a shadow model detailing costs associated with the expected services. Whilst this OBC contains costs associated with current service delivery, it contains limited details of additional or amended services the Council require in future.
- Details associated with any linked Council projects such as the Huddersfield Heat Network.
- Any investment or refurbishment required for facilities such as the EfW, MRF, TSs, compost pad and HWRCs and the time it would take to implement facility improvements.
- Impact of energy prices and difficult to predict fluctuations.
- Contract requirements for market testing (e.g. recycling value, reprocessors, MRF capacity, etc)
- And more...

The above is not a complete list of pre-procurement preparations required to deliver a procurement start date in Autumn 2022. This OBC has highlighted a number of key themes to support development of a thorough procurement exercise. The pre-procurement phase will need to be delivered at pace to meet the challenging timescales presented. Interim arrangements allow more time to deliver a robust procurement exercise.