

Report of the Strategic Director (Place) to the meeting of Regeneration & Environment and Overview and Scrutiny Committee to be held on 19th March 2024

ΑI

Subject:

Waste & Fleet Services - Performance and Contract review

Summary statement:

This report provides a description of the service provision and all Waste related activities during 2023 and those planned for 2024, to improve the management of waste to more sustainable levels in line with the Waste Strategy (Municipal Waste Minimisation and Management Strategy 2015).

This report also now includes details on the performance of Fleet Services and the "Managed Stores" contract.

EQUALITY & DIVERSITY:

Equality assessments - Please consider and comment on the equality impacts of any new, review, or removal of policies, practices, strategies, services or functions. In some instances this may require the completion of an equality impact assessment form. Full guidance is available on BradNet.

Equality objectives – if the work presented contributes to one of the Council's equality objectives a statement must be provided to explain what and how (more detail available in the report guide).

David Shepherd Strategic Director

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1. SUMMARY

This report provides a description of Waste Services operations, and an update on the work projects undertaken in 2022 to 2023, and those planned for 2024 in order to manage waste to more sustainable levels (e.g. minimise residual waste and increase recycling) in line with the Waste Strategy (Municipal Waste Minimisation and Management Strategy 2015) and the impending 2023 Government Waste Strategy implementations.

We have also no included details on the annual performance of Fleet Services and its main contract for a "Managed Stores" function. During 2023, both Waste and Fleet Services merged to provide a streamlined and cost-efficient function to the district and Council services.

2. BACKGROUND

The Council has statutory responsibilities for the following waste streams which are currently managed by Waste Services:

- Kerbside Collections of dry mixed recycling (DMR) from residents;
- Kerbside Collections of residual household waste from residents;
- Bulky Waste collections upon request from residents (paid for service);
- Clinical Waste collections upon request from residents (not under district healthcare);
- Provision of Household Waste Recycling Centres (HWRCs) across the district;
- Closed Landfill site monitoring;

In addition to the above, Waste Services also provide the following discretionary services which can be requested:

- Kerbside Collection of Garden Waste (paid for service)
- Trade Waste Services to commercial businesses (paid for service)
- Clinical Waste collections to commercial businesses (paid for service)
- Waste Electrical and Electronic Equipment (WEEE) collections to residents (paid for service)

All the above services are provided by in-house operations (described below), which are supported by several external contracts with the private sector for treatment of recyclates, residual waste and disposal services.

2.1 CURRENT SERVICES (2023)

2.1.1 Kerbside Collections

The collection service operates an Alternate Weekly Collection regime (AWC) where residual waste is collected on one week, and DMR the next, requiring 38 collection rounds, including 2 rural collections.

Most collections are made via 26 tonne Refuse Collection Vehicles (RCVs) with smaller vehicles being used for areas which are inaccessible to the larger RCVs. 2023 has seen the inclusion of a 32-tonne collection vehicle which is capable of carrying approx. 40% extra

waste compared to standard vehicles which allows us to increase efficiency.

Going forward property growth and the impact it has on the Service will be an on-going consideration as part of the budget setting process. On average, a new round is required per 5,000 to 6,000 properties. This figure varies between rounds due to distance, property types etc.

Each property utilises standard 240L wheeled bins for residual waste and DMR. This can be increased at cost to the resident for larger households to an additional 140L bin for residual waste.

Communal properties tend to have larger 1100L wheeled containers that are shared between the properties and in most cases are purchased by the Management Companies/Landlords under their responsibility for waste bin provision to residents. There is no defined ratio of communal bins per communal property but nationally, 1 x 1100L bin per 5 properties if multi-occupied seems to be the norm. This reduces to 1 per 8 properties for sole occupants. We advise of the relevant quantities required and monitor this moving forward but have no actual control over this area.

Approx. 110,000 tonnes of residual waste and 42,000 tonnes of DMR are collected from kerbside each year. Equating to around 600kg and 230kg per household respectively. This varies massively between different sized households and locations meaning that rounds are constantly being monitored to ensure they are efficient.

Approx. minimum of 88 RCV loads per day are required to facilitate the collection of material from kerbside.

2.1.2 Kerbside Recycling

The use of a fully comingled DMR bin makes our system one of the simplest systems in the country for the householder to use. However, we then need to sort the DMR into separate commodities to comply with Waste Regulations. The Environment Act 2021 has various legislative requirements for Councils. We have awaited the announcement of various changes which were deferred in 2021, 2022 and 2023, all of which will affect our service delivery and budget.

Market conditions, demand and ability of processors for a core mix of glass, cans, plastic, paper and card, changes on a monthly basis. We suffer with up to 45% contamination within DMR consisting of food, liquids, oils, nappies etc. This contamination tends to be hidden at the bottom of bins and in plain view sometimes and one bin can potentially contaminate a part or full load in a RCV.

2023 has seen a marked improvement in income from DMR sales compared to the previous three years. Combined with changes to our processing regime and use of third parties, we have seen the lowest operational cost for a number of years in this area. However, we are still seeing high levels of contamination despite all efforts to reduce this at source.

2.1.3 Garden Waste Collections

This paid for service which commenced in June 2016, with over 34,000 customers signing up for the service in 2017, over 35,000 in 2018, over 37,000 in 2019 over 40,000 in following years.

Currently we collect on a 12 x 4 weekly collection cycle, with no collections from early December to early January. The present annual charge for this service is £48 paid for up front with an early-bird discount of £8.

The garden waste is then sent for processing in to a PAS100 quality compost by a Contractor.

2.1.4 Bulky Waste Collections

This service is provided to domestic residents via a request system, for which an up-front charge is levied. The scale of charges relates to the number of items requiring removal, and a collection date is now provided at the point of service request. Collections are provided by a two teams working Tuesday to Friday, with demand for the service remaining fairly consistent at approximately 10,000 requests producing around 1,100 tonnes annually.

The charge to customers is now £30 for 5 items. The costs of service provision are directly linked to increases in vehicle, fuel, staff and waste disposal legislation and therefore need to be reflected in the annual review of charges.

These items are essentially furniture-type products that are too large to be placed in a bin and that residents are unable to transport to a HWRC. The service is for residents only and should not be used by commercial companies or Landlords.

In January 2023, the Environment Agency, Introduced new legislation on Persistent Organic Pollutants (POPs) which mandated that any cushioned or upholstered seating must be collected, hauled, stored and incinerated separately to all other waste streams. This has proved challenging and expensive to comply with.

2.1.5 Clinical Waste Collections

The Council has a duty to collect certain clinical and offensive waste from residents who are treating themselves at home. A suitably trained driver and specialised collection vehicle are used to facilitate this. The service is currently provided free, although Councils are able to charge for the collection aspect of the provision.

Where are resident is under district care, it is the responsibility of the care provider to dispose of any associated clinical waste.

In addition to providing a clinical waste and offensive waste collection under section 22(3) of the Control of Pollution Act 1974 or section 89, 92(9), 92C(3) or 93 of the Act which is to be treated as household waste or commercial waste in accordance with entries 1 to 6, the service generates income by providing this service to other 3rd parties where we are not required under statutory provision to provide this.

This includes agreed collections at cost from Dentists, Doctors, Clinics, Pharmacies, Tattooists and similar with income used to cover costs of the service provision. Approx. 20 tonnes of Clinical waste are collected each year.

2.1.6 Household Waste Recycling Centres (HWRCs)

The Council currently provides eight Household Waste Recycling Centres (HWRCs) to the district's residents. These sites are staffed and open seven days per week, excluding Bank Holidays, providing a wide range of containers to encourage recycling. A van permit scheme was introduced in 2006 to combat abuse of such sites by traders. In 2013 a residents' only

permit scheme was introduced to control cross border activity.

In March 2017 every household in the district was issued with a permit as part of the annual council tax papers sent to all 225,000 households. This now makes HWRC permits universally available to all our residents, encourages responsible management of domestic wastes and promotes greater recycling. Permits can also be requested via our two main HWRCs in Bradford and Keighley.

Materials accepted at HWRCs include; residual waste, paper, cardboard, metal, glass, green waste, wood, plastics, shoes, textiles, books, oil (both engine oil and vegetable oil), paints, carpets, mattresses, push bikes (which go to a reuse scheme) soil, bricks and rubble, polystyrene, batteries, light bulbs, florescent tubes, electrical equipment and unwanted household chemicals.

Our two Transfer Loading Stations (TLS) with prior notice, also accept Trade waste and other chargeable materials such as windows, tyres, plasterboard etc. for a cost to cover the operation of haulage, documentation and disposal. Specialist waste such as bonded asbestos, clinical and offensive can also be deposited by residents.

On average, around 42,000 tonnes of material is deposited at the HWRCs per year. This consists of 16,000 tonnes of general waste and 26,000 tonnes of other materials as described above.

Resident visits have been measured since April 2020 with 2023 data provided below. These figures have seen peaks of 11,000 to 18,000 visits per site during summer months and lows of 2,000 to 6,500 in winter months.

We have recorded circa 925,000 visits during 2023 which is an approximate 200,000 reduction on 2022 figures. Midland Rd, Dowley Gap and Dealburn Rd are the most visited sites again this year but as displayed below, levels of activity per day vary from site to site each month.

In regard to tonnage received, there is a slight reduction to 38,338 tonnes in 2023 vs 39,673 in 2022 and a continued large reduction vs 50,362 in 2021. Average weights received per visitor vary from 26kgs to 80kgs with Midland Rd and Bowling Back Lane receiving consistently higher weights per visitor than other sites.

Road 10,889 10,246 8,391 8,996 15,137 14,613 14,906 17,890 15,144 12,383 11,445 7,886 147,827 YGap 9,830 9,515 7,954 8,801 14,647 12,547 13,901 16,427 14,161 12,581 11,135 7,105 138,605 138,605 14,647 12,555 12,838 10,737 9,232 3,314 6,336 124,574 33,901 16,427 14,161 12,581 11,135 7,105 138,605 138,605 14,648 12,555 12,838 10,737 9,232 3,314 6,336 124,574 13,618 10,737 10,429 8,180 8,050 7,750 114,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187 14,187														
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Back Lane 8,148 7,736 7,315 6,879 14,176 12,156 11,291 12,077 10,429 8,180 8,050 7,750 114,187 Keighley 8,555 7,856 7,345 7,213 13,246 10,924 10,488 12,770 10,313 9,146 8,497 7,475 113,839 Hull 7,853 6,844 4,992 5,784 10,890 10,468 9,796 9,058 11,148 7,699 6,676 4,200 95,499 Butts 7,060 5,868 5,733 5,581 8,507 7,909 9,842 11,369 10,419 8,313 8,700 5,566 94,707 Hotts 7,060 5,868 5,733 5,581 8,507 7,909 9,842 11,369 10,419 8,313 8,700 5,566 94,707 Hotts 7,060 5,888 5,523 5,9323 101,938 93,107 92,632 102,409 91,451 75,305 69,573 50	138,605	7,106	11,135	12,581	14,161	16,427	13,901	12,547	14,647	8,801	7,954	9,515	9,830	Dowley Gap
Skeighley	124,574	6,336	8,314	9,232	10,737	12,838	12,535	14,118	14,835	9,321	7,829	8,670	9,809	Dealburn Road
## End	114,187	7,750	8,050	8,180	10,429	12,077	11,291	12,156	14,176	6,879	7,315	7,736	8,148	Bowling Back Lane
Hill 7,853 6,844 4,992 5,784 10,890 10,468 9,796 9,058 11,148 7,699 6,767 4,200 95,499 neuts 7,060 5,868 5,573 5,581 8,507 7,909 9,842 11,369 10,419 8,313 8,700 5,566 94,707 17 total 70,187 63,993 54,922 59,323 101,938 93,107 92,632 102,409 91,451 75,305 69,573 50,520 925,360 18	113,839	7,476	8,497	9,146	10,313	12,770	10,498	10,924	13,246	7,213	7,345	7,856	8,555	Royd Ings Keighley
## Butts	96,124	4,200	6,665	7,771	9,100	9,980	9,863	10,372	10,500	6,848	5,524	7,258	8,043	Sugden End
Trotal	95,499	4,200	6,767	7,699	11,148	9,058	9,796	10,468	10,890	5,784	4,992	6,844	7,853	Ford Hill
See	94,707	5,566	8,700	8,313	10,419	11,369	9,842	7,909	8,507	5,581	5,573	5,868	7,060	Golden Butts
See														
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1/22 3,120 3,451 5,583 5,428 4,461 5,520 4,936 4,946 4,101 3,398 2,950 2,468 50,362 1/23 2,989 2,460 4,024 3,934 3,868 3,860 3,610 4,031 3,328 2,930 2,606 2,032 39,673 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 38,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 38,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 38,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,6338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,6338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,838 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,335 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,604 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,694 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,694 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,694 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,694 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/24 2,485 2,694 2,567 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 3,338 1/2														
23	Total tonnes	Dec	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr	Mar	Feb	Jan	Tones per year
Part	50,362	2,468	2,950	3,398	4,101	4,946	4,936	5,520	4,461	5,428	5,583	3,451	3,120	21/22
per site	39,673	2,032	2,606	2,930	3,328	4,031	3,610	3,860	3,868	3,934	4,024	2,460	2,989	22/23
d Road 562 538 525 715 855 867 773 913 741 623 529 408 8,049 Back Lane 474 430 421 518 723 614 540 600 547 400 370 311 5,949 By Gap 320 378 344 532 674 581 536 569 481 457 395 276 5,545 S Keighley 357 325 335 436 609 436 475 518 436 375 321 268 4,890 By Gap 302 276 300 418 488 448 417 445 381 315 256 225 4,271 By Gap 302 276 300 418 348 346 337 342 386 333 269 254 133 3,456 By Hill 204 219 251 239 348 346 337 342 386 333 269 254 133 3,456 By Hill 204 219 219 322 449 377 299 334 313 264 228 159 3,385 By Butts 238 188 185 284 306 256 274 314 286 223 266 164 2,984 By Gap 3,573 4,450 3,916 3,655 4,080 3,517 2,926 2,620 1,945 38,338 By Sistor (Kilos) Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Average per visitor decay and the sep of the s	38,338	1,945	2,620	2,926	3,517	4,080	3,655	3,916	4,450	3,573	2,567	2,604	2,485	23/24
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rn Road 31 32 38 45 33 32 33 35 35 34 31 36 35	36	38	34	34	28	37	31	36	41	56	44	32	26	Ford Hill
		32	38	35	37	39	35	33	33	51	43	35	27	Sugden End
	35	36	31	34	35	35	33	32	33	45	38	32	31	Dealburn Road
		30	31	27	27	28	28	32	36	51	33	32	34	Golden Butts
per visitor 38 40 46 60 43 41 39 39 38 38 37 39 41	41	39	37	38	38	39	39	41	43	60	46	40	38	Average kg per visitor

Major changes to HWRC provision are expected in 2024 due to budget demands and waste legislation changes. This may include closure or limitations on certain sites, subject to consultation.

2.1.7 Transfer Loading Stations (TLS)

The service has two Transfer Loading Stations, one at Bradford, Bowling Back Lane and one at Keighley, Royd Ings Avenue. The TLS is where the waste collected is tipped off and weighed. The two loading stations receive approximately 230,000 tonnes of materials per year with Bradford accounting for circa 70% of material.

The tonnage described above is transferred to various processing and/or disposal sites by a mixture of internal fleet and contracted haulage. Approx. 40 truck-loads per day are required to facilitate the movement.

2.1.8 City Centre Nodes

2016 saw the first two Recycling Collection Nodes piloted in Bradford City Centre for residents living in multi occupancy accommodation, this was initially due to the number of large old office building being converted to apartments and not enough provision being made for the residents by developers. There are now four Nodes within the City Centre placed strategically for residents and pedestrians to recycle, glass, cans, plastic bottles, paper and cardboard. They are located in Little Germany, outside Britannia House, Manor Row and Forster Square. Further options are being considered for the City Centre.

The Nodes are collected fortnightly by RCVs. There have been some instances of contamination of non-recyclable material on occasions.

One issue with having on-street nodes is that some residents, businesses and by-passers see it as a central waste collection site and leave waste at the side of the nodes. This also happens with on-street waste and litter bins (both trade and domestic).

2.1.9 Trade Waste Collections

The Council operates a Trade Waste collection service to local businesses which currently has approximately 3,200 customers, collecting around 13,000 tonnes per annum of waste plus around 1,000 tonnes of DMR via 4 collection rounds.

Trade Waste operates separately to domestic collections with a dedicated team of staff involved. The following processes are in place or are being implemented to ensure costs of service provision are covered.

- 1. Full automation of the administration procedures.
- 2. Restructure of collection rounds.
- 3. Including a recycling offer as part of the overall Trade Waste Service offer.

The back-office processes are now fully automated which allows the production and management of invoicing which also alerts the service to stop collection if a payment has not been made, thus ensuring that the Service does not incur any future bad debt. Historically bad debt was a major issue for the service.

The Trade Waste database will allow customers to self-serve via a portal which also alerts customers when payments are due to avoid collections being ceased.

This service is intended to offer local business an alternative to multiple private sector companies that operate within Bradford. It is entirely discretional, and any income is reinvested within the service. The annual operational costs involved are circa £3m which is forecast to be covered this financial year. Each year costs must be reviewed and adjusted accordingly to ensure the service does not make a loss.

Businesses must pay for the waste we collect from them and 2022 had been a tough year with many customers disposing of more than 200% of their contracted allowance which effectively means the service loses money and is at risk of ceasing operation. During 2023, the service revised customer contracts and suspended accounts where excessive weights were being produced. This ensured that customers paid the correct amounts for the service and the operating costs were covered.

2.1.10 Waste electronic and Electrical Equipment (WEEE)

Waste Services are working with Wiser Recycling Ltd to ensure correct collection, recycling, processing and disposal of WEEE takes place at our HWRCs in line with current GDPR regulations and the WEEE Directive. Residents can deposit the items below securely at HWRCs or use our website to directly arrange kerbside collection of larger WEEE items by the Contractor.

- Mobile telephones
- Electronic tablets

- Laptop, desk top computers
- Hard Drives
- Internet connected devices TV's and TV Boxes
- Games machines (Nintendo, X Box, PlayStation)
- White goods
- Large domestic appliances
- Small domestic appliances

Wiser Recycling Ltd provide suitable locked receptacles where residents can dispose of the above items at the sites. They also have a fully licensed and permitted site to store, process and recycle equipment as well as multiple other contracts to ensure compliance with the contract and all other WEEE regulations. Residents are advised to remove and delete all personal data and personal accounts before disposing of the item(s); this statement has been agreed with Legal

2.1.11 Closed Landfill Sites (CLS)

The Council currently manages six closed landfill sites at; Dean House Farm, Manywells, Odsal, Sugden End, Wilson Road and Sun Lane. Closed landfill sites are governed by the Environmental Permitting (England and Wales) Regulations 2016.

These sites were previously used for the disposal of domestic and industrial waste generated by households and businesses from across the District. These sites are managed internally with a specialist contractor carrying out infrastructure works as needed.

Following closure of a landfill site it may require gas control measures to be installed. Manywells and Sudgen End both have gas pumped out and burnt by a process known as 'flaring'. Flaring takes place in specially built flaring units which break down the main part of the gas (methane) into carbon dioxide and water. Methane is a potent greenhouse gas and burning it in this way greatly reduces its impact on Global Warming.

Bacteria in the buried waste cause it to decompose, producing landfill gas containing methane (CH4) and carbon dioxide (CO2). This process can last for more than 50 years. Methane has to be carefully disposed of as it is potentially flammable or explosive and is a potent greenhouse gas. It is one of the jobs of the Waste Services to ensure that landfill gas is safely managed.

All of our sites are monitored on a monthly basis and a report is sent to the Environment Agency with the data collected from the sites as required. In 2022 we started to develop a revised aftercare plan due to the sites no longer being permitted. This is an ongoing project.

It should be noted that there are over 100 closed landfill sites within the district. Almost all are commercial sites that have been closed for a long period. Waste Services are only responsible for minimal regulatory work on the six landfill sites that are owned/managed by the Council. There is no budget allocated for large-scale investigation and remediation works with any such works being assessed as required. In some cases, budgets for the sites are split between multiple departments including Asset Management, Environmental Health and even Children Services.

Odsal CLS is one of the most challenging sites at present with various historic drainage problems, local housing development and leasing issues close to the site. Prior to 1981, the culvert running under the site was known to have collapsed but as this is around 40 meters

deep, there was no option to repair or replace it. Over the following decades, various projects were carried out in and around the site which included diversion of the inlet to the culvert close to Rooley Avenue.

The site includes a leachate lagoon at the lowest point which is designed to collect any leachate and ground water, prior to it being pumped to foul sewer at Rooley Croft. The leachate lagoon also accepts any outflow from the underground culvert with any overflow from the culvert travelling via drain to a pond know as Toad Holes Beck.

The water exiting from the culvert is thought to be a mixture of ground water, leachate, Spen Beck watercourse and potentially an unknown inlet. Analysis of the water has always shown high levels of ammonia regardless of the time of year or volume of water exiting the culvert.

In 2022, Waste Services were asked by the Environment Agency to investigate the ammonia levels, although the levels had been high for many years. We worked with the Council's drainage team and a sub-contractor to investigate and found that there was no water entering the site due to the abandonment of the culvert inlet some years before. Due to the culvert depth and collapsed sections within the site, it was impossible to complete any surveys of the culvert within the site.

Investigations proved that the leachate pumping system was failing and needed to be replaced. Works were completed during 2023 which have shown a significant improvement to the system which included full replacement of the pumps, electrical systems and 500 meters of drainage.

The site now operates as originally intended, however the EA are keen for the ammonia levels to be reduced. Ongoing discussion and investigation work is required during 2024 as the volume of water exiting the culvert is too great for any form of treatment facility to be constructed, hence the original design of the site was to divert the water to sewer.

At present, we are unsure of how water from Spen Beck is entering the culvert but there have been clear signs of silt (from the neighbouring construction site) exiting the culvert, along with litter, twigs and leaves which indicate there are potentially multiple inlets to the culvert. The surface water drainage from Odsal Stadium also enters the culvert and has been known to cause significant discoloration events until early 2023 when improvement works were carried out at the Stadium.

2.1.12 Waste & Dry Mixed Recycling (DMR) Treatment

There are two contracts in place for the treatment of DMR and residual waste.

In October 2019, the global recycling market went into a swift decline which effectively left most DMR unsuitable for sale.

This issue resolved very slowly and the markets pricked up from April 2021 and are still at a healthy level. We do now need to provide cleaner, high quality DMR to end processors than before, with most demanding 95% quality and above.

Multiple changes to internal processing have taken place and/or are planned to ensure we have a fit-for-purpose MRF and infrastructure in place moving forward.

The delayed announcements from DEFRA are anticipated to incur extra cost for LAs with a

view to reducing waste and creating a more circular economy. These include:

- The Environment Act Will give ministers the power to introduce a range of waste reforms such as extended producer responsibility, consistent collections and a deposit return scheme. DEFRA is currently working on consultation responses, which are due out early next year with the aim to help "transition to a more circular economy, incentivising people to recycle more, encouraging businesses to create sustainable packaging, making household recycling easier and stopping the export of polluting plastic waste to developing countries"
- <u>Simpler Recycling (formerly Consistent Collections)</u> will directly affect the service we provide by introducing food waste collections from all residents by April 2026. Additional fleet, staff, storage and contracts will be needed with initial estimates showing circa £3.6 needed for vehicles, bins and caddies and around £1.7m per year in operating costs. We have been allocated an initial £3.6m funding from government for this.
- Plastic Packaging Tax will provide a clear economic incentive for businesses to
 use recycled plastic material in plastic packaging and places a £210.82 per tonne
 levy on producers or importers of plastic packaging if they do not include 30%
 recycled content. The plastic tax could encourage manufacturers and retailers to
 switch to compostable packaging. Councils do not have the infrastructure in place to
 sort and treat compostable packaging, and there is a risk that compostable packaging
 will contaminate plastic recycling streams.
- Extended Producer Responsibility will mean that packaging producers will pay
 the full cost of managing packaging once it becomes waste. This will encourage
 producers to use less packaging and use more recyclable materials, reducing the
 amount of hard to recycle packaging placed on the market. Potential funding to
 Councils appears to be delayed until at least 2025.

A new DMR processing contract was procured and started in July 2023 and runs for five years, with Associated Waste Management (AWM) being awarded the contract. The contract is working well but still highlights that we are suffering with very high contamination levels in kerbside recycling bins.

Around 150,000 tonnes per year of residual waste are usually processed by our contractor (AWM). Throughout Covid19, this increased to circa 170,000 tonnes which has now declined to below pre-Covid levels. 2022 saw a reduction of circa 200 tonnes per week of residual waste which was believed to be partly due to the current cost of living increases combined with better bin policy compliance from residents. During 2023, we have seen further reductions of around 100 tonnes per week on average.

The waste treatment contract for the Council's residual waste commenced April 2018. This 12-year contract was awarded to AWM. At present, the contract is still working well and performance is reported to this committee within Section 3 of this report.

2.1.13 MRF

Our Materials Reclamation Facility (MRF) is located at the Bowling Back Lane site, in order to support processing of DMR from the kerbside. A mix of mechanical and manual picking separates out various DMR and contamination, to produce; mixed glass, cardboard, mixed papers, steel tins/can, alloy tins/cans and mixed plastics.

The levels of DMR contamination presented by residents means that we are reliant on third

party processors who have capability to clean contaminated products.

Due to the above-mentioned quality requirements increasing in 2022, our MRF is not capable of producing the required level on its own. Several trials of new machinery and market intelligence suggested a commercial-grade MRF would be needed. A business case was drawn-up to procure this with estimates of £4.5m investment needed. Unfortunately, market volatility, Covid delays, uncertainty around DEFRA guidelines from 2023 and site utility issues have prevented this project from taking place.

This delay/prevention has allowed us time to re-assess the market and our needs. Several trials of allowing raw (unprocessed) DMR to be sent directly to processors with high-end sortation equipment have proven that in-house manual picking of DMR is not the way forward for us. Without a guaranteed feedstock, a bespoke MRF would not be successful other than for reducing external spend.

Contamination of DMR at the kerbside is a major concern and awareness and education campaigns continue alongside enforcement. Recycling Advisors are a crucial role as is the Recycling Champion programme, launched during National Recycling Week (September 2018) to supplement face to face contact in every ward. Levels vary from 9% to 45% across the district with a cost of £1m plus per year being incurred.

Ongoing trials are taking place to assess whether our MRF is cost-effective and/or capable of current and future processing requirements.

2.2 WORK PROJECTS

2.2.1 Municipal Waste Minimisation and Management Strategy (MWMMS)

The Council's Municipal Waste Minimisation and Management Strategy was approved by the Executive in January 2015, and highlighted future waste policy development and the need to manage waste to more sustainable levels, by minimising waste, encouraging reuse and improving recycling at the kerbside and reducing levels of residual waste.

The Council's strategy will be revised in 2024/25 to take into account the changes from the 2025/26 and introduction of food waste collections, to ensure the Council achieves its statutory obligations and targets with the ever changing waste legislation.

2.2.2 Alternate Weekly Collection

Ongoing efficiency work and service improvements are being made to ensure a costeffective service is provided to residents. Costs of vehicles, parts and fuel are providing many challenges to the service at present.

2.2.3 Enforcement

Enforcement of the Bin Policy is carried out in conjunction with proactive engagement and behavioural change activities with residents across the District as outlined below. The crews use In-Cab technology to log any property which does not comply with the Bin Policy or produces contaminated recycling. This information is then used to issue a Section 46 notice to the householders detailing what action they need to take to rectify this and prevent further action being taken. Where a householder continues to present uncontained waste (side waste) an overloaded bin or contaminated recycling the Council reserves the right to take appropriate enforcement action which can lead to a fine being imposed on the householder(s).

The current number of Enforcement notices which have been issued during 22/23 compared to previous years are detailed below. Figures indicate the AWC has considerably reduced side waste in Bradford but not in Keighley where it has increased, however stage two action has reduced considerably in both areas. Contamination of recycling bins and subsequent enforcement has increased on both areas.

Bin Policy - Additional Bin / Side Waste		2018/19	2020/21	2021/22	2022/23
	Stage 1	6905	2973	6137	1897
Bradford Area	Stage 2	365	83	58	160
	Stage 3			3	
	Stage 1	415	760	664	490
Keighley Area	Stage 2	93	12	1	58
	Stage 3			1	

Bin Policy – Recycling contamination		2018/19	2020/21	2021/22	2022/23
	Stage 1	6538	7257	2738	6278
Bradford Area	Stage 2	24	78	30	312
	Stage 3			0	
	Stage 1	1380	1450	612	756
Keighley Area	Stage 2	10	15	13	21
	Stage 3			0	

2.2.4 Engagement & Behavioural Change

Changing behaviours through education, engagement and enforcement is key, as is improving and introducing a systematic and consistent approach to communications across the district in respect to waste and waste management. This is achieved through a wide range of formats i.e. leaflets/posters/letters/ stickers/website/press/radio/Council APP/Facebook/Twitter/Stay-Connected and Roadshows held at events and throughout the communities.

A programme of intense and targeted marketing communications work focusses on specific areas which have been highlighted as having high levels of contamination of recycling bins by staff at the MRF.

We introduced 'Operation Contamination' to combat recycling contamination: our Recycling Advisors accompany the crews and check recycling bins, placing contaminated bin hangers on any bins which contain contamination advising the residents this will not be emptied until the next scheduled collection and only if the contamination has been removed. A record is made of the addresses for enforcement in the future if necessary.

Recycling Advisors then re-visit the area to post through a letter and leaflet explaining that there are issues with contaminated bins and highlighting what can go in each bin (in simple pictorial form). Monitoring then takes place for the next few weeks, combined with door knocking at properties that may not be recycling as much as they can, or are confused about

what goes in which bin. Enforcement letters are sent if the householder persistently contaminates their bin or places more than one bin out for emptying.

Results from this initiative have been very encouraging, with both crews and staff at the MRF noticing that recycling bins are not as contaminated and are generally fuller as a result of the campaign.

Information and demonstration bins are also placed in local public buildings, such as community centres and libraries to reinforce recycling messages in the target areas.

2.2.5 Recycling Advisors

The promotion of recycling is a vital part of reducing the amount of residual waste the Bradford District needs to dispose of. We have four Recycling Advisors who work across the District visiting households and advising them of how to manage their waste in line with the Bin Policy. This has proved to be an invaluable way of engaging with residents.

The advisors look at the households needs and advise them on how they can reduce the amount of residual waste they produce by simply recycling. They also advise on what items can be recycled. The recycling advisors also visit residents who have requested a larger 360L residual bin to ensure the household meets the criteria of 7 or more residents in the property.

2.2.6 Recycling Champions

As a further recycling initiative we asked for residents of the District who are interested in becoming volunteer Recycling Champions and willing to provide advice and guidance to other residents on a voluntary basis to help others to recycle more and waste less. We currently have 240 Recycling Champions signed up across the District.

Anyone who is over 18 and is interested in recycling and environmental issues can become a recycling champion – they don't need any specialist knowledge, just be enthusiastic and willing to speak to other people, put large stickers on the side of their bins which say 'Ask me about recycling', be prepared to answer any queries their neighbours may have or get in touch with the Council on their behalf to find out more. They receive:

- Training
- Bin stickers to put on the side of their recycling wheelie bin
- Annual thank you event
- Stay connected monthly newsletter
- Access to extra information or promotions
- Up-to-date information before anyone else

At the training session the champions are asked to let us know if they are also prepared to:

- Share information with any groups they are involved in e.g. faith organisations, voluntary groups, parish councils
- Give talks to local groups
- Proactively distribute information in their local area
- Assist at local events/road shows
- Give feedback about what is working well or not

2.2.7 Electric RCV

In 2022/23 we trialled and then purchased an electric 26 tonne refuse collection vehicle.

This has so far proven to be great value for money as well as environmentally friendly. The RCV is being used mainly around the city centre and CAZ.

Initial data shows that the vehicle performs just as well as a fuelled variant and is capable of doing two days' work on a full charge.

2.2.8 WRAP Service Review

We have now completed an industry specialist review (DEFRA funded) to benchmark our various service provisions, locally and nationally to ensure we are operating efficiently and following best practice. This will aid with the expected changes from DEFRA in 2025/26 and predicts the best options for service delivery which is likely to be a dedicated weekly food waste collection service running alongside revised waste and DMR collections.

2.3 SERVICE PERFORMANCE

Local Authority Collected Waste (LACW), formerly known as Municipal Waste, is the total amount of waste that Waste Services handles; this includes waste from domestic collections, Household Waste Recycling Centres (HWRC), street cleaning operations and trade waste collections.

Household Waste (HW) which forms the majority of LACW, is that waste which arises from domestic situations, and includes kerbside collections of residual waste and recyclates, green waste collections, bulky waste collections, and waste and recyclates delivered by residents to HWRCs. It also includes street litter collected from around the district which under Waste Data Flow is classed as household waste.

Table 1 shows the overall results from 2014/15 to 2022/23 for LACW and HW.

Table 1 Waste Arising's

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
LACW (tonnes)	222,002	227,350	227,570	240,442	235,933	217,778
HW (tonnes)	191,681	194,900	195,025	212,054	206,356	191,500

The increase in tonnages from 2017/18 can be directly attributed to the increased level of property growth and population within the District as shown in table 2 below.

Table 2 Bradford Infrastructure

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Number of	215,180	216,700	218,190	219,140	219,613	220,710
Domestic						
Properties						
Population	534,800	537,173	537,173	539,776	542,128	546,976

The reduction in waste arising is shown in a different way in Table 3 below. The continuation of the bin policy and the full year effect of Alternate Weekly Collections (AWC) in 2018/19 should continue to bring about an improvement in these indicators over the next few years however property and population growth will also have an impact. Unfortunately, the NI 191 total doesn't reflect this although this has reduced, the reasons are due to the definition of NI 191 and how it is calculated, and this is explained further in key performance indicators

section.

Table 3 Kilos per Property/Person

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Kilos of Household Waste per person	358	362	361	393	380	350
Kilos of residual Household Waste per Household (NI 191)	563	544	530	602	600	530

2.4 <u>WASTE SERVICES OPERATIONAL PERFORMANCE</u>

Residual kerbside waste has reduced again in 2021/22 compared to 2017/18 whilst kerbside recycling has increased. Garden waste kerbside has fallen despite an increase in customers subscribing to the service.

Table 4 Kerbside Collection Performances

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
All tonnes	146,636	145,388	143,612	163,754	154,916	149,100
Collected at						
Kerbside						
Residual	108,117	104,061	101,301	112,504	108,823	103,460
tonnes at the						
kerbside						
Paper & Card,						36,493
Glass, Cans &	29,536	34,498	34,767	42,174	37,330	
Plastic tonnes						
Garden Waste	7,983	6,829	7,544	9,076	8,763	7,598
tonnes						
Number of	1,727	1,746	1,559	1,598	1,571	1,576
Properties						
Collected per						
day per round						
(average)						
% rate of	0.31%	0.24%	0.16%	0.10%	0.07%	0.12%
missed bins						

Garden waste tonnages collected at the kerbside have reduced owing to this now being a chargeable service (see also comments in item 6 below).

The bottom line in Table 4 (which was a new addition from 2015/16) is an attempt to measure the quality of the service, whose main aim is to empty bins; therefore, a measure of the level of quality could be regarded as the % of missed bins, i.e. service failure, however it is recognised that not all reported missed bins are confirmed missed bins – with the continued use of In-Cab technology the true figures will be more accurate.

2.5 BULKY WASTE COLLECTIONS

The bulky waste collection service continues to collect between 1,000 - 1,200 tonnes per year. The introduction of a charge for bulk waste collections during September 2013, has not affected the overall tonnages collected.

Table 5 Bulk Collections

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Bulk Collection Tonnage	1108	1,139	1,213	1,039	1,010	1,093

2.6 HOUSEHOLD WASTE RECYCLING CENTRES (HWRC)

Use of HWRCs remains high as shown in Table 6 post introduction of the resident only permit scheme in 2013.

Dry recycling shows a slight decrease however HWRC continue to show excellent levels of waste diversion before treatment.

Table 6 Household Waste Recycling Centres

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Total Waste arising at HWRCs (tonnes)	43,450	47,132	48,467	45,451	47,682	40,829
Residual waste - sent to landfill/treatment (tonnes)	13,571	16,799	17,047	17,112	18,444	16,128
Garden Waste (tonnes)	8,256	8,404	8,614	7,306	8,047	6689
Dry Recycling (tonnes)	16,184	15,801	15,634	13,756	13,997	12,656
Soil/Rubble (tonnes)	5,439	6,128	7,171	7,277	7,194	5,356

2.7 KEY PERFORMANCE INDICATORS (KPI)

Table 8 below shows the KPIs for Waste Services.

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Kilos of residual Household Waste per Household (NI 191)	563	543	530	602	600	530
Total %waste recycled/composted including contribution from waste treatment (NI 192)	35%	39.8%	40.7%	37.8%	36.1%	38.9%
Total tonnes of waste to Landfill (NI 193)	10,095	7,789	2736	2,821	2,973	1,785
Kerbside recycling %	26%	33%	29%	31%	44%	30%
HWRC recycling %	69%	64%	65%	62%	61%	60%
Total waste to Energy Recovery %	60%	58%	59%	62%	63%	61%
Total waste to landfill %	4.5%	3.4%	1.2%	1.2%	1.3%	0.8%

NI 191 figures post 2016 exclude recycling, reuse or composting under the refined definition.

The net result is that NI 191 has increased because we have not been able to claim any composting tonnages compared to previous years.

NI 192 performance is directly linked to the global recycling commodities market, environmental legislation and quality demands. Recycling performance remains below previous years despite improved recycling tonnes collected at both kerbside and via Household Waste Recycling Centres (HWRC). In addition, our waste contractor (AWM creates refuse derived fuel (RDF) instead of recycling low quality recyclates extracted from our waste, due to depressed commodity prices. RDF does not count towards recycling performance.

Due to contamination levels of recyclates running at circa 40% when presented by residents, there is a large cost of attempting to clean and segregate the material and dispose of the left over waste. Continued education campaigns have had little effect on improvement.

Alternative working arrangements and planned improvements at the Material Recycling Facility (MRF) should also see improved recycling rates in the coming years.

NI 193 Waste sent to landfill continues to be minimal due to the nature of the treatment contract.

The Council's upstream kerbside recycling performance as shown on line 4 has increased significantly.

HWRC recycling and diversion performance continues to remain high as shown in line 3.

In line 6 waste to energy has risen significantly owing to more waste being placed to waste for energy and thus less tonnes landfilled as noted above.

3. REPORT ISSUES

CONTRACTOR'S RESIDUAL WASTE TREATMENT PERFORMANCE

Associated Waste Management Ltd – Bradford Waste Treatment Project - Executive Summary

Associated Waste Management Ltd (AWM) is pleased to submit its report for the City of Bradford Metropolitan District Council's (Council) Waste Treatment and Disposal Project (Project). AWM believes it has been well placed to meet all of the Council's objectives for the Project.

The table below reflects the performance by the waste treatment contractor in treating and disposing of the Council's residual waste.

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Waste direct									
to landfill	161	1,477	135	179	261				
Waste to									
treatment	164,951	167,136	163,762	154,046	155,383	132,245	154,376	168,446	

Waste recycled or								37,376	
composted via treatment	57,014	24,822	26,075	17,657	18,850	17,200	22,027	37,370	
Waste to Energy	66,483	94,506	119,976	126,768	130,620	110,353	128,652	128,825	
Recovery	00,403	94,500	119,970	120,700	130,020	110,555	120,032	120,023	
Total waste to	40.400	00.540	47.744	0.004	0.040	0004	0.045	0.044	
Landfill (NI 193)	43,139	39,510	17,711	9,621	6,048	2221	2,315	2,244	

Treatment/Disposal Performance (in tonnes)

Waste direct to landfill

Waste sent direct to landfill decreased in 2021/22 owing to improved availability of waste treatment facilities operated by the waste treatment contractor compared to last year. Note disposal of residual waste to landfill is always a last resort.

Waste to treatment

This has increased during 2021/22 owing to additional waste which is mainly attributed to the Covid pandemic and more people working from home.

Waste recycled/composted

There has been an increase in recycling over the previous year due to more recycling of the residual waste prior to treatment. Whilst the market has seen lower prices in commodities generally we have maintained our production through improvements to quality and reliable off takers through AWM.

Composting options still remain scarce, but we continue to work with new outlets and audit the facilities prior to use accordingly to ensure the process is robust and offers the optimum disposal BAT option for the contract

Waste to energy

This has maintained a steady level since the opening of the EF2 site, and again is welcomed as the waste is used to produce energy for the grid and provide power and jobs for the local Yorkshire community. However further tonnes have been put to waste to energy at the expense of landfill tonnages, resulting in a significant reduction in waste sent to landfill. This continued reduction in waste sent to landfill is again is to be welcomed.

The % of our waste sent to landfill was 1.5%, well within our targets set to AWM under the contract.

Background and Energy from Waste (EfW) update:

AWM contracted with Effinium Multifuel Energy 2 Ltd (EF2) who have built and now operate a 630,000 RDF processing facility (EF2) at Effinium power station in West Yorkshire. EF2 is a joint venture organisation ultimately controlled by SSE plc and Wheelabrator Technologies Inc, two multinational companies with extensive expertise in the fields of waste management and power generation. These same two companies also own Effinium Multifuel Energy Ltd which operates the 'sister' plant (EF1) alongside which EDF2 is being built at Effinium. FM1 has been operational since July 2015.

Secondarily, as a long term contingency solution, we are contracted with experts in RDF processing/export in Europe. The contracts with AVR, Andusia and Geminor guarantee access for the full volume of RDF to be produced from Contract Waste to large CHP plants in cities such as Oslo, Amsterdam and Bremen.

As a result of this structure AWM is in a position to offer the Council a solution that treats Contract Waste in an effective, efficient, economic and environmentally sustainable manner which meets and exceeds the Councils output specification and objectives, specifically to:

- Commit to the Council's turnaround targets as set out in the Performance Framework
- Guarantee diversion of Contract Waste from landfill by more than 90% with a forecast performance in excess of 95%
- Guarantee more than 6.0 % recycling rate for the Council from Contract Waste
- Guarantee a recovery rate of more than 95% with all our proposed RDF processing outlets being R1 compliant
- Continue to offer substantial added value with regards to environmental, economic and social benefits, to the district of Bradford and the Yorkshire region

AWM continues to offer a two site waste reception and processing solution both of which are fully controlled by AWM. Details of the sites and the individual technologies proposed are outlined in the table below.

Facilities	Use	Treatment Technology	Permitted Tonnage	Turnaround Times
Valley Farm	Primary facility for		450,000	
Road MRF,	receipt and processing		tonnes	
Stourton,	Contract Waste	Mechanical		20 minutes
Leeds		reclamation		bulk & 15
		& automated		mins RCV
Gelderd Road,	Contingent facility for	separation	200,000	direct
Leeds	receipt and processing		tonnes	
	Contract Waste			

Valley Farm Road operates as a 'super MRF' and has the capacity of 450,000 tonnes per annum of mixed waste streams including Municipal Solid Waste. Like all AWM MRF plants the front end technology copes with a high throughput of materials typically running at between 45-55 tonnes per hour.

All processing post receipt of waste into the reception area is checked by a manual handling process to ensure the principal waste acceptance criteria are met. Waste is then loaded into the reception shredder and cut to a fraction size of between 270-300mm.

All waste is then subjected to a screening process to separate 2D and 3D materials and to separate small fine and organic materials from added value materials such as commodities including metals, plastics, paper fibre and inerts.

In order to process and capture materials we use a combination of screening technologies to prepare the waste streams prior to market.

The Valley Farm Road MRF plant recovers the specified materials in our solution by using the plant shown below. The other AWM MRF facilities also have installed equipment very similar to this but utilise the principle methodology of magnetic fields, high and low pressure environments with sieve screening throughout the processes.

Guaranteed (Bid Back) Performance Category	Guaranteed (Bid Back) Performance Levels (%)
Guaranteed Contract Waste Landfill	90.01%
Diversion Rate	

The actual diversion rate was 98.5%

AWM facilities have developed significantly over the past 10 years from simple transfer stations operating a range of recycling equipment to the introduction of bespoke and complex Material Reclamation Facilities treating a range of mixed and single stream waste streams. AWM have permits and manage planning regulations on more than 4 locations across West Yorkshire receiving more than 600,000 tonnes of mixed waste streams including MSW, C & I and C & D. Total direct landfill as a consequence of all treatment plants operated by AWM mean that less than 20,000 tonnes per annum have historically been landfilled from all incoming waste streams.

Today AWM can report that the landfill diversion for MSW and LA waste inputs is over 90% landfill diversion.

AWM have historically reported continuous landfill diversion on behalf of Bradford Council up until 2015 at 76%. Since April 2016 the diversion has increased to over 95% as reported monthly as part of Defra Waste Data Flow.

AWM can boast in 2007 the first installed combination of technology offered and used by BradMet provided in part from Holland, Germany and the UK.

During the past 14 years AWM management have seen huge advances both in technology and also Environmental Permitting, including waste management licences and risk assessments including Health and Safety, Environmental, Odour and nuisance management. The most significant aspects being the H4 Odour management protocols issued for consultation in 2011/12 requiring operators to formulate operate and correctly manage control measures for air pollution and odour migration emanating from more difficult and organic waste streams such as MSW.

Guaranteed Category	(Bid	Back)	Performance	Guaranteed Performance L	(Bid ₋evels (%)	Back)
Guaranteed R	ecyclin	g Rate		6.01%		

The actual performance during 2021/22 was 24.62%

The MRF technology provided by AWM has been designed to recover the following key commodities;

- 1. Paper and Card
- 2. Plastic films and Rigid plastic
- 3. Inerts and glass
- 4. Ferrous Metals and Non Ferrous Metals
- 5. Wood

With the exceptions of Metals and Inerts the other commodities are recovered through use of mechanical and manual means. Metal recovery is achieved by way of automated and mechanical systems involving electromagnetic fields and eddy current separators using opposing fields. We have summarised the flow diagram below illustrating the component parts and capture and exit points for recovered materials. This also includes the scrap and ash recycling carried out from the RDF incineration residues arising from the Effinium sites at Ferrybridge

Guaranteed	(Bid	Back)	Performance	Guaranteed	(Bid	Back)
Category				Performance L	_evels (%)	
Guaranteed Contract Waste Recovery Rate			95.01%			

The actual recovery rate excluding landfill and recycling / compost was 99.8%

Since 2010 AWM has pioneered the export and preparation of RDF from the treatment of MSW, supplying quality CHP plants throughout Northern Europe. The plants supplied include those operated by local municipalities, state utilities and merchant plant operators.

AWM holds term contracts with several outlet companies / operators and are listed beneath.

Company	Plant	Contracted tonnage	CHP Rating	Term
AVR	Rotterdam	14,000 tpa		2011-2032
Andusia	Amsterdam Bremen Oslo	20,000 tpa	R1	2015-2032
Geminor	TFS's across europe	20,000 tpa		2015-2032

The primary RDF offtake solution is still FM2 facility operated by Effinium who work closely with AWM to ensure the Council has the best local circular solution

FM1 has an industry leading high efficiency of 31% net/thermal efficiency, scoring 86% R1 assessment using first 6 months' operational data.

The enfinium Ferrybridge 2 Energy from Waste facility received 630,000 tonnes of Refuse Derived Fuel (RDF), produced from commercial and municipal waste, shredded to less than 300mm and delivered to FM2 by road haulage.

All RDF delivered to FM2 is subject to strict quality controls and an extensive sector leading sampling and testing regime with further spot inspections taking place during unloading.

All delivered RDF is incinerated in two purpose designed water tube boilers with a moving grate floor which progresses the RDF through the boiler heat zones with temperatures exceeding 850°C in a controlled manner to achieve complete combustion with the heat produced being used to raise steam to produce electricity to power the facility and also export to the to the regional distribution network. In 2020/21, Ferrybridge 2 exported 548,000 MWh, enough to power 130,000 homes.

Incinerator bottom ash and recovered ferrous metal are removed from site by road haulier and reprocessed into construction materials and recycled ferrous metal respectively. In 2020/21, 120,000 tonnes of Incinerator Bottom Ash were taken to the adjacent Blue Phoenix

Ferrybridge facility for reprocessing and 19,500 tonnes of ferrous and non-ferrous metals were recovered for recycling.

Flue Gas Treatment takes place inside a semi-dry rector positioned downstream of the boiler, where the waste gases pass through powdered lime to reduce acid gases and also powdered activated carbon which absorbs heavy metals present in the gas stream. they pass through banks of bag filters to remove particulate matter (dust) which is contaminated with Lime and Carbon, known as Air Pollution Control residue (APCr). In 2020/21, 25,000 tonnes of APCr was taken to OCO Technology Ltd in Leeds where it is reprocessed into an aggregate product which can be used in the construction and road building industries.

Flue Gases are emitted from the 100m tall stack after they have been passed through the Flue Gas Treatment area for the reduction of harmful components. Emissions are continuously monitored for compliance with the emission limits specified in the Environmental Permit.

Bottom ash is currently contracted to Ballast Phoenix at their Sheffield site where they extract any residual metal and recycle the aggregates generated by grading the ash. This provides a valuable resource for local projects in the South Yorkshire area.

The AWM staffing figure has grown significantly (530%) since the Company formed in 2000, with the need for a more diverse, adaptable and skilled workforce.

The breakdown of our entire workforce is as follows:

28% administration & management37% drivers12% engineering23% industrial pick-pack

AWM commenced a Corporate Social Responsibility (CSR) programme in 2012 that was designed and developed with sustainability in mind. To address the needs of the Social Value Act our CSR policy was developed to address three main focus areas:

- Community
- Environment
- Economic Growth

One key initiative to benefit the business and local community was a drive for each site to recruit from their local community. Our data shows that with this principle in place, 85 jobs have been created and satisfied by people from Bradford; in turn this created an additional 'local' salary growth of £250,000 during 2015 alone.

Not only does this increase local peoples' work prospects but by recruiting people that live within a short distance to the facility they will be working, the carbon impact of their journey to work will also be minimised.

Once recruited, AWM then use third party training companies to enhance the transferrable skill base of our workforce to meet the needs and demands of the business. In addition to creating main stream career opportunities, AWM have also engaged in the delivery of Apprenticeships within our Engineering division. Providing young people with prospects

within vocational roles not only gives us the chance to close skills gaps but also utilise local communities as a source of labour; enhancing local peoples earning & prospect potentials.

AWM is committed to providing a quality service which supports the Council in a variety of key areas, as well as adding value to, and having a positive impact on the local communities and environment within which it operates. As an example AWM and FMFE2L have proposed two sharing mechanisms to the benefit of the Council as part of our Bid:

- AWM have guaranteed a substantial volume of income from recyclates in the financial model and this is helping to subsidise the guaranteed Waste Treatment Rate being proposed. In addition to this guaranteed subsidy AWM will share upside in excess of the guaranteed levels. The mechanism is detailed in our Financial Schedule 5 (Payment Mechanism) response but in simple terms it offers the Council the opportunity to share in upside generated either as a result of rising commodity prices and/or increased performance by AWM with regards to recyclate capture from Contract Waste.
- The gate fee incurred by AWM for RDF processing at FM2 is already substantially subsidised by guaranteed levels of power income. In addition, FMFE2L have proposed a sharing mechanism which offers the Council the opportunity to benefit from the impact of electricity prices being above specified 'strike' prices in the future. The mechanism is detailed in our Financial Schedule 5 (Payment Mechanism) response. The mechanism is detailed in our Financial Schedule 5 (Payment Mechanism) response.

3.1 Fleet Stores Facility Management Contract

It was agreed in March 2023 that we would provide annual updated on the performance of the continuation of the outsourced Fleet Stores contract. The contract had been procured to start 01/09/2023 via the YPO Framework 1117.

Fleet Factors were once again appointed as the provider, having been in place since 01/08/2018 for the previous contract period. The new contract runs for up to five years.

The contract ensures the Council's entire fleet has a stock and supply chain of parts and consumables at a reduced-price rate in order to minimise downtime for essential services whilst maintaining value for money.

Prior to this option various others were considered. We did provide the service "in house" for a while but this was not cost effective as we didn't have the technical expertise, systems or buying power that is available from private sector companies. There is no current proposal to return to in-house provision.

To insource all requirements, we would need a minimum of two full time employees, at least one delivery vehicle, purchase of bespoke IT systems capable of interacting with multiple national companies and databases. We would also not be able to secure the high volume-based discounts that a national company the size of Fleet Factors, are able to attain.

Estimated costs for insourcing would be at least £200k to £300k as a minimum per year, based on the above requirements. The annual cost for the contract is currently forecast to be around £900k which includes parts, staffing and administration costs. This expenditure is slightly above previous years due to inflation and general parts price increases.

	Parts	То	tal price
2021	53,533	£	838,783
2022	43,944	£	871,056
2023	44,542	£	889,265

Prices from September 2023 have ranged from £0.12 for standard vehicle bulbs to £12,000 for specialist mowing machine parts. Analysis shows that 20% of parts are 80% of the total expenditure due to being high value parts.

Fleet factors have performed exceptionally well, ensuring that:

- 92% of required items have been held in stock.
- 72% of items have been from factors rather than main dealers.
- Over 3,700 items per month have been provided.

The contract includes the supplier to work within Shearbridge Depot, providing two members of staff, all IT systems, stock control, collection and delivery of parts and specialist advice. Additionally, the supplier is to on charge the Council and "on-cost" for the management of the contract and daily operation. This is historically around 11% of contract expenditure (circa £100k per year).

4. FINANCIAL & RESOURCE APPRAISAL

Volatility of residual waste and recycling tonnages have financial impacts on the service budget which requires constant monitoring and management. The service has no control over market conditions and income can reduce massively with no notice. We can however minimise and/or reduce internal processing costs and share risk with processors via a gain-share agreement.

Waste legislation, property growth and resident behaviour have a direct impact on budget, as do fleet management costs in relation to such a large demand-driven service.

For the year 2022/23, Waste & Fleet Services achieved a £2m underspend vs budget. This was predominantly due to efficiencies in transport, waste acceptance and staffing costs as well as a downturn in the tonnage of waste produced by the district.

For the year 2023/24 the service is currently forecast to achieve a similar £2m underspend vs budget.

5. RISK MANAGEMENT AND GOVERNANCE ISSUES

This report is for information and discussion only.

6. LEGAL APPRAISAL

There are no direct legal implications arising from this report, however care needs to be taken to ensure that no commercially sensitive information is disclosed.

7. OTHER IMPLICATIONS

None Known

7.1 SUSTAINABILITY IMPLICATIONS

The continued increases in recyclates collected and reductions in waste to landfill contribute positively towards national and EU targets.

7.2 TACKLING THE CLIMATE EMERGENCY IMPLICATIONS

The RCV fleet is now 100% CAZ compliant, including 1 x electric RCV. Further plans for Bio-methane, Electric and/or Hydrogen powered fleet are being explored.

7.3 COMMUNITY SAFETY IMPLICATIONS

N/A

7.4 HUMAN RIGHTS ACT

N/A

7.5 TRADE UNION

Trade Unions are updated monthly on all plans/projects within the service.

7.6 WARD IMPLICATIONS

There are different levels of recycling and bin policy compliance by collection round and hence by each ward. Relevant communication takes place in an attempt to increase recycling participation and reduce waste/fly-tipping.

Particular projects to reduce side waste and fly-tipping in the city centre and work with Neighbourhood Wardens has been taking place during 2022/23.

7.7 AREA COMMITTEE LOCALITY PLAN IMPLICATIONS (for reports to Area Committees only)

N/A

7.8 IMPLICATIONS FOR CHILDREN AND YOUNG PEOPLE

Refer to the guidance contained in the Report Guide.

7.9 ISSUES ARISING FROM PRIVACY IMPACT ASSESMENT

N/A

8. NOT FOR PUBLICATION DOCUMENTS

N/A

9. OPTIONS

N/A

10. RECOMMENDATIONS

That Regeneration and Environment Overview & Scrutiny Committee consider the information presented in this report and request a further progress report in January 2025.

That a site meeting/plant tour be arranged for the Regeneration and Environment Overview & Scrutiny Committee to visit AWM's waste processing plant at Leeds and also the Ferrybridge FM2 waste to energy plant.

11. APPENDICES

N/A

12. BACKGROUND DOCUMENTS

N/A