



Cumbria Waste Needs Assessment 2022

Management Requirements for Hazardous Waste in Cumbria to 2037

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Abbreviations and Glossary

Abbreviations

C, D & E / CDEW	Construction, Demolition & Excavation Waste
CFC	Chlorofluorocarbon (gases)
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
ELVs	End of Life Vehicles
EWC	European Waste Catalogue
GVA	Gross value added
HTI	High Temperature Incineration
HWI	Hazardous Waste Interrogator
HWRCs	Household Waste Recycling Centres
IED	Industrial Emissions Directive
LACW	Local Authority Collected Waste
LDF	Local Development Framework
MRS	Metal Recycling Sites
nPPG	National Planning Practice Guidance
PI	Pollution Inventory
POPs	Persistent Organic Pollutants
WDI	Waste Data Interrogator
WEEE	Waste Electrical & Electronic Equipment
WNA	Waste Needs Assessment
WPA	Waste Planning Authority

Glossary of Terms

Construction, Demolition & Excavation Waste	Waste arising from construction and demolition activities, including excavation during construction, mainly consisting of inert materials such as soils, stone, concrete, and brick. This waste stream also contains non-inert elements such as wood, metals, plastics, cardboard and plasterboard
DEFRA	The UK Government department responsible for developing national waste management policy.
Duty to Cooperate	The Duty to Cooperate is a legal test that requires cooperation between local planning authorities and other public bodies to maximise the effectiveness of policies for strategic matters in Local Plan making.
End of Life Vehicles	Vehicles classed as waste having been declared as no longer usable and for which a Certificate of Destruction has been issued by DVLA. Deemed hazardous until hazardous components removed via depollution processes.
Environment Agency	The body responsible for the regulation of waste management activities through issuing Environmental Permits to control activities that handle or produce waste. It also provides up-to-date information on waste management matters and deals with other matters such as water issues including flood protection advice.
Hazardous Waste Landfill	Sites where hazardous waste may be disposed by landfill. This can be a dedicated site or a single cell within a non-hazardous landfill, which has been specifically designed and designated for depositing hazardous waste.
Hazardous Waste	Waste requiring special management under the Hazardous Waste Regulations 2005 due to it posing potential risk to public health or the environment (when improperly treated, stored, transported or disposed). This can be due to the quantity, concentration, or its characteristics.
Household Waste	Waste from households collected through kerbside rounds, bulky items collected from households and waste delivered by householders to household waste recycling centres and "bring recycling sites". along with waste from street sweepings, and public litter bins- referred to as Local Authority Collected Waste (LACW).
Household Waste Recycling Centres	A facility that is available to the public to deposit waste not collected through kerbside collection (otherwise known as a civic amenity site).
Incineration	The controlled combustion of waste. Energy may also be recovered in the form of heat (see Energy from Waste).
Landfill (including land raising)	The permanent disposal of waste to land, by the filling of voids or similar features, or the construction of landforms above ground level (land-raising).
Other Recovery	Subjecting waste to processes that recover value by means other than recycling and composting – mainly thermal treatment to recover energy.
Recovery	Subjecting waste to processes that recover value including recycling, composting or thermal treatment to recover energy.
Recycling	The sorting and separate storage of materials extracted from the waste stream for reprocessing either into the same product or a different one.
Vehicle depollution	Removal of hazardous components from End of Life vehicles. May only take place at authorised facilities permitted to do so.
Waste Planning Authority (WPA)	The local authority responsible for waste development planning and control. In this case Cumbria Council.
Waste Transfer Station	A site to which waste is delivered for bulking prior to transfer to another place for further processing or disposal.

1. Introduction

Cumbria County Council has contracted BPP Consulting to produce the Cumbria Waste Needs Assessment 2022. The Waste Needs Assessment consists of the following documents:

1. Local Authority Collected Waste Management Requirements to 2037;
2. Commercial & Industrial Waste Management Requirements to 2037;
3. Construction, Demolition & Excavation Waste Management Requirements to 2037;
4. Hazardous Waste Management Requirements to 2037; and
5. Scoping Review of Other Waste Management Requirements.

This report relates to the management requirements for hazardous waste in Cumbria. This has been assessed by establishing an arising estimate for the baseline year of 2020, and then projecting arisings forward to 2037. Due to the variable nature of hazardous waste and differing management requirements, forecasts have been generated on a waste type-by-type basis.

The term ‘hazardous waste’ is used to describe waste that possess properties considered to pose a threat to human health and/or the environment such as toxicity, flammability, corrosiveness and carcinogenicity. Hazardous waste arises from different sources so does not occur as a discrete waste stream, being more a collection of different materials, which are generally collected and managed separately according to their differing hazardous properties. For example, fridges containing CFC gases and cathode ray tubes used in TV and computer monitor screens are classed as hazardous, as are oily water, interceptor wastes and undepolluted scrap (‘End of Life’) vehicles. Each of these waste types often require management by distinctly different methods and hence provision of different types of facilities regardless of their origin. Hence, the hazardous component of each of the main origin streams i.e. C, D & E, C&I and LACW are considered together in this report, and in doing so the quantity arising in each is deducted from the estimate of the origin stream arisings reported elsewhere in order to avoid double counting.

2. Calculating a Baseline Arisings Estimate

To generate a baseline estimate of hazardous waste arising in Cumbria the following datasets have been accessed:

1. The Environment Agency (EA) Hazardous Waste Interrogator (HWI) 2020¹ - movements.
2. The EA Waste Data Interrogator (WDI) 2020² – inputs to permitted management sites.
3. The EA Waste Data Interrogator 2020 – outputs from permitted management sites.
4. The EA Pollution Inventory Site outputs 2020 - waste from significant industrial sites.

Notably while the HWI always specifies the waste origin by Waste Planning Authority (WPA) it does not report waste received, by specific facilities, whereas the WDI may only report by originating region but does report inputs and outputs by individual facility. Hence both datasets have been accessed to get a comprehensive picture of destinations of Cumbria's hazardous waste.

The relationships between the datasets are illustrated in Figure 1 and the findings derived from each dataset are considered below.

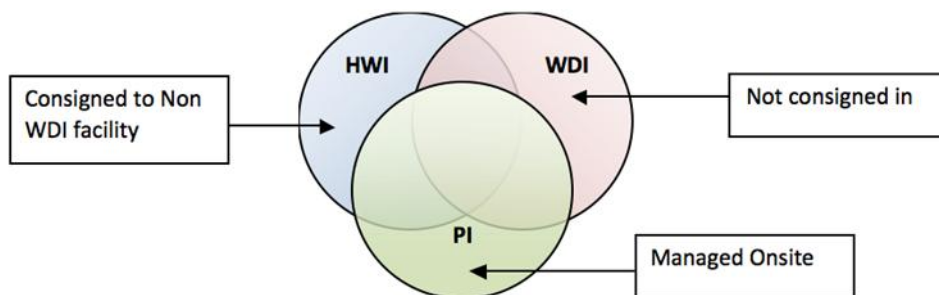


Figure 1: Relationship between Datasets for Hazardous Waste

2.1 The EA Hazardous Waste Interrogator (HWI) 2020

Legislation requires that the waste regulation authority³ be notified when hazardous waste is moved. The notification takes the form of a consignment note that details the quantities and destination of the waste. This means that the following movements of hazardous waste are recorded and reported to the regulatory body:

- From producer sites directly to disposal/treatment facilities;
- from producer sites to transfer facilities for bulking up and onward management; and,
- from treatment facilities to final disposal sites.

This data is then aggregated by the EA and made available in the HWI that is published on an annual basis.

The reporting method means that the HWI dataset may be incomplete for the following reasons:

¹ This reports data for 2020 but was published in 2021 and is the latest data available

² As in footnote 1

³ For England this is the Environment Agency.

- Consignment notes are not issued when hazardous waste is managed on the site of its production by the producer or same operator.
- Where the producer of hazardous waste is a householder the requirement to consign does not apply. Therefore, waste produced will only either be recorded on arrival at the receiving site itself, or when it is removed where the site operates under an Environmental Permit. For example, undepolluted End of Life Vehicles, which are classed as hazardous waste, will often not be consigned from their source when being scrapped because the owner of a vehicle is not required to do so and hence this initial movement is not recorded in the HWI. However, it should be recorded as hazardous waste on arrival at the vehicle de-pollution site by the operator, as an input of waste to a site with an Environmental Permit, and it is then reported within the EA WDI. Another example is any hazardous waste such as a lead acid battery brought to a household waste site will not be consigned in, but will be consigned out by the operator.

Both of the above can result in under-reporting of hazardous waste arisings in the HWI. However, this may be balanced by aspects of the hazardous waste consignment process that allows for the possibility of over-reporting. For example, if waste is moved to an intermediate management site within Cumbria and then moved on to a further site it will be consigned twice, when leaving its origin and then when leaving the intermediate site, and so double counted. Also, the person consigning hazardous waste may not have facilities to precisely measure the quantity of waste they are passing on and so may estimate the amount per load. This may result in a discrepancy between the quantity recorded as having been consigned from the source e.g. a half-full drum may be recorded by the drum's total capacity, and the quantity actually recorded as having been received at the waste management site which would normally have a reliable measurement method such as a weighbridge.

The EA HWI 2020 indicates the following:

- In 2020 22,439 tonnes of hazardous waste (of all types) were produced in Cumbria;
- Of this, 3,322 tonnes were managed in Cumbria; with the difference (19,117 tonnes) managed outside Cumbria i.e. exported.
- 14,312 tonnes of hazardous waste were imported to Cumbria for management.

To address the limitations associated with the HWI outlined above, and ensure use of the best available data (as required by national Planning Practice Guidance), data from the WDI and the Pollution Inventory (PI) has also been consulted.

2.2 The EA Waste Data Interrogator (WDI) 2020

While one might expect the values for inputs to permitted intermediate sites as reported through the WDI to correspond to outputs from those sites there can be discrepancies. These can be attributed to a lack of comprehensive reporting of inputs to certain facilities, such as ELVs received at vehicle depollution sites or hazardous waste taken to HWRCs. Comparing the WDI output value with the input value can reveal discrepancies. In some cases, for the same type of hazardous waste, output values are greater than input values. In these cases, the output value may be capturing a more complete picture and hence result in a more accurate estimate of arisings. This is considered below.

Inputs from Cumbria to permitted sites reporting through WDI

The EA WDI 2020 indicates the following:

- In 2020 26,559 tonnes of hazardous waste managed at permitted sites (both within and beyond Cumbria) were attributed to Cumbria as its source;
- of this, 10,683 tonnes were managed in Cumbria with the difference (15,876 tonnes) being managed outside Cumbria; and,
- 11,646 tonnes were imported for management in Cumbria.

Both the HWI and the WDI indicate that less hazardous waste was managed in Cumbria than was produced in Cumbria in 2020.

Outputs from Cumbria to permitted sites reporting in the WDI

Outputs of hazardous waste from Cumbria permitted sites reporting through the WDI will be identified as arising within Cumbria (regardless of its original source) and hence may be counted towards the quantity of waste to be planned for in the Waste Local Plan. For example, End of Life Vehicles (ELVs) are classed as hazardous by virtue of the presence of oils, fluids and batteries within them. Once depolluted the ELV shell ceases to be hazardous but the extracted hazardous components will leave the depollution site as hazardous waste for onward management. Those components that arise from depollution sites operating in Cumbria will be reported as hazardous waste arising in Cumbria. This is illustrated in Figure 1.

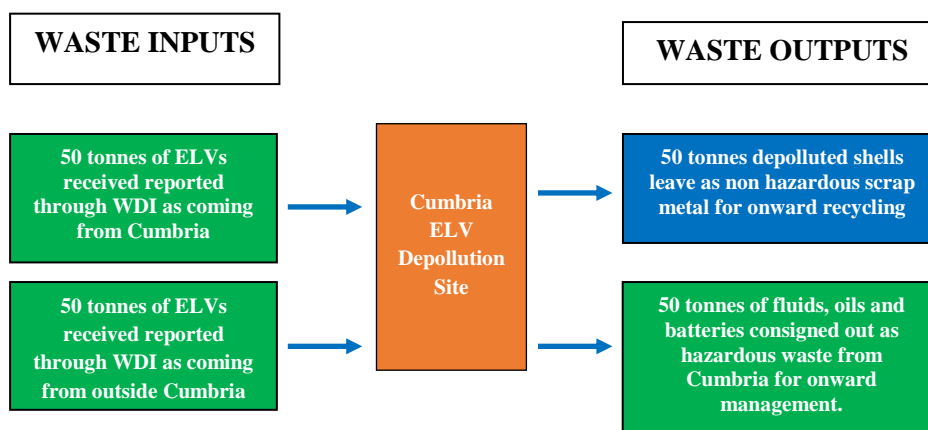


Figure 2: Illustrative Schematic of flows of ELV's to, and resulting from, an ELV depollution site

The WDI 2020 indicates that 7,817 tonnes of hazardous waste were removed from permitted sites operating within Cumbria.

2.3 The Pollution Inventory (PI) 2020

The EA Pollution Inventory captures data on waste arising from certain industrial installations, regulated under the Industrial Emissions Directive (IED)⁴ permitting regime. Such installations may manage their waste onsite or send their waste for offsite management. This dataset is considered for the following reasons:

1. As previously stated, the HWI may not capture all hazardous waste arisings as waste managed on the site of production through onsite treatment doesn't need to be consigned and it may be managed onsite by a method that is recorded in the Pollution Inventory;
2. As noted above, both the WDI input and output datasets can be prone to underreporting by misattribution of waste. The Pollution Inventory does record sources of inputs and so allows for a cross check of the WDI.

A check has therefore been made of hazardous waste data for facilities that report through the Pollution Inventory. However, this dataset did not indicate a significant tonnage of hazardous waste produced by non-waste industrial installations operating in Cumbria reporting through this route in 2020. Therefore, no value was taken forward.

Summary of Headline Data

The data from the HWI, WDI and PI shows that:

- HWI: Movements of waste arising in Cumbria: 22,439 tonnes.
- WDI: Input of hazardous waste arising in Cumbria to all sites: 29,159 tonnes.

The management routes as indicated by the WDI and HWI are displayed in Table 1.

Table 1: Cumbria Hazardous Waste Arisings & Management Data
 Blue indicates values contributing to arisings, pin to Cumbria management capacity

Source: HWI 2020 and WDI 2020

Data source	Cumbria Hazardous Waste Arisings (tonnes)		Hazardous Waste Managed in Cumbria (tonnes)		
	Quantity Managed Attributed to Cumbria	Of which Quantity Managed outside Cumbria (exports)	Quantity Managed in Cumbria Attributed to Cumbria	Quantity Managed in Cumbria from outside (imports)	Total Managed
HWI	22,439	19,117	3,322	14,312	17,634
WDI (inputs from Cumbria to all facilities including outputs from Cumbria facilities)	26,559	15,876	11,427	11,646	23,073
WDI (outputs from Cumbria facilities)	7,817	4,766	3,051	n/a	

⁴ Retained EU legislation

Table 1 shows that more waste is recorded in the WDI as arising in Cumbria than the HWI input (26,559 vs 22,439 tonnes) and more waste is being managed within Cumbria according to the WDI than is reported in the HWI (23,073 vs 17,634 tonnes).

The HWI may be underreporting arisings due to a number of reasons. As HWI entries are not site specific, to understand the discrepancies better it is necessary to assess the tonnages by waste code and fate. The outcome and findings of the comparison exercise for WPAs receiving 500 tonnes of more is shown in Table 2 below.

Table 2: WPA's Receiving Hazardous Waste from Cumbria (500t or more in either WDI or HWI)

Source: Environment Agency 2020

Deposit WPA	WDI Total (tonnes)	HWI Total (tonnes)	Hazardous Waste Management Detail
Cheshire West and Chester	1,072	1,076	Aqueous liquids for incineration
Cumbria	11,427	3,322	WEEE, oils and ELV's for recovery
Gateshead	448	520	Waste containing chlorofluorocarbons for recovery
Lancashire	1,315	2,043	Engine oils for recovery and transfer
Liverpool	1,737	724	Oils and organic solvents for recovery
Middlesbrough	750	12	Oils for recovery
North Tyneside	2,077	2,749	Aqueous liquids for treatment
Redcar and Cleveland	306	238	Materials containing asbestos to landfill
	377	217	Waste from grit chambers for recovery
Sefton	0	519	Engine oils for recovery
Stockton-on-Tees	4,803	4,879	Soils and waste containing asbestos for treatment
Trafford	537	399	WEEE for recovery
Total	24,999	16,788	

Table 2 indicates that inputs recorded as coming from Cumbria in the WDI are not being attributed to Cumbria in the HWI. The underreport in the HWI for Cumbria inputs can be attributed mainly to waste reported as managed in Cumbria itself with c8,000 tonnes discrepancy between the WDI and HWI. This is likely to be due to ELV's not being consigned by its owner but then being reported at the ELV de pollution site through the WDI as discussed previously.

The outcome of this exercise confirms that the WDI dataset for Cumbria's hazardous waste arising is the most comprehensive and hence represents the 'best available' data for the purposes of forward planning for this waste stream in Cumbria.

2.4 Conclusions

Cumbria Hazardous Waste Arisings

Hazardous waste arisings attributable to Cumbria for 2020 have been found to be c26,500 tonnes, according to the WDI 2020. This value compares with that for 2017 of c39,500 tonnes used in the WNA 2019 based on the HWI. The WNA 2019 found there to be c21,500 tonnes attributed to Cumbria according to the WDI 2017. The discrepancy between that reported in the HWI and WDI found in the WNA 2019 may be as a result of the hazardous waste consignment process that allows for the possibility of over-reporting as discussed previously.

Cumbria Management Capacity and Net Self Sufficiency Balance

This assessment has found that in 2020 the quantity of hazardous waste arisings of c26,500 tonnes exceeded the quantity of hazardous waste managed within Cumbria, estimated to be between 17,634 tonnes (HWI) and c23,073 tonnes (WDI). Based on the snapshot of waste managed this indicates, Cumbria is not net self sufficient in hazardous waste management capacity overall. However, it would not be appropriate to draw this conclusion based solely from annual input data, as it does not necessarily reflect that the quantity of waste managed at sites permitted to manage hazardous waste in 2020 as being representative of their true capacity.

Therefore, it is necessary to assess the actual capacity of sites within Cumbria for the management of hazardous waste. It is also noted that reliance of some waste types on management capacity in other Plan areas can make it a 'larger than local' strategic issue under the Duty to Cooperate. This is considered in more detail in Section 5 of this report.

3. Forecasting Future Hazardous Waste Arisings

3.1 National Policy

The 2013 National Policy Statement for Hazardous Waste⁵ states that arisings of hazardous waste are expected to increase for the following reasons:

- Continuing consumer demand for consumer durables containing hazardous materials.
- Increasing use of producer responsibility schemes, such as those provided for Waste Electrical and Electronic Equipment (WEEE) which require the separate collection of WEEE resulting in more hazardous items being removed from the mixed municipal waste stream, collected separately as hazardous waste.
- Changes to the list of hazardous properties in the revised Waste Framework Directive and changes to the European Waste List, leading to increases in the amount of waste managed as “hazardous” such as the inclusion of furniture containing persistent organic pollutants (POPs).
- There are still uses in which components that become hazardous waste may be unavoidable for the foreseeable future. For example, the use of oil in internal combustion engines.

3.2 Defining Growth Factors for Hazardous Waste arising in Cumbria

While Planning Practice Guidance advises that future hazardous waste arisings be estimated by extrapolating time series data, in this instance from the WDI, reliance on historical data to establish possible future trends is not considered to be entirely reliable due to frequent changes in the definition of hazardous waste and refinement of regulatory guidance which has tended towards increasing the range and quantity of waste being classed as hazardous and thereby 'artificially boosting' quantities of arisings. That is to say the dataset for 2017 would capture a more limited range of wastes than the 2020 dataset, so if the value shown by the more recent dataset is greater this is not necessarily because quantities of the waste arising in 2017 actually increased. However, such an increase in arisings is not actually evidenced by the values obtained from the WDI for hazardous waste produced in Cumbria over the past five years as shown in Table 3.

Table 3: Hazardous Waste Arising in Cumbria Over the Last 5-years

Source: WDI

Year	Indicated arisings
2016	28,565
2017	40,808
2018	29,517
2019	33,340
2020	26,559

⁵ National Policy Statement for Hazardous Waste: A framework document for planning decisions on nationally significant hazardous waste infrastructure Defra June 2013

These values are plotted in Figure 3 along with the data trend line illustrating an overall falling trend in arisings.

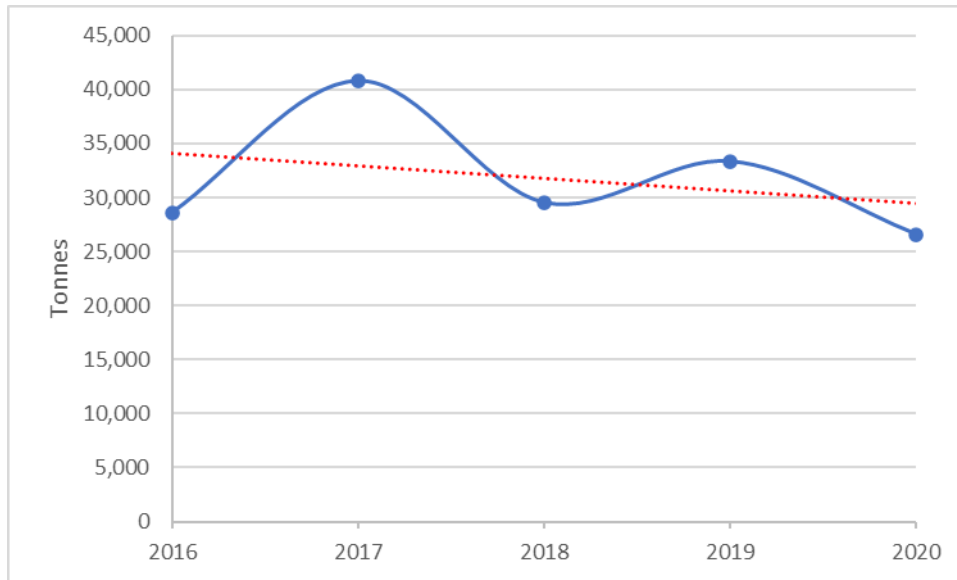


Figure 3: Hazardous Waste arising (tonnes) in Cumbria as recorded by the WDI (2016-2020)

The trend line shown on Figure 3 indicates a gradual decrease in hazardous waste over the 5-year time period. However, given the high variability in hazardous waste arisings by waste type it would not be appropriate to solely rely on this projection for forecasting of future hazardous waste arisings.

3.3 Composition of Cumbria Hazardous Waste

Table 4 below presents the principal arisings for 2020 based on the assessed WDI dataset. Hazardous waste types arising in a quantity greater than 500 tonnes have been aggregated into the four categories which account for 72% of arisings.

Table 4: Principal Hazardous Waste Types arising in Cumbria in 2020

Source: WDI 2020

Hazardous Waste Type/Source	Total
Vehicle Maintenance inc ELV components	7,602
Construction, Demolition & Excavation Waste	4,214
Oil & Liquid Fuel Waste	3,743
WEEE	3,557
Total	19,116

- Vehicle maintenance waste including End of Life Vehicles and components rank first. Oils will arise from vehicle maintenance and depollution activities. The predominant wastes are 'end-of-life vehicles' (EWC16 01 04) at 5,627 tonnes, 'mineral-based non-chlorinated engine,

- gear and lubricating oils' (EWC 13 02 05) at 848 tonnes, 'other engine, gear and lubricating oils' (EWC 13 02 08) at 588 tonnes and 'lead batteries' (EWC 16 06 01) at 540 tonnes.
- C, D & E waste consists of c3,000 tonnes of contaminated soil and c1,500 tonnes of asbestos contaminated wastes.
 - Oil & Liquid Fuel Waste consists of 'liquid wastes containing dangerous substance' (EWC 16 10 01) at 2,763 tonnes and 'oily water from oil/water separators' (EWC 13 05 07) at 980 tonnes.
 - Waste Electrical & Electronic Equipment (WEEE) consist primarily of 'discarded equipment containing chlorofluorocarbons' (EWC 20 01 23) at 1,616 tonnes and 'discarded electrical and electronic equipment' (EWC 20 01 35) at 1,941 tonnes. A review of the outputs shown for Cumbria sites reporting through the WDI shows that around half of these waste (1,777 tonnes) actually came from sites within Cumbria managing LACW (according to WDF 2020) including 14 HWRCs and 4 transfer stations.
 - No significant amount of clinical waste was reported in the WDI 2020 (<500t). However, some appeared in previous years consisting of 'wastes whose collection and disposal is subject to special requirements in order to prevent infection' (EWC 18 02 02).

3.4 Forecasting Arisings of Cumbria Hazardous Waste by Type

To discern possible trends the data for arisings of different types of hazardous waste over the past 5 years reported through the WDI has been reviewed and is presented in Figure 4.

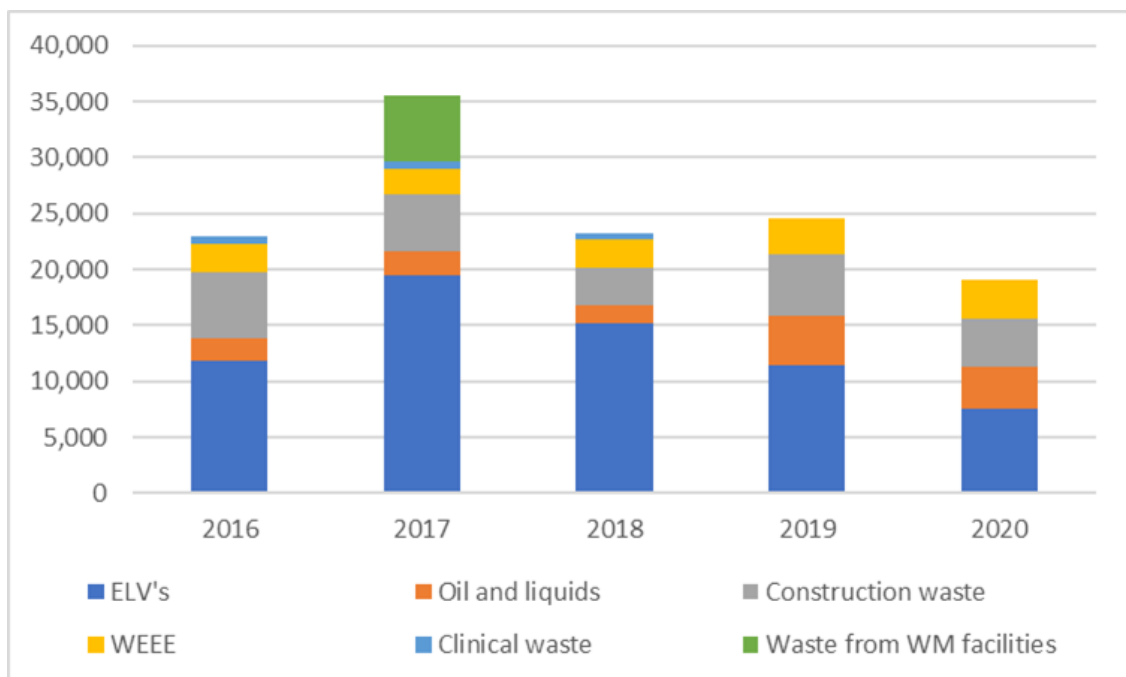


Figure 4: Principal Hazardous Waste Component Arisings in Cumbria 2016-2020

Source: WDI

Qualitative consideration of likely trends in arisings in each of the principal components shown in Figure 4 has been undertaken as laid out below:

- Oils arising from conventional vehicle maintenance and depollution activities can be expected to fall with the transition to electric vehicles. Electric vehicles are expected to account for 20% of new car sales at 2025, with a ban on sales of conventional vehicles by 2035 now proposed by Government. While some of the current conventional vehicle stock will remain in use beyond 2035 the gradual shift can be expected to depress any growth in arisings in this sector.
- There is a reasonable expectation that over time CDEW arisings will reduce as historical land contamination (source of contaminated soils) is remediated and the asbestos in the building stock is removed.
- Oil & Liquid Fuel Waste: Given emptyings from oil/water separators will arise from petrol station forecourts and other industrial type sites including waste management facilities where oil bearing waste are handled (such as metal recycling sites undertaking vehicle depollution), arisings of this component can be expected to fall in line with the vehicle transition discussed above.
- While WEEE arisings can be expected to increase with growing sales of electronic devices in line with disposable income, given the phase out in use of hazardous materials in new devices/appliance, the hazardous component is expected to fall. The bulk of arisings currently requiring management are fridges containing CFCs, and TV/monitor screens using CRT technology. Both technologies have been phased out, hence this can be expected to fall over time while the existing stock diminishes.
- Clinical waste: While healthcare waste is expected to increase due to aging population, introduction of effective segregation to reduce unnecessary classification of clinical waste arisings as hazardous is likely to stabilise arisings.

Figure 4 shows there is significant variability in arisings in each component on an annual basis. This creates such an amount of 'noise' that makes it difficult to discern any apparent trends other than an overall fall after the 2017 peak. It is therefore considered that a zero-growth forecast ought to be applied on a conservative basis for the early part of the Plan period (to 2025), with a fall of half percent per annum in the latter half (2031 to 2037) reflecting the confounding factors discussed above. Given the principal types represent 72% of total arisings of hazardous waste in Cumbria in 2020, the other waste contributions have been held constant over the Plan period. The growth forecasts based on these assumptions are presented in Table 5:

Table 5: Forecast Hazardous Waste Arisings in Cumbria Extrapolating Sector Total
Source: Baseline Arising plus discussion above

Hazardous Waste Type/Source	Plan Milestone Year			
	2020	2025	2030	2037
Vehicle Maintenance inc ELV components	7,602	7,602	7,412	7,153
Oil & Liquid Fuel Waste	3,743	3,743	3,649	3,522
Construction, Demolition & Excavation	4,214	4,214	4,109	3,965
WEEE	3,557	3,557	3,468	3,347
<i>Subtotal</i>	<i>19,116</i>	<i>19,116</i>	<i>18,638</i>	<i>17,986</i>
Other wastes	7,443	7,443	7,443	7,443
Total Projected Arisings	26,559	26,559	26,081	25,429

Conclusion

It is considered that projecting the value of **c26,500 tonnes** forward to 2025 and then applying a declining growth rate through to 2037 to arrive at a final value of **c25,500 tonnes**, reflects the best available data combined with an understanding of factors likely to affect arisings. These values have therefore been used to project capacity requirements based on an assessment of existing capacity within Cumbria and management routes followed, that follows.

4. Hazardous Waste Management Capacity in Cumbria

This section considers the availability of capacity within Cumbria for managing hazardous waste⁶. It provides the basis on which the existing hazardous waste management capacity may be established and, subsequently, from which specific management capacity requirements might be identified. Quantities of hazardous waste inputs to sites recorded in the WDI across 3 years and the Environment Agency permitted site listing have been reviewed to establish each site's most representative capacity i.e., the notional capacity shown in Table 6. The sites identified as non-hazardous waste transfer stations have been ignored as hazardous inputs will only be accepted on an incidental basis, as well as any HWRC's on the basis that they will be accepting other waste streams, particularly LACW⁷. Two other sites were also removed on the basis that their primary input of waste was non-hazardous (hazardous >25%).

Table 6: Notional Capacity of Facilities Permitted to Manage Hazardous Waste in Cumbria (tonnes)

Source: WDI

Facility Type	Facility Name/Operator	WDI 3 yr peak	Permit limit	Preferred value
Vehicle Depollution Facility	Bonnie Mount	3,700	-	3,700
	Plot B Risehow Ind Est	2,195	-	2,195
	John Morgan & Co Scrap Merchants	2,097	-	2,097
	Branthwaite Vehicle Dismantlers	5,186	-	5,186
	Escott Works	363	-	363
	Crooklands Brow	208	-	208
	Canal Head Yard	1,723	-	1,723
	Willowholme Industrial Estate	278	-	278
Haz Waste Transfer	Distington Hazardous WTS	6,568	24,999	24,999
Hazardous Waste Treatment	Lillyhall Industrial Estate	1,450	-	1,450
	Total			42,197

Comparing the notional overall capacity value (c42,000 tonnes) to the peak arising value for Cumbria (c26,500 tonnes) suggests a surplus of hazardous waste management capacity of c15,500 tpa within Cumbria.

4.1 Management Capacity Conclusion

Cumbria hosts a number of facilities that manage hazardous waste including final fate treatment. The combined notional capacity offered by facilities within Cumbria to manage hazardous waste equates to around c42,000 tonnes per annum.

It is important to ensure that each type of hazardous waste produced within Cumbria in significant quantities will be adequately catered for throughout the Plan period. For this reason, the role of facilities beyond Cumbria in the management of certain types of hazardous waste arising in Cumbria is considered in the following section.

⁶ Based on the latest data available i.e. 2020

⁷ Clay Flatts was also removed as ELV waste only contributed to 25% of total inputs.

5. Management Routes Followed by Cumbria Hazardous Waste

This section assesses the management routes followed by hazardous waste that arises in Cumbria but is managed elsewhere. This exercise is important to identify WPAs hosting receiving facilities with whom the County Council and its successor authorities should engage under the Duty to Co-operate to establish if the current patterns of management can continue for the Plan period. If such engagement suggests that certain types of waste cannot continue to be managed at certain facilities in future, then this may require Cumbria to plan for the management of that waste type within its own boundaries.

Of the c26,500 tonnes of hazardous waste produced in Cumbria in 2020, c16,000 tonnes ultimately left Cumbria for management at facilities located within 64 WPAs. Applying a significance threshold, whereby WPAs only receiving over 100 tonnes of waste are considered, reduces the number of receiving WPAs down to 21. Table 7 shows those recipient WPAs ranked in terms of quantity of waste received and fate. This shows that Stockton-on-Tees is the principal recipient (4,803 tonnes), followed by North Tyneside (2,077 tonnes) and Cheshire West and Chester (1,072 tonnes). These WPAs together account for 50% of exports.

Table 7: WPA's Receiving over 100 tonnes of Hazardous Waste from Cumbria (in rank order) with inputs by fate exceeding 100t highlighted

Source: WDI 2020

	Waste Fate					Total
	Incineration	Landfill	MRS	Transfer	Treatment	
Stockton-on-Tees	46	844	0	0	3,913	4,803
North Tyneside	0	0	0	0	2,077	2,077
Cheshire West & Chester	1,072	0	0	0	0	1,072
Lancashire	0	46	98	663	119	926
Redcar and Cleveland	0	318	0	0	514	833
Liverpool	0	0	14	0	654	668
Trafford	0	0	319	153	62	534
Gateshead	0	0	0	1	402	403
Derbyshire	0	0	0	0	394	394
Kirklees	0	183	38	0	133	354
Salford	0	0	0	0	349	349
St Helens	0	0	0	0	307	307
Cheshire East	0	0	0	0	293	293
Nottinghamshire	0	0	0	12	237	249
Knowsley	0	0	0	182	64	245
Stoke-on-Trent City	0	0	0	197	0	197
Blackburn with Darwen	0	0	0	28	161	189
County Durham	0	103	0	43	0	146
Plymouth	0	0	0	0	117	117
Darlington	0	0	0	103	0	103
Total	1,118	1,493	470	1,382	9,796	14,260

Table 8 identifies site specific information and principal wastes received related to the host WPA for the purposes of Duty to Cooperate (DtC) that requires site specific information when contacting host WPA's.

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Table 8: WPA's receiving over 100 tonnes of Hazardous Waste from Cumbria in 2020 and the permitted site it is managed at

Source: WDI 2020

Planning Region	WPA	Principal Waste Description	Input (tonnes) ⁸	Site Name
East Midlands	Derbyshire	wastes containing other dangerous substances	394	Norwood Recycling Centre
	Nottinghamshire	mineral-based non-chlorinated engine, gear and lubricating oils	237	Bilsthorpe Oil Treatment Plant
North East	County Durham	construction materials containing asbestos	103	Aycliffe Quarry Landfill
	Darlington	other still bottoms and reaction residues	103	Lingfield Way Recycling and Treatment Centre
		packaging containing residues of or contaminated by dangerous substances		
		other filter cakes and spent absorbents		
	Gateshead	discarded equipment containing chlorofluorocarbons	402	Gap Waste Management
	North Tyneside	aqueous liquid wastes containing dangerous substances	2,077	Dudley Pharmaceutical Site
	Redcar and Cleveland	construction materials containing asbestos	318	ICI No 3 Teesport
		mixtures of wastes from grit chambers and oil/water separators	514	Holden Close Waste Management Facility
	Stockton-on-Tees	soil and stones containing dangerous substances	4,272	Port Clarence Landfill
		construction materials containing asbestos		
bituminous mixtures containing coal tar				
mineral-based non-chlorinated engine, gear and lubricating oils				
discarded organic chemicals consisting of or containing dangerous substances				

⁸ Sites receiving more than 50 tonnes

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		dredging spoil containing dangerous substances		
		oily water from oil/water separators	485	Billingham Treatment Plant
		mineral-based non-chlorinated engine, gear and lubricating oils		
North West	Blackburn and Darwen	mineral-based non-chlorinated insulating and heat transmission oils	161	Central Oil Recovery Depot
	Cheshire East	other organic solvents, washing liquids and mother liquors	293	Brooks Lane Organics
		solvents		
	Cheshire West and Chester	aqueous liquid wastes containing dangerous	1,072	Ellesmere Port Incinerator
		other organic solvents, washing liquids and mother liquors		
	Knowsley	bilge oils from other navigation	64	Acornfield Road Waste Management Centre
		other organic solvents, washing liquids and mother liquors	155	Avanti Treatment and Transfer Centr
	Lancashire	other engine, gear and lubricating oils	458	Kierby Perry Yard
		packaging containing residues of or contaminated by dangerous substances	71	W Lee Waste Oils
		lead batteries	98	Morecambe Metals
		wastes whose collection and disposal is subject to special requirements in order to prevent infection	62	Morecambe Site
		discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	93	Recycling Lives Recycling Park
	Liverpool	other organic solvents, washing liquids and mother liquors	489	Garston Distillation Service
		oily water from oil/water separators	165	Lower Bank View Waste Management Facility

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	Salford	oily water from oil/water separators	243	CSG Lanstar
		oily water from oil/water separators	105	Worsley Waste Transfer Facility
	St Helens	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	223	St Helens Electrical Recycling Facility
		wastes containing other dangerous substances	84	Unit 20, Haydock Lane
	Trafford	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	309	Tenax Road, Trafford Park
		mineral-based non-chlorinated engine, gear and lubricating oils	153	Trafford Park Waste Oil Facility
packaging containing residues of or contaminated by dangerous substances		62	Packaging Reuse & Disposal Services	
South West	Plymouth	bilge oils from other navigation	117	SYLOC Waste Treatment Facility
West Midlands	Stoke-on-Trent City	glass, plastic and wood containing or contaminated with dangerous substances	190	Land Recovery Limited Hazardous Waste Facility
Yorks & Humber	Kirklees	construction materials containing asbestos	183	Bradley Park Landfill
		packaging containing residues of or contaminated by dangerous substances	91	Upper Station Road

5.1 Conclusion on Cumbria's Hazardous Waste Management Capacity Requirements

The updated hazardous waste baseline for 2020 is c26,500 tonnes. Given all reported hazardous waste arising in Cumbria appears to be effectively managed and the forecast predicts a fall in hazardous waste by the end of the Plan Period, this suggests that there are no obvious stresses in the system.

The capacity assessment indicates that the combined notional capacity of the principal sites receiving hazardous waste in Cumbria is around c42,000 tpa, indicating a theoretical surplus of capacity for the management of Cumbria's hazardous waste throughout the Plan period. This assumes all sites identified continue to offer capacity for the duration of the plan period. It is recommended that the principal sites be safeguarded through policy whereby potential loss of capacity in future, through either redevelopment or constraints, is discouraged unless equivalent compensatory capacity is demonstrated

Notwithstanding the above, given the varying management requirements of particular waste types, the continued availability of capacity for the Plan period at facilities outside Cumbria identified as managing significant quantities should be confirmed through contact with the host Waste Planning Authorities named in Table 8 under the Duty to Cooperate.