

Recovery of Street Sweepings and Gully Emptyings

Guidance for Local Authorities (LAs) in Wales

This guidance has been produced to support regulatory compliance and accurate reporting for the Landfill Allowances Scheme (LAS) and the Statutory Local Authority Recovery Targets (LART).

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Introduction

Street sweepings and gully emptyings are non-source segregated wastes. LAs increasingly report that street sweepings and de-watered gully emptyings have been recovered and diverted from landfill.

This guidance covers street sweepings and gully emptyings collected by LAs or their contractors.

Gully emptyings require dewatering, with liquid removed under a consent to discharge to sewer. The remaining solid residues have a relatively high water content and may contain heavy metals, other physical contaminants and high leachable organic content. The disposal and recovery of the solid residue is addressed in this guidance.

Street sweepings (also known as street cleansing materials) are more mixed, drier materials including leaves, grit, litter, glass, oils, paper, plastics, and cans. They may contain heavy metals, other contaminants (e.g. road salt) and have high leachable organic content.

Currently all street sweepings and gully emptyings collected by LAs have the non-hazardous waste code 20 03 03: street cleaning residues, although both waste types may include dangerous substances. As a producer or holder of waste you have a duty of care to ensure you describe your waste and identify any possible dangerous substances that may require that waste to be handled, treated or disposed of with any specific precautions.

¹ Waste code' means the six digit code that classifies a waste in accordance with the List of Wastes (LoW) Regulations 2005. The LoW Regulations transpose the European Waste Catalogue (EWC) wastes into domestic legislation. Waste codes are also sometimes referred to as LoW codes or EWC codes.

Waste collected from parks and gardens <u>separately from street cleansing rounds</u> have the non-hazardous waste code 20 02 01. This waste code is acceptable under certain exemptions (subject to meeting the specific exemption criteria) and permits for composting and should be reported separately to street cleansing wastes in WasteDataFlow (WDF) for LAS and LART purposes.

There are regulatory controls on both the recovery and disposal of street sweepings and gully wastes which are explained further below.

If recovery is being claimed for the purposes of LAS and LART, LAs must ensure they can confirm that legitimate recovery has occurred at a site permitted to recover the particular waste. For recycling and recovery generally (not just for street sweepings and gully emptyings), LAs processes & procedures should enable them to confirm:

- a) the outlets that are used and reported in Question 100 of WasteDataFlow (WDF); and
- b) that the outlets are permitted to recycle or recover the waste or hold a relevant waste exemption for the activity; and
- c) that the waste has actually been recycled or recovered in accordance with the requirements for LART.

A Storage and dewatering of Street Sweepings

Street sweepings may be stored temporarily under a waste exemption at a place controlled by the producer (whose main business is not waste management). Welsh local authorities are able to make use of this exemption by bringing waste arising from street sweepings back to their yards for temporary storage, subject to certain conditions.

The storage and dewatering of street sweepings should not take place on a roadside, lay-by or field due to the risk of pollution to ground and surface water. The waste should be stored and dewatered on an impermeable surface with a sealed drainage system.

For **street sweepings only**, we will not pursue a permit for dewatering which takes place during temporary storage at a collection point provided that certain conditions are met. The requirements are set out in the Environment Agency regulatory position statement *The Dewatering of Street Sweepings*² which has been adopted by NRW.

Dewatering of gully emptyings requires a permit and is not covered by the regulatory position statement on the dewatering of street sweepings. Gully emptyings are often liquid at the point of collection and cannot be directly landfilled. Due to their potentially hazardous nature it is also difficult to put in place a standard procedure for handling, treatment and disposal of this waste.

B Recovery of <u>untreated</u> street sweepings and gully emptyings

Untreated street sweepings and de-watered gully emptyings in this context means when the waste has not undergone any physical or biological treatment that results in a change in the waste characteristics. Dewatering alone does not alter the waste code for these wastes so they will retain the waste code 20 03 03.

agency.gov.uk/static/documents/Business/MWRP RPS 065 v2 Dewatering of street sweepings May 2012.pdf

http://www.environment-

B1 Can untreated street sweepings and gully emptyings be classed as recovered at a landfill?

It is unlikely that these wastes will meet the requirements for restoration materials that can be used above the capping layer.

However where the permit **explicitly** authorises either of these wastes to be used for restoration it is possible that the wastes used could be considered as recovered provided that the following specific conditions are met:

- the wastes are used above the final capping layer (for restoration) and
- the wastes are suitable for that use (considering their chemical and physical properties and the design of the restoration layer)

Use of untreated street sweepings and dewatered gully emptyings at a landfill for daily cover, site roads or as a soft layer at the base of a new cell is **not recovery** and must be reported in WDF as disposal to landfill for compliance with LAS and LART reporting.

B2 Can untreated street sweepings and gully emptyings be composted or digested?

No, untreated street sweepings and gully emptyings are not regarded as acceptable wastes for composting or anaerobic digestion. They can contain non-biodegradable waste and contaminants which will not be treated by an aerobic or anaerobic process alone.

Alternatively, an MBT plant might be permitted to accept waste code 20 03 03 for treatment (i.e. untreated street sweepings and gully emptyings) and the process may directly produce a CLO (compost like output) from the organic fraction without the waste having to go for further biological treatment. See C3 for more information on this form of treatment.

B3 Can dedicated seasonal street leaf collections be used to produce compost or digestate?

No, dedicated street leaf sweeping waste still has the waste code 20 03 03. It is variable in nature, containing grit, water, litter and leaves and also likely to contain a variety of physical, biological and chemical contaminants including glass, plastic and metal, dog faeces, small dead animals, salt and pollutants from roads and vehicles.

Our guidance to local authorities in 2012 stated that street leaf sweepings were likely to be contaminated and therefore unsuitable for composting and subsequent application to agricultural land.

Following this, a trial was organised through the Organics Recycling Group (ORG) (the main trade body for composters) in 2012-13 to try and identify generic circumstances where these materials could be collected and composted without compromising compost quality and safety. The trials provided evidence of highly variable levels of PAH (Polycyclic Aromatic Hydrocarbon) contamination, which are often associated with vehicular emissions. PAH levels were found to be much higher in street leaf sweepings and the composted output than in the other materials. They are not biodegradable and could be harmful to human health.

In view of this contamination, our position remains unchanged in that we consider this material to be unsuitable for composting when the output material is destined for agricultural or horticultural use. They may however, be suitable to produce a CLO (compost-like output) for landspreading for reclamation, restoration and improvement of land subject to industrial or other man-made development in accordance with a relevant Environmental Permit. This CLO remains a waste and

therefore continues to be subject to waste controls.

B4 Can untreated street sweepings and gully emptyings be recovered as stones, grit and fines?

No. If fines or grit & stones from street sweepings and gully emptyings are mixed with other wastes, then they must remain coded as 20 03 03. The mixed waste must not be recoded as inert material (e.g. waste codes 17 05 04 or 20 02 02) either for disposal or as restoration material.

B5 Can untreated street sweepings and gully emptyings be recovered as product and sold to non-waste facilities e.g. aggregates industry, road making, construction?

No. There is a Quality Protocol for the production of aggregates from inert wastes. Appendix C to the Protocol identifies, by waste code, the wastes that can be accepted to meet the protocol requirements. Untreated Street sweepings and gully emptyings are excluded from this list (waste code 20 03 03).

C Recovery of treated street sweepings and de-watered gully emptyings that have had physical and/or biological treatment to change their characteristics.

Treated street sweepings and de-watered gully emptyings in this context means when the waste has undergone physical or biological treatment that changes its characteristics (i.e. the waste has been separated into its component parts). Street sweepings and dewatered gully emptyings can be treated by mechanical and/or biological treatment processes to recover various fractions including organic fines, grit and stones, sand and other fines.

The waste must be treated under an appropriate permit, such as at a facility that can accept waste code 20 03 03 for treatment e.g. mechanical recovery facility or a mechanical biological treatment plant. The resultant output from these treatment processes will be a Chapter 19 waste and restricted to application under permitted or exempt sites that can accept waste classified under the relevant Chapter 19 waste code.

C1 Can treated street sweepings and gully emptyings be used to produce compost or digestate that meets the relevant PAS or Quality Protocol?

No. This is because street sweepings and gully emptyings are not recognised source segregated wastes for both the anaerobic digestion and compost Quality Protocols.

The input wastes to both the relevant PAS and the Quality Protocol³ must have been collected separately from non-biodegradable wastes and not mixed with potentially contaminating wastes. Annex B of the Quality Protocol specifies the wastes that can be accepted to meet PAS and the Quality Protocols.

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³ Compost that meets the PAS100 specification is considered to be quality compost but is still a waste. A producer needs to follow the Compost Quality Protocol and achieve PAS100 to produce a quality compost that is no longer a waste. Similarly, anaerobic digestate that meets the PAS110 specification is considered to be quality digestate but is still a waste. A producer needs to follow the Anaerobic Digestate Quality Protocol and achieve PAS110 to produce a quality digestate that is no longer a waste.

C2 If treated street sweepings and gully emptyings are mixed with other biodegradable waste can they be used to produce compost or digestate that meets the relevant PAS or Quality Protocol?

No, if street sweepings were mechanically treated and then mixed with biodegradable waste they would still not be an acceptable input as listed in Annex B of the Quality Protocols. Waste mixed with PAS or Quality Protocol certified material will not be suitable for use for horticulture or agricultural land spreading.

Can treated street sweepings and gully emptyings, following biological treatment, ever be composted?

Yes. Following initial treatment the organic fraction may be able to be composted if the compost site is permitted to accept this output waste from the first treatment process, which will have a Chapter 19 waste code. It is classified as CLO (compost like output) with waste code 19 05 99 and will have restricted end use. The output from composting remains waste.

Alternatively, an MBT plant might be permitted to accept waste code 20 03 03 for treatment (i.e. untreated street sweepings and gully emptyings) and the process may directly produce CLO from the organic fraction without the waste having to go for further biological treatment.

CLO cannot be used to produce quality compost or digestate under the relevant Publicly Available Specification (PAS) or Quality Protocols⁴.

CLO cannot be spread to agricultural land or used to reclaim land intended for agricultural use. It cannot be used on exempt sites or spread under an exemption.

CLO may be suitable to be spread to non-agricultural land for reclamation under an environmental permit if the receiving site is permitted to accept the waste type produced. This provides an alternative for diversion of this material from landfill for LAS. CLO produced from composting street sweepings can count towards LART in the interim, whilst end of waste criteria are being considered by Welsh Government. This position applies for CLO produced from composting of street sweepings waste only, provided that it is not mixed with waste from any other source and does not apply to any other CLO, such as from Mechanical Biological Treatment (MBT).

Further guidance is expected to be published by Welsh Government on end of waste criteria for LART in due course.

C4 Can the organic fraction from treated street sweepings and gully emptyings be sent to exempt sites?

No, see C3. CLO cannot be used on exempt sites or spread under an exemption.

C5 Can fines from treated street sweepings and gully emptyings be used for reclamation, restoration or improvement of land?

Yes if the waste has undergone mechanical treatment that changes its characteristics to a Chapter 19 coded waste, then it may be suitable to be accepted under an environmental permit for use in reclamation, restoration or improvement of land.

Can aggregate be recovered from treating street sweepings and gully emptyings?

Yes, if the waste has undergone mechanical treatment that changes its characteristics to a

⁴ See footnote 3

Chapter 19 coded waste type that can be accepted under standard or bespoke permits, then it may be possible for it be recovered for use as aggregate.

In terms of LART, aggregate suitably recovered from sweepings can be counted provided that it is not used for the purposes of backfilling.

C7 Can treated street sweepings and gully emptyings be recycled as product and sold to non-waste facilities e.g. aggregates industry, road making, construction?

Yes, it is possible to recover the aggregates fraction (fine gravel, sand and stones) of street sweepings and gully emptyings to an extent that it could comply with the Aggregates Quality Protocol that meets the end of waste criteria. The mixed road sweepings and gully emptyings must go through a treatment process that has treated it to a level that would make the recovered grit reach a classification as inert waste (EWC code 19 12 09), which would be acceptable as a source waste for the Quality Protocol. The recovered grit would also need to be tested to meet the relevant specifications for use as aggregate, which are set out in Appendix B of the Aggregates Protocol.

In terms of LART, aggregate suitably recovered from sweepings can be counted provided it is not used for the purposes of backfilling. Aggregates can also be treated to the standards of the Aggregates Quality Protocol as outlined above, although currently, this is not a requirement for tonnages to count towards LART. However, recent Welsh Government guidance has indicated that end of waste criteria is being developed for the recovery targets. Therefore, it is strongly advisable that local authorities work towards ensuring that all recovered aggregates are QP compliant (if not done so already) to ensure these tonnages can count when end of waste criteria is applied to LART in the future.

Can the non-organic fraction (e.g. grit) from treated street sweepings and gully emptyings be sent to exempt sites?

Yes, but only if the treated non-organic fractions (recovered by mechanical separation processes and coded as 19 12 09) are sent to an exempt site for use in small scale construction under a U1⁵ exemption.

D Disposal of Street Sweepings and Gully Emptyings

To dispose of street sweepings and solid residues from dewatered gully emptyings, the wastes must be sent to a suitable facility which is permitted to accept this waste type. The correct disposal facility must be reported in WDF for compliance with LAS and LART.

D1 Can street sweepings and gully emptyings be disposed of at an inert landfill?

No, the wastes are classified as non-hazardous waste code 20 03 03 and are not inert⁶.

⁵ Use of waste in construction

⁶ Inert waste' means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

D2 Can street sweepings and gully emptyings be disposed of at an exempt facility?

No, there are no disposal exemptions which include the waste code 20 03 03.

D3 Can street sweepings and gully emptyings be disposed of at an inert landfill or an exempt site if they are mixed with inert materials such as soils and stones?

No, mixing with other wastes does not make the waste inert. Fines or grit & stones from street sweepings and gully emptyings residues mixed with other wastes must not be recoded as inert material (e.g. waste codes 17 05 04 or 20 02 02) either for disposal or as restoration material. The mixed waste would need to be characterised and classified with an appropriate waste code from the List of Wastes.

D4 Can street sweepings and gully emptyings be disposed of at a non-hazardous landfill?

Yes, if the landfill is permitted to accept waste code 20 03 03.

D5 Can street sweepings and gully emptyings be disposed of at an incinerator?

Yes, if the incineration facility is permitted to accept waste code 20 03 03.

D6 Can <u>treated</u> street sweepings and gully emptyings be sent to inert landfill for disposal?

Yes, if treatment has recovered the inert fraction (stones) of the waste and it is recoded to an inert Chapter 19 waste code, then this inert fraction could be disposed of at an inert landfill. The landfill must be able to accept the relevant Chapter 19 waste type under its permit <u>and</u> the waste producer must sample the waste to ensure it meets the waste acceptance criteria⁷.

Basic characterisation will, in most cases, need to include testing to establish the waste's chemical composition. This will include composition analysis (to check that the waste is non-hazardous) and leaching analysis.

If the waste has been produced by blending wastes from a number of sites and/or the potential for contamination is not known then the resultant waste must be tested to demonstrate that it is inert prior to disposal.

We expect mechanical waste treatment facilities sending fines from treated street sweepings and gully emptyings to inert landfill to have full basic characterisation details for the waste produced, including testing information.

We would expect inert landfills accepting treated street sweepings and gully emptyings fines to have reviewed the basic characterisation and have a sampling plan for ongoing compliance testing unless every batch of waste received from the treatment facility has already been subjected to full basic characterisation and testing.

⁷ All waste accepted at permitted inert landfill sites (for disposal) must meet the Waste Acceptance Criteria (WAC) for inert landfill sites. 'Basic Characterisation' must be carried out for all waste accepted at landfill for disposal. This constitutes a full characterisation of the waste by gathering all the necessary information to ensure safe disposal of the waste in the long term. It is the responsibility of the waste producer to provide this information and therefore their responsibility to confirm that the waste is inert.

Further information

If you need further information about reporting recovery and disposal of street sweepings and gully waste, please contact:

Email:

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Links to other documents

Environment Agency website

Quality Protocols:

http://www.environment-agency.gov.uk/business/sectors/142481.aspx

Standard permits for waste operations

http://www.environment-agency.gov.uk/business/topics/permitting/118404.aspx

Storage and dewatering of street sweepings

http://www.environment-agency.gov.uk/static/documents/Business/NWFD 3.pdf

http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_065_v2_Dewatering_of_street_sweepings_May_2012.pdf

Treatment of waste (exemptions)

http://www.environment-agency.gov.uk/business/topics/permitting/115578.aspx

Use of waste (exemptions)

http://www.environment-agency.gov.uk/business/topics/permitting/115597.aspx

WasteDataFlow website

http://www.wastedataflow.org/

Legislation.gov.uk Website

Waste (Wales) Measure 2010 (Recycling, preparation for re-use and composting

www.legislation.gov.uk/mwa/2010/8/section/3/enacted

Welsh Government Website

Latest guidance in support of The Recycling, Preparation for Re-use and **Composting Targets:**

http://wales.gov.uk/consultations/environmentandcountryside/waste-guidance-stagethree/?status=closed&lang=en