

Environment Alliance - working together

pollution prevention guidelines

Vehicle washing and cleaning: PPG13

These guidelines are jointly produced by the Environment Agency for England and Wales, the Scottish Environment Protection Agency, and the Environment and Heritage Service for Northern Ireland (referred to here as 'we' or 'us').

Following this good practice guidance doesn't remove your responsibility to comply with the law and prevent pollution from your activities. Causing or allowing pollution is a criminal offence; compliance with this or any guidance isn't a defence. You should make sure that the references to other sources of guidance are still current; use updated guidance if it exists.

This guidance covers vehicle washing and cleaning by all methods, including:

- automatic wash systems
- washing by hand
- using high pressure or steam cleaners

at all sites including:

- retail premises
- business and industrial premises
- public and private car parks
- former petrol filling stations

This guidance also applies to washing and cleaning plant, machinery, equipment and boats as the principles are generally the same. It doesn't cover household activities but our good practice advice would be to use a commercial facility (car wash) that re-uses water, or hand wash with a bucketful of water and a sponge without using detergent, traffic film removers, degreasants or other proprietary cleaners. We discourage the use of hose-pipes or high pressure cleaners for car washing at home. Contact us if you need further advice.

Following this guidance will help you plan and deal with liquid and solid waste, reduce the risk of causing pollution, and, by using water wisely, could save you money.

1. Introduction

Effluent and run-off from vehicle washing and cleaning activities can damage the environment and pollute rivers, streams, burns and groundwater. Dirt, brake dust, traffic film residue and oil that is washed off are all pollutants. The cleaning agents you use (including those labelled biodegradable or traffic film removers) are very poisonous to river life. If you cause pollution, you are breaking the law and spoiling your environment.

Dirty water or run-off from vehicle washing and cleaning carried out as a business or industrial activity is called trade effluent. Whether you're cleaning just one vehicle or responsible for a large lorry fleet, you must arrange for collection and disposal of effluent to prevent pollution. It's illegal to discharge trade effluent to the environment or into drains without permission.

1.1 Find out about drainage systems and get a drainage plan

Understanding your drainage system is the key to preventing pollution. Most areas have what is known as a separate drainage system where there are two types of drain:

- **Surface water or clean water drains** should only carry uncontaminated rainwater; they lead directly to ditches, streams, burns, rivers and soakaways. Roof water, car park, road and some yard drainage is usually connected to the surface water drainage system
- **Foul water drains** carry contaminated water (sewage and/or trade effluent) safely to a sewage treatment facility, which is either owned privately or by the local sewage treatment provider. Any system designed to carry foul water is called a foul water drainage system

Drains (surface water and foul) are also known as sewers. Your local sewer provider is the organisation with the legal responsibility to provide public sewerage and sewage treatment facilities in your area. Drains owned by the local sewer provider are known as mains drainage, main sewers or public sewerage systems.

Older, urban areas might have a **combined** drainage system that has one drain, carrying both foul and surface water to a sewage treatment facility.

Techniques called “sustainable drainage systems” (SUDS) are now used as a better way of dealing with surface water run-off, rather than using piped outfalls to rivers, streams or burns. In Scotland, the use of SUDS is a legal requirement for surface water disposal. These systems must be protected from contamination in the same way as piped surface water drainage systems. See reference 1 for more information on SUDS.

To prevent pollution, don't allow washing or cleaning effluent, runoff or cleaning chemicals to enter oil separators, drains or gullies connected to the surface water drainage system. You need to have a good, up-to-date drainage plan of your whole site, including areas where vehicle washing and cleaning will take place. If you don't have a plan, you can't be sure that drainage is connected to the right system. If there is no in-house expertise to do this, use a reputable drainage consultant or consulting engineering company.

In Scotland, General Binding Rules (GBRs) apply to discharges into surface water drainage systems. See reference 2. Under the GBRs:

- trade effluent mustn't be discharged into any surface water drainage system; and
- detergents or other pollutants mustn't be disposed of into, or onto surfaces that drain into, any surface water drainage system

1.2 Protecting our groundwater supplies

In some parts of the UK, over 70% of the drinking water is supplied from natural underground reservoirs in porous rocks, called aquifers. Cleaning up groundwater is difficult and very expensive so you must protect it from pollution. Never carry out washing or cleaning on unmade ground or other porous surfaces where run-off could soak down through the soil and pollute valuable groundwater resources, always check with your local office for advice.

In some very sensitive groundwater areas, we might ask for more stringent pollution prevention measures than those detailed in this guidance note. In some cases, this might mean we won't allow this activity to take place at all.

1.3 General advice on drainage, trade effluent, environmental legislation and good practice

For more general information on drainage, trade effluent and good environmental practices see reference 3. The NetRegs website has information about the environmental regulations you must comply with, and good practice recommendations that you should follow, for trade effluent, preventing water pollution, efficient water use and other relevant topics. See reference 4.

2. What kind of vehicle washing and cleaning are you doing?

Think about what you're doing and the best way to manage your cleaning activity and any effluent.

Are you:

washing and cleaning your own business vehicles and plant on your own premises?

What do you need to wash or clean, and where? If you use a vehicle cleaning business or contractor to work on your site, it's your responsibility to provide appropriate facilities such as those detailed in section 3. Using washing equipment that re-uses water might be more cost effective, as would using a nearby commercial wash facility.

allowing washing and cleaning to be carried out for commercial gain by someone else on land or premises that you own?

Are you giving clear instructions about where and how the washing and cleaning is to be carried out and how solid and liquid waste should be dealt with? Have you provided appropriate facilities? As a landowner or landlord, you are responsible for:

- trade effluent and surface water discharges
- pollution caused by site contractors, service providers and tenants. You must provide good environmental practices and guidelines and make sure that site operators follow them; see section 3, 4 and 5. If you allow washing and cleaning to take place in an unsuitable area, you might be prosecuted for permitting pollution

washing and cleaning vehicles as your business?

Where and how will you carry out your business? If you offer an on-site vehicle washing and cleaning service (including franchises), you must use a designated washing area that has proper drainage arrangements if run-off is produced from your activities; see section 3. If there isn't a designated area, your activities might cause pollution and you will be responsible even though you don't own the site. If your business involves washing cars by hand see section 4. What solid wastes will you produce and what arrangements have you made for its correct disposal? See section 5.

3. Requirements for all vehicle washing and cleaning activities

Activities that produce run-off from the vehicle onto the ground and use cleaning and valeting products should be carried out in areas that are clearly marked and isolated from surface water drainage systems, unmade ground and porous surfaces. These areas are called **designated washing bays**.

A designated washing bay should be designed so that run-off is:

- isolated using channels, gullies, gradient (fall on the surface) and kerbs
- directed to a silt trap or settlement tank to remove larger particles of silt and sediment
- either collected in a sealed system for reuse, discharged to the public foul sewer with prior permission of the local sewer provider or collected in a sealed system for authorised disposal

You should also:

- have procedures for everyone, including contractors, that cover where and how vehicle washing and cleaning should be carried out and what to do in a spillage emergency
- provide notices for designated washing bays saying what they're for and that washing and cleaning should only be carried out in the bay
- consider whether a fence or barrier is required to prevent spray or wind drift out of the designated area
- have procedures and equipment which minimises water use and solid waste production

3.1 Reduce, reuse and recycle – resource efficiency and waste minimisation

You should consider ways to reduce the volume of water you use for washing and cleaning, and the amount of liquid and solid waste you produce. Recycling effluent and reusing the water is the best environmental option for dealing with vehicle washing and cleaning effluent. Use washing equipment that has a collection and re-use or re-circulation process. These systems usually require regular, off-site removal of some water, silt or sludge so waste management licensing legislation will apply; see section 3.2 and 5

A waste minimisation review will help you save money on raw materials and waste disposal costs. Free, independent and practical advice on how to minimise waste is available from Envirowise; this includes free publications, events, site visits and waste reviews. See reference 5.

3.2 Connecting and discharging to a public foul sewer

If recycling and reuse isn't possible, discharging all the vehicle washing and cleaning effluent to a public foul sewer is generally the next best environmental option as the effluent is carried to a purpose-built and closely monitored sewage treatment plant. You need permission from your local sewer provider to discharge vehicle washing and cleaning effluent to a public foul sewer. Permission (a consent or agreement) isn't given automatically so you must talk to your sewer provider before you make any connection or discharge. If you don't have their consent, you're breaking the law. See reference 6 to find your local sewer provider.

You're likely to pay for this discharge; the amount depends on volume and chemical composition. You should give your local sewer provider an accurate site drainage plan to support your proposals. You might have to cover your designated washing bay to prevent clean rainwater adding to the volume of effluent. You might also be required to provide an oil separator for the discharge.

3.3 What happens if a public foul sewer isn't available?

If you can't recycle water or connect to a suitable public foul sewer, you'll have to consider these options:

- carry out washing and cleaning activities on another site that does have proper facilities
- collect all the effluent in a sealed system for off-site removal as a liquid waste. Waste management licensing legislation will apply; see section 5
- install your own trade effluent treatment system. The system must be designed, manufactured and installed to treat washing effluent to a good enough quality to discharge to the environment (to land or watercourse) or to a private surface water sewer. You need our permission (a consent or authorisation) for this and an annual charge is payable. We don't give permission automatically so you must talk to us before you buy any equipment or make any connection or discharge. A discharge of treated effluent to a public surface water sewer needs the prior permission of the local sewer provider, which may not be given in some areas. A suitably designed and installed sustainable drainage solution, such as a reedbed, might be an acceptable, cost effective alternative. See reference 7 for more information

3.4 Using and storing cleaning chemicals

- Only use biodegradable washing and cleaning products. This will help treatment processes when effluent is discharged to the foul sewer
- Follow the manufacturer's environmental and health & safety information, such as for the COSHH (Control of Substances Hazardous to Health) Regulations
- Use non-corrosive products. Corrosive products, such as traffic film remover, can damage paintwork, metal surfaces, ground coverings and drains
- Store all detergents, emulsifiers and other cleaning agents in suitable bunded or containment facilities, within a locked storage area or building away from any surface water drains
- Only use the minimum amount needed for a job diluted to the appropriate working strength. Never use undiluted concentrates
- Prepare working strength solutions in the storage area, never in areas that drain to the surface water system

3.5 Dealing with spillages of cleaning chemicals

- Produce a spillage response plan; test and use it (see reference 8)
- Deal with all spillages immediately; follow the manufacturer's health and safety advice
- Keep suitable spill kits where cleaning chemicals are stored and used, and make sure everyone knows how to use them. Make sure kits are replenished after use
- Stop spillages from entering drains, channels, gullies, watercourses and unmade ground. Use proprietary sorbent materials, sand or drain mats
- Make sure your spillage response plan includes information about how to recover, handle and correctly dispose of all waste produced from a spillage. Make sure you deal with all waste safely and legally (see section 5)
- Tell us immediately if you have a pollution emergency using the free emergency hotline number 0800 807060

See reference 8 for more information on storage, training and emergencies.

4. Good practice for different washing and cleaning methods

4.1 High pressure washers (jet washers) and steam cleaning

High pressure washers (including jet washers) and steam cleaners are effective at removing dirt, grease and coatings from vehicles, machinery and surfaces. But they use large volumes of water (500 – 7,200 litres an hour), often at high temperatures and containing cleaning chemicals. If you are cleaning vehicles and plant with a high-pressure washer (jet wash) or steam cleaner, you must use a designated washing bay.

If you use a pressure washer to clean roads, yard surfaces, other equipment or in areas where the drainage isn't collected or connected to the foul sewer, you must stop run-off from entering surface water drains. See section 3 for good practice advice for dealing with this runoff. Never allow run-off containing cleaning chemicals, detergents or emulsifiers to enter surface water drains as this will cause pollution and prevent oil separators from working properly. See reference 9 for more information.

4.2 Washing and valeting by hand

If you wash, clean or valet vehicles by hand, or are responsible for a site where this service is offered, you must have good site management procedures and practices in place to avoid pollution. You should use designated wash bays as detailed in section 3, or make sure that you have other satisfactory arrangements in place.

However, it may be acceptable to clean or valet private cars by hand in areas such as car parks, without designated wash bays (roving activities), if:

- only clean water is used and no detergents or cleaning chemicals
- or your working method doesn't produce any runoff from the vehicle
- or the runoff from the vehicle is contained, collected or treated in some way and dealt with or disposed of legally
- and you can show us that the proposed activity will not adversely affect separators and SUDS, or damage the environment at any time

Remember that in Scotland, General Binding Rules (GBRs) prohibit the discharge of trade effluent and detergents to surface water drains. In England, Northern Ireland and Wales, we (or the sewer provider) may not allow roving hand car washing (as described above) to take place because of the environmental sensitivity of the site or other factors which makes the activity likely to cause environmental harm. You are advised to contact us before you set up or start a roving washing operation to find out if your proposals are acceptable from an environmental protection point of view. If you don't you could make costly mistakes.

If we do agree (in England, Northern Ireland and Wales) to roving activities (as described above), you must also have:

- clear, well understood procedures
- good working practices
- close management control at all times

and:

- only use the minimum amount of water
- never use hoses or high pressure washers
- don't carry out roving activities where dirty water or other runoff could enter or be washed by rain into surface water drains
- make sure that buckets and containers of dirty water/effluent are emptied into clearly marked and agreed points connected to the foul sewer. This water is also a trade effluent and you need permission from the local sewer provider to dispose to a public foul sewer; see section 3.3 and 3.4

and, where you are producing no noticeable runoff from the vehicle or collecting it in some way:

- apply the minimum amount of cleaning product and ensure no spray drift
- use cleaning and valeting chemicals diluted to appropriate working strengths; never use undiluted concentrates
- don't use products that are unsuitable for hand washing, e.g. commercial traffic film remover

Please note – washing very dirty vehicles, commercial vehicles or engine compartments by hand must only be carried out in designated wash bays.

4.3 Automatic vehicle washing systems

These systems use a variety of techniques but generally involve the use of water jets and rotating brushes, and they often have a drying facility. It's possible to get systems which filter, re-circulate and re-use most of the water but they still require a connection to the foul sewer for overflow and filter backwash water. As with all discharges to the public foul sewer, this would be regarded as a trade effluent and its disposal requires permission from the local sewer provider. If no foul sewer is available, you'll have to consider the options in section 3.3. Waste management legislation applies to the disposal of solid trade waste, silt and sump sludge from these systems. See section 5.

4.4 Cleaning platforms

In this system, a vehicle is driven onto a mobile or static cleaning platform, which has an integral containment sump for holding wash water. Cleaning chemicals are sprayed or applied by hand onto the vehicle, which is then sponged and wiped dry. The wash water is either discharged to a foul drain or settled and passed through a series of filters and tanks where it's cleaned and then circulated for re-use. When using this system, you must contain wash water and cleaning chemicals to prevent them entering surface water drains. Waste management legislation applies to the disposal of solid trade waste, silt and sump sludge. See section 5.

4.5 Cleaning methods that don't use water

Technologies for hand washing that don't use water on site have been developed. Vehicles are sprayed with a product which cleans the surface and applies a polish in one application. Towels and micro-fibre materials are used to remove dirt and polish the vehicle. Used towelling is machine washed off site.

Providing no liquid effluent or application spray drift is produced, this method is unlikely to cause water pollution on site. The cleaning agent must be used as intended and stored safely. You must follow the requirements for general hand washing in section 4.2 where appropriate and consider how you will prevent spray drift from landing on hard surfaces draining to surface water drains. Waste management legislation applies to the storage and disposal of solid trade waste, such as used polishing cloths and empty containers. See section 5.

You must follow the manufacturer's recommendations for handling and using these products including the need to use appropriate personal protective equipment.

5. Waste management and your legal duty of care

Waste produced from vehicle washing and cleaning businesses can include, for example, water contaminated with oil, detergents or silt; silt, sludge, empty containers, product packaging, washing and polishing materials such as cloths.

There are strict legal requirements for the storage, movement and disposal of business waste. You have a duty of care to make sure that any waste you produce:

- does not escape from your control
- is transferred only to a registered waste carrier for recycling or disposal at a suitably licensed facility
- is accompanied by a transfer note with a full description of what it is
- is disposed of lawfully

Disposing of hazardous waste (such as oily wastes, acids, solvents and solvent-based products) has stricter requirements. You must find out if any of the waste you produce is classified as hazardous or, in Scotland, special waste; if it is, and you are in England, Northern Ireland or Wales, you must register with us. The NetRegs website (reference 4) explains how to comply with waste legislation. Alternatively, contact us for advice or visit our websites.

Useful References

1. Sustainable drainage systems (SUDS) an introduction - for England and Wales; download or order from www.environment-agency.gov.uk/suds which has other useful information.

SUDS – Setting the scene in Scotland, from: www.sepa.org.uk/publications/leaflets/suds/index.htm
More UK wide information and publications can be obtained from CIRIA, the Construction Information and Research Association at www.ciria.org/suds
2. The Water Environment (Controlled Activities) (Scotland) Regulations 2005, download from: www.sepa.org.uk/wfd/regimes/index.htm
3. Pollution prevention pays, getting your site right – industrial and commercial pollution prevention; download or order from www.environment-agency.gov.uk/ppg
4. NetRegs website - www.netregs.gov.uk - provides free information on environmental regulations that small and medium sized businesses have to comply with, and relevant good practice. Visit the Water and Waste sections of NetRegs Guidance by Environmental Topic to obtain more information on the issues mentioned in this PPG.
5. Envirowise – www.envirowise.gov.uk or call the Environment and Energy Helpline on 0800 585794. Ask for your free copy of IT 313 Waste Wise - Increased Profits at Your Fingertips. This is an interactive CD-Rom with all the information you need to minimise waste and save money.
6. Water UK – the industry association representing all UK water and wastewater service suppliers. www.water.org.uk/home/resources-and-links/links/water-operators/sewerage-operators

7. PPG 4: Treatment and disposal of sewage where no foul sewer is available.
www.environment-agency.gov.uk/ppg or www.sepa.org.uk/guidance/ppg/index.htm
8. PPG 21: Pollution incident response planning.
www.environment-agency.gov.uk/ppg or www.sepa.org.uk/guidance/ppg/index.htm
9. PPG 3: Use and design of oil separators in surface water drainage systems.
www.environment-agency.gov.uk/ppg or www.sepa.org.uk/guidance/ppg/index.htm

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08708 506 506 (Mon-Fri 8-6)

Environment Agency

www.environment-agency.gov.uk

HEAD OFFICE

Rio House
 Waterside Drive
 Aztec West
 Almondsbury
 Bristol BS32 4UD
 Tel: 01454 624 400
 Fax: 01454 624 409

incident hotline

0800 80 70 60 (24hrs)

Scottish Environment Protection Agency

www.sepa.org.uk

CORPORATE OFFICE

Erskine Court
 The Castle Business Park
 Stirling FK9 4TR
 Tel: 01786 457 700
 Fax: 01786 446 885

floodline

0845 988 1188

Environment and Heritage Service

www.ehsni.gov.uk

HEAD OFFICE

17 Antrim Road
 Lisburn
 County Antrim BT28 3AL
 Tel: 028 9262 3100
 Fax: 028 9267 6054



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