



## Best Management Practice for Catering Establishments



# Fats, oils and grease in the sewerage system

The purpose of this document is to educate food establishments on the need to keep fats, oils and grease out of the drainage system.

## Environmental impact

Fats oils and grease cause major problems to the sewerage system. When they are discharged down kitchen sinks or foul drains they cause sewer blockages; when they are discharged down rainwater pipes and gullies they cause pollution in local watercourses.

## This document covers:

- History
- Housekeeping
- Legal requirements

## History of the problem

The eating habits of the nation are changing, people are eating out much more frequently than they did in the past and the number of food service establishments is increasing.

Fat, oil and grease in liquid form may not appear to be harmful, but as it cools it congeals and hardens. It sticks to the inner lining of drainage pipes and restricts the wastewater flow and causes the drain to block. Using detergents or bleach may appear to help but this is only temporary as the mixture soon reverts back to thick or solid fat.



A drain gully blocked with fat.

The number of blockages and pollution incidents relating to fats, oils and greases are also increasing. There are approximately 200,000 sewer blockages throughout England and Wales every year of which up to 75% are caused by fat, oil and grease. Clearing these costs millions of pounds a year which is reflected in customers bills. Businesses also risk blocking their own drainage system, which will result in loss of income due to clean-up costs. These fat blockages result in sewer flooding, odour problems and the risk of rat infestations near your premises.



Fat building up in a manhole.

In fact, every establishment disposing of fat, oil and grease into sinks and drains is at risk of experiencing damaging and costly drainage problems.

Water UK is taking part in collaborative research with the Water Research Centre (WRc) to look at ways to reduce fat, oil and grease in the sewers, but please find enclosed, ways that you can help.

# House-keeping

## Stop and think - not down the sink

The purpose of these guidelines is to ensure that fats, oils and grease do not enter the drainage system.

### Training

All kitchen staff should receive adequate training to understand the importance of keeping fats, oils and grease out of the sewerage system. It should be explained to each member of staff that failure to do this can lead to expensive clean up costs for the business to unblock drains and may result in potential public health issues, prosecution and unwanted negative publicity as well as a disruption to normal business.

### Preparation prior to washing

Plates, pots, trays and utensils should be scraped and dry wiped with disposable kitchen towel prior to putting them in the sink or dishwasher and the scrapings placed in the bin.

All sinks should have a strainer for placing in the plug hole to prevent waste food from entering the waste pipe. Waste food collected in the strainer should be placed in the rubbish bin.



All sinks should have a strainer or a sieve for placing in the plug hole to prevent waste food from entering the waste pipe. Waste food collected in the strainer should be placed in the rubbish bin.



Dry wipe pots and utensils prior to washing.

# House-keeping

## Removal of fat, oil and grease

### Grease traps/grease interceptors

Grease Traps are specially designed units which are placed in the drain pipe and are intended to separate the fats, oils and grease from the rest of the wastewater. The wastewater then continues to flow to the sewage works for treatment while the grease is retained in the trap to be collected by a licensed waste oil collector at regular intervals. These units can be highly effective if they are correctly installed, serviced and maintained. A written record of maintenance must be kept. Your local Environmental Health Officer may be able to assist on the location and size of the unit to suit your premises to ensure it is efficient at preventing the grease causing problems in the drains.

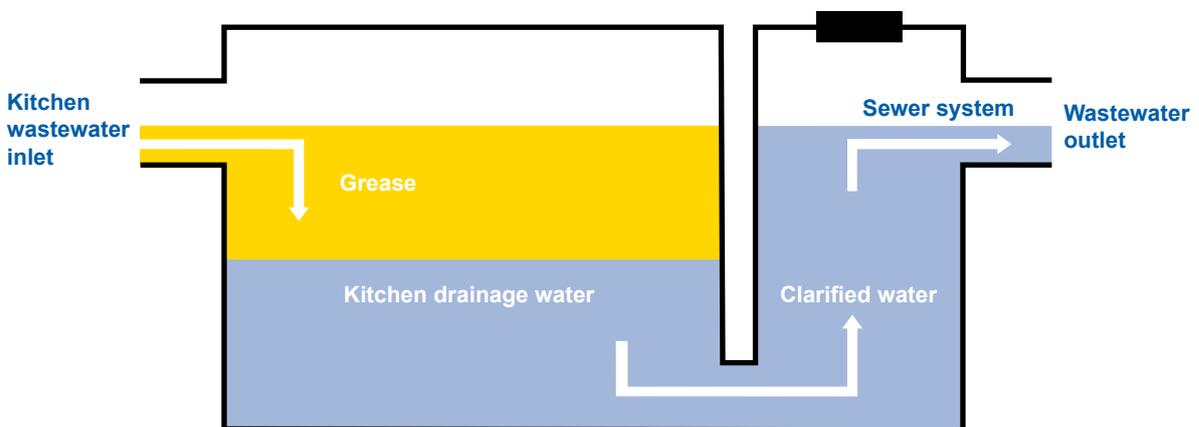
### Food macerators

These appliances are designed to chop or grind food into small pieces prior to disposal into the drainage systems. However, fat combines again with the particles which together build up in the pipes resulting in the need for expensive blockage clearance. Drains and sewers should not be used for the disposal of food and these units encourage bad practice. Our advice is not to instal them. Waste food must be collected via a commercial waste contractor.

### Enzyme dosing systems

These bacterial cultures are designed to biologically breakdown the fat in the drainage system. They are supplied by specialist companies and can be used in addition to a grease trap to biologically digest and breakdown any residual grease. Experience shows that enzyme dosing doesn't always work. Stopping fat, oil and grease getting into the drains in the first place should make enzyme dosing unnecessary.

Diagram of an "under-the-sink" grease trap



### Waste oil storage

Waste oil originates from deep fat fryers, woks, frying pans and baking trays etc. Waste oil and fat should be collected in an air-tight sealed container to prevent odours and vermin. The container should be stored in a secure bunded area to prevent spills and leakages and should be kept clear of both the surface water and foul drains to prevent sewer blockages and pollution incidents.



Poor storage of waste cooking oil.

### Recycled waste cooking oil

The collected waste oil will either be used for bio-diesel as a raw material for transport fuel or for incineration for the generation of electricity. The government supports the reuse of waste cooking oil as it reduces the dependency on landfill sites and the use of fossil fuels for energy generation. Water UK supports recycling as it ensures that waste oil stays out of the drainage system.



Pour waste oil into an empty drum for collection.

### Waste oil collection

In the past, the food establishment was paid for its waste oil with a commercial outlet for the collector to use as a high energy diet for livestock. However, due to a change in legislation, this route is now closed and often the oil producer has to arrange and pay for its collection.

The Environment Agency licenses Waste Oil Collectors and they can provide a list of those operating in your area.

You must ensure your waste contractor is an

Environment Agency licensed waste carrier and that they give you a copy of the waste transfer note. You should also check that the waste is being consigned to a Licensed Waste Management site. Waste transfer notes should be kept for 2 years and made available for inspection under Section 34 of the Environmental Protection Act 1990.

As previously mentioned, these simple steps will not only help reduce blockages, but will also eliminate costs, negative publicity and prosecution that flooding would bring to your business. They could even reduce water usage, helping to preserve supplies and and lower your bills.



Build up of fat in sewer.

## Sewers are for sewage

– Keep waste in it's place

# Stop and think

## – not down the sink

Checklist for managing fats, oils and grease in your kitchen

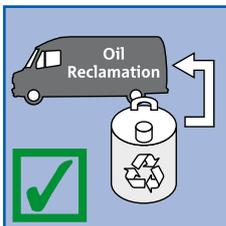
### DO's



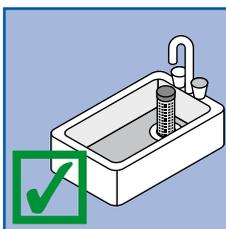
**Do** wipe and scrape plates, pans and utensils prior to washing (and put the waste into the bin)



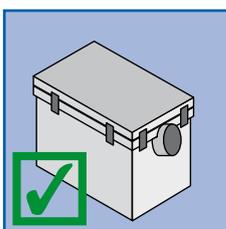
**Do** collect waste oil in a suitable secure container.



**Do** arrange for oil to be collected by an approved and licensed waste contractor.



**Do** use strainers in sink plug holes (and empty contents into the bin).



**Do** maintain Grease Traps and Enzyme Dosing equipment regularly.

### DON'Ts



**Do not** put cooking oil, fat or grease down the sink.



**Do not** pour waste oil, fat or grease down the drain.



**Do not** put food scrapings into the sink (place in the rubbish bin)



**Do not** sweep waste into floor drains (place rubbish in bin).



**Do not** pour boiling hot water down the sink to try to dissolve fat and grease. It does not work!

The above simple guidelines will significantly help to maintain free flowing water both within the drains of the restaurant and in the sewerage system.

# Legal requirements

There are a number of legal requirements in place to help prevent fats, oils and grease entering the sewerage system, failure to adhere to these can lead to enforcement and prosecution under the relevant legal powers.

## **Water Industry Act 1991**

It is a criminal offence under section 111 of the Water Industry Act 1991 to discharge into the public sewers any matter which may interfere with the free flow of the sewerage system. In addition, where the water company has incurred costs in dealing with the detrimental effects on the sewers eg removing blockages, cleaning sewers, investigating and remedying flooding or pollution incidents, it can take legal action to recover these costs which can result in substantial fines or even imprisonment.

## **Duty of care**

Every commercial premises arranging collection and disposal of waste (including waste cooking oils and fat) must comply with the requirements of Section 34 of the Environmental Protection Act 1990 and the Environmental Protection Act (Duty of Care) Regulations 1991 as amended.

The objective of the Duty of Care is to ensure that all waste is managed correctly from the place where it is produced to the point of final disposal. The producer of the waste must therefore ensure that the collector is licensed by the Environment Agency and a record is kept of all collections. The local Environmental Health Officers can issue 'Statutory Notices' requesting the production of all documentation relating to the removal of trade waste. Failure to comply with this legislation can lead to a fine of up to £5,000.

## **Statutory nuisance**

The local authority's Environmental Health department will deal with any reported complaints of 'statutory nuisance', such as smells, effluents and the accumulation of refuse. Under Section 79 of the Environmental Protection Act 1990, they have the powers to impose restrictions or to shut down a business if they find a just cause.

## **Animal By-Products Regulations EC 1774/2002 (ABPR)**

From 1 November 2004 waste cooking oil from catering premises can no longer be used as an ingredient in animal feed. This is to safeguard the food chain. The collection of waste cooking oil must be via a licensed waste carrier.



Avoid poor waste oil storage which could result in a sewer blockage or pollution incident.

