



Welcome to the Trade Effluent Tool Kit 1 - The Basics for Scotland Sites

The water experts

business stream
A SCOTTISH WATER COMPANY



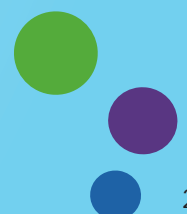
Toolkit 1: Basics

Blast the basics, such as what trade effluent is, how consents work and how to apply. Dig deep and get stuck in.

Toolkit 2: Charges

Boost your knowledge on how trade effluent charges work and how to read and understand your bill in record time.

Let's tackle the basics!



Introduction to Trade Effluent

We're on a mission to help you get to grips with the basics – understanding what trade effluent is, who's in control of its disposal, why it's so important, what's a trade effluent consent and how to apply.

Understanding trade effluent is not a waste of time. In fact, trade effluent is one area where you can't afford gaps in your knowledge.

Whether you're a multi-national food and drink giant or a local car wash, trade effluent is an important consideration for your business. And if not managed correctly can lead to a hefty fine and a damaged reputation which is a huge price to pay for something that's so easily managed. The reality is that many businesses just don't fully understand what trade effluent is, what trade effluent they produce and their legal responsibilities for its disposal. That's why we have developed this handy guide to help you to understand how and why trade effluent is regulated and some practical tips to help your business get your application right first time and avoid the tough penalties that can come with breaching your consent.

Trade effluent doesn't have to be confusing and complex. It's really quite simple. So, let's stick to the basics for now and tackle:

Step 1: What is trade effluent?

Step 2: Who controls trade effluent consents?

Step 3: What is a trade effluent consent and how does it work?

Step 4: What could happen if I breach my consent?

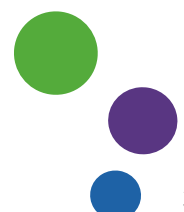
Step 5: How do I apply for a consent?

- A new consent
- Change an existing consent
- Terminate an existing consent

Back pocket:

- Six top tips to getting your consent application right first time

Let's go!



Step 1: What is Trade Effluent?

First, let's get to grips with trade effluent – what is it?

The Sewerage (Scotland) Act 1968 defines trade effluent as any liquid waste 'which is wholly or in part produced in the course of any trade or industry' that is then discharged to the public sewer. In simple terms, trade effluent is any liquid waste, other than surface water and domestic sewage that's discharged from premises being used for a business, trade or industry. It covers both large and small premises and includes:

- Food and drink production
- Chemical manufacturing
- Engineering
- Laundries
- Vehicle washes
- Photographic processing
- Leather and textile manufacturing

Many essential services, such as hospitals and local authorities, may also produce trade effluent. Generally, Scottish Water doesn't consider hotels, prisons, caravan sites, restaurants, take-aways, and swimming pools to be producers of trade effluent. These are dealt with by Scottish Water as waste water discharges.

What is the difference between waste water, surface water and trade effluent?

Don't worry. This is an easy one to get wrong. It can be confusing. Simply:

Surface water is another word for rainwater that falls on the ground, on roofs and roads, pavements and paths and flows down the drain.

Waste water is domestic sewage from humans that is carried away in sewers or drains for treatment into a form that is suitable for discharge to the environment. Waste water covers the discharge from toilets, sinks, baths, showers and canteens that a business may use on site.

Trade effluent is any liquid waste, other than surface water and domestic sewage that is discharged from premises being used for a business, trade or industry. It covers any liquid waste which is discharged from production processes. It also includes wash water from vehicles, machinery and floors, cooling waters and even surface water runoff that has been contaminated, e.g. with oil.

Any business that only discharges domestic sewage is classified as a waste water producer and not a trade effluent producer and is charged accordingly.

Toolkit 2 has all you need to know about charges.



Step 2: Who controls trade effluent consents?

Next, let's tackle who regulates and controls trade effluent disposal in Scotland and why it's so important.

Scottish Water owns, operates and maintains over 30,000 miles of sewer pipes which take waste water and effluent away from homes and business premises across Scotland every single day. This is then treated at over 1,800 waste water treatment works before it's returned to the environment.

Scottish Water also controls all significant trade effluent discharges to their sewers through a system of permits known as consents and letters of authorisation. This system of control was initiated by the Sewerage (Scotland) Act 1968 (as amended in 2002) and is still in force today.

Beware. Failure to comply is a criminal offence which may result in a fine for breach of compliance, which is currently set at a maximum of £40,000. That's a huge dent in your bottom line. You might wonder why Scottish Water takes it so seriously and set limits on your effluent discharges. Here's why:

Scottish Water's sewers and waste water treatment works form part of a complex, regulated sewerage management system, which play a vital role in protecting public health and maintaining a clean, healthy environment for everyone to enjoy. When used correctly, that's exactly what they'll do, but if the system is misused it can have serious consequences for both the public and the environment. For example:

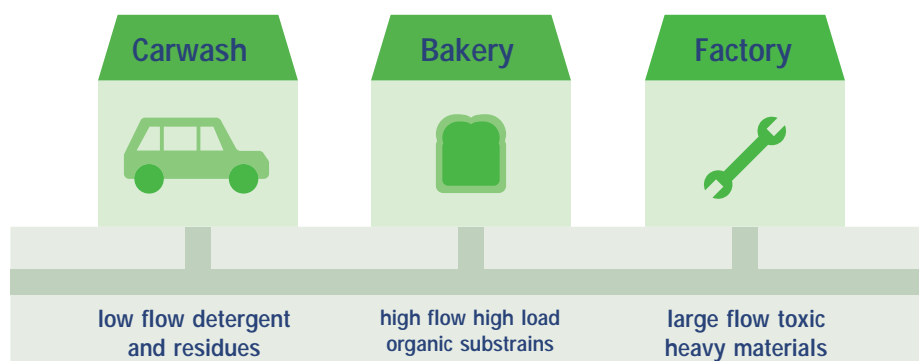
- Some effluent can be toxic. Ensuring the health and safety of employees and the public is crucial, as is protecting the environment
- Acids, alkaline liquids and sulphates can corrode concrete, which can also damage the sewer
- Fat can block the sewer and cause serious flooding
- Solvents can create an explosive environment in the sewer creating a hazard to anyone working or around the sewer network.

Trade effluent discharges can also range in size from just a few litres to hundreds of thousands of litres entering the sewers every day. The volume, strength and what's in the effluent discharges can vary considerably.

For example, the effluent from a car wash will usually be a low volume and will contain detergents and residues from the washing of cars. This is very different to effluent produced during an engineering process which can be a large flow and may contain persistent and potentially toxic substances such as heavy metals.



Trade effluent from a bakery will be different again in that the effluent will likely contain a significant load of organic substances such as flour and fat.



Due to these various volumes and strengths of effluent that it's important to ensure that all infrastructures such as sewars, treatment works and watercourses are able to cope with and manage the discharge. This means Scottish Water need to carefully assess and regulate all discharges of trade effluent made into their sewerage systems. It's important to remember that we all play a part in ensuring that our sewerage systems are kept in good working order. This means that you can do your bit simply by making sure that your trade effluent is discharged legally in accordance with a legal consent. Easy really!

Did you know?

- Every year there are over 40,000 blocked drains and sewers across Scotland which can adversely affect you and your business, cause flooding, plus pollute rivers and burns in your local area.
- Around 80% of these blockages that clog up the sewars are caused by either inappropriate items being flushed down the toilet, or fat, oil and grease being put down the sink

Step 3. What is a trade effluent consent and how does it work?

Next, it's time to understand what a consent to dispose trade effluent is and how it works.

It's simple really. Any business, large or small, with a significant trade effluent discharge must obtain a consent from Scottish Water to dispose of it in the sewer.

A consent is a legal document that sets limits on the volume, strength and characteristics of your effluent discharge to the sewer. It's then your legal responsibility to keep it under control and manage your effluent within these set limits.

How it works

Trade effluent consent is different for every business, premises and the process from which the trade effluent is discharged. It will contain limits for:

- **The maximum volume and flow rate of your discharge**
Trade effluent consent controls the volume of your effluent as well as the rate at which it can be discharged to Scottish Water's sewer. This simply means how much effluent is leaving your business and how quickly
- **The temperature, pH and other chemical parameters of the discharge**
Trade effluent consent controls the strength and characteristics of your discharged effluent. This includes numeric limits for the temperature, pH and other chemical parameters

Check out the parameters listed on the next page and why Scottish Water needs to control them.

If you only have a very small effluent discharge, less than 2m³ per day which presents little or no hazard to people, the environment, the sewer and waste water treatment works it can be controlled by a letter of authority (LOA) rather than a consent. This will give you the right to discharge your effluent but with only some general conditions covering what can and can't be discharged.





Trade effluent parameters

- Volume and Flow rate

Volume and flow rate are controlled to prevent flooding and to make sure that the sewers and waste water treatment works are not overloaded.
- ph

pH, which is a measure of acidity or alkalinity, is controlled to ensure that sewers, pumping stations and water recycling centres, including their processes are protected.
- Temperature

Temperature is controlled in order to protect any staff working in the sewers and to ensure that bad odours are prevented or at least minimised.
- Chemical oxygen demand (COD) and biological oxygen demand (BOD)

Chemical oxygen demand is a measure of the capacity of your effluent to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals. Biological oxygen demand is controlled to ensure that there's no detrimental impact on all biological waste water treatment works processes.
- Suspended solids

Suspended solids are a measure of the particles in your trade effluent. Suspended solids are controlled to ensure that there are no blockages in the sewers due to too much settlement.
- Sulphate

Sulphate is controlled to prevent the corrosion of concrete sewers and the production of bad odours.
- Solvents

Most organic solvents are flammable or highly flammable, depending on their volatility. They can produce flammable or explosive atmospheres and are restricted to controlled or safe levels.
- Toxic metals

Toxic metals such as antimony, beryllium, chromium, copper, lead, nickel, selenium, silver, tin, vanadium and zinc can cause a range of problems. The presence of metals can inhibit biological treatment processes in the waste water treatment works and they may accumulate in and damage the environment.
- Fat, oil and grease

Fat, oil and grease, also known as FOG, is controlled to prevent blockages in the sewer and pumping stations and to protect all waste water treatment works.
- Ammonia

Ammonia can cause unsafe sewer atmospheres and toxicity problems in watercourses as it's highly toxic to aquatic animals. It's very dangerous to the environment.
- Methane

Methane can cause unsafe sewer atmospheres, leading to hazardous working conditions.
- Hydrogen sulphide

Hydrogen sulphide is a toxic gas that can build up in the sewer atmosphere, leading to hazardous working conditions. It smells terrible, which can also be a nuisance.
- Flammable substances

Flammable substances or substances which can produce flammable or explosive atmospheres are restricted to controlled or safe levels.



Beware, this list isn't exhaustive. Scottish Water may include additional controls or exclude any persistent or harmful substance in your effluent discharge, if they feel that it's necessary.

Step 4. What could happen if I breach my consent?

Next, it's important to know what the penalty is for failing to meet your consent limits. It may never happen but let's make sure that you know how it works and how to stay on the right side of the law.

What is a consent failure?

Scottish Water can pitch up on your doorstep at any time to carry out an inspection of your consented effluent discharges to check that you are in line with your limits and/or to evaluate the average treatable strength. They may, at their discretion, review and issue a proposal for a new consent for your business. If you get caught breaching your consent conditions they might not just rap you on the knuckles, they may follow a strict enforcement procedure which could end up in a huge fine. Check out Scottish Water's current definition and criteria for a consent failure:

Consent Parameter Failure

If one or more of the parameters of your effluent is between 20% and 100% above your consent limit or between +/-0.5 pH units and +/-1.0 pH units.

Consent Serious Parameter Failure

If one or more of the parameters of your effluent is greater than 100% above consent (or greater than +/-1.0 pH units).

If Scottish Water decides that you're in breach of your consent or when routine analysis shows a serious parameter failure you may be asked to complete a Trade Action Plan (TAP).

If your discharge fails any of its parameter limits:

1. Scottish Water will notify you as soon as possible and request that improvement plans are drawn up and implemented (A TAP).
2. Business Stream, as your licence provider, is also informed, consistent with the regulatory requirements.

What is a Trade Action Plan? (TAP)

A TAP is a formal way of demonstrating to Scottish Water that you're committed to correcting a compliance issue and the timescale by which you plan to get your trade effluent discharge back into compliance.



Warning!

While working through a TAP, Scottish Water will try to avoid taking any further action. That said, if another serious consent failure occurs during the timescale of the TAP that has an impact on Scottish Water they may take further action. This could include covering any costs that Scottish Water has had to pay out as a result of your breach of consent. They may also take enforcement action.

What is Formal Action?

The TAP forms the first part of Scottish Water's enforcement policy. The next stage is formal action.

Don't worry, you can avoid formal action easily. It will only occur if you have:

- Three consecutive serious consent parameter failures
- Refused to complete a TAP when requested
- Discharged a non-compliant effluent that has caused problems whilst already on a TAP
- Posed a risk to a Scottish Water asset (for example, a sewer, waste water treatment works or pumping station)
- Polluted the environment.

There are a number of ways that Scottish Water can take formal action against you, which could lead to court action and a hefty fine:

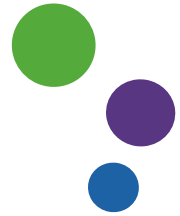
- Witnessed samples and/or tripartite samples Scottish Water will visit your business to take a sample of your effluent. It will be split into three portions. Two will be analysed by Scottish Water and one is left with you to analyse independently. These samples can be submitted to court as evidence, if required.
- A formal interview under caution Scottish Water will invite you to meet with them. Beware, any information that you provide can be submitted to the court, if required.
- A report being submitted to the Procurator Fiscal. If the court feels that there is a valid case for prosecution, a case will be brought against you by the Crown for breaching your consent.

Business Stream will receive a copy of all communications between you and Scottish Water on these issues and will be ready and waiting to lend a hand.

Remember, if any of this is double-dutch or you just need a friendly, expert ear to help and support you complete your Trade Action Plan, find specific solutions and accompany you to meetings with Scottish Water we have a team of trade effluent experts who can help and for free - just pick up the phone and give us a call on 0800 000 000 or visit our website at business-stream.co.uk/trade-effluent to get in touch.

It is important to note that any fine that is imposed by the Court is not paid to Scottish Water. It goes straight into the crown's coffers. Scottish Water will recover costs from you directly if they have had to pay out as a result of your breach of consent. For example, they will routinely do this for any effluent that you have discharged which has blocked the sewer or resulted in a clean-up of a wastewater treatment plant.





Apply for a new consent

If you start a new business or develop a new water-using activity which discharges trade effluent in your existing premises, Scottish Water expects you, by law, to apply for a consent.

Step 1

Complete the consent application form (H)

We've put together some guidance notes to make it as simple as possible to apply. But we're still on hand to help – particularly if it's your first application for a trade effluent consent.



Beware, if any part of your application is missing or incorrect, Scottish Water will send it back to you and request that you fix it before they make a start on it. This can delay your consent application hugely.

Step 2

Print, sign and scan in your consent form and email it to Business Stream at tradeeffluent@business-stream.co.uk. Alternatively, post it to Trade Effluent, Business Stream, 7 Lochside View, Edinburgh, EH12 9DH.



Don't forget to attach!

1. A detailed plan of your internal drainage layout with the below clearly marked:
 - The location of all the surface water, foul drains and combined sewers for your site
 - Your effluent inspection point
 - The point of discharge - where your effluent will discharge into Scottish Water's sewers
2. A list of all chemicals stored on site. You can send your COSHH assessment, if you have it. Even though these aren't discharged to the sewer during normal operations, they could pose a threat to the sewerage system if they spill or leak.

If you like, you can also include a flow diagram of all your water inputs and waste water and trade effluent outputs, but this is not compulsory. It's really for your own benefit so that you can double check that you have not overlooked any waste water which could put you at risk of being in breach of your consent.

Step 3

The trade effluent team in Business Stream will check your application, just to make sure everything is in order, and submit it to Scottish Water on your behalf.

Step 4

Scottish Water will contact you directly to confirm whether the consent is likely to be granted. They have 45 calendar days to review and respond to your application.

Step 5

Scottish Water will send you a copy of your final consent usually within 90 calendar days from the date that they received your application.

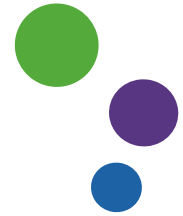


If you would like to challenge the decision or content of your consent, you can. You have a right to appeal and can lodge this with the Scottish Ministers in writing to the Directorate for Planning and Environmental Appeals (DPEA). You must lodge your appeal within 28 days from the date of issue of the final consent.

Step 6

When your consent comes into effect, your trade effluent charges will be applied. Check out Toolkit 2 to see how charges work.

Remember, if any of this is double-dutch or you just need a friendly, expert ear to help you complete your application, or lodge an appeal, we have a trade effluent expert who can help you with whatever you need, whenever you need it and its free - just pick up the phone and give us a call on 0800 076 222 or visit our website at business-stream.co.uk/trade-effluent to get in touch.



A change in your consent

Scottish Water also expects you, by law, to keep them informed if something has changed in a process and therefore the effluent discharge of an existing consent. If you're thinking about a change of process which may impact on the quantity or quality of your trade effluent discharge or which is not stated in your original consent, you must apply for a modification to your consent. Here's how it works:

Step 1

Complete the consent application form (H)

We've put together some guidance notes to make it as simple as possible. But we're still on hand to help, if you need it.



Beware, if any part of your application is missing or incorrect, Scottish Water will send it back to you and request that you fix it before they make a start on it. This can delay your consent application hugely.

Step 2

Print, sign and scan in your consent form and email it to Business Stream at tradeeffluent@business-stream.co.uk. Alternatively, post it to Trade Effluent, Business Stream, 7 Lochside View, Edinburgh, EH12 9DH.



Don't forget to attach!

1. A detailed plan of your internal drainage layout with the below clearly marked:
 - The location of all the surface water, foul drains and combined sewers for your site
 - Your effluent inspection point
 - The point of discharge - where your effluent will discharge into Scottish Water's sewers
2. A list of all chemicals stored on site. You can send your COSHH assessment, if you have it. Even though these aren't discharged to the sewer during normal operations, they could pose a threat to the sewerage system if they spill or leak.

It is good practice to send all the details required whether they are changing or not. Just in case Scottish Water request a copy at a later stage, causing a delay to your application.

Step 3

The trade effluent team in Business Stream will check your application, just to make sure everything is in order, and submit it to Scottish Water on your behalf.

Step 6

Scottish Water will review any comments or requests that you have provided and may change the content of the final consent (Direction) but are not required to. It is completely up to their discretion.

Step 4

Scottish Water will contact you directly with a proposal (Intimation) outlining the details of your consent for review.

Step 7

Scottish Water will issue the revised consent (Direction) once the 28 day period has passed. There is still a right of appeal (see below). The revised consent will come into effect 90 calendar days later.

Step 5

You have 28 calendar days to respond to Scottish Water in writing with any comments, to request other elements that you feel should be considered, or simply to accept it.

Step 8

When your final modified consent (Direction) comes into effect, your trade effluent charges may change. Check out Toolkit 2 to see how charges work.

If you would like to challenge the decision or content of the Direction, you can. You have a right to appeal and can lodge this with the Scottish Ministers in writing to the Directorate for Planning and Environmental Appeals (DPEA). You must lodge your appeal within 28 days from the date of issue of the final consent.

A change of address

A consent to discharge trade effluent relates to a specific premises. If you have moved to a new site where a consent already exists but doesn't match your requirements, the consent that exists at the new site will require modification. Simply follow the step-by-step guide for a change of consent. Don't forget to tick 'modification to an existing consent' and 'change of occupier' in section 3 of the consent form (H).

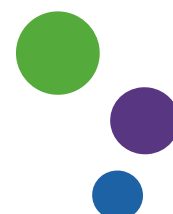
A change of occupier

A consent to discharge trade effluent relates to a specific business owner. If you've bought a business that discharges trade effluent and are happy that the consent that exists at the premises meets your needs, all you have to do is let Scottish Water know the new occupier details. Simply follow the step-by-step guide for a change of consent. You only have to complete sections 1, 2, 3 (tick 'change of occupier') and 8 of consent form (H).

How to terminate an existing consent

If you no longer require an existing consent, for whatever reason, you must let Scottish Water know. All you have to do is complete sections 1, 2, 3 (tick 'termination of consent') and 8 of the consent form (H). Don't forget to specify your preferred date of termination.

Remember, if any of this is double-dutch or you just need a friendly, expert ear to help you complete your application, offer advice and accompany you to meetings with Scottish Water we have a team of trade effluent experts who can help you with whatever you need, whenever you need it and it's free - just pick up the phone and give us a call on 0800 000 000 or visit our website at business-stream.co.uk/trade-effluent to get in touch.



Back Pocket

Appendix 1: Six top tips to getting it right first time

Over the years we have helped 1000's of businesses apply for and manage their trade effluent consents. During that time we've learned a thing or two. So, we thought we would share our expertise to help you get it right first time.

Tip 1 | Pick your effluent inspection point wisely

Scottish Water expect you to provide an inspection point or manhole on your premises as part of your consent application to enable them to sample your effluent discharge for control and charging purposes. Here's a quick guide to getting it right.

Don't pick an inspection point:

- Where this is a domestic discharge from toilets, sinks, handwash basins or showers
- Where Scottish Water personnel have to enter a manhole chamber to obtain a sample or where they could be exposed to any hazard
- Where there are any obstructions, temporary or permanent, or restrictions to entry. This includes obstruction caused by equipment, materials, deliveries or vehicles
- That is locked and can't easily be accessed

As a reminder:

- Any manhole covers must be easy to remove and lightweight
- If the manhole cover is large and heavy, it should be split for easy access. Square manhole covers which are split into two triangles bolted together should be separated
- Keyholes for lifting irons should be positioned to balance the centre of gravity for the manhole. If not, the manhole cover can jam on lifting



To keep you on the right track, here's an example of an inspection point which will pass the test:

Designated Manhole

The sewer should have an opening at ground level (usually a manhole) directly above the access point to the sewer pipe. The minimum dimensions of the opening are 102mm width, by 350mm along the length of the pipe, unless otherwise agreed by Scottish Water. Diagonal access is not acceptable i.e. your opening at ground level must be in line with the access point to the sewer so the example in the figure below does not occur. This would make access extremely difficult for any personnel.



If you don't have an opening at ground level to the sewer pipe, simply contact Business Stream who will be happy to help.

Tip 2 | Pick your point of effluent discharge wisely

If you wish to change your effluent discharge point following your application, you can but you must obtain permission from Scottish Water in advance. So, pick wisely from the start to avoid any hassle or delay further down the line.

Tip 3 | Include all processes which generate trade effluent on your application

Scottish Water will also limit your trade effluent consent to the process(es) which they have approved on your application. For example, if you apply for a consent to discharge trade effluent from a process of 'gully cleaning and vehicle washing' only but you also discharge effluent from 'washing laundry' which you did not include on your application, you will be in breach of your consent. So, make sure that you...



Tip 4 | Keep an eye on your effluent volume and strength

Scottish Water can pitch up on your doorstep at any reasonable time to carry out an inspection of your consented effluent discharges to check whether you're in line with your limits and/or to evaluate the average treatable strength. If you get caught breaching your consent conditions they might not just rap you on the knuckles, they may follow a strict enforcement procedure which could result in a huge fine.

From time to time, Scottish Water may decide to change the details or requirements of entry to and inspection of your effluent. If this is the case, they will write to you outlining their new requirements, which you will be expected to comply with.

Tip 5 | Keep any treatment works, sampling equipment and meters in good working order

Scottish Water expects you to provide, maintain and test any sampling equipment and effluent, or meters, that they have asked you to provide to ensure that they are in good working order. Unless your meter has been adopted by Scottish Water who will assume responsibility of this.

If your equipment is not working correctly Scottish Water has the right to make estimates of the volume, strength and composition of your effluent until such times as it is back up and running to their satisfaction. This may affect the accuracy of your bill. If this happens, simply call Business Stream who will be happy to talk you through the process. They can also liaise with Scottish Water on your behalf to agree a solution.

Tip 6 | Keep a record of your data

Scottish Water expects you to keep an up-to-date record of any or all of the following details of your effluent for at least 24 months:

- Volume
- Flow rate
- Strength
- Composition
- Temperature of the effluent discharged

They can also request the above data for inspection at any time within this period, at any reasonable time. So, make sure that you measure and record the data above so that if requested, you can provide a copy to Scottish Water.

Need expert advice? Get in touch with our team of Trade Effluent Experts at business-stream.co.uk/trade-effluent

