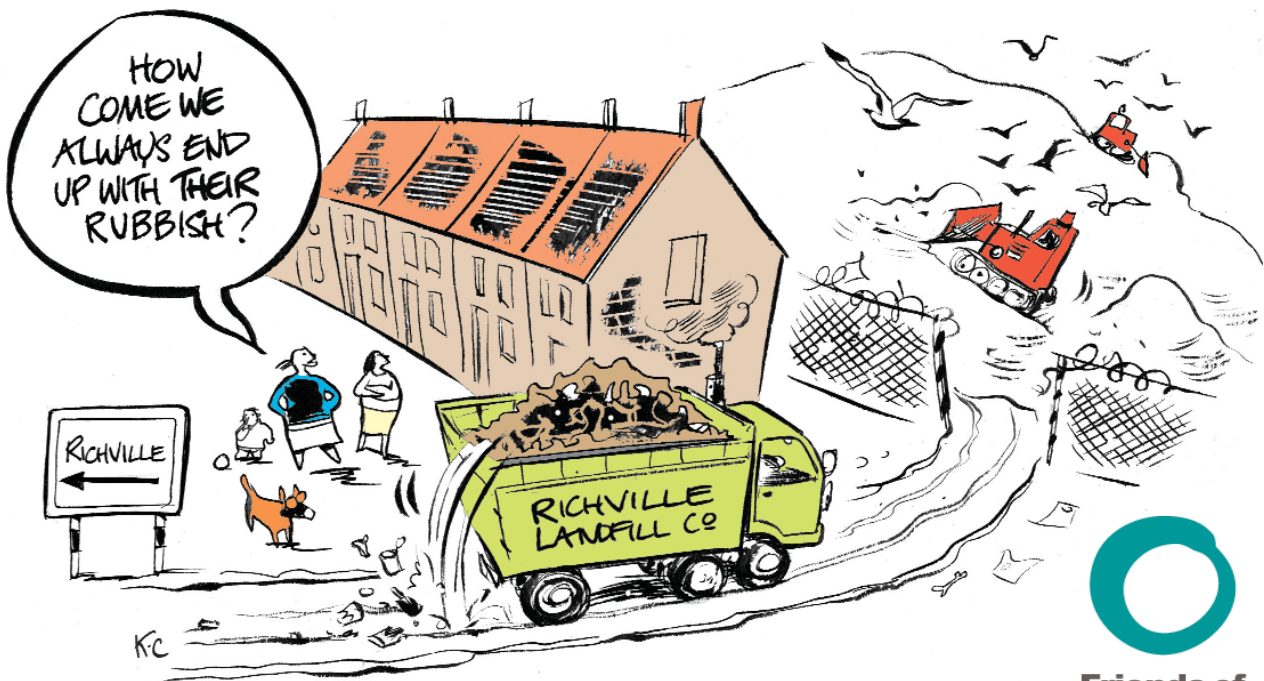


The Landfill FAQs



**Friends of
the Earth
Scotland**

The Landfill FAQs

Welcome to the Landfill FAQs - FAQ stands for Frequently Asked Question. This guide will help to answer your questions about landfills that affect local communities, your health, Scotland's landfill laws and regulations and what you can do to help.

Here's a quick guide to what's in store. Just head straight to what's relevant to you.

1. Living with Landfill

"Living with this landfill is ruining my life!"

- Living with Landfill is a guide to some possible solutions to the common problems communities face when living close to landfills.

2. Planning More Landfills?

"They want to expand our landfill – it stinks already!"

- If you want to influence a landfill development or if you think a landfill is planned in the wrong place you'll need to use landfill planning and regulations. Read this section for a beginners guide with links to further information and help.

3. Community Action

"I need more help with what my community can do"

Go here for help with:

- **Gathering and Recording Evidence.**
- **Visiting a Public Register**
- **Complaints to Campaigning**
- **Good Neighbour Agreements**
- **Reducing that Waste!**

4. Want to Know More?

"Yep, I've got more questions!"

There's more information here on:

- **Health Issues.** Understanding the risks.
- **What's going on in the Landfill Site?** How landfills work.
- **The Law and the Landfill.** More on how the law deals with landfills.
- **"Breath of Fresh Air" for Abernethy.** One community's story.



What is a landfill site?

Landfill sites are areas of land where the waste from houses or industries is kept for final disposal. They're also called dumps. In Scotland most landfill sites must be lined with a waterproof material and the waste that's dumped must be covered with soil at the end of each day. Trucks bring waste to a holding area before on-site machines move the waste to the landfill itself. When the landfill site is full the waste is 'capped' with a covering that's as waterproof as possible.

1. Living with Landfill

What's the Problem?!

Here are some of the common problems that people face when they live next to a landfill site and some suggested action communities can take to help.

- Litter, Dust and Mud
- Flies and Vermin
- Smells
- Noise and Vibration
- Seagulls
- Illness
- Water Pollution

Note: The details in 'What an Operator Should be Doing' will be slightly different for each landfill site. You'll need to check the planning consent at your local planning office and PPC permit and Waste Management License at your local Scottish Environmental Protection Agency (SEPA) office for your specific landfill site (See Community Action for help). What's written below are the 'usual' conditions of a permit and licence granted to landfill owners.

Litter, Dust and Mud

Possible Explanation

Litter and dust can be blown outside the landfill site on dry windy days, especially when trucks are moving or unloading. Mud could be transported from the landfill site onto public roads by the trucks that deliver the waste.

What the Operator Should be Doing

Litter is not allowed to escape the site boundaries and unsightly piles of rubbish visible from outside the site should be avoided. Operators must control the airborne dust, fibres and particulates they produce and stop mud getting onto public roads so as to prevent pollution of the surroundings.

What can you do about it?

Write to the company and SEPA. If you can, give evidence of the problem, like a photo and written record. In the company's PPC application they must write a plan for controlling their litter, dust and mud. This might include wheel washes for trucks, spraying roads with water in dry weather, rubbish dumping in an enclosed building and even shutting the site down on especially windy days. Check the PPC application, if the company are not following their plan tell SEPA about it.

Flies and Vermin

"There's a plague of flies every summer."



Possible Explanation

In summer decomposing waste attracts flies. The flies lay their eggs in the waste. If the waste isn't covered with soil everyday the eggs will hatch, leading to an infestation. Rats and other vermin are attracted by the chance of a meal.

What the Operator Should be Doing

Landfilling the waste and covering it with soil as soon as possible. If the landfill site has a composting area it should be taking extra precautions to prevent infestation.

What can you do about it?

Plagues of flies or rats are not acceptable. Write to the site manager, back up your complaint with the support of your community and local businesses. Keep a log of the problem, when it occurs, how many, and how it affects the community as evidence for your complaint. Ask SEPA to investigate whether the waste is being left around for too long or if not enough soil cover is being added.

Smells

"I can't hang out my washing because of the stench!"

Possible Explanation

There are two possible sources of bad smells. The first is the gas produced by waste waiting to be deposited in the landfill. Second, the gas produced from waste that is at a more advanced stage of decomposition within the landfill. This gas is called 'landfill gas' and is made up of methane, carbon dioxide (both odourless) and small amounts of other substances, some of which have a bad smell.

What the Operator Should be Doing

Depositing the waste in the landfill as soon as possible and covering it with soil can reduce the first source of bad smells. There have been cases of operators leaving waste uncovered for days. Compacting the waste and reducing the amount of water present can also reduce the smell.

Landfill gas should be collected by a system of pipes buried in the waste. The gas should then be burnt, released into the atmosphere in a controlled way or used as a fuel.



What can you do about it?

Try to find out (you could ask SEPA to investigate) how long the waste is lying about before being landfilled and whether a cover of soil is being added to the waste at the end of each day. If it isn't, it's probably a breach of the site's PPC permit or Waste Management Licence, and therefore against the law.

If a part of the landfill gas collection system, like a flare or shut-off valve, is damaged or badly maintained gas may be leaking into your air. Ask SEPA, the site manager or both to check the gas collection system is working properly.

You could keep a log of when, where and how bad the smells are as evidence to back-up your case.



Noise and Vibration

"The trucks rattle my windows and stress me out."

Possible Explanation

Noise and vibrations are probably from the waste transport trucks, machinery used on-site or the flares used to burn landfill gas, or all three.

What the Operator Should be Doing

The planning consent and PPC permit define the hours of day that a landfill may operate and includes sound reduction schemes, e.g. a circuit for waste trucks so that they never have to reverse and noise dampening strategies like soil mounds (called bunds) or phased dumping so that older waste shields communities from the worst of the sound.

What can you do about it?

Read the conditions on noise in the planning consent, available from the planning office, and PPC permit, available from your local SEPA office. If you think the landfill is not following any of these conditions it could be acting against the law. Keep a log of where and when the noise occurs, describe the noise and how it affects the community.

Write to the site manager asking for action. If this doesn't help and the company are breaking the conditions in their planning consent, contact your local planning authority asking them to enforce the planning conditions. Contact SEPA if the company are breaking the conditions in their Waste Management Licence or PPC permit. If nothing is done, contact your local councillor for help with enforcing the conditions.

The landfill may be following all its conditions and still causing you problems. Maybe a Good Neighbour Agreement will help them improve (see 'Community Action').

Seagulls

"I can't hang out my washing because of the seagulls!"

Possible Explanation

Large numbers of seagulls flock to landfill sites in search of a snack. With so much food available from the landfilled waste the birds stay in the area and can cause a nuisance.

What the Operator Should be Doing

Waste deposited in the landfill should be covered at the end of each working day with a layer of soil, however the waste is still exposed for the best part of the day giving the birds access. There are various nets, bird-scarers, distress calls or falcons that could control seagull numbers although these methods are expensive and only partially effective.

What can you do about it?

Try and check whether waste really is being covered by soil each day to minimise its exposure. If seagulls are a really big problem – keep a record of how often, where, and in what numbers the seagulls are being a nuisance. Take photos of the birds in the places they congregate – photograph the scale of the mess they leave. When you've got enough evidence to make a good argument present it to the site manager and SEPA asking for bird control measures or another solution.

Illness

"My kids are getting sick with unexplained stomach bugs."

Possible Explanation

Assuming these bugs are due to the landfill site – how are the kids picking them up?

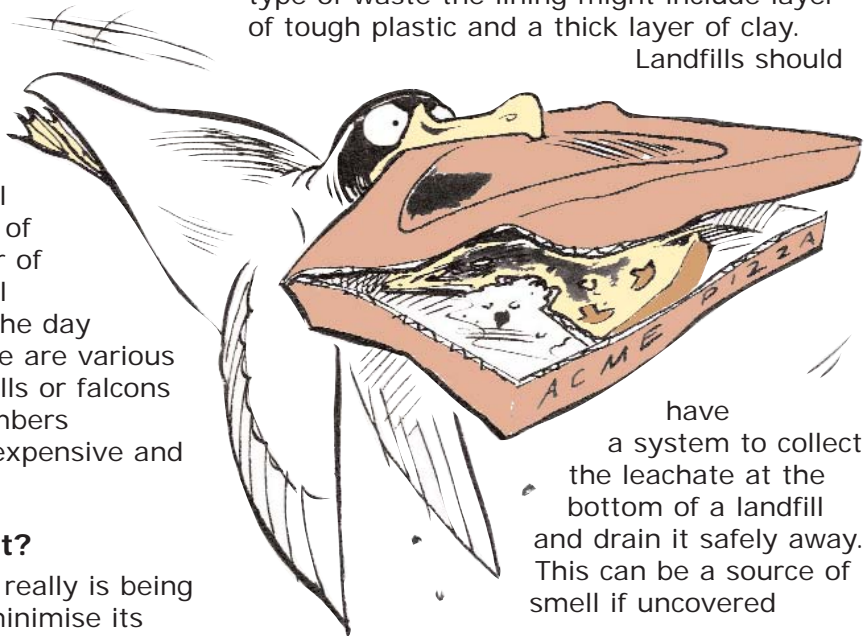
Is there broken or poor fencing? Have the kids been playing in a nearby burn or river? The water or soil may be contaminated.

What the Operator Should be Doing

The landfill site should be fenced on all sides by the owner.

Most landfills should be lined (bottom and sides) to stop liquids from the waste (called leachate) from contaminating the surrounding soil and water. Depending on the type of waste the lining might include layer of tough plastic and a thick layer of clay.

Landfills should



What can you do about it?

First, make sure that these bugs aren't just the usual tummy upsets that kids get from time to time. Talk to your local GP, ask if he/she thinks there are more bugs in the community than would normally be expected. Explain your concerns about the landfill. GPs may agree to request stool samples from patients to identify the bacteria causing the bug.

Laboratory testing of soil and water samples from suspected areas may be expensive but can indicate if the landfill is the source of the stomach upsets. Maybe you could convince SEPA or a local university to run the tests. If you can prove the community's health is at risk SEPA will act.

Water Pollution

"There are dead fish in the local burn."

Possible Explanation

If the burn is contaminated with stray solid waste or leachate leaking from the landfill this can lead to eutrophication of the river. Eutrophication just means that tiny plants and animals in the river feed on the waste and multiply rapidly. This uses up all the oxygen in the river causing the fish to suffocate and die.

In other cases, chemicals in the leachate or solid waste may be directly poisonous to the fish.

What the Operator Should be Doing

Apart from containing the leachate with liners and a collection system landfill operators should also monitor the ground and surface water for pollution. This is in case the liners or collection system fails. Surface water, like a burn or stream shouldn't be running through a landfill site.

What can you do about it?

Take photos of any dead fish or debris you find in a burn and keep a record of the numbers, dates and location. If possible collect a water sample at the time. Report this to SEPA's 24-hour Pollution Hotline on 0800 80 70 60 right away. With enough evidence for pollution SEPA should take action against the site owners.



Got more questions?

- Has your local problem been dealt with in the topics above? If not, read the topics on the front page again and see if any are relevant. Understanding a bit more about how landfills work might help you to find the answer.
- Stuck with getting the community involved, making a complaint, or understanding the landfill regulations? Maybe you've got more questions after you started doing something about the local problem. Try reading the *Community Action* section for help.

2. Planning More Landfills?

This section's for you if you need help with the planning system in Scotland.

How will I know if there's a landfill to be built in my area?

Before landfills are built they must have 'planning permission'. To get planning permission the landfill company must apply to your local council's Planning Department. Generally, if you own land within four meters of the landfill site's boundary you will be sent a letter, called a neighbour notification, telling you about the landfill application. Your community council will be told and an advert will be put in your local paper at the time of the application. These adverts may be small and hard to spot. Keep an eye out for something that looks like the picture below.

If an existing landfill site wants to extend its working hours, change the type of waste it takes, expand it's size or significantly change anything else covered in its planning permission it must submit another application with details of the change. You should be told about this application in the same way as a new application above.

How can I make my views known?

You have the right to make comments on any planning application. On the advert and neighbour notification it will say you have 14, 21 or 28 days to make comments from the date of delivery or publication. Try hard to write a letter or email that makes your views known before the deadline. If you do miss the deadline, speak to your local planning department - they might still accept your letter.

If you are objecting to a planning application you must use 'material considerations' as your reasons. This basically means your arguments must relate to laws and guidance from the government or policies within the Area and National Waste Plan or local Development Plan. Don't worry if you've no idea what these things are, read on!

ations
n the
ioners

LIST OF PLANNING APPLICATIONS TO BE PUBLISHED ON 8 SEPTEMBER 2005

Application No.	Location of Proposal	Description of Proposal	
THE TOWN AND COUNTRY PLANNING (GENERAL DEVELOPMENT PROCEDURE) (SCOTLAND) ORDER 1992- BAD NEIGHBOUR DEVELOPMENT			
05/0761/FUL	Airth Castle Hotel Castle View Airth Falkirk FK2 8JF	Extension to leisure and conference centre	
05/0751/FUL	Site South Of Gate 9 Bo'ness Road Grangemouth	Erection of 50 m Anemometry mast (temporary - 2 years)	
TOWN AND COUNTRY PLANNING (DEVELOPMENT CONTRARY TO DEVELOPMENT PLANS)(SCOTLAND) DIRECTION 1996 - DEPARTURES AND POTENTIAL DEPARTURES			
			Policies
05/0736/REM	Land At Melons Place Farm, Falkirk	Erection of dwellinghouse	RUR01 - New Development in the Countryside
			Policies
05/0778/FUL	Braeside Yard Slamannan Road Limerigg Falkirk FK1 3BJ	Erection of Dwellinghouse	RUR01 - New Development in the Countryside SENV1 - Env.1 Countryside and Protected Areas

Director of Development Services

Example planning application advert in a local paper

More on Material Considerations

You'll need to do some research to work out what material considerations are relevant to your landfill proposal. This can be a lot of work and quite confusing if you are not used to it. Get your community involved. You'll find people with more knowledge in certain areas and the workload can be shared.

Material Consideration

Examples

- Does the proposal follow the Development Plan, or the emerging Development Plan, for your area (available from your local planning office)? If not, you can say so.
- Does the proposal follow the National and Area Waste Plans (available from SEPA offices and online)? Again, if not, this is a valid objection.
- Is the proposal following the planning guidance documents: PAN63, PAN81, NPPG10 and, when it's finalised, the SPP10? If not, you can object using this as an argument.
- Is the proposal consistent with local and national transport policy (available from your local authority)?
- What's the status of the proposed site? If it's designated for habitat or building conservation then you may object on these grounds.
- Planning history of the site, speak to your local planning office for these details.
- Is this landfill needed? Your local authority will have information on the amounts of waste your local area produce. You may be able to argue that the landfill is not needed with greater waste reduction and recycling.
- Land stability and safety.
- Landscaping, restoration and aftercare.
- Pollution control issues that aren't the responsibility of SEPA.

Contact your local community council. They are told about planning applications and may be able to help.

Your local council's Planning Committee will decide upon the planning application at a meeting. Your local planning office can tell you when this will happen. If you request a hearing you may be able to state your case at the meeting. As the council's interests are likely to be involved in the decision the Planning Committee may normally only make a recommendation to the Scottish Executive giving you an opportunity to call for a public inquiry.



Campaign Tip

Remember, you must object using 'material considerations' if you want your views to be considered and the more objections the better so get your community involved. Signed petitions are not as effective as individual objections so get people to send their own letters. Organise a drop-in letter writing session with tea and biscuits.

Next Steps

A letter of objection is really important but unlikely to be enough to stop a landfill application. You can more successfully influence developments in your local area if you understand how the planning process works. Planning Aid for Scotland provide easy to understand leaflets at their office and website. They also provide free advice and training to communities and individuals involved in planning issues.

Before a landfill can dump any waste the company needs a PPC permit or Waste Management Licence or both from SEPA. The permit or licence has conditions or rules that the landfill must follow by law. You can influence these conditions or object to a permit application through the Public Participation Directive.

Planning Aid Scotland

11a South Charlotte Street
Edinburgh
EH2 4AS

Phone: 0845 603 7602
Fax: (0131) 220 9735

www.planningaidscotland.org.uk
office@planningaidscotland.org.uk

Public Participation Directive

Learn how to get involved through the Public Participation Directive at your local SEPA office or online at www.sepa.org.uk/ppc/ppd.

Find your Local SEPA office in the phonebook, online at www.sepa.org.uk/contact or by phoning the head office on 01786 457700.



3. Community Action

Communities working together can help a dirty landfill clean up its act!
Here's some suggested actions for you to use if appropriate.

Gathering and Recording Evidence

Evidence that backs up your community's complaint to the landfill company, SEPA or another authority will add weight to your argument. Here's some examples you might use if appropriate:

- A written record of the problem - this should include when, where and for how long the problem or nuisance happened. Make sure you describe what it was like and the effect it had on you and the community.
- Photographic or video evidence - for example a picture of the litter problem or seagull nuisance.
- Community interviews or questionnaires - find out how many people are affected and in what way.
- Sound level recordings - you could measure how loud the noise nuisance is with sound level recorders. Read FoES's Noise FAQs for more info.
- Testing soil or water for toxic chemicals can be expensive but it is an option if you think pollution is a problem. If SEPA and the company are not acting after sustained community pressure, laboratory results showing high pollution levels can force SEPA to act.

Viewing the Public Register

Your local landfill's PPC application, PPC permit and Waste Management Licence are held in the library at your local SEPA office, called the Public Register. Visiting can be a bit daunting, but don't worry! This section will tell you what to expect and what to look for.

You don't need to make an appointment but phoning up beforehand means you can check the files exist at that office and find a quiet time to visit. In the register the files will be brought to you and you'll be left to look at them yourself.

Understanding the Files

There will be a large volume of paper organised with the most recent files at the front and older ones at the back. You may photocopy anything using the register's machine. The PPC application will be at the back of the folders. In front of this will be some letters followed by the permit document. The permit document, with reference to the PPC application, defines how the landfill must operate by law. In front of all this will be any monitoring data and changes to the permit.

The permit will refer to a document called 'Part B Information'. This document is part of the PPC application and should be in the folders you have. It describes how the landfill site agreed to reduce its pollution and nuisance. By reading this you can check if the landfill operator is following the 'Part B Information'. If not, you can go to SEPA and tell them so.



From Complaints to Campaigning

Why get involved?

Pollution and nuisance can have long-term health effects on you, your children, the environment and others living around you. It's easy to assume that the authorities are aware of the problem but you could be wrong. If you haven't complained, chances are, no one else has either and the authorities need those complaints to justify getting involved. The number of complaints also makes a big difference; so don't just rely on others to do it. Your voice counts!

Results don't always come easy. Use the following steps to guide your course of action. Otherwise, just dip in for tips and ideas and make your own plan.

Complaints that get results

Complain to the right person

Don't know to whom you should be complaining? Read the relevant sections in this guide again. Hopefully this will save you being juggled between loads of departments. It's easy to give up in despair but don't – or your problem just won't get fixed.

Prepare & record your complaint

Gather a few facts before you make that call (in fact, written complaints are more effective). What is the problem? Where is it coming from? When and how often is it happening? How bad is it? Ask the authority what they are going to DO about it? Make a note of whom you are speaking to (or keep copy of your letter) and note the date and actions they say they will take (you may need this later...).

Demand to be kept informed

This doesn't come naturally to all authorities and it's easy to assume that no news means nothing is happening. Asking for updates on the progress of your complaint helps establish a dialogue and

gives everyone a better understanding of the problem. It will also help you further down the line if you're still unhappy with the results.

Following up complaints

Find out what's been going on

If the problem isn't resolved, don't hesitate to get back to the authority to ask why they can't (or haven't) fixed the problem (preferably get this in writing). Perhaps they've looked into the matter and just haven't let you know. Also, reminding them the problem is still ongoing may spur them into action. There can be a whole host of reasons why complaints are not resolved, e.g. legal difficulties or lack of resources. It may be the authority just doesn't think the matter is serious enough.

Arm yourself with the facts

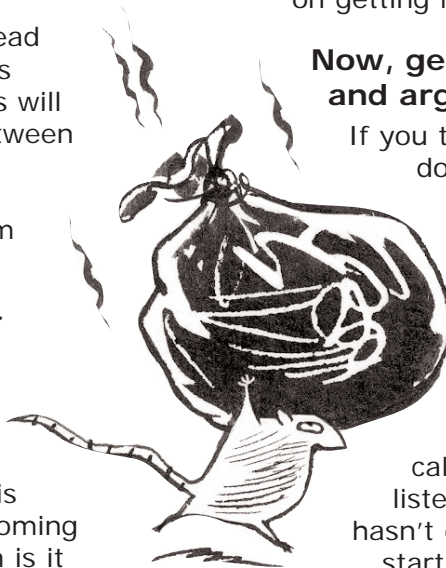
Have a look at the 'Gathering and Recording Evidence' and 'Viewing the Public Register' sections for some helpful advice on getting more information.

Now, get back to the authority and argue your case

If you think the authority hasn't done its job properly, use their 'complaints procedure' to get someone 'higher up' to look at the problem.

Starting a campaign

If your letters and phone calls of complaint are not being listened to and the problem hasn't gone away you may decide to start a public campaign. This will involve you, local residents, councillors, newspapers and maybe your Members of Parliament and can be a great way to achieve a result. Start by speaking to your community council and friends, organise a meeting and decide what to do next. Remember the more people onboard the bigger your voice!



Good Neighbour Agreements

Good Neighbour Agreements (GNAs) are one way in which the community and a company can work together to improve upon the rules and regulations in law. GNAs have been used successfully in the USA for many years and in 2000 the first in Britain was signed between Douglas Community and an incinerator operator, Dundee Energy Recycling Ltd.

GNAs are a signed agreement between the landfill company and the community. They can cover any topic but as a minimum should include the following agreements:

- Community decisions are made at public meetings, community groups or even local ballot but without the company's influence.
- The GNA sets standards higher than the ones in law and can cover issues that are not in the law, like the consideration of school opening and closing times when planning waste deliveries.
- The GNA is not a fixed document but can be easily improved in the future by annual review or as problems arise.
- The community must be able to take action if the company does not follow the agreed GNA. Examples of action include bad press, boycott, protest and industrial action.
- Experts like scientists, engineers, SEPA representatives or lawyers that help the community must have the right to attend meetings.
- GNAs must be open to all those affected by the company's activities

What else could be included?

Other examples of what could be included are the right to visit the landfill with a SEPA representative, easy access to environmental

monitoring information at a local library, consultation on the pollution control plans, a community benefits fund, good employment opportunities for local people, or better landfill practice like the increased use of daily cover.

To set up an agreement first look into what the company is required to do under its planning consent, PPC permit and Waste Management Licence conditions where relevant. As a community you can then decide what extra you want to ask of the company. You could ask your local Councillor or a trade union representative to approach the Operational Manager, Chief Executive or Board of Directors for a meeting. If the company refuse to agree to a meeting point out the benefits of improved relations and public image, and if they still don't agree contact the local paper and give them some bad press.



Reduce that Waste!

If we keep producing waste we're going to have to get rid of it somehow. Scotland currently sends most of its waste to landfill. If you don't want landfills in your backyard we have to find more sustainable ways of living.

Reducing, reusing and increased recycling of waste is the only way to stop the need for landfills. Start at home, with your friends and at work. Ask your council for better recycling facilities. You can get practical advice and help from Waste Aware Scotland through their campaign Sort It. Good luck!

Waste Aware Scotland

For more information on how you can Reduce, Reuse and Recycle your waste including a directory of reuse services, ideas and recycling points near you visit:
www.sort-it.org.uk

Further Action Reading

Good Neighbour Agreements:

www.foe-scotland.org.uk/nation/good_neighbour.pdf

4. Want to Know More?

- **Your Health FAQs** – Introduction to the health risks and links to more info.
- **Inside a Landfill** – How they work, pollution prevention and the problems.
- **The Law and the Landfill** – Scotland's landfill laws and links to more info.

Your Health FAQs

So, What's Dangerous to my Health?

Many chemicals have the potential to harm your health. Toxicity measures how dangerous a chemical is. A highly toxic chemical can be harmful in very small amounts while a chemical of low toxicity will only be dangerous if lots of it enters our body.

Moving From the Environment to You

Chemicals in the environment can only affect your health if they enter your body or touch your skin. This can happen through your lungs, your stomach and guts or through your skin. The amount of a chemical that enters your body is called the dose.

Accidents where toxic chemicals are spilt or released into the air can result in acute exposure. This means a one-off incident where your body is exposed to a large amount of toxic chemicals for a short time. You are likely to feel the effects of this straight away, for example coughing, headache, rash and possibly death.

You are much more likely, however, to experience chronic exposure. This means on-going exposure everyday to low levels of toxic chemicals over a long time. The effects and diseases due to this type of exposure will not be felt straight away but possibly months or years later.

Toxic Chemicals in Your Body

Three things affect how your body responds to toxins:

- The more toxic chemicals that enter your

body, the more your health will be affected, in other words the bigger the dose the more your health will be affected.

- The more toxic these chemicals are the more your health will be affected.
- The longer these chemicals stay in your body the more your health will be affected.

Over time the human body will break most chemicals down into smaller chemical products that will dissolve in water, like sugar in tea. This allows the body to quickly and easily get rid of these chemicals when you go to the toilet or when you sweat.

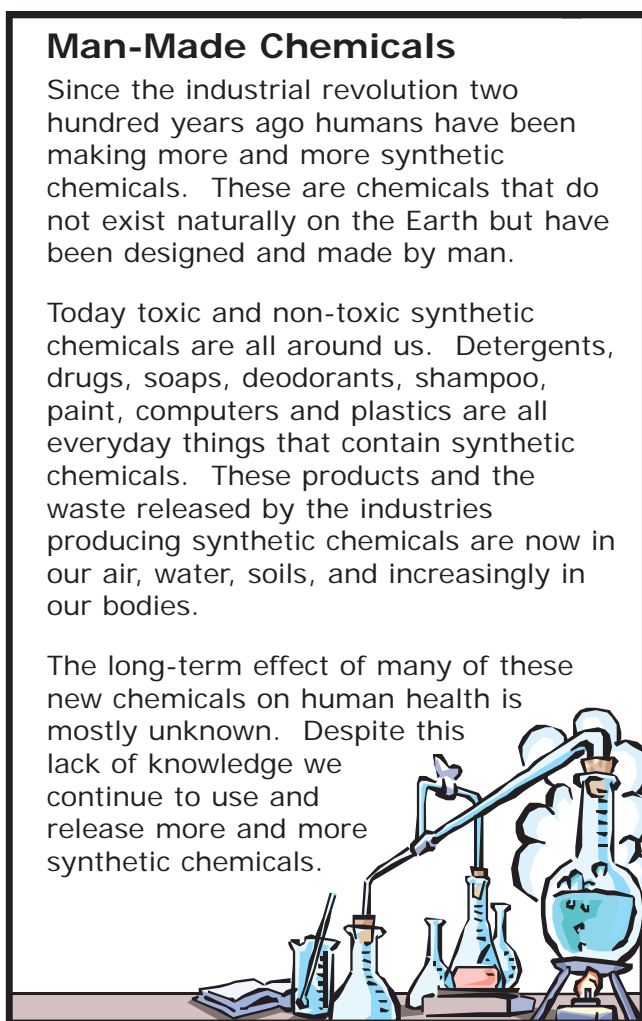
Unfortunately some toxic chemicals, like dioxins, do not easily break down and will become stored in the body's fat. Chemicals that become stored in our fat reserves can stay in the body for a very long time.

Man-Made Chemicals

Since the industrial revolution two hundred years ago humans have been making more and more synthetic chemicals. These are chemicals that do not exist naturally on the Earth but have been designed and made by man.

Today toxic and non-toxic synthetic chemicals are all around us. Detergents, drugs, soaps, deodorants, shampoo, paint, computers and plastics are all everyday things that contain synthetic chemicals. These products and the waste released by the industries producing synthetic chemicals are now in our air, water, soils, and increasingly in our bodies.

The long-term effect of many of these new chemicals on human health is mostly unknown. Despite this lack of knowledge we continue to use and release more and more synthetic chemicals.



The Precautionary Principle

If some tests on a chemical showed the possibility of it being toxic then most people would say we probably shouldn't use that chemical, "Better to be safe than sorry". In law this approach is called the Precautionary Principle. It says that lack of conclusive proof that a chemical is dangerous shouldn't stop us from using cost-effective ways to prevent environmental damage, which could include banning the use of that chemical. The Precautionary Principle is favoured by many environmental organisations as an approach for dealing with chemicals used in industry.

Chronic (long-term) exposure to this kind of 'fat-seeking' chemical can be very dangerous. If you experience even very small amounts of a chemical everyday the amount in your fat will build up and up because your body can't remove it. Over time this build up can seriously affect your immune and nervous systems or lead to other illnesses like cancer.

Also, old or young people and those who are already ill may be more affected by toxic chemicals compared to healthy people. Some chemicals may also affect men and women differently due to differences in the male and female body.

Testing Toxicity

We can do tests designed to help us decide how dangerous or toxic a chemical might be to human health. These tests are usually done on mice and rats in a laboratory and if possible include looking at human health after accidental exposure to the chemical.

One of the aims of this testing is to find a maximum amount of the chemical that has no effect on human health. This is called the

No Observed Adverse Effect Level or NOAEL. This number is used to work out how much of the chemical it is safe for humans to release into the environment through things like factories and exhaust fumes.

Testing Issues

These tests have some problems. In our environment we are exposed to a mixture of toxic chemicals from many different sources. In our bodies these different chemicals interact in ways we don't fully understand and some mixtures produce health effects that our tests on individual chemicals did not predict. Chronic exposure is especially hard to study as the tests need to run for a very long time and the health effects can take many years to become serious.

It is a fact that our tests are never conclusive. Because of this the risk of using a chemical must be balanced against its benefits. It's a bit like deciding to drive a car: you know you might have an accident on the road but most of the time the benefit of getting to where you want outweighs the risk so you drive.

Silent Springs

In 1962 farmers were using the pesticide DDT. In the same year, research scientist Rachel Carson published the book 'Silent Spring' alerting the public to the dangers of DDT. She spoke of a spring in the future without songbirds because pesticides prevented their reproduction. Carson was personally and professionally attacked by the pesticide industry but the evidence proved her right. After years of campaigning DDT is now banned for agricultural use worldwide.

More Information

- Have a look at SEPA's substance information www.sepa.org.uk/spri/substance/sublist.aspx for information about the known health effects of specific chemicals.

Inside a Landfill

Landfills are built so that, as far as is possible, the pollution created by the waste stays in the landfill and doesn't affect the surrounding environment. However, pollution can travel out of the landfill in two ways: carried by water; or through the atmosphere.

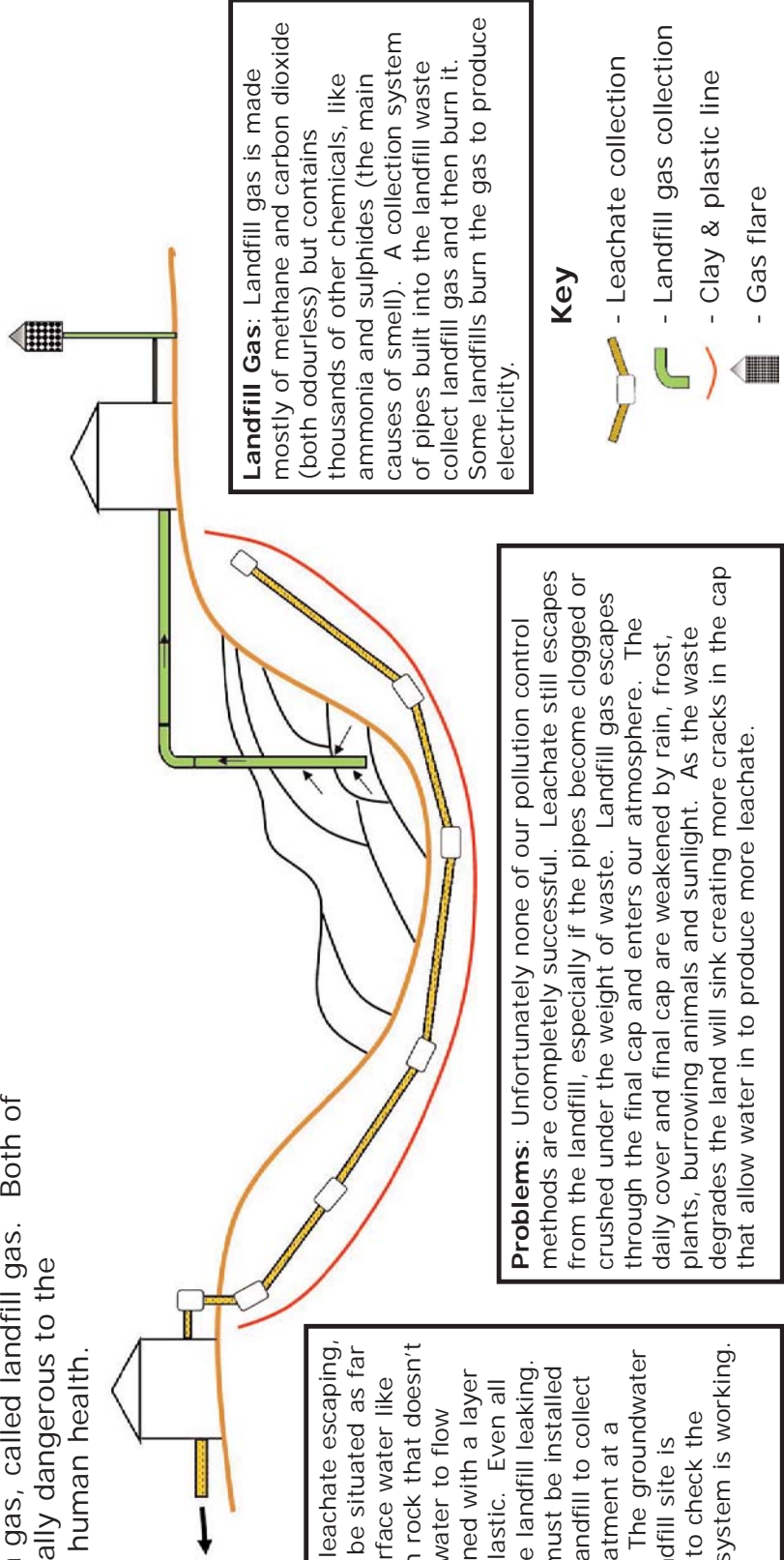
Much of the waste that we throw away will breakdown (decompose) over time. The waste can't disappear but it slowly dissolves in water to produce a liquid sludge, called leachate, and breaks down to a gas, called landfill gas. Both of these are potentially dangerous to the environment and human health.

Daily Working: Trucks bring waste to the site and dump their load in a holding area. This waste is then brought to the landfill, dumped and compacted by large machines. At the end of each day the newly dumped waste must be completely covered with soil. This is to help stop the smell escaping, reduce the amount of water that could create leachate, help contain landfill gas, stop high winds blowing litter around, and deter seagulls, flies and vermin.

Final Cap: When the landfill is full a final cap of clay and tough plastic is put on top. This cap is designed to be as waterproof as possible to prevent leachate formation and stop landfill gas escaping. The landfill gas and leachate collection systems will continue to operate after the final cap is in place.

Leachate: To stop leachate escaping, landfill sites should be situated as far as possible from surface water like burns and ponds, in rock that doesn't allow much groundwater to flow through it and be lined with a layer of clay and tough plastic. Even all this will not stop the landfill leaking. A system of pipes must be installed at the base of the landfill to collect the leachate for treatment at a waste-water plant. The groundwater surrounding the landfill site is occasionally tested to check the leachate collection system is working.

Problems: Unfortunately none of our pollution control methods are completely successful. Leachate still escapes from the landfill, especially if the pipes become clogged or crushed under the weight of waste. Landfill gas escapes through the final cap and enters our atmosphere. The daily cover and final cap are weakened by rain, frost, plants, burrowing animals and sunlight. As the waste degrades the land will sink creating more cracks in the cap that allow water in to produce more leachate.



Landfill Gas: Landfill gas is made mostly of methane and carbon dioxide (both odourless) but contains thousands of other chemicals, like ammonia and sulphides (the main causes of smell). A collection system of pipes built into the landfill waste collect landfill gas and then burn it. Some landfills burn the gas to produce electricity.

Key

- Leachate collection
- Landfill gas collection
- Clay & plastic line
- Gas flare

The Law and the Landfill

"Who's responsible for what?"

The Scottish Environmental Protection Agency (SEPA)

SEPA regulates the storage, transport and disposal of waste. Through inspection and monitoring SEPA's Environment Protection Officers try to ensure that all landfills in Scotland follow Scotland's environmental regulations to protect the environmental and human health. SEPA are also responsible for making sure the daily working of a landfill is following the conditions in the landfill's PPC permit.

The regulations in Scotland describe three different types of landfill - inert, non-hazardous and hazardous. Inert landfills contain waste that is less likely to pollute and these landfills are currently regulated by SEPA through Waste Management Licences (WML). Non-hazardous landfills contain waste that will produce leachate and landfill gas but doesn't contain the more toxic waste. Landfills with hazardous waste now only accept waste that is considered a significant pollution hazard.

Both non-hazardous and hazardous landfills are regulated by SEPA through PPC permits after 2007. All new landfills will be regulated by PPC permits while all existing inert landfills will be regulated by PPC permits by July 2009. All landfills are also controlled by the Landfill (Scotland) Regulations 2003.



Your Local Authority

Your local authority (local council) is responsible for collecting and dealing with the waste which households create. All local authorities have made an Area Waste Plan with help from SEPA and other organisations. This is the plan for how your waste will be disposed of in the coming years. You can see these plans at your local SEPA office or online. The local authority is also responsible for controlling new developments such as landfills through the planning system. Read 'Planning more Landfills?' for details.

Under sections 79–80 of the Environmental Protection Act 1990 smell, litter, noise, dust or mud from a 'premises' that affects you and your community it may be considered a statutory nuisance by your local authority's environmental health department. If an environmental health officer from the council decides the nuisance is affecting your health or your enjoyment of life they can then serve an 'abatement notice' on the landfill 'premises' requiring them to reduce the nuisance. If this is not followed without reasonable excuse the company responsible can be prosecuted in Court.

Statutory nuisance may not however be an option for communities affected by landfills. When SEPA issues a PPC permit they take on the responsibility of regulating the landfill's emissions like smells and dust.

Further Reading

- Scottish waste policy & regulations: www.scotland.gov.uk/Topics/Environment/Waste
- SEPA website: www.sepa.org.uk
- Planning Aid Scotland: www.planning-aid-scotland.org.uk

"Breath of Fresh Air" for Abernethy

The story of Abernethy's landfill campaign:

For a number of years fugitive landfill gas has been a blight on my community and more recently an adjoining composting operation has added to the problem of obnoxious smells hanging over the village.

The consensus of opinion at a Community Council meeting was that we would have to unite to form an effective action force to relieve the community of its offensive complaint. To this end a sub-committee was formed co-ordinated through the local Community Council, who meet regularly once a month. The advantage of this is the forum for discussion is already established, with the secretary in a position to be the main contact to receive and distribute information promptly to the committee and the wider community.

You will soon realise there is no quick fix to many of the issues you face and you will require a nucleus of committed individuals, persistence and a good sense of humour to keep sane.

Our aim was clear from the beginning, not to close the landfill but for it to operate within its licence.

As previous attempts to resolve the problem had failed an action plan was developed to include complaint letters, smell diaries, petitions and publicity of the problem.

'A Breath of Fresh Air' campaign was born.

This was about the time we realised we had embarked upon a 'giant learning curve'. Representatives from Friends of the Earth Scotland's Accessing Relevant Knowledge (ARK) project were invited to a meeting for the purpose of encouraging and equipping the local residents to voice their concerns.

We found the more we informed the community the more they wanted to be actively involved. Leafleting on a regular basis informing of what was happening (even if it was very little at times), what was next, how and who to write to etc. was effective but of particular benefit was going round the community speaking to people,

answering questions, pointing in the right direction to find information, encouragement and help with letter writing, encouragement to attend meetings. All very time consuming.

Our campaign is based on local issues, site-specific problems - weather conditions, type of technology, history of problems etc. Keep to facts and raise all issues in writing. Often an official will respond by telephoning, however always request confirmation in writing for the groups records. Don't let this slide; you will soon understand why a paper trail of events is very important.

We liaise with the waste operators at quarterly meetings with an annual visit to their sites. SEPA officers attend, eliminating any temptation to operators to pacify with promises of actions they cannot fulfil or blinding us with technical jargon.

Due to the lack of public confidence in the regulating body, SEPA agreed to give us a monthly report on operations at the waste site this includes monitoring data and resulting actions required.

In recent months we have eventually made progress through more rigorous monitoring and enforcement actions by SEPA.

What have we achieved so far? 'We don't smell quite so bad and so often'. And SEPA have assured us of further improvements.

Unfortunately we are now faced with the proposal for an incinerator adjacent to these other waste operations and the prospect of further development with the potential to cause toxic emission, without the resolution of the current emission problems is a cause of major concern to the local community.

Our campaign continues.

Ann Sangster

Abernethy Community Council - 23/3/2007



The last word

Hopefully this FAQ-sheet has been useful. You should now feel more willing to speak to and work with the people, authorities and companies that affect you and your community's life. Go for it!

If you have more questions about incineration in Scotland get in touch with Friends of the Earth Scotland. Our contact details are below.

We would also like to hear your feedback or comments to help us improve in the future.



**Friends of
the Earth
Scotland**

Friends of the Earth Scotland, Lamb's House, Burgess Street, Edinburgh EH6 6RD

Tel: 0131 554 9977 Email: info@foe-scotland.org.uk Web: www.foe-scotland.org.uk

Scottish charity: SC003442. Printed on 80% recycled post-consumer waste. July 2007

Working with people for a healthy environment. Supported by Sylvia Aitken Charitable Trust