

indicating right:
environmental performance
indicators for the waste management sector

“green alliance...”

acknowledgements

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Green Alliance

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Green Alliance is one of the UK's foremost environmental pressure groups. An independent charity, it works closely with government, parliament, business and major environmental organisations to place sustainable development at the heart of decision-making.

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executive summary

This document describes a menu of possible environmental performance indicators for waste management companies. It is a discussion document to stimulate debate among waste management companies and their many stakeholders including neighbours, regulators, clients, non-governmental organisations (NGOs), financial institutions, educators and policy-makers.

The need for indicators

All companies have a responsibility towards the environment. That responsibility is now widely acknowledged, and an increasing proportion of companies are putting in place specific management practices aimed at minimising negative environmental impacts and maximising their contribution to environmental quality. This growth in environmental management has been accompanied by a growth in environmental reporting, where companies set out their main environmental effects and provide data showing the extent of their progress in dealing with those effects.

Useful as these reports are, they have limitations in terms of giving a clear view of environmental progress, both for the individual company and across different companies. Companies differ in the environmental effects they report, and in the way data is collected and presented. The information is often very detailed and is not always accompanied by a clear interpretation of what it means. It is very hard to make comparisons between companies, even companies in the same sector, on the basis of existing environmental reports.

The development of a set of agreed indicators of environmental progress can build on and improve current environmental reporting by helping:

- o to provide consistent means of reporting environmental progress in key areas
- o to provide a set of measurements that are readily understandable to company stakeholders
- o to work towards, as far as possible, comparability of data across companies

Indicators are just as valuable to those inside a company as those outside. By providing a clear picture of trends they will help:

- o to identify the most significant environmental impacts and focus resources appropriately
- o to clarify a company's environmental goals
- o to communicate a company's environmental goals and progress to all its employees

The need for indicators in the waste management sector

The waste management sector provides an important environmental service by dealing with the waste generated by society. This activity has environmental impacts. The negative impacts include emissions of pollutants, the generation of odour and traffic, and the use of resources such as water and energy. The positive by-products of waste treatment include the recovery and recycling of reusable materials, the generation of electricity from landfill gas, and energy recovered from waste incineration. Waste management companies need to be able to measure these impacts in order to manage them. They also need to be able to communicate their progress in improving environmental performance. As outlined above, indicators play a crucial role in the measurement, management and communication of environmental performance.

In addition, waste management companies are involved in the debate about how society as a whole moves towards more 'sustainable' waste practices. However, they cannot achieve that movement on their own. It is important that they understand the possible extent of their contribution, and can communicate it, but they should also have a view on the role that must be played by others. This means taking an active part in the development of national waste management strategies that set out the role of all stakeholders, including the Government, other industry sectors, the public, non-governmental groups and the scientific community.

The indicators are not designed to provide a basis of comparison of environmental performance between waste management companies and other types of company. This would be very difficult given the different types of activity involved. It will be sufficiently challenging to find indicators that enable valid comparisons within the waste sector itself.

Developing the indicators

To understand what kind of indicators were in already widespread use, Green Alliance began with an analysis of the environmental reports of companies both inside and outside the waste management sector. A number of initiatives on indicators from national and international bodies were also studied. These included 'Sustainability Counts', the UK Government's consultation paper on a set of headline indicators of sustainable development; the ISO14031 draft standard on Environmental Performance Evaluation; the Global Reporting Initiative; and the Global Warming Indicator being developed by National Provident Institution and the Department of Environment, Transport and the Regions. Details of these initiatives can be found on the inside back cover of this document.

Shanks and McEwan Group PLC who helped to fund this research, provided extremely valuable comments on the feasibility and likely usefulness of Green Alliance's proposed indicators. Valuable comments were also made by participants at a Green Alliance practitioners' seminar in February 1999, and others in individual meetings, including personnel from waste management companies, other companies, regulatory authorities, and NGOs. A further practitioners' seminar is planned for the end of 1999.

Scope of the indicators

These indicators are deliberately presented as indicators of environmental performance, rather than as 'sustainability indicators'. 'Sustainability' has not been rigorously defined, especially in relation to waste management, but it is generally taken to combine economic, social and environmental considerations. Although these are connected, this study concentrates on the environmental considerations and does not attempt to consider the economic and social components of sustainability for the waste management sector.

Another issue is finding measurements to cover the many different types of waste management activity. These include landfill; incineration (with and without energy recovery); chemical, physical and biological treatment; recycling; composting; and waste minimisation. This menu of indicators is designed for the waste management companies dealing with controlled waste, including household, industrial and commercial waste. This accounts for approximately 60 per cent of all waste arisings in the UK. Within these companies, the largest activity in terms of tonnage of waste handled is landfill. These indicators reflect the dominance of landfill at this stage in their development, but are intended to start the process of finding indicators relevant to all waste management activities. We also stress the importance of finding indicators of progress on waste minimisation.

Structure of the indicators

Green Alliance used the Government's recently published headline indicators as its guide in structuring these indicators, with other categories added to these where relevant. It will help the development of national indicators if individual companies can report information in ways that contribute directly to them. There is no ranking or priority among the indicators. They are seeking to measure such different things that any form of ranking was considered inappropriate.

Finding denominators

For many of the options in this menu, a denominator is needed for the indicators to have value. Measurements in absolute figures, such as the amount of electricity or water consumed or the amount of a pollution emitted, are of limited use on their own. Even if measured each year, it is not clear whether variations from year to year are because of environmental improvements, or because the company has grown or contracted in size. Comparisons across companies are even more difficult, because of the varying size and activities of different companies.

A denominator is a figure divided into the absolute figures, in order to get a relative measure - for instance, dividing the energy consumed in one year by the amount of waste handled in that year, or by a company's turnover. Tonnes of waste handled is a good denominator because it relates the environmental measures to the company's main activity and purposes. Units of turnover (i.e. £) is another possible denominator which reflects the scale of the company and fluctuations in its level of activity over time,

although this will be distorted to some extent by the large increases in turnover resulting from companies charging the landfill tax. As with the indicators themselves, denominators may have to be developed that are particular to specific waste management activities.

Where a denominator is needed we have indicated this. Otherwise, the measurements are ones that do not need, or do not lend themselves easily to, particular denominators.

Yearly measures

All the indicators in the menu are designed as measures to be reported giving each year a picture of trends over time.

the waste indicators

Climate change

It is widely accepted that human activity is contributing to the build up of 'greenhouse gases' in the Earth's atmosphere, resulting in a rise in global temperatures, which in turn is having unpredictable effects on the climate. Greenhouse gases include carbon dioxide, which comes mainly from the burning of fossil fuels, and methane. There are international agreements in place to limit emissions of greenhouse gases, and the UK has a legally binding target to reduce emissions of a 'basket' of six greenhouse gases - carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride - by 12.5 per cent below 1990 levels by 2008-2012. It has also set itself a goal of reducing UK carbon dioxide emissions by 20 per cent below 1990 levels by 2010.

One of waste management companies' main contributions towards meeting these targets will be through limiting emissions from landfill sites. The gas produced by degrading waste contains both methane and carbon dioxide. Methane is some 20 times more powerful than carbon dioxide as a greenhouse gas. Landfill gas can be captured and used to generate electricity, thus preventing the release of methane and saving the use of fossil fuels, although there are still some carbon dioxide emissions from the process. Another main contribution will be through reductions in the use of fossil fuels for energy, including energy used by sites, in offices and in vehicles. Environmental performance indicators for the waste management industry therefore need to provide a picture of progress on energy use reduction and on methane capture and, where possible, take into account the relationship between the two in terms of generating electricity from landfill gas.

Climate change: indicator options

Total electricity consumption

This is relatively easy to measure through billing systems.

However, it does not cover the use of all types of fossil fuel (for instance gas, or fuel oil) and therefore does not measure some important uses of energy, such as vehicles. It also does not discriminate between sources of electricity. In future, electricity from renewable sources such as wind or solar may be available through the national grid. Measuring electricity use alone will not give an accurate account of environmental impact, since the environmental impact of renewable sources will be lower than that of fossil fuels.

The denominator could be tonnes of waste handled.

Total energy consumption

This measures the use of all fuel types for all uses - plant (e.g. bringing an incinerator up to temperature), heating, lighting, and transport.

However, as with electricity consumption, it does not discriminate between fuel sources in terms of their environmental impact - the impact of gas is weighted the same as oil, and the same as any energy derived from renewable sources.

The denominator could be tonnes of waste handled.

Carbon dioxide emissions

This measure gets closer to the real concern about energy consumption, and, as an indicator, it is sensitive to changes in fuel source. It will go down if energy is derived from solar or from landfill gas, even if total energy consumption remains the same. It will also be sensitive to consumption reductions resulting from energy efficiency. It has the advantage of being able to include carbon dioxide emissions from sources other than energy use, for instance in landfill gas emissions.

The only potential drawback may be the difficulty of determining a widely accepted methodology for converting energy consumption into carbon dioxide equivalent. However, this process is well under way. (See inside back cover for more details on the Global Warming Indicator.)

The denominator could be tonnes of waste handled.

Global warming potential

The Government intends to include energy consumption as part of a more general climate change indicator, which would report emissions of a 'basket' of six greenhouse gases, including methane, weighted by their global warming potential. The methodology for the indicator is derived from international agreements. Such an indicator has the potential to include factors other than energy to reflect their combined environmental impact. For instance, with landfill, it would be possible to combine the impact of emissions from energy consumption with the methane and carbon dioxide from landfill gas, whilst offsetting savings in methane emissions and fossil fuel use enabled by the use of landfill gas for generating electricity.

The danger of using Global Warming Potential as a single indicator to combine carbon dioxide, methane and any other relevant emissions is that it obscures the progress (or lack of progress) being made in reducing these emissions separately.

The denominator could be tonnes of waste handled.

Tonnes of methane collected

Progress in reducing methane emissions from landfill sites could be taken into account in a climate change indicator that measured changes to emissions of the 'basket' of six greenhouse gases. However, it would be difficult to see, within such an indicator, how much progress had been made with methane relative to the other gases, and there is a case for using a separate set of methane reduction indicators.

Gas control is essential on large landfill sites accepting biodegradable waste. The amount of gas produced builds up over the life of the site,

reaching a peak and then declining again. Early in the life of the site, there is often too little gas to collect, and an unknown amount is simply lost to the atmosphere. After a few months there may be enough gas produced to actively flare it (pipe it away from the site and burn it off at high temperature) and, depending on the size of the site and economic viability of installing generators, there may be enough to generate electricity.

A simple measure of methane collected at a site does not give much of a picture of the company's environmental performance unless it can be related to the amount of methane being produced at the site at a particular stage in its life. It is technically challenging to measure accurately the total amount of methane emitted by a landfill, because it will depend on the type of waste deposited (in particular, how much biodegradable material it contains) and how fast it is degrading. However, there are some formulae available to estimate the amounts of methane being produced, and further discussion is needed within the waste management sector to determine whether these are reliable enough to form part of an indicator that shows tonnes of methane collected as a proportion of that produced.

Proportion of methane collected that is utilised

Electricity generation from landfill gas not only avoids the emission of methane to the atmosphere but also reduces the reliance upon fossil fuels to generate electricity. It is clearly preferable to utilise rather than to flare, but the ability to do so will depend on whether it is economically viable to install generators. This depends on a range of factors, including how much electricity can be produced from the site, and what price can be obtained for any electricity produced.

Number of landfill sites where power is generated from landfill gas

This could be expressed as a proportion of the total number of sites or, more accurately, as a proportion of sites where gas has reached levels useful for power generation. This indicator gives some measure of where it has been economic to install generators.

Power generated from landfill gas in total MW

Expressed as a proportion of potential power from useful gas, this is a refinement of the previous indicator because it would consider the number of generators at any one site and how far they match the availability of gas.

Energy produced as CO₂ avoidance

This turns the energy produced into a measurement that can be included in a total CO₂ emission figure.

Methane emission savings expressed as CO₂ equivalent

This measures the avoidance of methane emissions, for instance by using methane for power generation, and turns it into a measurement that can be included in (i.e. offset against) a total CO₂ emission figure.

Air pollution

The UK Government's proposed headline indicators include air pollution. For the Government, a sustainable development objective is to control air pollution in order to reduce the risks of harm to human health and to the natural environment.

Waste management activities give rise to a number of air pollutants. Many of these are tightly controlled by regulators, and the authorisations for incinerators, for instance, require the prevention or limitation of a large range of potential pollutants. Thus any indicator of regulatory compliance (see page 14) will help to provide a picture of the company's performance in relation to air pollution. Odour, which has a local impact, is a major form of air pollution from landfill sites and this is considered under the neighbourliness indicator (see page 15).

It is therefore difficult to single out particular aspects of air pollution that should be the subject of separate indicators. Two options are to provide measurements of emissions of SO_x (oxides of sulphur) and NO_x (oxides of nitrogen). These are contributors to acid rain, and are the focus of continued public concern. They could come from a range of activities within waste management, including incinerators and use of fossil fuels from energy. However, for individual companies other air pollutants may be of greater significance.

The denominator for figures of SO_x and NO_x emitted, measured in tonnes over a year, could be tonnes of waste handled.

Transport

Transport has a number of environmental effects. These include emissions of carbon dioxide, nitrogen oxides and other pollutants; congestion leading to local air pollution; erosion of the countryside by road building; and the nuisance of heavy traffic in residential areas. The Government notes in its document on headline indicators that road traffic is responsible for about one quarter of all carbon dioxide emissions and a half of all nitrogen dioxide emissions.

For waste management, the main uses of transport are the collection of waste from businesses and homes, and the bulk transport of waste from transfer stations to treatment or disposal sites.

The carbon dioxide indicator proposed under Climate Change Indicators (see page 6) can include the CO₂ element of vehicle emissions, if fuel use is measured. It will not, however, include nitrogen dioxide or local air pollution. Given the range of issues involved there is a need for an indicator that measures traffic, i.e. the amount of vehicle movements on the roads, as well as fuel use. The Government has chosen vehicle miles. These can also be used to estimate emissions if problems are encountered measuring fuel use.

Transport: indicator options

Total vehicle miles travelled by company cars and fleet vehicles

Tonnes of waste handled could be the denominator.

Total use of fuel by fleet vehicles

This could be further broken down into fuel types.

Miles travelled or tonnes of waste handled could be denominators.

Volume of waste moved by rail or waterways in tonnes

This would be compared to the volume moved by road. This is not entirely in the control of individual waste management companies, since it depends on, for instance, the proximity of sites to good rail links. However, it would provide an interesting measure year on year of whether the transport mode is shifting.

Water

Water quality

The Government's indicator of water quality is measured by the proportion of water courses classed as being of 'good' or 'fair' quality. A waste management company's contribution to this will be through prevention of spillage or migration of polluting substances into water courses, whether from landfills, incinerators or other waste management practices.

Many companies report on levels of discharges to water, but these give little sense of their overall environmental impact. Since discharges are often the subject of regulatory requirements, the most efficient way to measure performance in this area may be as part of a regulatory compliance indicator (see page 14).

Water consumption

Waste management companies may not think of themselves as major consumers of water, or of water availability as a major environmental issue in the UK. However, demand for water in the UK is projected to rise steeply in the next 20 years. Water companies in some regions, particularly in the south-east, may not be able to meet this demand. Any saving of water can be considered as a contribution to environmental sustainability. As the Government's indicator on water quality notes, the greater the abstraction of water, the more pressure is put on river environments. Therefore, water should be used efficiently.

Water: indicator options

Millions of cubic litres of water used

This is the most obvious measure since it is how companies are billed for their water.

Tonnes of waste handled would be the denominator

Land use and wildlife

Waste management activities are a particular kind of land use. Landfill sites tend to follow on from other kinds of industrial activity, such as mineral extraction, and landfill is viewed by some as a way of recycling what might otherwise be derelict land. Planning permissions contain provision for restoration of the land once the site is full. The most common end-use is for agriculture, usually pasture. The kind of land restoration to be used is largely dictated by planning requirements, limiting an individual company's scope for action.

However, this should not stop the sector developing a view on, for example, the best methods of landfill restoration, and the most sustainable end uses for landfill sites. For instance, land designated as 'agricultural' for its end use could be sown as grazing with only a few plant species, or planted as a meadow with much greater plant and wildlife diversity. Before any indicators can be fully developed in relation to the end uses of landfill sites, a debate is needed about their relative sustainability.

Local Biodiversity Action Plans, derived from the National Biodiversity Action Plan agreed by the Government with a range of conservation bodies, could provide guidance on which species in the area of a closed landfill site need to be encouraged. This would help dictate the kind of planting carried out. Those administering any Sites of Special Scientific Interest (SSSIs) in the vicinity may have a view on what kind of planting and management would best help to support the mix of protected species at the SSSI.

Land use and wildlife: indicator options

Actual or planned end uses of restored land

Waste management companies should report on end-uses, even though they may not have ultimate control. These would be expressed by the areas of land designated for particular uses, which in turn could be expressed as a percentage of the land being worked by the company.

Number of trees planted per year and the total area covered by tree planting

Trees are important both for supporting wildlife and for absorbing carbon dioxide. The number of trees planted per year and the total area covered by tree planting could both be expressed as a proportion of the area of land being worked.

Hedgerow planting

Hedges may be appropriate in places where trees are not, for instance to divide up agricultural land. Hedges offer similar benefits to trees in terms of supporting wildlife and absorption of carbon dioxide. Planting hedges may help to return the landscape to its form before industrial activity began.

Changes in the populations of species

If the planting and management of a closed landfill could contribute to the fulfilment of a Local Biodiversity Action Plan, this could be monitored and reported as an indicator of progress.

Waste minimisation

One of the most important indicators for waste management companies will be to measure progress towards more sustainable waste management. The Government's consultation paper on waste, 'Less Waste More Value', (for details see inside back cover) puts forward the idea of the waste hierarchy. This suggests that the most effective environmental solution may often be to reduce the generation of waste. Failing that, value should be recovered from the waste, and only if this is not an efficient solution should waste be disposed of. This suggests that an important indicator for waste management companies will be one that measures any contribution the company is able to make towards minimising the generation of waste at source.

It could be argued that a waste company's contribution to recycling (including composting) is an appropriate indicator of the shift towards more sustainable waste management. The problem is that a waste company's ability to invest in and operate recycling facilities is heavily dependent on a number of external factors, including the availability of markets for recycled materials, and the willingness of local authorities to pay the extra costs of recycling. The fact that market demand is often uncertain or inadequate means that it is difficult to approach recycling as an economic proposition. Recycling initiatives often rely on local authority partnerships and subsidies.

This leaves open the question of whether to regard tonnes of waste sent for recycling as an indicator of a company's environmental performance. It could also be argued that achieving recycling is an indicator of a company's determination to get around the economics and engage in imaginative partnerships. However, if there are no markets for the materials, even if waste is sent for recycling, it may not actually be recycled.

The picture is complicated by the Government's own acknowledgement that the Best Practicable Environmental Option (BPEO) for a particular waste stream may be further down the hierarchy than seems likely at first sight. For instance, some would argue that it is environmentally preferable to

incinerate waste paper and to recover its energy value, than to go through the resource-intensive process of recycling. This means that recycling cannot always be assumed to be the best environmental option.

In all cases with the indicators suggested below, it would be appropriate to note the constraints on a company in actively developing recycling as part of an environmental and business strategy, and the fact that any such figures have limitations as a indicator of a company's contribution to sustainability. This example illustrates the importance of using qualitative information to accompany any quantitative measure - the latter alone will not convey the complexity of the situation.

Waste minimisation: indicator options

Contribution to waste minimisation through consultancy services

Developing an indicator of waste minimisation fits with the vision of waste management companies as modern utilities - not just supplying a product (in this case waste treatment options) - but providing a comprehensive range of services and expertise. Waste companies would thus become a "one-stop-shop" for everything to do with waste. The rationale for marketing this concept is derived from the success of the supermarkets. It may cost the consumer more to do everything in one place but it saves time, a valuable commodity. One approach to selling waste minimisation is to propose to reduce a client company's waste bills with a package of minimisation and management measures, when they would otherwise face escalating costs from external factors such as the landfill tax. Some companies offer a 'waste audit' service, where all a company's waste streams and management options are identified, including options for minimising waste at source.

The question is how to measure the development of this side of a company's business. One simple measure would be the percentage contribution of waste minimisation advice to the turnover of the company. Year-on-year this would give an indicator of the growth of this activity. However, this is a long way from measuring the environmental impact of a company in this field. This would entail knowing how much waste has been avoided as a result of a company's advice. It is also debatable what constitutes avoidance in this context. Whether it would mean reduction in total waste sent outside the client's premises or an increase in the proportion of waste sent for re-use or recycling, or both. Also, to accurately measure a waste management company's contribution to any of these requires that the company is the only agent giving advice.

Contribution to education about waste minimisation

This would measure financial contributions to educational initiatives. However, it would be difficult to assess the relationship between money spent or the number of educational initiatives, and the amount of waste minimisation. A proxy indicator might be to commission an external assessment of an educational project, to give a sense of its contribution to actual minimisation.

Contribution of a new product design to waste minimisation

Waste management companies could consider funding design competitions or design courses that aim to reduce in-built obsolescence in products, or to improve the suitability of the product for recycling. To develop this into an indicator, there would need to be a way of rating a new design's contribution to waste minimisation.

Tonnes of waste recycled

This might mean measuring the output of a materials recovery facility (MRF), if this is where sorting is being carried out. It could also be a measure of materials collected which are already sorted and sent straight to a purchaser.

The capacity of MRFs for handling waste in tonnes

Although this will not recognise that perhaps the capacity of the MRF is not fully utilised, or that some waste sent to MRFs is unsuitable for recycling and will end up back in a landfill.

Growth in the number of MRFs managed by a company

This is a simple measure that gives a gauge of a company's level of activity in recycling.

Percentage of waste sent to the main categories of end destination

This is a logical extension of reporting how much waste is sent for recycling. The main end destinations could include composting, recycling, re-use (if distinguishable from recycling), incineration and landfill.

Environmental management systems (EMS)

The use of formal environmental management systems such as EMAS or ISO14001 should result in improved environmental performance, although it is up to the company to set the targets for that improvement. Measuring the number of sites with EMS is therefore not a direct indicator of the extent of improved performance, but it would be reasonable to assume that the more sites registered, the better the company's overall performance. If this is not the case, then the management systems are failing in their basic intent.

EMS: indicator options

Number of sites registered to a recognised EMS

This would be given as a proportion of the total number of sites.

Regulatory compliance

Waste management is a highly regulated activity. All waste management facilities are licensed by the Environment Agency for England and Wales or the Scottish Environment Protection Agency. Waste management licences or Integrated Pollution Control authorisations set conditions for many aspects of environmental performance, including control of landfill gas, treatment and disposal of liquid effluent (leachate), and emissions of possible pollutants from incinerators and chemical treatment facilities.

Given the extent of regulatory coverage, it seems superfluous to develop indicators for all the potential pollutants and environmental impacts involved in waste management. A more comprehensive approach is to develop an indicator of compliance with the standards set in site licences and authorisation, and, if possible, of how far a company has been able to go beyond compliance.

Regulatory compliance: indicator options

Number of prosecutions

This is a simple measure, but may not be the best indicator of environmental impact, since the number of prosecutions does not reflect the relative seriousness of the incidents. It is also debatable whether it is a good indicator of management excellence, since a prosecution is a function of a number of factors other than the offence itself, including the assiduousness of the authorities pursuing the offence.

This could have tonnes of waste handled, or number of site inspections as a denominator.

Number of breaches of site licences or discharge consents

This information should be available to companies through their own monitoring. However, breaches also vary in seriousness, and only reporting the number may give a false impression of environmental impact.

Number of enforcement notices issued

In terms of regulatory activity, enforcement notices are the step before prosecution, but will happen less frequently than individual breaches of consent. Therefore they might provide an indicator that is a good middle way between breaches and prosecutions.

The Environment Agency's Operator Performance Risk Assessment (OPRA) rating

Currently in development, this system aims to rate all sites holding a waste management licence on the basis of their risk, and will be used to prioritise inspections. It will combine an assessment of the site's history of compliance with licences with the potential risks posed by the site, and with any actual damage caused by non-compliance. As it develops, OPRA may also consider a site's compliance with a company's own corporate standards, if these are beyond regulatory standards.

OPRA combines aspects of environmental performance and a company's ability to manage risk. OPRA ratings could therefore be used by a company as an indicator of environmental performance. The Environment Agency aims to have OPRA in place in the course of 1999.

Neighbourliness

Site neighbours are an important group of stakeholders for waste management companies. A responsible company will want to minimise any negative impacts on its neighbours and maintain good relationships. The reputation of the company in terms of how it treats its neighbours can be a factor in planning decisions on new sites, or extensions of existing sites. Waste management companies need some gauge of how well they are conducting relations with site neighbours.

Neighbourliness: indicator options

Number of complaints

This is the most obvious indicator of being a 'good neighbour'. Complaints are a direct response to what is, in the resident's view, a problem in their environment, whether it is litter, smell, traffic nuisance, or the behaviour of company employees. It could be argued that this is a good measure of a company's environmental performance. If 'complaining for the sake of it' needs to be filtered out, several companies refine the indicator by reporting on 'justifiable complaints' although the criteria for these are not always clear.

The experience of some companies which have tried to improve relations with their neighbours is that this process can sometimes increase the number of complaints received. This may reflect improved confidence that complaints will be listened to. It is usually a short term effect and, after a while, complaints drop substantially.

Measuring the number of complaints does not give any sense of the quality of a company's response. This could be done by following-up complaints and asking complainants to give a satisfaction rating on the quality of follow-up. The average of these ratings could then provide an indicator, as well as providing a channel for communication with local residents. The disadvantage is the extra human resources needed.

Another way of providing an objective assessment of neighbours' attitudes to the company and its handling of their complaints would be to use a polling organisation to periodically interview neighbours.

Communication

This is undoubtedly a component of good neighbourliness. It can be achieved by, for instance, site open-days, newsletters and exhibitions. However, it is difficult to measure the impact of these initiatives in a way that would enable comparison between companies in the sector, and the number or coverage of these mechanisms does not in itself provide a good indicator. The existence of such communication channels should be recorded alongside the number of complaints indicator, but should not form part of it.

Number of liaison committees

This could be expressed as a proportion of total number of sites, or sites within a certain radius of communities. Local performance improvement could be determined by negotiating with site liaison committees to agree targets for improvement. Such targets would not be comparable across companies, but would have strong local ownership.

Funding of local community projects via environmental bodies

This could be an important part of good relations with neighbours, but it would need a denominator - perhaps units of turnover, to offer valid comparisons across companies.

the next step

The aim of this project is to agree a useful minimum set of environmental performance indicators for the waste management sector. Comments on this menu of indicators will be sought from a wide range of organisations and individuals, including a cross section of waste management companies. We also look forward to collaborating with waste management industry bodies, including the Environmental Services Association (ESA) and the Institute of Wastes Management (IWM).

The quest for indicators that are applicable across the waste management sector will not be a short one. However, significant gains can be expected from the use of an agreed set of indicators. For the waste companies, these should include more efficient environmental management and improved relationships with stakeholders. There will also be environmental improvements resulting from increased attention to the impacts highlighted in this document, and improved measurement and management of those impacts. Waste management companies will be able to announce with confidence their contribution to meeting the Government's national environmental and sustainability targets.

for feedback

Green Alliance would be pleased to receive comments on these indicators. Please contact:

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for further information on indicators

'Sustainability Counts', the UK Government's consultation paper on a set of headline indicators of sustainable development. Published in 1998 by the Department of the Environment, Transport and the Regions. The Headline Indicators Team can be contacted on Tel: +44 171 890 6518
Web: <http://www.environment.detr.gov.uk/sustainable/consult/index.htm>.

ISO14031 draft standard on Environmental Performance Evaluation is part of the ISO 14000 series on an international environmental management standard. It is administered in the UK by the British Standards Institution, 389 Chiswick High Road, London W4 4AL. Tel: + 44 181 996 9000 Fax: + 44 181 996 7400
Web: www.bsi.org.uk.

The Global Reporting Initiative (GRI) was established in 1997 by the US based organisation CERES (Coalition for Environmentally Responsible Economies) to develop globally applicable guidelines for preparing company-level sustainability reports. Further information from the interim GRI Secretariat: Judith Kuszewski, CERES, 11 Arlington Street, Boston, MA 02116 USA. Tel: +1 617 247 0700 Fax: +1 617 267 5400 E-mail: kuszewski@ceres.org

The Global Warming Indicator was created by National Provident Institution (NPI) and Imperial College Centre for Environmental Technology and is now being further developed by the Department of Environment, Transport and the Regions. Contact Emily Hay on Tel: +44 171 890 6624 for further details.

for further information on waste management

Less Waste More Value: Consultation paper on the waste strategy for England and Wales
DETR Free Literature
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Friends of the Earth
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Web: www.foe.co.uk/camps/indpoll/index.htm

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Waste Watch
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Web: www.wastewatch.org.uk

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