



Amey Environmental Report



Certificate No. EMS 69153



INTRODUCTION

BACKGROUND

Amey aims to meet the challenge of sustainable development by managing the social, environmental and wider economic impacts arising from our business activity with the intention of making a meaningful contribution to a more sustainable future.

To fulfil this intention and ensure all sustainability aspects are addressed, Amey has created a sustainability framework. This is depicted through the Amey Sustainability Model (Fig.1). It is recognised that for our operations to be fully sustainable each of the twenty sectors of this model, underpinned by the core Amey values, must be considered.

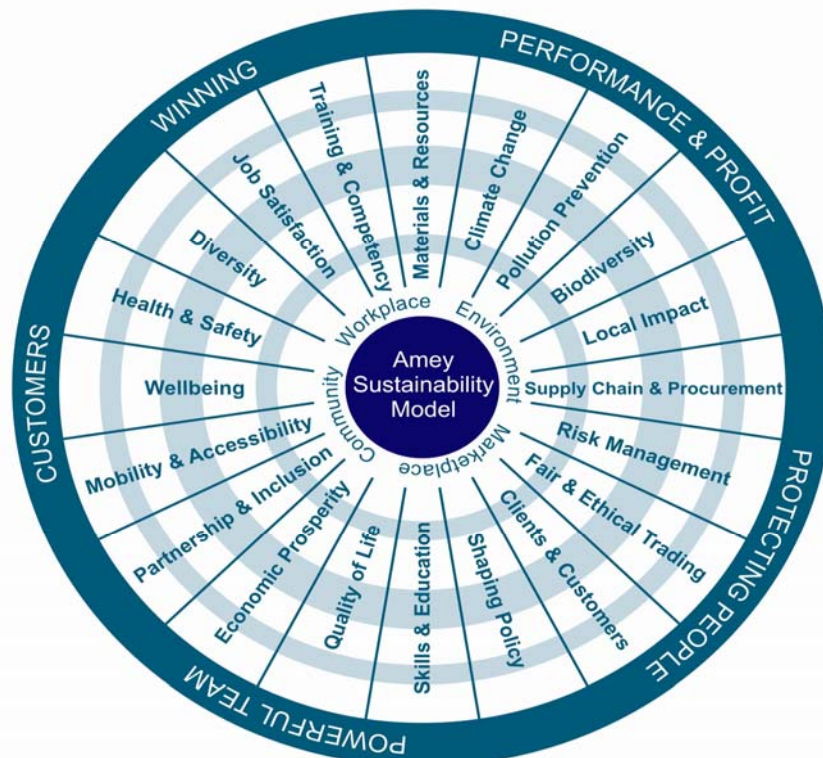
This report considers the environmental impacts of our operations over the past year and demonstrates through numerous examples how as a company we endeavour not only to protect and conserve, but to enhance the environment in which we operate. To do this we have split the 'environment' into the following five categories, as per the Amey Sustainability Model, which form the basis to this report:

- Materials and Resources
- Climate Change
- Pollution Prevention
- Biodiversity
- Local Impact

Since Amey utilise the model as a dynamic tool, these environmental sectors not only interact and overlap with each other, but their content both influences and is the consequence of the other elements in the framework.

Underpinning each of the descriptors in each sector of the model are policy documents and systems, which are embedded across the company. Examples of our proactive engagement can be found within and at the end of each section of the report.

Figure 1: Sustainability Model



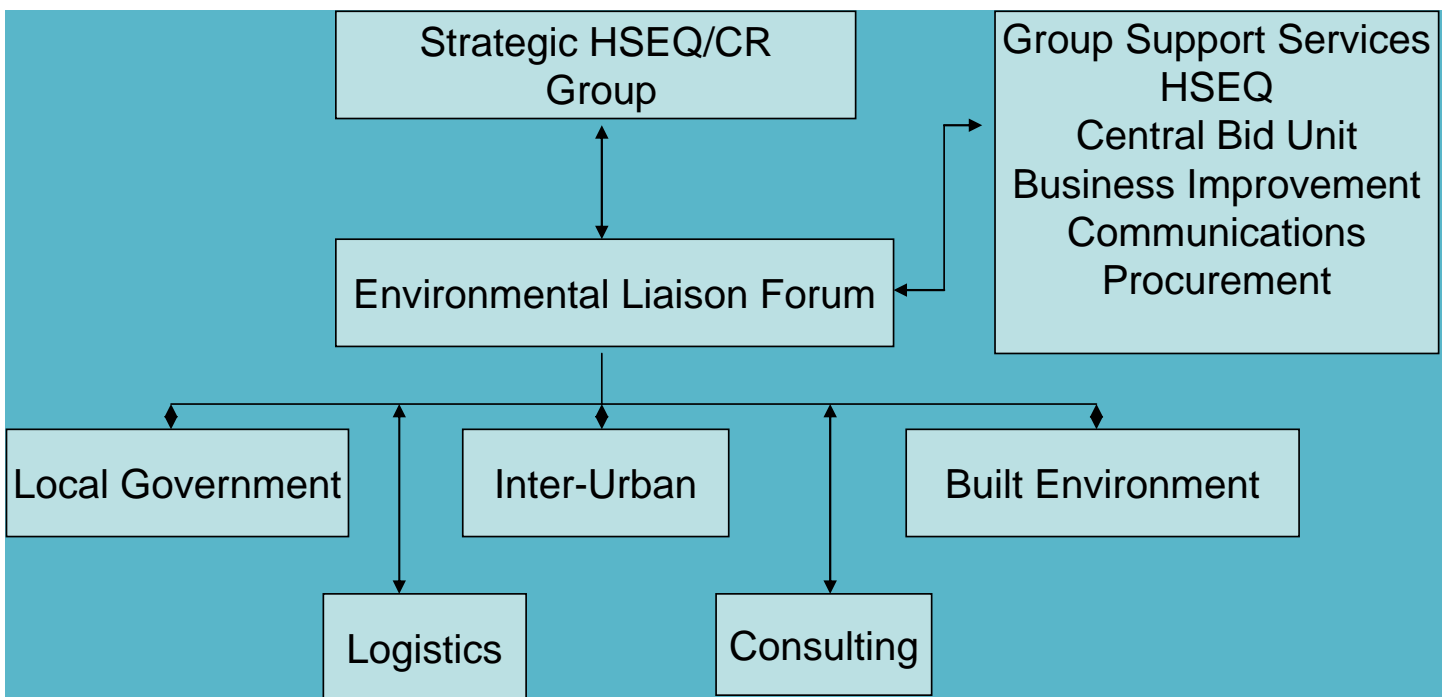
INTRODUCTION

COMPANY ENGAGEMENT

Amey has setup up a top level HSEQ/CR Steering Group, chaired by the CEO with memberships drawn from Group Directors and Business Directors.

A second tier Environmental Liaison Forum facilitates information exchange and dissemination of Best Practice across the company with members drawn from all Group Support Functions and all Business Divisions. Through this Group we champion and drive our strategic environmental engagement.

Figure 2: Structure for Environmental Issues governance



Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | Local Impact

MATERIALS AND RESOURCES

Our Story

Amey is committed to minimising waste through the principles of reduction, re-use and recycling. As part of good management practice, we review our operations to minimise the amount of surplus materials purchased and hence reduce waste at source; every opportunity is taken to minimise the amount of waste we generate, and our waste is sorted into individual waste streams to maximise the amount of resource reused and recycled. Amey also work hard to limit over procurement.

Sustainable Procurement

Amey is driving procurement of materials for our service delivery under the ethos of sustainable procurement and are heavily influenced by the Sustainable Procurement Framework developed for DEFRA through the Sustainable Consumption and Production Task Force. We have set high expectations in our supplier evaluations and any company contracted to Amey has to demonstrate strong commitment to environmental and resource management.

We seek to procure good quality products, produced using sound practice in manufacture and production, and expect our suppliers to have achieved ISO14001:2004 or to be able to demonstrate an equivalent standard of environmental management. Suppliers are encouraged to consider distribution impacts and to provide appropriate packaging and containment to limit waste production.

Our procurement category managers each have products under consideration and are tasked with determining more efficient and 'greener or cleaner' materials in support of our approach to reducing material and resource consumption.

For example we have introduced higher specification 3M reflective coatings for all our road sign plates. These have greater reflectivity and durability than standard signage, increasing life expectancy and reducing the reliance on external illumination. Similar examples of proactive engagement in the agenda are included throughout the document.

Waste

Amey is engaged in two distinct types of waste management in delivery of our services.

Highways

In the first instance, we manage and deliver services across 33,644 km of highways mostly in Scotland and England. Large quantities of waste are generated as a result of our service provision. The management of these waste streams is focussed on reusing the highest percentage of resource possible to prevent disposal to landfill and recycling.

In our highways repair and resurfacing contracts, we reused 90.2% of waste in 2006, increasing this to 93.8% in 2007. This represents 1,189,162 tonnes of potential waste that was reused or recycled. We achieved this in part through the introduction of sustainable pavement design processes and through the use of alternative reinstatement materials by utilising various types of recycled products.

We also have to deal with large quantities of network user litter. Amongst our contracts tasked with delivering this service, our operatives in the South of Scotland carry out extensive waste management activity across the networks. This contract alone collects 13.5 tonnes of litter weekly from 490km of the motor way network - excluding fly tipping items. This equates to filling 12 family sized cars. Monthly, the same Unit disposes of 54 tonnes of litter filling over three 16 tonne industrial skips, and over 620 tonnes of litter is disposed of annually, filling two public swimming pools (30m x 15m). Amey works in close collaboration and has recently engaged in a Scottish motorway campaign to stop littering on the network.

Reducing resource consumption can also lead to other benefits. For example, we have been working with Instarmac to re-design bituminous materials for temporary road repairs. The IR2B road repair material was often used in network locations that were exposed to extreme trafficking, causing danger to operatives repeatedly installing the same repairs. Instarmac, working with the local Amey contract team, re-designed the material to provide a permanent repair meeting BBA/HAPAS accreditation, thereby reducing operative time on the network and saving money. Similar trials are now being undertaken with Instarmac on other materials used on our contracts.

Street Lighting:

Annually, we recycle circa 200,000 street lighting lamps with our supply chain partner Mercury Recycling. We are constantly striving to find new innovations and products to reduce the overall

Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | Local Impact

energy consumption. Some of the innovations implemented to date include electronic ballast in luminaires, LEDs in bollards and sign lights, and the provision of high performance lamps and optics.

In addressing our materials and resource consumption in our street lighting contracts, we are trialling the re-use of the crushed glass from Mercury as trench backfill material on our Manchester street lighting PFI. We are also actively promoting the design and use of passive safety signposts in conjunction with our supply chain partner, SignPost Solutions Ltd. The Lattix posts are lightweight which, as well as being safer for the road user, reduce the whole life traffic signpost installation costs.

We are providing a 'white light' solution in residential streets using compact high intensity discharge lamps, which is designed to improve visibility and proven to reduce crime and like to think that bring improved quality of life by supporting the development of safer communities.

Facilities Management:

The second type of waste stream Amey generates arises from our Facilities Management portfolio since we are contracted to provide many and varied services to clients across the country.

By comparison to the infrastructure repair and maintenance services, smaller quantities of waste are generated— mostly comprised of office and business waste, although our catering services provision does create small quantities of organic and food waste. We currently broker national waste disposal contracts for our clients and our own offices specific to requirements, although this is under review through our sustainable procurement agenda.

In our Head office and associated facilities in Oxford, waste is sorted into streams where possible and contained in appropriate recycling receptacles across Amey's facilities. We also provide wormeries for our fruit and vegetable waste and as a result many of our contracts also now use wormeries for organic waste disposal to create fertiliser and nutritious compost for the surrounding landscapes associated with their service delivery.

IT

We recycle all of the IT equipment across the company, ensuring that none goes to landfill. We also maintain asset registers to ensure circulation

of used products, asking the question – 'do we need to buy this as new?' in the first instance.

Collaboration:

Amey create good community links and utilise our networks in the management of materials and resource in various projects. We have developed a close working relationship with the Environmental Information Exchange through the Oxford Resource Efficiency Network and are currently engaging with other businesses based on the Oxford Science Park to create sound resource management practices across the estate. We refer our new contractors to the EIE should they need support in achieving the environmental and sustainability demands made under our supplier assessments.

Amey works nationally in close collaboration with many organisations related to the diverse aspects of our service provision. In Scotland for example, we joined forces with the RAC Foundation, Transport Scotland and Keep Scotland Beautiful for National Motorway Litter Week – August 25th to 29th. (referred to earlier). Also worthy of note are two other very different collaboration projects, one run with the Prison Service via HMP The Mount – Bovingdon, through which damaged temporary road signs are repaired by prison inmates, and the other an education programme developed by an individual employee being run for young people in Cumbria. This programme uses the character 'Lucy Litter' to inform and educate the children about litter and the environment (see case study photograph)

Innovation

We aim to design out waste and utilise best available technology when possible, ensuring our resource use is carefully managed. Employees in our QinetiQ account have developed a thought leading waste management tool to support our clients which is being taken up and utilised across our estate where practicable. We have also introduced Bio-digesters and rain water harvesting systems into a number of our contract sites to manage water consumption and as a form of efficient form of waste management where our remote sites cannot be connected to foul sewers, avoiding the use of chemical toilets.

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | Local Impact

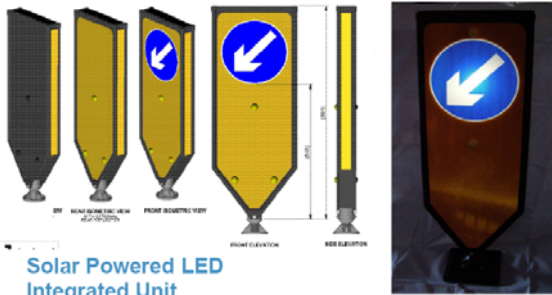
Case Studies

Solar Powered Panels

An integrated solar powered panel has been incorporated into the top of flexible signs which in turn power an LED situated behind the regulatory traffic symbol. The ability to internally illuminate without the need of an external power supply enables Heritage Solalite to be placed in any location. Once the natural daylight levels fall below a certain parameter the internal LED draws power from its integrated supply to illuminate the sign. This, combined with the retro-reflective DG3 material from 3MTM, ensures the bollard can be seen any time throughout the day or night.

The main benefits of using this are:

- Environmental benefits – using solar power
- Low maintenance - bollards will bounce back when hit by a vehicle and do not require regular maintenance
- Improved safety – no risk of reduced visibility of bollard due to torn cable etc.
- Safety of our people – bollards are installed in vulnerable sites prone to accidents.
- Cost reduction in long-term.



- Solar Powered LED Integrated Unit
- Passive Safe, complies to BS EN 12767
- Uses latest retro-reflective DG³ material from 3M™

and seat and cold mix recycling which had never been attempted before. In addition, the works spanned design codes, HD24, HD25, HD26, TRL611, 700 series, which are not mutually compatible and so the **scheme design had to be developed** and approved by the HA SSR.

There were several benefits that resulted from this approach

- **Saving of virgin aggregates** - in comparison with a traditional reconstruction approach the scheme saved in excess of 30,000 tons of virgin aggregate, this equates to the area of a football field 4 metres deep not being removed from the countryside.
- **Reduction in disposal of arisings** – none of the arisings from the contract left site, this represents a saving of 40,000 tons if the traditional reconstruction had been used
- **Reduction in lorry movements** – 3500 lorry movements were removed from the public roads.
- **Reduction in CO₂ emissions** - TRL have assessed the CO₂ emissions of the scheme, traditional reconstruction would have created 944 tCO₂, the CMC solution created 72 tCO₂, a saving of 872 tCO₂
- **Avoidance of congestion** - The scheme was successfully delivered in less than 2 months with minimal disruption to the travelling public.



Sustainable Pavement Design

Innovative Design, using Recycling Maintenance Solutions

A46 Major Carriageway Recycling Scheme

The A46 between Bishopton Island to Shottery Island forms part of the busy Stratford-upon-Avon by-pass. Despite previous resurfacing and the use of geo-grids the pavement was heavily cracked and structurally failing leaving the full reconstruction of the pavement as the only option. This scheme focused on reducing environmental impacts. The principle focus was on reducing the inputs and maximising the reuse of the original pavement.

The chosen solution consisted of planing off the existing bituminous material, cracking and seating the CBM, laying 150mm of cold mix recycled material, as well as 60mm of bituminous binder course and 30mm of surface course. This brought together the **innovations of crack**

Lucy Litter - Cumbria



Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | Local Impact

Keep Scotland Beautiful

In one year alone enough litter is collected from the motorways of south west Scotland to fill two public swimming pools according to our team on the South West Trunk Roads contract who urged motorists not to 'Tip on your trip' as part of National Motorway Litter Week.

National motorway litter week aims to drive home the message to motorists that they must take their litter home with them. The RAC Foundation, Transport Scotland and Keep Scotland Beautiful, who are concerned about the rising levels of litter on the roads of Scotland, are supporting the campaign.

Research from Amey on the problem of roadside litter finds that:

- Every week over 13 tonnes of litter is callously thrown from vehicles
- Our dedicated litter picking squads will fill at least 12 family sized cars a week with the discarded litter.
- Over 50 tonnes of litter are cleared from stretches of the M8, M73, M74, M80 and M77 motorways every month, requiring four 16 tonne skips to help with the clear-up operation.

The issue of littering is slightly masked during the Summer months as the foliage of trees and shrubbery can temporarily disguise the troublesome trash hiding beneath. Fly tipping, an extreme level of littering, is also an issue for Amey. All sorts of items like worn tyres, mobile phones, old televisions, pieces of furniture and fridges have been found in areas where the motorway boundary fence stretches back towards residential areas. Amey's litter collectors even have to use special kit to pick up and dispose of dirty hypodermic needles.



Retread Footpath Renewal

On the Amey TfL North Area contract, an innovative new technique was used on the A1400 Woodford Avenue Scheme in the London Borough of Redbridge.

The Retread method recycles the existing footway construction (including the aggregate) in situ using a new binder. The process is carried out in two stages. The first stage is to scarify the existing footpath to a depth of 75-90mm. The scarified material is shaped and graded to the required falls. Any excess material is removed to allow for a 20mm wearing course. The Retread emulsion is then applied by specialist plant which incorporates an integral harrow assembly to ensure maximum distribution and penetration. The mixture is then compacted and surface dressed with a 6mm aggregate and then rolled. Finally the treated footway is surfaced with a 20mm thick surface course.



The project involved recycling over 2000m² of footway. This equates to 400 tonnes of material that did not need to be transported off site.

The benefits of using recyclable materials, is that not only is it sustainable, it involves fewer HGV movements, the process is also quicker and cheaper than the traditional method of reconstructing footways - on this project offering a saving of about 25%.



Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | **Climate Change** | Pollution Prevention | Biodiversity | Local Impact

CLIMATE CHANGE

Our Story

Amey understands that climate change impact runs far deeper than focussing only on Carbon Management. Embedding adaptive behaviours into the business over the long term is the task which has been set, thus transforming the nature of Amey's service provision.

Amey has taken a proactive stance in its approach to Climate Change, led by our CEO's engagement in the Prince of Wales' "May Day Network".



The May Day Network is the UK's largest group of businesses and organisations committed to collectively tackling climate change by mobilising their companies, employees, suppliers and customers. Sharing best practice, these businesses promise to play a powerful role in reducing the UK's carbon emissions. The Network has over 800 members

Integral to adapting to climate change is the understanding of the major problems that severe weather variations create across transport and facilities alike. With the onset of climate change leading to extreme weather conditions occurring more often, we are regularly being called upon to bring extra man-power to urgent situations and provide extraordinary services in the most horrendous situations.

This year the City of Birmingham became a showcase city for a nine day Climate Change Festival that will be rolled out across other cities in England during 2009, and go international in 2010. With a heavy presence in the Birmingham area Amey showed its support by sponsoring the Birmingham City Council Climate Change Festival – in particular a 'Green Technology Day'. Amey's attendance at this event showed its ever increasing support and importance in addressing not only Climate Change but sustainable development.

In addition to an interactive display and exhibition, Amey organised a 'Top Gear' style event covered by both local radio and paper, in which competitors travelled by car, bike and bus into Birmingham City Centre during rush hour. This was to test which mode of transport is the best for commuting – taking into account how long the journey took, cost and carbon emissions generated. The Bishop of Birmingham was keen to get involved and came in first on his bike.

As a result of our extensive FM contracts in the City of London, Amey has also joined the Mayor of London's Green500 Initiative, aimed at reducing carbon emissions in the capital by 60% by 2025.



Carbon Footprint

Barely a day goes by without some mention of global warming or climate change and need to reduce our carbon footprint.

Amey has consistently measured carbon emissions arising from its service delivery and has calculated and declared the company Carbon footprint as 39,608 tonnes carbon per £1M turnover. We have also set a target to reduce our carbon footprint by 10% by the end 2010 based on a 2006/07 baseline.

Whilst we know our overall footprint, we realise that we will only motivate people to play a part in reducing this figure if we engage hearts and minds. With the assistance of the Business Improvement Team we are building upon our systems of data capture and analysis. This will allow us to scrutinise and analyse our energy and fossil fuel consumption more effectively both at Corporate and Divisional level, leading to consumption reduction and performance improvement over the long term. Our five Divisional MD's report monthly on the part their Division is playing in reducing and managing carbon and energy consumption.

A specific part of this is an employee engagement programme in our Head offices under the theme of 'Shape up Sherard' utilising display screens showing the energy consumption and carbon emissions being monitored daily, weekly and monthly.

Our long term aim is to 'eat' into the Scope 3 elements of our footprint and to broaden our understanding of our impact through the supply chain. Whilst this may ultimately push the level of declared emissions higher, a full footprint analysis will enable us to lighten our impact and support our clients and wider stakeholders in addressing one of the main concerns in the climate change agenda – greenhouse gas emissions reduction.

IT

As part of service delivery Amey has developed a broad portfolio. An increasing capability within the company is data management facilitated by

Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | **Climate Change** | Pollution Prevention | Biodiversity | Local Impact

innovative and high level IT capabilities in the teams tasked with providing the service. An important development in our sustainability agenda has come about through our 'C Vehicles Project'

Transport & Operations

Our Logistics Division is one of the most active parts of the company in the Carbon Reduction arena, since transport impact makes up the biggest part of our carbon footprint.

In 2008 a full survey of our fleet provision was carried out in partnership with the Energy Savings Trust analysing all elements of our transport capability across the company. The resulting comprehensive report has led to exciting changes for the company and moved us to the forefront of sustainable transport solutions.

The Logistics Division is working hard on reducing carbon and other greenhouse gas emissions arising from all modes of transport under our 'Miles Greener Campaign'. Cars with greater efficiency and lower emissions are now incorporated into the company car range and form part of our 'greener' offering to clients; data arising from company fuel cards receives much greater scrutiny, as does energy consumption and procurement of fuels across all Group divisions.

New technologies are being piloted that will reduce vehicle miles and fuel consumption; route optimisation systems are in wider operation; speed limiters are in place in appropriate vehicles; and active travel management systems have been extended and embedded within many of our contracts.

Many of our contract vehicle fleets are equipped with the Siemens Datatrak GPS tracking system. This reduces vehicle movements and thereby our carbon footprint, providing us with an additional communication tool. Vehicles can be monitored from the contract control centre, ensuring unnecessary journeys are eliminated, idling time is reduced, and service delivery is managed towards improved efficiency.

The training and awareness campaign to support company drivers in driving more efficiently has been given greater emphasis and new handbooks and leaflets have been provided for all those with driver responsibilities. This advice is also on our company intranet for general advice to all drivers in the company.

A rolling road show of the cleaner/alternative fuelled vehicle has been taken to many of our colleagues around the country, and the Amey Group Travel Plan continues to be rolled out across the company. Our Consulting Division provides extensive services relating to travel planning and actively support our client base in achieving more sustainable transport systems.

Of particular note for our approach to emissions reduction and sustainable transport solutions is the achievement of a Fleet Heroes Award achieved through our introduction of cleaner multi fuel vehicles in our Transport for London contract.



FM

The Amey Built Environment Division is implementing various types of improvements on behalf of our clients and within our Head offices. Of particular importance in managing our carbon emissions are the implementation of online monitoring of energy consumption; installing mains voltage regulators in our major buildings and utilising half hourly data capture.

We have invested heavily in Video Conferencing Facilities with the aim of reducing the need for travel between our company offices which are spread throughout the UK and quantify our emissions savings as part of the booking process.

Our IT equipment is procured to a high environmental specification and re-sale and re-use is the corporate route for disposal. Zero IT equipment goes to landfill.

We are heavily engaged with our clients in their own energy and resource consumption reduction agendas, supporting the MOD, the Home Office, and other significant agencies across the country in managing their facilities appropriately. A long standing example of this is found in our Northern Ireland Police service contract.

Procurement

Throughout our procurement systems we are implementing a 'Step Change in Procurement' programme to address environmental and wider sustainability issues in our supply chain. We are embedding our Sustainable Procurement Process by building on the DEFRA Flexible Framework, by strengthening our supplier evaluations, appraising

Areas of sustainable impact

Materials and Resources | **Climate Change** | Pollution Prevention | Biodiversity | Local Impact

products and ensuring we influence our suppliers to reduce impact.

Through this we are developing whole life costing and life cycle analysis, reducing resource use, waste arisings, and environmental impact across all product categories.

Energy:

We manage our contracts and our own premises focussing on energy efficiency as a priority and always aim for continuous improvement.

Our contract delivery focuses on driving consumption reduction through data capture and analysis. We have introduced voltage optimisers into our flagship buildings, plot our FM energy consumption and provide targets for continuous improvement, employ vehicle tracking technologies and, support our clients in achieving change in management practices achieving significant cost savings in some cases.

Our corporate energy is procured from 'green' and 'alternative energy' sources as standard practice

Staff Awareness

An internal campaign for environmental awareness is being structured with our communications teams to further our Sustainable Development Agenda under our Sustainability Framework.

Our internal Newsletter – The Hub – carries praiseworthy news and environmental issues needing awareness and all divisions and Group HSEQ send out quarterly updates including elements of environmental engagement.

Specifically, World Environment Day was celebrated by organising awareness campaigns across the company offering employees ideas and advice in energy and waste minimisation; running recycling quizzes; encouraging shared transport initiatives, cycling and walking to work and pushing on with our 'Switch it off' campaign already well into it's second year. This was followed up by a 'Cycle to Work Day'.

Collaboration

Amey part sponsored the Birmingham City Council Climate Change Festival in particular the 'Green Technology Day'. Throughout the festival Amey exhibited a number of vehicles from the 'green fleet' including the Honda Civic Hybrid (part of the company car offering) and a fully powered electric Modec which is currently in operation in London,

Bedford and Hertfordshire Local Government contracts

The display operated a live video conferencing feed to a near-by location as well as displaying photos of Amey transport – past, present and future and posters demonstrating various sustainable practices which Amey carry out.

In addition to the display Amey, organised a 'Top Gear' style event covered by both local radio and paper, in which competitors travelled by car, bike and bus into Birmingham City Centre during rush hour. This was to test which mode of transport is the best for commuting – taking into account how long the journey took, cost and carbon emissions generated. The Bishop of Birmingham, who was keen to get involved, came in first on his bike.

Amey's attendance at this event showed its ever increasing support and commitment to addressing not only climate change but environmental impact reduction in general.

We are collaborating with the Oxford Science Park management, and other businesses with premises on the park, in an environmental group. The aim of this is to support certification to ISO 14001:2004 across the business Park and to enable information exchange.

We are also working in partnership with Oxford Brookes University and the Environmental Information Exchange and developing programmes of support for our preferred suppliers.

Innovation:

New Smart cars are the latest addition to Amey's sustainable fleet management capabilities. The Smart Cars will be trialled in Oxford, Sutton Courtenay, Birmingham and Plymouth and are part of a pilot of only 100 cars in the UK. These electric smart cars have the potential to significantly reduce carbon emissions and running costs.

We are also working in partnership with innovative companies to include Hydrogen Fuel-cell and Compressed Natural Gas (CNG) vehicles in our fleet.

To further reduce our Carbon Footprint we have been upgrading our vehicles, fitting speed limiters to our LCV and CDV fleet and working towards a Vehicle Telematic solution for the whole of Amey.

Areas of sustainable impact

Materials and Resources | **Climate Change** | Pollution Prevention | Biodiversity | Local Impact

Case Studies

Fleet Hero's

Amey has been awarded a prestigious honour for the environmentally friendly vehicles we are using throughout North London.

The Fleet Heroes Awards are presented by the Energy Trust in partnership with The Observer and Fleet News. They celebrate best practice in fleet management and recognise businesses and local authorities that contribute to reducing the UK's carbon footprint.

The Amey entry - based on the fleet that we introduced to the TfL North contract won in the category of small business (fleet size 25-100) and was recognised as an eco-friendly solution. We demonstrated our commitment to cutting carbon emissions by using hybrid cars and electric vans, together with the introduction of bicycles for staff and the use of video conferencing.



Towards a more sustainable workplace- helping public sector partners meet SDiG targets

Amey provides Total Facilities Management (TFM) services to the Home Office's estate in London, the east and south east of England. We provide 30 FM services, including soft FM such as catering, cleaning and reception duties, and hard FM such as building fabric maintenance. The estate, which comprises over 350 buildings and 350,000m² of building space, includes prestigious central London offices such as Globe House (the Identity and Passport Service headquarters). Other business-critical sites include Lunar House in Croydon (the UK Border Agency headquarters), and the National Policing Improvement Agency (NPIA) International Academy at Bramshill.

The Home Office's environmental targets set by the "Sustainable Development in Government (SDiG)" action group include increasing recycling and adopting the Carbon Trust's carbon management programme aimed at cutting carbon emissions. In order to meet the targets, the Home Office must make wide-ranging changes and improvements to its estate.

The first areas to tackle included high water use and ageing, energy-inefficient plant.

We provided solutions in the following areas:

Recycling: Amey launched a recycling awareness campaign in 2004 through intranet posts, and put recycle bins in every office.

Analysing carbon emissions: Amey commissioned a Carbon Trust energy survey in 2006. In response to its suggestions, we have analysed costs for energy efficient light bulbs to save 5,082 tonnes of CO₂ and 64,865 kWh of electricity; installed energy-efficient chiller plant; recalibrated utility meters to ensure accurate meter reading; tested water pipes for leaks; put up Carbon Trust stickers around the buildings, which remind staff of their responsibility to save energy and water; ensured security guards turn off lights, printers, monitors etc. during evening patrols

Miles Greener – Green Fleet

10 - THE IRID - Mar - Apr 2007



Amey is taking its first landmark step towards improving its transport carbon footprint by introducing a fleet of revolutionary new electric vehicles.

The pioneering pollution-free vans will soon be seen around the streets of London when they are deployed in our new Transport for London contract.

The cutting edge electric vehicles were recently showcased at a launch ceremony hosted by manufacturer - and Amey supply partner - Coventry-based Modec Limited. Chris Webster, AIS MD and Chris Fenton, ABS MD, joined the Conservative party leader David Cameron and other leading players to discover how Modec is aiming to "quietly change the world" with "vehicles that don't cost the earth."

They may be whisper quiet, but these new vehicles are making all the right noises with other leading companies such as Tesco and Marks & Spencer, who like Amey have placed orders with Modec.

Compared to an equivalent vehicle running on diesel, each of these electric vans will help Amey to achieve a 35% reduction in

CO₂ emissions, providing a cleaner - and quieter - local environment. With one overnight battery charge, the new vans will cover over 100 miles and be able to accelerate swiftly to a maximum speed of 50mph whilst carrying a payload of up to two tonnes.

This project, driven by Steve Hillwell, Head of Amey Operational Services - is one in a series of planet-conscious moves towards a greener fleet of vehicles. Steve said, "The introduction of 100% electric vehicles is a milestone step in our journey to improving our carbon footprint. Not only is this environmentally and commercially sensible, it also puts Amey at the forefront of the highways maintenance market - there's no doubt that our competitors will now be following us."

On a whole life or pence per mile basis they will be comparable in running costs to a conventional diesel equivalent.

They're also exempt from road fund licence, MOT test and inspection and congestion charges.

Green fleet

In addition to introducing the new Modec vehicles, the Amey Operational Services team - responsible for our 3,500 strong fleet of vehicles - is busy helping to improve the environment. Here are some of the other greener vehicles they have transported to Amey recently:

- 10 LPG (Liquid Petroleum Gas) Astra Estates will provide an 80-90% reduction in Nitrous Oxide emissions and almost eliminate particulate emissions.
- 4 new Toyota Prius petrol electric hybrids: will represent a reduction in CO₂ emissions by 1.2 tonne per vehicle per year (104g/km compared to 135g/km, based on 25,000 miles).
- New electric Smart cars will do 10,000 miles per year representing a saving of 2.7 tonnes per vehicle per year.
- Our fleet of Euro 4 vehicles all comply with European legislation and achieve the reduced Nitrous Oxide emissions.

Video Conferencing

Next time you meet, make it a VMeeting

At Amey we're always looking for ways to lower our carbon footprint and help our employees to keep a healthy work and life balance. Excessive business travel to meetings doesn't make sense. It doesn't help our environment and it costs money and time. That's why we've introduced videoconferencing facilities at around 25 of our work locations across the UK.

So, if you're travelling long distances to meet Amey colleagues, please stop and ask yourself why. Can you Vmeet instead? It's simpler than you think. To book your VMeeting please call: 0845 365 1800 or email VMeeting@amey.co.uk



Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | Climate Change | **Pollution Prevention** | Biodiversity | Local Impact

POLLUTION PREVENTION

Our Story

Amey is fully certified to ISO 14001:2004, ISO 9001:2000 and OSHAS 18001 and pays specific attention to maintenance of standards in Health and Safety, and Environmental protection, in particular pollution prevention.

Our flexible approach is designed to minimise the impact on the community. We work in and around district centres, conservation areas and areas of regeneration to provide the most appropriate, whole life cost efficient solution for each scheme. We always inform customers prior to commencing work and help as far as possible to resolve local conflicts. We have introduced shift working patterns to improve responsiveness and avoid destruction.

Safety Training and compliance

All operatives and site workers are trained in Environmental Management and Health and Safety procedures according to work responsibilities. Our site management protocols are stringent where storage and handling of materials is concerned and our HSEQ managers have stringent audit schedules running throughout the year, checking practices are of the highest possible standards and ensuring compliance.

Network Management

We are proud of our network management and engineering capabilities, currently provided across approximately 33,644 km of motorways and roads. We are also currently responsible for approximately 618,600 lighting stands and around 30,000 bollards and signs.

We work with clients and our supply chain around the country in providing top level solutions to signage and replacement stands that limit light pollution, whilst continuing to provide for public safety. We also use the best available technology, reducing the use of chemicals and other hazardous substances in our product provisions. Annually, we recycle circa 200,000 street lighting lamps with our supply chain partner Mercury Recycling. We have also trialled the re-use of the crushed glass from Mercury as trench backfill material on our Manchester street lighting PFI.

We are equally proud of our planned and reactive maintenance systems ensuring that we clear incidents and manage spills and other potential pollution incidents quickly and effectively by

deploying people, plant and equipment using GPS and 24/7 Operational Control Room facilities. These are placed in a limited number of contracts, but step in to act as overnight emergency control centres for other contracts across the country.

In Scotland we also operate the Trunk Road Incident Support Service (TRISS) which is an amalgam of the HATO and ISU service in England. TRISS have taken over some of the police functions on the network and provide a 20 minute response to incidents within their patrol areas. An integral part of their role is removal of debris and dealing with incidents which occurs on a daily basis.

Supporting the public

Amey often goes above and beyond the call of duty in supporting the public and emergency services during incidents or severe weather conditions. We are quick to respond and often find ourselves first on the scene. Our emergency preparedness is therefore of the first order. Amey staff are often called in to manage land slips or to carry out emergency clearance procedures as part of our gully clearing services.

Not only do we prevent pollution, we also bring extra man-power to urgent situations and provide extraordinary services in the most horrendous situations. With the onset of climate change leading to extreme weather conditions occurring more often this is something that the crews are increasingly involved in.

The products and processes of infrastructure maintenance have high pollution potential if mismanaged and as a result demand tight controls. For example, salt and gritting activities in the winter months. Whilst concentrating on effective containment in our depots, Amey has trialled various processes to ensure efficient surface spreading to limit pollution and currently utilise a saline spreading regime as best practice.

Collaboration

Through engaging with the public we also provide small-scale salt bins in susceptible areas whilst ensuring that the salt is contained according to Environmental Safety Standards

Our Highways stewards play a lead role in protecting the environment as well as the public, clearing blocked drains and gullies and clearing litter and fly tipping from parishes across Cumbria.

Service is our passion. People, our strength

Areas of sustainable impact

Materials and Resources | Climate Change | **Pollution Prevention** | Biodiversity | Local Impact

Innovation

We always look to provide products exhibiting high environmental specifications, aimed at a variety of improvements such as energy consumption, light pollution, and materials use and recycling. The most recent innovation in the supply of bollards is seen in the installation of 'Flexible Traffic Bollards' and a 'Solar powered LED Bollard' in many of our contracts.

Innovative solutions in our Norfolk contract to dim lights on major routes when traffic volumes are low, together with other efficient technology to reduce energy use, signify a major advance in service provision both reducing light pollution and conserving energy.

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | Local Impact

Case Studies

TRISS Unit

The TRISS unit recently dealt with a chemical incident on the M8 involving a curtain side articulated lorry carrying 1000l containers of leather tanning solution. 3 of the containers were ruptured in the accident and the liquid spilled onto the carriage way and verge. Amey closed the road, utilising well rehearsed emergency procedures, blocked the adjacent gullies with sand bags, provided empty containers and plant to unload the undamaged containers and pumped the remaining liquid out of the ruptured ones.

We then removed the truck, excavated the verge to a depth of 150mm and stored the excavated material for 2 weeks whilst testing was carried out to determine the level of contamination, ultimately disposing of the contaminated waste by the legal and appropriate route. The analysis and removal of the contaminated soil from the scene was carried out in collaboration with the Fire service and the Scottish Environmental Protection Agency (SEPA).

MILK

A second example involved a tanker full of lard leaking over a distance of some 15km of the M74 that Amey became aware of at around 5 a.m. due to a sudden rash of accidents being reported. Amey's ISU attended some of the accidents and reported a heavy, grease like substance coating a lane. On reporting this to the police, Amey was informed that a tanker had spilled liquid lard onto the road as a result of leaving a rear valve open.

4 road brushes were mobilised and a specialist detergent was sourced that would break down the lard. It was cleaned by sequential rolling blocks and total closures of sections of the M74 from 6.00am until 2.30 pm by which time Amey had cleared and gritted the road sufficiently to allow traffic use with a reduced speed limit.

LEOCLEAN

Currently Leoclean is being used by Amey Roads North Lanarkshire (ARNL) as an alternative tool cleaning chemical to diesel or cooking oil.

Leoclean is a heavy duty cleaner for removing mineral oil based splashes such as bitumen, asphalt, grease and carbon. It will also remove waxes, uncured paint, varnish and oil based inks.



Leoclean will help clean up creosote, chewing gum, sealants and other mastics. It is ideal for cleaning oil spills off of hard surfaces, cleaning engines, parts washing, tank cleaning and adhesive residue removal.

Leoclean is:

- Formulated from derivatives of orange oils and a synthesised mineral oil with a flash point of 69°C
- Exceptionally safe.
- Contains no harmful ingredients.
- Non-toxic to humans, animals, birds and marine life.
- Non-carcinogenic, non aggressive and fully biodegradable to CO₂ and water.

Operation Control Room - OCR

11

Cutting Edge Control

Our Local Government team in Cumbria has set up an Operational Control Room (OCR) resulting in a truly paperless work ordering system. This was inspired by the OCR at our Transport for London (TfL) contract in Colindale.

Situated in our Cumbria Highways depot at Skirsgill in Penrith, the OCR operates on a 24/7 basis. The Operators - our colleagues - use live mapping systems and have full visibility of current defects and team locations on the highway network. They can direct the nearest and most appropriate team to respond to an emergency when needed.

The new system links the control room to our highways service vehicles electronically. Each vehicle has a mobile broadband enabled tablet computer that allows our colleagues to receive work orders remotely. They can also close down completed work orders on site, without having to complete any paperwork.

All defect repair work is now managed through the OCR. Amey has invested heavily in this new facility to help increase our operational effectiveness and customer service.

Inspiration to launch the OCR came from similar facilities in our other Local Government contracts, for example, our TfL Centre in Colindale, London.

The team in London monitors more than 300 cameras and co-ordinates the Traffic Management (TM) required for emergency call outs. The OCR is linked to the London Traffic Control Centre (LTCC) with direct contact to the police. Radio and traffic news bulletins use this information to inform the general public. A web-based programme is used by the OCR Operators to send text messages to TfL, the police and Amey colleagues to notify if TM has been implemented.

Work is prioritised depending on severity. Response times could be within 1 hour, 24 hours, 7 days, or 28 days. As well as reacting to incidents, the team operates a proactive service by locating incidents before they're reported and preparing Amey's emergency response teams. For example, when car bombs were reported in London's Haymarket, Amey had TM prepared and available ready to assist with road closures.

Amey's TfL OCR is also the main contact for all transport related near-misses for Local Government contracts and takes out-of-hours calls for our Wakefield and Norfolk Street Lighting teams.



email david.graham@amey.co.uk (Cumbria) or jonathan.nellist@amey.co.uk (TfL).



Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | **Biodiversity** | Local Impact

BIODIVERSITY

Our Story

Amey has become increasingly aware of the impact its operations have on biodiversity. Intricate networks of ecosystems, habitats and species are ultimately responsible for regulating the life support systems on which we all depend and as such Amey is strongly committed to enhancing, conserving and protecting the natural environment.

Biodiversity conservation is often viewed in isolation from sustainable development, however Amey recognise that any company activity has the potential to affect biodiversity. e.g. sourcing of raw materials for production and consumption; the management of company landholdings, or environmental pollution.

Ecological issues vary from project to project throughout Amey.

The Amey Business Division of Local Government, Inter-Urban and Consulting interact most directly with soft estate and biodiversity issues.

Verge Maintenance

Amey is responsible for maintaining a total of 33,644 km of highway, comprising all classifications of roads. The majority of highway networks are fringed, at least in part, by wildlife diverse verges and hedge lines, some of which are protected under varying levels of designations. Although roadside verges can provide valuable habitats in their own right, they are much more affective at being links to otherwise fragmentary habitats, and buffer zones to adjacent habitats like hedgerows, meadows and ditches.

Bespoke landscape strategies, compiled by specialists in the field, ensure priority species and habitats are conserved, not only to prevent negative impact but to enhance the network where possible.

All operatives who work on the highways undertake a half day Environmental Training, which includes awareness of protected species, invasive species and injurious weeds. Regular tool box talks and training ensure information is kept up-to-date and current.

Design

From feasibility through to site management and monitoring, Amey's Consulting Business division supports all stages of a project lifecycle in line with local and national environmental policies and guidance. Working in multidisciplinary teams on major road, rail and other schemes ensures effective consideration of biodiversity is taken from design right through to maintenance works with the soul purpose of being as sympathetic to the environment and biodiversity as possible.

Collaboration

Amey is keen to extend our contribution to biodiversity conservation and enhancement beyond our client requirements. Amey is a corporate member of a number of Local Wildlife Trusts through out the UK.

Environmental awareness, good communications and opportunities for innovation ensure those employees who aren't in direct contact with the ecological environment also get the opportunity to be involved and participate in volunteering opportunities.

Innovation:

Amey is keen to develop and acknowledge innovation, promote environmental awareness among all our staff and encourage their involvement and suggestions.

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | **Biodiversity** | Local Impact

Case Studies

Area 13

Amey is the Managing Agent Contractor for the Highways Agency Area 13, and had the task of identifying sites across this area that would be suitable for ponds, as well as sites that were habitat for dormice (and sites with this potential), and sites where calcareous grassland could grow. Following this, Amey had to design a project to ensure maximum potential for wildlife and biodiversity across these sites.

In Area 13, we have implemented several wetland creation schemes - each unique in terms of size and surrounding landscape.

At a site near Cockermouth on the A66, we created three ponds with varying exposure to sunlight, and therefore potential for optimum biodiversity. We achieved this through selective thinning of the trees around the ponds to control the amount of sunlight getting through. We cleared trees at all sites to make way for the ponds and felled timber was then left on site to provide rotting habitat for insects and fungi. We piled up brushings to create nesting opportunities for birds, insects and hedgehogs. Some trees were ringbarked and left as standing deadwood to attract woodpeckers.

We used felled timber at the M6 Forton Woodland Improvements to make an artificial otter holt. Calcareous grassland works included inverting the topsoil to encourage new species from the seed bank, and hydroseeding with a lime-treated calcareous seed mix.

Our M6 dormouse habitat creation works involved thinning out non-native trees to give more light for new planting. New planting included native shrub and small tree species (nut and berry producing) to encourage dormouse populations. The addition of honeysuckle, which is preferred nesting material for dormice, and the installation of dormice boxes helped to encourage this species onto the soft estate. We procured wildlife boxes from local suppliers, and planted saplings and plants of local origin.



Oxford Brookes

A Logistics carbon offsetting initiative in partnership with Newtown Vehicle Rentals saw it's first tree planting scheme take place in March 2008.

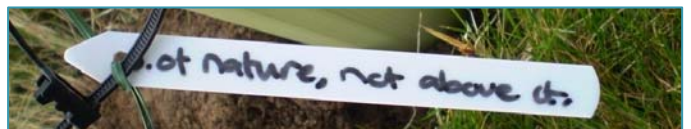
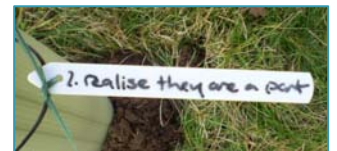
NVR (one of Logistics larger vehicle suppliers) offered to provide a tree to Amey for every vehicle supplied in the month of August 2007. A total of 272 vehicles were supplied providing Amey with 272 trees to plant!

The hunt was then on to find a local tree planting scheme in the Oxfordshire area, which was headed by Karen Thomas (Communications Manager – Logistics). Karen's research led her to Oxford Brookes University, where a course is run for students to help them gain an understanding of their impact on the environment, and provides them with the opportunity to give something back. As tree planting is part of a practical exercise at the end of the module, this provided the ideal opportunity for Logistics to donate the 272 trees for planting.



A site on the Oxford Brookes' Harcourt Hill Campus was chosen for the tree planting, and on March 3rd Karen Thomas and Tracey Roberts, from NVR, joined the students to plant some of the 300 donated trees. The students also attached a message to each tree they planted, some of which proved to be particularly profound and insightful.

NVR have agreed to continue providing a tree for every vehicle they supply and we will be arranging similar planting schemes around our contracts. Please keep an eye out for any schemes that may be of interest or allow Amey to make a difference to the local Community.



Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | **Local Impact**

Local Impact

Our Story

Local impact takes into account any factors surrounding our operations which day in and day out affect the public at an individual scale, by improving the general environment in which they live. From well designed streets, management and maintenance of roads, offices and schools, to improvements in property and street lighting Amey are fully aware of how it effects, protects and can enhance the local environment to have a beneficial consequence on the local community.

Amey understands the environment in which we live, is strongly linked to individual wellbeing. Amey's philosophy is to create safe, clean and functional communities.

Amey aims to create strong links with the communities in which we operate. Ultimately this comes from responding promptly to local demand. Amey highways stewards have excellent knowledge of their local areas and are employed specifically to carry out small scale works and any issues reported to Highways hotlines. This can include issues such as weeding, emergency pothole repairs and cutting back vegetation ensuring due attention is given to the public at a very local, one-to-one level.

However, our highways contracts are prioritised according to public risk and as such many of the smaller, less urgent tasks, which may seem more relevant to individuals can be deferred as a result of emergencies arising.

Street lighting and street lighting design are central to ensuring safe neighbourhoods, reducing crime and fear of crime. Amey's Consulting Division carefully design lighting schemes aligned with local public safety initiatives. However inappropriate lighting can be responsible for light pollution by radiating into residential properties. Efficient technological and design solutions ensure light is sensitively directed and light pollution limited.

Collaboration

Amey is particularly keen to engage with local communities. Amey employees often create partnerships with local schools and volunteer to run sessions in which they help children understand the impact of their operations on the environment and what is done to alleviate them.

When the opportunity arises Amey gets involved in local campaigns particularly in support of the environment. As part of Amey's maintenance duties, we are responsible for clearing away the abundance of litter found throughout our road and rail networks. The continuous litter problem residing on the banks of the motorways and slip roads has prompted individual contracts, within the Local Government division to set up campaigns, in partnership with relevant organisations and informing local and regional media thus bringing it to the public's attention.

In the Built Environment division, where employees are responsible for facilities management, similar awareness campaigns are held in collaboration with the buildings tenants.

Innovation

Amey is keen to decrease noise impact arising from its operations. This is especially true where work is carried out during night hours and/or is close to residential property. Amey continues to look for innovation to support public wellbeing.

Policy and Controls:

All Amey operations are registered to ISO 14001:2004,

Areas of sustainable impact

Materials and Resources | Climate Change | Pollution Prevention | Biodiversity | **Local Impact**

Case Studies

Reducing Crime through Street Lighting

Better street lighting deters crime and surveys show that people's perception is that well lit streets are safer. One of the primary objectives of the Public Lighting PFI is to reduce crime and fear of crime in the borough of Walsall.

April 2002 saw the beginning of Walsall's Public Lighting PFI project – a partnership between Walsall Council and Walsall Public Lighting Ltd (main contractor Amey Infrastructure Services). The award winning project is backed by £18.6m of special Government funding and involves the design, build, operation, maintenance and financing of new, refurbished and existing public lighting and apparatus for Walsall.

Within the first three years of a 25 year contract, 18,211 of the borough's 25,724 street lights were replaced – three months ahead of schedule. The partnership has developed and employed robust strategies for dealing with the many challenges facing us.

The partnership subscribes to a team approach to problem solving, risk management and innovation. Regular team reviews, workshops, audits, technical and progress meetings are conducted to enable the team to re-focus, learn from events, understand and incorporate improvements. Recent improvements include:

- Improved lighting standards – borough relit in accordance with British and European standards.
- Better colour rendering – SOX lanterns replaced with latest technology SON lanterns with better colour rendering and are more energy efficient.
- White light solutions in town centres and alleyways – offers better facial recognition.
- Lighting of unlit alleyways – eliminated shadows to help residents move around more freely.
- CCTV cameras on lighting columns – movable Dome Hawk cameras assisted by better lighting help police make arrests.
- Alcohol banning attachments – working with the Police, alcohol banning posters attached to 100 street lighting columns.
- Amberwatch system – messaging service has been on trial on three sites (another 12 planned) displaying community safety messages in a two line LED matrix format. This is controlled by the Local Authority in partnership with emergency services and 247outdoor Ltd.

This Public Lighting PFI Partnership continues to deliver an excellent public lighting service that secures the maximum benefits to the residents and road users of Walsall in terms of efficiency, road accident reduction, crime deterrence and environmental advantages that can result from the best in street lighting and other public lighting.

Improved public lighting has led to reduction in crime and fear of crime in Walsall. The percentage of residents who feel fairly or very safe after dark has increased from 55% in 2002/03 to 59% in 2006/07, exceeding LAA target of 56.6%.

Blaenau Gwent – Ebbw Valley Railway

12 • THE HUB • Mar / Apr 2008

Regenerating communities in Wales

Amey has helped to regenerate and connect communities in Blaenau Gwent (Wales) for the first time in 40 years, with the opening of the Ebbw Valley Railway in February.

Thanks to Amey and a number of other key partners, local residents can now benefit from an hourly passenger train service from Ebbw Vale Parkway station to Cardiff Central.

Blaenau Gwent Council has worked in partnership with the Welsh Assembly Government, Network Rail, Amey, Arriva Trains Wales and Capita Symonds to re-open the 18-mile former freight line from the Ebbw Vale steelworks and build six new passenger stations.

Drew Ritchie, Head of Rail at Amey, said:

"Amey is proud to be a part of the Ebbw Valley rail regeneration project. The reopening of this line will help encourage use of greener transport, helping to reduce CO2 emissions in Wales. The railway will drive employment and regeneration of local areas and will have really positive effects on the local communities and beyond."



Amey Colas – Relaying of Track

Our colleagues at AmeyColas recently completed relaying of track on time for Network Rail, despite horrendous weather conditions and serious problems with engineering trains.

Although during the Easter break commuters were concerned about long delays similar to those during the Christmas season; due to the hard work and dedication of our AmeyColas colleagues, we proved their concerns unfounded.

Even with 3 1/2 inches of snow settling on site and obscuring the lines marked for new sleepers positioning, all work was completed and possession handed over to Network Rail with 1 minute to spare



Service is our passion. People, our strength