

National Grid's Road to Zero for Road Spoil

National Grid's Vision is for Zero injuries, Zero occupational ill health, Zero environmental and security incidents. National Grid is committed to operating in a way that helps protect the environment for future generations, safeguards each other and those who work with us and protects the safety of the public. Our **Road to Zero programme** will deliver National Grid's vision and achieve world class SHES¹ performance.

National Grid is committed to the protection and enhancement of the environment and in 2005/6 two five year Road to Zero targets were set:

- **Zero recyclable road spoil to landfill where environmentally beneficial**
- **Zero use of virgin aggregate where recycled materials are available for backfill and sub-base.**

In 2004/5 work on the gas mains replacement programme sent 281,151 tonnes of road spoil to landfill. This was 58% of the total spoil excavated. Recognising the challenge we faced, key performance indicators were built in to the four Gas Alliance contracts, which started in April 2005. Term contractors were also encouraged to recycle and use recycled material. A five year strategy was outlined as below, and all ten contracting partners are now taking steps to ensure that waste was diverted to landfill and more recycled material was used.



Figure 1: The waste reduction hierarchy as outlined by the Environment Agency

Strategy for waste minimisation

Firstly, no-dig techniques² can be used to **reduce** the amount of waste produced. **Re-using** excavated waste should be carried out wherever feasible according to the quality of material, and space for storage on site. Where re-use is not possible then waste must be disposed of responsibly and reinstatement materials are imported from quarries. The first option for disposal should be to take it to an aggregate **recycling** centre. Aggregate recycling can involve either screening the material out into different grades of material, or using additives to stabilise the material (e.g. SMR, Trenchmod etc). In conjunction with this we need to liaise with Highways Authorities to get agreement to use recycled material for reinstatement.

Monitoring how much waste is sent to landfill and the use of recycled material is a key part of the strategy for the Road to Zero, and will enable success to be demonstrated.

Why Recycle?

Landfill sites in the UK are rapidly decreasing. In the interests of sustainability National Grid is diverting excavated waste from landfill and also using recycled aggregate in favour of primary aggregate wherever possible. Recycled material is usually cheaper than primary stone because it's not subject to the £2.60/tonne aggregate tax. It also gives the added benefits of the "one stop shop" saving on transport costs from travelling from landfill site to the quarry. This reduced transport movement cuts associated emissions and congestion.

Landfill tax currently stands³ at a rate of £2/tonne for inert spoil (clean spoil with no blacktop) or £21/tonne for non-hazardous spoil (spoil mixed with blacktop). These charges can be avoided by sending excavated waste to recycling centres. With the Waste Acceptance Criteria for landfill sites becoming more strictly enforced, it's in our interest to avoid landfill.

Success so far

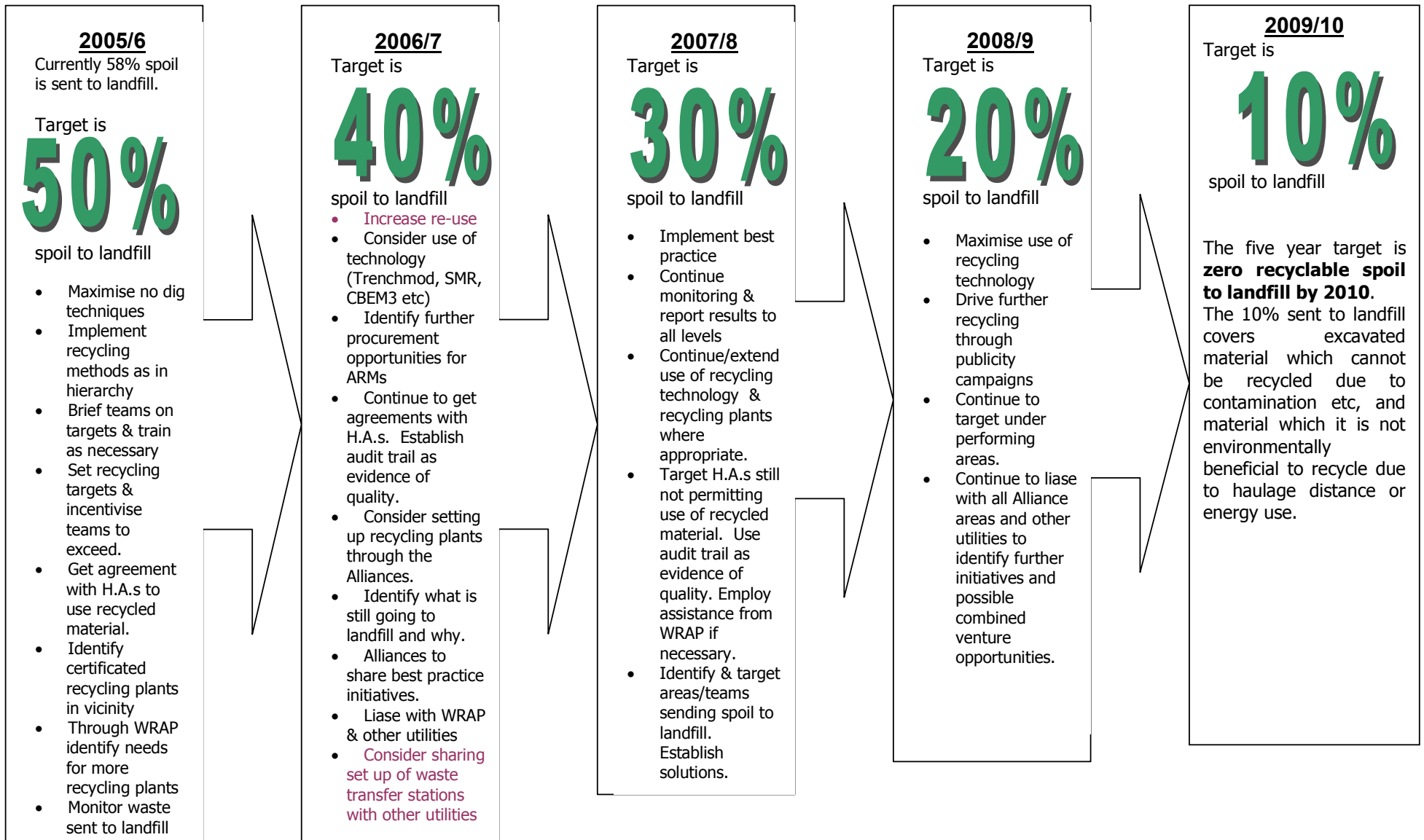
In 2004/5 National Grid sent 58% of its excavated waste produced from gas mains replacement work to landfill. In 2005/6 this was reduced to 42% which well exceeded the target on the road to zero strategy (see below).

¹ Safety Health Environment and Security

² E.g. live or dead insertion, pipe bursting etc

³ Correct for 2006. Tax for non-hazardous waste is set to increase by £3 until it reaches £35/tonne

Five Year Plan: Recycling Excavated Material



Increase use of **NO DIG** techniques