

1 The Green Highway

“The highway of the future will be completely sustainable. Materials recycling, emissions control, renewable energy sources, community engagement and preservation of bio-diversity will be standard practice.”

Long Term Goals

- ▶ More efficient use and disposal of resources, and greater purchasing of green materials through whole product life cycle analysis (e.g. ethical procurement, EMS in construction, ecolabelling for roads, health and safety from construction workers, design codes and standards for replacement / low maintenance highway surfaces, drainage schedules, lighting, structures, visually pleasant roadside, etc).
- ▶ Mitigation of disbenefits and nuisance through use of highway corridor to encourage bio-diversity and sustainability (e.g. solar panel noise barriers, drainage ponds become a natural oasis, etc).
- ▶ Use of measures to reduce severance (e.g. ‘Green bridges’, wildlife tunnels, etc).
- ▶ Promotion and publicity of good practice in order to encourage and expand non-motorised transport (e.g. design awards and competitions to encourage innovation and travel substitution as in P14, etc).
- ▶ Work with road builders, vehicles and vehicle manufacturers to maximise environmental and socio-economic gains (e.g. vehicles which self-generate energy as they travel, community consultation and procurement of local goods and labour to secure local residents’ support and facilitate economic development).

Short Term Actions

- ▶ Use recycling and industrial waste products for maintenance.
- ▶ Audit all maintenance operations for sustainability (policy management systems, and communication and reporting mechanisms).
- ▶ Adopt a minimum waste policy during the lifetime of the network.
- ▶ Carry out research into effective use of waste materials on site, drainage, tunnelling and sustainable building techniques.
- ▶ Enhance the visual impact of the trunk road infrastructure via innovative design including ‘Green bridges’, use of traditional materials, sculpture, etc.
- ▶ Support green driving, defensive driving and green vehicle / fuel purchase initiatives.
- ▶ Build partnerships with a wide range of stakeholders to secure involvement and ownership for network development (e.g. vehicles manufacturers, NGOs customers, local authorities, DEFRA and DTLR, etc).

Case for Network Operator Action

- ▶ The demand for travel and hence road space is rising. Some of the extra demand can be met by other means, but new road capacity especially on the core trunk road network is inevitable. Yet providing new road space will meet well-organised political, NGO and community opposition.
- ▶ In addition, national, European and international legislation will require higher environment standards or risk legal challenges.
- ▶ New proposals may fail to 'pass' appraisal frameworks or targets.
- ▶ Reconciling these potential conflicts will depend on HA developing new sustainable approaches to stakeholder engagement, road building (design, construction and operation) and the improvement of environmental standards for existing roads.
- ▶ The HA's existing strategy on the environment is emerging but is not currently fully integrated with all activities.

Supporting Information

- ▶ Traffic volumes are forecast to increase 60% by 2031 (1996 base).
- ▶ 24% of carbon dioxide (CO₂) emissions contributing to global warming are transport related.
- ▶ Greater and more frequent climatic changes adversely affect more people and wider areas (e.g. flooding and higher premiums on property insurance, etc).
- ▶ Increased community and wildlife severance through continued development resulting in a threat to natural habitats and diminishing health and quality of life.
- ▶ International emissions targets aim for stabilisation, modest growth or a reduction in greenhouse gas emissions. The UK has agreed to reduce its emissions by 12.5% by 2008-12 (1990) base; this is a legally binding target under the 1997 Kyoto Protocol.
- ▶ UK Human Rights Act 2000 allows local residents and community groups to mount legal challenges to planning consent for developments / operations on the basis that any greater good does not always outweigh individual rights' (e.g. noise and pollution from night flights at Heathrow Airport).
- ▶ Increased scrutiny on public sector activity in terms of 'practising what one preaches' such as Greening Government initiative launched by the Prime Minister at UN General Assembly in 1997. This obliges government departments and agencies to develop and implement sustainability policies and procedures (e.g. construction of buildings, and ethical procurement, etc).