recycled roads
overview
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Recycling and the efficient use of materials are increasingly important in the delivery of local authority services. Specifying requirements for the use of recycled content in a roads or highways contract helps to meet corporate objectives such as sustainability, procurement good practice, Best Value and recycling of waste.

Market research in 2005 has shown that, while around half of local authorities allow and use recycled materials in highways projects, only some 10% set requirements that actively encourage contractors to maximise use and seek the associated cost savings. Clearly there is potential for many authorities to encourage and drive change through the procurement process.

This guide presents a model approach to procurement that will ensure that recycling and reuse of road materials is embedded in all highways contracts and schemes. It is aimed at senior officers, highways budget-holders, procurement officers and highways engineers – plus their consultants and contractors. The guidance covers the procurement process, key approaches for specifying recycled content, and in-depth case studies.
Key intervention points and actions are:

- Set top-down objectives for higher recycled content, based on your authority’s core objectives for sustainability and waste management.
- Make choices within your form of contract to provide a positive context for introducing higher recycled content – particularly by developing partnering arrangements.
- When inviting tenders, specify objectives and quantitative requirements for recycled content.
- When evaluating tenders, give credit for those that offer higher recycled content and associated benefits.
- Set key performance indicators and targets for improvement, and allocate risks and rewards accordingly.
- During contract extension, introduce requirements and indicators that create incentives to use recycled content.

This guide draws widely on the practical experience of practitioners from local authorities and their contractors. Good practice is eminently achievable, but it clearly flourishes where individuals have both the enthusiasm and the mandate to make it work.

Note: The scope of this report includes all recycled products and techniques for highways maintenance. At various places in the text, some references have been abbreviated to ‘recycled aggregate’, but will also cover the use of ‘secondary aggregate’.
endorsements

The following organisations endorse this guidance and the messages contained within it:

- County Surveyors Society (CSS)
- Institute of Highways and Transportation (IHT)
- Local Government Association (LGA)
- Public Private Partnerships Programme (4ps)
- Constructing Excellence – Local Government Task Force (LGTF)
- Institute of Highway Incorporated Engineers (IHIE)
- Institute of Civil Engineers (ICE)
- Society of Chief Officers of Transportation in Scotland (SCOTS)
- Welsh Local Government Association (WLGA)
- The Association for Public Service Excellence (APSE)
business case for using recycled materials

- It is now well established that there are clear financial benefits to be gained from using recycled products and recycling techniques in highways maintenance, as well as the environmental and social contributions to sustainable development.
- By specifying requirements for the use of recycled content in a highways contract you help to meet your authority's policy targets – such as sustainability, procurement good practice, Best Value and waste management – in compliance with national strategies and Government requirements.
- A wide range of recycled products are available, whose quality and performance are fully comparable with those of their virgin equivalents.

Economic case

Across the UK, local authorities spend roughly £3 billion each year on highways construction and maintenance. Therefore the overall financial benefit from good procurement practice will be substantial.

The use of recycled materials for highways maintenance is often cost neutral at least, and in many cases can deliver good financial returns. Specific cost savings include:

- The avoidance of waste disposal charges and Landfill Tax, for example through the re-use of highways maintenance arisings
- The lower costs of maintenance techniques such as ‘crack and seat’, cold-lay foamed bitumen asphalt mix and reprocessing with hydraulic road binders
- The reduced costs of transporting aggregates if recovered materials are available locally.

Here are some typical examples of cost savings:

- The Newport Southern Distributor Road Scheme saved £1 million by using around 450,000 tonnes of recycled and secondary aggregates instead of purchasing primary materials.
- In-situ recycling techniques employed for Essex County Council gave direct cost savings of nearly £200,000.
- Barnsley Metropolitan Council has saved £13,500 by composting 450 tonnes of green waste each year to use on highway schemes, and a further £60,000 in transport and landfill costs by recycling 95% of ‘waste’ highways materials.
The use of recycled products can shorten the time needed for maintenance work, and can reduce lorry journeys, thereby cutting costs. The consequent easing in traffic congestion will also help the local economy. Examples of time savings include the following:

- In-situ recycling can reduce the duration of traffic disruption by around 50%.
- Foamed concrete can allow faster trench filling with fewer people.

### Environmental benefits

The use of recycled materials and products for highways maintenance can deliver clear environmental advantages by substituting for virgin materials, decreasing energy consumption, and diverting waste from landfill sites. Some of the most successful local authorities have ‘closed the loop’ by utilising waste materials produced locally.

For example, the use of recycled materials on the Burntwood Bypass in Staffordshire saved nearly 200,000 miles of lorry movements, equivalent to 128,000 litres of fuel – and the financial saving on the project was £60,000. Similarly, some local authorities are producing compost from biodegradable materials – helping to minimise the production of methane gas from landfill (a potent contributor to global warming).

A road is essentially a ‘linear quarry’. All materials that are planed off, broken out or excavated are potentially available for recycling. In-situ recycling avoids the cost and environmental damage of transporting materials, and overcomes problems with site access in congested city centres and remote rural areas.

### Social benefits

Recycling locally delivers social benefits such as local jobs. Other community benefits typically include:

- A reduction in road haulage activities – recycling 5,000 tonnes of asphalt on site will avoid some 250 lorry movements on local roads. This will reduce congestion, increase road safety and cut air pollution.
- A reduction in noise – for example by using certain techniques, such as infrared heating, contractors can avoid extensive use of pneumatic drills.
- A reduction in risk to health and safety – for example, the use of some in-situ recycling processes reduces workers’ exposure to Hand Arm Vibration Syndrome, which is a concern of the Health and Safety Executive.
Alignment with national and regional policy objectives

The use of procurement practice to encourage the use of recovered materials in highways maintenance can satisfy a number of policy drivers. For example:

- The National Procurement Strategy for Local Government in England sets the target that, by 2004, all local authorities should build sustainability into their procurement strategies, and should use their buying power to stimulate innovation, including creating markets for recycled materials.
- The National Waste Strategy for Scotland 2003 sets the following objectives: reduce the use of virgin materials, and increase the use of recycled and secondary aggregates; promote by example the benefits of purchasing recycled products.
- The Welsh Assembly Minerals Technical Advice Note for Aggregates sets the objective of increasing aggregate production from recycled and secondary sources in Wales to achieve 25% replacement of primary aggregate within five years.
- The Efficiency Review in England and the Efficient Government agenda in Scotland set requirements for local authorities to deliver cashable savings.

You can specify recycled with confidence

Almost every highways maintenance application can utilise recycled and secondary materials. These include aggregates for the various layers of road pavement structure, fill material, street furniture, road signs, pipework, block paving, drainage media, and landscaping materials such as compost.

Inevitably there are concerns about the suitability and performance of alternative products and materials for highways maintenance activities, particularly in relation to ‘fitness for purpose’ and the risk of failure. Obviously these issues should be examined case by case, but verifying performance criteria should not be seen as a barrier to the use of recycled products. Some materials even offer better performance than the traditional options.

The Quality Protocol for the production of aggregates from inert waste, published by WRAP, has established a quality management scheme for aggregate processing to defined standards. This provides purchasers and users with assurance that recovered aggregate products conform to the standards that are common to both recovered and primary aggregates, increasing confidence in performance.
New European Standards for aggregates and hydraulic road binders replaced the previous British Standards from June 2004. They are performance-based specifications, which allow recycled and secondary aggregates to be used in a wider range of applications. Where current standards for products or applications do not accommodate recycled products, many local authorities are using either third-party quality assurance schemes or internal technical appraisal procedures to manage risk. The EU Public Procurement Directive requires public sector procurement specifications to use European standards, such as those in the Construction Products Directive (CPD). This means that recycled products and materials complying with the CPD must be considered equal to products based on primary materials.

The OGC–Defra Joint Note on Environmental Issues in Purchasing (2003) sets out the scope for considering environmental objectives at each stage of the procurement process, from identifying need through to contract management. It identifies contract specification as the key stage at which to set environmental requirements, such as a minimum level of recycled content in highways maintenance. The European Commission has confirmed this point:

European Commission Handbook on Environmental Public Procurement (2004): ‘As a contracting authority, you have the right……to demand a minimum percentage of recycled or reused content where possible.’ (Section 3.4.1)
who needs to take action?

Decision-makers throughout the authority can make a real difference in reducing waste and maximising recycling. Use this section to identify key actions and the most relevant guidance.

Chief Executive: Head of environment/procurement

Senior managers should mandate action on sustainability in each service area, including highways maintenance and construction.

Key actions:

<table>
<thead>
<tr>
<th>Has your organisation</th>
<th>Yes</th>
<th>No</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured a mandate or organisational policy from the elected members and senior council officers relating to the use of recycled content?</td>
<td></td>
<td></td>
<td>Guidance note 1</td>
</tr>
<tr>
<td>Set corporate objectives to minimise waste creation and maximise the recycling of waste?</td>
<td></td>
<td></td>
<td>Guidance note 1</td>
</tr>
<tr>
<td>Set objectives and targets for the highways department to use procurement to deliver Council policy on waste and recycling?</td>
<td></td>
<td></td>
<td>Guidance note 1</td>
</tr>
<tr>
<td>Reviewed and changed procurement policy to facilitate the use of recycled content, e.g. by enabling partnering with contractors?</td>
<td></td>
<td></td>
<td>Guidance note 3</td>
</tr>
</tbody>
</table>
Head of highways

The head of department has the key responsibility to apply authority objectives to the procurement of highway works and enable the ideas and enthusiasm of the highway engineers to be implemented and recognised.

Key actions:

<table>
<thead>
<tr>
<th>Does your department….</th>
<th>Yes</th>
<th>No</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a procurement policy and objectives for the use of recycled content in highway works – and make this clear in tender documents?</td>
<td></td>
<td></td>
<td>Guidance note 1</td>
</tr>
<tr>
<td>Use prequalification to encourage tenderers to define how they will help to deliver corporate objectives on sustainability?</td>
<td></td>
<td></td>
<td>Guidance note 4</td>
</tr>
<tr>
<td>Set requirements and incentives for the use of recycled materials in your tender invitation and specification? <strong>THIS IS A KEY ACTION.</strong></td>
<td></td>
<td></td>
<td>Guidance note 5</td>
</tr>
<tr>
<td>Use tender evaluation to give credit for greater recycling and the associated benefits?</td>
<td></td>
<td></td>
<td>Guidance note 5</td>
</tr>
<tr>
<td>Set targets and key performance indicators for the reduction of waste and the use of recycled content as part of any highway works?</td>
<td></td>
<td></td>
<td>Guidance note 2</td>
</tr>
<tr>
<td>Have a highways sustainability/recycling champion?</td>
<td></td>
<td></td>
<td>Case study 5</td>
</tr>
<tr>
<td>Have a process through which term contract specifications are periodically reviewed to permit adoption of developing best practice?</td>
<td></td>
<td></td>
<td>Guidance note 7</td>
</tr>
</tbody>
</table>
Contract/asset manager and highway sustainability champion (engineer)

The recycling champion is often a highways engineer who has tested and experimented with various recycling processes and products. This knowledge can be a powerful tool in optimising resource use and demonstrating best value.

Key actions:

<table>
<thead>
<tr>
<th>Does your team….</th>
<th>Yes</th>
<th>No</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run innovation and improvement groups with contractors and suppliers?</td>
<td></td>
<td></td>
<td>Case study 2</td>
</tr>
<tr>
<td>Reward good environmental performance by contractors with contract extension?</td>
<td></td>
<td></td>
<td>Guidance note 7</td>
</tr>
<tr>
<td>Work in a way that identifies and shares risk and reward while allowing for innovation?</td>
<td></td>
<td></td>
<td>Guidance note 8</td>
</tr>
<tr>
<td>Maintain a good working knowledge of the locally available materials that can be used, including the authority’s own assets?</td>
<td></td>
<td></td>
<td>Guidance note 9</td>
</tr>
</tbody>
</table>
Use this Table to identify the sections of this guide most relevant to your role in procurement decisions:

<table>
<thead>
<tr>
<th>Guidance Note</th>
<th>Guidance notes by relevance to key decision-makers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Local authority strategic objectives</td>
<td>✔✔✔</td>
</tr>
</tbody>
</table>
the model approach

This guide presents a model approach to procuring greater recycled content in highways. This involves adopting best practice at key decision-making points in the procurement process. The actions that need to be taken are detailed in the nine Guidance notes accompanying this Overview.

There are three phases in the procurement process where local authorities can encourage the increased use of recycled materials. These phases are shown in Figure 1.

**Figure 1: Local authority highways procurement framework**

- **Phase 1**: Local authority strategic objectives and highways procurement policy
  - Waste minimisation
  - Maximise recycling
  - Targets for highways

- **Guidance notes**
  - 1: Local authority strategic objectives
  - 2: Key performance indicators
  - 3: Procurement routes

- **Phase 2**: Local authority highways bidding process
  - Procurement for recycling
  - Tender specification requirements
  - Evaluating tenders for recycling
  - Contracts for recycling

- **Guidance notes**
  - 4: Prequalification
  - 5: Tender design and evaluation
  - 6: Forms of contract

- **Phase 3**: Local authority highways construction
  - Availability of recycled materials
  - Innovation and risk
  - Supply chain partnering

- **Guidance notes**
  - 7: Contract management
  - 8: Risk and reward
  - 9: Supply chain management
Phase 1. Local authority strategic objectives and highways procurement policy

In order to encourage the increased use of recycled materials in highways, the first and most essential strategy is for the authority to provide a top-down mandate for action and make clear how this contributes to corporate policy objectives. It should also publicise its strategic environmental and procurement policies so that contractors receive a clear signal regarding priorities.

1. Local authority strategic objectives

Key actions by elected members, senior executives and heads of department:

- Create a strategic/corporate objective to reduce waste and maximise recycling OR identify an existing objective that provides a mandate for action. Suggested wording: To minimise waste creation and maximise the recycling of waste.
- Set highways department targets and objectives that are clearly linked to this corporate objective, and identify procurement practice as the driver for change. Suggested wording: To set procurement requirements and incentives that ensure highways works minimise waste creation and maximise recycling.
- State the corporate/strategic objectives in tender documents, and instruct all tenderers to carry out the contract in accordance with these objectives. Suggested wording: From the strategic aims and objectives of the Council, a number of key objectives have been determined for the highways service. These include: ... All highway works should minimise waste creation and maximise recycling. Therefore the Contractor will be required to ensure that any waste materials arising from their works are wherever possible reused or recycled, so that the minimum of waste materials are sent to landfill, and to consider incorporation of recycled materials/products into highway works as a first option.
- Use corresponding targets and key performance indicators for contract management, and evaluate the results for alignment with the strategic objectives.

Links to:
Guidance note 2: Key performance indicators
Guidance note 3: Procurement routes
Guidance note 5: Tender design and evaluation
Central to encouraging the greater use of recycled materials is measuring and sharing success through the use of key performance indicators (KPIs). These are more usually used for internal management – for example, showing how the use of recycled material is improving year on year, and identifying areas for improvement – but they can also be used to compare performance with that of other authorities.

2. Key performance indicators

Key actions by head of highways, highways sustainability champion and contract manager:

- Establish a clear mapping between the authority’s strategic objectives and KPIs for highway works.
- Set annual targets for reducing waste to landfill and increasing the use of recycled and reclaimed materials in highway works: that is, benchmark overall percentages in these two categories in the first year, and set targets for improvement over a 5 to 10 year period.
- Agree and set specific KPIs and improvement levels for contracts aligned to these targets.

Suggested format:

- **Baseline year:** Construction waste to landfill = $x$ tonnes; Value of incorporated recyclates as a percentage of total scheme/contract value = $y\%$
- **Year 2:** Construction waste to landfill = $x - 5\%$ tonnes; Value of incorporated recyclates as a percentage of total scheme/contract = $y\% + 7\%$
- **Year 3:** Construction waste to landfill = $x - 10\%$ tonnes; Value of incorporated recyclates as a percentage of total scheme/contract = $y\% + 15\%$
- **Year 4:** Construction waste to landfill = $x - 20\%$ tonnes; Value of incorporated recyclates as a percentage of total scheme/contract = $y\% + 23\%$

For example: Essex County Council set targets for recycling, as a % of all materials used, increasing from 5% to 50% over seven years.

- Agree and set a monitoring methodology to determine performance.
- Provide incentives for meeting and exceeding the contract or scheme targets.
  Suggested level: 0.5% of the tender value as a bonus.
- Feed back the improved performance results to relevant parties.
- Use the KPIs as evidence of alignment with local authority strategic objectives (e.g. when facing scrutiny and audit review).

**Links to:**

*Guidance note 1: Local authority strategic objectives*
*Guidance note 7: Contract management*
*Guidance note 8: Risk and reward*
The procurement strategy for highways should provide positive conditions for delivering the authority’s strategic objectives – including innovation and sustainability. In particular, to encourage contractors and suppliers to invest in plant and suitably trained staff, longer-term framework or term contract routes are needed, preferably with a partnering arrangement.

3. Procurement routes

Key actions by procurement officers and head of highways:

- Select procurement routes that include long-term relationships and continuous improvement targets, as these will facilitate the increased use of recycled materials.

- As part of procurement good practice:
  - Ensure that corporate objectives to increase the use of recycled materials are incorporated into buying decisions.
  - Ensure that adequate internal expertise and knowledge of procurement routes are deployed.
  - Ensure that relevant management information on the implementation of procurement is collected across the organisation, including with regard to the actual use of recycled materials.
  - Establish training levels for staff on how to encourage the use of recycled materials, and how to manage the procurement process.
  - Provide corporate oversight and a mandate for the increased use of recycled materials in highways.

- Use the choice of procurement route to send a clear signal about how the local authority wants to operate, and how seriously it wants to deliver its priorities.
- Consider early involvement of the supply chain in order to improve predictability, time and quality, reduce whole-life costs, and increase the opportunities for innovation – such as increasing the use of recycled materials.

Links to:
- Guidance note 4: Prequalification
- Guidance note 5: Tender design and evaluation
Phase 2. Local authority highways bidding process

Before issuing full tender documentation, it is cost-efficient to identify those potential contractors that will support the authority’s objectives and help to develop them further. This is achieved through a prequalification exercise in which prospective tenderers are asked to demonstrate credentials that are not readily quantifiable. Those best able to do this are subsequently asked to submit formal tenders.

4. Prequalification

Key actions by head of highways:

- Invite prequalification tenders to evaluate tenderers’ capability to support corporate environmental objectives.

**Suggested wording:**

(Insert LA name) requires tenderers to demonstrate how they would support them in minimising waste creation and maximising recycling.

- Ensure that environmental objectives, including the requirement to use recycled materials, have an adequate weighting (when scoring responses) to be seen by tenderers as a worthwhile “swing” factor. Ensure that the evaluation scoring process is communicated to the tenderers.

**Suggested format:**

*Quality Submission Questions (model wording)*

Tenders will be evaluated against quality of service and cost in the ratio of 60% quality (600 points) and 40% cost (400 points).
**Issue 1 Sustainability Score 150/600**

What is your company’s approach to sustainability?

The Council is focusing particularly on the following areas:

<table>
<thead>
<tr>
<th>Sustainability issue</th>
<th>Max score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing the use of recycled materials</td>
<td>30</td>
</tr>
<tr>
<td>Other sustainability criteria.............</td>
<td>120</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

**Issue 2 Innovation Score 50/600**

What is your company’s approach to innovation?

The Council is focusing particularly on the following areas:

<table>
<thead>
<tr>
<th>Innovation issue</th>
<th>Max score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing whole-life costs</td>
<td>20</td>
</tr>
<tr>
<td>Reducing disruption on the network</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

(Additional issues as required to make up a grand total score of 600 for quality.)

**Links to:**

*Guidance note 3: Procurement routes*
Tender documentation needs to incorporate the authority’s objectives for increasing the use of recycled materials, and set requirements and incentives that will motivate tenders to meet those objectives. This can be best accomplished using outcome-based specifications that avoid prescriptive detail and hence encourage tenderers to be innovative in their responses. Outcome requirements also give tenderers the flexibility to identify and offer the most economic solutions.

5. Tender specification and evaluation

Key actions by highways sustainability champion and procurement officer:

- Set outcome-based requirements for highways waste and recycling in the tender specification.
  (This is the most powerful intervention point in the procurement process.)

These requirements may include:

- Quantitative minimum requirements and improvement targets for highways waste to landfill (or recycling) and/or the use of recycled materials. *(Suggested formulation: see the KPIs defined previously.)*
- A requirement to agree targets for such parameters and demonstrate their achievement. *(Suggested formulation: see below.)* This option may be appropriate where a local authority lacks the operational experience of recycling to set quantitative targets upfront.
- Minimum requirements for specific elements of work (such as percentage recycled content in sub-base). Setting such levels – as done by the London Borough of Merton (see case study 1), for example – requires knowledge of local conditions and availability of materials.

- Where the authority proposes to agree targets with the contractor within a partnering framework once the contract has been established, the following wording could be used to define the process:

  The Client and the Contractor will set up a forum, which meets at least quarterly throughout the Contract Term, that will develop material use, agree specifications and record/compare sustainability data. All parties will be expected to promote new or innovative materials/processes from construction or other waste streams in order to minimise tipping, make the most economically advantageous use of material and minimise vehicle movements. The Contractor will be required to provide baseline data, agree targets and demonstrate an improvement in the use of recycled materials/products year on year throughout the contract period. *(Based on: Surrey County Council.)*
• At the tender evaluation stage, award credit to those tenders that most effectively contribute to the authority’s requirements and objectives, including those on waste minimisation and recycling. Make clear to tenderers the way that tenders are to be evaluated.

Suggested format:
(Insert LA name) requires that tender submissions reflect its objectives for highways as well as specific requirements stated in the tender specification. Tender assessments involve a quality/cost approach:
• Each tender is evaluated against highways objectives linked to the Council’s policies, to quantify the quality score.
• Competing tenders are then assessed in terms of overall quality/price balance (with a 40% weighting applied to price, 60% to quality) – looking for the best trade-off.
• Quality factors include the recycled content and other benefits resulting from chosen recycling processes – such as reduced time to complete the work, fewer lorry journeys and less pressure on landfill. Recycling counts for at least 10% of the quality score.
  (Based on: London Borough of Merton.)

• Use tender documentation to make it clear that, when the authority is considering new projects or extending a framework contract, it will require the contractor to present clear evidence of increased use of recycled materials.

Suggested wording:
The authority has an objective of increasing the use of recycled materials in highways maintenance. The contractor will be required to demonstrate a commitment to supporting this objective and provide an auditable record of the amount of recycled material used on each contract and the amount of arisings that have not been incorporated into the works and their subsequent destination. A selection criterion when selecting a contractor for the award of further contracts will be the consideration of the quality of record-keeping and a clear indication of a steady improvement in the amount of recycled material incorporated into each new project.

• Award tenders on the most economically advantageous basis, which includes quality as well as price.

Suggested format:
Various criteria may be considered in identifying the most economically advantageous tender including: Price; Time allowed for completion; Running or whole-life (maintenance) costs; Technical merit; Sustainability – including approach to the use of recycled materials.

Links to:
Guidance note 3: Procurement routes
Guidance note 7: Contract management
A related step in the procurement process is to decide the form of contract. The forms of contract commonly used by local authorities (GC/Works, JCT, NEC Family, ICE, ICT, PPC 2000) are all relatively neutral in the way they accommodate measures to encourage greater use of recycled materials. Partnering as a culture is to be encouraged even if it is not formally part of the contract.

6. Forms of contract

Key actions by highways sustainability champion and contract manager:

• Forms of contract are relatively neutral with respect to increasing the use of recycled materials. However, those contracts that are better able to involve the client, have higher levels of design management, a capacity for incorporating change and managing risk, and clear lines of responsibility for resolving remedials, are more likely to suit this aim – as will contracts that promote a non-adversarial approach to contract management and provide transparent quantity and cost information.

• Partnering agreements can be entered into after the formal contract is awarded. In this case, it is only the formal contract that is subject to the normal competitive process.

For example:
When Gloucestershire County Council was considering its option to extend a long-term maintenance contract, based on ICE, it introduced a partnering arrangement to take advantage of the contractor’s original offer to use recycled materials, building on the relationship that had been developed over a number of years.

Links to:
Guidance note 2: Key performance indicators
Guidance note 7: Contract management
Guidance note 8: Risk and reward
Phase 3. Local authority highways construction

To improve forward planning of the workload and maximise the use of recycled material, detailed knowledge is needed of the make-up of the road to be worked on and alternative sources of recycled materials. Records of the actual consumption of material are also needed to provide information for measuring performance improvements – KPIs – and payments. Some highways departments are already undertaking such audits, and use the information when assessing rewards or bonuses, and occasionally penalties.

7. Contract management

Key actions by highways sustainability champion, contractors and contract managers:

• Identify the availability of recycled materials, and plan ahead to optimise their use.
• Encourage contractors to pool material suitable for recycling (along with any material currently stored by the authority).

Put in place a system for contractors to be able to record:

• Where recycled material is being sourced
• What is being used in highways
• What is being stockpiled
• What is going to uses other than highways construction.

• Acknowledge good performance in recycling and record-keeping by the contractor when considering further projects and framework contract extension.

For example:
The Gloucestershire Highways Partnership set themselves a number of outcome-based targets to achieve. Only materials won from and built back into highway works carried out by the Partnership would count towards these targets. The targets were as follows:

2003/2004:  15,000 tonnes
2004/2005:  20,000 tonnes
2005/2006:  25,000 tonnes

At the start of each year, a predicted profile for the target would be prepared. Subsequently, the Partnership Management Delivery Team would review actual data collected monthly.

• When the authority is considering further contract work and/or extending a contract, it should review evidence from the contractor of increased use of recycled materials in support of Council objectives. (See wording suggested previously for Tender specification.)
The authority must recognise, as part of its strategic procurement policy, the potential need to carry some risk in order to achieve its corporate objectives. In collaboration with its contractor, it should identify all major risks and agree a strategy for avoidance or management by the appropriate party or parties. This includes risks associated with changes in materials and processes used, especially where some innovation is desired. Knowledge of the availability of recycled material – where it is and when it is needed – is part of risk management; it reduces the risk of having to issue late change orders with possible associated costs.

8. Risk and reward

Key actions by highways sustainability champion, contractors and contract managers:

- Agree a process to identify, mitigate and share risk while allowing for innovation. This will also define and implement response strategies.
- Avoid conflicts of interest. The process must be transparent and fair.
- Ensure that recycled products/materials are fit for purpose. Use quality protocols, testing and/or third-party certification.
- Identify where risk ownership lies for major risks.
- Apply incentives for meeting and exceeding contract or scheme targets (as defined when setting KPIs). Agree sharing of pain and gain.
Well-established supply chain management, cultivating a commitment from the contractors’ framework suppliers to the authority’s objectives, will encourage ideas and innovation and could well spread the risk more evenly – and also the rewards.

9. Supply chain management

Key actions by highways sustainability champion, contractors and contract managers:

- Acquire detailed knowledge of the recycled products and processes that the supply chain within your locality can offer.
- Set recycled content targets and KPIs within your contractual requirements that reflect the ability of the supply chain to deliver (see Guidance note 2 – Key performance indicators).
- Engage in long-term partnerships/alliances with the supply chain, and/or encourage the contractor to adopt ‘partnering’ relationships with its suppliers, allowing them to invest in equipment and processes to enable higher recycled content.

For example:

Norfolk County Council has formed strategic alliances with two key suppliers of recycled materials. Lafarge has been commissioned to deliver an annual programme of recycling – increasing the use of in-situ cold recycling, retread and foamed bitumen. A partnership with Tarmac has resulted in the development of NORMIX, a recipe Hot Rolled Asphalt (HRA) with a recycled content of 30% used as standard practice.

- Utilise the supply chain’s knowledge of recycling when designing tenders and specifications for projects: involve contractors early on.

Links to:

Guidance note 2: *Key performance indicators*
Guidance note 7: *Contract management*
Guidance note 8: *Risk and reward*
Case studies from local authorities

There is no need to reinvent the wheel. Many authorities are already using higher recycled content in highways (although far fewer are driving this through the procurement process), and the experience of leading authorities has helped in producing this guidance document. It is important to find out how other authorities have achieved best practice, and to see whether those practices are transferable.

**Learn from others and apply best practice:** key actions by all
- Find out about the experiences of other authorities.
- Join or set up pan-authority best practice clubs, including input from contractors where appropriate.
- Communicate your own experiences to your peer group.

**Links to:**

*All guidance notes*

In support of this recommendation, detailed case study notes are provided on the experiences of:

- London Borough of Merton
- Durham County Council
- Gloucestershire County Council
- Northamptonshire County Council
- Essex County Council