

OXFORDSHIRE MINERALS AND WASTE PLAN

MINERALS AND WASTE CORE STRATEGY

PROPOSED SUBMISSION DOCUMENT

May 2012



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1. INTRODUCTION

Introduction

- 1.1 The County Council is responsible for minerals and waste planning in Oxfordshire and has reviewed the planning policies covering mineral working and waste management. The new Oxfordshire Minerals and Waste Plan will comprise the following documents: the Minerals and Waste Core Strategy; a minerals and waste site allocations document(s), which will be prepared separately or as a combined document; and the Statement of Community Involvement, which the Council adopted in 2006.
- 1.2 The Minerals and Waste Core Strategy provides the planning strategies and policies for minerals development and provision of waste management facilities in Oxfordshire up to 2030. It sets out policies to guide minerals and waste development over the plan period and common core policies which address development management issues relevant to both minerals and waste.
- 1.3 This is the Council's Minerals and Waste Core Strategy Proposed Submission Document, which is to be submitted to the Government for independent examination. The Council believes that the document as published is sound and provides the most appropriate strategies and policies to meet the minerals and waste development needs of the County.

Representations on the proposed submission document

- 1.4 Before submitting this Core Strategy to the Government for examination, the Council will publish it to allow for representations to be made. The period for making representations will be at least 6 weeks from publication.
- 1.5 The period and procedure for making representations will be set out in a statement of the representations procedure which will be published alongside the Core Strategy.
- 1.6 A form will be provided for making representations, which respondents will be encouraged to use in order that all necessary information is provided. This will ask for details of the section of the document to which the representation relates, and how the representation relates to tests of soundness and legal compliance. Guidance on these tests will be provided.
- 1.7 The Minerals and Waste Core Strategy Proposed Submission Document and all related and supporting documents, including the Sustainability Appraisal report will be published on the County Council website at:
<http://www.oxfordshire.gov.uk/cms/public-site/minerals-and-waste-policy>
- 1.8 The Core Strategy and information on how to make representations will also be placed in Oxfordshire libraries and District Council offices, and the County Council offices at County Hall and Speedwell House in Oxford.

What happens next?

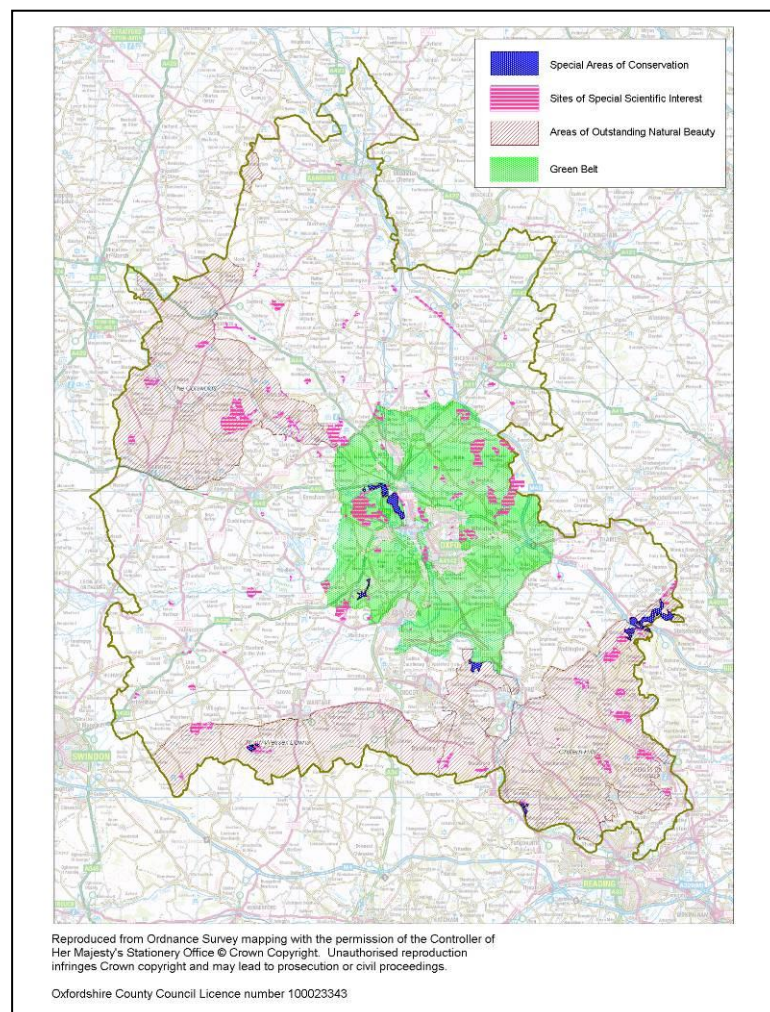
- 1.9 The Council will review the representations received to ensure that the tests of soundness and legal compliance have been met. Subject to no further changes being required, the Minerals and Waste Core Strategy Proposed Submission Document and the representations received on it will be submitted to the Government. A Government appointed Inspector will carry out an independent examination of the Core Strategy, which is expected to take place later in 2012. The County Council hopes to adopt the Core Strategy in 2013.

2. BACKGROUND

The Oxfordshire area

- 2.1 The plan needs to make provision for waste management facilities to meet the needs of the current population and businesses of Oxfordshire and the planned growth and development that is likely to take place over the next 20 years. It also needs to make provision for mineral working and supply to meet the needs for this planned growth and development and to maintain the existing built fabric of the County.
- 2.2 Oxfordshire is renowned for its knowledge-based economy and research and development facilities. It is also the most rural county in the South East and almost a quarter of the land area is within an Area of Outstanding Natural Beauty. It has seven Special Areas of Conservation which are protected by European legislation, numerous Sites of Special Scientific Interest and important geological sites. It also has a rich variety of landscapes, numerous historic buildings, extensive archaeological assets and areas of high grade agricultural land, particularly where there is sand and gravel along the River Thames and its tributaries. An area around Oxford is Green Belt. Figure 1 shows the main protected areas in the county.

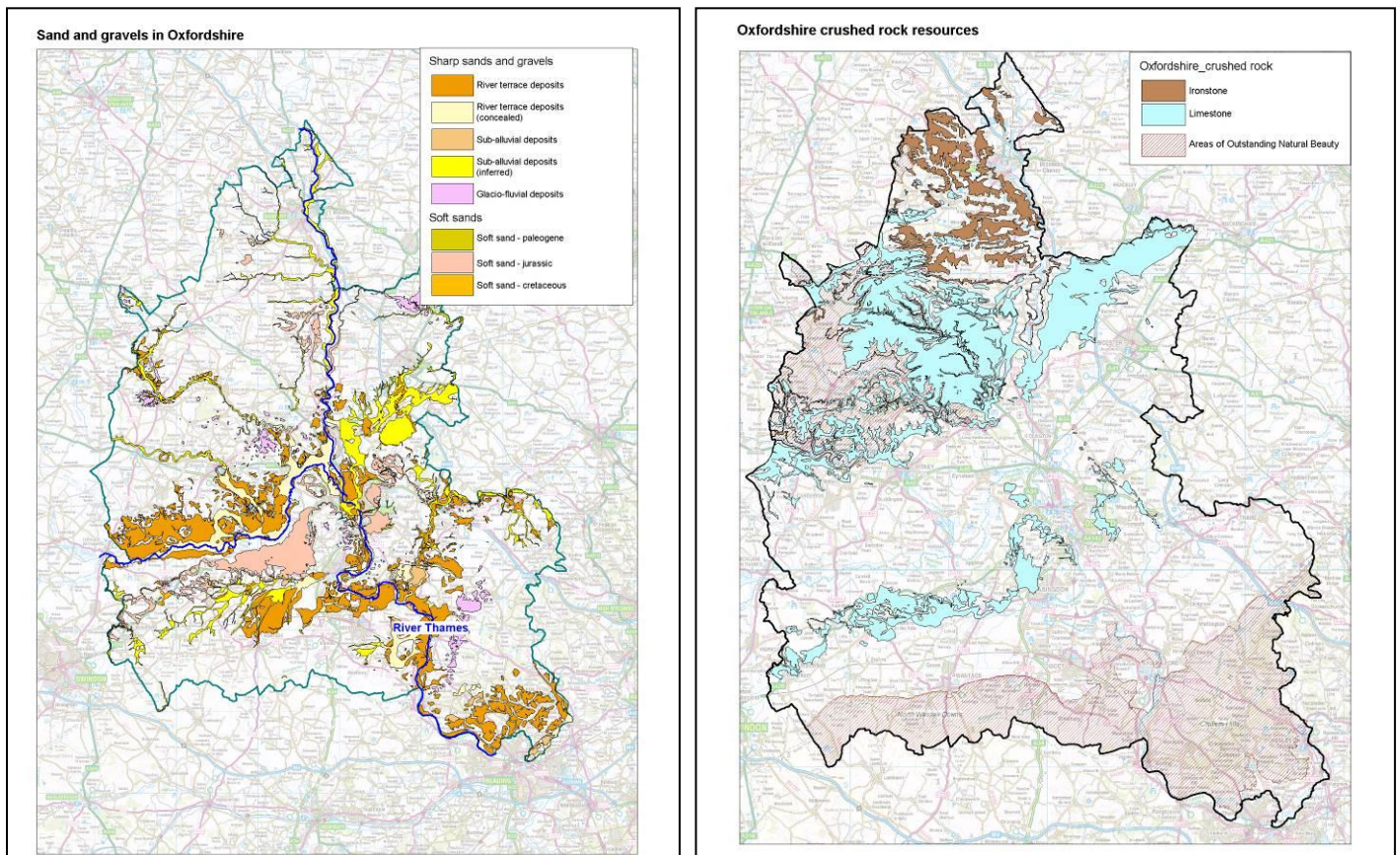
Figure 1: Special Areas of Conservation, Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty and Green Belt in Oxfordshire



Minerals in Oxfordshire

2.3 Sand and gravel is the most common mineral resource in Oxfordshire and this is typically found in river valley deposits, particularly along the River Thames and its tributaries the Windrush, Evenlode and Thame. Its primary use is to make concrete. Soft sand occurs mainly in the south west of the county; it is used in mortar and asphalt. Limestone and ironstone are found mainly in the north and west of the county; they are used primarily as crushed rock aggregate but also for building and walling stone. The resources include extensive areas of ironstone which received planning permission for mineral extraction in the 1950s, much of which is subject to environmental (Review Of Mineral Permissions (ROMP)) legislation which prevents further working until planning conditions that accord with up to date environmental standards have been agreed with the County Council. Figure 2 shows the location of mineral resources; and figure 3 shows the location of active mineral workings in the county.

Figure 2: Sand and gravel and crushed rock resources in Oxfordshire



2.4 Annual production of aggregates (sand and gravel and crushed rock) in Oxfordshire has fallen from approximately 3 million tonnes to about 1 million tonnes over the last 10 years. A survey in 2009 found that 78% of sand and gravel and 51% of crushed rock produced in the county is used in Oxfordshire. The issue of how much should be provided for in future is covered in section 4.

Figure 3: Location of active mineral workings and sites with planning permission.



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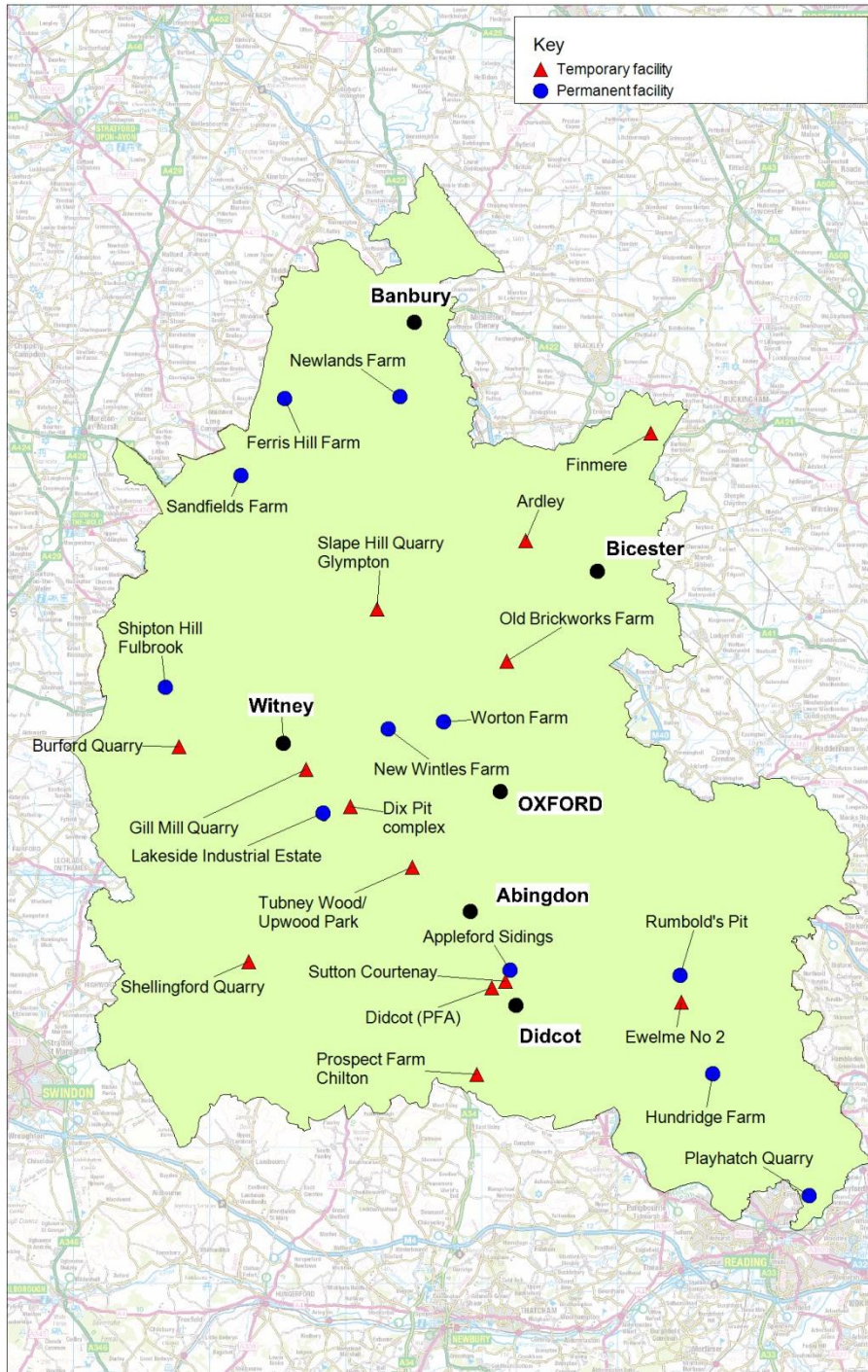
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2.5 There are movements of minerals both into and out of the county. The 2009 survey showed that Oxfordshire imported more sand and gravel and crushed rock than it exported. Hard rock aggregates are imported by rail from the Mendips and Leicestershire to meet construction needs which cannot be met by local, softer limestone and ironstone.

2.6 Production of aggregates from recycled construction and demolition waste and from secondary materials (mainly ash from Didcot A Power Station) is making an increasingly significant contribution to the overall requirement for aggregates. Didcot A power station is due to close during the plan period but

there will be a new source of ash when Ardley energy from waste plant becomes operational. Locations of secondary and recycled aggregate facilities are shown in figure 4.

Figure 4: Existing temporary and permanent secondary and recycled aggregate facilities with planning permission



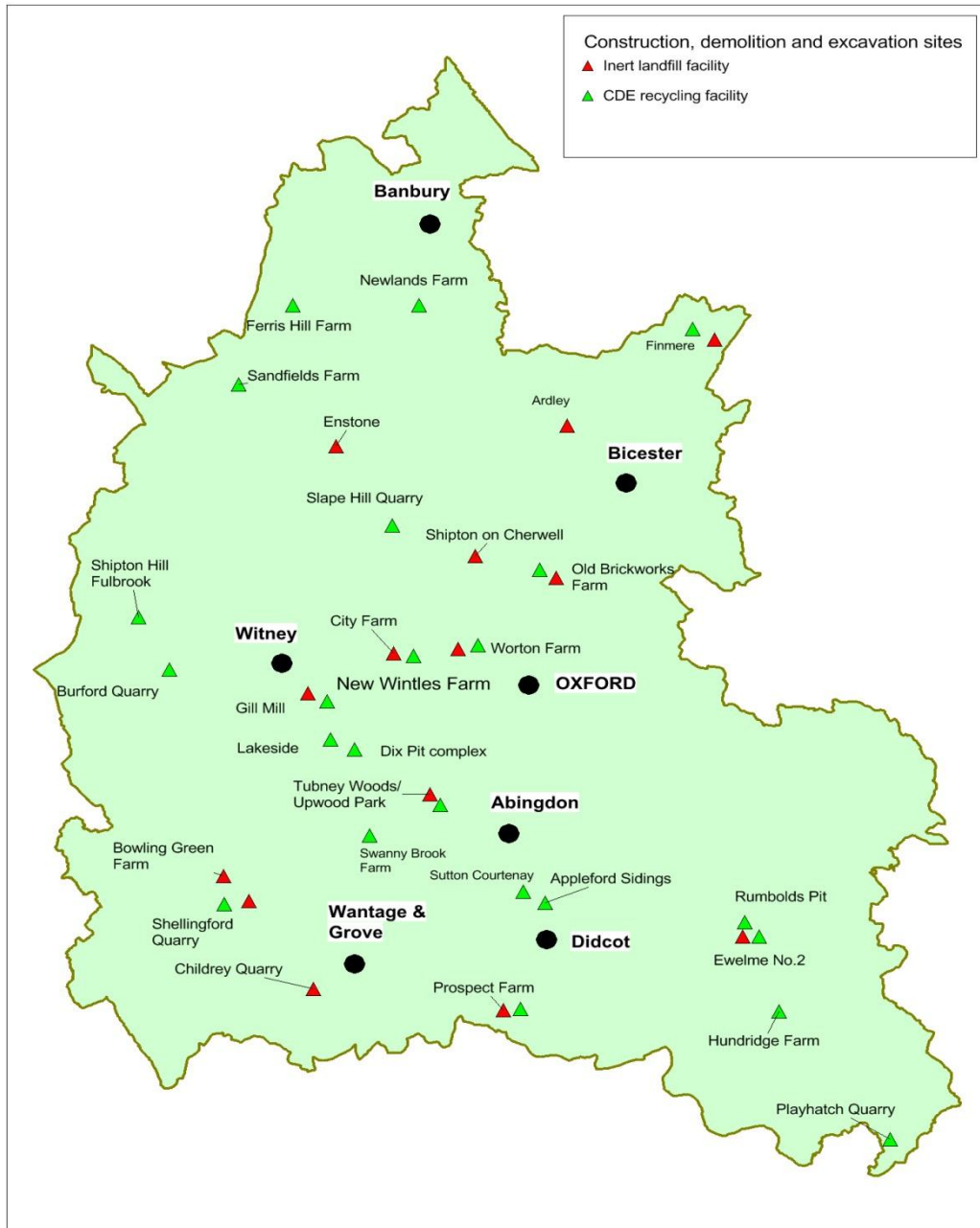
Waste in Oxfordshire

- 2.7 Prior to the economic downturn, on average a total of about 2.2 million tonnes of waste was produced annually by Oxfordshire's residents, businesses and organisations, mostly comprising:
- Municipal waste produced in Oxfordshire (collected, processed and disposed of by the district and county councils) – approximately 15%;
 - Commercial and industrial waste (produced, processed and disposed of by the private sector) – approximately 25%;
 - Construction, demolition and excavation waste (produced, processed and disposed of by the private sector) – approximately 60%.
- 2.8 Other wastes that need to be provided for are produced in smaller quantities. These are hazardous wastes (including oils and solvents, chemicals and asbestos); radioactive waste; metal waste; and sewage sludge.
- 2.9 About 90% of Oxfordshire's waste is dealt with in the county. The main method of dealing with waste has been by disposal at local landfill sites, but waste is now increasingly being diverted from landfill by recycling and treatment. Existing waste facilities and sites with planning permission are shown on figure 5 (municipal and commercial & industrial waste) and figure 6 (construction, demolition and excavation waste).
- 2.10 Oxfordshire is a net importer of waste. Some waste is brought into the county from elsewhere for disposal at landfill sites, under commercial arrangements that are largely outside current planning controls. In particular, waste comes into Oxfordshire from London (much of it by rail) and Berkshire. In 2008, more than 700,000 tonnes were imported, with Sutton Courtenay being the biggest receiving landfill site.
- 2.11 As waste planning authority the County Council must, through its waste planning strategy, make provision for facilities in Oxfordshire sufficient to manage all types of waste.

Figure 5: Existing municipal and commercial & industrial waste facilities and sites with planning permission



Figure 6: Existing permanent construction, demolition & excavation waste facilities and sites with planning permission

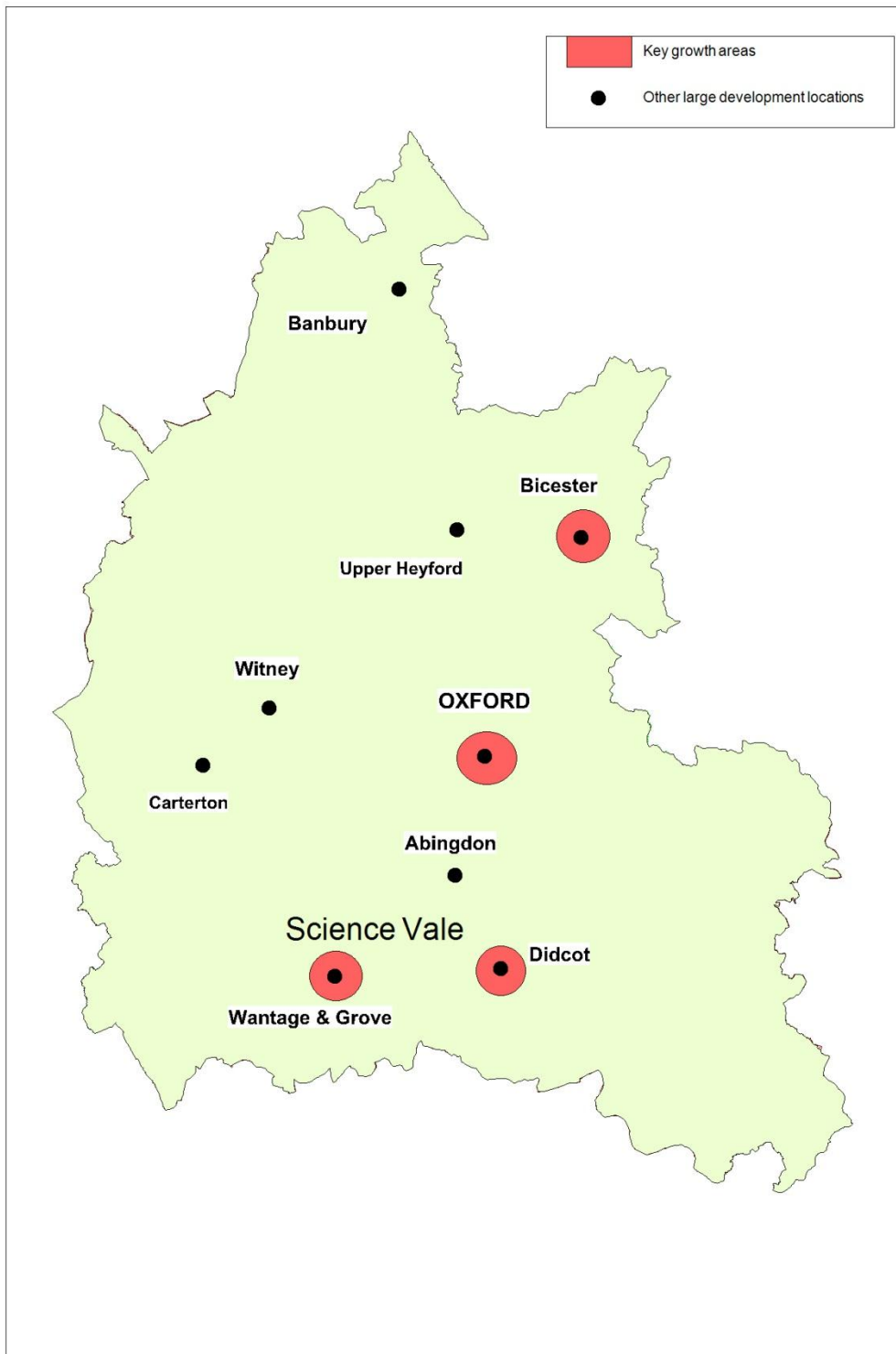


Issues

- 2.12 The population of the county is currently approximately 637,000. Over the next 20 years significant population growth, new housing, commercial and related development, investment in infrastructure and related traffic growth are expected in Oxfordshire¹ which has implications for the demand for and supply of minerals and also for the production of waste and how it is dealt with. Oxfordshire has to balance the need to protect and enhance its special environment, both urban and rural, with the needs of economic growth and housing.
- 2.13 About 40,000 homes could be built in Oxfordshire between 2011 and 2026. There is a need for considerable investment in new infrastructure to support the objective for Oxfordshire of supporting a thriving economy and to meet the pressures on essential services such as schools, transport and other community facilities. Key challenges for the plan are to make provision for the construction materials that will be needed to be supplied and the waste that will be produced to be dealt with in ways that are effective and sustainable. There is also a need to ensure that new developments reduce carbon emissions and are resilient to climate change.
- 2.14 Key locations for development, as shown on figure 7, are:
- Didcot and Wantage & Grove, which are within the Science Vale UK area which also includes Milton Park, Harwell Science and Innovation Campus and Culham Science Centre;
 - Bicester, which is set to experience considerable housing and employment growth over the next 20 years, including a 5,000 home eco-development, and for which a masterplan will provide a long-term vision and framework for integrating growth of the town; and
 - Oxford, which remains a world class centre of education, research and innovation.
- 2.15 Large housing developments (1000+ homes) are also proposed at Banbury, Upper Heyford, Witney and Carterton. Just over half of planned growth in Oxfordshire to 2026 is in the southern part of the county, with the remainder in the northern part.
- 2.16 Mineral extraction can only take place where the mineral is found. Most mineral workings are located in rural areas, many of which are served only by minor roads. In some cases lorries carrying aggregates have to pass through small villages and towns, contributing to congestion and impacting on local communities and the environment. Some communities have experienced extensive working in the past, and in certain areas the local landscape has been significantly altered by the creation of lakes from sand and gravel workings.

¹ Oxfordshire's population is forecast to grow by a further 12% to 2026 with the building of about 40,000 new dwellings. Road traffic has grown rapidly in Oxfordshire, particularly on the M40 and A34, and congestion is a significant problem; and growth in all traffic on Oxfordshire roads is predicted to be over 25% over the period to 2026.

Figure 7: Key growth areas and other large development locations



Policy context

2.17 The draft plan reflects international, national and regional policies and plans. Broad areas of policy are outlined below; specific areas of policy are covered later in the document.

International/European

2.18 The key international plans and programmes which are relevant to the draft minerals and waste plan are:

- The World Summit on Sustainable Development, Johannesburg (2002);
- Kyoto Protocol and the UN framework convention on climate change (1997);
- Bern Convention on the conservation of European wildlife and natural habitats.

2.19 The European Union has issued a number of Directives which have been transposed into national legislation and policy and are of particular relevance to this plan (see paragraphs 2.20 and 2.24). These include the Waste Framework Directive² and the Landfill Directive³. Other relevant Directives include the Habitats Directive⁴, the Strategic Environmental Assessment Directive⁵ and the Water Framework Directive⁶.

National

2.20 The Minerals and Waste Core Strategy has been prepared under the Planning and Compulsory Purchase Act 2004; it has regard to relevant national policy and guidance that was in force at the time, including national planning and minerals policy statements and guidance notes (PPSs, PPGs, MPSs and MPGs). Other key publications include the UK Biodiversity Action Plan and the UK Sustainable Development Strategy.

2.21 The Government has now replaced the planning and minerals policy statements and guidance notes with a briefer National Planning Policy Framework (except for PPS10 – see paragraph 2.23). The National Planning Policy Framework (March 2012) includes a presumption in favour of sustainable development; and states that ‘local planning authorities should positively seek opportunities to meet the development needs of their area’. It also states that the planning system should ‘contribute to protecting and enhancing our built and natural environment’.

2.22 National policy for minerals⁷ is that they are ‘essential to support sustainable economic growth and our quality of life’ and there should be ‘a sufficient supply

² Directive on Waste (2008/98/EC) (transposed into English law under the Waste (England and Wales) Regulations 2011)

³ Directive on the Landfill of Waste (99/31/EC) (transposed into English law under the landfill (England & Wales) Regulations 2002)

⁴ The Conservation of Natural Habitats and Wild Flora and Fauna Directive (92/43/EC) (transposed into UK law under the Conservation of Habitats Species Regulations 2010)

⁵ Directive on the Assessment of the Effects of Certain Plans and Programmes on the Environment (2001/42/EC) (transposed into UK law under the Environmental Assessment of Plans and Programmes Regulations 2004)

⁶ Directive 2000/60/EC: establishing a framework for Community action in the field of water policy

⁷ National Planning Policy Framework, March 2012

of material to provide the infrastructure, buildings, energy and goods that the country needs'. In particular, 'minerals planning authorities should plan for a steady and adequate supply of aggregates'.

- 2.23 The Government intends to produce a National Waste Management Plan, including revised planning policy on waste that is currently contained in 'Planning for Sustainable Waste Management' (PPS 10). The National Planning Policy Framework has not replaced PPS 10. Government policy in PPS10 includes the key objective of preparing and delivering planning strategies that help deliver sustainable development through:
- Driving waste management up the waste hierarchy⁸;
 - Addressing waste as a resource; and
 - Looking to disposal as the last option.
- 2.24 PPS10 also includes the requirement that waste plans should ensure sufficient opportunities for the provision of waste management facilities in appropriate locations and should both inform and in turn be informed by any relevant municipal waste management strategy.
- 2.25 In providing for new waste management facilities, the Core Strategy seeks to promote changes in waste management practice in line with European, national and other relevant policy and the objectives of this strategy.
- 2.26 European and national policy for waste management (EU Waste Framework Directive, 2008 and PPS10) sets out a waste hierarchy, as shown in figure 8, in which prevention of waste is the most desirable option and disposal is the option of last resort.

Figure 8: Waste Hierarchy



- 2.27 By moving the management of waste up this hierarchy, away from disposal to reuse, recycling, composting and treatment to recover resources, the Government aims to achieve more sustainable waste management and to

⁸ Defined in the update to PPS 10: Planning for Sustainable Waste Management (30 March 2011) as prevention; preparing for re-use; recycling; other recovery; disposal.

break the link between economic growth and the environmental impact of waste. The County Council shares this aim.

- 2.28 Landfilling biodegradable waste produces methane gas which is a powerful greenhouse gas. European and national legislation and policy has put in place strong financial and policy drivers and challenging targets to reduce the amount of biodegradable waste that is sent to landfill, and to increase the recovery of resources from waste. Landfill tax (which applies to all wastes and has been increasing year on year) and the Landfill Allowance Trading Scheme (which will apply to municipal waste up to 2013) are increasing the costs of landfill so that it will no longer be the cheapest means of dealing with waste.

Regional

- 2.29 Under current legislation, this plan must be in general conformity with the South East Plan, May 2009 (the regional strategy). However, the Localism Act (November 2011) includes provision for regional strategies to be revoked and the Government has announced its intention to do this at the earliest opportunity. The South East Plan includes strategic policies for mineral supply and waste management. The County Council considers that these policies generally continue to be appropriate to Oxfordshire, except that the figures for mineral supply are considered to be unjustifiably high (see section 4) and higher targets for waste recycling and diversion of waste from landfill are now considered to be achievable (see section 5).

Local

- 2.30 The Oxfordshire Structure Plan 2016⁹ included a policy (M2) which set out factors to be taken into account in identifying appropriate locations for sand and gravel working. This policy is “saved”, i.e. is still in force as part of the development plan for Oxfordshire and is reflected in the development of the minerals strategy. It is expected that Policy M2 will cease to be part of the development plan when the South East Plan is revoked.
- 2.31 The Oxfordshire Minerals and Waste Local Plan was adopted by the County Council in July 1996. It contains detailed policies for the supply of minerals, the provision of waste management facilities and for the control of minerals and waste developments. Under the Planning and Compulsory Purchase Act 2004 (which introduced the requirement to prepare minerals and waste development frameworks), many of the policies of this Plan are also ‘saved’ and form part of the development plan until they are replaced by new policies in the new Minerals and Waste Plan.
- 2.32 The Minerals and Waste Core Strategy has regard to and is consistent with the existing and emerging new plans (local development frameworks) prepared and

⁹ The Oxfordshire Structure Plan 2016 adopted in October 2005 was superseded by the South East Plan adopted in May 2009

adopted by the City and District Councils¹⁰. The Minerals and Waste Development Framework and the City and District Plans will together form the development plan for Oxfordshire, containing a full set of local planning policies and proposals for the county against which planning applications for development will be considered. The Core Strategy also has regard to the principles of the Sustainable Community Strategy, Oxfordshire 2030.

- 2.33 The Minerals and Waste Plan should take into account and, as far as possible, be consistent with the existing and emerging plans of neighbouring planning authorities and more distant planning authorities which have minerals or waste links with Oxfordshire (e.g. counties which export hard rock to Oxfordshire or which receive hazardous waste from Oxfordshire). The Localism Act 2011 has introduced a requirement for planning authorities to engage 'constructively, actively and on an on-going basis' with other authorities in preparing their plans. The County Council has been carrying out this 'duty to cooperate' in preparing the Minerals and Waste Core Strategy.
- 2.34 The County Council is both the planning authority for waste development and the waste disposal authority, with responsibility for the management and disposal of municipal waste, mainly comprising the household waste and some commercial waste collected by the five district councils.
- 2.35 The county and district councils work together on municipal waste management under the Oxfordshire Waste Partnership. The Oxfordshire Joint Municipal Waste Management Strategy 'No Time to Waste' was agreed by the six Oxfordshire local authorities in January 2007. It provides a framework for the management of municipal waste in the county to 2030 and sets local targets for the management of municipal waste. It identifies a need for new waste treatment facilities, in addition to increased recycling and composting, to significantly reduce the quantity of biodegradable waste sent to landfill. A review of the Joint Municipal Waste Management Strategy is being carried out in 2012. The Core Strategy is separate from the municipal waste strategy but it is consistent with and has been informed by it.

Habitats Regulations Assessment

- 2.36 The Habitats Directive requires planning authorities to assess the likely effects of their plans, either alone or in combination with other plans and projects, on sites which have been designated as being of European importance for the habitat or species they support. In Oxfordshire there are seven sites designated as Special Areas of Conservation (SAC). Natural England has been consulted on a draft Habitats Regulations Assessment screening report, prepared by the Council, which identifies the seven sites, describes the conservation objectives of each site and provides an assessment of the likely effects of the plan on them.

¹⁰ The Oxford Core Strategy was adopted by Oxford City Council in March 2011; the other four Oxfordshire District Councils are preparing Core Strategies but have existing local plans with saved policies which are still in force as part of the development plan for Oxfordshire

- 2.37 The screening report suggested that there could potentially be an impact of mineral extraction near Oxford Meadows SAC and Cothill Fen SAC. Further work was commissioned to provide a hydrogeological assessment of mineral working in the Eynsham / Cassington / Yarnton sharp sand and gravel area and the soft sand area north and south of the A420, west of Abingdon. The consultants' report forms an addendum to the screening report, which has been published.
- 2.38 This report identified that proposed sand and gravel extraction in some parts of the Eynsham / Cassington / Yarnton area (to the east and north east of the River Evenlode) could potentially have an effect on the hydrology of Oxford Meadows SAC and specific sites for mineral working should not be identified in these parts of this area in a site allocations document. The report also recommended that proposals for working in this area should be required to demonstrate that working would not lead to changes in water levels in the Oxford Meadows SAC. However, the report concluded that it would still be possible to deliver the required amount of sand and gravel from this area, from sites which are not likely to have an effect on Oxford Meadows SAC.
- 2.39 The report also concluded that proposals to extract soft sand in the area north and south of the A420, west of Abingdon would need to demonstrate that working would not lead to changes in water levels in Cothill Fen SAC.
- 2.40 Natural England has agreed amended wording of policy M3 to reflect the findings of the hydrogeological report.

Sustainability Appraisal / Strategic Environmental Assessment

- 2.41 The Strategic Environmental Assessment Directive requires that an assessment is carried out of the likely impacts of the plan on a range of environmental criteria. Policies and proposals in development plan documents must also be subject to sustainability appraisal, which includes consideration of social and economic as well as environmental factors. A sustainability appraisal scoping report has been prepared and published following consultation with the Environment Agency, Natural England and English Heritage.
- 2.42 The Council commissioned consultants to carry out a sustainability appraisal incorporating a strategic environmental assessment to assess the likely impacts of the Minerals and Waste Core Strategy against a range of environmental, economic and social criteria. The sustainability appraisal does not raise any fundamental issues necessitating further changes to policies although minor amendments proposed in the report have been incorporated into the Core Strategy. The sustainability appraisal report has been published.

3. VISION AND OBJECTIVES FOR MINERALS AND WASTE IN OXFORDSHIRE

MINERALS

- 3.1 The vision and objectives for the Minerals Strategy provide a basis for the development of the strategy, policies and proposals for minerals supply.
- 3.2 The aspirations for Oxfordshire outlined in chapter 2 and the significant growth that is planned present major challenges for minerals planning, including that adequate supplies of the minerals needed for construction are made available when and where required and in the most sustainable way possible.
- 3.3 The vision and objectives seek to address these and related issues, in particular the need to support Oxfordshire's economy, protect its environment and provide an effective framework for making provision for the supply of minerals.

Minerals Planning Vision

- 3.4 The vision for Oxfordshire's minerals planning strategy is that:
- a) In the period to 2030, the supply of aggregate materials to meet the development needs of Oxfordshire and help sustain its world class economy, and to make an appropriate contribution to wider needs, will be met by:
- an increased use of secondary and recycled aggregate materials;
 - the continued import of materials such as hard crushed rock that are not available locally; and
 - the balance of provision from locally produced sand and gravel, soft sand, limestone and ironstone.
- b) Mineral working will be located and managed to minimise:
- the distance that aggregates are transported by road;
 - the use of unsuitable roads through settlements; and
 - other harmful impacts of mineral extraction and transportation on Oxfordshire's environment and communities.
- c) The restoration of mineral workings will enhance the quality of Oxfordshire's natural environment and the quality of life for Oxfordshire residents by:
- contributing to the creation of habitats and protection of biodiversity, particularly in relation to the Conservation Target Areas¹¹;
 - providing access to the countryside and opportunities for recreation; and
 - seeking to reduce the risk of flooding and providing flood storage capacity.

¹¹ Conservation Target Areas (CTA) are important areas for wildlife in Oxfordshire. The main aim within CTAs is to restore biodiversity at a landscape-scale through the maintenance, restoration and creation of Biodiversity Action Plan priority habitats.

Minerals Planning Objectives

- 3.5 The Oxfordshire Minerals Planning Vision is supported by the following ten planning objectives which set out the principles which underpin the minerals strategy.
- i. Enable Oxfordshire to meet the locally determined requirements for supply of sand and gravel, soft sand, crushed rock and secondary and recycled aggregates over the plan period to meet planned economic growth and social needs and to make an appropriate contribution to wider needs.
 - ii. Enable a continued supply of limestone and ironstone for building and walling stone from small scale quarries for the maintenance, repair and construction of locally distinctive buildings and structures.
 - iii. Provide a framework for investment and development by mineral operators and landowners through a clear and deliverable spatial strategy which is sufficiently flexible to meet future needs and which is based on existing and planned infrastructure provision.
 - iv. Facilitate the economically and environmentally efficient supply of minerals in Oxfordshire and encourage the maximum practical recovery of aggregate resources from secondary and recycled materials for use in place of primary aggregates.
 - v. Minimise the impact of minerals development on flood risk and contribute to climate adaptation through restoration schemes which provide flood storage capacity in the floodplain.
 - vi. Minimise the distance minerals need to be transported by road and encourage where possible the movement of aggregates by conveyor, pipeline, rail and on Oxfordshire's waterways in order to reduce adverse impacts of mineral transportation on local communities, the environment and climate change; and minimise the impact of mineral traffic on local communities through implementation, monitoring and enforcement of routeing agreements.
 - vii. Protect Oxfordshire's communities, important landscapes, the River Thames and ecological, geological, archaeological and heritage assets from harmful impacts of mineral development and transportation.
 - viii. Provide benefits to Oxfordshire's natural environment and local communities through the restoration of mineral workings by contributing to nature conservation, enhancing the quality and extent of Conservation Target Areas, contributing to landscape character, improving access to the countryside, safeguarding local amenity and providing opportunities for local recreation.
 - ix. Safeguard resources of sand and gravel, crushed rock and Fuller's Earth to ensure that these resources are potentially available for future use and are considered in future development decisions; and

- x. Safeguard permanent facilities for producing secondary and recycled aggregate and for importing aggregates into Oxfordshire by rail.

WASTE

- 3.6 The vision and objectives for the Waste Strategy provide a basis for the development of the strategy, policies and proposals for waste management.
- 3.7 The aspirations for Oxfordshire outlined in chapter 2 and the significant growth that is planned present major challenges for waste planning including that the waste generated by existing and new developments is managed and used in the most effective and sustainable way possible.
- 3.8 The vision and objectives seek to address these and related issues, in particular the need to support Oxfordshire's economy, to protect its environment, and to provide an effective framework for making provision for the management of waste.

Waste Planning Vision

- 3.9 The vision for Oxfordshire's waste planning strategy is that:
 - a) By 2030 there will have been a transformation in the way that waste is managed in Oxfordshire, with:
 - increased re-use, recycling and composting of waste;
 - treatment (so far as is practicable) of all residual waste that cannot be recycled or composted; and
 - only the minimum amount of waste that is necessary being disposed of at landfill sites.
 - b) The county will remain largely self-sufficient in dealing with the waste it generates. An economically and environmentally efficient network of clean, well-designed recycling, composting and other waste treatment facilities will have been developed to recover material and energy from the county's waste and support its thriving economy.
 - c) Waste management facilities will be distributed across the county, with larger-scale and specialist facilities being located at or close to large towns, particularly the growth areas, and close to main transport links, and with smaller-scale facilities serving more local areas. This network will have helped to build more sustainable communities that increasingly take responsibility for their own waste and keep to a minimum the distance waste needs to be moved within the county.

Waste Planning Objectives

- 3.10 The Oxfordshire Waste Planning Vision is supported by the following eight waste planning objectives which set out the principles which underpin the waste strategy.

- i. Provide for waste management capacity that enables Oxfordshire to be net self-sufficient in meeting its own waste needs and makes an appropriate contribution towards wider specialist waste needs.
- ii. Support initiatives that help to reduce the amounts of waste produced and provide for the delivery, as soon as is practicable, of waste management facilities that will drive waste away from landfill and as far up the waste hierarchy¹² as possible; in particular facilities that will enable increased re-use, recycling and composting of waste and the recovery of resources from remaining (residual) waste to avoid its disposal to landfill.
- iii. Provide for waste to be managed as close as possible to where it arises to:
 - minimise the distance waste needs to be transported by road;
 - reduce adverse impacts of waste transportation on local communities and the environment; and
 - enable communities to take responsibility for their own waste;generally providing for a broad distribution of facilities whilst recognising that some types of waste management facility are uneconomic or not practical below a certain size and therefore will need to serve a wider area.
- iv. Recognise that waste management is an integral part of community infrastructure and take opportunities to locate facilities in or close to the communities they serve, including in conjunction with planned growth, and for recovery and local use of energy (heat and power) from waste.
- v. Recognise that waste will continue to be imported into Oxfordshire from London and elsewhere for disposal by landfill and seek to limit this to residual waste (following recycling and treatment elsewhere) and for the quantity of this waste to decrease over time as additional waste management facilities are provided closer to where the waste is produced.
- vi. Avoid the loss of green field land, giving priority to the use of previously developed land and ensure that new waste management facilities are sensitive to the amenities of local communities and do not cause unnecessary harm to the County's distinctive natural and built environment.
- vii. Promote sustainable waste practice in construction and demolition work based on the principle of keeping waste to a minimum, managing waste on site where possible, recycling construction waste as aggregate, and creating buildings and layouts that facilitate the recovery of resources from waste and take advantage of opportunities for the use of combined heat and power.
- viii. Secure the satisfactory restoration of landfill sites and other temporary waste management sites, where the facility is no longer required or acceptable in that location.

¹² The waste hierarchy is shown at paragraph 2.26

4. MINERALS PLANNING STRATEGY

- 4.1 This section sets out the County Council's minerals planning strategy and policies for the period to 2030. Provision must be made for an adequate and steady supply of minerals over the plan period. The Council intends that this should be done by encouraging the use of secondary and recycled aggregates as well as by identifying areas for mineral working to meet the need for primary aggregates such as sand and gravel and crushed rock. The minerals strategy for Oxfordshire is illustrated on the key diagram at the end of this section.
- 4.2 The strategy also addresses safeguarding of mineral resources and infrastructure to ensure future availability of supply. A policy for restoration of mineral working recognises the temporary nature of mineral extraction and the importance of restoring sites to enhance the environment and to provide amenities for the public.

Secondary and recycled aggregates

- 4.3 Secondary and recycled aggregates in Oxfordshire currently include:
- Locally derived construction and demolition waste;
 - Locally derived road planings;
 - Ash from Didcot A power station;
 - Spent rail ballast (brought in by rail to a site at Sutton Courtenay).
- 4.4 Oxfordshire has capacity for recycling approximately half a million tonnes of construction and demolition waste each year (about half in permanent sites and half in temporary sites at quarries and landfill sites). Didcot A power station will cease to operate by the end of 2015, but it is expected that some ash from the energy from waste facility to be built at Ardley will be used as secondary aggregates.
- 4.5 The total production of recycled and secondary aggregates is difficult to quantify because it includes, for example, material from mobile crushing plants at building and road development sites which is recycled and sometimes re-used on site, and material which passes through waste transfer stations. Production of secondary and recycled aggregates in 2009 in Oxfordshire was estimated at just under 300,000 tonnes, but this may be an underestimate due to an incomplete survey response from operators.
- 4.6 Policy M1 provides for additional facilities to support a more ambitious level of secondary and recycled aggregate production, in line with the South East Plan target (policy M2 – 0.9 million tonnes per year), to encourage this important source of aggregate supply.
- 4.7 Policy W1 states that provision should be made for waste facilities to manage 1.3 million tonnes per year of construction, demolition and excavation wastes. Applying the recycling target of 60% by 2020 for this waste stream in policy W3 results in a requirement for provision of facilities to recycle 0.78 million tonnes per year. Discounting the soils fraction of this waste but adding recycling of ash, road planings and rail ballast, the Council has assessed that total production

capacity for secondary and recycled aggregates will be approximately 0.83 million tonnes per year by 2015, approaching the target level in policy M1.

- 4.8 Provision for additional facilities for the production of recycled aggregates from construction and demolition waste will be made through policy W5. Planning applications for such facilities will be considered against policy W6, including the provisions of that policy for recycling facilities to be located within the Green Belt and Areas of Outstanding Natural Beauty in particular circumstances. Permanent secondary and recycled aggregate facilities will be safeguarded under policy W10. Restoration of temporary facilities located at quarries and landfill sites will be considered against policy M7.

4.9 **Policy M1: Provision for secondary and recycled aggregates**

The production and supply of secondary and recycled aggregates, in place of land won aggregates, will be encouraged.

Provision will be made for facilities to enable the supply of at least 0.9 million tonnes of secondary and recycled aggregates a year, comprising:

- **Permanent facilities; and**
- **Temporary facilities at aggregate quarries and inert waste landfill sites.**

Provision will be primarily through recycling of construction, demolition and excavation waste but also through recycling of road planings and rail ballast and recovery of ash from combustion processes.

Provision for working aggregate minerals

- 4.10 Under the current national and regional arrangements for aggregates planning, policy M3 of the South East Plan states that Oxfordshire should make provision for the supply of 1.82 million tonnes a year of sand and gravel and 1.0 million tonnes a year of crushed rock from local land-won sources for the period to 2016. The Government has however said that planning authorities can choose to use alternative figures for their planning purposes if they have new or different information and a robust evidence base.

- 4.11 The County Council has adopted the following locally-derived annual supply figures as the basis for its minerals planning strategy¹³:

- sand and gravel – 1.26 million tonnes a year;
- crushed rock – 0.63 million tonnes a year.

These figures are based on work by consultants Atkins¹⁴, commissioned to provide a locally based assessment of Oxfordshire's aggregate requirements as an alternative to the top-down figures in the South East Plan. These figures will enable Oxfordshire to meet its own needs, with flexibility for appropriate cross-boundary movements of aggregates. They also allow for possible

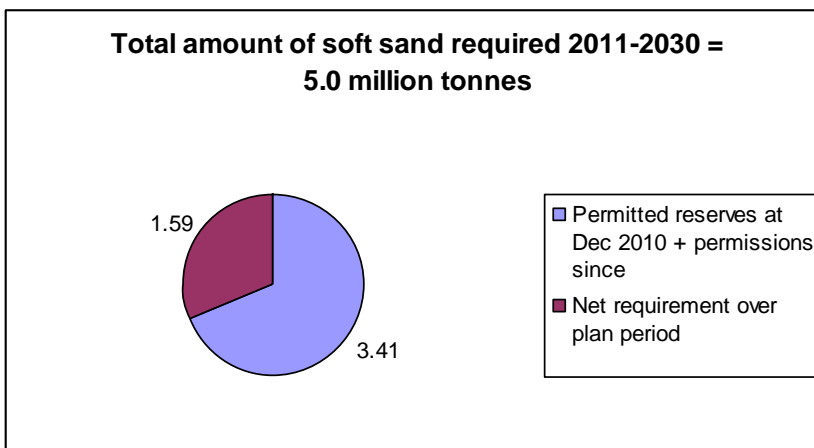
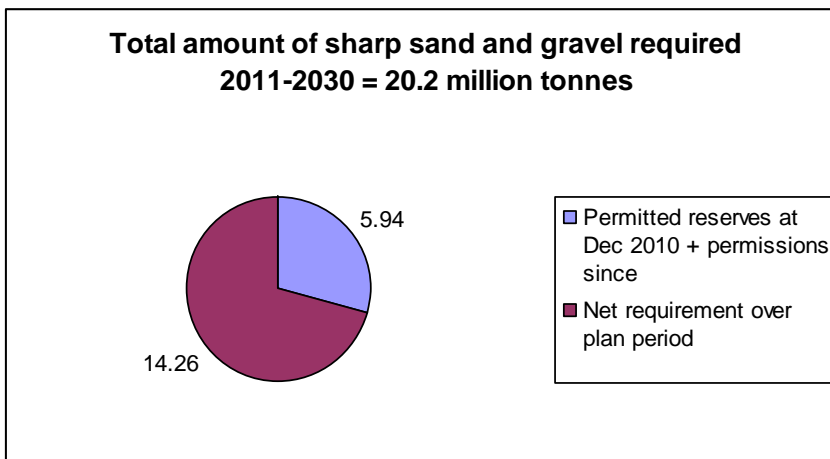
¹³ Report to County Council Cabinet 16 February 2011

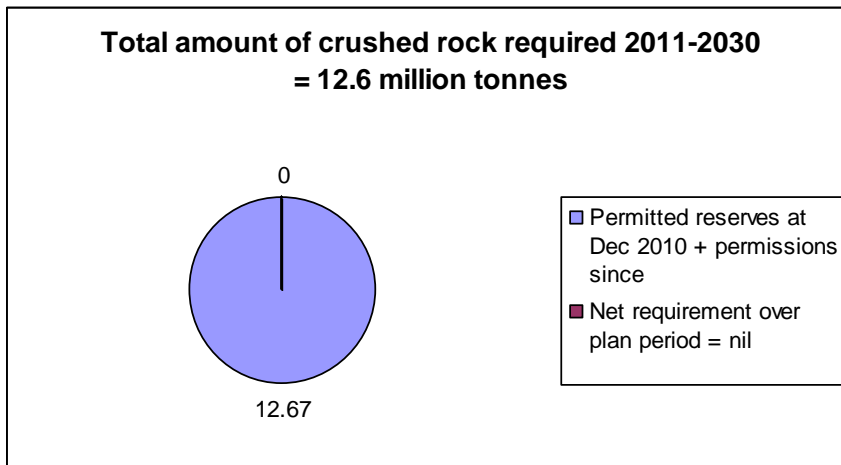
¹⁴ Local Assessment of Aggregate Supply requirements for Oxfordshire, Atkins, January 2011

changes in local circumstances such as an increase in economic activity and consequent demand for aggregates. Regular monitoring of aggregates supply and consumption in Oxfordshire will be carried out through the plan period to check that these figures continue to be appropriate.

- 4.12 In line with current national policy, it is proposed to maintain landbanks of reserves with planning permission of at least seven years for sand and gravel (based on 1.26 million tonnes a year) and ten years for crushed rock (based on 0.63 million tonnes a year).
- 4.13 In Oxfordshire sharp sand and gravel and soft sand generally occur in different locations and have distinct and separate uses and markets. In line with current national policy, separate landbanks will be maintained for these minerals. The annual supply figure for sand and gravel (1.26 million tonnes a year) will be divided in the ratio 80:20 between sharp sand and gravel (1.01 million tonnes a year) and soft sand (0.25 million tonnes a year), based on recent past production.
- 4.14 These annual supply figures result in a requirement over the plan period (2011 to 2030) for:
- sharp sand and gravel – 20.2 million tonnes;
 - soft sand – 5.0 million tonnes; and
 - crushed rock – 12.6 million tonnes.
- Figure 9 shows how these requirements will be met.

Figure 9: Planning for sharp sand and gravel, soft sand and crushed rock, 2011-2030





4.15 Taking into account existing planning permissions, the additional requirement over the plan period for which provision needs to be made is:

- Sharp sand and gravel – 14.26 million tonnes;
- Soft sand – 1.59 million tonnes;
- Crushed rock – no additional requirement.

4.16 **Policy M2: Provision to be made for working aggregate minerals**

Permission will be granted for mineral working to enable landbanks of reserves with planning permission to be maintained of at least 7 years for soft sand and sharp sand and gravel and 10 years for crushed rock, based on the following rates of extraction:

- Sharp sand and gravel – 1.01 million tonnes a year;
- Soft sand 0.25 – million tonnes a year; and
- Crushed rock – 0.63 million tonnes a year.

Locations for working aggregate minerals

4.17 Minerals can only be extracted where they exist in the ground. The identification of areas and sites where extraction can take place acceptably provides greater certainty of where mineral working will take place. This strategy identifies the broad areas where it is proposed that working for sand and gravel, soft sand and crushed rock should take place, as shown in figure 10. It will provide a basis for the subsequent identification of specific sites for working in a site allocations document.

Sharp Sand and Gravel

4.18 Existing planning permissions could on average provide a supply of sand and gravel until 2016 at a production rate of 1.01 million tonnes a year, although in practice some sites will be exhausted sooner and others will last longer. The strategy in this document makes provision for sharp sand and gravel for the rest of the plan period, to 2030.

4.19 Principles which have informed the selection of the preferred strategy for sand and gravel extraction are:

- Although there are extensive sand and gravel resources in west Oxfordshire, the rate and intensity of mineral working in the area should not increase, to meet concerns about generation of traffic, impacts on local rivers and groundwater flows, and to ensure that the cumulative impact of mineral working on local communities is not unacceptable.
- The distances minerals need to be transported from quarry to market should be as short as is practicable.
- There should be continued sand and gravel working in the area to the south of Oxford to enable local supply of aggregates for planned housing and economic growth in southern Oxfordshire, including the Science Vale area.

4.20 An assessment has been made of the likely contribution of each of the strategic areas towards meeting the requirement for sharp sand and gravel supply over the plan period. It has been assumed that the rates of working within the existing areas of working (Lower Windrush Valley, Eynsham / Cassington / Yarnton, Sutton Courtenay and Caversham) would be at the levels allowed by existing planning permissions and/or proposed in planning applications. Table 1 sets out the contribution of each area and shows that there is sufficient potential production capacity within these areas to provide for the level of sand and gravel supply in policy M2. The Council will carry out regular monitoring to check that the planned provision for mineral working is adequate to meet the need for aggregates supply in Oxfordshire.

Table 1: Contribution of strategy areas to sand and gravel provision

Sand and gravel strategy area	(a) Production capacity 2011-2020 (million tonnes per annum)	(b) Provision required 2011-2020 (million tonnes)	(c) Production capacity 2021-2030 (million tonnes per annum)	(d) Provision required 2021-2030 (million tonnes)	(e) Total provision required (b) + (d) (million tonnes)
Lower Windrush Valley	0.55 ¹⁵	5.50	0.35 ¹⁶	3.5	9.0
Eynsham / Cassington / Yarnton	0.3 ¹⁷	3.0	0.3	3.0	6.0
Sutton Courtenay	0.2	2.0	–	–	2.0
Caversham	0.17 ¹⁸	1.7	0.17	1.7	3.4
Cholsey	–	–	0.2 ¹⁹	2.0	2.0
Total	1.22	12.2	1.02	10.2	22.4

4.21 Existing permitted reserves plus potentially deliverable resources within nominated sites would be sufficient for working throughout the period to 2030 in the Lower Windrush Valley, Eynsham/Cassington/Yarnton and Caversham areas. The Sutton Courtenay area is likely to be exhausted by around 2020. A new area is proposed at Cholsey, which would need to come into production at about that time to enable continued local supply of sand and gravel to markets in southern Oxfordshire.

4.22 The Habitats Regulations Assessment screening report has concluded that a finding of no likely significant effect on Oxford Meadows Special Area of Conservation (SAC) cannot be reached in respect of land to the east and north east of the River Evenlode within the Eynsham / Cassington / Yarnton area. The Habitats Directive requires the Council to take a precautionary approach in the plan and therefore sites will not be identified for mineral working within that part of this area. The screening report has also concluded that any proposals for working in the Eynsham / Cassington / Yarnton area would need to demonstrate that they would not affect water levels at Oxford Meadows SAC.

4.23 Potentially important archaeological constraints have been identified in the Lower Windrush Valley, south of Hardwick. The Council will work with English Heritage to ensure that important archaeology is given appropriate protection.

¹⁵ Figure gained from two current permissions, at Gill Mill and Stonehenge Farm.

¹⁶ ¹⁶ This assumes only one quarry in the Lower Windrush Valley after 2020, by when the reserves at Stonehenge Farm are expected to be exhausted.

¹⁷ Likely capacity figure estimated from industry site nominations in this area.

¹⁸ Based on rate of working proposed in current application at Caversham MW.0158/11.

¹⁹ Based on proposed rate of work in site nominations in Cholsey area.

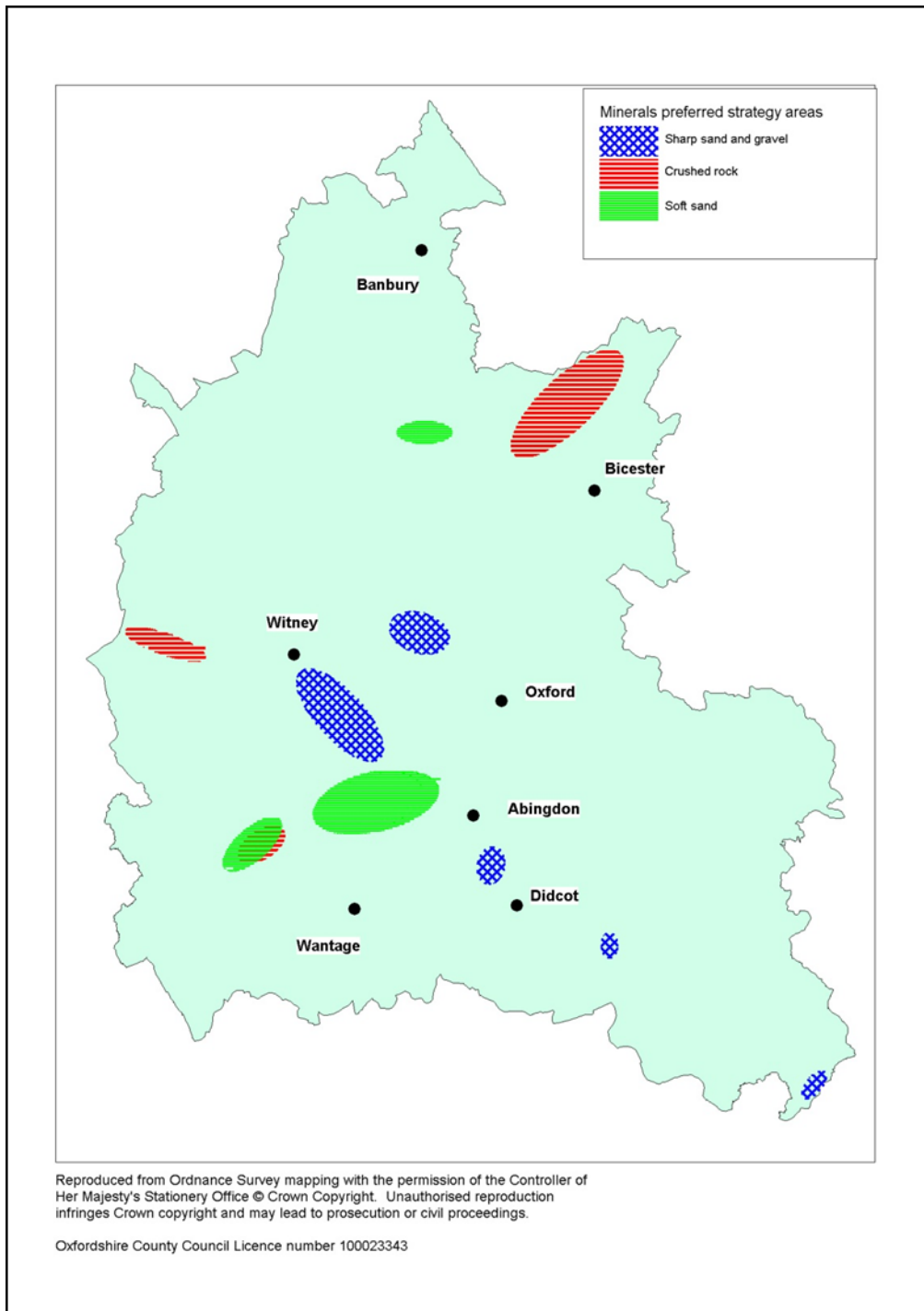
Soft sand

- 4.24 Soft sand accounts for approximately 20% of sales of all sands and gravels in Oxfordshire. Two types of soft sand are worked, supplying different markets: sand from the Tubney area generally meets higher specifications than sand from the Faringdon area. The strategy should enable both types of soft sand to continue to be worked.
- 4.25 At a production rate of 0.25 million tonnes a year, existing planning permissions could on average provide a supply of soft sand until 2023, although in practice some sites will be exhausted sooner and others will last longer. For the period 2020 to 2030, it would be preferable for further soft sand working to be from extensions to existing quarries rather than from new quarries to make efficient use of existing plant and infrastructure, and minimize additional impact.
- 4.26 The Habitats Regulations Assessment screening report has concluded that proposals for mineral working in the area north and south of the A420 to the west of Abingdon would need to demonstrate that they would not affect water levels at Cothill Fen SAC.

Crushed rock

- 4.27 At a rate of production of 0.63 million tonnes a year, current permitted reserves of crushed rock could on average last until 2030, although in practice some sites will be exhausted sooner and others will last longer. Existing working areas of limestone are south east of Faringdon, south of Burford and east of the River Cherwell. There is one existing area of ironstone working in the north of the county at Alkerton / Wroxton. Production of crushed rock has fluctuated considerably over past years and, if demand increases, additional permissions may be needed towards the end of the plan period.
- 4.28 The ironstone resource area in the north of the county is less well located relative to strategic routes and market areas in Oxfordshire than are some areas of limestone resource; and there are substantial permitted reserves of ironstone remaining to be worked. Better quality aggregate is generally available from within the limestone deposits than from the ironstone. Any additional provision should be made within the limestone areas. Such provision should preferably be made through extensions to existing quarries rather than from new quarries, to make efficient use of existing plant and infrastructure, and minimize additional impact.

Figure 10: Locations for sharp sand and gravel, soft sand and crushed rock working



4.29 Government policy is that major minerals developments should only be permitted in Areas of Outstanding Natural Beauty (AONB) in exceptional circumstances. There are sufficient aggregate resources in Oxfordshire outside the AONBs such that working within these areas is not necessary. Policy C6 provides protection for the landscape quality of the county.

4.30 Policy M3: Locations for working aggregate minerals

The principal locations for sharp sand and gravel working, as indicated in figure 10, will be at:

- i. existing areas of working at:
 - Lower Windrush Valley;
 - Eynsham / Cassington / Yarnton;
 - Sutton Courtenay; and
 - Caversham;

through extensions to existing quarries or new quarries to replace exhausted quarries; and

- ii. a new area of working at Cholsey, to replace Sutton Courtenay when reserves there become exhausted;

Within the Lower Windrush Valley and Eynsham / Cassington / Yarnton areas further working will only be permitted if it would not lead to an increase in the overall level of mineral extraction or mineral lorry traffic above past levels within these areas combined.

Within the Eynsham / Cassington / Yarnton area further working will only be permitted if it can be demonstrated that it would not lead to changes in water levels in the Oxford Meadows Special Area of Conservation; and land to the east and north east of the River Evenlode will not be identified as specific sites for mineral working in a site allocations development plan document.

The principal locations for soft sand working, as indicated in figure 10, will be:

- East and south east of Faringdon;
- North and south of the A420 to the west of Abingdon; and
- Duns Tew.

Within the area north and south of the A420 to the west of Abingdon further working will only be permitted if it can be demonstrated that it would not lead to changes in water levels in the Cothill Fen Special Area of Conservation.

The principal locations for crushed rock working, as indicated in figure 10, will be:

- North of Bicester to the east of the River Cherwell;
- South of the A40 near Burford; and
- East and south east of Faringdon.

Additional working of ironstone for aggregate use will only be permitted in exchange for revocation, without compensation, of an existing permission containing workable resources.

Preference will be given to extensions to existing soft sand and crushed rock quarries. New quarries will only be permitted if sufficient provision cannot be made through extensions.

Planning permission will not be granted for working aggregate minerals outside the locations identified in this policy unless the required provision cannot be met from within these areas.

Further working of minerals for aggregate use will not be permitted within Areas of Outstanding Natural Beauty.

Imported aggregates and rail depots

4.31 Aggregates are imported through three rail depots at Banbury, Sutton Courtenay and Kidlington²⁰. Planning permission has been granted for a rail depot at Shipton on Cherwell. Network Rail has a depot in Oxford for its own use to bring in rail ballast.

4.32 There will be an ongoing need for importation of aggregate materials that cannot be quarried locally, particularly hard rock for roadstone. Rail and water transport should take priority over road, particularly for longer distance movements.

4.33 Policy M4: Aggregates rail depots

Existing and permitted rail depots will be safeguarded for importing aggregates at:

- **Banbury (Hennef Way);**
- **Kidlington;**
- **Sutton Courtenay (Appleford Sidings); and**
- **Shipton on Cherwell Quarry.**

Where proposals for development would result in the loss of a rail depot site, a suitable alternative site should be provided.

The development of further aggregates rail depots will be encouraged at suitable locations outside the Green Belt.

Development which would prejudice the operation or establishment of existing or permitted aggregates rail depots identified in or subsequently permitted under this policy will not be permitted. Development sensitive to disturbance that could be adversely impacted by the operation of a rail depot will not be permitted in proximity to an existing or permitted rail depot.

²⁰ A fourth rail depot at Hinksey Sidings, Oxford is solely for the supply of ballast to Network Rail and is not therefore considered part of the County's aggregates supply.

Non-aggregate mineral working

Building Stone

- 4.34 The Council recognises the importance of small scale building, roofing and walling stone extraction in rural areas for the conservation and restoration of historic buildings and to maintain local distinctiveness in new development. Limestone is particularly important for maintaining the built environment in the Cotswolds Area of Outstanding Natural Beauty.
- 4.35 Large quantities of waste stone can be generated during the extraction of building stone, particularly in the initial phases of working. Waste stone may have a potential use as aggregate; the use or disposal of it is an issue which needs to be considered on a case by case basis through a planning application.

Clay

- 4.36 Clay has been worked at certain sand and gravel quarries to produce material for lining landfill sites and for use in restoration and landscaping. In accordance with policy M3, within the Eynsham / Cassington / Yarnton area working of clay associated with sand and gravel extraction should only be permitted if it can be demonstrated that it would not lead to changes in water levels in the Oxford Meadows Special Area of Conservation.

4.37 Policy M5: Non- aggregate mineral working

Permission will be granted for extensions to existing quarries and new quarries for extraction of building stone where a local need for the material has been demonstrated and provided that the quarrying is at a scale appropriate to the locality and will not harm the environment or local amenity.

The working of clay will be permitted only from areas where sand and gravel is being worked in the following locations:

- Lower Windrush Valley;
- Eynsham/Cassington/Yarnton; and
- Sutton Courtenay;

unless it can be demonstrated that there is a local need for clay which either cannot be met from these areas or can be met from elsewhere with less overall environmental impact.

Applications to work chalk, fullers earth, oil, gas, coal or any other minerals not currently worked in Oxfordshire will be considered in the light of national and development plan policies.

Safeguarding mineral resources

- 4.38 Mineral deposits are finite resources and can only be worked where they exist in the ground. It is Government policy that important mineral resources should be safeguarded for the long term. Mineral planning authorities are required to define Mineral Safeguarding Areas in minerals plans so that resources are not sterilised by non-mineral development, although there is no presumption that the resources will be worked. The County Council will have regard to the British Geological Survey good practice advice on mineral safeguarding.
- 4.39 Sharp sand and gravel, soft sand, limestone and ironstone are currently worked in Oxfordshire. Fuller's earth is no longer worked but is a nationally scarce mineral. It is therefore proposed to safeguard what are currently considered to be the economically viable areas of these resources.
- 4.40 Mineral safeguarding areas will be defined in the minerals site allocations document. The extent of safeguarded areas can be reviewed if economic or other considerations change.
- 4.41 District councils in Oxfordshire are responsible for planning development (other than minerals and waste) in their areas. The County Council, as Mineral Planning Authority, must also identify mineral consultation areas (based on the mineral safeguarding areas) and specify the types of application for non-mineral related development on which the relevant district council must consult the County Council within these areas. The mineral consultation areas will be based on the minerals safeguarding areas as defined in the minerals site allocations document.

4.42 Policy M6: Safeguarding mineral resources

Mineral resources will be safeguarded for the future and development which would prevent or otherwise hinder the possible future working of minerals will not be permitted unless it can be shown that:

- **The need for the development outweighs the economic and sustainability considerations relating to the mineral resource; or**
- **The mineral will be extracted prior to the development taking place.**

Mineral Safeguarding Areas will be defined, and identified in detailed maps, and will include the following mineral resources:

- **Sand and gravel in the main river valleys and in other areas where there is a proven resource;**
- **Soft sand, limestone and ironstone in existing areas of working, including the areas proposed for working in policy M3;**
- **Fuller's earth.**

Restoration and after-use of mineral workings

- 4.43 Proposals for restoration, aftercare and after-use should be submitted with applications for mineral working, should include provision for long-term maintenance of the after-use and enhancement of the environment and should accord with District LDF policies, including environmental protection, countryside and access enhancement and noise management. Proposals for restoration should demonstrate that local communities have been consulted on options for after use.
- 4.44 Mineral working can provide opportunities for environmental improvements, such as new habitats and improved public access, which benefit the local community and may offset the impact of working. The restoration of each mineral working site should be determined on its individual merits and circumstances. Restoration to the original land-use may not be practical and other forms of restoration may be equally acceptable or beneficial. Generally, nature conservation, agriculture, woodland and recreation are acceptable restoration after-uses for mineral workings but each restoration scheme should have a coherent land use strategy with a particular primary end use. Measures to conserve and enhance biodiversity should be included in restoration schemes. Within the floodplain, restoration of mineral workings can contribute to reducing the risk of flooding elsewhere through provision of increased flood storage capacity and improved conveyance of floodwater; where possible restoration schemes should include such provision.
- 4.45 One of the potentially most significant impacts of mineral working is disturbance of and change to the landscape. Restoration should normally take place as soon as possible after working to minimise the impact of open quarry workings. Restoration should be carried out to a high quality and in a timely and phased manner. The County Council will seek to ensure that inert waste is prioritised for use in mineral restoration schemes, through policy W7, and will work with the District Councils to secure this. However, it is recognised that where restoration relies on infilling with inert waste it may take some years to complete restoration because of shortage of suitable fill material (due in large part to increased recycling). Effective phasing of restoration is important, to minimise visual intrusion and other local impacts. Where possible, restoration should follow closely behind extraction, to minimise the extent of the open quarry area.
- 4.46 Use of inert fill for restoration of mineral workings in the floodplain is water compatible development but the Environment Agency has a preference for wet restoration within the functional floodplain (see also paragraph 6.9). Where infilling is proposed in the flood plain, consideration should be given to filling to below the original land levels to improve flood storage; and giving preference to wetland habitat creation, particularly in locations close to watercourses.
- 4.47 It is also important that after-uses are managed and maintained following restoration, to ensure that they become established. Where appropriate, aftercare schemes and long-term management and maintenance agreements will need to be secured. In these cases operators and landowners will normally be expected to provide for a further period of aftercare and management –

usually 20 years – beyond the 5 year statutory aftercare period, including appropriate financial contributions.

- 4.48 Because of the generally high water table and a local shortage of inert waste material for infilling, most new sand and gravel workings in the river valleys of Oxfordshire will have to be restored to wetlands. The issue of risk to aircraft from birdstrike is an important consideration which may restrict the location of workings and/or affect the design of restoration schemes. Some areas of open water may be created but careful use of inert fill and other engineering techniques can lead to creation of wetland habitats that offer lower bird strike risk and are also of greater value for biodiversity. Most of Oxfordshire's sand and gravel resources and some sand and limestone resources lie within 13 kilometres of a military airfield or civilian aerodrome. Within these areas, proposals for working, restoration and after-use will need to be drawn up and designed in consultation with the MOD and/or Oxford Airport; relevant biodiversity organisations should also be consulted. A bird hazard management plan may need to be prepared as part of a planning application.
- 4.49 The County Council proposes to develop broad restoration and after-use proposals for each of the proposed mineral working areas and any specific sites within them, in the subsequent Sites Development Plan Document. These proposals will form a framework within which site restoration plans will be considered.
- 4.50 **Policy M7: Restoration of mineral workings**

Minerals workings should be restored to a high quality and in a timely and phased manner to an after-use appropriate to the location and the capacity of the transport network and which is sympathetic to the character of the surrounding landscape and the amenity of local communities. Restoration and afteruse should accord with any restoration strategy for the area concerned in a site allocations development plan document.

Planning permission will not be granted for mineral working unless satisfactory proposals have been made for the restoration, aftercare and after-use of the site, including the means of securing them in the long term. Where appropriate, operators and landowners will be expected to make provision for the management of restored mineral workings for an extended period, beyond any aftercare period required by condition, including making appropriate financial contributions.

Where mineral working is proposed on best and most versatile agricultural land, the restoration should be back to agricultural land if this is practicable.

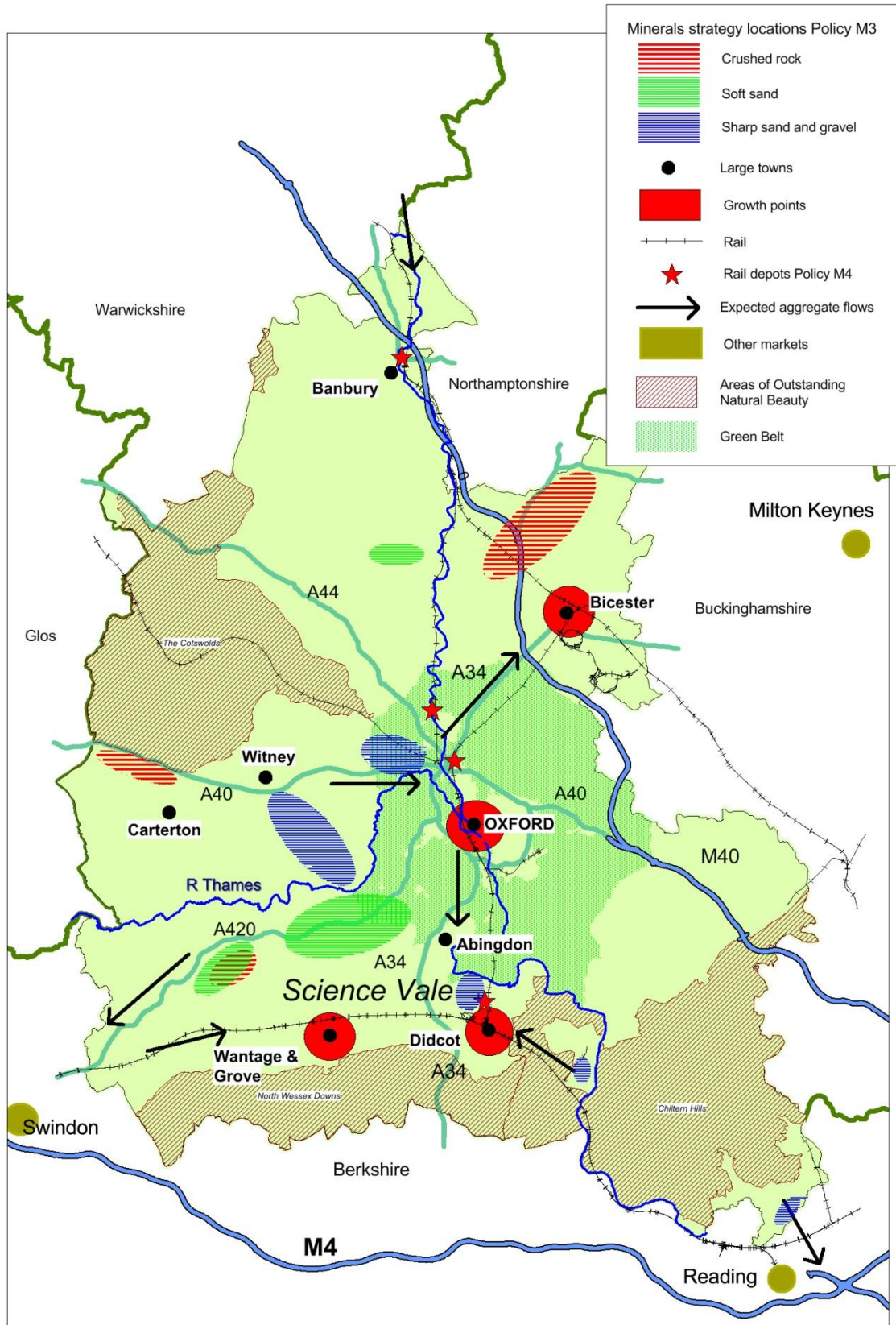
Within the floodplain, restoration of mineral workings should where possible include provision for increased flood storage capacity to reduce the risk of flooding elsewhere.

Where restoration could assist or achieve priority habitat or species targets and/or Biodiversity Action Plan targets, the relevant biodiversity after-use should be incorporated within the restoration scheme.

Where restoration could protect and/or improve geodiversity and improve educational opportunities this should be incorporated into the proposed restoration scheme, such as by providing for important geological faces to be left exposed and enabling access to the faces.

Where a mineral working site has the potential to provide for local amenity uses, including appropriate sport and recreational uses, these uses should be incorporated into the restoration scheme.

Figure 11: Minerals Key Diagram



5. WASTE PLANNING STRATEGY

Development of the waste strategy

- 5.1 This section sets out the County Council's waste planning strategy and policies for the period to 2030. Provision must be made for the facilities that will be needed for the management of waste in the county over the plan period. The Council intends that this should be done in a way that promotes and enables the movement of waste up the waste management hierarchy, away from landfill and towards increased re-use, recycling, composting and recovery of resources from waste.
- 5.2 How many and what sort of facilities will be needed for dealing with waste in Oxfordshire over this period cannot be predicted with accuracy. The strategy can only be based on the best information available. A separate waste needs assessment²¹ has been prepared which sets out estimates of the quantities of waste that will need to be managed in Oxfordshire; the waste management capacity currently available; and the additional capacity that may be required up to 2030. These will be monitored regularly and updated as and when necessary.
- 5.3 The strategy comprises a spatial strategy for the delivery of the new waste infrastructure that is expected to be needed, which is illustrated on the key diagram at the end of this section, and core policies which provide the context for considering future proposals for waste development. The strategy provides a framework for the identification of sites for waste development in the sites allocations document.

The amount of waste to be provided for

- 5.4 Although attitudes and behaviour concerning waste are changing, the amount of waste produced in Oxfordshire is still expected to grow as population increases and the economy develops, particularly in the main urban areas of Oxford, Banbury, Bicester, Witney, Abingdon, Didcot, and Wantage and Grove. For the three main types of waste produced in Oxfordshire, the amounts needing to be managed could increase over the period to 2030 in line with the estimates in Table 2.

²¹ Waste Needs Assessment, Oxfordshire County Council

Table 2: Estimates of Oxfordshire waste to be managed 2010 – 2030
(tonnes per annum)

Waste Type	2010	2015	2020	2025	2030
Municipal	310,000	330,000	340,000	350,000	370,000
Commercial & Industrial	570,000	580,000	600,000	620,000	640,000
Construction, Demolition & Excavation	650,000*	1,300,000	1,300,000	1,300,000	1,300,000
Total	1,530,000	2,210,000	2,240,000	2,270,000	2,310,000

Figures rounded to nearest 10,000 tonnes

*Reflects reduction in construction activity due to current economic position; prior to the recession approximately 1.3 million tonnes of construction, demolition and excavation waste were produced annually.

- 5.5 Other types of waste are also expected to increase over the period 2010 to 2030:
- Hazardous Waste – from approximately 40,000 to 60,000 tonnes per annum;
 - Metal Waste – from approximately 50,000 to 60,000 tonnes per annum;
 - Sewage Sludge – from approximately 20,000 to 25,000 tonnes per annum (dry solids).
- 5.6 For municipal waste it is assumed that from 2012 there will be no further increase in the amount of waste produced by each household. Projected growth in municipal waste is therefore based only on what will arise from the expected increase in population, using planned increases in housing. Estimates of waste arisings will be kept under review by the Oxfordshire Waste Partnership through its work on the Oxfordshire Joint Municipal Waste Management Strategy.
- 5.7 For commercial and industrial waste, a relatively low growth rate has been assumed (0.63%). This is in line with work done by the South East Waste Planning Advisory Group. Any changes to the basis of this assumption (e.g. the possible effect of closure of Didcot 'A' Power Station) will be monitored.
- 5.8 Production of construction, demolition and excavation waste is believed to have fallen sharply due to the economic downturn, to about half the pre-recession level. It is assumed that this will increase again with economic recovery and that by 2015 production of construction, demolition and excavation waste will have returned to previous levels.
- 5.9 Government policy and the South East Plan (policy W4) point to counties being net self-sufficient in managing the quantity of waste they produce, with cross boundary movements of waste generally being in balance. This principle guides the assessment of the amounts of commercial and industrial waste and construction, demolition and excavation wastes that need to be provided for in Oxfordshire.

5.10 Policy W1 sets out the amounts of waste that it is expected will need to be managed each year and provides the basis for assessing the requirement for waste management facilities in Oxfordshire. The market will also play a key role in establishing the type and number of waste facilities to be provided. The amounts of waste set out in this policy should be viewed as the minimum to be planned for. In calculating the amounts of waste management capacity required, in policies W3 and W4, a contingency of 10% is added for commercial and industrial waste and construction, demolition and excavation waste. Specific provision for the management of waste from outside Oxfordshire is addressed in policy W2.

5.11 **Policy W1: The amount of waste to be provided for**

Provision will be made to enable Oxfordshire to be net self-sufficient in the management of municipal waste, commercial and industrial waste and construction, demolition and excavation waste.

Provision should be made for waste facilities sufficient to manage the following amounts of waste over the period to 2030:

- **Municipal Solid Waste – 370,000 tonnes per annum;**
- **Commercial and Industrial Waste – 640,000 tonnes per annum;**
- **Construction Demolition and Excavation Waste – 1,300,000 tonnes per annum.**

Imports of residual non-hazardous waste

5.12 Large amounts of non-hazardous waste (municipal waste and commercial and industrial waste) are currently received for disposal in Oxfordshire from other counties, in particular from Berkshire. This reflects the availability of landfill in Oxfordshire, the relative proximity of a number of urban centres (e.g. Reading, Wokingham, Bracknell and Newbury) and the general shortage of landfill capacity in Berkshire and north Hampshire. London also has a shortage of landfill capacity and exports waste for disposal to other places, including Oxfordshire, much of it by rail. These movements are over and above the local cross boundary movements of waste that could normally be expected.

5.13 All Oxfordshire's landfills can take waste from outside the county but there are some restrictions on the areas from which waste can come. Waste will continue to be brought into Oxfordshire for disposal by landfill but this should be in declining amounts as new recycling and residual waste treatment facilities are developed in London and elsewhere. The recently adopted London Plan commits the London Boroughs to becoming self-sufficient in dealing with their own waste and similar strategies are being pursued in counties adjoining Oxfordshire, but waste planning in Berkshire is less advanced.

5.14 The transport of non-hazardous waste into Oxfordshire for disposal at landfill sites is not a sustainable practice and cannot be seen as a long term solution.

Oxfordshire will work with other authorities to achieve a reduction in the amounts of waste that is imported into the county for disposal.

- 5.15 Table 3 shows the rate at which non-hazardous waste might be imported into Oxfordshire for disposal assuming other areas move to a position of self-sufficiency in dealing with their own waste over the period of this plan. There is sufficient capacity at the existing landfill sites in Oxfordshire for these quantities of waste (in addition to meeting Oxfordshire’s own landfill requirements).

Table 3: Oxfordshire: estimates of waste imported for disposal to landfill 2010 – 2030

Waste Source	Total Imports for 5 year periods (million tonnes)			
	2010 – 2015	2016 – 2020	2021 – 2025	2026 – 2030
London	1.45	1.04	0.62	0.23
Elsewhere	0.98	0.71	0.42	0.16
Total	2.43	1.75	1.04	0.39

London Waste Imports are from the adopted London Plan

Waste from elsewhere is based on an assumed current import rate of 216,000 tpa (data supplied by Environment Agency), then declining at the same rate as for London

- 5.16 It is a government objective for communities to take more responsibility for their own waste. This would not be helped by the development of new facilities in Oxfordshire to treat residual non-hazardous waste from elsewhere. Such facilities would lead to waste travelling longer distances than necessary and if designed as temporary facilities at landfill sites they are likely to compromise restoration objectives. Only if there is no prospect of a site nearer to the source of waste being identified should facilities for the treatment of residual non-hazardous waste from elsewhere be considered.
- 5.17 Policy W2 complements policy W7, which aims to see the best use being made of the County’s landfill resource. It does not seek to prevent waste crossing administrative boundaries for re-use, recycling, composting or food waste treatment, facilities for which are generally encouraged by policy W5. Nor should it impact on the approach to be taken in managing hazardous wastes (policy W8).

5.18 Policy W2: Import of non-hazardous waste

Provision will be made for disposal of a declining amount of residual non-hazardous waste from London and elsewhere outside Oxfordshire at existing landfill sites. New facilities which provide substantially for the treatment of residual non-hazardous waste from outside Oxfordshire will not be permitted unless there is no prospect of a site nearer to the source of waste being identified.

Waste management targets

- 5.19 The way that waste is dealt with in Oxfordshire has changed markedly in recent years. From a past position of most waste being disposed by landfill, half is now believed to be recycled or recovered for other use. The recycling and recovery of municipal waste is leading this trend (62% in 2011) and further improvement can be expected as a result of investment in new waste facilities.
- 5.20 This strategy seeks, as quickly as is practical, the provision of additional facilities in accordance with the waste hierarchy, to increase recycling and composting and recovery of resources from waste, and to minimise disposal of waste to landfill.
- 5.21 The targets in this strategy inform the waste needs assessment. They take account of waste management targets in the South East Plan but have in many cases been modified to move waste management even further up the waste hierarchy to reflect:
- higher recycling and composting targets for municipal waste that are considered achievable in Oxfordshire; and
 - maximum diversion from landfill of municipal waste and commercial and industrial waste.
- 5.22 Oxfordshire's municipal waste strategy currently aims for recycling of 55% of household waste by 2020, but it is clear that a higher recycling/ composting rate is already being achieved and 70% is now considered to be an achievable target. Other areas are setting recycling targets at around 70% for commercial and industrial waste, and there seems no reason why recycling targets in Oxfordshire for this waste stream should not match those for municipal waste. For construction, demolition and excavation waste the recycling targets of the South East Plan appear at least as challenging as those of the National Waste Strategy and these remain appropriate. The recycling and composting targets in policy W3 are minimum levels for which provision is to be made and should not be regarded as setting ceilings on provision for recycling and composting.
- 5.23 The County Council as Waste Disposal Authority has entered a contract for the treatment of municipal waste that is not recycled or composted, and an energy from waste treatment plant is now being built at Ardley. When this is fully operational, no more than 5% of the County's municipal waste need be sent direct to landfill. The plant is also capable of treating most of Oxfordshire's commercial and industrial waste that is not recycled or composted: there is again no reason why any more than 5% of this waste need be sent direct to landfill (but this does not include hazardous residues from waste treatment processes, which are covered by policy W8).
- 5.24 Most recycled construction, demolition and excavation waste comprises hard material which can be used as aggregate and lesser amounts of soil. The recycling target reflects the physical nature of this waste and is unlikely to be capable of significant improvement. The waste remaining will not all need to be disposed of in landfill as much of it will be used to restore quarries and as engineering and cover material at non-hazardous landfills.

5.25 Policy W3: Waste management targets

Provision will be made for waste to be managed in accordance with the following targets, to provide for the maximum diversion of waste from landfill.

Oxfordshire waste management targets 2010 – 2030

Waste Management / Waste Type	Target Year				
	2010	2015	2020	2025	2030
Municipal waste:					
Composting & food waste treatment	28%	31%	33%	35%	35%
Dry Recycling	24%	31%	32%	35%	35%
Treatment of residual waste	0%	30%	30%	25%	25%
Landfill	48%	8%	5%	5%	5%
Total	100%	100%	100%	100%	100%
Commercial and industrial waste:					
Recycling, composting & food waste treatment	50%	60%	65%	70%	70%
Treatment of residual waste	0%	15%	25%	25%	25%
Landfill	50%	25%	10%	5%	5%
Total	100%	100%	100%	100%	100%
Construction, demolition and excavation waste:					
Recycling	50%	50%	60%	60%	60%
Landfill/Restoration	50%	50%	40%	40%	40%
Total	100%	100%	100%	100%	100%

Municipal waste targets for 2010 approximate to actual performance for 2010/11

- 5.26 Table 4 applies the targets in policy W3 to the amounts of waste to be managed (table 2) and should be used as a guide to the provision to be made for the management of each of the main waste streams. For commercial and industrial waste and for construction, demolition and excavation waste, these include a contingency of 10% to allow for greater uncertainty in the estimates for these waste streams and also to provide some flexibility for the movement of waste across administrative boundaries, which may not always be in balance. Estimates for municipal waste are considered to be more certain and no contingency has been added. These estimates will be kept under review through the plan period and if necessary will be revised.

Table 4: Oxfordshire: estimated waste to be managed 2010 – 2030
(tonnes per annum)

Waste Management / Waste Type	Target Year				
	2010	2015	2020	2025	2030
Municipal waste:					
Composting & food waste treatment	84,100	100,800	111,500	123,100	128,100
Dry Recycling	76,100	100,800	108,100	123,100	128,100
Treatment of residual waste	–	97,500	101,400	87,900	91,500
Landfill	140,000	26,000	16,900	17,600	18,300
Total	300,200	325,100	337,900	351,700	366,000
Commercial & industrial waste:					
Recycling, composting & food waste treatment	311,800	386,000	431,500	479,600	494,800
Treatment of residual waste	–	96,500	166,000	171,300	176,700
Landfill	311,700	160,900	66,400	34,200	35,400
Total	623,500	643,400	663,900	685,100	706,900
Construction, demolition & excavation waste:					
Recycling	358,000	715,000	858,000	858,000	858,000
Landfill/Restoration	357,000	715,000	562,000	562,000	562,000
Total	715,000	1,430,000	1,430,000	1,430,000	1,430,000

Totals for commercial & industrial waste and for construction, demolition and excavation waste include a contingency of 10% to allow for uncertainty in waste estimates and cross-boundary movements.

Landfill totals do not include hazardous waste arising from residual waste treatment.

- 5.27 Materials recovered from construction, demolition and excavation waste provide much of the secondary and recycled aggregate which the County aims to make provision for to meet the target of at least 0.9 million tonnes a year in policy M1. Not all of the recovered material is in the form of hard aggregate, but Table 4 helps to demonstrate that the target in policy M1 should be achievable.

Provision of additional waste management capacity

- 5.28 In deciding on the facilities that might be required and when they should be provided, account needs to be taken of the estimated future level of waste arisings for each waste stream, the waste management targets that are to be applied and the capacity already available to manage that waste.
- 5.29 In line with the waste hierarchy, policy W4 concentrates on the additional capacity likely to be required to recycle, compost and recover resources from waste for the three main waste streams. (Landfill is dealt with separately in

policy W7 and hazardous waste in policy W8). Adequate provision has already been made for of green waste composting, recycling and food waste treatment for municipal waste. The key requirements are for recycling capacity for commercial and industrial waste (which may include some composting and treatment of food waste) and for construction, demolition and excavation waste. The Ardley energy from waste plant should provide for the County’s residual non-hazardous waste treatment needs.

5.30 The total estimated amount of waste to be provided for is approximately 2.3 million tonnes a year (policy W1). Taking into account the targets in policy W3 and the capacity already available at existing waste facilities and sites with planning permission, it is estimated that additional provision needs to be made for recycling and residual waste treatment facilities with a combined capacity of approximately 700,000 tonnes a year. The additional capacity required increases through the plan period, as waste production is expected to increase slightly and as the capacity at existing facilities with temporary planning permission becomes exhausted. The capacity requirement will also be affected by the rate at which planning permissions are taken up, and this provides a further reason for the requirement to be monitored and kept under review.

5.31 Policy W4: Provision of additional waste management capacity

Provision for additional waste management capacity will be made in accordance with the following guideline figures.

Oxfordshire: additional waste capacity required (tonnes per annum)

Waste Type / Management Type	2010	2015	2020	2025	2030
Composting:					
Municipal / Commercial & Industrial	–	–	–	–	–
Recycling:					
Municipal / Commercial & Industrial	–	–*	–*	190,000**	210,000
Construction, Demolition & Excavation	–	–	80,000	390,000	500,000
Residual Treatment:					
Commercial & Industrial	–	–	–	–	–

All figures rounded to nearest 10,000 tonnes

Figures based on estimates of waste arising +10% contingency

* Zero requirement assumes that facilities with permission but not yet built will be delivered; if permitted facilities are not built, there may be a requirement for additional recycling capacity in these years.

** The requirement for additional capacity begins soon after 2020.

Strategy for provision of waste management facilities

- 5.32 Policy W4 identifies a general need for new recovery facilities, in particular for recycling. Policy W5 sets out the general strategy for where facilities should be located. A key objective of this plan is to manage waste as close as possible to the source of its arising, and this generally points to a broad spread of facilities in order to minimise transport distances. However, some types of waste management require larger scale facilities to be practicable and for some waste management technologies there are efficiencies to be gained from larger scale facilities. The strategy therefore provides flexibility to allow the market to respond appropriately to the need for waste management facilities. Sites for facilities, in accordance with the strategy, will be identified in the site allocations document.
- 5.33 As a guide to securing an appropriate distribution of waste management capacity across the county, the population of Oxfordshire is divided into areas based around the large towns, as listed in table 5 and shown on figure 12. Figure 12 also indicates the key locations where growth is planned in the County: Bicester; Oxford; and the Science Vale area.

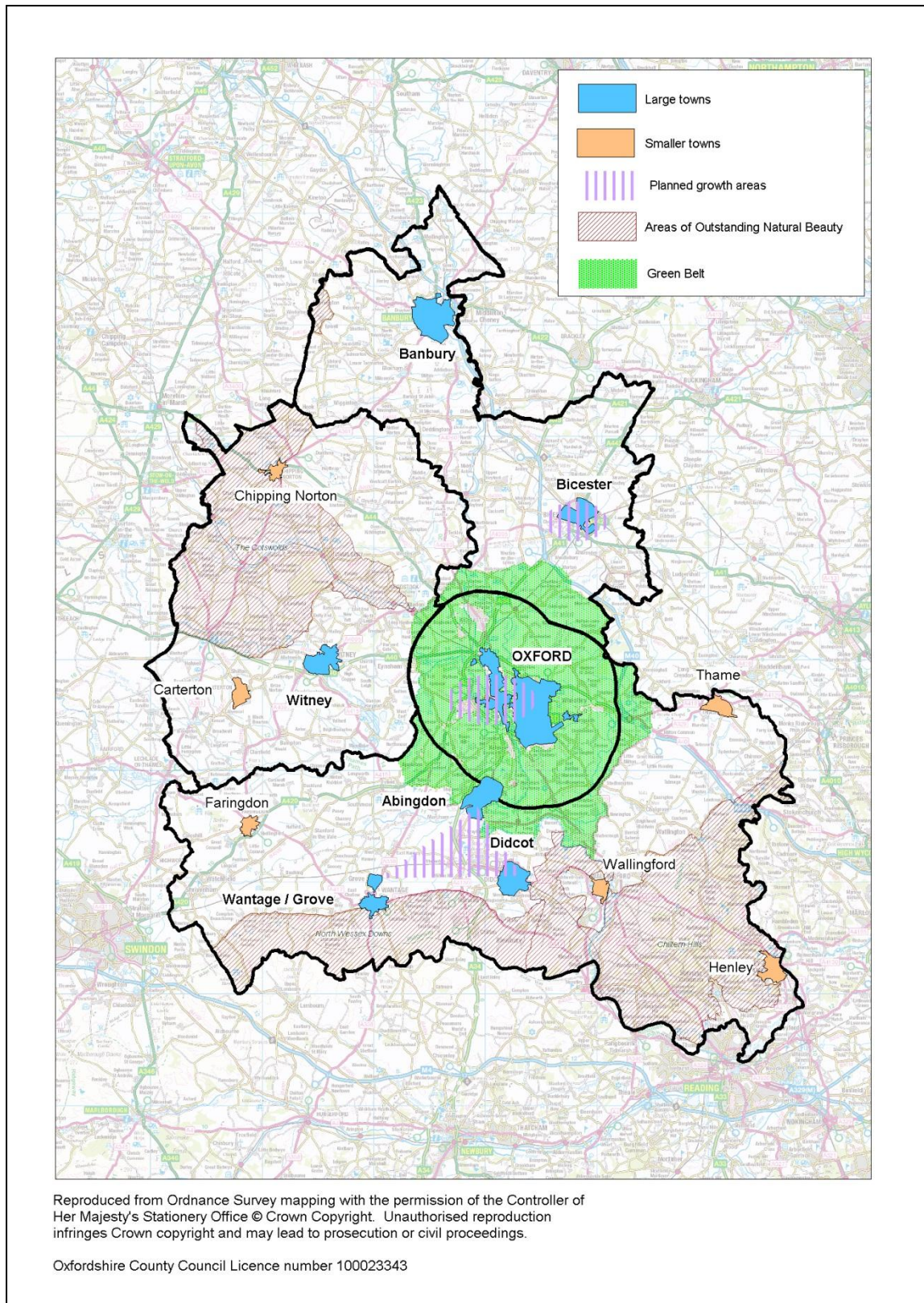
Table 5: Population distribution by areas based around large towns

Area of the County and Large Towns	Population: number	Population: percentage
Northern Oxfordshire: Banbury and Bicester plus most of Cherwell District	120,000	18%
Oxford: City plus nearby communities within surrounding Districts	210,000	32%
Southern Oxfordshire: Abingdon, Didcot and Wantage & Grove plus most of South Oxfordshire and Vale of White Horse Districts	225,000	35%
Western Oxfordshire: Witney plus most of West Oxfordshire District	95,000	15%
Oxfordshire Total	650,000	100%

Figures rounded to nearest 5,000

- 5.34 The need for facilities for each of the main waste streams is considered separately below although municipal and commercial and industrial waste recycling and treatment facilities can cater for both of these types of waste. Locational requirements are similar and acceptable sites will be determined by applying the criteria in the common core policies C1 – C9 and policy W6, which gives guidance on the types of site (in terms of current land use) that may be appropriate for waste management developments.

Figure 12: Areas of the County around large towns, and smaller towns



- 5.35 Facilities should, as far as practicable, be sized and distributed to minimise transport distance; and be well related to and proportionate to the needs of the population of the area they will serve. Provision is needed for a range of additional waste management facilities (taking into account the locations of existing and permitted facilities). Strategic facilities should be situated in a broad area around the towns of Bicester, Oxford, Abingdon and Didcot, which are linked by A34/M40 for convenient movement of waste within the County. There is a concentration of existing development and therefore of waste arisings in this broad area and it includes the main locations where large-scale growth is expected, offering potential opportunity for suitable sites.
- 5.36 Oxford is the largest centre of waste arising and has very few waste facilities at present. Opportunity should be taken to rectify this imbalance where possible, although the broad area of search offers flexibility in meeting Oxford's needs in the event that suitable sites cannot be found in or around the City. Strategic facilities are those that will serve significant parts of the County: as a guide it would be expected that any new facility handling more than 50,000 tonnes of waste per annum would be located within the broad area around Bicester, Oxford, Abingdon and Didcot.
- 5.37 Beyond this broad strategic area, non-strategic waste facilities should generally be located in or close to the other large towns (Wantage and Grove; Witney and Carterton; and Banbury). If possible, facilities should be located within 5 km from the built up area. But the key criterion is good access to the Oxfordshire lorry route network (Core Policy C8), and locations that are further from the towns may be suitable where this is the case.
- 5.38 Significant parts of the County are 'remote' from the advisory lorry routes and main sources of waste. Such areas often contain attractive countryside and small communities. In these areas waste facilities should only be small in scale and should be in keeping with their surroundings. Controls may be imposed, including limits on the volume of waste handled and times of operation, to control excessive growth of operations and ensure that facilities remain compatible with their general location.
- 5.39 Policy W5 gives general encouragement to facilities for re-use, recycling, composting and food waste treatment, to promote the movement of waste as far as possible up the waste management hierarchy, away from landfill. It balances the restrictive approach taken to the treatment of residual waste from other areas in policy W2. Specific provision is made for facilities for municipal waste, the need for which has been established through the Joint Municipal Waste Management Strategy and the Council's Household Waste Recycling Centre Strategy. The policy is not specific about the provision that will be required for commercial and industrial waste and construction, demolition and excavation waste, as this will largely be determined by the market.
- 5.40 The policy takes a more restrictive approach to the provision of facilities for treatment of residual waste, recognising its position below recycling and composting in the waste hierarchy. No need for capacity over and above that to be provided at the Ardley energy from waste plant has been identified, and

significant additions would be likely to draw waste into the County from other areas and could compromise the achievement of recycling and composting targets. It may become viable for small scale residual waste treatment facilities to be provided to serve local areas, possibly linked to local provision of heat and power, and such facilities may be acceptable if they do not prejudice the achievement of recycling and composting targets.

Municipal waste

- 5.41 Facilities to handle municipal waste are already being provided for in accordance with the Joint Municipal Waste Management Strategy and the Household Waste Recycling Centre Strategy adopted by the County Council in April 2011. Existing and planned facilities handling municipal waste are shown on figure 5.
- 5.42 The Recycling Centre Strategy includes provision of a new facility to serve Banbury and the surrounding part of the county (to replace the existing temporary facility at Alkerton). A site for this facility will be identified in the site allocations document.
- 5.43 The Ardley energy from waste plant is expected to meet all Oxfordshire's requirement for residual municipal waste treatment from mid 2014. There is a need to provide for bulking up and transfer of residual municipal waste from the southern and western parts of the County for efficient transportation to Ardley and the County Council (as waste disposal authority) intends to let a contract for this.

Commercial & industrial waste

- 5.44 Taking into account the capacity already available at existing waste facilities and sites with planning permission, it is estimated that provision needs to be made for additional recycling capacity of approximately 200,000 tonnes a year in the latter half of the plan period: this may include capacity for composting and food waste treatment. There are permissions for significant facilities at Banbury, Kidlington (Gosford) and Finmere which, depending on whether or not they are built, could affect the level of provision needed and influence when and where other facilities are required.
- 5.45 Metal wastes are mainly recycled at dedicated scrap yards. Although metal waste production is expected to increase, there are sufficient existing permanent facilities to provide the required capacity.

Construction, demolition and excavation waste

- 5.46 Additional provision needs to be made for recycling facilities with a combined capacity increasing to approximately 500,000 tonnes a year by 2030. Permanent sites need to be carefully chosen, and should be focussed on areas where there are expected to be concentrations of arisings of construction, demolition and excavation waste, particularly where significant new development is planned, taking into account existing permanent facilities. This

requirement will in particular be at Bicester, Didcot, Wantage and Grove, which have very limited capacity at present, and also at Banbury. Oxford will accommodate significant new development involving urban renewal, which is a major generator of this type of waste. There are currently no permanent facilities in or close to Oxford, and provision should be made for such facilities if suitable sites can be identified.

- 5.47 There are potential benefits, through operating synergies and reduced transport of waste, in locating temporary recycling facilities at landfill and quarry sites. Based on the current position, half of the additional capacity required could be provided at temporary facilities, and this approach is allowed for in policy W6.

Waste water (sewage)

- 5.48 Thames Water plc. operates strategic waste water (sewage) treatment works at Banbury, Bicester, Oxford, Witney, Didcot and Wantage/Grove. These treat raw sludge before recycling to agricultural land: three works (Oxford, Banbury and Didcot) recover energy from these processes. Thames Water's 25-year Sludge Strategy (December 2008) identifies a need to improve treatment processes at strategic sites in response to growing waste volumes and a likely reduction in the amount of treated sludge that is spread on agricultural land. This may give rise to a need for new plant such as anaerobic digestion or energy from waste, which could provide opportunities for the provision of facilities that can also deal with other types of waste, particularly commercial and industrial.
- 5.49 The Thames Water Sludge Strategy does not identify a need for additional new strategic waste water treatment sites in Oxfordshire, but the need may arise for new treatment works to be provided locally. Any proposals for new waste water treatment facilities will be considered under policies W5 and W6 and against the criteria in the common core policies.

5.50 Policy W5: Provision of additional waste management facilities

Strategic facilities will be located in a broad area around Bicester, Oxford, Abingdon and Didcot as identified in the key diagram (figure 13). Facilities to serve more local needs will be located where they are well related to the other main sources of waste (Witney/Carterton, Wantage/Grove and Banbury). Only small scale facilities, in keeping with their surroundings, will be located elsewhere in Oxfordshire.

Facilities for re-use, recycling and composting of waste and for food waste treatment will generally be encouraged in order to move the management of Oxfordshire's waste further up the waste management hierarchy. Provision will in particular be made for:

- **A household waste recycling centre to serve Banbury;**
- **Municipal waste transfer stations to serve the south and west of the county;**
- **Recycling plants for commercial and industrial waste and for construction, demolition and excavation waste (to produce recycled aggregates and soils).**

Additional plants for treatment of residual municipal and/or commercial and industrial waste arising in Oxfordshire will only be permitted if it can be demonstrated that there is a need for additional treatment capacity to divert residual waste away from landfill that cannot reasonably be met by existing capacity within the county.

Waste sites will be expected to meet the criteria in policy W6 and the Core Policies.

Sites for Waste Management Facilities

- 5.51 Policy W6 identifies the types of land that are likely to be the most appropriate for future waste management facilities. This policy will be considered alongside the Core Policies in identifying sites for waste development in the site allocations document. It will also be used in the determination of planning applications.
- 5.52 Priority will be given to land that is previously developed and is suitable for industrial purposes; this includes redundant farm buildings in rural areas, which may be suitable for small scale facilities. Greenfield sites will not normally be appropriate for waste management facilities unless there is a compelling need and any harmful impacts can be satisfactorily mitigated. Temporary waste management facilities will normally be acceptable at active mineral working and landfill sites provided they are related to the mineral working or landfill operation and will be removed when that operation is completed; permanent facilities will not normally be acceptable at these sites.
- 5.53 The Cotswolds, North Wessex Downs and Chilterns Areas of Outstanding Natural Beauty lie close to towns where growth is expected and additional waste will be produced. Any new waste facilities that are required should if possible be located in or close to these towns, outside of the Areas of Outstanding Natural Beauty. Proposals for waste development within or in proximity to Areas of Outstanding Natural Beauty will be considered against relevant national and local policies.
- 5.54 Small scale waste management facilities for local needs should not be precluded within Areas of Outstanding Natural Beauty where the development would not compromise the objectives of the designation. It is unlikely that waste management facilities larger than 20,000 tonnes per annum throughput will be compatible with a location within an Area of Outstanding Natural Beauty.
- 5.55 Oxford is the largest generator of waste materials in the county, yet there are few waste facilities available there. There is a need to explore whether there are potential opportunities in the Oxford area for new waste facilities, particularly for recycling commercial and industrial waste and construction, demolition and excavation waste.

5.56 In most cases waste management development in the Green Belt would be inappropriate but, where there is a pressing case for a particular waste facility to be located in Green Belt, the need for the development may constitute a very special circumstance to be taken into account. If there is no reasonable prospect of an alternative location becoming available in the foreseeable future, waste development in the Green Belt may be justified. Strategic facilities which cater for wider needs than those of Oxford will need to demonstrate that no other acceptable site is available within the broad area identified in policy W5. Specific controls may be required to ensure that any facility in the Green Belt serves Oxford in the first instance.

5.57 **Policy W6: Sites for waste management facilities**

Priority will be given to siting waste management facilities on land that:

- **is already in permanent waste management or industrial use; or**
- **is previously developed, derelict or underused; or**
- **involves existing agricultural buildings and their curtilages; or**
- **is at a waste water treatment works.**

Waste management facilities will not be permitted on green field land unless there is an over-riding need that cannot reasonably be met elsewhere. At mineral working and landfill sites, waste management facilities will be permitted provided that the development is related to and will be removed on completion of the mineral working or landfill operation.

Within the Green Belt, waste management facilities may be permitted provided that very special circumstances are demonstrated. Proposals for such facilities will need to demonstrate that they are required to serve a recognised need arising in Oxford and that there is no reasonable prospect of an alternative site becoming available outside the Green Belt. Controls may be imposed to ensure that such facilities serve a waste management need arising in Oxford.

Within Areas of Outstanding Natural Beauty, only small-scale waste management facilities to meet local waste needs will normally be permitted.

Landfill

5.58 Policy W7 deals with disposal of non-hazardous (municipal and commercial and industrial) and inert wastes by landfill. Disposal of hazardous and radioactive waste is covered by policy W8.

5.59 In recent years, Oxfordshire's non-hazardous landfill sites have been taking in more than a million tonnes of municipal and commercial and industrial waste each year. The current estimated remaining landfill space of over 10 million cubic metres will be exhausted by 2023 if that rate of landfilling continues. However, the amount of these wastes arising in Oxfordshire and going to

landfill is already falling as recycling increases and it is expected to decrease further when the Ardley energy from waste plant becomes available. It is also expected that imported waste will decline as new waste treatment facilities are introduced elsewhere. Oxfordshire should still have some non-hazardous landfill space remaining at 2030 but the number of facilities will almost certainly have reduced.

- 5.60 Government policy (PPS10) sees disposal of waste as the option of last resort, but one that must still be adequately catered for, to enable waste to be disposed of in one of the nearest appropriate installations. Further landfill capacity for non-hazardous waste is not likely to be required in the period to 2030 but existing landfill void should be husbanded for the longer term. As the amount of waste going to landfill dwindles, consideration may need to be given to extending the life of existing landfills to ensure best use of this resource over the plan period and beyond.
- 5.61 A large proportion of inert waste from construction, demolition and excavation projects that is not recovered as soils or recycled aggregate is already used beneficially in the restoration of mineral workings and as engineering material at landfill sites. It is uncertain how much material is currently being used in this way, but there is evidence of insufficient suitable material being available to enable restoration of mineral workings.
- 5.62 Approved infilling and restoration schemes for existing and committed quarries will require the use of nearly Approximately 8 million tonnes of inert material will be required for the planned infilling and restoration of currently approved quarries in Oxfordshire, including significant voids at Shellingford and Shipton-on-Cherwell Quarries. It is estimated that sufficient inert waste that cannot be recycled will be produced in Oxfordshire over the period to 2025 to secure these restorations. Further voidspace of about 1.5 million cubic metres will be required for the disposal of Oxfordshire's residual inert waste. This can be provided by the infilling and restoration of other quarries, including the new quarry areas that will be worked during the period of this plan. There should be no shortage of voidspace for the disposal of residual inert waste arising in Oxfordshire. It is likely that there will be a shortage of suitable fill material for restoration. This will need to be taken into account in the consideration of future restoration schemes.
- 5.63 Priority should therefore be given to the use of residual inert waste to restore mineral workings. Other forms of landfill or land-raising using inert waste, including the construction of bunds and other landscaping features and raising the levels of agricultural land should generally be avoided unless there would be a clear environmental benefit. Provision for the additional inert waste disposal capacity required will be made in conjunction with the identification of new sites for mineral working.

5.64 **Policy W7: Landfill**

Priority will be given to the use of inert (construction, demolition and excavation) waste which cannot be recycled as infill material at active or unrestored quarries where such material is required in order to achieve satisfactory restoration for appropriate afteruse. Permission will not be granted for disposal of inert waste elsewhere unless there would be overall environmental benefit.

Permission will not be granted for new landfill sites for non-hazardous waste. Existing non-hazardous landfill capacity will be husbanded for the disposal of residual non-hazardous waste. Permission will be granted to extend the life of existing non-hazardous landfill sites where this is necessary to meet the need for disposal of residual non-hazardous waste or to enable completion and restoration of the landfill.

Landfill sites should be restored in accordance with policy M7 for restoration of mineral workings.

Hazardous and radioactive waste

- 5.65 Hazardous waste comprises a variety of materials that require specialist treatment or disposal. In Oxfordshire, radioactive wastes are generated in small quantities at medical, educational and research establishments. There are significant quantities of legacy radioactive wastes at the former UKAEA research establishment at Harwell; and some radioactive wastes will also be generated in the decommissioning of the JET facility at Culham. Management of radioactive wastes at Harwell and Culham is covered separately in policy W9.
- 5.66 Facilities to manage hazardous and radioactive wastes can be expensive to develop and operate and they often serve an area wider than a single county. These wastes are often transported longer distances to suitable management facilities than are other types of waste. Oxfordshire is a net exporter of hazardous and radioactive waste: it is estimated that less than 30% of the hazardous waste produced is currently managed within the county. Most of the facilities in Oxfordshire are small scale, but there is a significant transfer and recycling facility at Ewelme and an asbestos disposal facility at Ardley landfill, both of which provide for Oxfordshire and a wider area. There are hazardous waste landfills in adjoining counties, at Swindon, Cheltenham and East Northamptonshire (which is also permitted to accept very low level radioactive waste); and the nearest hazardous waste incinerators are at Slough and Fawley (Southampton).
- 5.67 The amounts of hazardous and radioactive waste produced are expected to increase. Further treatment facilities will be required as European legislation directs hazardous waste away from landfill and stricter pollution control measures are introduced. In Oxfordshire, the Ardley energy from waste plant will produce hazardous residues that will need to be disposed of at suitable

facilities. Although difficult to measure, capacity to manage an additional 50,000 tonnes per annum could be required for Oxfordshire to become self-sufficient in the management of these wastes.

- 5.68 In view of the variety of different waste materials produced and the specialist nature of waste facilities needed, provision of the required capacity within Oxfordshire is not likely to be practicable. The aim is therefore for Oxfordshire to be as self-sufficient in the management of these wastes as possible. The South East Plan (policy W15) identifies a number of priorities for the treatment of hazardous waste which could be relevant to Oxfordshire, including: treatment facilities for air pollution control residues (from combustion plants); waste electronic equipment; and contaminated construction, demolition and excavation waste.
- 5.69 The general aim of policy W8 is to enable facilities for these wastes to be developed where they provide for waste produced in Oxfordshire, recognising that most facilities are likely to serve a wider area. Such facilities may be regarded as being strategic but, as they are likely to handle only relatively small tonnages and to have relatively wide catchment areas, it may not be appropriate to limit their location to the broad area for strategic facilities in policy W5. They should, nevertheless, be located in accordance with policy W6 and the common core policies.
- 5.70 Some of Oxfordshire's non-hazardous landfills could be made technically suitable for disposal of hazardous and very low level radioactive wastes. However, there has been no indication that proposals for disposal of these wastes at facilities in Oxfordshire will come forward. This may reflect the proximity of facilities in other counties. Nevertheless, policy W8 provides flexibility to respond to changing circumstances should this be necessary and appropriate. References to hazardous waste in policy W8 include very low level radioactive waste.

5.71 **Policy W8: Hazardous and radioactive waste**

Permission will be granted for facilities for the management of hazardous waste where they are designed to meet a requirement for the management of waste produced in Oxfordshire. Facilities that also provide capacity for hazardous waste from a wider area should demonstrate that they will meet a need for waste management that is not adequately provided for elsewhere.

Management of radioactive waste at Harwell and Culham

- 5.72 Oxfordshire has major research facilities at Harwell (part of which is a nuclear licensed site) and Culham. The Harwell licensed site is being progressively decommissioned with a view to its redevelopment as part of the Harwell Oxford Campus. Part of the Harwell Oxford Campus is within the recently designated Science Vale Enterprise Zone. The Culham facility is located in the Green Belt. It continues to operate the JET project: decommissioning of the JET facility is due to commence within the period of the plan. At present, the planning requirement is to clear the JET facility when the existing temporary permissions expire and to leave the land as landscaped ground, although the United Kingdom Atomic Energy Authority's view is that, consistent with its vision for the site and policies in the emerging South Oxfordshire Core Strategy, the JET site could continue to host research activity.
- 5.73 Harwell will continue to manage quantities of legacy radioactive waste during the period of the plan; such waste will also arise at Culham during the decommissioning of the JET facility. Decommissioning may involve the treatment, storage and disposal of these waste materials. The County Council, as waste planning authority, would deal with any planning applications for proposed waste management facilities.

Intermediate level radioactive waste storage.

- 5.74 There is no waste of high level radioactivity at Harwell or Culham, but some is or will be of intermediate level radioactivity. This will eventually be disposed of at the proposed national facility (deep geological repository) but that is not expected to be available during the period to 2030. In the meantime there will be a requirement for treatment and storage of an estimated 10,000 cubic metres of intermediate level waste from Harwell and a smaller amount from Culham.
- 5.75 Facilities for the treatment and long term storage of intermediate level radioactive waste already exist at Harwell: facilities at Culham do not provide for long term storage. The Nuclear Decommissioning Authority has agreed that some of the waste at Harwell can be more effectively managed at the Sellafield site in Cumbria but the operator of the Harwell site has identified that existing storage facilities at Harwell would still not be adequate to accommodate all of the site's waste. The operator has suggested that any new storage facility at Harwell could also accommodate intermediate level radioactive waste from Culham.
- 5.76 The Nuclear Decommissioning Authority is looking at ways to store intermediate level radioactive waste most effectively, including making best use of existing facilities. It has asked the operator of the Harwell site to look at a case for accelerating the programme for the decommissioning of a former research facility at Winfrith (in Dorset), for which the operator is also responsible. If agreed, this would bring forward the need for additional storage facilities for Winfrith and it has been suggested this could be accommodated at Harwell.

5.77 An intermediate level radioactive waste store is a specialist facility and is costly to provide. The quantity of waste at Culham is small and there would be economies of scale involved if this were to be included in any new storage facility at Harwell; the need for a further building in the Green Belt at Culham would also be avoided. But it is less clear whether there is a justifiable case for bringing waste from elsewhere for storage at Harwell. The issues involved are wide ranging and can only be properly considered when detailed proposals are available in a planning application. However, provision must be made for the long term storage of Oxfordshire's legacy intermediate level radioactive waste, and the appropriate way to do this is by developing the necessary facility at Harwell.

Low level radioactive waste management.

- 5.78 Much of the legacy waste at Harwell and Culham will be of low level radioactivity from demolition and clearance of buildings and groundworks having only a small amount of radioactive contamination. It is estimated that there is approximately 100,000 cubic metres of this waste at Harwell and that a much smaller quantity will arise at Culham. Some of this will have to be taken for disposal to the Low Level Waste Repository near Drigg, Cumbria, or may possibly need to be disposed of at the proposed national deep geological repository. But the majority is likely to be classified as very low level waste and would not need to be disposed at the Low Level Waste repository, where space is now at a premium.
- 5.79 The Environment Agency has identified that very low level radioactive waste can be disposed of in a suitable non-hazardous landfill facility. The Nuclear Decommissioning Authority's approach to disposal of very low level radioactive waste is that local circumstances will dictate whether or not disposal in a bespoke on-site facility or at a commercial facility elsewhere is preferable. There are presently no suitable non-hazardous landfill sites available for the disposal of very low level radioactive waste in Oxfordshire. The nearest facility is at Kings Cliffe, in neighbouring Northamptonshire. This site is currently permitted to 2013 and the operator has applied for an extension for a longer period.
- 5.80 The operator of the Harwell site has undertaken a study of the best practical environmental options for the disposal of very low level radioactive waste both off site and on site. Three credible options were identified and the operator's initial conclusion was that on-site disposal was marginally preferred. Following re-appraisal of the options, taking account of revised guidelines and costs, the operator's preference is now for disposal of the waste at an off-site facility.
- 5.81 Disposal of waste at the site of waste arising would normally be the most sustainable approach to waste management, and the County Council's sustainability appraisal supports such an outcome for Harwell. However, the Council's work was undertaken at a strategic level and the operator's more detailed work indicates that this may not be a sound conclusion in this case. A suitable landfill facility is currently available at Kings Cliffe in neighbouring

Northamptonshire and environmental permits have been issued which would allow waste from Harwell to be disposed there.

- 5.82 Disposal of Harwell's very low level radioactive waste off site would also be more compatible with the site end state, which is redevelopment as part of the Harwell Oxford Campus. Nevertheless, policy W9 includes flexibility to allow for reconsideration of options, including on-site disposal, if plans for disposal elsewhere cannot be secured.
- 5.83 Temporary radioactive waste storage could be required at Culham in support of JET decommissioning activities, although changes to the Environmental Permitting Regulations reduces the need (and therefore volume) for some Culham waste to be categorised as radioactive waste. The operator believes that economic and environmental considerations will result in the disposal of any radioactive waste arising from the decommissioning of the JET facility at off-site facilities. Disposal of very low level radioactive waste at Culham could conflict with the United Kingdom Atomic Energy Authority's proposals to re-use/redevelop the general purpose JET buildings for research work as part of its masterplan for the Culham site as a whole. Policy W9 does allow for on-site disposal at Culham but this site is in the Green Belt, where there is a general presumption against inappropriate development, and such provision should only be made in exceptional circumstances.
- 5.84 **Policy W9: Management of radioactive waste at Harwell and Culham**

Provision will be made for:

- **Storage of Oxfordshire's intermediate level legacy radioactive waste at Harwell Oxford Campus, pending its disposal at a planned national disposal facility elsewhere;**
- **Temporary storage (if required) of low level legacy radioactive waste at Harwell Oxford Campus and Culham Science Centre pending its disposal elsewhere.**

Permission will be granted for the disposal of low level radioactive waste at bespoke facilities at Harwell Oxford Campus or Culham Science Centre only if it can be demonstrated that no other suitable disposal facility is available elsewhere.

Safeguarding waste management sites

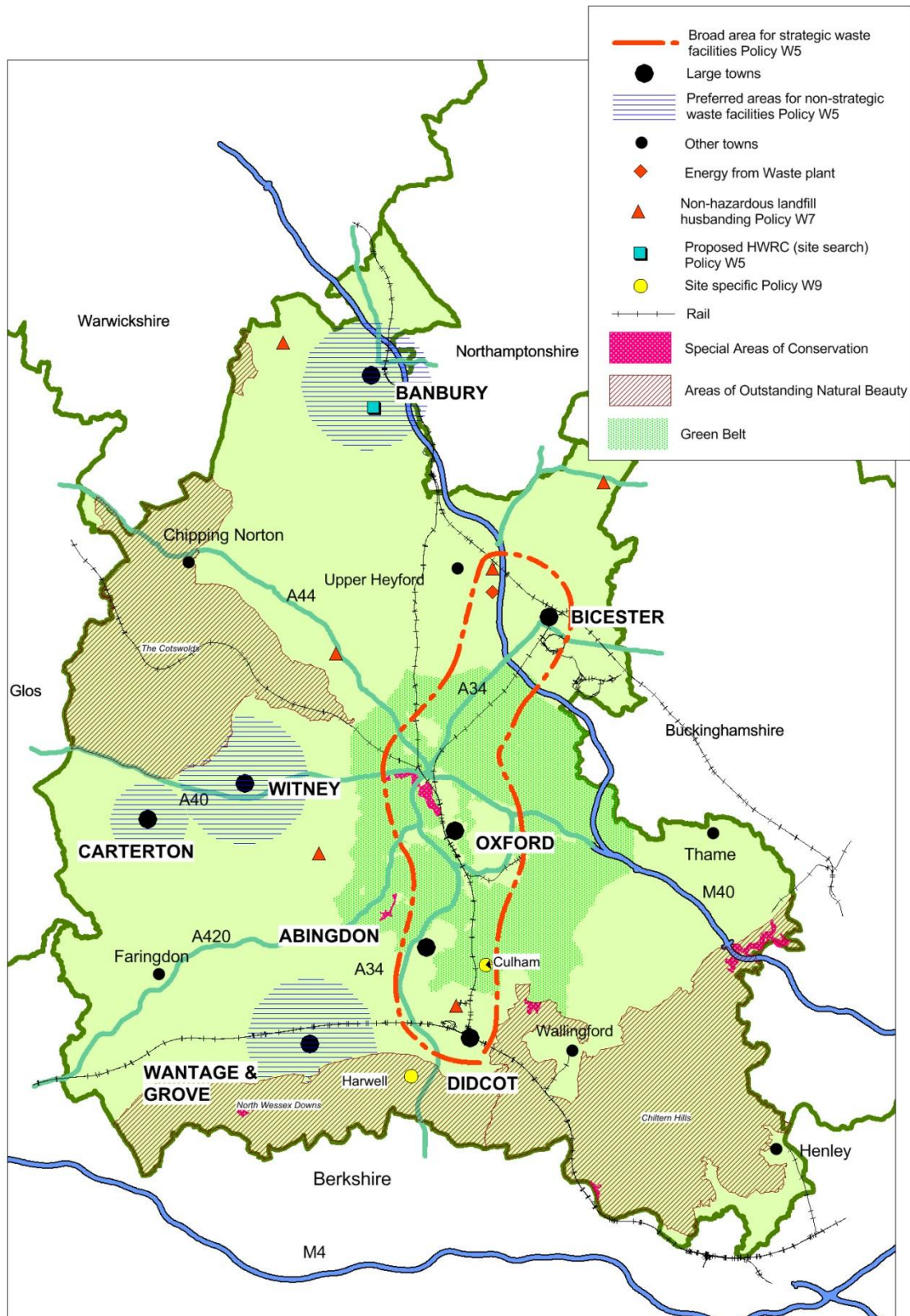
- 5.85 Waste facilities have the potential to give rise to conflicts with a wide range of environmental interests and there is acknowledged difficulty in finding suitable sites. In Oxfordshire this is compounded by the high value of development land and competition from more profitable forms of development. Suitable sites should therefore be safeguarded for waste management use, as provided for by the South East Plan (policy W17).
- 5.86 Safeguarding permanent waste management sites should prevent their loss to other forms of development and keep them available for potential further waste

development and will help to reduce the need to find new sites for waste uses. The safeguarding of permanent waste sites also secures for the long term waste capacity that already contributes to Oxfordshire's waste management needs and has informed assessment of the additional capacity required (policy W4). Permanent waste sites will therefore be identified and safeguarded in the site allocations document, which will also confirm the detailed provisions that will apply to safeguarding.

- 5.87 There will be a presumption against any other form of development taking place on a safeguarded waste site unless a suitable alternative location for the waste use can be provided. A site may be released from safeguarding if it is established that there is no need for a waste management facility of any type in the area, or that the activity is particularly unsuited to its location (e.g. not compatible with an adjoining residential use).
- 5.88 Waste sites subject to temporary planning permission will not be safeguarded unless they are identified in the site allocations document as suitable for permanent waste development or are granted a permanent planning permission.
- 5.89 Careful consideration will also be given to development proposals in the vicinity of a safeguarded waste site. Development that is incompatible with and prejudicial to the future of a safeguarded facility should not be permitted.
- 5.90 **Policy W10: Safeguarding waste management sites**

Existing and proposed permanent waste management sites will be safeguarded for waste management use. Proposals for other development that would prevent or prejudice the use of a safeguarded site for waste management will not normally be permitted unless either provision for new waste management capacity is made at a suitable alternative location or it can be demonstrated that the site is no longer needed or suitable for waste management use.

Figure 13: Waste Key Diagram



6. COMMON CORE POLICIES FOR MINERALS AND WASTE

Climate change

- 6.1 Average carbon dioxide emissions from Oxfordshire are higher than the South East and national averages. The County Council is committed to increasing energy efficiency and reducing emissions. Waste recycling and recovery facilities contribute to reducing emissions by diverting waste from landfill. Minerals and waste facilities that are well located, designed and operated can minimise the generation of greenhouse gases and be resilient to the impacts of climate change.
- 6.2 Minerals and waste development proposals, including operational practices and restoration proposals, must take account of climate change for the lifetime of the proposed development. This will be through measures to minimise generation of greenhouse gas emissions and to allow flexibility for future adaptation.
- 6.3 Methods of adaptation include the use of sustainable drainage systems designed to improve the rate and manner of absorption of water from hard and soft surfaces, reducing direct run-off into rivers or storm water systems; the use of sustainable construction methods; sustainable transport methods where possible; and the use of environmentally friendly fuels.
- 6.4 The County Council expects operators to adopt a low carbon approach in their proposals for minerals and waste development and will consider planning applications in line with national policy on climate change and with policies in the City and District Council Local Plans. Applications for major developments may also provide information on climate change in their accompanying Environmental Statement.

Flooding

- 6.5 Minerals and waste development is vulnerable to various forms of flooding, most commonly from fluvial sources, but damage or inconvenience can also arise from surface water run-off and groundwater. New development may increase flood risk to other property if it is not adequately mitigated. However, sand and gravel workings restored to open water or lower ground levels may have a positive benefit by creating additional storage capacity in the flood plain (see policy M7).
- 6.6 Government policy in the National Planning Policy Framework and related Technical Guidance, March 2012, aims to steer development to areas of lowest flood risk. However, this is not always possible, so development is categorised according to the level of flood risk. The categorisation of different types of minerals and waste development is set out in Appendix 1 (table A.1).
- 6.7 Notwithstanding the level of flood risk identified, the National Planning Policy Framework expects a sequential test to be undertaken to establish whether a

proposed development could otherwise take place in an area of lower flood risk. In some cases a further test (the exceptions test) should be undertaken before a particular development can take place in a vulnerable area. The circumstances in which different types of development can take place in areas that are vulnerable to river flooding are set out in Appendix 1 (table A.2). Consideration of the risk caused by flooding should be considered at all stages of the planning process.

- 6.8 Sand and gravel working is ‘water compatible development’ – a category of development that is least affected by flooding. Such development may take place in the flood plain (Flood Zone 3b) if the sequential test is satisfied. Mineral working which involves processing activities and all waste developments are considered more sensitive to flooding; such development can still take place in areas that are at risk of flooding (see Appendix 1) but should not take place in the functional flood plain.
- 6.9 Mineral processing requires plant and machinery which can displace flood water and interfere with water flows at times of flood. Processing also gives rise to stockpiles of materials which can have similar impacts. Although minerals can be worked from the functional flood plain, any associated processing activity should if possible take place in areas that are at lower risk and situated outside the functional flood plain. The infilling of exhausted workings in the flood plain using waste can interfere with ground water flows and should not take place in the functional flood plain, but the use of inert fill for restoration may be acceptable (see also paragraph 4.46).
- 6.10 In Oxfordshire, the more workable sand and gravel deposits occur in the river valleys and much extraction has already taken place in these areas. A Strategic Flood Risk Assessment (SFRA)²² has been undertaken to assess the extent to which areas of possible minerals and waste development are at risk of flooding, taking into account the future impact of climate change. A sequential test has subsequently been undertaken. This has established that land in the functional floodplain cannot be avoided in identifying the most appropriate areas for future mineral working (policy M3).
- 6.11 The SFRA did not identify a need to consider any form of waste development in areas at high risk of flooding. The SFRA will be used to help identify the most suitable sites for minerals and waste development in a site allocations document. Proposals that come forward through a planning application will require an individual flood risk assessment if situated in any area at risk of flooding. A flood risk assessment is also required for development of a site of more than 1 hectare wherever located. Further guidance is given in the SFRA.

²² Oxfordshire Minerals and Waste (Level 1) Strategic Flood Risk Assessment, Scott Wilson, October 2010

6.12 Policy C1: Flooding

Minerals and waste development will, wherever possible, take place in areas that are not at risk of flooding. Where development takes place in an area of identified flood risk this should only be where alternative locations in areas of lower flood risk have been explored and discounted (using the Sequential Test and Exceptions Test as necessary) and where a flood risk assessment is able to demonstrate that the risk of flooding from all sources is not increased, including:

- any impediment to the flow of floodwater;
- the displacement of floodwater and increased risk of flooding elsewhere;
- any reduction in existing floodwater storage capacity;
- an adverse effect on the functioning of existing flood defence structures.

Water environment

- 6.13 Much of the expected sand and gravel extraction in Oxfordshire is likely to take place in the valleys of the River Thames and its tributaries. Such development can cause disruption to flows of ground water and surface water through dewatering during working and the creation of artificial lakes. It can also impact on water quality and give rise to pollution. Dewatering may impact on local groundwater abstractions and may have an adverse effect on vegetation by lowering the water table. These impacts are all of potential relevance to the planning process.
- 6.14 The restoration of mineral sites using imported fill, even if with inert waste, has the potential to cause pollution to surface and groundwater resources. Surface run-off from hardstanding areas, landfill leachate and the discharge of waste water from waste management operations such as composting or recycling plants can also give rise to pollution if not properly controlled.
- 6.15 The Environment Agency identifies areas that are particularly vulnerable to groundwater pollution, and will advise on the suitability of sites for development. The Agency has a regulatory function in relation to licensing discharges to the water environment and the abstraction of water. All abstractions that are used for drinking water (including private and unlicensed abstractions) by default lie in Source Protection Zones 1 and 2. These are subject to a minimum 50 metre and 250-500 metre radius protection respectively.
- 6.16 Relevant considerations for groundwater are set out in Environment Agency publications, in particular 'Groundwater Protection Policy and Practice (GP3): Part 4 – Legislation and Policies (2008, Edition 1). When granting planning permission, the County Council will consider whether it is necessary to attach appropriate conditions to mitigate any potential harm to groundwater but will liaise with the Environment Agency to ensure these do not conflict with or unnecessarily duplicate other controls.

6.17 Proposals for development should demonstrate how the operation and restoration of the site will, where appropriate, protect water resources from pollution and contribute towards the aim of the River Thames River Basin Management Plan to achieve good ecological status in all waters by 2015.

6.18 **Policy C2: Water environment**

Minerals and waste development will need to demonstrate that there would be no unacceptable adverse impact on or risk to:

- **The quantity or quality of surface or groundwater resources required for habitats, wildlife and human activities;**
- **The quantity or quality of water obtained through abstraction unless acceptable alternative provision can be made;**
- **The flow of groundwater at or in the vicinity of the site.**

Proposals for minerals and waste development should ensure that the River Thames and other watercourses and canals of significant landscape, nature conservation or amenity value are adequately protected.

Environmental and amenity protection

6.19 The need for minerals and waste developments must be balanced against the need to protect people and the environment. The general amenity and health of local residents, and other significant environmental and economic interests, should be protected from unacceptable impacts caused by minerals and waste development. The actual measures required to do this at any particular site can only be established when detailed information is available in a planning application. Setting standard buffer zone distances can lead to unnecessary restrictions being imposed and minerals being unnecessarily sterilised or to inadequate protection measures being required. The buffer zone distances appropriate to any particular development proposal should be decided on a case by case basis at the planning application stage.

6.20 Proposals for minerals and waste development in proximity to settlements should seek to safeguard the character, setting and amenity of those settlements. They should include mitigation measures that incorporate an acceptable separation distance and landscaping and planting that is appropriate to the existing landscape character and consistent with the proposed after-use of the site.

6.21 The potential impact of noise, dust, odour, other air emissions, vibration, vermin and litter on sensitive receptors will be assessed in the consideration of proposals for minerals and waste development.

6.22 Policy C3 addresses the general need to protect the environment and amenity and will be used in conjunction with the other common core policies which address more specific aspects of environmental protection.

6.23 **Policy C3: Environmental and amenity protection**

Proposals for minerals and waste development should demonstrate that they will not have an unacceptable adverse impact on the environment, residential amenity and other sensitive receptors.

Agricultural land and soils

- 6.24 There are extensive areas of high quality agricultural land in Oxfordshire, much of which lies in areas where mineral resources also occur. In line with national policy, where there are proposals for development on agricultural land, poorer quality land should normally be developed in preference to that of a higher quality. However, other considerations, including the importance of biodiversity, the quality and character of the landscape, its amenity value or heritage interest, accessibility to infrastructure, and the protection of natural resources, may justify the development of best and most versatile agricultural land.
- 6.25 Proposals for minerals and waste development will be expected to address the impact of the development on the extent and quality of any best and most versatile agricultural land (grades 1, 2 and 3a). Where appropriate, agricultural land classification survey information should be provided with proposals. Proposals for permanent built development will not normally be permitted on best and most versatile agricultural land.
- 6.26 Where development proposals affect best and most versatile agricultural land, proposals for restoration and aftercare should where possible preserve the long-term potential for the land and its soils as a high quality agricultural resource. Proposals for restoration should also be realistic about the availability of suitable inert infill material if this is required to achieve high quality agricultural restoration.
- 6.27 Where development proposals affect agricultural land, soil quality should as far as practicable be maintained for the long term. Proposals should include appropriate provisions for the sustainable management and use of soils, which may include:
- using poorer quality land in preference to high quality;
 - ensuring land can be put back into a beneficial agricultural use if required;
 - relating restoration proposals to the soils resource;
 - good management of soils during working and restoration operations, including soil stripping, storage and replacement, to maintain soil quality;
 - appropriate aftercare of restored land and associated soils;
 - using surplus soils to improve appropriate areas of poorer quality soils.

6.28 **Policy C4: Agricultural land and soils**

Proposals for minerals and waste development should demonstrate that they take into account the presence of any best and most versatile agricultural land.

Best and most versatile agricultural land should only be used where it can be shown that there is a need for the development which cannot reasonably be met using lower grade land, taking into account other relevant considerations.

Development proposals should make provision for the management and use of soils in order to maintain soil quality, including making a positive contribution to the long-term conservation of soils in any restoration.

Biodiversity and geodiversity

- 6.29 The County Council is committed to conserving and, wherever possible, enhancing biodiversity and geodiversity throughout the county. Oxfordshire has a significant number of statutorily designated sites of international, national and local nature conservation importance, intended to protect important species, habitats and geological features. Sites designated for their international importance have statutory protection and are therefore not included in policy C5. The protection of nationally designated Sites of Special Scientific Interest from development is covered by this policy.
- 6.30 Outside these designated sites, Oxfordshire's landscape also supports a wide array of habitats and species, many of which are recognised through the UK and Oxfordshire Biodiversity Action Plans. The Council will seek to ensure that biodiversity in non-designated areas is also protected and enhanced, and that habitat fragmentation is avoided.
- 6.31 Oxfordshire has very little woodland; only about 6% of the county is woodland, of which half is ancient woodland. Woodland should normally be protected from minerals and waste development. The County Council will encourage tree planting with native species for screening and landscaping and as a productive land use on restored mineral workings where appropriate.
- 6.32 Proposals for minerals and waste development should address the need to conserve and enhance the nature conservation interest of locally important sites such as Conservation Target Areas, Local Wildlife Sites and Local Nature Reserves, and of Local Biodiversity Action Plan habitats and species.
- 6.33 Proposals for mineral working and landfill should seek to achieve a net gain in priority habitats and species and to protect and enhance green infrastructure and strategic biodiversity networks. Proposals for restoration that require infill material for creation of priority habitats should be realistic taking into account the sources and availability of suitable inert material. Where development is proposed within or at a site close to or linked to a Conservation Target Area, appropriate contribution to the achievement of Biodiversity Action Plan targets should be made through maintenance and enhancement of the Conservation Target Area.

6.34 Oxfordshire has a rich geological resource. In addition to important geological sites which are designated as Sites of Special Scientific Interest and Regionally Important Geological and Geomorphological sites, previously unknown geological remains may sometimes be discovered. Where such finds are made, all reasonable efforts should be made to protect those of international, national or local importance. Where this is not possible, finds should be appropriately recorded. Where possible, access to geological finds should be provided for educational purposes.

6.35 **Policy C5: Biodiversity and geodiversity**

Minerals and waste development should not take place where it would be likely to have a significant adverse effect on a Site of Special Scientific Interest, either individually or in combination with other development.

Minerals and waste development should not damage or destroy irreplaceable habitats or biodiversity, including ancient woodland and species rich grassland.

Where proposals for minerals and waste development would affect a site designated for its national or local importance for nature conservation, the development proposals should include appropriate measures to protect, conserve and enhance the nature conservation interest of the site.

Nationally and locally important geological features and sites should be protected from harmful development and retained in situ unless there are exceptional reasons justifying their removal, in which event their presence should be appropriately recorded.

Proposals for mineral working and landfill should demonstrate that the development will make an appropriate contribution to the maintenance and enhancement of local habitats, biodiversity and geodiversity. Where mineral working or landfill is located in or close to a Conservation Target Area, developers will be expected to make an appropriate contribution to the achievement of Biodiversity Action Plan targets through the maintenance and enhancement of the Conservation Target Area and relevant Biodiversity Action Plan priority habitats.

Landscape

6.36 The County Council has a statutory duty to have regard to the purpose of conserving and enhancing the natural beauty of Areas of Outstanding Natural Beauty (AONB). The setting of and views associated with the Chilterns, Cotswolds and North Wessex Downs AONBs should also be taken into account in considering development proposals. Government policy is that major minerals developments should only be permitted in AONBs in exceptional circumstances. Proposals for development within or in proximity to an AONB should be informed by the relevant AONB Management Plan.

6.37 Proposals for minerals and waste development should include appropriate provisions to protect and where possible enhance the quality and character of the countryside and landscape of the whole county. Development proposals, including any proposals for restoration and after use, should take into account the landscape character areas set out in the Oxfordshire Wildlife and Landscape study and other relevant landscape character assessments.

6.38 **Policy C6: Landscape**

Proposals for minerals and waste development should demonstrate that they respect and where possible enhance local landscape character, and are informed by landscape character assessment. Proposals should include measures to mitigate adverse impacts on landscape, including through siting, design and landscaping.

High priority will be given to conservation and enhancement of the natural beauty of the landscape in Areas of Outstanding Natural Beauty (AONB). Proposals for minerals and waste development within or that would affect the setting of an AONB should demonstrate that they take this into account and are informed by the relevant AONB Management Plan. Development within AONBs should normally only be small-scale and should be sensitively located and designed.

Historic environment and archaeology

6.39 Oxfordshire has a wide range of heritage assets which influence the character of the environment and sense of place. There are extensive archaeological assets located in the river valleys where mineral resources are also present. Proposals for minerals and waste development should include measures to conserve designated heritage assets and to protect them from loss or harm.

6.40 Before determining an application for mineral extraction the County Council will normally require the applicant to carry out a preliminary, desk-based archaeological assessment to determine the nature and significance of any archaeological assets, the contribution of the setting to that significance, as well as any potential impacts on the assets or its setting. The County Council may, subject to the results of this initial assessment, require an archaeological field evaluation of the site to determine the appropriate means for mitigating the impact of extraction on the archaeological assets. The preliminary assessment should also identify any previously unidentified heritage assets.

6.41 **Policy C7: Historic environment and archaeology**

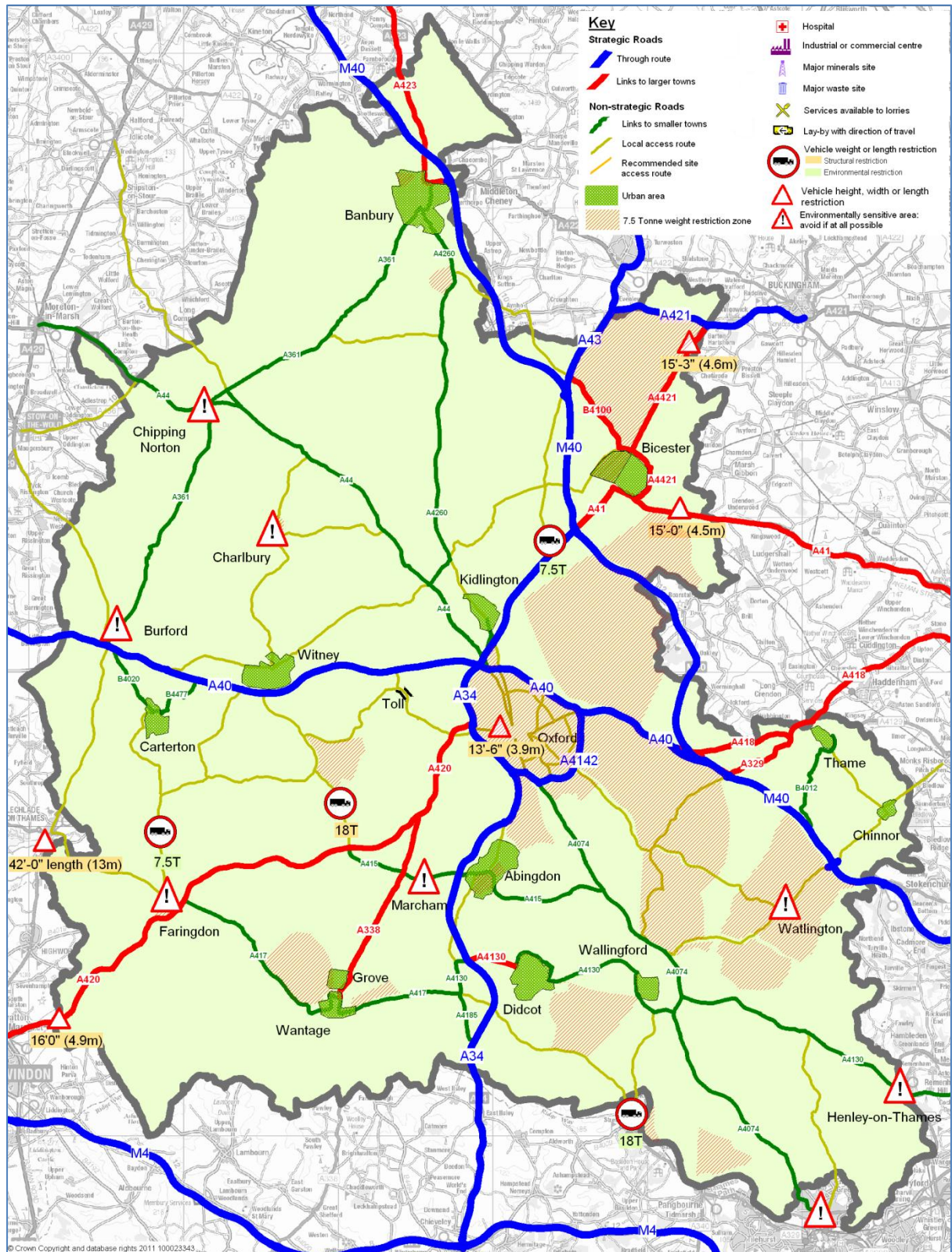
Proposals for minerals and waste development should demonstrate that they will not cause loss or harm to designated heritage assets and the setting of those assets, including Blenheim Palace, scheduled monuments, listed buildings, conservation areas, historic battlefields, and registered parks and gardens, or to archaeological assets which are demonstrably of equivalent significance to a scheduled monument.

Minerals and waste development may be permitted on a site of local archaeological interest if proposals demonstrate that suitable archaeological evaluation, recording of assets and publication of findings is carried out, proportionate to the nature and level of the assets' significance.

Transport

- 6.42 The Oxfordshire Local Transport Plan 2011 – 2030 (LTP3) notes that the County Council will seek to enable development through securing infrastructure and services, to reduce carbon emissions from transport, improve air quality and reduce other environmental impacts, and to ensure that the operation of the transport network balances the protection of the local environment with efficient and effective access for freight and distribution.
- 6.43 The impact of traffic associated with minerals and waste development is an important matter to be taken into account in considering the suitability of locations and sites in relation to communities and the environment generally. This will be taken into account when seeking to minimise the distances minerals need to be transported, to achieve a commensurate reduction in air pollution, greenhouse gas emissions and impact on environmental and residential amenity.
- 6.44 The harm caused by the movement of minerals and waste by road can be reduced by encouraging the uptake of alternative transport methods such as rail, conveyor, pipeline and water. These are usually only practicable where movement of large quantities over long distances is involved or in particular local circumstances. Crushed rock is brought into Oxfordshire by rail to the aggregates rail depots at Banbury, Kidlington and Sutton Courtenay and waste from London is delivered by rail to the Sutton Courtenay landfill site. Although alternative modes of transport are potentially available in other cases, it may not be economically viable or practicable for quarries and waste facilities in Oxfordshire to take advantage of them as most minerals are distributed to local markets and most of the waste that is handled is produced locally. Therefore the main method of transporting aggregates and waste in Oxfordshire is expected to continue to be by road.
- 6.45 Most of the traffic associated with minerals and waste development involves heavy goods vehicles, and it is important that sites secure safe and convenient access to roads that are suitable for such traffic. Figure 14 shows the network of roads that the County Council considers suitable for use by heavy goods vehicles (the Oxfordshire Lorry Route Map). Direct access to this network will not always be possible, particularly in the case of motorways and trunk roads. Where direct access is not possible, sites should generally be in locations that have access to a road which provides convenient access to this network and avoids the use of roads not suited to heavy goods vehicles.

Figure 14: Oxfordshire Lorry Route Map



Source: Oxfordshire Lorry Routes (Feb 2012) Oxfordshire County Council

6.46 Lorries can damage highways and lead to a need for more frequent maintenance. The provision of safe and convenient access to the Oxfordshire lorry route network may also require alteration of a road junction or

improvement to a stretch of minor road. Where this is likely the Council will seek contributions to improvements before development starts and may seek commuted sums towards on-going maintenance.

- 6.47 The harmful impact of lorry traffic in environmentally sensitive locations and settlements can be reduced by routing agreements to control traffic movements. Such agreements will direct lorry traffic to and along the lorry route network (figure 14) taking into account road standard, settlements, road safety issues and other factors. This also needs to be balanced against the likelihood of vehicles driving further, increasing carbon emissions and pollution. If appropriate mitigation of unacceptable traffic impacts is not possible, the site is unlikely to be suitable for the type of development proposed.

6.48 **Policy C8: Transport**

Minerals and waste development will be expected to make provision for adequate and convenient access to and along advisory lorry routes in a way that maintains and if possible leads to improvement in:

- the safety of all road users including pedestrians;
- the efficiency and quality of the road network;
- residential and environmental amenity.

Where improvements to the transport network are required to achieve this, developers will be expected to provide the improvements or make an appropriate financial contribution.

Where practicable minerals and waste developments should be located, designed and operated to enable the transport of minerals and/or waste by rail, water, pipeline or conveyor.

Where minerals and/or waste will be transported by road:

- a) **mineral workings should as far as practicable be in locations that minimise the road distance to locations of demand for the mineral, using roads suitable for lorries, taking into account the distribution of potentially workable mineral resources; and**
- b) **waste management and recycled aggregate facilities should as far as practicable be in locations that minimise the road distance from the main source(s) of waste, using roads suitable for lorries, taking into account that some facilities are not economic or practical below a certain size and may need to serve a wider than local area.**

Rights of way

- 6.49 The Oxfordshire Rights of Way Improvement Plan and the Oxfordshire Local Transport Plan 2011 – 2030 set out the County Council's intention to protect and maintain public rights of way and natural areas so that all users are able to understand and enjoy their rights in a responsible way. These plans also note that the County Council will seek opportunities for network improvements and

initiatives to better meet the needs of walkers, cyclists, and horse riders, including people with disabilities, for local journeys, recreation, and health.

- 6.50 Proposals to enhance, promote and improve the rights of way network and to increase access to the countryside should be brought forward as part of restoration plans for mineral workings and landfill sites. Operators and landowners can usefully discuss plans with the local community before finalising such proposals and they will continue to be expected to contribute to an extended period of aftercare and management.
- 6.51 If a proposal for mineral extraction would necessitate the temporary diversion or closure of a right of way, the planning application should provide all details, including the proposed route, the width of the proposed diversion, the materials to be used and the access implications for users, which demonstrate that a safe and convenient right of way will be maintained. Where temporary diversions are required applications should also provide details of how the right of way will be restored when the mineral workings are completed. The process for diverting a public right of way whether on a temporary or permanent basis follows a separate application process and advice from Oxfordshire County Council should be sought beforehand.
- 6.52 Public access to restored mineral workings should be carefully managed so as to not adversely impact on any sensitive habitats and species in the restored area, particularly within Conservation Target Areas.

6.53 **Policy C9: Rights of way**

The integrity of the rights of way network should be maintained and if possible retained in situ in safe and useable condition. Diversions should be safe, attractive and convenient and, if temporary, should be reinstated as soon as possible. If permanent diversions are required, these should seek to enhance and improve the public rights of way network.

Improvements and enhancements to the rights of way network will generally be encouraged and public access sought to restored mineral workings, especially if this can be linked to wider provision of green infrastructure. Where appropriate, operators and landowners will be expected to make provision for this as part of the restoration scheme, including making appropriate financial contributions.

7. IMPLEMENTATION AND MONITORING

Implementation of the minerals strategy

- 7.1 Implementation of the Minerals Planning Strategy will be achieved primarily through the determination of planning applications for mineral working and other minerals developments. In carrying out its responsibilities as mineral planning authority for dealing with applications for minerals development, the County Council will cooperate with the District Councils (the local planning authorities). The County Council will seek to work closely with local stakeholders, other statutory bodies and the minerals industry, to provide appropriate advice, prior to the submission of applications and to engage with local residents.
- 7.2 The aim will be to ensure that development delivers the objectives of the Minerals Planning Strategy. This will be done by taking due account of the policies and proposals in the strategy in pre-application discussions and when determining planning applications and by imposing appropriate planning conditions and, where necessary, negotiating legal agreements when permissions are granted.
- 7.3 The minerals strategy aims to enable sufficient supply of aggregate minerals to meet the development needs of Oxfordshire and to make an appropriate contribution to wider needs. The quarries and other minerals supply facilities and infrastructure that will be needed will be delivered through investment and development by the private sector, in particular landowners and the minerals industry. Implementation of the strategy will depend on proposals for sufficient sites (for recycling plants, quarry extensions and/or new quarries) in appropriate locations coming forward as planning applications in time to be available to enable supply needs to be met. The Council will cooperate with other mineral planning authorities to ensure an adequate & steady supply of minerals is maintained.
- 7.4 The minerals strategy identifies the provision for minerals supply that needs to be made over the plan period. It makes separate provision for secondary and recycled aggregates and for locally extracted aggregates: sharp sand and gravel; soft sand; and crushed rock; and includes a policy on importation of aggregates by rail.
- 7.5 The strategy indicates the additional provision required for mineral working over the plan period: 14.26 million tonnes of sharp sand and gravel; 1.59 million tonnes of soft sand; and no specific additional requirement for crushed rock. Principal locations where the required mineral working should take place are identified (policy M3). Sites to enable this provision to be made will be identified in the minerals site allocations document.
- 7.6 Provision for secondary and recycled aggregates (policy M1) is to be made through a mix of permanent facilities and temporary facilities at aggregate quarries and inert waste landfill sites. Supply is expected to be primarily from recycling of construction and demolition waste. Provision for this will need to be

made in conjunction with the provision for construction, demolition and excavation waste facilities as part of the Council's waste planning strategy. Many existing aggregates recycling facilities are operating on temporary permissions; these will need to be replaced or have their operational life extended in order to maintain supply capacity. Sites for recycled and secondary aggregate production facilities will be identified in the minerals site allocations document and, where appropriate, will be cross-referenced to sites in the waste site allocations document.

- 7.7 Five areas for working of sharp sand and gravel are identified (four existing working areas and one new area) (policy M3). It is anticipated that current permitted reserves will on average last until around 2016. Further working is to be through extensions to existing quarries or new quarries to replace exhausted quarries, but with no increase in the overall level of working in the two West Oxfordshire areas (Lower Windrush Valley and Eynsham / Cassington / Yarnton). A decrease in working in the Lower Windrush Valley is envisaged after 2020. The new area (at Cholsey) is proposed to replace the existing Sutton Courtenay area around 2020. Implementation of the strategy will depend on sufficient applications coming forward in acceptable locations to enable all five areas to make an appropriate contribution to the overall level of supply, including a phased transition of working from the Sutton Courtenay area to the Cholsey area.
- 7.8 Three areas of existing working are identified for further provision of soft sand (policy M3). It is anticipated that current permitted reserves will on average last until around 2023. Continuation of supply is preferentially to be through extensions to existing quarries, to make the most efficient use of existing plant and infrastructure. But new quarries will be permitted if sufficient supply cannot be made through extensions. Implementation of the strategy will depend on sufficient applications coming forward in acceptable locations to enable each area to make an appropriate contribution to the overall level of supply.
- 7.9 Three areas of existing working are identified for further provision of crushed rock (policy M3). It is anticipated that current permitted reserves will on average last until 2030. Additional provision may be needed towards the end of the plan period, especially if demand increases. If so, this is preferentially to be through extensions to existing quarries, to make the most efficient use of existing plant and infrastructure. Any site allocations required will be identified in the site allocations document. New quarries will be permitted if sufficient supply cannot be made through extensions.
- 7.10 Proposals for mineral working may come forward in other locations, but these will not normally be permitted unless the provision required to deliver the strategy cannot be met from identified areas.
- 7.11 Possible sites for mineral working have been put forward (nominated) to the County Council by mineral operators and landowners. A preliminary technical assessment of these site options has been undertaken to check that the minerals planning strategy is potentially capable of being delivered. (A more

detailed assessment of sites will be carried out when the minerals site allocations document is prepared.)

- 7.12 Provision to meet requirements for non-aggregate minerals, in particular building stone and clay, will depend on applications coming forward in acceptable locations, which will be considered against policy M5.
- 7.13 Improvements to infrastructure, particularly roads and junctions, may be required in order that new quarries or extensions to existing quarries can be developed in a way that is locally acceptable. Where possible, such requirements will be identified in the minerals site allocations document. Appropriate financial contributions for such improvements will be sought from mineral developers and operators through legal agreement at the planning application stage. Provisions for obtaining developer contributions are changing with the introduction of the Community Infrastructure Levy, which will need to be taken into account in implementing the strategy.
- 7.14 The strategy depends on permitted mineral working sites, secondary and recycled aggregates production sites and aggregates rail depots being available to be worked or operate to their full extent or capacity. It also depends on potentially workable mineral resources being kept available throughout the plan period and not being sterilised by other development. This is also important for ensuring that mineral resources are potentially available for the longer term. Mineral safeguarding areas will be defined and identified in the minerals site allocations document; and mineral consultation areas will be drawn up to define areas wherein the District Councils must consult the County Council on applications for specified types of development. Delivery of this part of the strategy will require liaison with the District Councils.
- 7.15 The core policies have been developed to ensure the minerals strategy is delivered in an environmentally acceptable way, including by setting out criteria against which planning applications will be considered. These policies will be implemented by the County Council through the development management process.

Monitoring of the minerals strategy

- 7.16 The Minerals Planning Strategy is based on current circumstances and currently available information, but it must be able to respond to changing circumstances and needs. The County Council as Mineral Planning Authority will monitor the effectiveness of the policies and proposals in delivering the vision and objectives of the strategy and the changing context within which the strategy is being used.
- 7.17 The Council will produce a Monitoring Report on its minerals and waste plans at least annually, in accordance with the Planning and Compulsory Purchase Act 2004 (as amended). These reports will include an assessment of:
- the extent to which the policies in minerals and waste plans are being achieved;

- any changes needed where policies are not working or objectives are not being met; and
- progress on the preparation of minerals and waste plans.

Any relevant changes in government or other policy will be addressed through the monitoring reports.

- 7.18 The Council will continue to carry out regular monitoring of sales and reserves of aggregate minerals and of planning applications and decisions, as well as monitoring of mineral working sites. The Council will work with the minerals industry and with other mineral planning authorities, including through the South East Aggregates Working Party, in monitoring sales, distribution and reserves of aggregates and changes in patterns of supply, and in forecasting future demands.
- 7.19 The Council will also make use of monitoring and survey work undertaken by other agencies, such as the Environment Agency and Natural England, and of other work carried out within the Council such as for transport planning and biodiversity, to monitor change.
- 7.20 Observations recorded in the monitoring reports will feed into reviews of the Minerals Planning Strategy. It is intended that the strategy will be reviewed and rolled forward every five years. But monitoring may indicate a need for review of part or the whole of the strategy sooner. For example, if it becomes clear that the provision for minerals supply in the strategy is insufficient or excessive, or that sites are not coming forward as planning applications within strategy areas and site allocations, an earlier review of the strategy may be required.
- 7.21 The implementation and monitoring framework for the minerals planning strategy is set out in table 6. The indicators and targets have been developed to provide a consistent basis for monitoring the performance of the strategy's vision, objectives and policies for minerals development to 2030. The indicators reflect the intent of the strategy objectives and the sustainability appraisal framework identified in the Sustainability Appraisal Report.
- 7.22 In the case of some of the common core policies it is not possible to set a specific target. However, it is still possible to assess the effectiveness of these policies in relation to minerals development.
- 7.23 The results of monitoring against the implementation and monitoring framework will be reported in the monitoring reports.

Implementation of the waste strategy

- 7.24 The waste planning strategy is a plan for where the facilities that will be needed to deal with waste in Oxfordshire should be located. It must be read and applied in conjunction with strategies that cover other aspects of waste management. Other strategies, including the Oxfordshire Joint Municipal Waste Management Strategy, have informed the proposals in the plan for how different wastes should be dealt with.

- 7.25 This plan sets targets for ways in which different wastes should be managed (by composting, recycling, treatment and landfill) but it does not attempt to dictate which particular technologies should be used within each type of management. Different technologies will be appropriate in different circumstances. This is largely a matter for the waste industry. Waste management technologies are likely to develop and change through the plan period.
- 7.26 The waste planning strategy addresses the government's aim of reducing the amount of waste produced in the estimates of waste growth. Other agencies and strategies are better able to lead on influencing behaviour patterns and financial issues relating to waste generation, such as the government's Waste Resources Action Programme (WRAP) and European Pathway to Zero Waste programme for South East England. Locally, the Oxfordshire Waste Partnership has produced a Waste Prevention Strategy 2010-2020.
- 7.27 Implementation of the Waste Planning Strategy will be achieved primarily through the determination of planning applications for waste facilities. In carrying out its responsibilities as waste planning authority for dealing with applications for waste development, the County Council will cooperate with the District Councils (the local planning authorities). Where the District Councils deal with proposals for development which have significant implications for the management of waste, the County Council should be consulted. The County Council will seek to work closely with local stakeholders, other statutory bodies and the waste industry, to provide appropriate advice, prior to the submission of applications.
- 7.28 The aim will be to ensure that development delivers the objectives of the Waste Planning Strategy. This will be done by taking due account of the policies and proposals in the strategy in pre-application discussions and when determining planning applications and by imposing appropriate planning conditions and, where necessary, negotiating legal agreements when permissions are granted.
- 7.29 The waste strategy aims to enable sufficient waste facility capacity to deal with the waste that is expected to be produced in Oxfordshire, including from new developments, and some waste from outside the county. The waste facilities and infrastructure that will be needed will be delivered through investment and development by the private sector.
- 7.30 In the case of facilities for municipal waste, this is likely mainly to be done under contract or partnership arrangements with the County or District Councils, as waste disposal and collection authorities. Implementation of the strategy will depend on proposals for sufficient facilities (particularly for composting, recycling and treatment of waste) in appropriate locations coming forward as planning applications in time to be available when they are required to enable waste management needs to be met.
- 7.31 The waste planning strategy identifies the provision for additional waste management capacity that needs to be made over the plan period (policy W4)

and the broad locations where the additional waste management facilities to meet this requirement should be located (policy W5). Sites that would be suitable for facilities to enable this provision to be made will be identified in the waste site allocations document.

- 7.32 Possible sites for waste development have been put forward (nominated) to the County Council by waste operators and landowners; and a number of other possible sites have been identified during preparation of the plan. These potential sites have informed the generation of the options for provision of waste facilities, which have in turn led to the waste planning strategy.
- 7.33 For facilities that are needed in the short term, site availability is particularly important; preliminary work indicates that the strategy should be capable of being delivered. For longer term needs, other sites may be put forward or identified, but the number of site options already known indicates that needs should be capable of being met in accordance with the strategy. A preliminary assessment of sites will be prepared and a more detailed assessment of sites will be carried out when the waste site allocations document is prepared.
- 7.34 Some proposals for waste facilities may come forward in locations that are not identified in the plan. Government policy (PPS10) is that such applications should be considered favourably where they are consistent with planning policy. This may lead to more capacity for waste composting, recycling and treatment being permitted than has been estimated to be needed. But, except where it is clear this would lead to an unacceptable level of waste importation into Oxfordshire (contrary to policy W2) or there would be unacceptable impact, the provision of facilities that would help to increase the amount of waste diverted away from landfill should not be restricted.
- 7.35 In addition to the provision for additional waste facilities made in this plan, at the local community level smaller scale facilities can make an important contribution towards meeting targets for increased recycling and composting of waste. The local bottle banks and recycling bins already located in many communities provide tangible evidence of this. Opportunities may arise for further local facilities of this type to be provided and also for community composting sites, like the existing community facility at Coleshill.
- 7.36 Major development proposals, such as large housing schemes, may provide opportunities for waste management facilities to be provided as part of the infrastructure for the overall development. Such facilities could provide a local waste recycling site or a local source of heat and power generated from waste. This could help to deliver the provision proposed in policy W5 or could be additional provision in accordance with policy W6.
- 7.37 Improvements to infrastructure, particularly roads and junctions, may be required in order that new or expanded waste management facilities can be developed in a way that is locally acceptable. Where possible, such requirements will be identified in the waste site allocations document. Appropriate financial contributions for such improvements will be sought from developers and waste operators through legal agreement at the planning

application stage. Provisions for obtaining developer contributions are changing with the introduction of the Community Infrastructure Levy, which will need to be taken into account in implementing the strategy.

- 7.38 The Government Review of Waste Policy in England 2011²³ refers to the principle that those most impacted by waste developments should benefit most, and says this should operate at all levels. The Review says this should be achieved through dialogue between communities, local authorities and waste operators and refers to industry protocols for providing community benefits in relation to infrastructure projects, as has been developed for wind generation. The provision of community benefits by developers could help in securing the timely delivery of the waste facilities that are needed in Oxfordshire. The County Council will work with communities and waste operators on the provision of community benefits in relation to waste development proposals where this is appropriate having regard to the nature, scale and potential impacts of the development.
- 7.39 The strategy depends on permitted permanent waste facility sites being available to operate to their full capacity throughout the plan period and not being prejudiced by other development. Existing and proposed permanent waste management sites will be safeguarded for waste use (policy W10). The District Councils should consult the County Council on applications for other development that would prevent or prejudice the use of a safeguarded site for waste management. Delivery of this part of the strategy will require liaison with the District Councils.
- 7.40 The core policies have been developed to ensure the waste strategy is delivered in an environmentally acceptable way, including by setting out criteria against which planning applications will be considered. These policies will be implemented by the County Council through the development management process.

Monitoring of the waste strategy

- 7.41 The Waste Planning Strategy is based on current circumstances and currently available information, but it must be able to respond to changing circumstances and needs. Regular monitoring is necessary, both to identify the impact of changes and to check that the strategy is achieving its objectives and identify whether there is a need to adjust the strategy in order to achieve the desired outcomes.
- 7.42 The County Council as Waste Planning Authority will monitor the effectiveness of the policies and proposals in delivering the vision and objectives of the strategy; and the changing context within which the strategy is being used.

²³ Government Review of Waste Policy in England 2011, Defra, June 2011

- 7.43 The Council will produce a Monitoring Report on its minerals and waste plan at least annually, in accordance with the Planning and Compulsory Purchase Act 2004 (as amended). These reports will include an assessment of:
- the extent to which the policies in minerals and waste plan are being achieved;
 - any changes needed where policies are not working or objectives are not being met; and
 - progress on the preparation of minerals and waste plan documents.
- Any relevant changes in government or other policy will be addressed through the monitoring reports.
- 7.44 The Council monitors the quantities of municipal waste produced and the ways in which it is managed, but is reliant on other agencies, in particular the Environment Agency, for data on other types of waste. The Council also monitors planning applications and decisions and the capacity available at waste facilities, as well as monitoring waste sites. The Council will work with the waste industry, the Environment Agency and with other waste planning authorities, including through the South East Waste Planning Advisory Group, in monitoring production and movements of waste and the ways in which it is managed and in forecasting future waste production and waste management requirements.
- 7.45 The Council will also make use of monitoring and survey work undertaken by and information available from other agencies, such as Defra, the Environment Agency and Natural England, and on other work carried out within the Council such as for transport planning and biodiversity, to monitor change.
- 7.46 Observations recorded in the monitoring reports will feed into reviews of the Waste Planning Strategy. It is intended that the strategy will be reviewed and rolled forward every five years. But monitoring may indicate a need for review of part or the whole of the strategy sooner. For example, if it becomes clear that the provision for additional waste facilities in the strategy is insufficient, or that sites are not coming forward as planning applications within strategy locations and site allocations, an earlier review of the strategy may be required.
- 7.47 The implementation and monitoring framework for the waste planning strategy is set out in table 6. The indicators and targets have been developed to provide a consistent basis for monitoring the performance of the strategy's vision, objectives and policies for waste development to 2030. The indicators reflect the intent of the strategy objectives and the sustainability appraisal framework identified in the Sustainability Appraisal Report.
- 7.48 In the case of some of the common core policies it is not possible to set a specific target. However, it is still possible to assess the effectiveness of these policies in relation to waste development.
- 7.49 The results of monitoring against the implementation and monitoring framework will be reported in the monitoring reports.

Table 6: Implementation and Monitoring Framework

Minerals Planning Strategy Policies				
Minerals policy	Related minerals planning objectives & Sustainability Appraisal objectives	Indicators	Targets	Implementation partners
M1: Provision for secondary and recycled aggregates	i, iii, iv SA5, SA8	<p>Permissions granted for secondary and recycled aggregates supply</p> <p>Capacity of secondary and recycled aggregates supply facilities</p> <p>Annual production of secondary and recycled aggregates</p>	Total capacity 0.9 million tonnes a year	Minerals, waste, demolition and construction industries; Environment Agency; District Councils; WRAP
M2: Provision for mineral working	i, iii, iv SA11	<p>Permissions granted for working aggregate minerals</p> <p>Landbanks of permitted reserves for sharp sand and gravel, soft sand and crushed rock</p> <p>Annual sales of sharp sand and gravel, soft sand and crushed rock extracted in Oxfordshire</p>	Landbanks of at least 7 years for sand and gravel (at 1.01 mtpa), and soft sand (at 0.25 mtpa); and at least 10 years for crushed rock (at 0.63 mtpa)	Minerals industry; South East Aggregates Working Party

M3: Strategy for location of mineral working	i, ii, iii, iv, v, vi, vii SA11	<p>Permissions granted for working aggregate minerals</p> <p>Percentage of permissions for mineral working (by tonnage yield permitted for each mineral type) consistent with spatial strategy</p>	90% of tonnage permitted for each mineral type consistent with strategy	Minerals industry
M4: Aggregates rail depots	iii, iv, vi, x SA7, SA12	<p>Number of mineral sites with rail access</p> <p>Number of applications for new aggregate rail depots</p> <p>Number of developments permitted that adversely affect operation or implementation of a safeguarded depot site</p> <p>Number of permitted aggregates rail depots in Oxfordshire</p> <p>Annual tonnage of aggregates imported into Oxfordshire by rail</p>	<p>Unimpeded operation of all existing and planned rail depots</p> <p>No significant prejudice to operation or establishment of rail aggregate depots</p>	Minerals industry; District Councils; development industry
M5: Non-aggregate mineral working	iii, iv, vi SA3	Number of applications granted permission contrary to advice of the Environment Agency in relation ground and surface water quality	No permissions granted contrary to Environment Agency advice	Minerals industry; Environment Agency
M6: Mineral safeguarding	iv, ix SA11	<p>Area of mineral resources sterilised by non-mineral development</p> <p>Number and area of developments</p>	No significant sterilisation of mineral resources within mineral safeguarding	Minerals industry; District Councils; development industry

		<p>permitted within mineral consultation areas contrary to the advice of the County Council</p> <p>Area of district local plan allocations within mineral consultation areas contrary County Council advice</p>	<p>areas</p>	
M7: Restoration of mineral workings	viii SA1, SA2, SA3, SA6, SA8, SA9	<p>Number of mineral working permissions which contribute to the objectives of Biodiversity Action Plans and Conservation Target Areas</p> <p>Number of mineral working permissions which will meet landscape designation objectives and enhance local amenity and /or improve access to the countryside</p> <p>Number of mineral working permissions which provide flood storage as part of their restoration scheme</p>	<p>100% of restoration schemes accord with policy</p> <p>100% of restoration schemes secure biodiversity gains or local benefits</p>	<p>Minerals industry; biodiversity partner organisations (including RSPB & BBOWT); Parish and District Councils</p>

Waste Planning Strategy Policies				
Waste Policy	Related waste planning objectives & Sustainability Appraisal objectives	Indicators	Targets	Implementation Partners
W1: The amount of waste to be provided for	i SA 11	Actual or estimated annual production of municipal, commercial & industrial and construction, demolition & excavation wastes	Estimates of waste to be managed 2010 – 2030 in table 1	Waste operators; Environment Agency; SEWPAG
W2: Waste imports	iii, iv, v	Amount of waste received annually at landfills from London and elsewhere outside Oxfordshire Number of developments and additional capacity permitted providing for treatment of waste from outside Oxfordshire	Estimates of waste imports in table 3 No permissions for waste treatment granted contrary to policy	Waste operators; Environment Agency; SEWPAG; London Authorities
W3: Waste management targets	ii, vii SA5, SA10	Actual or estimated annual percentages of municipal, commercial & industrial and construction, demolition & excavation wastes composted, recycled, treated and landfilled Capacities of existing and permitted waste management facilities relative to actual or	Waste management targets in policy W3	Waste operators; Environment Agency; SEWPAG

		estimated amounts of wastes to be managed		
W4: Provision of additional waste management capacity	i, ii SA 11	Existing and permitted waste management capacity for composting, recycling and residual treatment of municipal, commercial & industrial and construction, demolition & excavation wastes relative to actual or estimated amounts of wastes to be managed	Capacity for composting, recycling and residual treatment at least sufficient for amounts of wastes to be managed	Waste operators; Environment Agency; SEWPAG
W5: Provision of additional waste management facilities	i, ii, iii, iv	Number and locations of additional strategic waste facilities permitted relative to provision in policy W5	No permissions granted for strategic facilities contrary to policy	Waste operators
W6: Sites for waste management facilities	vi, viii	Number of permitted sites for waste management which are on previously developed land, derelict or underused land, or use existing agricultural buildings Number of permitted sites for waste management which are co-located with other waste facilities	No permissions granted for facilities contrary to policy	Waste operators
W7: Landfill	i, v, viii SA 11	Number of permitted applications for inert waste landfilling for restoration purposes Existing and permitted landfill capacity relative to estimated requirements	No additional capacity for inert landfill permitted contrary to policy No additional capacity for non-hazardous landfill permitted contrary to policy Existing and permitted	Waste operators; District Councils

		<p>Number, type and capacity of permissions for additional landfill for inert and non-hazardous wastes</p> <p>Number of developments permitted that would reduce non-hazardous landfill capacity</p>	<p>capacity for inert and non-hazardous landfill sufficient for 10 years</p> <p>No net loss of non-hazardous landfill capacity</p>	
W8: Hazardous waste	i, ii, iii	Number, type and capacity of existing and permitted hazardous waste facilities in Oxfordshire	No reduction in existing and permitted hazardous waste facilities	Waste operators; Environment Agency; SEWPAG
W9: Radioactive waste	iii, vi, viii	<p>Capacity and type of radioactive waste management facilities permitted at Harwell or Culham relative to needs for dealing with Oxfordshire waste</p> <p>Capacity and type of any radioactive waste management facilities permitted at other locations</p>	<p>No permissions granted for facilities contrary to policy</p> <p>Sufficient capacity permitted to meet radioactive waste management requirements that need to be met in Oxfordshire</p>	Site Licence Companies; Nuclear Decommissioning Authority; Environment Agency; SEWPAG; Other Waste Planning Authorities
W10: Safeguarding	i, ii	<p>Number and capacity of existing and permitted permanent facilities potentially available for waste use</p> <p>Number of developments permitted or local plan proposals that would reduce waste management capacity</p>	No reduction in number of or net loss of waste management capacity at permanent facilities	Waste operators; Environment Agency; District Councils

Common Core Policies				
Core policy	Related minerals and waste planning objectives & Sustainability Appraisal objectives	Indicators	Targets	Implementation partners
C1: Flooding:	Mv Wvi SA6	Number of minerals and waste permissions granted contrary to advice of the Environment Agency in relation to flooding Number of mineral restoration schemes permitted providing flood storage capacity	No permissions granted contrary to Environment Agency advice Creation of flood storage capacity in restored quarries located in flood plain	Minerals and waste industries; Environment Agency
C2: Water environment	Mv, Mvii, Mviii Wvi SA2, SA3, SA8	Number of minerals and waste permissions granted contrary to advice of the Environment Agency in relation to water quality or effects upon groundwater	No permissions granted without appropriate protection or mitigation measures	Minerals and waste industries; Environment Agency; British Waterways; District Councils
C3: Environmental and amenity protection	Mvi, Mvii, Wiii Wvi	Number of permissions which could adversely impact on the environment, residential amenity or other sensitive receptor to an unacceptable extent	No permissions granted without appropriate protection or mitigation measures	Minerals and waste industries; District Councils
C4: Agricultural Land and soils	Mvii, Mviii, Wvi, Wviii SA9	Number of minerals and waste permissions which result in the loss of best and most versatile	Where permissions are granted for working on areas of	Minerals industry; Natural England; DEFRA

		agricultural land (Grades 1,2,3a, 3b)	best and most versatile agricultural land, protection of soil quality and restoration of BMV land is ensured	
C5: Biodiversity and geodiversity	Mvii, Mviii Wvi SA1, SA2	Number and area of permissions which are within designated sites or would adversely impact on important biodiversity or geodiversity interests Number and area of permissions for mineral working which will help to meet Oxfordshire Biodiversity Action Plan targets through enhancement of Conservation Target Areas	No permissions granted without appropriate protection or mitigation measures 100% of mineral working permissions contribute to meeting biodiversity targets	Minerals and waste industries; Natural England; Environment Agency; other biodiversity partner organisations (including RSPB & BBOWT).
C6: Landscape	Mvii, Mviii Wvi SA1, SA2	Number and area of permissions which are within or affect AONBs Number of permissions which will meet landscape designation objectives Number and area of permissions which would adversely impact on other important landscape interests	No permissions granted without appropriate protection or mitigation measures	Minerals and waste industries; AONB Management Boards
C7: Historic environment & archaeology	Mvii Wvi	Number and area of permissions which would adversely impact on important historic environment	No permissions granted without appropriate protection	Minerals and waste industries; English Heritage

		assets or archaeological remains	of the historic environment	
C8: Transport	Mv, Mvi, Mvii Wiii, Wv, Wvi SA4, SA5, SA7, SA8	<p>Number of minerals and waste permissions with lorry routeing agreements</p> <p>Number of complaints relating to minerals or waste lorry traffic</p> <p>Number of permissions which would result in increased minerals and waste traffic through settlements</p> <p>Number of permissions for developments including non-road transportation of minerals or waste</p>	<p>No permissions granted without appropriate protection or mitigation measures, e.g. routeing agreement</p>	<p>Minerals and waste industries; Highways Agency; District and Parish Councils</p>
C9: Rights of way	Mvii, Mviii Wvi SA8	<p>Number of minerals and waste permissions with measures to improve access to the countryside, including provision for the creation of new paths or rights of way</p> <p>Number of permissions which have an adverse impact on the rights of way network</p>	<p>No permissions granted without appropriate protection of or safeguards for rights of way</p> <p>Creation of new rights of way associated with restoration of minerals sites</p>	<p>Minerals and waste industries; District and Parish Councils; the Ramblers; the British Horse Society</p>

Appendix 1. Flood Vulnerability Classification and Flood Zone Compatibility

Table A1: Minerals and Waste Flood Vulnerability Classification

Development Type	Vulnerability Classification	Flood Zone Compatibility
Any mineral or waste proposal which also requires hazardous substances consent	Highly Vulnerable	Flood Zone 1 and 2
Landfill sites (hazardous, non-hazardous and inert waste – including waste used in quarry restoration)	More Vulnerable	Flood Zone 1 and 2
Waste management facilities handling hazardous waste	More Vulnerable	Flood Zone 1 and 2
Minerals working and processing (except for sand and gravel working)	Less Vulnerable	Flood Zones 1, 2 and 3a
Sand and Gravel Workings	Water Compatible	Flood Zone 1, 2, 3a, 3b
Sand and Gravel processing sites (including grading and washing plant)	Less Vulnerable	Flood Zone 1, 2, and 3a
Sewage Treatment Plants	Less Vulnerable	Flood Zones 1, 2 and 3a
Waste recycling, composting and transfer uses (including recycling to produce recycled aggregate)	Less Vulnerable	Flood Zones 1, 2 and 3a
Secondary aggregate re-cycling (considered as minerals processing)	Less Vulnerable	Flood Zones 1, 2 and 3a
Waste treatment processes (including anaerobic digestion, mechanical biological treatment, incineration, gasification and pyrolysis).	Less Vulnerable	Flood Zones 1, 2, and 3a
Concrete block manufacture (considered as minerals processing)	Less Vulnerable	Flood Zones 1, 2 and 3a
Concrete batching plant (considered as minerals processing)	Less Vulnerable	Flood Zones 1, 2 and 3a

This table is developed from Tables 2 and .3 in Technical Guidance to the National Planning Policy Framework, March 2012.

Waste management categories are based on guidance in Planning for Sustainable Waste Management Companion Guide to PPS10 – page 31.

Table A2. PPS25 Flood Risk Vulnerability and Flood Zone Compatibility
(Developed from Tables 2 and 3 in Technical Guidance to the National Planning Policy Framework, March 2012)

Minerals & Waste Development Type	Use Category	FLOOD ZONE			
		1	2	3a	3b
Any mineral or waste proposal which also requires hazardous substances consent	Highly Vulnerable	✓	Use only appropriate if Sequential Test is passed ↓ Use only appropriate if the Exception Test is passed ↓ ✓	* Use should not be permitted	* Use should not be permitted
Landfill sites or sites used for waste management facilities for hazardous waste	More Vulnerable	✓	Use only appropriate if Sequential Test is passed ↓ ✓	Use only appropriate if Sequential Test is passed ↓ Use only appropriate if the Exception Test is passed ↓ ✓	* Use should not be permitted
Waste management facilities (except landfill and hazardous waste), Minerals working and processing (except for sand and gravel workings)	Less Vulnerable	✓	Use only appropriate if Sequential Test is passed ↓ ✓	Use only appropriate if Sequential Test is passed ↓ ✓	* Use should not be permitted
Sand and gravel workings (that exclude processing operations)	Water Compatible	✓	Sequential Test suggested as means of prioritising sites at allocation stage ✓	Sequential Test suggested as means of prioritising sites at allocation stage ✓	Sequential Test suggested as means of prioritising sites at allocation stage ✓

*: Use should not be permitted ↓: If passed proceed ✓: Appropriate use

Glossary

Aggregates – sand, gravel and crushed rock that is used in the construction industry to make things like concrete, mortar, asphalt and drainage material. For secondary or recycled aggregates, see below.

Agricultural waste – waste from a farm or market garden including pesticide containers, tyres and old machinery.

Aftercare – The management and treatment of land for a set period of time immediately following the completed restoration of a mineral working to ensure the land is returned to the required environmental standard.

After-use – The long term use that land formerly used for mineral workings is restored to, e.g. agriculture, forestry, nature conservation, recreation or public amenity such as country parks.

Anaerobic Digestion Facility – facility involving process where biodegradable material is encouraged to break down in the absence of oxygen, which changes the nature and volume of material and produces a gas which can be burnt to recover energy and digestate which may be suitable for use as a soil conditioner.

Ancient Woodland – woodland that has existed continuously since or pre-dates 1600. Before this date planting of new woodland was uncommon, so a wood present in 1600 was likely to have developed naturally. The ancient woodland inventory is a data source held and maintained by the Woodland Trust on the location and extent of ancient woodlands.

Annual Monitoring Report (AMR) – see Monitoring Report.

Apportionment – the allocation between minerals and waste authorities of an overall total amount of provision required for mineral production or waste management, for a particular period of time, e.g. as set out in the South East Plan.

Area of Outstanding Natural Beauty (AONB) – area with statutory national landscape designation, the primary purpose of which is to conserve and enhance natural beauty.

Biodegradable waste – materials that can be broken down by naturally-occurring micro-organisms, e.g. food, garden waste and paper.

Biodiversity Action Plan (BAP) – strategy prepared by the local planning authority together with nature conservation organisations aimed at protecting and enhancing the biological diversity.

Biological Diversity / Biodiversity – the variety of life including plants, animals and micro-organisms, ecosystems and ecological processes.

Buffer zones – areas drawn around settlements or properties in which mineral development is prohibited. The purpose of these zones is to protect settlements from disruption caused by the working of minerals. They can also be used to prevent sterilisation of minerals resources by the encroachment of other developments.

Climate change – long-term changes in temperature, precipitation, wind and all other aspects of the earth's climate.

Commercial and Industrial waste – waste from factories or premises used for the purpose of trade or business, sport, recreation or entertainment.

Composting – the breakdown of organic matter aerobically (in presence of oxygen) into a stable material that can be used as a fertiliser or soil conditioner.

Conservation Target Areas (CTAs) – important areas for wildlife in Oxfordshire, where the main aim is to restore biodiversity at a landscape-scale through the maintenance, restoration and creation of Biodiversity Action Plan priority habitats.

Construction, Demolition and Excavation waste – waste arising from the building process comprising demolition and site clearance waste and builders' waste from the construction/demolition of buildings and infrastructure. Includes masonry, rubble and timber.

Core Strategy – sets out the long-term spatial vision for a local planning authority area and the strategic policies and proposals to deliver that vision.

Crushed rock – naturally occurring rock which is crushed into a series of required sizes to produce an aggregate.

Designated Heritage Asset – a World Heritage Site, Scheduled Monument, Listed Building, Registered Park and Garden, Registered Battlefield or Conservation Area designated as such under the relevant legislation.

Development Plan Documents (DPDs) – spatial planning documents that form part of a Local Plan or a Minerals and/or Waste Plan and are subject to independent examination. They have 'development plan' status. They can include Core Strategy and Site Allocations DPDs.

Energy from Waste (EfW) Facility/Plant – residual waste treatment facility where energy (heat and/or electricity) is recovered from waste; either from direct combustion of waste under controlled conditions at high temperatures; or from combustion of by-products derived from the waste treatment process such as biogas or refuse-derived fuel.

Energy Recovery – covers a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustible, with relatively high calorific

values – this energy can be recovered through processes such as incineration with electricity generation, gasification or pyrolysis.

Environment Agency (EA) – Government advisor and agency with statutory responsibilities to protect and improve the environment (including air, land and water).

Extension to quarry – extraction of minerals on land which is contiguous or non-contiguous with an existing quarry, where extracted material is moved to the existing quarry processing plant and access via means other than the highway (e.g. by conveyor or internal haul-road).

Gasification – A technology related to incineration where waste is heated in the presence of air to produce fuel rich gases.

Greenfield site – site previously unaffected by built development.

Greenhouse gases – gases such as methane and carbon dioxide that contribute to climate change.

Green Infrastructure – a network of strategically planned and managed natural and working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations.

Groundwater – water held in water-bearing rocks, in pores and fissures underground.

Habitats Regulations Assessment (HRA) – an assessment of the likely impacts of the possible effects of a plan's policies on the integrity of European sites (including Special Areas of Conservation and Special Protection Areas), including possible effects 'in combination' with other plans, projects and programmes.

Hazardous waste – waste that may be hazardous to humans and that requires specific and separate provision for dealing with it. Categories are defined by regulations. Includes many "everyday" items such as electrical goods. Previously referred to as Special Waste.

Household Waste Recycling Centres (HWRCs) – place provided by the Waste Disposal Authority where members of the public can deliver household wastes for recycling or disposal (also known as Civic Amenity Sites).

Heritage Asset – A building, monument, site, place area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include assets identified by the local planning authority during the process of decision-making or the plan-making process (including local listing).

Household Waste – waste from household collection rounds, street sweeping, litter collection, bulky waste collection, household waste recycling centres and bring or drop-off recycling schemes.

Incineration – burning of waste at high temperatures under controlled conditions. This results in a reduction in bulk and may involve energy reclamation. Produces a burnt residue or 'bottom ash' whilst the chemical treatment of emissions from the burning of the waste produces smaller amounts of 'fly ash'.

Independent Examination – process whereby an independent Planning Inspector publicly examines a Development Plan Document for its soundness before issuing their report and recommendations to the planning authority.

Inert waste – waste that does not normally undergo any significant physical, chemical or biological change when deposited at a landfill site. It may include materials such as rock, concrete, brick, sand, soil or certain arisings from road building or maintenance. Most of the category “construction, demolition and excavation” waste is inert waste.

Industrial waste – wastes from any factory, transportation apparatus, scientific research, dredging, sewage and scrap metal.

Intermediate Level Waste (ILW) – radioactive wastes which exceed the upper activity boundaries for Low Level Waste but which do not need heat to be taken into account in the design of storage or disposal facilities.

In-Vessel Composting Facility – facility where the composting process takes place inside a vessel where conditions are controlled and optimised for the aerobic breakdown of materials.

Landbank – the reserve of unworked minerals for which planning permission has been granted, including non-working sites, expressed in tonnage or years.

Landfill – permanent disposal of waste into the ground by the filling of voids or by landraising.

Landfill Allowance Trading Scheme (LATS) – a government scheme to reduce the amount of biodegradable municipal waste sent to landfill, under which Waste Disposal Authorities are allocated annual allowances for the amounts of biodegradable municipal waste that may be landfilled; the allowances are tradeable between authorities.

Landfill gas – gas generated by the breakdown of biodegradable waste within landfill sites, consisting mainly of methane and carbon dioxide.

Landfill tax – Government tax on waste disposed of at landfill sites. Aims to encourage more sustainable waste management methods.

Landraise or Landraising – permanent disposal of waste material above ground, resulting in the raising of the ground level.

Landscape character – a distinct, recognisable and consistent pattern of elements, be it natural (e.g. soil and landform) and/or human (e.g. settlement and development) in the landscape that makes one landscape different from another, rather than better or worse²⁴.

Local Development Framework (LDF) – folder of local development documents prepared planning authorities, that sets out the spatial planning strategy for the area.

Local Development Scheme – the programme for the preparation of local development documents.

Local Nature Reserve – an area of particular wildlife interest declared by a local authority under Section 21 of the National Parks and Access to the Countryside Act 1949; usually managed by the local authority.

Local Plan – part of the statutory development plan that sets out policies on land use and development, prepared by planning authorities.

Low Level Waste (LLW) – radioactive waste having a radioactive content not exceeding four gigabecquerels per tonne (GBq/te) of alpha or 12 GBq/te of beta/gamma radioactivity, but not including radioactive materials that are acceptable for disposal with municipal and general commercial or industrial waste; includes soil, building rubble, metals and organic materials arising from both nuclear and non-nuclear sources; metals are mostly in the form of redundant equipment; organic materials are mainly in the form of paper towels, clothing and laboratory equipment that have been used in areas where radioactive materials are used, such as hospitals, research establishments and industry.

Marine aggregates – aggregates sourced by dredging from the sea bed.

Marine-borne material – sand and gravel that is taken from the sea bed and imported to land.

Materials Recovery/Recycling Facility (MRF) – facility where recyclable materials are sorted and separated from other wastes before being sent for reprocessing.

Mechanical and Biological Treatment (MBT) – residual waste treatment process involving the mechanical separation of recyclable materials followed by composting of the remaining material to produce a fuel or stabilised waste for landfilling.

²⁴ Natural England definition;
<http://www.naturalengland.org.uk/ourwork/landscape/englands/character/default.aspx>

Mineral Consultation Areas – areas of potential mineral resource wherein district planning authorities should consult the County Council on applications for development, to prevent mineral resources being lost ('sterilised').

Mineral reserves – Mineral deposits which have been investigated and are proven to be of economic importance due to the quality, quantity and nature of the deposit. Permitted reserves also have planning permission for extraction.

Mineral resource – A potential source of a mineral without permission for extraction, where the deposit's nature, quality and quantity may not yet have been assessed.

Mineral Safeguarding Areas – areas of known mineral resource that are considered to be of sufficient economic or conservation value (such as building stones) to warrant protection for generations to come.

Mineral Local Plan – part of the statutory development plan that sets out the land use policies for minerals for the plan area, prepared by a minerals planning authority (unitary or county council).

Minerals Planning Authority – the planning authority responsible for planning control of minerals development.

Minerals and Waste Development Framework (MWDF) – folder of local development documents prepared by minerals and waste planning authorities that sets out the spatial planning strategy for minerals and waste planning for the area.

Mitigation measures – actions to prevent, avoid, or minimise the actual or potential adverse effects of a development, action, project, plan, or policy.

Monitoring Report – assesses the implementation of the Local Development Scheme and the extent to which policies in Local Development Documents are being achieved.

Municipal waste/Municipal solid waste (MSW) – waste that is collected by a waste collection authority. Mostly consists of household waste, but can also include waste from municipal parks and gardens, beach cleansing, waste resulting from clearance of fly-tipped materials and some commercial waste.

National Planning Policy Framework – Planning policy document (March 2012) for England issued by central Government which supersedes the majority of Planning Policy Statements, Planning Policy Guidance Notes, Minerals Policy Statements and Minerals Planning Guidance notes. Does not replace PPS 10.

National Nature Reserve – nationally important area of special nature conservation interest, designated by Natural England under Section 16 of the National Parks and Access to the Countryside Act 1949.

Natural England – the Government's advisor on the natural environment.

Non-Hazardous Waste – waste, which is neither inert nor hazardous, which is permitted to be disposed at a non-hazardous landfill; also referred to as non-inert waste.

Non-inert waste – waste that is potentially biodegradable or may undergo significant physical, chemical or biological change when deposited at a landfill site. Also referred to as “non-hazardous waste”.

Nuclear Decommissioning Authority (NDA) – a non-departmental public body with responsibility to deliver the decommissioning and clean-up of the UK's civil nuclear legacy.

Permitted reserves – mineral reserves with planning permission for extraction.

Planning Policy Guidance (PPG) – documents issued by Central Government setting out its national land use policies and guidance for England on different areas of planning. These were gradually being replaced by Planning Policy Statements.

Planning Policy Statements (PPS) – documents issued by Central Government to replace the existing Planning Policy Guidance in order to provide clearer and more focused policies for England on different areas of planning (with the removal of advice on practical implementation, which is better expressed as guidance rather than policy). Most were replaced by the National Planning Policy Framework (NPPF) in March 2012.

Planning permission – formal consent given by the planning authority to develop or use land.

Primary aggregates – naturally-occurring mineral deposits that are used for the first time as an aggregate.

Pyrolysis – a technology related to incineration where waste is heated in the absence of air to produce gas and liquid fuel plus solid waste.

Recycled aggregates – derived from reprocessing waste arising from construction and demolition activities (e.g. concrete, bricks and tiles), highway maintenance (e.g. asphalt plantings), excavation and utility operations. Examples include recycled concrete from construction and demolition waste material, spent rail ballast and recycled asphalt.

Recycling – the recovery of waste materials for use as or conversion into other products (including composting but excluding energy recovery).

Recovery – obtaining value from waste through one of the following means:

- Recycling;
- Composting;

- Other forms of material recovery (such as anaerobic digestion);
- Energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis or other technologies).

Residual waste – the waste remaining after materials have been recovered from a waste stream by re-use, recycling, composting or some other material recovery process (such as anaerobic digestion).

Residual Waste Treatment Facility – facility for processing waste which has not been re-used, recycled or composted in order to recover resources and minimise the amount of waste that needs to be disposed by landfill; the two most common forms of residual waste treatment are energy from waste and mechanical and biological treatment.

Resource Park – a site comprising a number of different waste recovery, treatment and reprocessing facilities which enables synergy between those facilities to be realised through common location.

Restoration – methods by which the land is returned to a condition suitable for an agreed after-use following the completion of minerals or waste operations.

Re-use – the repeat utilisation of an item/material for its original (or other) purpose.

Screening report – in Habitats Regulations Assessment, the first stage of the assessment process to determine whether there will be possible effects of a plan's policies on the integrity of European sites.

Secondary Aggregates – usually the by-products of other industrial processes, e.g. blast furnace slag, steel slag, pulverised-fuel ash (PFA), incinerator bottom ash, furnace bottom ash, recycled glass, slate waste, china clay sand and colliery spoil.

Sensitive Receptor – the aspects of the environment likely to be significantly affected by the development, including in particular population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between these factors²⁵.

Sewage Sludge or Sludge – the semi-solid or liquid residue removed during the treatment of wastewater.

Site of Special Scientific Interest – site notified by Natural England under Section 25 of the Wildlife and Countryside Act 1981 as having special wildlife or geological features worthy of protection.

²⁵ Definition in EIA regulations

Sludge Treatment Centre – facility at a sewage treatment plant where sludge removed from waste water (sewage) is subject to a treatment process to enable it to be recovered and/or disposed.

Soundness – in accordance with national planning policy, local development documents must be ‘soundly’ based in terms of their content and the process by which they were produced. They must also be based upon a robust, credible evidence base. There are four tests of soundness in the National Planning Policy Framework.

South East Aggregates Working Party (SEEAWP) – a non-executive technical group covering the South East of England with the role of advising government (the Department for Communities and Local Government), Mineral Planning Authorities and industry on aggregates, including helping mineral planning authorities fulfil the duty to cooperate on strategic mineral planning issues, comprising officers of the mineral planning authorities, representatives of the minerals industry and government representatives .

South East Waste Planning Advisory Group (SEWPAG) – a non-executive technical group comprising the waste planning authorities of South East England and representatives of the Environment Agency, the waste industry and the environmental sector which provides advice to help waste planning authorities fulfil the duty to cooperate on strategic waste planning issues.

South East Plan – the Regional Spatial Strategy for the South East region, prepared by the former South East England Regional Assembly and approved by the Secretary of State in May 2009.

Special Area of Conservation – site of international importance for nature conservation, designated under the EU Habitats Directive.

Special Protection Area (SPA) – designation of international importance for nature conservation made under the EU Birds Directive to conserve the best examples of the habitats of certain threatened species of birds.

Statement of Community Involvement – document which outlines the standards and approach that the County Council will undertake in engaging stakeholders and the local community in producing minerals and waste plans and in considering planning applications.

Statutory consultee – Organisations with which the local planning authority must, by regulation, consult on the preparation of its land use plan or in determining a planning application. For land use plans, this always includes the Environment Agency, Natural England and English Heritage.

Sterilisation – this occurs when developments such as housing, roads or industrial parks are built over mineral resources, preventing their possible future extraction.

Strategic Environmental Assessment (SEA) – an environmental assessment of certain plans and programmes, including those in the field of planning and land use, which complies with the EU Directive 2001/42/EC; it involves the preparation of an environmental report, carrying out of consultation, taking into account of the environmental report and the results of the consultation in decision making, provision of information when the plan or programme is adopted and showing that the results of the environment assessment have been taken into account.

Structure Plan – framework of strategic planning policies, produced by the County Council. The Oxfordshire Structure Plan was largely replaced as a statutory planning document by the South East Plan in May 2009.

Sustainable Development / Sustainability – development that meets the needs of the present without comprising the ability of the future generations to meet their own needs, by taking into consideration long-term social, economic and environmental impacts.

Sustainable Community Strategy – statutory strategy for promoting the economic, social and environmental well-being of the area. Prepared through partnership working between statutory sector providers, the community and voluntary sector, businesses, residents and the local authorities.

Sustainability Appraisal – an appraisal of the economic, environmental, and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with the principles of sustainable development and to check policies against sustainability objectives. The scoping report of a sustainability appraisal seeks the agreement of statutory consultees and the competent authority on the intended range of issues to be covered in the assessment. The Planning and Compulsory Purchase Act 2004 requires a sustainability appraisal to be undertaken of all development plan documents.

Thermal Treatment – generic term encompassing incineration, gasification and pyrolysis.

Transfer Station – a bulk collection point for waste prior to its onward transport to another facility for treatment or disposal.

Very Low Level Waste (VLLW) – radioactive waste with very low concentrations of radioactivity, arising from both nuclear and non-nuclear sources, which because it contains little total radioactivity can be safely treated by various means, including disposal with municipal and general commercial and industrial waste at landfill sites.

Formal definition:

(a) **in the case of low volumes ('dustbin loads') of VLLW** "Radioactive waste which can be safely disposed of to an unspecified destination with municipal, commercial or industrial waste ("dustbin" disposal), each 0.1m³ of waste containing less than 400 kilobecquerels (kBq) of total activity or single

items containing less than 40 kBq of total activity. For wastes containing carbon-14 or hydrogen-3 (tritium):

- in each 0.1m³, the activity limit is 4,000 kBq for carbon-14 and hydrogen-3 (tritium) taken together; and
- for any single item, the activity limit is 400 kBq for carbon-14 and hydrogen-3 (tritium) taken together.

Controls on disposal of this material, after removal from the premises where the wastes arose, are not necessary.”

(b) **in the case of high volumes of VLLW** “Radioactive waste with maximum concentrations of four megabecquerels per tonne (MBq/te) of total activity which can be disposed of to specified landfill sites. For waste containing hydrogen-3 (tritium), the concentration limit for tritium is 40MBq/te. Controls on disposal of this material, after removal from the premises where the wastes arose, will be necessary in a manner specified by the environmental regulators”.

Voidspace – volume within landfill (including landraising) sites that is permitted and/or available to receive waste.

Waste Collection Authority – local authority that has a duty to collect household waste, usually district or unitary authorities.

Waste Disposal Authority – local authority responsible for managing the waste collected by the collection authorities, and the provision of household waste recycling centres, usually county or unitary councils.

Waste Planning Authority – local planning authority responsible for planning control of waste management and disposal, usually county or unitary councils.

Waste Local Plan – part of the statutory development plan that sets out the land-use policies for waste for the plan area, prepared by a waste planning authority (unitary or county council).

Waste water – the water and solids from a community that flow to a sewage treatment plant operated by a water company.

Waste and Resources Action Programme (WRAP) – a government body which helps to develop markets for material resources that would otherwise have become waste, provides advisory services and helps influence public behaviour through national level communication programmes.

Abbreviations

AMR	Annual Monitoring Report
AD	Anaerobic Digestion
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
CDE	Construction, demolition and excavation waste
C&I	Commercial and industrial waste

CTA	Conservation Target Area
DPD	Development Plan Document
EA	Environment Agency
EfW	Energy from Waste facility
EIA	Environmental Impact Assessment
HRA	Habitats Regulations Assessment
HWRC	Household Waste Recycling Centre
ILW	Intermediate Level Waste
IVC	In-vessel composting facility
LATS	Landfill Allowance Trading Scheme
LDF	Local Development Framework
LLW	Low level waste
LNR	Local Nature Reserve
LTP	Local Transport Plan
MBT	Mechanical and Biological Treatment
MPA	Minerals Planning Authority
MPS	Minerals Policy Statement
MRF	Materials Recycling/Recovery Facility
MSW	Municipal Solid Waste
MWDF	Minerals and Waste Development Framework
NDA	Nuclear Decommissioning Authority
NHW	Non Hazardous Waste
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
RSS	Regional Spatial Strategy
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEEAWP	South East Aggregates Working Party
SEWPAG	South East Waste Planning Advisory Group
SSSI	Site of Special Scientific Interest
SPA	Special Protection Area
SPD	Supplementary Planning Document
VLLW	Very low level waste
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WPA	Waste Planning Authority
WRAP	Waste and Resources Action Programme