

**OXFORDSHIRE MINERALS AND WASTE DEVELOPMENT FRAMEWORK
MINERALS AND WASTE CORE STRATEGY**

DRAFT WASTE PLANNING STRATEGY

1. INTRODUCTION

Introduction

- 1.1 The County Council is responsible for minerals and waste planning in Oxfordshire and is reviewing the planning policies covering mineral working and waste management. This will result in a new type of plan – the Oxfordshire Minerals and Waste Development Framework. This will comprise four documents: the Minerals and Waste Core Strategy, a minerals site allocations document, a waste sites allocation document; and the Statement of Community Involvement, which the Council adopted in 2006.
- 1.2 The Minerals and Waste Core Strategy, when adopted by the County Council, will provide the planning strategies and policies for minerals and waste development in Oxfordshire up to 2030.
- 1.3 This consultation document is the Council's draft plan for waste. It includes options considered for the waste strategy; the Council's proposed strategy approach; proposed policies; and a key diagram to illustrate the preferred strategy. The Council is consulting separately on its draft plan for minerals.

How to respond to this consultation document

- 1.4 The County Council wants to get as wide a response as possible to the waste draft plan. Please let us have your views using either the on-line consultation system or the response form. **The closing date for responses is**
- 1.5 Copies of the response form can be downloaded from the County Council website or obtained from the address below. Please send your response by post, fax or email to:

Minerals & Waste Draft Plan Consultation
Minerals & Waste Policy (ESPCC)
Environment & Economy
Oxfordshire County Council
Speedwell House
Speedwell Street
Oxford OX1 1NE

Fax No: 01865 241577

Email: minerals.wasteplan@oxfordshire.gov.uk

- 1.6 For any further information, please contact the Minerals and Waste Policy Team on 01865 816025, or at the email or postal address above.
- 1.7 All documents published by the County Council in the preparation of the Minerals and Waste Plan are on the County Council website at:
www.oxfordshire.gov.uk/links/public/mineralsandwastepolicy.

What happens next?

- 1.8 This is an important opportunity to make your views known on our overall approach to planning for minerals and waste development in Oxfordshire. The County Council will consider carefully all comments received in preparing a final Plan (the Minerals and Waste Core Strategy). Publication of this for comment and submission to Government for examination is programmed for early 2012¹. The independent examination by a Government appointed Inspector will be held in 2012 and it is hoped the County Council can adopt the Strategy by early 2013.

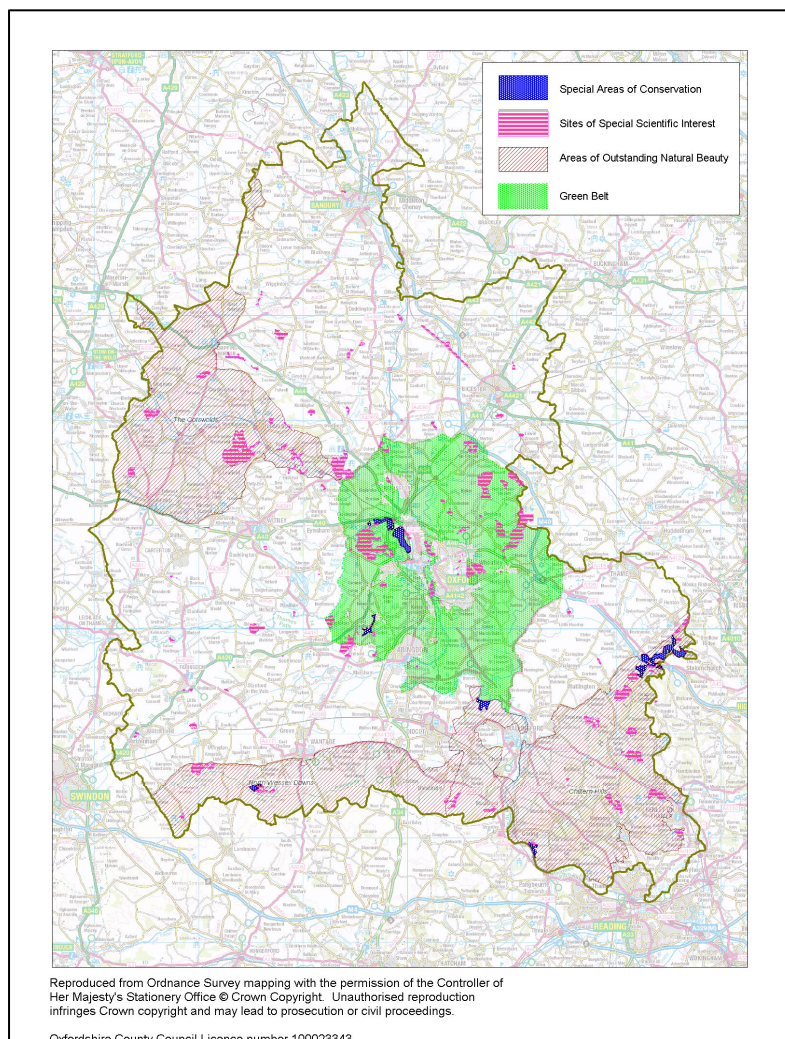
¹ The programme for the preparation of the Minerals and Waste Development Framework is set out in the Oxfordshire Minerals and Waste Development Scheme, which also explains what each development document will cover. The Development Scheme is under review and a revised version will be placed on the County Council website later in 2011.

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.
- 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 designated 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 regionally important geological sites. It also has a rich variety of landscapes, numerous historic buildings, extensive archaeological remains and areas of high grade agricultural land. 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



Waste in Oxfordshire

- 2.3 In recent years, on average a total of about 2.2 million tonnes of waste has been produced annually by Oxfordshire's residents, businesses and organisations. This mostly comprises:
- 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%.
- 2.4 Other wastes produced in smaller quantities are hazardous wastes (including oils and solvents, chemicals and asbestos); radioactive waste; metal waste; and sewage sludge.
- 2.5 About 90% of Oxfordshire's waste is dealt with in the county. The main method of dealing with waste has hitherto been disposal at local landfill sites, but waste is increasingly being diverted from landfill by recycling and treatment. Existing waste facilities and sites with planning permission are shown on figures 2 (municipal and commercial & industrial waste) and 3 (construction, demolition and excavation waste).

Figure 2: Existing municipal and commercial & industrial waste facilities and sites with planning permission

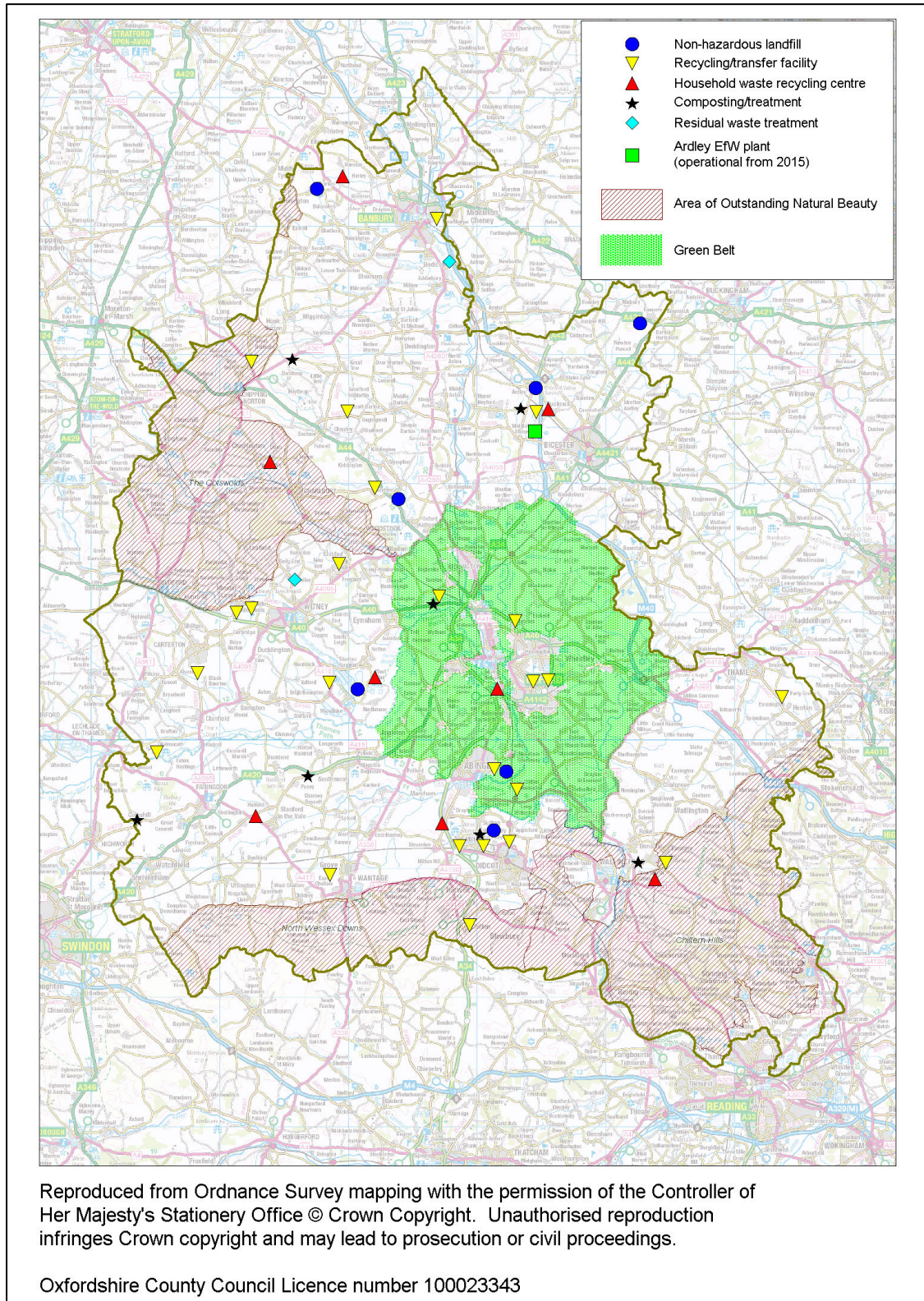
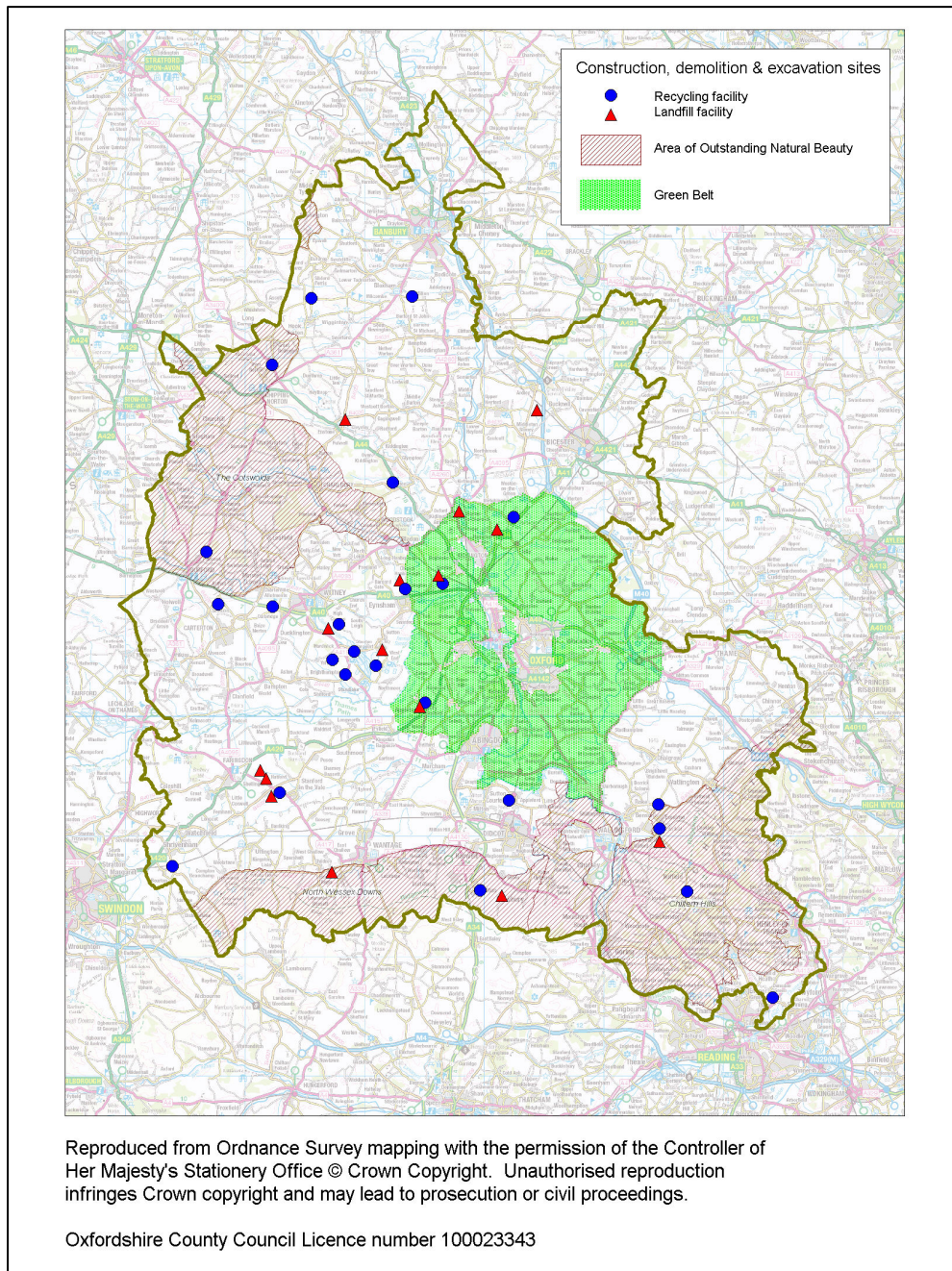


Figure 3: Existing permanent construction, demolition & excavation waste facilities and sites with planning permission



- 2.6 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 in to 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.

- 2.7 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.

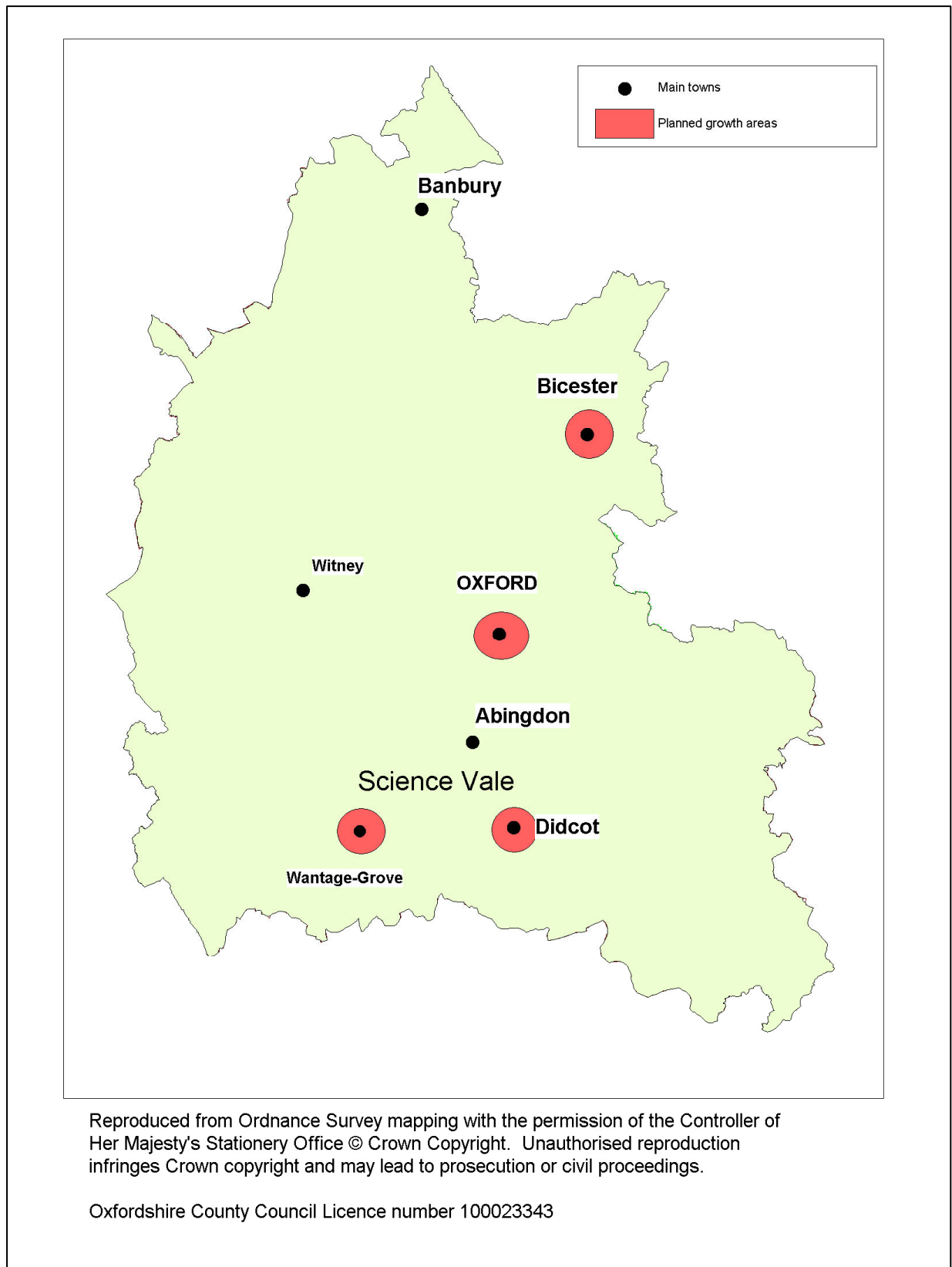
Issues

- 2.8 The population of the county is currently approximately 635,500². Over the next 20 years significant population growth, new housing, commercial and related development, investment in infrastructure and related traffic growth are expected in Oxfordshire³ which has implications 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 for economic growth and housing.
- 2.9 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. A key challenge for waste planning is to make provision for the waste that will be produced to be dealt with in an effective and sustainable way.
- 2.10 Key locations for development, as shown on figure 4, 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, where the 5,000 home eco-development proposal is acting as a focus for delivering an international exemplar of sustainable development;
 - Oxford, which remains a world class centre of education, research and innovation.

² Oxfordshire Data Observatory, 2010.

³ Oxfordshire's population is forecast to grow by a further 12% to 2026 with the building of up to about 50,000 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 4: Key locations for development and other large towns



Policy context

- 2.11 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

- 2.12 The key international plans and programmes which are relevant to the draft minerals 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.

- 2.13 The European Union has issued a number of Directives on waste, which are transposed into national legislation and policy. Of particular relevance to this strategy are the Waste Framework Directive⁴ and the Landfill Directive⁵. The European Union has also issued Directives to develop environmental and sustainability policy. The Habitats Directive⁶ and the Strategic Environmental Assessment Directive⁷ are of particular relevance to this plan (see paragraphs 2.27 and 2.28).

National

- 2.14 Government policy⁸ for waste planning includes the key objective of preparing and delivering planning strategies that help deliver sustainable development through:
- driving waste management up the waste hierarchy⁹;
 - addressing waste as a resource; and
 - looking to disposal as the last option.
- 2.15 Government policy on “Planning for Sustainable Waste Management” (PPS10) 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.

⁴ Directive on Waste (2008/98/EC) (transposed into English law under the Waste (England and Wales) Regulations 2011)

⁵ Directive on the Landfill of Waste (99/31/EC) (transposed into English law under the Landfill (England and Wales) Regulations 2002)

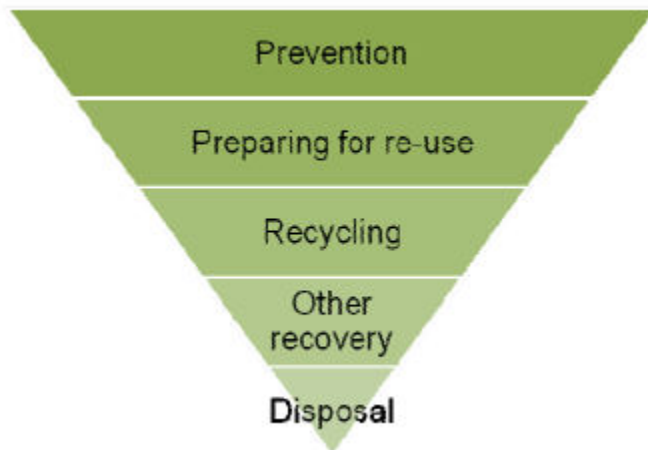
⁶ The Conservation of Natural Habitats and Wild Flora and Fauna Directive (92/43/EC) (transposed into UK law under the Conservation of Habitats Species Regulations 2010)

⁷ 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)

⁸ Planning Policy Statement 10: Planning for Sustainable Waste Management.

⁹ The waste hierarchy is defined in the update to Planning Policy Statement 10: Planning for Sustainable Waste Management (30 March 2011) as prevention; preparing for re-use; recycling; other recovery; and disposal.

- 2.16 In providing for new waste management facilities, the draft strategy seeks to promote changes in waste management practice in line with European, national and other relevant policy and the objectives of this strategy.
- 2.17 European and national policy for waste management (EU Waste Framework Directive, 2008 and Planning Policy Statement 10 'Planning for Sustainable Waste Management') set out the following waste hierarchy, in which prevention of waste is the most desirable option and disposal is the option of last resort:



- 2.18 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 break the link between economic growth and the environmental impact of waste.
- 2.19 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 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 applies to municipal waste) are increasing the costs of landfill so that it will no longer be the cheapest means of dealing with waste.

Regional

- 2.20 Under current legislation, this plan must be in general conformity with the South East Plan, May 2009 (the regional strategy). However, the Government's Localism Bill, which is currently going through Parliament, proposes the abolition of all regional strategies. The South East Plan includes strategic policies for mineral supply. The County Council considers that these policies generally continue to be appropriate to Oxfordshire, except that higher targets for waste recycling and diversion of waste from landfill are now considered to be achievable (see paragraph 4.19).

Local

- 2.21 The Oxfordshire Minerals and Waste Local Plan was adopted by the County Council in July 1996. It contains detailed policies for the provision of waste management facilities and for the control of 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 were ‘saved’¹⁰, i.e. are still in force as part of the development plan for Oxfordshire until they are replaced by new policies in the Minerals and Waste Development Framework.
- 2.22 The draft waste strategy has regard and is consistent with the existing and emerging new plans (local development frameworks) prepared and 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 draft strategy also has regard to the principles of the Sustainable Community Strategy, Oxfordshire 2030.
- 2.23 The draft waste strategy should also 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 waste links with Oxfordshire (e.g. counties which Oxfordshire sends hazardous waste to for disposal).
- 2.24 The County Council is both planning authority for minerals and waste development; and 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.
- 2.25 The county and district councils work together on municipal waste management under the Oxfordshire Joint Municipal Waste Partnership (the 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 challenging 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. This planning strategy is separate from the municipal waste strategy but it is consistent with and has been informed by it.
- 2.26 The Joint Municipal Waste Management Strategy is under review. The review is not expected to raise significant planning issues (e.g. radical changes to targets for recycling and diversion of waste from landfill or requirements for additional waste management facilities for municipal waste). Nevertheless, the

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

waste planning strategy should include flexibility to allow for any changes in municipal waste management requirements in Oxfordshire.

Habitats Regulations Assessment

- 2.27 The Habitats Directive requires planning authorities to assess the likely impact of their plans 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 is being 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 impacts on them.

Sustainability Appraisal / Strategic Environmental Assessment

- 2.28 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. The Council commissioned consultants to carry out a sustainability appraisal incorporating a strategic environmental assessment to assess the likely impacts of the draft plan against a range of environmental, economic and social criteria.
- 2.29 A sustainability appraisal scoping report has been prepared and published following consultation with the Environment Agency, Natural England and English Heritage.
- 2.30 The consultants have appraised:
- the waste objectives;
 - the options for the waste strategy;
 - the preferred waste strategy and policies; and
 - the common core policies.
- 2.31 The sustainability appraisal report, incorporating the requirements of strategic environmental assessment and providing an appraisal of the economic and social implications of the plan, is published alongside the draft plan as part of this consultation.

3. Vision and Objectives for Waste in Oxfordshire

- 3.1 The vision and objectives for the Waste Strategy provide a basis for the development of the strategy, policies and proposals for waste management.
- 3.2 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.
- 3.3 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

- 3.4 The vision for Oxfordshire's waste planning strategy is that:
 - a) By 2030 there will have been a transformation in the way Oxfordshire manages its waste, with:
 - increased 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 smaller-scale facilities at or close to small towns. This network will have helped to build more sustainable communities that increasingly take responsibility for their own waste and reduce the distance waste needs to be moved within the county.

Waste Planning Objectives

- 3.5 The Oxfordshire Waste Planning Vision is supported by the following eight waste planning objectives which set out the principles which underpin the draft Plan.
 - i. Provide for waste management capacity that enables Oxfordshire to be net self-sufficient in meeting its own waste needs.

- ii. Provide for delivery, as soon as is practicable, of waste management facilities that will drive waste away from landfill and as far up the waste hierarchy¹¹ as possible; in particular facilities to meet the targets for recycling and composting and for the treatment and diversion from landfill of Oxfordshire's remaining (residual) waste.
- 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;
 - allow communities to take responsibility for their own waste;
 - and generally provide 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 to decrease over time as new facilities are provided where the waste is produced.
- vi. Give priority to the use of previously developed land, including land within the Green Belt if appropriate, 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 new construction 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 opportunities for 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, in keeping with the surrounding area.

¹¹ The waste hierarchy is shown at paragraph 2.17

4. DRAFT WASTE PLANNING STRATEGY

Development of the Waste Strategy

- 4.1 This draft strategy is for the period to 2030. How many and what sort of facilities will be needed for dealing with waste in Oxfordshire over this 20 year period cannot be predicted with accuracy. The draft strategy can only be based on best estimates. A waste needs assessment has been prepared as a separate document¹² 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 estimates will be monitored regularly and will be updated as and when necessary.
- 4.2 The preferred strategy is also informed by responses to public consultation undertaken in 2007 on the initial Minerals and Waste Core Strategy Preferred Options and the Waste Sites and Policies Issues and Options. The strategy has evolved from further work on options carried out since then, including stakeholder engagement with statutory bodies.
- 4.3 The strategy comprises core policies which provide the context for considering future proposals for waste development and a spatial strategy for the delivery of the new waste infrastructure that is expected to be needed, which is shown on the key diagram at the end of this section. This will provide a framework for the identification of sites for waste development in the sites allocations document.

How much waste will need to be managed?

- 4.4 The amount of waste produced in Oxfordshire is expected to grow as the population and economic development increase particularly in the main urban areas of Oxford, Banbury, Bicester, Witney, Abingdon, Didcot, and Wantage and Grove. It is estimated that the amounts of waste produced in Oxfordshire could increase over the period to 2030 as shown in the following table for the three main waste types.

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

¹² Waste Needs Assessment, Oxfordshire County Council, May 2011

Figures rounded to nearest 10,000 tonnes

*Reflects reduction in normal construction activity due to current economic position.

- 4.5 The annual quantities of other types waste are also expected to increase over the period 2010 to 2030:
- Hazardous Waste – from approximately 40,000 tonnes to 60,000 tonnes;
 - Metal Waste – from approximately 50,000 tonnes to 60,000 tonnes;
 - Sewage Sludge – from approximately 20,000 tonnes to 25,000 tonnes (dry solids).
- 4.6 For municipal waste it has been assumed that from 2012 there will be no further increase in the amount of waste produced by each household. Growth in municipal waste is therefore based only on what will arise from the expected increase in population, using the planned increase in housing.
- 4.7 For commercial and industrial waste, a low growth rate has been assumed (0.63%). Production of construction, demolition and excavation waste has fallen sharply due to the recession. It has been assumed that this will increase again after the recession, and that by 2015 production of construction, demolition and excavation waste will return to previous levels.
- 4.8 Government policy and the South East Plan (policy W4) point to counties being self-sufficient in managing the quantity of waste they produce, with cross boundary movements of waste generally being in balance. Apart from landfill of residual non-hazardous waste (see paragraph 4.61), this principle has been adopted in assessing the amount of waste that needs to be provided for in Oxfordshire.
- 4.9 Policy W1 includes the amounts of waste that will need to be managed each year as a guide to the number of waste management facilities that may be required.
- 4.10 **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.**
- 4.11 The following figures should be used as a guide to the amount of provision to be made for the different types of management for each waste type. These will be kept under review through the plan period and if necessary will be revised.

Oxfordshire: estimated waste to be managed per annum 2010 – 2030

Waste Type / Management Type	2010	2015	2020	2025	2030
	tonnes per annum				
Composting:					
Municipal	90,000	100,000	105,000	110,000	115,000
Commercial & Industrial	–	30,000	30,000	30,000	30,000
Total	90,000	130,000	135,000	140,000	145,000
Recycling:					
Municipal	80,000	100,000	105,000	110,000	115,000
Commercial & Industrial	280,000	295,000	330,000	375,000	385,000
Total	360,000	395,000	435,000	485,000	500,000
Residual Treatment:					
Municipal	–	120,000	120,000	130,000	130,000
Commercial & Industrial	–	250,000	230,000	205,000	210,000
Total	–	370,000	350,000	335,000	340,000
Landfill:					
Municipal	140,000	10,000	10,000	10,000	10,000
Commercial & Industrial	285,000	15,000	15,000	15,000	15,000
Total	425,000	25,000	25,000	25,000	25,000
Construction, Demolition & Excavation Waste:					
Recycling	325,000	650,000	780,000	780,000	780,000
Landfill / Restoration	325,000	650,000	520,000	520,000	520,000
Total	650,000	1,300,000	1,300,000	1,300,000	1,300,000

Composting includes capacity for food waste

Landfill estimates do not include hazardous waste arising from residual treatment

All figures rounded to nearest 5,000 tonnes

Waste imports and exports

- 4.12 Allowance must also be made for the movement of some waste across the county boundary. Some waste is exported out of Oxfordshire, but waste is also received for disposal from other counties, in particular Berkshire. This reflects the availability of landfill and the location of large towns like Reading and Swindon close to Oxfordshire. London has a shortage of landfill capacity and therefore exports waste for disposal to other places, including Oxfordshire. Much of this is transported by rail.
- 4.13 It is expected that waste will continue to be brought into Oxfordshire for disposal by landfill, but in declining amounts as new recycling and residual waste treatment facilities are developed in London and elsewhere. There should be continuing pressure on authorities in London to make provision for dealing with their own waste.

- 4.14 It is estimated that waste may be imported into Oxfordshire for disposal at the following rates over the period of this plan. It has been assessed that there is sufficient capacity remaining within existing landfill sites for these quantities of waste (in addition to meeting Oxfordshire's landfill requirements).

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	1.33	0.84	0.42	0.42
Elsewhere	2.25	1.42	0.71	0.71
Total	3.58	2.26	1.13	1.13

London Waste Imports to 2025 are from South East Plan policy W3

London Waste for period 2016-2025 assumes that 66% of the apportionment for that period is taken up in first 5 year period

Waste from elsewhere is based on an assumed current import rate of 450,000 tpa

Waste from elsewhere for period 2016-20 is in same proportion to period 2010-15 for London (63%)

London waste and waste from elsewhere for 2026-30 is assumed to be as for period 2012-30

- 4.15 It would be counter-productive to allow new waste management facilities in Oxfordshire predominantly to treat waste from elsewhere. This would be a disincentive to self-sufficiency in other areas and lead to waste travelling longer distances than necessary, or to a surplus of waste management capacity. Such facilities should only be permitted where clear benefits to the area can be identified (e.g. in helping the delivery of a facility that is needed to meet the waste management requirements of Oxfordshire).

4.16 Policy W2: Waste imports

Provision will be made for disposal of a declining amount of waste from London and elsewhere at existing landfill sites. Facilities which provide substantially for the treatment of waste from outside Oxfordshire will not be permitted unless there would be clear benefits within Oxfordshire.

How should Oxfordshire's waste be managed?

- 4.17 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, approaching half of all waste is now being recycled or recovered for other use. This trend is expected to continue as a result of current investment in new waste facilities.
- 4.18 This strategy seeks, as quickly as is practical, the provision of additional facilities to increase recycling and composting and recovery of resources from waste, and to minimise disposal of waste to landfill.
- 4.19 The targets in this strategy, which underpin the waste needs assessment, take account of waste management targets in the South East Plan but modified in line with national policy to move waste management up the waste hierarchy to reflect:

- higher recycling and composting targets for municipal waste, that the Oxfordshire Waste Partnership consider achievable in Oxfordshire; and
- maximum diversion from landfill of municipal waste and commercial and industrial waste being achieved from 2015.

- 4.20 Oxfordshire's municipal waste strategy currently aims for recycling of 55% of household waste by 2020, but this target is being reviewed and it is already clear that a recycling/composting rate of 62% should be achievable by 2020. The recycling targets for commercial and industrial waste and for construction, demolition and excavation waste in the South East Plan are considered appropriate to Oxfordshire.
- 4.21 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 to be built at Ardley. It is estimated that from 2015 only 2% of municipal waste will need to be sent direct to landfill. This strategy assumes that from 2015 all Oxfordshire's commercial and industrial waste that is not recycled or composted will also, so far as is practical, be sent to a waste treatment facility, and that only 2% of this waste will need to be sent direct to landfill.
- 4.22 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.
- 4.23 **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	29%	30%	31%	31%	31%
Recycling	25%	31%	31%	31%	31%
Treatment of residual waste	0%	37%	36%	36%	36%
Landfill	46%	2%	2%	2%	2%
Commercial & industrial waste:					
Composting& food waste treatment	0%	5%	5%	5%	5%
Recycling	50%	50%	55%	60%	60%
Treatment of residual waste	0%	43%	38%	33%	33%
Landfill	50%	2%	2%	2%	2%
Construction, demolition & excavation waste:					
Recycling	50%	50%	60%	60%	60%
Landfill/Restoration	50%	50%	40%	40%	40%

How much additional waste management capacity is needed?

- 4.24 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 and the capacity already available to manage that waste.
- 4.25 There are uncertainties in estimating future levels of waste production and cross-boundary movements of waste, particularly where facilities are close to sources of waste in other counties. Flexibility therefore needs to be built into assessments of future waste management requirements. To ensure sufficient facilities, the additional waste management capacity to be provided for is 10% higher than the estimate of waste arising.
- 4.26 Policy W4 shows the additional capacity likely to be required for composting, recycling and residual waste treatment, for the three main waste streams. The total estimated amount of waste to be provided for is approximately 2.3 million tonnes a year (policy W1). Taking into account 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 800,000 tonnes a year. The additional capacity required increases through the plan period as

waste production is expected to increase slightly but mainly due to a decline in existing capacity as facilities with temporary planning permissions come to the end of their lives.

4.27 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	–	–	–	50,000	100,000
Construction, Demolition & Excavation	–	–	80,000	390,000	500,000
Residual Treatment:					
Commercial & Industrial	–	200,000	180,000	160,000	160,000

All figures rounded to nearest 10,000 tonnes
 Figures based on waste arising estimates with +10% contingency

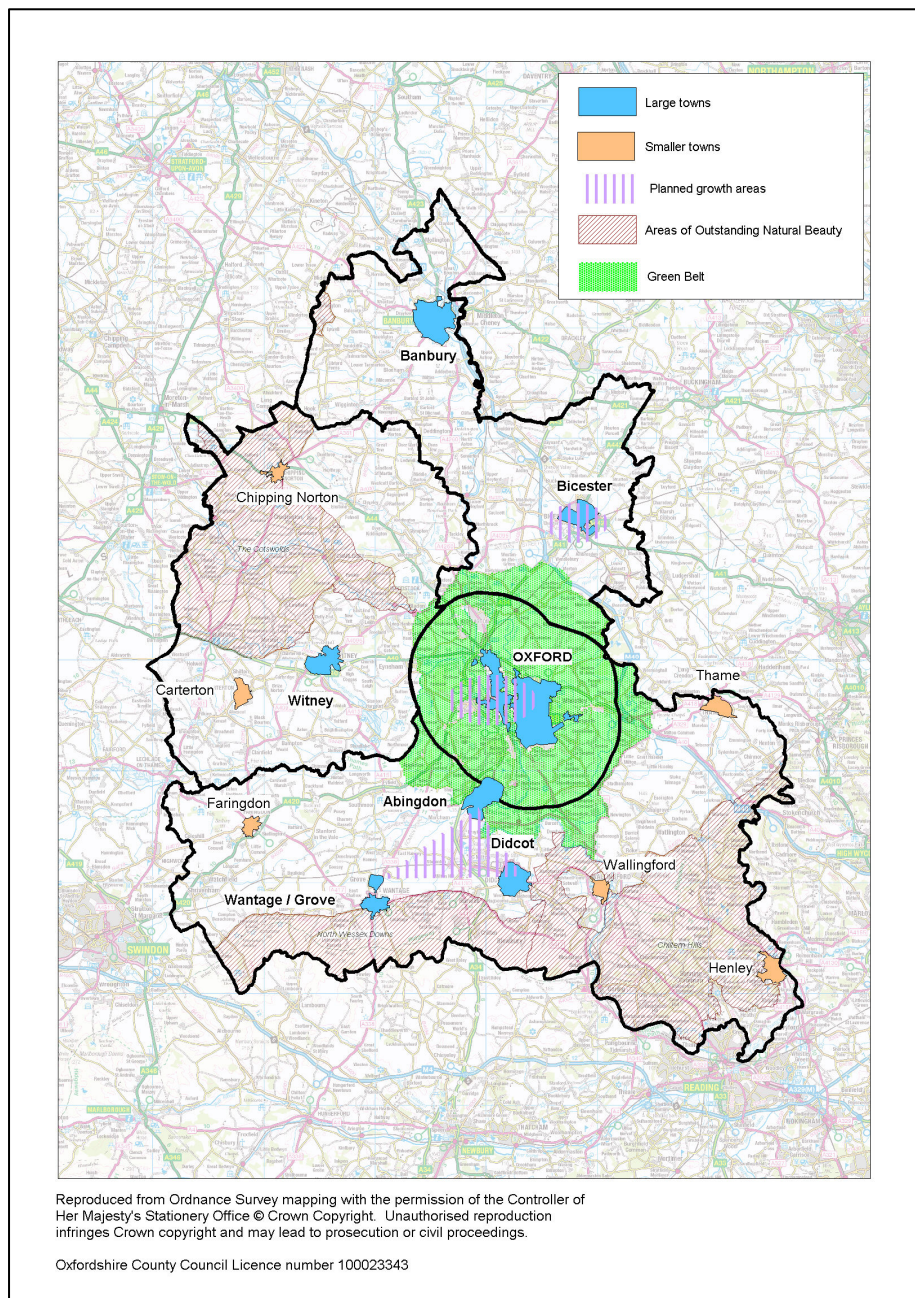
Where should future waste management facilities be located?

- 4.28 The Waste Needs Assessment identifies a need for new recycling and treatment/recovery facilities and decisions need to be made on where these should be located. A key objective of this plan is to manage waste as close as possible to the source of arising. This generally points to a broad spread of facilities in order to minimise transport distances. However, different sizes of facility are appropriate for different types of waste management and technology.
- 4.29 For the main waste streams, there are two broad spatial options:
- larger/medium facilities focused on the large towns (Oxford; Banbury; Bicester; Abingdon; Didcot; Wantage & Grove; Witney).
 - a more dispersed pattern of smaller facilities related to both large (as above) and smaller towns (Chipping Norton; Carterton; Faringdon; Wallingford; Henley; Thame).
- 4.30 As a guide to the possible distribution of the waste management capacity required across the county, the population of Oxfordshire can be divided into the following areas based around the large towns, as shown on figure 5.

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

Figure 5: Areas of the County around large towns, and smaller towns



- 4.31 Options have been identified that broadly indicate areas where new waste facilities might be located. The different types of waste are considered separately although, municipal and commercial and industrial waste recycling and treatment facilities can cater for both of these waste streams. The most appropriate option will vary between waste streams and types of waste management facility. The options that have been considered for different waste streams are set out below.
- 4.32 Facilities should, as far as practicable, be suitably sized and distributed to minimise transport distance; and well related to and proportionate to the needs of the population of the area they will serve. The overall approach that is proposed is to make provision for a range of additional waste management facilities (taking into account the locations of existing and permitted facilities), generally with large or medium facilities within or close to the large towns and small facilities to serve the smaller towns, but with more concentrated provision for the treatment of residual waste. This approach is consistent with the Oxfordshire Joint Municipal Waste Management Strategy. Concentrated provision will also be needed for more specialist requirements such as for hazardous and radioactive waste, which are covered separately at paragraphs 4.66 and 4.75. Broad, strategic locations where the development of most facilities should take place are shown on the key diagram at the end of this section.
- 4.33 Large (approximately 50,000 tonnes per annum or more throughput) and medium (approximately 20,000 to 50,000 tonnes per annum) waste facilities will generally be appropriate at or close to large towns. This could include locations up to 5 km from the built up area, where there is good access to the main road network. Small waste facilities (approximately 20,000 tonnes per annum or less) will be appropriate, and medium facilities may be appropriate, at or close to smaller towns. This could include locations up to 2 km from the built up area, where there is good access to the main road network. Small and medium facilities to serve local needs may also be appropriate in more rural locations, where they meet the criteria in policy W6 and have good access to the main road network.

Municipal Waste

- 4.34 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 for municipal waste are shown on figure 2.
- 4.35 The recycling centre strategy includes provision of a new facility to serve Banbury (to replace the existing temporary facility at Alkerton). A site for this facility will be identified in the separate site allocations document.
- 4.36 The Ardley energy from waste facility 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. The County Council thinks this could best be provided by two transfer stations: one in the Abingdon / Didcot / Wantage & Grove area; and one in the Witney / Carterton area.

Commercial & Industrial Waste

- 4.37 The waste needs assessment shows that the strategy should in particular support the provision of additional facilities for recycling of commercial and industrial waste; and treatment of residual commercial and industrial waste. The total estimated amount of commercial and industrial waste to be provided for is approximately 640,000 tonnes a year (policy W1). Taking into account 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 300,000 tonnes a year.
- 4.38 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.

Recycling of Commercial & Industrial waste

- 4.39 There is an estimated gap of approximately 100,000 tpa by 2030 between the capacity forecast to be required and capacity at existing facilities and sites with planning permission. There are permissions for new large recycling facilities at Banbury, Finmere and Gosford, near Oxford.
- 4.40 This requirement mainly arises after 2020, mainly due to the temporary nature of many existing facilities, and is primarily needed to serve the large towns of Banbury, Bicester, Oxford, Abingdon and Didcot and their surrounding areas. The reasonable options for provision of this capacity are:
- a): Concentration of additional provision at or close to Oxford.
 - b): Additional provision at or close to large towns in:
 - Northern Oxfordshire (Banbury; Bicester);
 - Southern Oxfordshire (Abingdon; Didcot); and
 - Western Oxfordshire (Witney).
 (In this option, provision for Oxford is made elsewhere in the County, in recognition of the difficulty of finding suitable sites in or close to Oxford.)
 - c): Additional provision at or close to Oxford and large and smaller towns in:
 - Northern Oxfordshire (Banbury; Bicester);
 - Southern Oxfordshire (Abingdon; Didcot; Faringdon; Henley; Thame).
- 4.41 From an initial assessment, option c) best meets the objectives in paragraph 3.5, in particular objective iii (provide for waste to be managed as closely as possible to where it arises) and objective iv (facilities to be located in or close to

the communities they serve). It is considered that recycling facilities for commercial and industrial waste could be delivered by the private sector at the scale required such that objective ii (delivery of waste management facilities that will drive waste up the hierarchy) would also be met.

- 4.42 The proposed approach is additional provision for commercial and industrial waste recycling plants at or close to Oxford and large and smaller towns in the northern and southern areas of the county.**

Residual treatment of Commercial & Industrial waste

- 4.43 From mid 2014 the energy from waste facility at Ardley is expected to have capacity to treat up to approximately 180,000 tonnes per annum of commercial & industrial waste. The location of the plant in northern Oxfordshire close to the county boundary, means it is likely to take in waste from outside Oxfordshire. It has been assumed that only half (90,000 tonnes per annum) of the potential commercial & industrial waste capacity will be available for non-municipal waste from Oxfordshire. This leaves an estimated gap in required provision for Oxfordshire commercial & industrial waste of approximately 200,000 tonnes per annum by 2015.
- 4.44 The County Council has resolved to grant planning permission for a gasification plant of 90,000 tonnes per annum at Finmere, which could meet part of the requirement, but is located in northern Oxfordshire.
- 4.45 The additional capacity required will mainly be needed to serve southern Oxfordshire but also the Witney area. The reasonable options for provision of this capacity are:
- a) 1 large facility in the Abingdon/Didcot/Wantage & Grove area.
 - b): 2 smaller facilities in the Abingdon/Didcot/Wantage & Grove area; and the Witney area.
- 4.46 From an initial assessment, option a) best meets the objectives in paragraph 3.5. Waste treatment plants need to be of sufficiently large scale to be economic and practical, and therefore capable of being delivered by the private sector. A more dispersed pattern of smaller facilities would reduce the distances waste needs to be transported (objective iii), but is unlikely to be deliverable.
- 4.47 The proposed approach is to make provision for one large plant for treatment and recovery of resources from residual commercial and industrial waste (which is not recycled) in the Abingdon / Didcot / Wantage & Grove area.**

Construction, Demolition and Excavation (CDE) Waste

- 4.48 There is currently a surplus of recycling capacity for construction, demolition and excavation waste. This is expected to change to a need for additional

capacity by 2020, as demand for recycling increases with economic recovery and planning permissions for temporary facilities expire. The total estimated amount of this waste to be provided for is approximately 1,300,000 tonnes a year (policy W1). Taking into account 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 facilities with a combined capacity of approximately 500,000 tonnes a year by 2030. Based on where housing development is planned and taking into account existing permanent facilities, this requirement will mostly be at Bicester, Didcot and Wantage and Grove, but with some requirement also at Oxford, Banbury, Witney, Carterton, Abingdon and the smaller towns in southern Oxfordshire.

- 4.49 There are potential benefits, through operating synergies and reduced transportation 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. The reasonable options for provision of the required additional capacity are:
- a) Concentration of additional permanent provision at or close to Bicester, Didcot and Wantage & Grove; and temporary facilities at landfill and quarry sites across Oxfordshire.
 - b) Dispersal of additional permanent provision at or close to Oxford and large and smaller towns in:
 - Northern Oxfordshire (Banbury; Bicester);
 - Southern Oxfordshire (Abingdon; Didcot; Wantage and Grove; Faringdon, Wallingford; Henley; Thames); and
 - Western Oxfordshire (Witney; Carterton);
 and temporary facilities at landfill and quarry sites where opportunities arise across Oxfordshire.
 - c) Additional permanent provision only at or close to Oxford and towns large and smaller towns in:
 - Northern Oxfordshire (Banbury; Bicester);
 - Southern Oxfordshire (Abingdon; Didcot; Wantage and Grove; Faringdon, Wallingford; Henley; Thames); and
 - Western Oxfordshire (Witney; Carterton).
- 4.50 From an initial assessment, option b) best meets the objectives in paragraph 3.5. In particular it meets objective iii (provide for waste to be managed as closely as possible to where it arises) and objective iv (facilities to be located in or close to the communities they serve). It is considered that recycling facilities for construction, demolition and excavation waste could be delivered by the private sector at the scale required for a dispersed pattern of provision, such that objective ii (delivery of waste management facilities that will drive waste up the hierarchy) would also be met. There are potential synergies in locating recycling plants at quarries and landfill sites, in terms both of aggregates production and disposal of residues, and overall impacts can be lessened through a reduction in the number or size of new sites required.

- 4.51 The proposed approach is to disperse the additional provision required for construction, demolition and excavation waste recycling plants (to produce recycled aggregates and soils) at:
- permanent facilities at or close to Oxford and the large and smaller towns in the rest of the county;
 - and temporary facilities located at landfill and quarry sites across Oxfordshire.

How we propose to provide for waste management in Oxfordshire

4.52 Policy W5: Provision of waste management facilities

For municipal waste, provision will be made for:

- A household waste recycling centre to serve Banbury;
- Two residual waste transfer stations in the Abingdon / Didcot / Wantage & Grove and the Witney / Carterton areas of the county.

For the other main waste types, provision will be made for:

- Additional permanent recycling plants for commercial and industrial waste at or close to Oxford and towns in the northern (Banbury; Bicester) and southern (Abingdon; Didcot; Faringdon; Henley; Thame) areas of the county;
- A plant for treatment of and recovery of resources from residual commercial and industrial waste (which is not recycled) in the Abingdon / Didcot / Wantage & Grove area;
- Additional permanent recycling plants for construction, demolition and excavation waste (to produce recycled aggregates and soils) at or close to Oxford and the large and smaller towns in the rest of the county; and temporary recycling plants located at landfill and quarry sites across Oxfordshire.

Broad locations that are proposed for strategic waste facilities are identified in the key diagram. Waste management facilities will be permitted at suitable sites within these broad locations.

Small scale facilities to serve local needs may be acceptable outside these locations where they meet the criteria in policy W6. Sites for new waste management facilities will be identified in a site allocations document.

- 4.53 Annex 1 sets out how overall provision for the management of all wastes will be made taking into account existing and planned waste facilities.
- 4.54 Specific locations suitable for waste management facilities will be identified in a separate site allocations document. Priority should be given to land that is previously developed and suitable for employment purposes. Redundant farm buildings may be suitable for small scale facilities in rural areas. Green field sites will not normally be appropriate locations unless there is a compelling need and any impact of the development can be mitigated, but land adjacent to

compatible land uses e.g. sewage works may be appropriate. Temporary facilities will normally be acceptable at active mineral or landfill sites provided they are related to the mineral working or landfill operation and will be removed when that operation is completed.

- 4.55 The Cotswolds, North Wessex Downs and Chilterns Areas of Outstanding Natural Beauty lie close to towns where waste facilities may be required, particularly Witney, Wantage & Grove and Didcot, but also Chipping Norton, Wallingford and Henley. Proposals for waste development within or in proximity to Areas of Outstanding Natural Beauty will be considered against Core Policy C2(b).
- 4.56 The South East Plan (policy W17) says 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.
- 4.57 Oxford is the largest source of waste in the county, yet there are few waste facilities located 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 and construction, demolition and excavation wastes.
- 4.58 Government policy (PPG2 and PPS10) is that in most cases the development of green belt land for waste management would be inappropriate but, where there is a pressing need 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.
- 4.59 Where there is a need for a facility to predominantly serve Oxford and there is no reasonable prospect of an alternative location becoming available in the foreseeable future, waste development in the Green Belt may be considered acceptable. Specific controls may be sought to ensure that any such facility serves Oxford in the first instance.

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

In providing for additional waste management capacity priority will be given to land that:

- **is already in permanent waste management or industrial use;**
- **is previously developed, derelict or underused;**
- **involves existing agricultural buildings and their curtilages;**
- **adjoins sewage works or other uses compatible with waste management development.**

Waste management facilities will not be permitted on green field land unless there is an established over-riding need and it has been demonstrated that there are no more suitable sites available.

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

Waste management facilities to serve the needs of Oxford may be allowed in the Green Belt where it can be shown that there is an established over-riding need and no reasonable prospect of an alternative site becoming available such that very special circumstances are demonstrated. Controls may be imposed to ensure that such facilities do genuinely serve the waste management needs of Oxford.

Temporary waste management facilities will be permitted at mineral working and landfill sites where the waste development is related to and will be removed on completion of the mineral working or landfill operation.

Final disposal of waste

- 4.61 In recent years, Oxfordshire's non-hazardous landfill sites have been taking in well over 1 million tonnes of waste each year. With an estimated void of more than 12 million cubic metres, landfill space would be exhausted by 2025 if previous fill rates continue. However, municipal and commercial and industrial waste going to landfill from Oxfordshire is expected to decrease markedly from 2015. It is also to be expected that imported waste will decline as new waste treatment facilities are introduced elsewhere. It is assessed that Oxfordshire will still have some landfill space remaining at 2030, although the number of facilities will have reduced.
- 4.62 Government policy (PPS10) sees disposal of waste as the option of last resort, but nevertheless recognises that it must be adequately catered for; planning strategies should enable waste to be disposed of in one of the nearest appropriate installations. Whilst further landfill capacity for non-hazardous waste is not expected to be needed in the period to 2030, existing capacity should be safeguarded for disposal of residual non-hazardous waste, as in the South East Plan (policy W13). It is expected that consideration will need to be

given to extending the lifetime of existing landfills as decreasing amounts of waste are sent directly to landfill and in order to provide for the period to 2030.

- 4.63 A large proportion of inert waste from construction, demolition or excavation projects that is not recovered as soils or recycled aggregate is used beneficially in the restoration of mineral workings. 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.
- 4.64 It is estimated there will be a need for an additional approximately 3 million cubic metres of capacity for disposal of inert waste that cannot be recycled, during the later part of the plan period from around 2020. Priority should be given to the use of inert waste to restore mineral workings. Other landfill or land-raising of inert waste, including such operations as construction of bunds, landscaping and spreading on agricultural land should generally be avoided unless there is a genuine need or there would be a clear benefit. Provision for additional inert waste disposal capacity will be made in conjunction with the identification of sites for mineral working.

4.65 **Policy W7: Landfill**

Provision will be made for additional landfill capacity for inert (construction, demolition and excavation) waste which cannot be recycled, at quarries that require infilling for restoration. Permission will normally be granted for disposal of inert waste where it is required for the restoration of mineral workings or where 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 safeguarded for the disposal of residual non-hazardous waste. Permission will normally 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 M6 for restoration of mineral workings.

Hazardous Waste

- 4.66 In view of the specialist nature of hazardous waste management facilities they generally serve an area larger than single county. Hazardous wastes often have to be transported much longer distances to suitable sites than do other waste types. Oxfordshire is a net exporter of hazardous waste: it is estimated that less than 30% of the hazardous waste produced is currently managed within the county. Most of the facilities within Oxfordshire are small scale, but there is a significant transfer and recycling facility at Ewelme and an asbestos disposal facility at Ardley landfill site, both of which provide for Oxfordshire and a wider area. Otherwise, the nearest hazardous waste landfills to Oxfordshire

are at Swindon, Cheltenham and East Northamptonshire; and the nearest hazardous waste incinerators are at Slough and Fawley (Southampton).

- 4.67 The amount of hazardous waste produced is expected to increase and 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. It is estimated that additional capacity could be required for approximately 50,000 tonnes per annum of hazardous waste produced in Oxfordshire.
- 4.68 Oxfordshire should aim to be as self-sufficient as is reasonably possible in managing this waste. But hazardous waste comprises different waste materials that require different types of treatment or disposal facility. Many of these facilities will be of a specialist nature and expensive to develop and operate; and will need to serve an area wider than Oxfordshire in order to be viable. Provision of all this capacity in Oxfordshire is unlikely to be practical.
- 4.69 The South East Plan (policy W15) identifies a number of priority areas for the region including treatment facilities for air pollution control residues, waste electronic equipment and contaminated CDE waste. For Oxfordshire the priority areas are similar. There may also be a need for enhanced treatment facilities at the main sewage sludge treatment sites in the county (Banbury, Bicester, Oxford, Witney, Didcot and Wantage & Grove), although no specific requirements have been identified. Development proposals for sewage sludge treatment will be considered against Policy W6.
- 4.70 Where hazardous waste facilities are proposed in Oxfordshire they should provide for waste produced in the County. Where proposed facilities will serve a wider area, they will be regarded as strategic facilities (even if only handle small tonnages) and should be located in accordance with the general policies for location of waste facilities.
- 4.71 The reasonable options for meeting the requirement for provision for hazardous waste are:
 - a) No additional provision: continue to rely on hazardous waste facilities outside Oxfordshire, apart from disposal of non-reactive hazardous waste (mainly asbestos) in existing non-hazardous landfills in Oxfordshire where acceptable.
 - b) Existing landfill: change one of Oxfordshire's existing non-hazardous landfills to hazardous landfill (Alkerton, Ardley, Finmere, Dix Pit or Sutton Courtenay).
- 4.72 There is no evidence to suggest that any of the existing non-hazardous landfills would be suitable for disposal of hazardous waste, other than the possible disposal of non-reactive hazardous waste (mainly asbestos). There has been no indication that private sector proposals will come forward for other hazardous waste facilities in Oxfordshire. Taking into account the factors

above, the initial assessment is that option a) is the most practical and deliverable option.

- 4.73 **The proposed approach is to continue to rely on hazardous waste facilities outside Oxfordshire, apart from disposal of non-reactive hazardous waste (mainly asbestos) in existing non-hazardous landfills in Oxfordshire where this is acceptable.**
- 4.74 **Policy W8: Hazardous waste**

Permission will only 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; and**
- **they are reasonably required to meet a need for waste management that is not adequately provided for elsewhere.**

Radioactive Waste

- 4.75 Radioactive waste in Oxfordshire mainly comprises existing materials that remain as a legacy from nuclear research facilities that are being decommissioned, principally at Harwell, with smaller quantities at Culham (JET project). The County Council, as waste planning authority, would deal with planning applications for any facilities for storing, managing or disposing of radioactive waste in Oxfordshire.

Intermediate Level Radioactive Waste Storage.

- 4.76 There is no waste of high level radioactivity at Harwell, but some of the remaining waste is of intermediate level radioactivity. This will need to 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.
- 4.77 The operator of the Harwell site has proposed the provision of a new on-site storage facility for intermediate level radioactive waste, although some of the waste could be taken to a storage facility in Cumbria. The operator has also suggested that a storage facility at Harwell could accommodate intermediate level radioactive waste from Culham and from Winfrith in Dorset.
- 4.78 The reasonable options identified for making provision for intermediate level radioactive waste are:
- a) Storage at source of waste: treatment and long-term storage of intermediate level nuclear waste at Harwell (waste from Harwell only); and Culham (waste from Culham only); pending removal to a national disposal facility.

- b) Treatment and long-term storage of intermediate level nuclear waste (waste from Harwell and Culham) at Harwell, pending removal to a national disposal facility.
- c) Treatment and long-term storage of intermediate level nuclear waste from Oxfordshire (waste from Harwell and Culham) and storage of waste from Dorset (Winfrith) at Harwell, pending removal to a national disposal facility.

4.79 An intermediate level radioactive waste store is a specialist facility which would be costly to provide. The quantity of waste at Culham is small and there would be economies of scale involved in moving it to a storage facility at Harwell and the need for a further building in the Green Belt at Culham would be avoided. But it is not at present clear that there is a justifiable case for bringing waste from Dorset to Harwell. The initial assessment is that option a is the most practical and acceptable option.

4.80 The preferred approach is storage of intermediate level radioactive nuclear legacy waste from sites in Oxfordshire at Harwell, pending removal to a national disposal facility. Any proposal for storage of waste from outside Oxfordshire at Harwell would need to be strongly justified as an exception.

Low Level Radioactive Waste Management.

4.81 Most of the nuclear waste at Harwell and Culham is of low level radioactivity and mainly arises from demolition and clearance of buildings which have a small amount of radioactive contamination. It is estimated that there is a total of approximately 100,000 cubic metres of this waste at Harwell, and a smaller quantity at Culham. Some of this will have to be taken for disposal to the existing specialist facility in Cumbria (near Drigg), or may possibly need to be disposed of at the proposed national deep geological repository. But the bulk of this waste is classified as very low level waste and could be disposed of in a suitable landfill facility. Permission has recently been granted for the disposal of low level radioactive waste at a landfill site in East Northamptonshire. Some low level waste may need to be stored for a temporary period to allow radioactive contamination levels to reduce to the appropriate level for safe disposal by landfill.

4.82 The reasonable options identified to meet the requirement for provision for low level radioactive waste are:

- a) Temporary storage (if required) and disposal in a bespoke facility at Harwell (waste from Harwell only); and at Culham (waste from Culham only).
- b) Temporary storage (if required) of waste at source of waste and disposal in a bespoke facility at Harwell (waste from Harwell and Culham).

- c) Temporary storage (if required) of waste at source of waste and disposal in a suitable off-site landfill in Oxfordshire.
- d) Temporary storage (if required) of waste at source of waste and disposal in a suitable off-site landfill outside Oxfordshire.

4.83 There has been no indication that private sector proposals would come forward for disposal of low level radioactive waste at an existing landfill in Oxfordshire. It is not clear that the provision of dedicated disposal sites at Harwell and Culham, or just at Harwell, would be practical in terms of cost and availability of suitable site(s). There is disposal capacity available outside Oxfordshire. The initial assessment is that option d) is the most practical and acceptable option. But there should be flexibility to reconsider the other options if disposal capacity proves not to be available outside Oxfordshire.

4.84 **The preferred approach is temporary storage (if required) of low level radioactive nuclear legacy waste from Harwell and Culham at the source of the waste and disposal at suitable facilities outside Oxfordshire. If capacity is not available at suitable facilities outside Oxfordshire, consideration should be given firstly to disposal at a suitable existing landfill in Oxfordshire; and secondly to disposal at a new bespoke landfill at Harwell.**

4.85 In addition, small quantities of low-level activity radioactive wastes are produced in Oxfordshire from non-nuclear sources, mainly from medical, research and educational establishments. These are currently taken to specialist disposal facilities outside Oxfordshire. The small quantities of non-nuclear low level waste arising in Oxfordshire could continue to be managed through existing arrangements.

4.86 **Policy W10: Radioactive Waste**

Provision will be made for:

- **Storage of intermediate level radioactive nuclear legacy waste from sites in Oxfordshire at Harwell, pending removal to a national disposal facility;**
- **Temporary storage (if required) of low level radioactive nuclear legacy waste at Harwell and Culham.**

Broad locations that are proposed for strategic waste facilities are identified in the key diagram.

Permission will only be granted for the storage of intermediate level radioactive waste from outside Oxfordshire at Harwell if there is an overriding need and there would be clear benefits within Oxfordshire.

Permission will only be granted for the management or disposal of low level radioactive waste at existing landfill sites or at a new bespoke facility at Harwell if it can be demonstrated that no other suitable disposal facility is available and there is an overriding need to dispose of the waste in Oxfordshire.

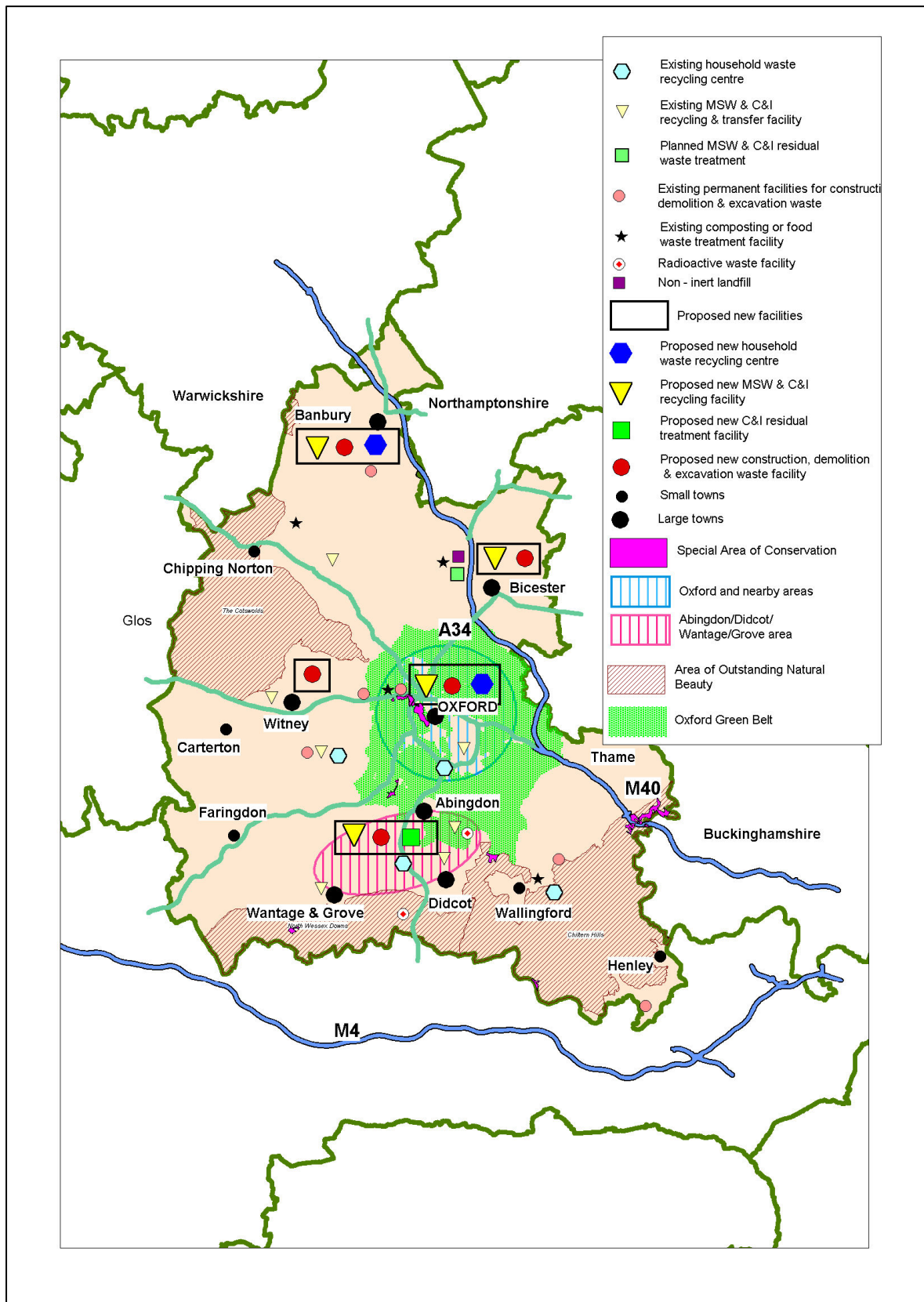
Permission will not be granted for the management or disposal of radioactive waste at other locations in Oxfordshire.

Safeguarding waste management sites against other forms of development?

- 4.87 Waste facilities have the potential to conflict with a wide range of environmental interests, and there is acknowledged difficulty in finding suitable sites. This is compounded by the high value of development land in the county and the 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).
- 4.88 Safeguarding permanent waste management sites will prevent their loss to other development, keep them available for potential further waste development and avoid the number of new sites required being increased. Safeguarded sites will be identified in the sites allocations document, which will also confirm the detailed provisions that will apply to safeguarding. There will be a presumption against any other form of development taking place on a safeguarded waste site unless a suitable alternative location can be provided.
- 4.89 Waste sites subject to temporary planning permission will not be safeguarded unless they are identified as suitable for permanent waste development.
- 4.90 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.
- 4.91 **Policy W11 Safeguarding**

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.

Waste Key Diagram



5. COMMON CORE POLICIES FOR MINERALS AND WASTE

Climate Change

- 5.1 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.
- 5.2 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.
- 5.3 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.
- 5.4 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 Development Frameworks. Applications for major developments may also provide information on climate change in their accompanying Environmental Impact Assessment.

Flooding

- 5.5 In Oxfordshire, the more workable sand and gravel deposits occur in the river valleys and much extraction has already taken place in these areas. PPS25 'Development and Flood Risk', which aims to steer development to areas of lowest flood risk, recognises sand and gravel working as 'water compatible development' – that category of development that is least affected by flooding. But a sequential test must still be applied before sand and gravel workings can be identified as appropriate when sited in the flood plain.
- 5.6 Except for certain types of landfill, waste management facilities can also be regarded as flood compatible development. Such development can take place in areas at risk of flooding providing a sequential test (and in some cases an exceptions test) establishes that there are no better alternatives in areas of lower flood risk.

- 5.7 A Strategic Flood Risk Assessment (SFRA)¹³ has been undertaken to assess the extent to which areas of possible minerals and waste development are at risk of flooding (including the future impact of climate change). A sequential test has informed the selection of the proposed areas for future minerals development in policy M3; due to other planning considerations, some areas have been identified in the floodplain. The SFRA will be used to help identify the most suitable sites for mineral development in the minerals site allocations document. The SFRA has not identified that any of the required waste infrastructure is likely to need to be located in areas at high risk of flooding.
- 5.8 An individual flood risk assessment will be required for any minerals or waste development proposals in an area at risk of flooding. A flood risk assessment is also required for development of a site of more than 1 hectare elsewhere (further guidance is given in the SFRA).
- 5.9 Where mineral working takes place in the flood plain, it is expected that associated development (buildings, stock piles etc) will be situated in areas that pose the lowest risk to flooding.
- 5.10 Mineral working in the flood plain can offer opportunities to increase flood water storage capacity and reduce the risk of flooding elsewhere. Wherever possible this should be taken into account in planning for the eventual restoration of the site.
- 5.11 **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, and where a flood risk assessment is able to demonstrate that the development will not:

- **impede the flow of floodwater;**
- **displace floodwater and increase the risk of flooding elsewhere;**
- **reduce existing floodwater storage capacity;**
- **adversely affect the functioning of existing flood defence structures.**

Proposals for the restoration of quarries located in areas liable to flood should, where possible, incorporate measures for the storage of floodwater.

Water Environment

- 5.12 Much of the current sand and gravel extraction in the county takes place in the valleys of the River Thames and its tributaries, particularly the River Windrush. Sand and gravel extraction can cause disruption to flows of ground water and surface water through de-watering during working and the creation of lakes.

¹³ Oxfordshire Minerals and Waste (Level 1) Strategic Flood Risk Assessment, Scott Wilson, October 2010

Sand and gravel extraction can also impact on water quality. The impact of any proposals for minerals or waste development on water quality and pollution prevention will be considered. This will include dewatering and the impact dewatering may have on regulated groundwater abstractions.

- 5.13 Waste developments and minerals site restoration which involves infilling with waste have the potential to cause pollution of surface and groundwater resources. In particular, surface run-off, landfill leachate and the discharge of waste water from waste management operations such as composting or recycling plants can cause pollution. Where appropriate, planning conditions may be imposed to ensure that measures are taken to prevent water contamination.

5.14 **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;**
- **The quantity or quality of water abstraction currently experienced by water abstractors 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 the protection of watercourses and canals of significant landscape, nature conservation or amenity value.

Environmental and amenity protection

- 5.15 The need for minerals and waste developments must be balanced against the need to protect the environment. Policy C3 provides for protection to local residents and other interests 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.
- 5.16 Applications for minerals and waste development in proximity to settlements should seek to safeguard the character, setting and amenity of those settlements and should include mitigation measures that incorporate an acceptable separation distance, and landscaping and planting appropriate to the existing landscape setting and consistent with the proposed after-use of the site.

- 5.17 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:

5.18 **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.

Biodiversity and Geodiversity

- 5.19 The County Council is committed to protecting and, wherever possible, enhancing biodiversity and geodiversity throughout the county. Oxfordshire has a significant number of statutorily designated sites of international, national, regional and local nature conservation importance, intended to protect important species, habitats and geological features.
- 5.20 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 these non-designated areas is protected and enhanced, and that habitat fragmentation is avoided
- 5.21 Oxfordshire has very little woodland; only about 6% of the county is woodland, of which half is ancient woodland. Woodland should be protected during mineral working. The County Council will encourage tree planting with native species for screening and landscaping and as a productive land use on restored mineral workings.
- 5.22 Proposals must address the need to maintain and/or enhance the following features of local and regional importance: Conservation Target Areas, Local Biodiversity Action Plan habitats and species, Local Wildlife Sites, woodlands and Local Nature Reserves.
- 5.23 Proposals for minerals development should seek to achieve a net gain in natural assets and resources through contributing to Oxfordshire Biodiversity Action Plan targets, which are delivered by the Conservation Target Areas (CTA) approach, and by protecting and enhancing green infrastructure and strategic biodiversity networks.
- 5.24 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 efforts should be made to protect those of regional, national or international importance and, if this is not possible, they should at least be recorded.

5.25 **Policy C4: Biodiversity and Geodiversity**

Proposals for minerals and waste development should demonstrate that the development will not have an unacceptable adverse impact on sites designated as internationally, nationally or locally important for nature conservation, including the Oxfordshire Conservation Target Areas and the setting of those areas.

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

The County Council will seek the enhancement of Conservation Target Areas to implement Oxfordshire Biodiversity Action Plan (BAP) targets within and close to areas of mineral working. Mineral extraction will not be permitted unless the long term maintenance of BAP Priority Habitats and appropriate contributions to Oxfordshire BAP targets through the Conservation Target Area approach have been secured.

Nationally and regionally important geological features including geological Sites of Special Scientific Interest and Regionally Important Geological and Geomorphological 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.

Landscape

- 5.26 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. In particular proposals for development should demonstrate that they will not have a negative impact on views and settings associated with the Chilterns, Cotswolds and North Wessex Downs Areas of Outstanding Natural Beauty. Where development is proposed within or in proximity to an AONB, the assessment should be informed by the relevant AONB Management Plan. Development proposals should also take in account the landscape character areas, which are not statutory designations.

5.27 **Policy C5: Landscape**

Proposals for minerals and waste development should demonstrate that the development will protect and where possible enhance the landscape quality of Oxfordshire and will take account of the landscape character areas identified in the Oxfordshire Wildlife and Landscape study. Appropriate measures should be taken to mitigate potential adverse visual impacts through siting, design and landscaping.

Historic environment and archaeology

- 5.28 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 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.
- 5.29 Where proposals for minerals development involve a site which includes heritage assets, appropriate desk based and / or field evaluations should be undertaken in order to identify and determine the nature, extent, and level of significance of each heritage asset, the contribution of its setting to that significance, as well as any potential impacts on the asset or its setting.

5.30 **Policy C6: Historic environment and archaeology**

Proposals for minerals and waste development will be considered in the light of the need to protect and conserve Oxfordshire's historic assets and the setting of those assets, including Blenheim Palace, scheduled ancient monuments, listed buildings, conservation areas, historic battlefields, and registered parks and gardens.

Scheduled Ancient Monuments, other archaeological remains of national importance and their settings should be preserved in situ. For all other remains of regional or local importance preservation in situ will be preferred; where this is not appropriate, and for all other remains, adequate provision should be made for their excavation and recording.

Transport

- 5.31 The Oxfordshire Local Transport Plan (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.
- 5.32 The following roads make up the strategic road network in Oxfordshire: M40, A40, A41, A44, A420, A34, A428. The impact on the local environment and amenity from traffic associated with minerals development is an important matter to be taken into account in considering proposals. An objective of this plan is 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.
- 5.33 The impacts of transporting minerals and waste can be reduced by encouraging the uptake of alternative transport methods such as rail, conveyor,

pipeline and water. But these are usually only practicable where movement of large quantities between particular points or over long distances is involved. 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. However, most of the aggregate quarries in Oxfordshire are not able to take advantage of alternative methods of transport. Even where an alternative mode of transport is potentially available, it may not be economically viable or practicable given that most of the minerals extracted in Oxfordshire are distributed to local markets and most of the waste handled at facilities in the county is produced locally. Therefore the main method of transporting aggregates and waste in Oxfordshire is expected to continue to be by road.

- 5.34 Lorries can damage highways and lead to a need for more frequent maintenance. Where this is likely the Council will seek contributions to improvements before development starts and may seek commuted sums towards ongoing maintenance. The impact of lorry traffic in environmentally sensitive locations and settlements can be reduced by routeing agreements to control traffic movements. Routeing agreements will direct development traffic onto the strategic road network by the most appropriate route available taking into account road standard, settlements, road safety issues and other factors, although this needs to be balanced against potentially making vehicles drive further and therefore increasing carbon emissions and pollution.

5.35 **Policy C7: Transport**

Minerals and waste development will only be permitted where provision is made for convenient access to and along the strategic road network in a way that maintains or improves:

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

Proposals for mineral working should:

- a) **wherever possible, transport minerals by rail, water, pipeline or conveyor, rather than by road;**
- b) **minimise the number of miles that have to be travelled to reach markets if this can be achieved using roads suitable for lorries.**

Rights of Way

- 5.36 The Oxfordshire Rights of Way Improvement Plan has been incorporated into the Oxfordshire Local Transport Plan. That plan states that the County Council will 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. The plan also notes 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.

- 5.37 Proposals to enhance, promote and improve the rights of way network and to increase access to the countryside should be encouraged as part of restoration plans for mineral workings. Operators and landowners will be expected to contribute to an extended period of aftercare and management of rights of way.
- 5.38 If a proposal for mineral extraction would result in the diversion or closure of a public footpath or other right of way, the planning application should give details of any diversion, including the proposed route, the materials to be used and the access implications for users, which demonstrate that a safe and convenient right of way will be maintained. Applications should also state whether the right of way will be restored when the mineral workings are completed.

5.39 **Policy C8: Rights of Way**

The integrity of the rights of way network should be maintained and if possible retained in situ. 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 be encouraged and public access will be sought to restored mineral workings, especially if this can be linked to wider provision of green infrastructure.

Annex 1

How Overall Provision is proposed to be made for Waste in Oxfordshire

Municipal Waste (MSW)

MSW Composting and Food Waste Treatment

- Anaerobic digestion plants at Cassington (in operation) and Crowmarsh (planning permission granted);
- In-vessel composting at Ardley (in operation);
- Open-windrow composting at existing network of 3 sites with the temporary site at Hinton Waldrist being extended or replaced by 2024.

MSW Recycling

- 6 household waste recycling centres: 4 existing facilities (Dix Pit, Redbridge, Drayton and Oakley Wood); and 2 new facilities: one in the Oxford area (planning application submitted for site at Kidlington); and one at Banbury (site required by 2014);
- Existing waste recycling facilities at Enstone, Witney and Culham, with possible replacement of the Culham transfer facility by new recycling capacity in Southern Oxfordshire (Abingdon/Didcot/Wantage & Grove) (which could be at the Culham site); and potential additional recycling capacity in conjunction with provision for C&I waste.

MSW Residual Waste Treatment

- All residual MSW will be treated at the Ardley energy from waste facility (planning permission granted and contract awarded) (apart from a small fraction that will be disposed direct to landfill);
- Provision for 2 transfer stations in Southern Oxfordshire (Abingdon/Didcot/Wantage & Grove) and West Oxfordshire (Witney/Carterton) - sites required by 2014.

MSW Residual Waste Disposal

- Disposal of residual waste which cannot be treated at the Ardley facility to one or more of the existing non-hazardous) landfill sites in Oxfordshire (Alkerton, Ardley, Finmere, Dix Pit and Sutton Courtenay);
- Disposal of hazardous fly ash from the Ardley plant to a hazardous waste landfill outside Oxfordshire (in Gloucestershire).

Commercial and Industrial Waste (C&I)

C&I Composting and Food Waste Treatment

Provision for treatment at facilities provided for municipal waste and at other anaerobic digestion facilities which may be provided in conjunction with farm waste or

sewage sludge treatment (e.g. the on-farm anaerobic digestion plant proposed at Warborough which the County Council has resolved to permit).

C&I Recycling

Provision is proposed to be made for additional recycling facilities located at or close to Oxford and large and smaller towns in the northern Oxfordshire (Banbury; Bicester) and southern Oxfordshire (Abingdon; Didcot; Faringdon; Henley; Thame). These facilities could take MSW as well, but the identified need is specifically for C&I recycling. It mainly arises from 2015, particularly from 2020 onwards, and therefore there is not an immediate need to identify sites. Facilities should be sized in relation to the quantity of waste expected from that locality. Small facilities may be acceptable on suitable sites in rural parts of the county.

C&I Residual Waste Treatment

- Treatment of commercial and industrial waste from the northern part of the county will be provided for by the Ardley energy from waste facility.
- Provision is proposed to be made for treatment of commercial and industrial waste from the southern part of the county by one other large facility in the Abingdon/Didcot/Wantage & Grove area. A site needs to be provided for this facility by 2015.

C&I Residual Waste Disposal

As for municipal waste (above).

Construction, Demolition and Excavation Waste (CDE)

CDE Recycling

- Provision is proposed to be made for additional permanent facilities from 2015 at Oxford, Banbury, Bicester, Abingdon, Didcot, Wantage & Grove, Faringdon, Wallingford, Thame, Witney, and Carterton.
- Continued provision is proposed to be made for temporary recycling facilities at landfill and quarry sites across Oxfordshire.

CDE Residual Waste Disposal

Provision is proposed to be made for 3 million m³ of additional inert landfill capacity for beyond 2020 at quarry sites that will require infilling to achieve restoration; this provision should be made in conjunction with identification of sites for mineral working, rather than as separate landfill sites.

Hazardous Waste

Provision for management and disposal of hazardous waste is proposed to be made through:

- Continued use of existing hazardous waste management facilities in Oxfordshire, including the transfer facilities at Ewelme, Banbury and Standlake;
- Continued landfill of non-reactive hazardous waste (mainly asbestos) at the existing facility at Ardley Landfill and/or at other existing non hazardous landfills in Oxfordshire where this is acceptable; and
- Management and disposal of other hazardous wastes at appropriate hazardous waste facilities outside Oxfordshire.

Radioactive Waste

Provision is proposed to be made for storage of intermediate level radioactive nuclear legacy waste at Harwell and Culham, pending removal to a national disposal facility

Provision is proposed to be made for temporary storage (if required) of low level radioactive nuclear legacy waste from Harwell and Culham at the source of the waste, with and disposal at suitable facilities outside Oxfordshire.

Metal Waste (including end of life vehicles)

Continued use of existing permanent waste metal recycling sites in Oxfordshire.

Sewage Sludge – initial preferred strategy

Continued use of existing sludge treatment centres (Banbury, Bicester, Oxford, Witney, Didcot and Wantage & Grove), with further development at these facilities if required.