

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

**DRAFT MINERALS PLANNING STRATEGY**

## **1. INTRODUCTION**

### **Introduction**

- 1.1 The County Council is responsible for minerals and waste planning in Oxfordshire and is reviewing the 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 minerals. It includes strategies and policies for sand and gravel, soft sand and crushed rock extraction, and a key diagram to illustrate the preferred strategy. The Council is consulting separately on its draft plan for waste.

### **How to respond to this consultation document**

- 1.4 The County Council wants to get as wide a response as possible to the draft minerals 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  
Environment & Economy  
Oxfordshire County Council  
Speedwell House  
Speedwell Street  
Oxford OX1 1NE

Fax No: 01865 241577

Email: [minerals.wasteplan@oxfordshire.gov.uk](mailto:minerals.wasteplan@oxfordshire.gov.uk)

- 1.6 For any further information, please contact the Minerals and Waste Policy Team on 01865 815398, 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 Development Framework are on the County Council website at: [www.oxfordshire.gov.uk/links/public/mineralsandwastepolicy](http://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 2012<sup>1</sup>. 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.

---

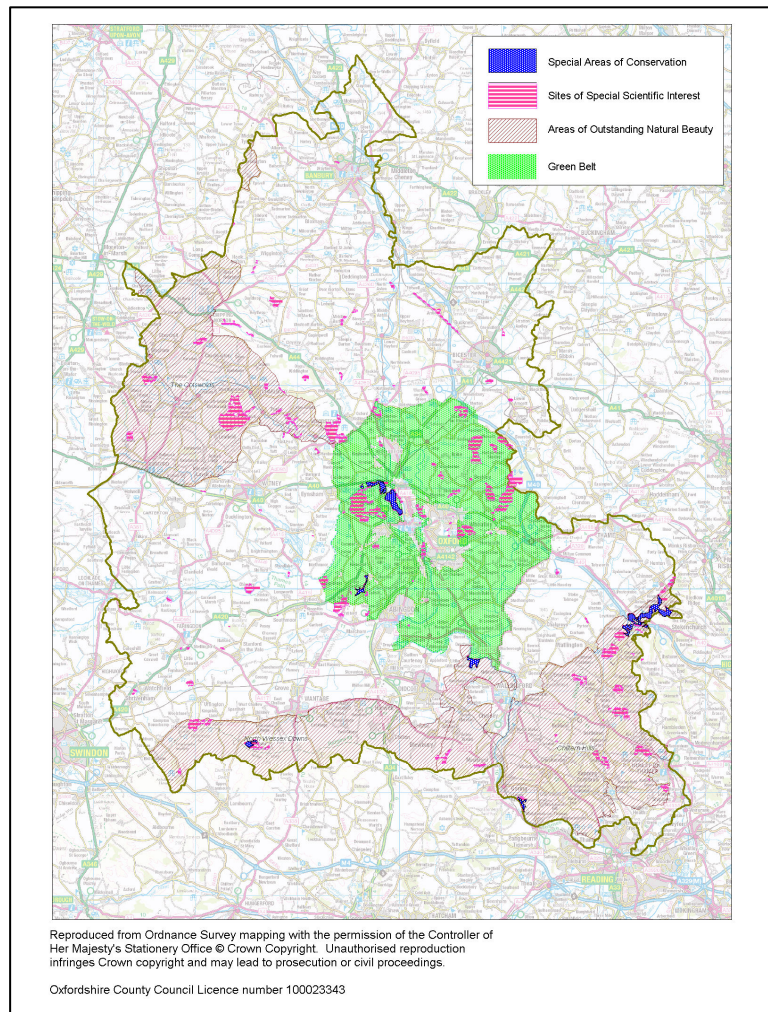
<sup>1</sup> The programme for the preparation of the Minerals and Waste Development Framework is set out in the Oxfordshire Minerals and Waste Development Scheme, which also explains what each development document will cover. The Development Scheme is under review and a revised version will be placed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

## 2. BACKGROUND

### The Oxfordshire Area

- 2.1 The plan needs to make provision for mineral working and supply to meet the needs for growth and development that is likely to take place in Oxfordshire over the next 20 years and to maintain the existing built fabric of the county.
- 2.2 Oxfordshire is renowned for its knowledge-based economy and research and development facilities. It is also the most rural county in the South East and almost a quarter of the land area is 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, particularly where there is sand and gravel along the River Thames and its tributaries. An area around Oxford is Green Belt. Figure 1 shows the main protected areas in the county.

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

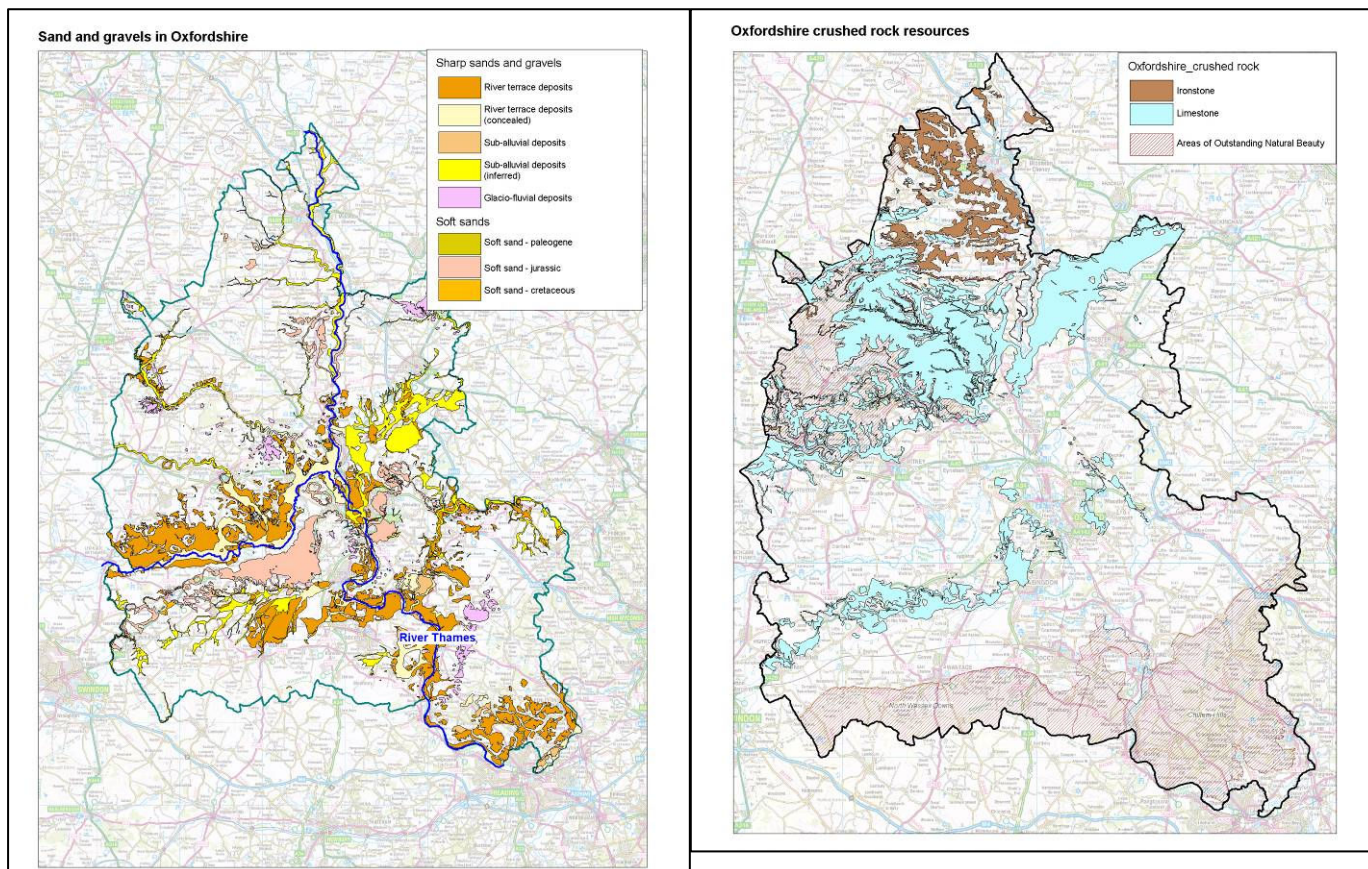




## Minerals

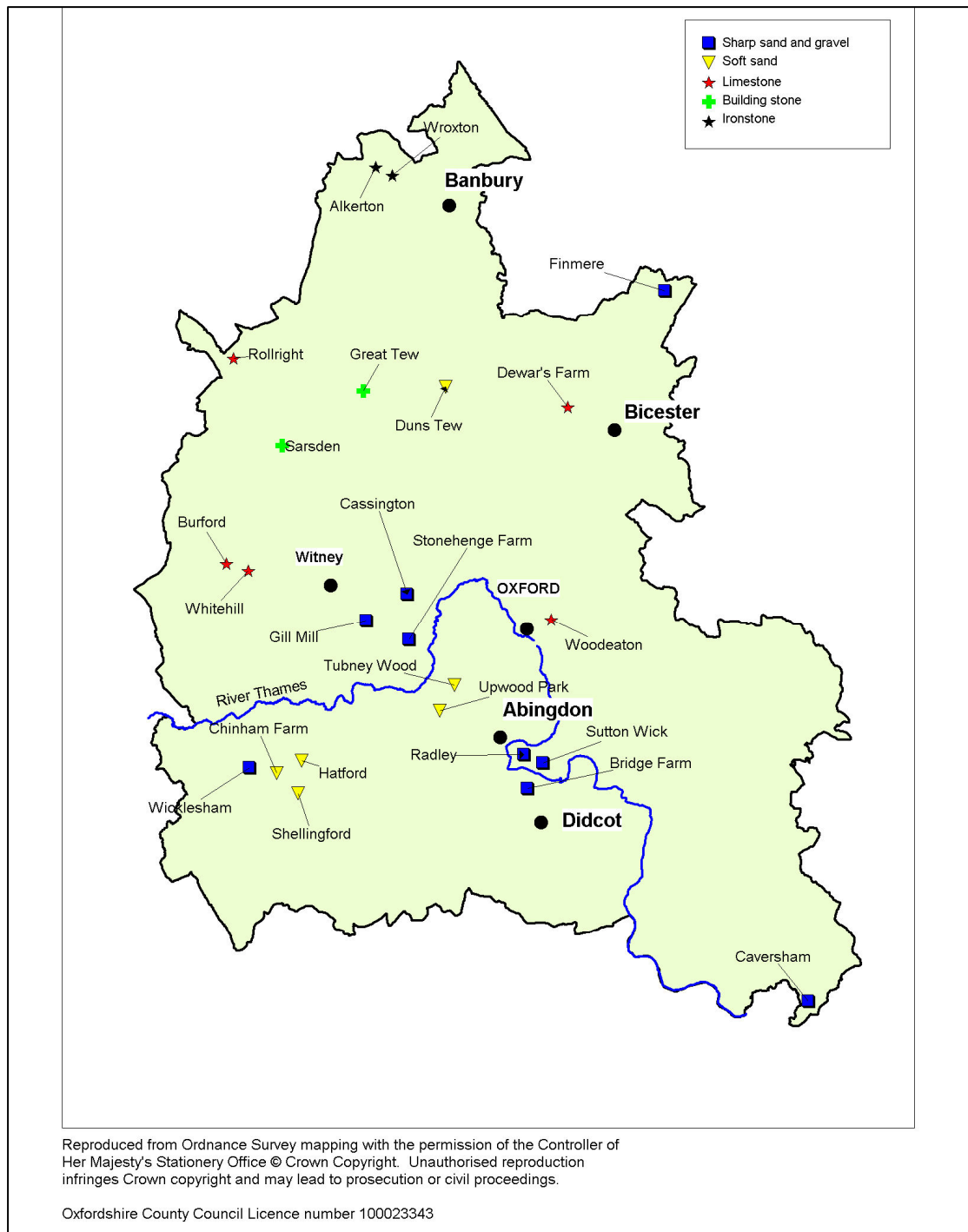
2.3 Sand and gravel is the most common mineral resource in Oxfordshire and this is typically found in river valley deposits, particularly along the River Thames and its tributaries the Windrush, Evenlode and Thame. Its primary use is to make concrete. Soft sand occurs mainly in the south west of the county; it is used in mortar and asphalt. Limestone and ironstone are found mainly in the north and west of the county; they are used primarily as crushed rock aggregate but also for building and walling stone. Figure 2 shows the location of these mineral resources; and figure 3 shows the location of active mineral workings in the county.

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



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

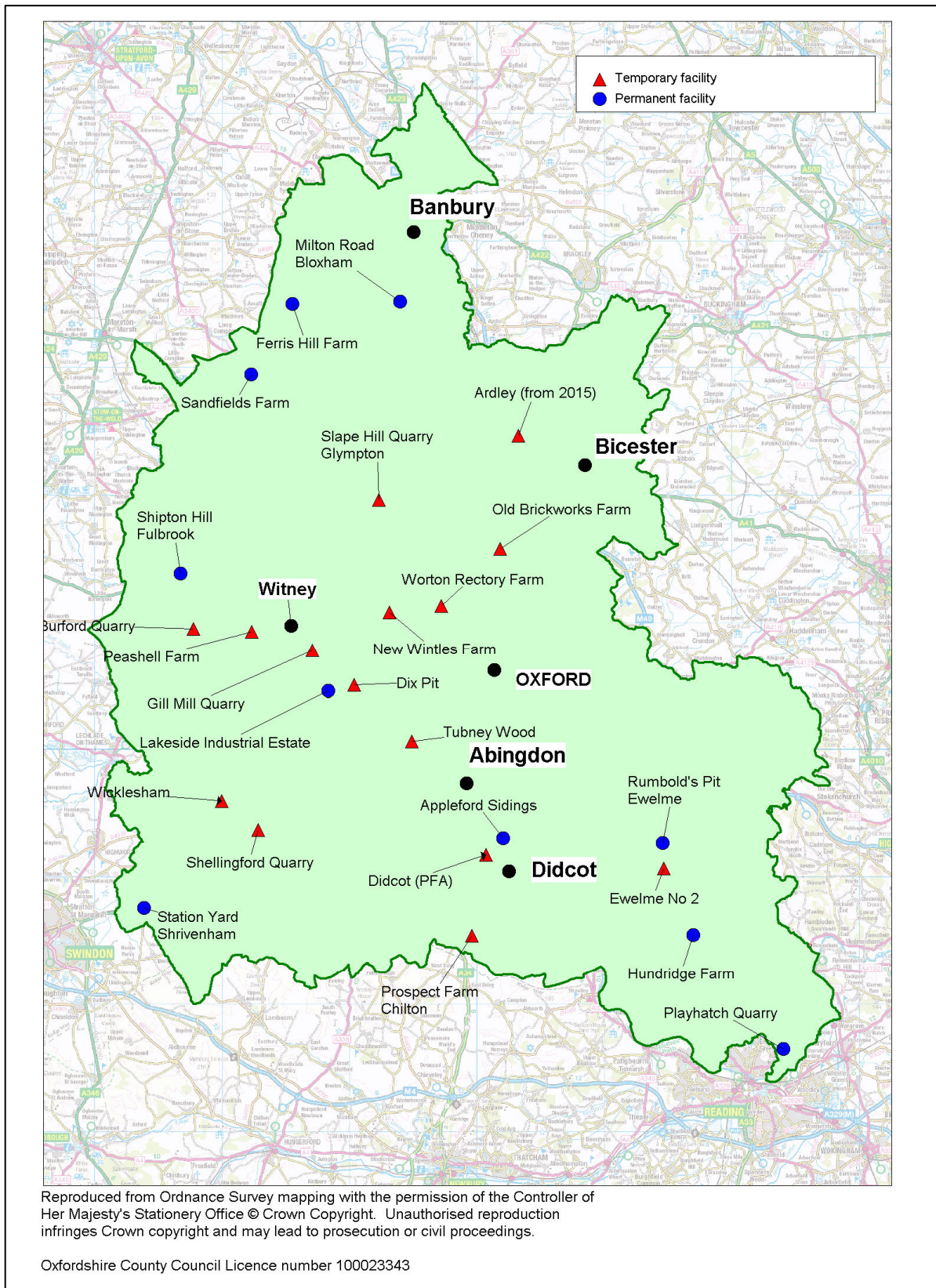
Figure 3: Location of active mineral workings and sites with planning permission



- 2.5 There are movements of minerals both into and out of the county. The 2009 survey showed that Oxfordshire imported more sand and gravel and crushed rock than it exported. Hard rock aggregates are imported by rail from the Mendips and from Leicestershire, to meet construction needs which cannot be met by local, softer limestone and ironstone.
- 2.6 Production of aggregates from recycled construction and demolition waste and from secondary materials (mainly ash from Didcot A Power Station) is making an increasingly significant contribution to the overall requirement for aggregates.



Figure 4: Active temporary and permanent secondary and recycled aggregate facilities



## Issues

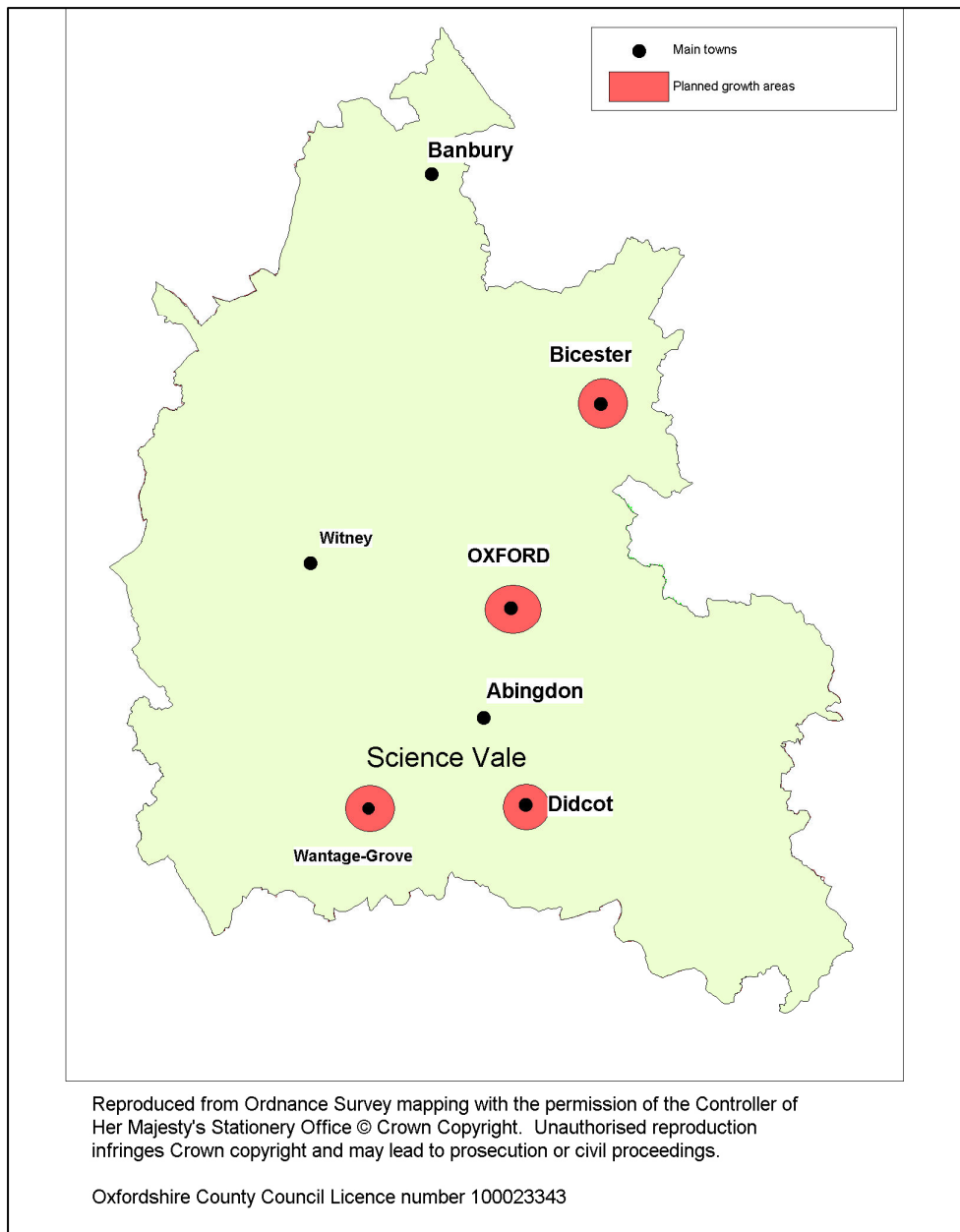
- 2.7 The population of the county is currently approximately 635,500<sup>2</sup>. Over the next 20 years significant population growth, new housing, commercial and related development, investment in infrastructure and related traffic growth are expected in Oxfordshire<sup>3</sup> which has implications for the demand for and supply of minerals.
- 2.8 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 minerals planning is to make provision for the necessary construction materials in an effective and sustainable way. There is also a need to ensure that new developments reduce carbon emissions and are resilient to climate change.
- 2.9 Key locations for development, as shown on figure 5, 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; and
  - Oxford, which remains a world class centre of education, research and innovation.
- 2.10 Mineral extraction can only take place where the mineral is found. Most mineral workings are located in rural areas, many of which are served only by minor roads. In some cases lorries carrying aggregates have to pass through small villages and towns, contributing to congestion and impacting on local communities and the environment. Some communities have experienced extensive working in the past, and in certain areas the local landscape has been significantly altered by the creation of lakes from sand and gravel workings.

---

<sup>2</sup> Oxfordshire Data Observatory, 2010.

<sup>3</sup> 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 5 Main towns and growth areas



## 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 to develop environmental and sustainability policy, which are transposed into national legislation and policy. The Habitats Directive<sup>4</sup> and the Strategic Environmental Assessment Directive<sup>5</sup> are of particular relevance to this plan (see paragraphs 2.20 and 2.24).

### National

2.14 The draft minerals plan has been prepared under the Planning and Compulsory Purchase Act 2004; and has regard to a range of national policy and guidance, including national planning and minerals policy statements and guidance (PPSs, PPGs, MPSs, MPGs). Other key publications include the UK Biodiversity Action Plan and the UK Sustainable Development Strategy.

2.15 National policy for minerals<sup>6</sup> includes the key objective of securing adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, and without irreversible damage.

### Regional

2.16 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 the figures for mineral supply are considered to be unjustifiably high (see paragraph 4.8).

### Local

2.17 The Oxfordshire Structure Plan 2016<sup>7</sup> included a policy (M2) which sets out factors to be taken into account in identifying appropriate locations for sand and gravel working. This policy is "saved", i.e. is still in force as part of the development plan for Oxfordshire, and is reflected in the development of the minerals strategy.

2.18 The Oxfordshire Minerals and Waste Local Plan was adopted by the County Council in July 1996. It contains detailed policies for the supply of minerals and for the control of minerals developments. Under the Planning and Compulsory Purchase Act 2004 (which introduced the requirement to prepare minerals and

---

<sup>4</sup> 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)

<sup>5</sup> 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)

<sup>6</sup> Minerals Policy Statement 1: Planning and Minerals

<sup>7</sup> The Oxfordshire Structure Plan 2016 adopted in October 2005 was superseded by the South East Plan adopted in May 2009

waste development frameworks), many of the policies of this Plan are also 'saved' and form part of the development plan until they are replaced by new policies in the Minerals and Waste Development Framework.

- 2.19 The draft minerals strategy has regard and is consistent with the existing and emerging new plans (local development frameworks) prepared and adopted by the City and District Councils<sup>8</sup>. 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.
- 2.20 The draft minerals strategy should take into account and, as far as possible, be consistent with the existing and emerging plans of neighbouring planning authorities and more distant planning authorities which have minerals links with Oxfordshire (e.g. counties which export hard rock to Oxfordshire).

### **Habitats Regulations Assessment**

- 2.21 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 has been consulted on a draft Habitats Regulations Assessment screening report, prepared by the council, which identifies the seven sites, describes the conservation objectives of each site and provides an assessment of the likely impacts on them.
- 2.22 The screening report suggests that there could potentially be an impact of mineral extraction near Oxford Meadows SAC and Cothill Fen SAC. Proposed sand and gravel extraction in some nominated sites in the Eynsham/Cassington/Yarnton area could potentially have an impact on the hydrology of Oxford Meadows SAC. However, the report concludes that it would be possible to deliver the required amount of sand and gravel from this area from other nominated sites within this area which are not likely to impact on Oxford Meadows SAC.
- 2.23 The report also concludes that working soft sand sites in the Tubney/Marcham/Hinton Waldrist area is unlikely to have an impact on Cothill Fen SAC as an appropriate assessment of a proposal to extract sand immediately adjacent to the SAC showed that it was possible to put in place buffer zones and to work above the water table to avoid hydrological impacts.
- 2.24 Natural England is currently reviewing the council's screening report and the council will seek their approval before submitting the Core Strategy for examination.

---

<sup>8</sup> 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

## **Sustainability Appraisal / Strategic Environmental Assessment**

- 2.25 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.
- 2.26 A sustainability appraisal scoping report has been prepared and published following consultation with the Environment Agency, Natural England and English Heritage.
- 2.27 During 2010 consultants carried out an appraisal of the draft mineral strategy options. The findings of that appraisal, together with feedback from stakeholder consultation, have been used to help the Council select a preferred minerals strategy for consultation. Further work has been done by the consultants to provide an appraisal of this draft minerals plan. Specifically, they have appraised:
- the minerals objectives;
  - the options for levels of provision for sand and gravel;
  - the preferred minerals strategy and policies; and
  - the common core policies.
- 2.28 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.

## **Development of the minerals strategy**

- 2.29 In developing the strategy for where new working should take place the County Council has taken account of the distribution of mineral resources; the existing distribution of workings and pattern of supply; proximity to main market areas; accessibility to main transport routes; risk of bird strike; restoration and after use potential; and development plan policies (in particular those which seek to safeguard important environmental features and areas).
- 2.30 Options for where mineral working might take place were developed over the past year through consultation with a range of stakeholders, including parish and district councils, mineral operators, environmental groups, the Environment Agency, Natural England, the Highways Agency and other interested parties.
- 2.31 Initially, seventeen areas of sand and gravel, two areas of soft sand and five areas of crushed rock were identified as potential areas for new working. Seven of the sand and gravel areas were discounted due to the thin and intermittent nature of the resources present in them.

- 2.32 Stakeholders were consulted on draft strategy options in March and April 2010 at workshops and feedback was sought from statutory and technical consultees. The feedback informed a revision of these options and stakeholders were consulted on the revised options in July 2010.
- 2.33 A preliminary site assessment exercise has also been undertaken by the Council to check that there would be sufficient potential sites within these option areas to deliver the required amounts of aggregates over the plan period.
- 2.34 This process enabled the Council to develop a preferred strategy for sand and gravel, soft sand and crushed rock, as included in this document.



### 3. Vision and Objectives for Minerals

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

#### Minerals Planning Vision

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

#### Minerals Planning Objectives

- 3.5 The Oxfordshire Minerals Planning Vision is supported by the following ten planning objectives which set out the principles which underpin the draft plan.
- i. Enable Oxfordshire to meet the locally determined requirements for supply of sand and gravel, soft sand, crushed rock and secondary and recycled aggregates over the plan period to meet planned economic growth and social needs.

## CA9

- ii. Enable a continued supply of limestone and ironstone for building and walling stone from small scale quarries for the maintenance, repair and construction of locally distinctive buildings and structures.
- iii. Provide a framework for investment and development by mineral operators and landowners through a clear and deliverable spatial strategy which is sufficiently flexible to meet future needs and which is based on existing and planned infrastructure provision.
- iv. Facilitate the economically and environmentally efficient supply of minerals in Oxfordshire and encourage the maximum practical recovery of aggregate resources from secondary and recycled materials for use in place of primary aggregates.
- v. Minimise the impact of mineral development on climate change by identifying areas for mineral extraction which reduce the need to transport minerals and which minimise the impact of mineral working on areas vulnerable to flooding.
- vi. Minimise the distance minerals need to be transported by road and encourage where possible the movement of aggregates by conveyor, rail and on Oxfordshire's waterways in order to reduce adverse impacts of mineral transportation on local communities and the environment; and minimise the impact of mineral traffic on local communities through implementation and monitoring of routeing agreements.
- vii. Protect Oxfordshire's important landscapes and ecological, geological and heritage sites, and archaeological and heritage assets from harmful impacts of mineral development and transportation.
- viii. Provide benefits to Oxfordshire's natural environment and local communities through the restoration of mineral workings by contributing to nature conservation, enhancing the quality and extent of Conservation Target Areas, contributing to landscape character, improving access to the countryside, safeguarding local amenity and providing opportunities for local recreation.
- ix. Safeguard resources of sand and gravel, crushed rock, building stone and Fuller's Earth to ensure that these resources are potentially available for future use and are considered in future development decisions; and
- x. Safeguard permanent facilities for producing secondary and recycled aggregate and for importing aggregates into Oxfordshire by rail.

## 4. PREFERRED MINERALS PLANNING STRATEGY

- 4.1. This section sets out the council's preferred minerals strategy and proposed policies on minerals. Provision must be made for an adequate and steady supply of minerals over the plan period. The council intends that this should be done by encouraging the use of secondary and recycled aggregates as well as by identifying areas for mineral working to meet the need for primary aggregates such as sand and gravel and crushed rock. The key diagram at Appendix 1 to this document illustrates the proposed minerals strategy for Oxfordshire.
- 4.2. The strategy also addresses safeguarding of mineral resources and infrastructure to ensure future availability of supply. A policy for restoration of mineral working recognises the temporary nature of mineral extraction and the importance of restoring sites to enhance the environment and provide amenities for the public.

### Secondary and recycled aggregates

- 4.3. Secondary and recycled aggregates in Oxfordshire currently include:
- Locally derived construction and demolition waste;
  - Locally derived road planings;
  - Ash from Didcot A power station;
  - Spent rail ballast (brought in by rail to a site at Sutton Courtenay).
- 4.4. Oxfordshire has capacity for recycling approximately half a million tonnes of construction and demolition waste each year (about half in permanent sites and half in temporary sites at quarries and landfill sites). Didcot A power station will cease to operate by the end of 2015, but it is expected that some ash from the energy from waste facility to be built at Ardley will be used as secondary aggregates.
- 4.5. The total production of recycled and secondary aggregates is difficult to quantify because it includes, for example, material from mobile crushing plants at building and road development sites, which is recycled and sometimes re-used on site, and material which passes through waste transfer stations. Production of secondary and recycled aggregates in 2009 in Oxfordshire was estimated at just under 300,000 tonnes, but this may be an underestimate due to an incomplete survey response from operators.
- 4.6. Policy M1 provides for the building of additional facilities to support a more ambitious level of secondary and recycled aggregate production, in line with the South East Plan target (policy M2 – 0.9 million tonnes per year), to encourage this important source of aggregate supply.
- 4.7. Provision for additional facilities for the production of recycled aggregates from construction and demolition waste will be made through policy W5 of the waste strategy. Planning applications for such facilities will be considered against policy W6, including the provisions of that policy for recycling facilities to be located within the Green Belt and Areas of Outstanding Natural Beauty in particular circumstances.

### **Policy M1: Provision for Secondary and Recycled Aggregates**

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

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

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

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

### **How much mineral extraction should be provided for?**

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

4.9. The County Council has adopted the following locally-derived annual supply figures as the basis for its draft minerals plan for consultation<sup>9</sup>:

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

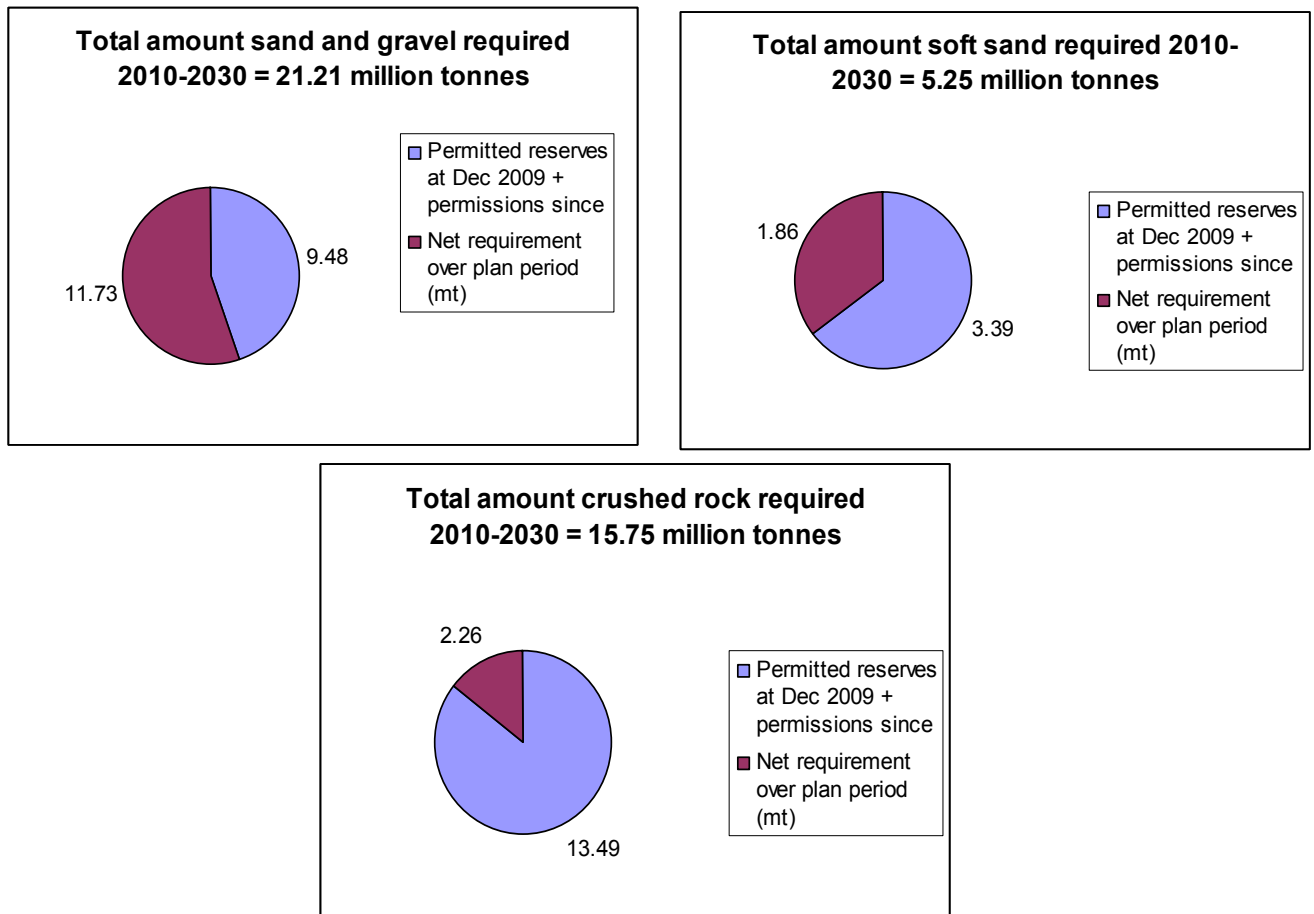
4.10. These figures are based on work by consultants Atkins, commissioned to provide a locally based assessment of Oxfordshire's aggregate requirements as alternative to the top-down figures in the South East Plan. They result in a requirement over the plan period for 21.21 million tonnes of sharp sand and gravel; 5.25 million tonnes of soft sand; and 15.75 million tonnes of crushed rock. Figure 5 shows how these requirements will be met.

---

<sup>9</sup> Report to County Council Cabinet 16 February 2011



Figure 6: Planning for sand and gravel, soft sand and crushed rock, 2010-2030



4.11. In line with current national policy, it is proposed to maintain landbanks of reserves with planning permission of at least:

- seven years for sand and gravel, based on 1.26 million tonnes a year, and
- ten years for crushed rock, based on 0.63 million tonnes a year.

4.12. In Oxfordshire soft sand and sharp sand and gravel generally occur in different locations and have distinct and separate uses and markets. In line with current national policy, separate landbanks will be maintained for these minerals. The annual supply figure for sand and gravel (1.26 million tonnes a year) will be divided between sharp sand and gravel and soft sand in the ratio 80:20, based on recent past production.

#### Policy M2: Provision to be made for Mineral Working

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

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

## Where should future mineral working take place?

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

### Sharp Sand and Gravel

4.14. Existing planning permissions could on average provide a supply of sand and gravel until 2016 at a production rate of 0.96 million tonnes a year, although in practice some sites will be exhausted sooner and others will last longer. The strategy in this document makes provision for sharp sand and gravel for the rest of the plan period, to 2030.

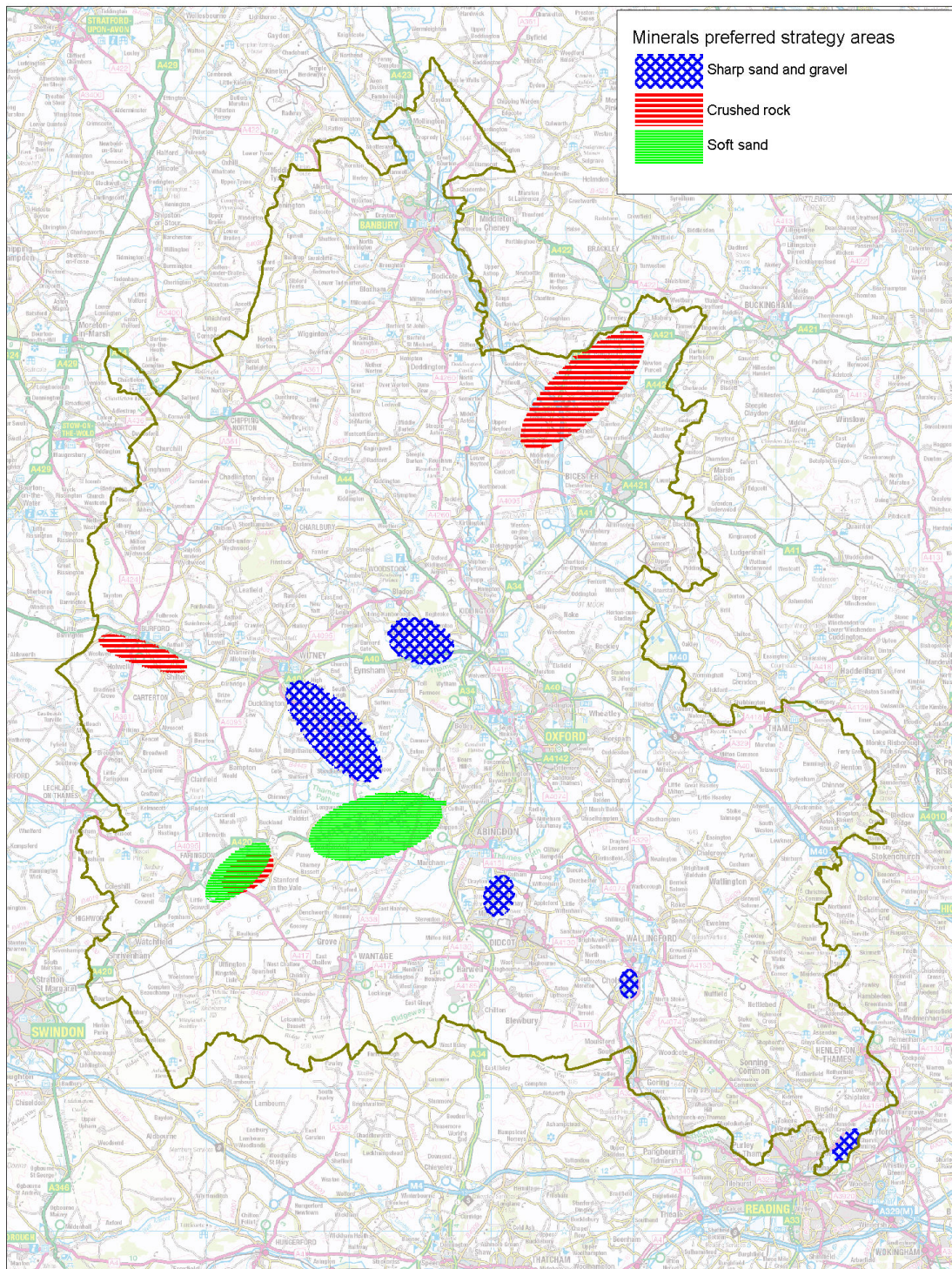
4.15. Principles which have informed the selection of the preferred strategy for sand and gravel extraction are:

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

4.16. An assessment has been made of the likely contribution of each of the strategic areas to meeting the requirement for sharp sand and gravel supply over the plan period. It has been assumed that the rates of working within the existing areas of working (Lower Windrush Valley, Eynsham/Cassington/ Yarnton, Sutton Courtenay and Caversham) would be at the levels allowed by existing planning permissions or proposed in current planning applications.

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

Figure 7: Preferred locations for sharp sand and gravel, soft sand and crushed rock working



Reproduced from Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

Oxfordshire County Council Licence number 100023343

### Soft sand

- 4.18. Soft sand accounts for approximately 20% of sales of all sands and gravels in Oxfordshire. Two types of soft sand are worked, supplying different markets: sand from the Tubney area generally meets higher specifications than sand from the Faringdon area. The strategy should enable both types of soft sand to continue to be worked.
- 4.19. At a production rate of 0.25 million tonnes a year, existing planning permissions could on average provide a supply of soft sand until 2020, although in practice some sites will be exhausted sooner and others will last longer. For the period 2020 to 2030, it would be preferable for further soft sand working to be from extensions to existing quarries rather than from new quarries to make efficient use of existing plant and infrastructure, and minimize additional impact.

### Crushed rock

- 4.20. At a rate of production of 0.63 million tonnes a year, current permitted reserves of crushed rock could last until 2030. Existing working areas of limestone are south east of Faringdon, south of Burford and east of the River Cherwell. There is one existing area of ironstone working in the north of the county at Alkerton/Wroxton. Production of crushed rock has fluctuated considerably over past years and, if demand increases, additional permissions may be needed towards the end of the plan period.
- 4.21. The ironstone resource area in the north of the county is less well located relative to strategic routes and market areas in Oxfordshire than are some areas of limestone resource; and there are substantial permitted reserves of ironstone remaining to be worked. Better quality aggregate is generally available from within the limestone deposits than from the ironstone. Any additional provision should be made within the limestone areas. Such provision should preferably be made through extensions to existing quarries rather than from new quarries, to make efficient use of existing plant and infrastructure, and minimize additional impact.
- 4.22. Government policy is that major minerals developments should only be permitted in Areas of Outstanding Natural Beauty in exceptional circumstances. The Cotswolds Area of Outstanding Natural Beauty should be protected from further limestone working for aggregates. Policy C4 provides protection for the Areas of Outstanding Natural Beauty in the county.

### Building Stone

- 4.23. The Council recognises the importance of small scale building, roofing and walling stone extraction in rural areas for the conservation and restoration of historic buildings and to maintain local distinctiveness in new development. Limestone is particularly important for maintaining the built environment in the Cotswolds Area of Outstanding Natural Beauty.

### Clay



4.24. Clay has been worked at sand and gravel quarries to produce material for lining landfill sites and for use in restoration and landscaping.

**Policy M3: Strategy for the Location of Mineral Working**

**The principal locations for sharp sand and gravel working will be at:**

- i. existing areas of working at:**
  - Lower Windrush Valley;
  - Eynsham / Cassington / Yarnton;
  - Sutton Courtenay; and
  - Caversham;through extensions to existing quarries or new quarries to replace exhausted quarries; and
- ii. a new area of working at Cholsey, to replace Sutton Courtenay when reserves there become exhausted;**

**as shown in figure 7.**

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

**The principal locations for soft sand working will be:**

- South east of Faringdon;
- Tubney/Marcham/Hinton Waldrist; and
- Duns Tew.

**as shown in figure 7.**

**The principal locations for crushed rock working will be:**

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

**as shown in figure 7.**

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

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

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

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

**Planning permission will not be granted for mineral working outside the locations identified above unless the required provision cannot be met from within these areas.**

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

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

### **Imported Aggregates and Rail Depots**

4.25. Aggregates are imported through three rail depots at Banbury, Sutton Courtenay and Kidlington<sup>10</sup>. Planning permission has been granted for a rail depot at Shipton on Cherwell. Network Rail has a depot in Oxford for its own use to bring in rail ballast.

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

#### **Policy M4: Aggregates rail depots**

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

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

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

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

### **Safeguarding mineral resources and facilities**

4.27. Mineral deposits are finite resources and can only be worked where they exist in the ground. It is Government policy that important mineral resources should be safeguarded for the long term. Mineral planning authorities are required to define

---

<sup>10</sup> A fourth rail depot at Hinksey Sidings, Oxford is solely for the supply of ballast to Network Rail and is not therefore considered part of the County's aggregates supply.

Mineral Safeguarding Areas in minerals plans so that resources are not sterilised by non-mineral development, although there is no presumption that the resources will be worked.

- 4.28. Sharp sand and gravel, soft sand, limestone and ironstone are currently worked in Oxfordshire. Fuller's Earth is no longer worked but is a nationally scarce mineral. It is therefore proposed to safeguard what are currently considered to be the economically viable areas of these resources. The extent of safeguarded areas can be reviewed if economic or other considerations change.
- 4.29. Mineral safeguarding areas will be defined in the minerals site allocations document.
- 4.30. District councils in Oxfordshire are responsible for planning development (other than minerals and waste) in their areas. The County Council, as Mineral Planning Authority, must also identify Mineral Consultation Areas (based on the mineral safeguarding areas) and specify the types of application for non-mineral related development on which the relevant district council must consult the County Council within these areas.

#### **Policy M5: Mineral safeguarding**

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

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

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

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

**Development which would prejudice the operation or establishment of existing or permitted aggregates rail depots identified in or subsequently permitted under policy M4 will not be permitted. Development sensitive to disturbance that could be adversely impacted by the operation of a rail depot will not be permitted in proximity to an existing or permitted rail depot.**

**Permanent secondary and recycled aggregate production facilities will be safeguarded.**

#### **Restoration and after use of mineral workings**

- 4.31. Proposals for restoration, aftercare and after-use should be submitted with applications for mineral working, should include provision for long-term maintenance of the after-use and enhancement of the environment and should accord with District LDF policies, including environmental protection, countryside and access enhancement and noise management.
- 4.32. Mineral working can provide opportunities for environmental improvements, such as new habitats and improved public access, which benefit the local community and may offset the impact of working. The restoration of each mineral working site should be determined on its individual merits and circumstances. Generally, nature conservation, agriculture, woodland and recreation are acceptable restoration after-uses for mineral workings, but measures to conserve and protect biodiversity should be included in restoration schemes.
- 4.33. One of the potentially most significant impacts of mineral working is disturbance of and change to the landscape and it is important that restoration takes place as soon as possible. However, it is recognised that where restoration relies on infilling with inert waste it may take some years to complete restoration because of shortage of suitable fill material. Effective phasing of restoration is important, to minimise visual intrusion and other local impacts. Where possible, restoration should follow closely behind extraction, to minimise the open quarry area.
- 4.34. It is also important that after-uses are managed and maintained following restoration, to ensure that they become established. Where appropriate, aftercare schemes and long-term management and maintenance agreements will need to be secured. Operators and landowners will be expected to contribute to an extended period of aftercare and management.
- 4.35. Because of the generally high water table and a local shortage of inert waste material for infilling (due in large part to increased recycling), most new sand and gravel workings in the river valleys of Oxfordshire will have to be restored to water bodies. The issue of risk to aircraft from birdstrike is an important consideration which may restrict the location of workings and affect the design of restoration schemes. Most of Oxfordshire's sand and gravel resources and some sand and limestone resources lie within 13 kilometres of a military airfield or civilian aerodrome. Within these areas, proposals for working, restoration and after-use will need to be drawn up and designed in consultation with the MOD and/or Oxford Airport. A bird hazard management plan may need to be prepared as part of a planning application.
- 4.36. The County Council proposes to develop broad restoration and after-use proposals for each of the proposed minerals working areas and any specific sites within them, in the subsequent Sites Development Plan Document. These proposals will form a framework within which site restoration plans will be considered.

**Policy M6: Restoration of mineral workings**

**Minerals workings should be restored to a high quality as quickly as possible and in a phased manner to an after-use appropriate to the location and the**

**capacity of the transport network and which is sympathetic to the character of the surrounding landscape and the amenity of local communities.**

**Planning permission will not be granted for mineral working unless satisfactory proposals have been made for the restoration, aftercare and after-use, including the means of securing them in the long term.**

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

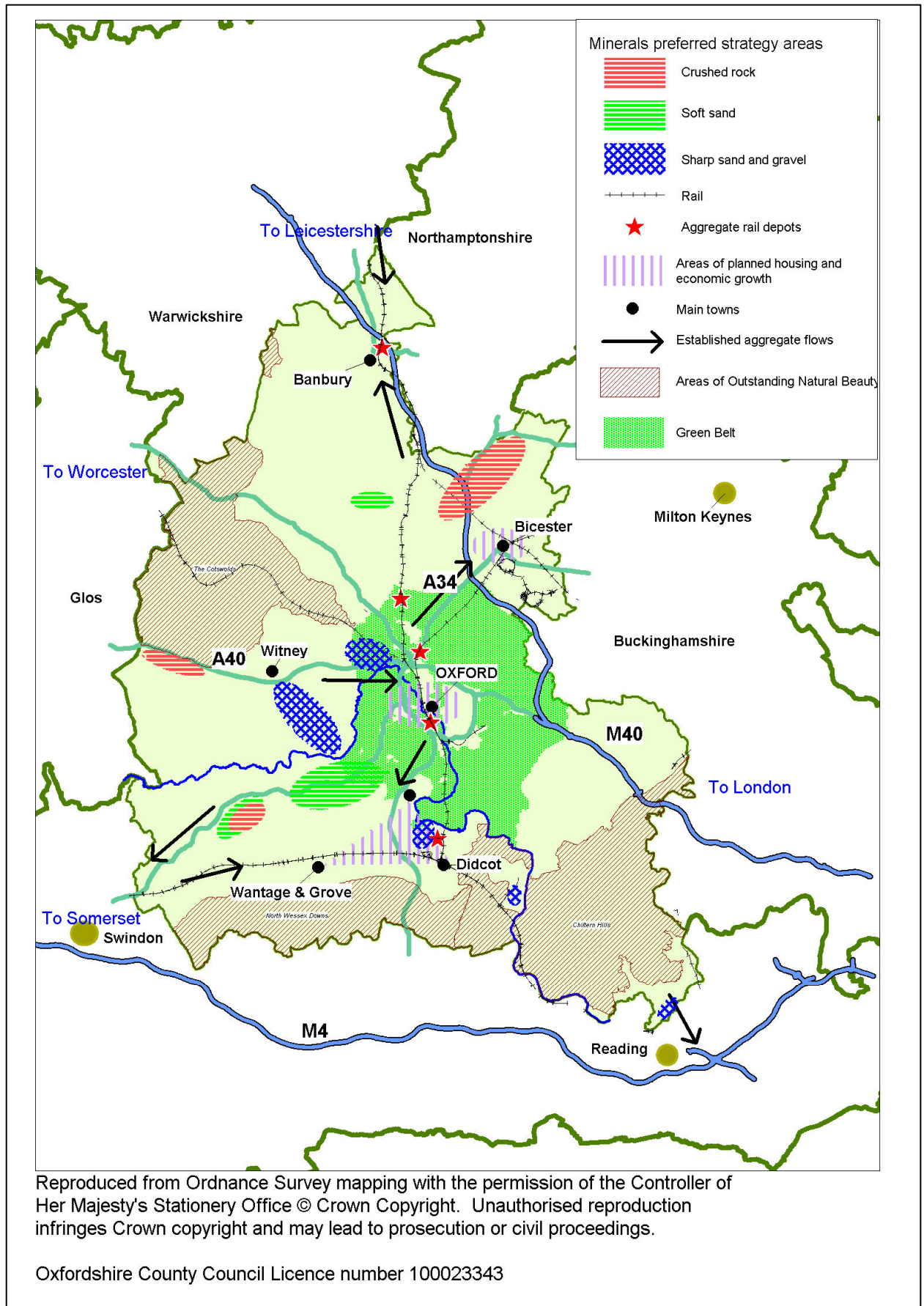
**Where restoration could assist or achieve the creation of priority habitats and/or Oxfordshire Biodiversity Action Plan targets, the relevant biodiversity after-use should be incorporated within the restoration scheme.**

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

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

**Where appropriate, operators and landowners will be expected to contribute towards the management of restored mineral workings for an extended period beyond any formal aftercare period.**

Minerals Key Diagram



Reproduced from Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

Oxfordshire County Council Licence number 100023343



## **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)<sup>11</sup> 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.

---

<sup>11</sup> 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.**

## 6. IMPLEMENTATION AND MONITORING

- 6.1 The Minerals and Waste Core Strategy is based on currently available information, but must be able to respond to changing needs and circumstances. The County Council as Minerals and Waste Planning Authority has a responsibility to monitor the plan's effectiveness and the changing context within which it is being used. The Council also makes use of monitoring and survey work undertaken by other agencies, such as the Environment Agency and Natural England, as well as work undertaken within the Council such as for transport planning and biodiversity, to monitor change.
- 6.2 The Planning & Compulsory Purchase Act 2004 requires the Council to produce an Annual Monitoring Report. Reports cover periods of 12 months from 1 April to 31 March and should be published by the end of the calendar year. The annual monitoring report should include an assessment of:
- the extent to which national targets and strategic objectives and policies in this and other development plan documents are being achieved;
  - any changes needed if a policy is not working or the targets are not being met;
  - progress on implementation of the Minerals & Waste Development scheme and preparation of Minerals & Waste Development documents.

### Objectives, indicators and targets

- 6.3 The indicators and targets developed provide a consistent basis for monitoring the performance of the Core Strategy's vision, objectives and key policies for both minerals and waste development to 2030. The indicators reflect the intent of the strategy objectives, taking into account the recommendations within the Sustainability Appraisal Report.

### Implementation of the minerals strategy

- 6.4 The strategy for mineral provision has been divided up to make separate provision for sharp sand and gravel, soft sand and crushed rock.
- 6.5 Sand and gravel for use as aggregates is the most extensively worked mineral. Aggregates are essential to the delivery of planned growth in the county and provision has been made to meet a supply level of 1.26 million tonnes per annum. Five areas have been identified, four of which are existing areas and one is a new area. It is proposed that in the existing working areas west of Oxford and in the Caversham area that extensions to existing sites and new sites will continue to deliver sand and gravel over the plan period, but that the rate of production should not exceed the current permitted rates of working. It is anticipated that resources at Sutton Courtenay will be exhausted in approximately 10 years time, depending on the rate of working over that time. It is proposed that sand and gravel extraction in the Cholsey area will start at around that time, to provide a continued local source of aggregates in the south of the county, particularly to meet the likely need from planned development at Didcot and Wantage & Grove .

- 6.6 The soft sand strategy identifies three existing working areas for further provision over the plan period. It is anticipated that current permitted reserves will last until 2020, depending on the rate of working, and that after that time preference will be given to extensions to existing quarries to make the most efficient use of existing plant and infrastructure.
- 6.7 The crushed rock strategy identifies three existing working areas for further provision over the plan period. It is anticipated that current permitted reserves will last until 2030, so it is unlikely that new permissions will be needed, depending on the rate of working. If further reserves are required during the plan period, preference will be given to extensions to existing quarries to make the most efficient use of existing plant and infrastructure.
- 6.8 Overall the minerals strategy is predicated on the basis that the allocated sites will come forward in a timely fashion to meet the predicted demand. A role of the annual monitoring report is to monitor production and reserves, and planning applications and decisions, on an annual basis. If it becomes clear that the site allocations are not coming forward as applications and being permitted, a review of the strategy may be required.
- 6.9 The strategy is also reliant on existing permitted sites being available to be worked to their full extent during the plan period. Mineral safeguarding areas and mineral consultation areas have been identified in order to prevent development being permitted that might prejudice further working. Delivery of this part of the strategy will require liaison with the district planning authorities to protect these areas.
- 6.10 The core policies have been developed to ensure the delivery of the strategy objectives by setting out criteria against which applications will be considered. These will be implemented by the County Council through the development management process.
- 6.11 In a number of cases it is not possible to set a specific target. However, it is possible to review the effectiveness of those policies on a less frequent basis to see how far they are influencing mineral development. This will be reported in the annual monitoring report.