



PROPOSED EXTENSION
OF DUNS TEW QUARRY,
DUNS TEW,
NORTH OXFORDSHIRE

Environmental Statement **Non Technical Summary**

PROPOSAL: North Eastern extension to Duns Tew Quarry (East)



Heaton | Planning

SMITHS BLECHINGTON are a long established, local, family run company. Smiths are one of the key suppliers of primary aggregates and recycled aggregates in Oxfordshire. Duns Tew Quarry is the company's only soft sand operation tying in with their flagship sand and gravel quarry at Gill Mill near Witney and their crushed rock and walling stone quarries elsewhere in the county. The company employs a staff of over 100 people and operate a fleet of company owned lorries. Their business activities include haulage, site excavations and groundwork, plant hire and recycling.

Front cover photos clockwise: Duns Tew East and West Quarries (July 2013), West Quarry Local Wildlife Site, West Quarry Southern Marsh orchid, East Quarry sand operations.

1.0 Basic facts and figures

Some figures are rounded and approximate

14.6 Ha	Application Area (red line)
6.1 Ha	New sand extraction area
8.5 Ha	Area of existing permitted East Quarry
3.9 Ha	Area of new woodland planting before start of extraction
415,000 tonnes	New soft sand reserve
25,000 tonnes	Annual sales of soft sand
16/17 years	Duration of development
c.2016	Approximate start date for extraction (at completion of West Quarry)
25,000 tonnes	Annual sales of merchantable sands, gravel and stone
10.3 Ha	Area of the eastern quarry restored to native woodland
6.8 Ha	Area restored to other nature conservation uses
1.4 Ha	Area of rifle range, tracks and yard
07.00 - 18.00 hrs	Working hours, Monday to Friday
07.00 - 13.00 hrs	Working hours, Saturday (no working on Sundays or Bank Holidays)

Site access as existing on to Duns Tew Road:

- 48 Lorry movements (in and out) average per day
Legal routeing agreement prevents quarry traffic from passing through Duns Tew Village except for local deliveries
- 12 Approximate lorry movements on Middle Barton Road per day

Authorities:

Duns Tew Parish Council

District Council: The site access and the southern part of the eastern quarry fall in West Oxfordshire and the remaining northern part of the quarry, within Cherwell District

Mineral Planning Authority: Oxfordshire County Council

2.0 Purpose of this document

In this document you will find a summary of:

The proposed development

The main parts of the proposals that have the potential to impact both positively and negatively on the environment and local residents

The potential measures we would take to prevent, reduce and where possible, offset any significant adverse effects on the environment

Frequently asked questions.

3.0 Introduction

- 3.1 This document is the Non-Technical Summary (NTS) of the Environmental Statement (ES) prepared to accompany the planning application for the proposal to extend Duns Tew Quarry (East) by Smiths and Sons (Bletchington) Ltd, the Applicant.
- 3.2 An Environmental Impact Assessment (EIA) of the potential environmental impacts of the development has been carried out and the findings of that EIA are presented as a separate Environmental Statement.
- 3.3 The requirement for an EIA is derived from European legislation, translated in the UK into the Town and County Planning (Environmental Impact Assessment) Regulations 2011. These regulations require the ES to have a NTS.
- 3.4 The main topic areas for the ES were established through consultation with Oxfordshire County Council and set out within a formal Scoping Opinion received on 1st March 2012.
- 3.5 The NTS is a standalone document. It provides a brief summary of the development and the results of the environmental assessment in non-technical language. A full copy of the planning application will be posted by the County Council on their website.

4.0 The Site and Development Proposals

- 4.1 The existing Duns Tew Quarry lies approximately 1km south of Duns Tew village and approximately 2kms north east of Middle Barton.
- 4.2 The quarry and surrounding agricultural land broadly rises from south to north. The quarry is accessed off Duns Tew Road at the south western part of the site. Both the weighbridge and site office are sited on the access road in the south of the quarry.
- 4.3 The proposed extension area is situated to the north and east of the existing eastern quarry and comprises intensively managed arable farmland.
- 4.4 Duns Tew is the nearest settlement to the proposed development site. Views of the site from the village are shallow in depth and largely obscured by intervening vegetation. The nearest properties to the proposed extension are isolated residential dwellings; Blue Barn Farm, Tewley Barn and Four Winds Farm to the north east, Horsehay Farm and Greenacres to the south west and Glebe Farm to the north.
- 4.5 The site has been operational as a soft sand quarry since the 1950s and is made up of two separate working areas separated by Duns Tew Road. Mineral extraction in the eastern quarry was exhausted in 2007 and replaced with an extension to the former western quarry. Extraction currently takes place within the western quarry with reserves expected to be exhausted by 2016.
- 4.6 The eastern quarry also has planning permission for a building supplies compound, the storage and processing of indigenous



Screened soft sand for mortar ready for sale



Sand operations in east quarry

Location plan

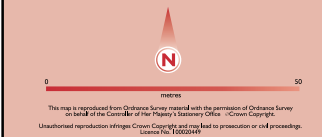
LEGEND

- Planning Application Area
- Other land under the control of the Applicant

Revisions

A: Annotation Added

INFORMATION



CLIENT



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PROJECT

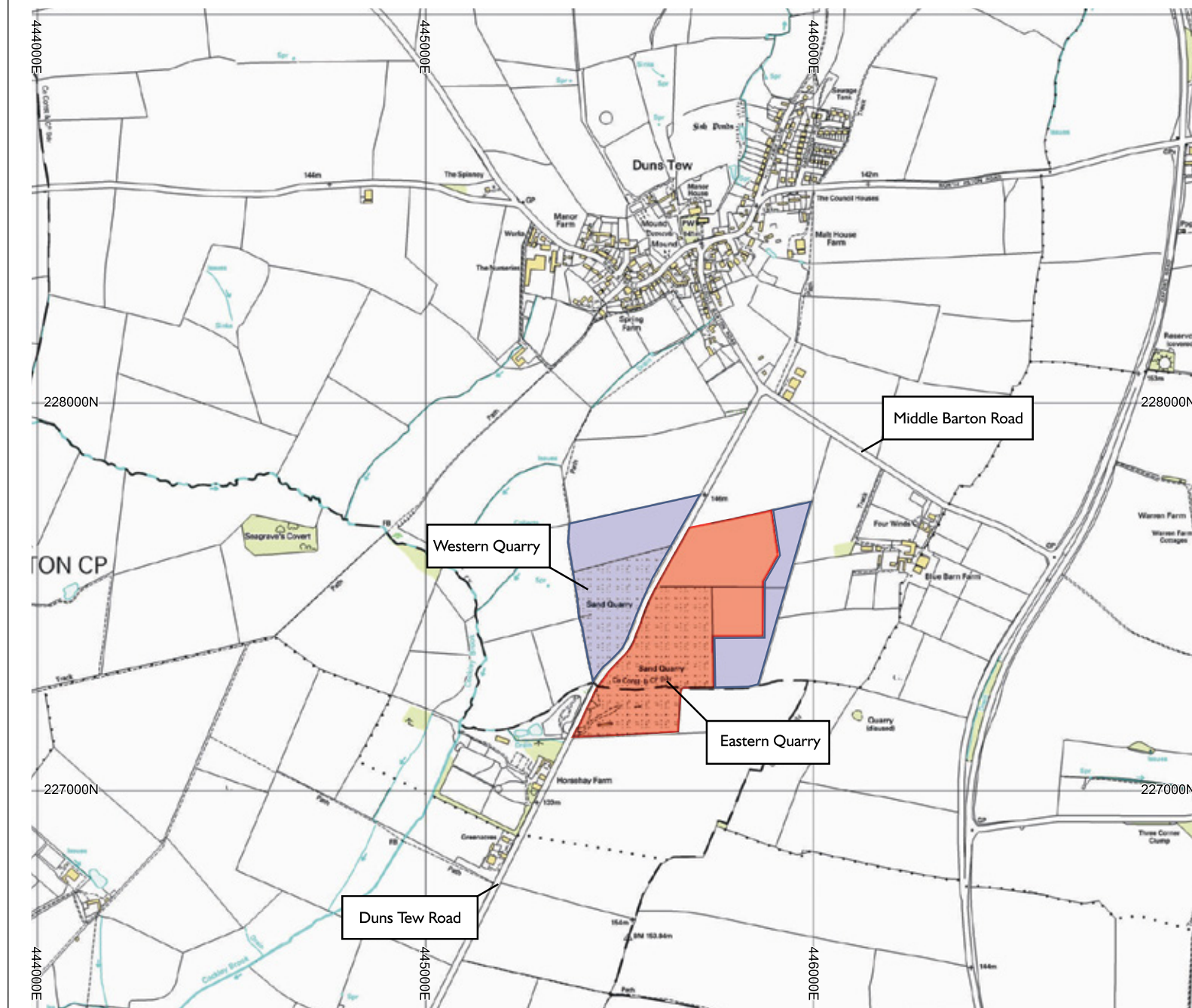
Duns Tew (Eastern Quarry) Extension

TITLE

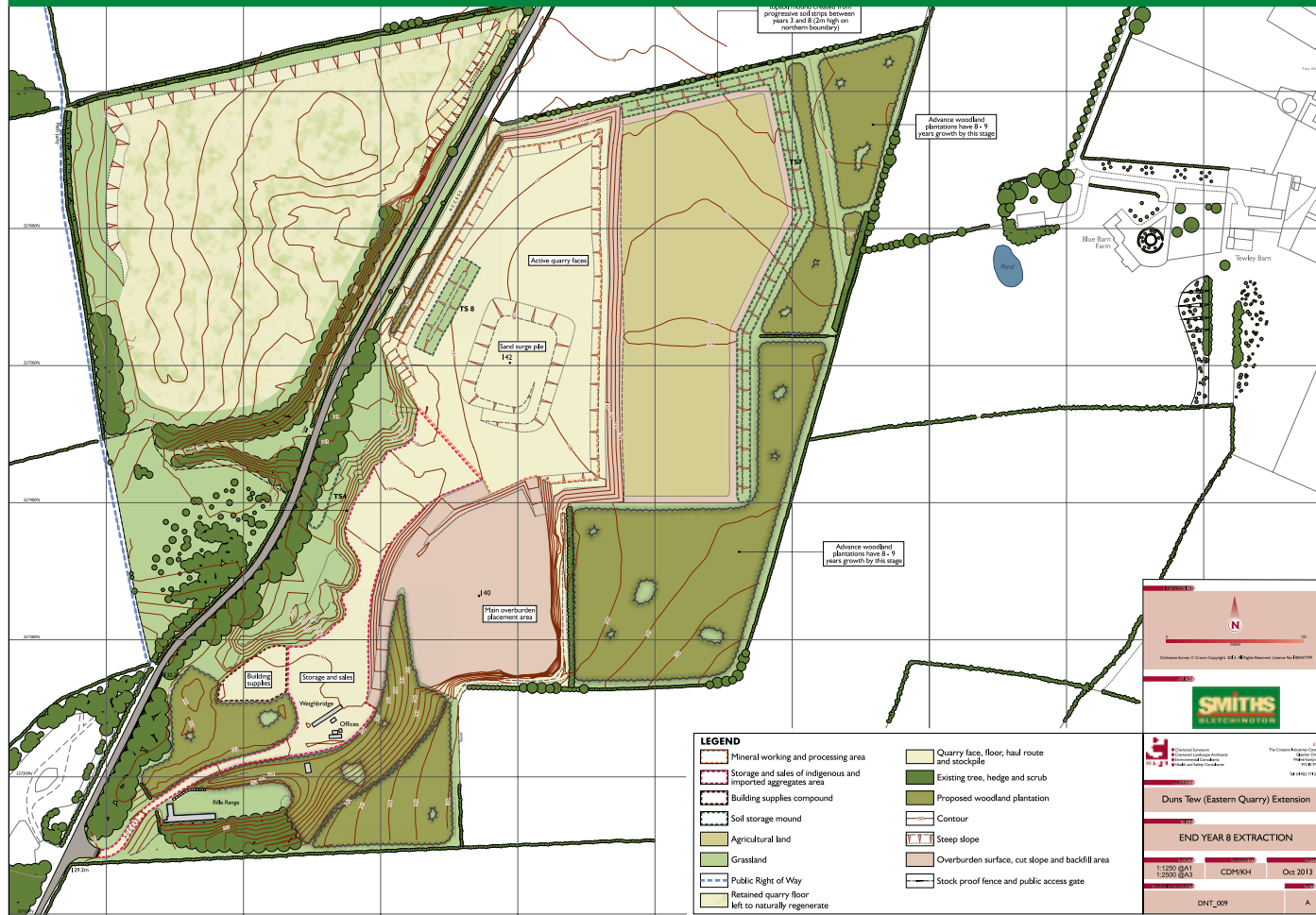
Location Plan

SCALE: 1:10,000 @A3 DRAWN BY: KH DATE: Jan 2013

DRAWING NUMBER: DNT_005 REV: A



About halfway through the development - end of year 8



Sand martin nests and geological SSSI face



Loading sand for delivery

sand as well as imported aggregate. These ancillary activities have planning permission until 2018.

- 4.7 Duns Tew Quarry is the only 'soft sand' quarry supplying north Oxfordshire. With its distinctive colour, it has been used for generations throughout the villages and rural settlements in the north of the county, in Duns Tew itself and on the limestone plateau across the Cherwell Valley towards Bicester. It is used primarily as a limestone mortar for brick and block masonry, for both restoration and new build works.

- 4.8 The sands extracted from Duns Tew Quarry are unique to the local area and are known as the Horsehay Sand Formation. They were laid down some 168 million years ago in the Jurassic and are recognised by Natural England as a geological Site of Special Scientific Interest (SSSI). Some of the sand faces will be retained for geological study as part of the restoration proposals.



4.9 *A recognised need*

There is a recognised need (through the National Planning Policy Framework) for Oxfordshire County Council to plan for a steady and adequate supply of aggregates, and the proposed extension to Duns Tew Quarry would help to meet this need. The demand for these soft sands remains strong and their continued supply will make a valuable contribution in supporting development and contributing to the local built environment with its distinctive local character.

4.10 *Alternative options*

The sands from Duns Tew serve a local demand and are only found at Duns Tew Quarry. Smiths are not aware of any substitute/recycled materials that could fulfil the same role and meet the continuing demand for this product. Although other sand deposits exist in the Duns Tew area it is preferable to work an extension to an existing quarry with existing infrastructure in place rather than to open up a new quarry. It is also unsustainable for local customers to be supplied from other sand quarries further away involving significant increases in lorry haulage distance. Also such sands do not meet the local distinctiveness of the Duns Tew sands.

4.11 *The proposals*

The proposal is for a 6.1 hectare northern and eastern extension to Duns Tew Quarry (East) to yield an estimated 415,000 tonnes of saleable sand. Extraction would follow completion of the western quarry, expected in 2016. The expectation is for 25,000 tonnes per year to be extracted on a campaign basis, extending the life of the quarry for a further 16 -17 years.

In addition, the plan is to extend the life of the existing ancillary activities within the eastern quarry and to amalgamate all the operations into a single planning permission. All activities will cease at the end of quarrying. Comprehensive, progressive restoration is proposed for the whole eastern quarry with a mix of nature conservation, woodland planting and geological interest with access for the public.

4.12 *Access to the site*

The quarry is accessed from a simple junction directly off Duns Tew Road. There are no plans to alter the access. The present routing arrangements will remain - with all HGV traffic using either of the two routes to the A4260 Oxford Road. The existing routing agreement, which prevents quarry traffic from passing through the village except for local deliveries, will remain in force as part of these proposals.

5.0 Environmental effects and mitigation

5.1 *Landscape character*

There are no nationally protected landscapes close to the site. The majority of Duns Tew Village is designated as a Conservation Area.

A landscape character assessment classifies the site and adjacent areas to the north, east and south as 'Wooded Estatelands', with woodlands, hedgerows and the unspoilt village of Duns Tew being the main contributors to the setting of the site.

The overall landscape sensitivity of the site has been rated as medium. The changes associated with sand extraction could potentially generate a substantially adverse landscape impact during the operational phases of the development. However, the loss of arable land and the medium to long term effects of restoration mitigate these effects to a significant degree. The predicted residual impact on the landscape incorporating mitigation is therefore rated as slightly adverse.

Landscape mitigation measures include:

- Planting of a large area of perimeter woodland
- Extension and retention of the quarry floor and sand faces to maintain SSSI designation and for biodiversity need
- Respecting 'Wooded Estatelands' landscape type
- Reinforcing existing boundary hedgerows

- Early and progressive restoration

- Creation of a natural winding wooded valley within the quarry

5.2 Visual Impact

In terms of the existing visual environment the quarry is well established in the landscape and is visually discreet by reason of the relatively remote location, surrounding topography and the extent of woodland and vegetation on the boundaries.

Of the 16 viewpoints identified in the visual appraisal, only 2 were rated as high sensitivity and 6 as medium sensitivity. The proposed mitigation measures would generally reduce the potential for adverse visual impact to slightly adverse or negligible for all viewpoints at the end of year 8 and year 13 becoming negligible for all viewpoints at final restoration.

Visual mitigation proposals include:

- Advance reinforcement planting of the northern boundary hedge and advance planting of mixed woodland along the eastern boundary
- Surface operations only during periods of deciduous leaf cover
- Construction of grassed soil storage mounds along the northern and eastern inside edges of the perimeter plantations
- Progressive restoration
- Maintaining all other site operations on the quarry floor

5.3 Nature conservation and ecology

An ecological assessment of the extension area and east quarry has been carried out. Generally, habitats within the site are considered to be of low ecological value consisting principally of intensively managed agricultural land and species poor hedgerow. A narrow strip of unimproved calcareous grassland within the quarry and the quarry/cliff faces are the most important habitats that will be lost as a result of the proposals.

The proposed restoration provides the opportunity to expand the key habitats of the neighbouring Local Wildlife Site of Duns Tew quarry west, in particular lowland calcareous grassland, short ephemeral and short perennial habitats and cliff habitats.

Habitat/Species mitigation and enhancement measures include:

- Creation of disturbed bare nutrient-poor ground on quarry floor to support a diverse plant community
- Creation of new lowland mixed deciduous woodland
- Creation of a larger area of lowland calcareous grassland
- Creation of new longer lengths of cliffs providing niches for invertebrates and nesting opportunities for sand martins
- Creation of improved foraging for bats, badgers, brown hare and nesting habitat for a variety of birds
- Creation of woodland edge, calcareous grassland, bare ground and cliffs for improved reptile habitat.

The mitigation and enhancement measures will result in a net gain for biodiversity at the site.

5.4 Noise

Background noise levels have been measured at a number of locations around the site and calculations made of the anticipated noise levels from the proposed development. These have been assessed against limits established by government guidance for each of the identified sensitive residential properties. To keep noise from the site below these limits a number of measures are proposed:

- Prior to extraction, a 3m soil screening bund will be constructed along the eastern boundary, and a 2m bund on the northern boundary will be constructed later on in the development
- Noise monitoring will be undertaken to assess site noise
- As at present, well maintained plant and machinery, with non-tonal reversing signals on all mobile plant
- Access road maintained in a good condition.

The assessment has shown that the proposed operations would not have an adverse noise impact on surrounding properties.



Orchids in west quarry



Sand screening



East quarry geological faces

5.5 *Dust and Air Quality*

A dust assessment for Duns Tew Quarry has been prepared following a comprehensive programme of directional and deposited dust monitoring carried out over several months (summer 2013) during sand extraction and processing operations. Dust arising from local arable farming was also observed.

No adverse impacts from the current quarrying operations were observed at the principal potential dust receptors, including the nearest downwind residential property, Blue Barn Farm to the north east of the site. The mature hedgerow between Blue Barn Farm and the proposed quarry extension provides moderate vegetative screening but substantial additional planting proposed as part of the development will increase this further. The level of vegetative screening between the site and all other neighbouring receptors is already high.

The assessment undertaken has shown that with the planned woodland planting and providing existing high standards of site management are maintained as set out in the detailed Dust Management Plan, any dust issues from the proposed extension would be negligible.

A separate air quality assessment has also been undertaken as part of the EIA. This concluded that it would be very unlikely for air quality objectives set for human health to be exceeded.

5.6 *Transportation and traffic.*

There will be no significant change in levels of traffic generated from the proposed development, though the proposal will result in site operations continuing for a further 16 - 17 years. A Transport Assessment (TA) was therefore carried out as part of the EIA to look at the impact on the highway network of traffic generated by the proposal.

Both Duns Tew Road and Middle Barton Road are typical rural roads and there are areas of Middle Barton Road where general wear and tear to the road pavement and edge has occurred. However the TA has concluded that there is no justification for remedial highway maintenance works to be provided as part

of the development proposals. Despite this, Smiths is willing to provide, as part of the development proposal, up to four passing places along Middle Barton Road in partnership with the Local Highways Agency, should it be considered necessary.

The TA has demonstrated that there are no highway capacity issues associated with the current operations and that the proposed extension will have no detrimental impact on the free flow and safety of traffic.

HGV movements are controlled by a routing agreement and company vehicles carry satellite tracking. In addition, exclusion zones around Duns Tew village are monitored. The routing agreement continues to operate successfully and has rarely given rise to complaints about drivers using alternative routes.

5.7 *Agriculture, land and water resources*

The two fields affected by the proposed quarry extension are both in arable use. Measures taken will ensure important soil ecosystem services and functions will be protected. Soils used to support new woodland planting will continue to store carbon, provide infiltration of rainwater and support biodiversity and wildlife. Less than 5 ha of best and most versatile agricultural land will be lost.

There will be no direct impact on the local water table or regional ground water regime. Present workings have always been located above the water table and this will continue for the proposed extension. The site is in a low probability flood zone with no risk of fluvial flooding from nearby watercourses.

Drainage ditches and soakaways will be provided to ensure that the soil bunds proposed as part of the development do not give rise to any potential for flooding on the adjacent agricultural land to the east.

5.8 *Archaeology and Cultural Heritage*

The County Archaeologist has confirmed that the archaeological assessment carried out for the previous planning application (Duns Tew West 2006) is still relevant and there had been no material change in the historic environmental records requiring further archaeological investigation of the extension area.

5.9 Cumulative Impact Assessment

An assessment of cumulative impacts has been carried out as part of the EIA and considers three categories of potential cumulative effects: successive effects; simultaneous effects from concurrent developments; and combined effects from the same development.

For successive effects the conclusion was that no significant adverse cumulative impact would occur as a result of the extended life of the existing quarry operations.

For simultaneous effects, the assessment concluded that, despite a history of mineral extraction in the area and other developments relatively close by, the impact is likely to only marginally increase the degree of overall impact.

For combined effects, given that none of the environmental impacts come close to the thresholds for objection, it is considered that their combined impact would have no negative impacts.

5.10 Socio-economic considerations

As well as being environmentally acceptable, it is considered that the proposed development will bring economic benefits to the local and wider regional community. The continued supply of soft sand will have a positive impact upon the local building industry, reducing the need for imports in to the county and will sustain all existing jobs at the site.

The restoration of the site will bring beneficial end uses and overall enhancement of the local landscape, bringing a mix of nature conservation, woodland planting and geological interest along with public access. This is a long-term benefit of the scheme and will help to mitigate any disturbance to the area.

FREQUENTLY ASKED QUESTIONS

Q Why is the proposed extension to Duns Tew Quarry needed?

A Our existing reserves of sand are running out so we are looking for new reserves to allow us to continue our business and supply our customers in the local area. Also, Oxfordshire County Council has to plan ahead for “a steady and adequate supply” of aggregates, including those of a specific type or quality, which have distinct markets. This includes Duns Tew ‘soft sand’ which is used as a mortar for brick and block masonry. It is distinctive and has been used for generations throughout the villages in this area. Duns Tew is the only source of soft sand in the north of the County.

Q Are there any alternatives to the proposed extension to Duns Tew Quarry?

A The sands dug from the quarry are unique to the Duns Tew area. Whilst it may be possible that there are other workable sand deposits around the village we believe it is more sustainable to continue supplying from the existing quarry rather than looking to open up a brand new quarry nearby. Although Smiths recycle construction wastes at their Gill Mill Quarry near Witney the soft sands at Duns Tew cannot be substituted by recycled materials.

Q Why do you need to extend the quarry now when you’ve still unworked reserves?

A Current permitted reserves in the west quarry will run out in the next couple of years or so. To make sure that we can continue to supply our customers without interruption we are simply planning ahead so that we can move across to the new extension as soon as it is needed. However, working in the new extension will start only when sand in the west quarry is exhausted.



Sand face in west quarry





East quarry entrance



East quarry

Q Will there be an increase in traffic?

A No. We are not proposing any changes to the current day to day operations which we currently have permission for so there will be no increase in traffic. The proposal is for additional land to extend the life of the quarry not to increase activity levels.

Q Will your lorries come through the village?

A No. We have an existing, legally binding routeing agreement to ensure that our lorries avoid Duns Tew village unless they are delivering to a resident. This has been in place and worked well for the past 20 years and will be retained for the life of the proposed extension. In addition all of the Company's vehicles are tracked using satellite tracking and an exclusion zone around Duns Tew Village is monitored.

Q Your lorries are dangerous to other road users.

A We would strongly contest this as there have been no reported accidents or incidents caused by quarry traffic. The technical work carried out in liaison with County Highways confirms that the proposed extension will have no detrimental impact on the safety of the local roads.

Q Will the proposals create noise and dust?

A No. We are not proposing any changes to our day to day operations which have been carried out without complaint or concern. Comprehensive technical assessments show that the design of the proposed development will not result in an increase in dust, air pollution or noise from our activities.

Q Is the quarry coming closer to the village?

A No. The opposite is true. The proposed extension takes quarrying further away from the village centre than the current workings in the west quarry. The extension will bring operations closer to 3 isolated properties to the east. However, with advanced woodland planting, screening bunds and continuing best practice measures the impacts upon these properties have been shown to be negligible.

Q Will the proposals damage local wildlife?

A No quite the opposite. The two fields are intensively farmed and are assessed to be of low ecological value whereas the new woodland planting and habitat creation proposed will result in a net gain for a variety of birds, mammals, reptiles and invertebrates.

Q What will the quarry be restored to?

A A combination of mixed mostly deciduous, woodland, calcareous grassland and bare ground all designed to improve the nature conservation value of the site. The quarry is also a Site of Special Scientific Interest (SSSI) so some of the sand faces will be retained for geological study and for sand martins to nest. There will be public access to parts of the restored site.

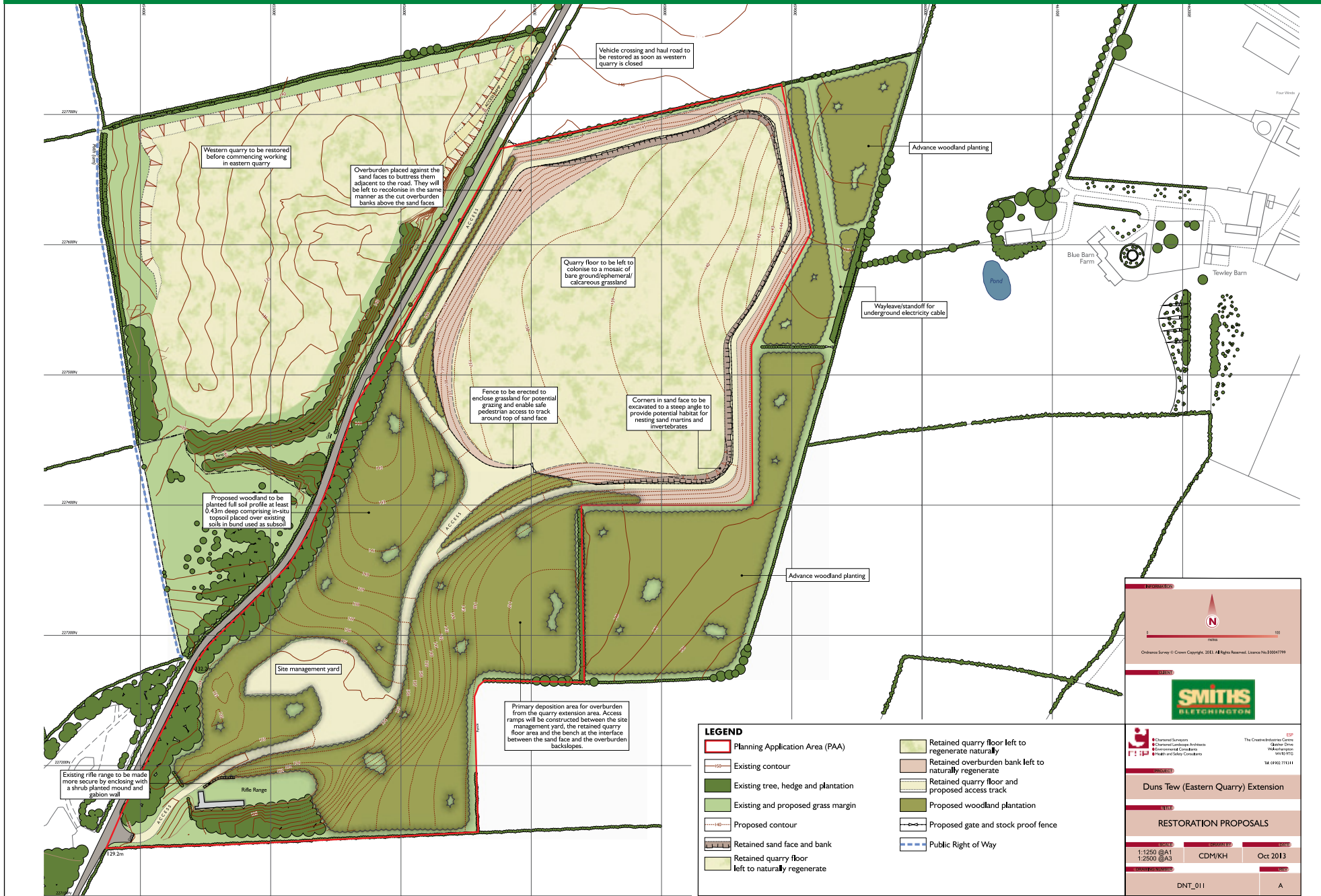
Q Will any activities continue after the sand has all been dug?

A No. Once the sand reserves are exhausted all quarrying and associated activities have to end and the site has to be restored. Any changes from that would require a brand new planning application.

Q What's going to happen to the Western Quarry?

A Part of this is already a Local Wildlife Site and is being managed by Smiths with the County Council for its biodiversity value. At the end of quarrying the rest of the land will be brought under the same conservation management and the site will then be opened for access by local people.

Restoration plan





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Heaton Planning

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The full planning application can be viewed at:
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