

***PANSHANGER QUARRY,  
Hertfordshire***

***Proposed enhanced restoration of  
Phases F & H***

***Briefing Note 1  
March 2015***

# **INERT (INACTIVE) RESTORATION MATERIALS, CONTROLS AND OPERATIONS**

## **1 Introduction**

This briefing note summarises some of the key elements of the proposed enhanced restoration of Phases F and H at Panshanger Quarry. This would be achieved by importing inert restoration materials via a proposed new access off Panshanger Lane.

The application has been submitted to and validated by Hertfordshire County Council as the Minerals Planning Authority. The public consultation period extends until 7th April – and feedback from that and the statutory consultees may well be reflected in revisions to the application as it moves through the planning process.

Panshanger Quarry is owned and operated by Lafarge Tarmac Ltd, a company which operates independently but which is currently owned and operated by Lafarge SA and Anglo American, who are equal shareholders.

## **2 Background**

Panshanger Quarry has been supplying the building materials needs of local construction projects for over 20 years. Output has typically been around 200,000 tonnes a year.

The remaining consented economic mineral reserves within Phase H are likely to run out during 2017. Phases F and H and the connecting haul road are the only areas of the site covered by the current application.

Under the existing permitted scheme, restoration materials for Phases F and H would mainly be sourced from Phase G, (south of the A414 and north of the Old Coach Road). However, following a review of the geological information, the sand and gravel in Phase G is not currently considered to be economically viable and will not be worked.

Without Phase G, there will be a shortfall in restoration materials. The proposed plan is to make this up by importing inert restoration materials – typically inert soils, stones or clays - from local development projects and mineral workings, via a new access off Panshanger Lane. Importing restoration materials would allow the company to restore the approved extraction phases to near original levels, which is desirable given the historic setting of the park and garden designation.

A new site access road is also proposed. This would both constrain the extent of site activities and allow early release of the existing site access to users of Panshanger Country Park. (None of the application site is within the country park).

As Phases F and H are outside the country park boundary, this application does not seek to vary the approved country park scheme across the wider site, nor does it seek to amend any of the existing planning obligations. There is no proposal to vary the currently approved permissive rights of way or to extend the approved development timescales – consented until 2032.

## **3 The application**

The approved working scheme includes the restoration of Phases F and H to a lower level, using materials from Phase G. Currently no imported materials are allowed on to the site.

The current planning application proposes to leave Phase G – the only remaining unworked consented phase – as undisturbed high quality agricultural land, south of the A414.

To restore Phases F and H close to original levels, it would be necessary to import approximately 940,000 cubic metres (approx. 1.6 million tonnes) of inert restoration materials. This would be the most sustainable way of restoring the site, as Phase G would otherwise only be worked to generate restoration materials.

The application proposes that the restoration materials would be brought on to the site via a new access into Phase H.

The scheme would deliver landscape and historic landscape improvements over and above the currently approved restoration scheme – which is a lower level landform in Phases F, G and H. Phase H is within the boundary of the Grade 2\* Panshanger Park registered park and garden.

The approved scheme will create 3 bowl shaped landforms in Phase F, G and H approximately 4 metres below the original ground.

Although the proposed scheme would generate short term impacts, there would be a long term, net beneficial effect as the importation of restoration materials would mean the land would be restored to near original levels. This would also provide the opportunity for the restoration of some of the informal parkland features, typical of the original design.

#### **4 Site operations**

Any remaining soil and overburden in Phase H would be stripped and directly placed wherever possible or used to form grassed soil mounds to help screen the operations and minimise noise impact.

Any remaining sand and gravel reserves in Phase H (there is no remaining mineral in Phase F) would be extracted by a hydraulic excavator. This would load articulated dump trucks which would transport the mineral to the processing plant site via the dedicated and approved haul road network

Phased restoration of the workings would be carried out by importing suitable restoration materials – generally inert soils, stones or clays from local development projects and minerals workings – to achieve the appropriate contours, with the land within Phases F and H being returned to near original levels.

To support the proposed importation of restoration materials a new access would be constructed into Phase H. Ancillary facilities (weighbridge, site offices etc) would be built to manage the operations – and would be removed when the operations in Phases F and H are complete.

The consented hours of operation would not change (07:00 - 10:00 Monday - Friday and 07:00 - 13:00 Saturdays).

#### **5 Environmental controls**

The development of the existing reserves has maximised the recovery of sand and gravel at the same time as minimising environmental impact.

From information already gathered – and a detailed knowledge of working the existing site – the proposed enhanced restoration scheme has been designed to deliver long term improvements to the local environment over and above the consented scheme.

A comprehensive Environmental Statement (ES) has been produced by independent technical consultants and submitted as part of the planning application. It reviewed key issues and potential impacts of the development and assessed the scheme design. It also evaluated appropriate mitigation measures to reduce or eliminate any potential adverse effects and to enhance environmental quality where possible and appropriate. The key reports are summarised below.

## **6 Highways and traffic movements**

### **6.1 Aggregates**

Processing and sale of aggregates is directly linked to demand from local markets, which is relatively constant. The existing quarry typically produced around 200,000 tonnes a year of sand and gravel aggregate products during 2011-2014.

The processed aggregate leaves the site in different sizes and types of vehicles, for use in the manufacture of readymixed concrete and in other construction materials. Existing HGV movements (based on exported mineral only) are typically around 74/day (37 in and 37 out) although in peak periods this can increase to up to 110/day (55 in and 55 out). Aggregate processing (and therefore aggregates related HGV movements) is expected to stop during 2017, when the sand and gravel reserves run out.

### **6.2 Importation of Inert Restoration Materials**

Restoration would be achieved by importing approximately 200,000 tonnes a year of inert restoration materials – typically soils, stones or clays from mineral workings or local development projects. This activity would generate average vehicle movements of 80/day (40 in and 40 out), although in peak periods this could increase to up to 120/day (60 in and 60 out).

### **6.3 Access**

Three access options have been considered for the importation of restoration materials in to Phases F & H:

- **Option 1** - use the existing access into the site off Panshanger Lane
- **Option 2** - establish a new access off the A414
- **Option 3** - establish a new access into Phase H from Panshanger Lane.

Following appropriate assessments:

- **Option 1** - has been discounted because of the opportunity to use this road to provide much earlier public access into the country park from the west
- **Option 2** – has been discounted as being inappropriate
- **Option 3** – has been selected as the most suitable option at this time, as it minimises scope for impact on residences further along Panshanger Lane and reduces the on site distances travelled by the HGVs.

The proposed access and internal haul road would be securely fenced with appropriate signage, especially at crossing points associated with public access. A dust suppression system would be used along the road as appropriate.

The proposed new access would be set back 90 metres from the junction of Panshanger Lane with the A414. The proposed access would be a simple bell mouth junction designed to accommodate HGV movements. The access would need visibility splays 2.4 metres x 120 metres. To accommodate these, 3 trees – with no ecological or abroicultural value – along Panshanger Lane would need to be removed.

The detailed access design would be worked up in line with a Section 278 Agreement under the Highways Act 1980.

Once the proposed restoration operations are complete, the proposed access would be removed and the route restored.

## **7 Noise assessment**

Phases F and H are close to Panshanger House and other isolated premises. The noise assessment identified some potential receptors which include (but are not limited to) residences at Birch Green and Panshanger House.

Panshanger Country Park and some public rights of way are close to the existing workings.

Background noise monitoring has identified the local background noise levels to be up to 43-57 dBA during the day, mainly because of the impact of the A414.

The noise assessment used central government guidance and relevant British Standard Assessment codes to predict the effects of the proposed restoration and assess this against compliance levels. These assessments indicated the proposed activity could be carried out within the guidelines adopted by central government – given the proposed mitigation measures incorporated in to the site design. These include the careful location of amenity soil mounds, recommendations on appropriate plant and equipment and consideration of existing standoff distances.

## **8 Landscape and Visual Impact Assessment (LVIA)**

LVIA is used to assess the effects of a proposed development on the landscape itself, as well as how they are perceived. It involves making recommendations to avoid, reduce or offset potential adverse impacts during operations – as well as identifying opportunities to enhance the environment through the restoration programme.

The main mitigation measures include:

- use the existing access into the site off Panshanger Lane.
- the retention and enhancement of grassed soil storage mounds to provide visual and acoustic screening of the operational work
- progressive restoration as the infilling progresses, so disturbed land is restored as quickly as possible
- sequencing the infilling in Phase F to minimise the total area of disturbed land – including the internal access track – to restore land as quickly as quickly as possible
- planting specimen trees within the parkland area associated with Phase H, so the areas
- achieve some form of maturity immediately following final restoration.

In summary, the LVIA found that the visual effects of the proposed development would be temporary – and balanced by the long term beneficial effects of the restoration.

## **9 Hydrology and hydrogeology**

LVIA is used to assess the effects of a proposed development on the landscape itself, as well as how they are perceived. It involves making recommendations to avoid, reduce or offset potential adverse impacts during operations – as well as identifying opportunities to enhance the environment through the restoration programme.

The main mitigation measures include:

The proposed restoration scheme would be outside of the functional floodplain of the River Mimram in a very simple hydrological setting.

- Hydrogeologically, Phases F and H are on Glacial Sand and Gravel deposits which are classified by the Environment Agency as a “minor or secondary aquifer important only to local supplies and/or the base flow of rivers”. The sand and gravel is on top of Cretaceous Chalk Formations, which are generally considered a primary aquifer.

The hydrological risk assessment concluded:

- the use of best practice site management techniques to minimise the scope for impacts
- the proposed use of inert restoration materials to backfill the existing workings would not lead to groundwater contamination because of the restricted range of imported waste types that would be authorised by the Environment Agency.

## **10 Archaeology and Cultural Heritage**

Archaeological investigations were completed prior to extraction in Phases F and H.

There are a number of cultural heritage designation categories within the search area (ie 1 km from the site boundary), including:

- 8 scheduled monuments
- 58 listed buildings of which a number are within the landholding of Panshanger Quarry, including:
  - Grade II listed Panshanger Orangery
  - Grade II listed Panshanger Stables
  - Grade II listed Keepers Cottage.
- 9 ancient woodlands
- 7 historic parks and gardens (including the Grade 2\* listed at Panshanger Park and Garden) within a 2 km radius of the site.

The assessment found only slight differences in magnitude and significance of the transient effects between the operations at the consented quarry and the proposed restoration scheme.

The assessment identified some beneficial effects, to varying degrees of magnitude and significance, associated with the enhanced restoration proposals. The scheme would have the most beneficial effects on the designated Panshanger Park and Garden.

The permanent long term benefits would include:

- improving the setting of Keepers Cottage
- improving the setting and fabric of Panshanger Park and Garden
- improving the setting of other less important heritage assets in the locality
- improving the setting of local heritage assets close to Phase G such as the Grade II listed Panshanger South Lodge and its environs.

Overall, the report found that any impacts would be very localised and short-medium term and more than outweighed by the beneficial long term effects. The proposed restoration scheme would offer the cultural heritage enhancements required by both the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG) adopted by central government.

## **11 Ecology**

Breeding populations of Great Crested Newts have already been identified on site – which is operated in accordance with a European Protected Species licence. This includes appropriate mitigation measures to safeguard the population. Other than this, there are no habitats of ecological value within the application site. Under the proposed restoration scheme, long term ecological enhancements would be created.

## **12 Enhanced Restoration**

The proposed restoration scheme would deliver landscape and historic landscape improvements over and above the currently approved restoration scheme – which would see a lower level landform in Phases F and H. Phase H is within the boundary of the Grade 2\* Panshanger Park registered park and garden.

In general terms:

- Phase H would be restored to near original levels with an informal parkland landscape
- Phase F would be restored to near original levels with nature conservation habitats
- The connecting haul road would be retained and used for public access in perpetuity.

The approved restoration scheme would have some impact on the fabric and setting of the designated park and gardens. Although the proposed restoration scheme would generate short term impacts, in the long term, net beneficial effects would be created as the importation of restoration materials would mean the land could be returned to near original levels. This would also provide the opportunity restore some informal parkland features, consistent with the rest of the parks and gardens. This is the primary objective of the scheme.

A secondary objective is enhanced biodiversity. Paragraph 118 of the NPPF identifies that when determining planning applications, planning authorities should aim to conserve and enhance biodiversity under a number of principles, including:

- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted
- opportunities to incorporate biodiversity in and around developments should be encouraged.

The enhanced restoration proposals provide the opportunity to integrate and diversify nature conservation habitats within an otherwise agricultural and woodland landscape.

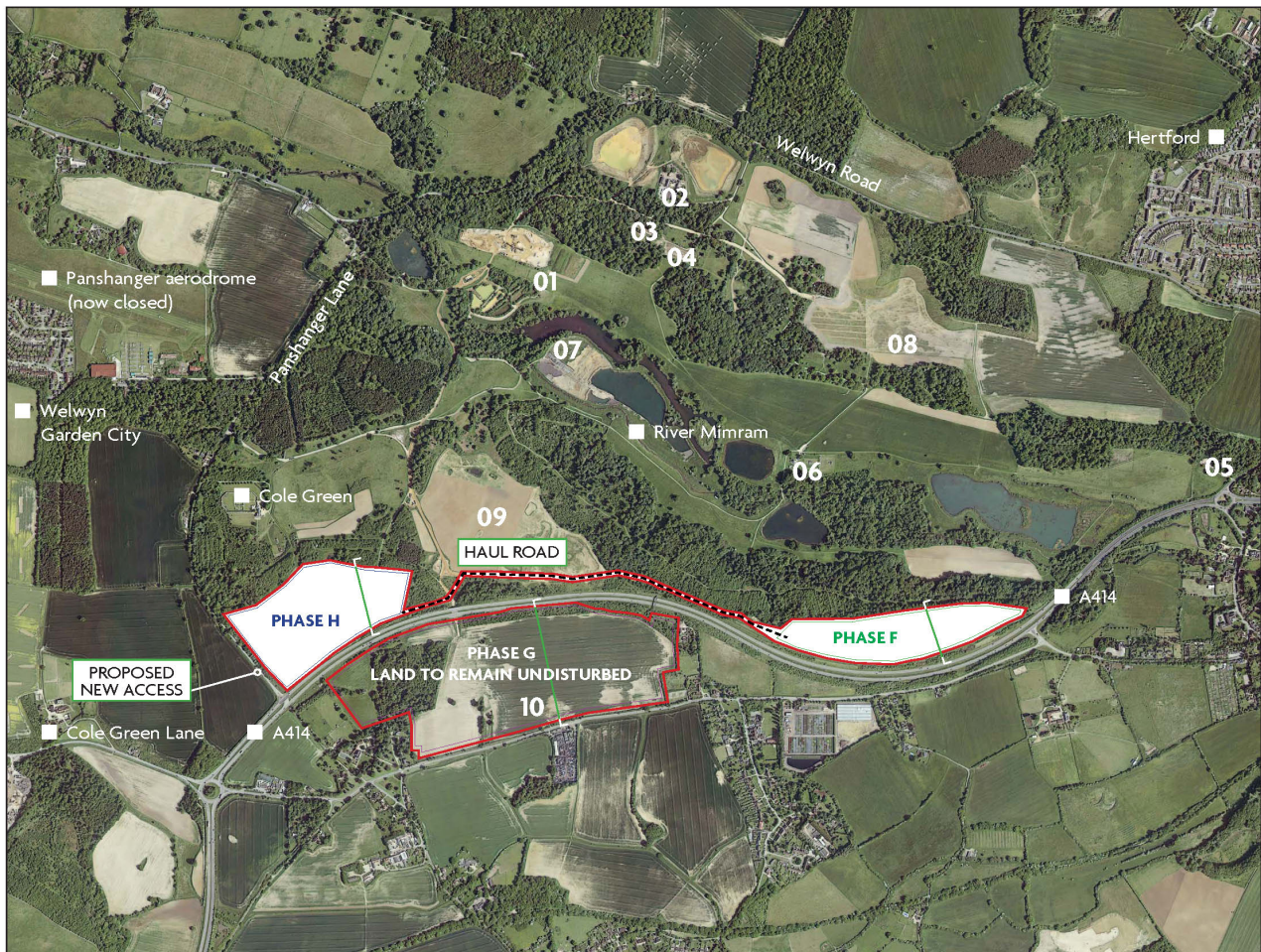
The approved restoration scheme includes the establishment and maintenance of permissive bridleways (along the route of existing haul roads within the site). The proposed scheme does not seek to change any of these access provisions.



## 13 Employment

The proposed restoration scheme would safeguard 7 jobs on site, as well as providing indirect employment benefits for the company's haulier fleet and subcontractors.

### Plan NTS 3 Proposed Operations Phases F & H



#### Key

Application boundary

- 01 Plant site
- 02 The Stables
- 03 The Orangery
- 04 The site of the original Panshanger House
- 05 Thieves Lane car park
- 06 Riverside Cottage

- 07 Unrestored extraction areas
- 08 Restored agricultural land
- 09 Restored land
- 10 Currently permitted source of restoration materials for Phase F and G sand and gravel extraction

For further information about the proposed enhanced restoration at Panshanger Quarry, please contact the Planning Information Line (24 answerphone) 01992 512764.



**Panshanger Quarry**

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