Landscape and Visual Impact Assessment

for

Solar PV Arrays

At Moneystone Quarry,

Whiston, Staffordshire

8th April 2015

Prepared by:

ACLA Ltd

For:

The Solar Building Company Ltd

Assessor:

Anthony Clarkson BA Hons Dip LA

Ref: ACLA/BTH

ACLA ltd
Landscape Architects
9 Hungerford Rd, East Grafton, Marlborough.SN8 3DG
T: 01672 810516. E:enquiries@acla-ltd.com W:acla-ltd.com

CONTENTS

1.0 INTRODUCTION

1.1 The Commission
1.2 The Proposals
1.3 The Quarry Site – Current Condition
1.4 The Quarry Site – Revised Restoration Scheme
1.5 The Site Location
1.6 The Setting of the Site
1.7 The Initial Area of Search and the Study Area
1.8 Scope of the Assessment
1.9 Consultation

2.0 BASELINE CONDITIONS - PLANNING

2.1 National Planning Policy
2.2 Regional & Local Planning

3.0 BASELINE CONDITIONS – LANDSCAPE & CHARACTER

3.1 Introduction
3.2 Landscape Designations
3.3 Landscape Character
3.4 National Landscape Character Areas
3.5 Local Landscape Character Areas (LCA)
3.6 Local Landscape Character

4.0 BASELINE CONDITIONS - VISUAL AMENITY & VIEWS

4.1 Introduction
4.2 Landform
4.3 Views within 1km of the Site
4.4 Views within 1 to 5km of the Site
4.5 Existing Zone of Visual Influence
4.6 Potential Landscape & Visual Receptors

5.0 LANDSCAPE & VISUAL IMPACT ASSESSMENT

5.1 Introduction
5.2 Predicted Landscape & Visual Effects
5.3 Construction Effects
5.4 Operational Effects
5.5 Glare & Glint
5.6 Effects on Site Landscape Features
5.7 Compliance with Planning Polices
5.8 Effects on Landscape Character
5.9 Effects on Landscape Designations
5.10 Effects on Visual Receptors & Key Views
5.11 Mitigation Strategy
5.12 Mitigation by Design
5.13 Long Term Mitigation

6.0 CONCLUSION & RECOMMENDATIONS

Appendix 1
Landscape & Visual Impact Assessment Tables

Appendix 2

Site Location Plan	ACLA/BTH 01
Landscape Character Areas Plan	ACLA/BTH 02
Landscape Designations Plan	ACLA/BTH 03
Visual Analysis Plan	ACLA/BTH 04
Site Context plan	ACLA/BTH 05
Site Layout & Context Plan	ACLA/BTH 06

Appendix 3
Photograph Record Sheets 1 to 10

Appendix 4
Methodology for Landscape & Visual Impact Assessment

1.0 INTRODUCTION

1.1 The Commission

1.1.1 ACLA were commissioned in April 2013 by Stratus Environmental Ltd to prepare a Landscape and Visual Impact Assessment (LVIA) in support of a planning application for a Solar PV Park within a part of a former quarry (the proposed development) at Moneystone Quarry, Eaves Lane, near Whiston, Staffordshire (the site). This report was updated in April 2015 to take account of comments in a committee report in November 2014 and the Refusal of Planning Permission in March 2015.

1.1.2 LVIA is a tool used to identify and assess the significance and effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.

1.1.3 The LVIA has been undertaken in accordance with best practice and encompasses the 'Guidelines for Landscape & Visual Impact Assessment (GLVIA) – Third edition April 2013' - published by the Landscape Institute & Institute of Environmental Management & Assessment.

1.1.3 LVIA may be carried out either formally, as part of an Environmental Impact Assessment (EIA), or in this case, informally as a contribution to the 'appraisal' of the proposals. The broad principles and the core of the approach are similar in each case. The methodology to carrying out the LVIA has been outlined in Appendix 4.

1.2 The Proposals

1.2.1 A full description of the proposals can be found in chapter 3 of the Supporting Statement. The following are points of particular relevance to this LVIA.

1.2.2 The proposed solar farm will comprise photovoltaic (PV) panels that will provide up to 5 megawatt peak (MWp) of renewable electricity to the local distribution network. The PV arrays will be divided into two distinct areas covering approximately 8.9ha within an application site of approximately 14.25 hectares (ha) at Moneystone Quarry between Whiston and Oakamoor, Staffordshire. The quarry has now ceased operation and was formally owned by Sibelco and operated for the extraction of silica sand. In 2010 Laver Leisure acquired the quarry and have been requested by the Local Planning Authority to submit a revised restoration plan to discharge Planning Condition 35 relating to Planning Permission (SM.96/935).

1.2.3 A revised Restoration Masterplan was approved by Staffordshire County Council. A copy of the plan is presented in Appendix B to the Supporting Statement.

.

1.2.4 Following discussions with Staffordshire County Council and Staffordshire Moorlands District Council, the approved restoration scheme will be used as the baseline to establish the landscape and visual effects of the PV solar

array proposals.

1.2.5 All panels will be mounted on frames, see drawing SBC1049/1/03 for details. The maximum height of the panels will be 3m above ground level and the lowest part of the panel will be circa 1m above ground level. The rows of panels will be aligned east to west, south facing and set approximately 3 to 6m apart to allow for overshadowing and scheduled maintenance of the panels.

1.2.6 The mounting frames will be matt finished galvanised steel with steel posts of 200mm diameter, driven (screwed or piled) into the ground, without the need for concrete foundations to a depth of approximately 1.50m. Towards the southern extent of area E the panel arrays may be secured by ballast blocks or the ground mount tree system. However, this will be confirmed following further site investigation. Drawing SBC1049/1/03 provides a specification of the panel and frames. The panels will be approximately 20o (+/- 10o) to the horizontal.

1.2.7 The wider quarry covers approximately 168ha and divided into two by Eaves Lane running east to west across the centre of the site. For reference in this report the quarry has been divided into three distinct areas as follows;

- Quarry 1 to the south of Eaves Lane
- Quarry 2 To the north of Eaves Lane
- Quarry 3 A quarry extension to the west, south of Eaves Lane.

1.2.8 The proposed solar arrays will cover 2 areas within quarries 1 and 2 as shown on drawing SBC1049/1/06. The application areas are as follows:

- Area D in quarry 2.
  Located in the south eastern section on an area north of Eaves Lane and is largely restored (as per the proposed restoration scheme) covering approximately 4.3 ha

- Area E in quarry 1.
  Located on the former production plant site in the southern area of the quarry covering approximately 4.6 ha

1.2.9 Area B extends to approximately 1.26 ha and is located to the north east of an existing settlement lagoon in quarry 2, north of area D. In an amendment to the application it is no longer proposed to be developed with solar panels but is still included within the application area boundary.

1.2.10 The arrays will be connected to low voltage switch gear and transformers located across the application site. In turn, these will connect to an on-site substation. The Substation will connect to the local distribution network that currently serves the wider quarry site. A 2m high deer fence with infra-red CCTV will be installed around the array modules with a standoff of between 5m to 16m to incorporate buffer zones and access for maintenance. Matching gates will also be provided across access routes. Inverters and transformer cabin will be located in the northern sections of area D and the western

boundary of area E. A switchgear cabin will be located just outside the deer fencing on the western boundary of area E. Within the site the proposed transformers will be secured with 2.4m high security fencing.

1.2.11 Access to the application site will be from Eaves Lane along the existing access road into quarry 1. Access to the solar arrays in quarry 2 will be through quarry 1 using the existing internal service roads and the tunnel below Eaves Lane. The existing internal service roads will be retained throughout the life of the solar development to provide access for maintenance. A temporary set down areas for plant equipment will be provided just within the northern boundary of area D and on the access track to the east of area E. There is no permanent lighting associated with the proposals.

1.2.12 Landscaping within the application site will consist of green hay to create species rich grassland within the arrays and across the application boundary. This will extend up to approximately 5m to 75m beyond the deer fencing around the arrays in areas D and E and across area B. The grassland will ideally be managed by low intensity sheep grazing.

1.2.13 In addition to the species rich grassland within the application site, the applicant is proposing to enhance currently degraded habitats on land adjacent to the former quarry site. The two enhancement sites total nearly 6ha. In consultation with Staffordshire County Council's ecologist, survey works have been carried out to clearly define the proposed enhancement works

1.2.14 The lifespan of the panels will be approximately 25 years, after which they will be removed and the land retained as species rich grassland. The construction period will last approximately 3 months.

1.3 The Quarry Site – Current Situation

1.3.1 Quarry 1 is located to the south of Eaves Lane and includes the former plant production site, which has now been removed. Two settlement lagoons are located in the north eastern section of quarry 1. A central haul route runs between the lagoons leading to a tunnel below Eaves Road and into quarry 2. The site is accessed from a mettled road leading south from Eaves Lane between quarries 1 and 3. The existing sub-station and associated infrastructure in the south western section of the quarry are to be retained together with the Sibelco Laboratories building, which is under separate land ownership.

1.3.2 Area E is located to the south of Eaves Lane and occupies the former processing area. Demolition and remedial works in area E have been completed and the site has been graded to provide a gently sloping surface. Area E was hydro-seeded in autumn 2014. The previously worked quarry areas are generally well screened by evergreen and deciduous woodland belts to the east and north and mature deciduous woodland to the south. The south- western boundary is less well vegetated in its central section, but is contained by ridgelines at close distance.

1.3.3 Quarry 2 is located to the north of Eves Lane and includes Black Plantation, tip areas, restored areas and a large settlement lagoon. The quarry floor consists of stockpiles of tailings, soils, areas of part restoration and a combination of bare earth with naturally regenerated dense heathland scrub, willow and birch. Area D contains marshy grassland is located centrally with areas of extensive open habitats including early successional, pioneer grassland and short-perennial/ephemeral habitats. . A large settlement lagoon is located in the majority of the western section of quarry 2. Quarry boundaries are generally comprised of open and wooded faces up to approximately 25m (230m above ordnance datum [AOD]) above the quarry floor. The quarry faces also support areas of natural regeneration, grassland and scrub. The site boundaries and upper quarry faces are generally well vegetated by evergreen and deciduous woodland belts, blocks and regenerated scrub. The boundary woodlands tend to provide a high level of screening from off-site areas. Hydro-seeding has previously taken place on some of the faces. The hydro-seeding softens and integrates the quarry into the wider landscape when viewed at distance.

1.3.4 Quarry 3 is a western extension and is not included as part of the solar PV application. It consists of an excavated lowered landform with a pond in the lower sections.

1.4 The Quarry Site - Revised Restoration Proposals

1.4.1 SCC approved a scheme of restoration early in the year to discharge Condition 35 of Planning Permission (SM.96/935) granted on 22 May 1998. The main elements of the scheme and current situation are summarised below:

- <u>Quarry 1.</u>
  To the north of the plant site some early restoration has taken place with the creation of a water body, aquatic habitats and marginal vegetation on the existing lagoon. As there is no direct water source it is likely that the area will dry out to scrub and woodland succession. Lagoon 4, located in the north east of quarry 1, will be managed to create wet grassland. This will include hay straw/seeding from suitable wetland grassland donors. The plant site and processing area will be cleared and capped using material from lagoon 4. The revised strategy allows for the retention of hard standing. The majority of the processing/plant area will be managed for low intensity grazing. The land below the proposed arrays in area E will be restored predominantly to open grassland and the area was reportedly hydro-seeded in 2014. There are also some areas of broadleaf planting and small areas of scrub/wetland and emerging wet grassland habitat associated with the lagoons. Additional broadleaf planting will also take place along the eastern perimeters of the site access and north west of the application boundary which will over time provide additional screening to the application areas from the west. The mature tree belt and woodland blocks near the eastern application boundary and elsewhere will be retained as part of approved quarry restoration scheme and will provide a relatively high level of screening to the proposals from most

areas.

- Quarry 2.
  This area has been partly restored. Some of the boundary slopes and faces have been hydro-seeded. The eastern lagoon has been restored to grassland using hay strewing techniques with some areas of bare earth, which are now partly regenerated with willow, carr and heathland vegetation. The northern quarry floor areas are to be restored to open grassland with small areas of broadleaf woodland planting. The existing silt lagoon to the western areas is to be restored to scrub and wetland with aquatic and marginal habitats, which should gradually become woodland succession. Array area B will be restored predominantly to open grassland with some localised areas of broadleaf planting and bare open ground and heath and acid grassland. Area D has been restored and strewn with green hay and allowed to re-colonise naturally. There are also some smaller areas of broadleaf planting, bare open ground, streams and water bodies. A new public right of way is also proposed along the eastern boundary. The route will run through and along the eastern edge of the woodland blocks on the eastern boundary of quarry 2, linking Eaves Lane to the south with a track running off Blakeley Lane to the north. Some localised thinning of birch and pine is proposed in areas along the eastern quarry boundary, however this should aim to retain the overall integrity of the woodland structure and screening potential. The majority of the woodland planting on the quarry boundaries will be retained as part of the approved restoration scheme to provide the current high level of screening to the proposals.

- Quarry 3
  Is to be restored to a deep-water body with some hydro-seeding and bare quarry faces. However this area does not relate to or form part of the solar park application. Broadleaf tree belts will be planted to the northern and southern boundaries as part of the approved restoration scheme which over time will provide an enhanced landscape structure in western sections of the quarry.

1.4.2 The approved quarry restoration scheme will be use as the baseline for this assessment.

1.5 The Site Location

1.5.1 The solar park proposals are located over two areas within the former Moneystone Quarry as discussed earlier. The former quarry in located 17 km east of Stoke on Trent in the county of Staffordshire and covers approximately 168ha centred at grid reference SK04704 46125. The local authority for the application area is Staffordshire Moorlands District Council. The Peak District National Park boundary is located at 5 km to the north-east and the green belt boundary is located at approximately 2.2 km to the west. The landscape character of Moneystone Quarry was described as ‘industrial and extractive’ in the Landscape & Settlement Character Assessment undertaken by Wardell Armstrong on behalf of Staffordshire Moorlands district Council in July 2008.

1.5.2 The two development areas in Moneystone Quarry will be set at low level, within excavated areas and below the ridgeline of the quarry, which rise to 260m AOD in localised areas to the north of the quarry boundary. The arrays will have a southerly aspect and will be located below the quarry ridgeline. The quarry boundary rises to approximately 240m AOD to the north-western perimeters and fall to approximately 150m on the southern boundary. Beyond the southern boundary, the topography falls towards the River Churnet at 200m to the south of the sites and at approximately 110m AOD.

1.5.3 The excavated quarry floor to the north of Eaves Lane is generally well enclosed by surrounding quarry faces and semi-mature and mature woodland and tree belt screening. The quarry floor is part restored and final restoration levels will be between approximately 40-35m below the surrounding landscape, at 195-220m AOD.

1.5.4 South of Eaves Lane in quarry 1, the worked out floor is excavated below the surrounding landform by approximately 15m on the northern edge and at or near the surrounding ground levels in the southern sections. The excavated quarry floor is part restored in some areas. The final restoration levels within quarry 1 will be between approximately 144m to 190m AOD. The solar PV arrays within quarry 1 will be located on the final restored level between 144 to 176m OAD. The boundaries are generally well screened by quarry faces on the northern perimeters and mature woodland belts to the east and west which will be retained as part of the approved restoration scheme. Mature woodlands and tree belts screen close distance and low level views to the site from the south, south-west and east from the majority of locations.

1.5.6 Access to the solar array areas are via the existing quarry access road running southwards between quarries 1 and 3 from Eaves Lane. Quarries 1 and 2 are also linked by a tunnel below Eaves Lane.

1.6 The Setting of the Site

1.6.1 The site is located on a valley side in a predominantly rural landscape of scattered farmsteads and isolated properties; small to medium scale pastoral fields and a high proportion of mature and ancient woodland cover. This contrasts with the unsettled and industrial character of the quarry where the proposals are located. The screening by a combination of local topography, surrounding woodlands and tree belts contribute significantly to reducing the visual influence of the quarry on the surrounding rural landscape.

1.6.2 To the south of the quarry, the landscape is small–scale and relatively enclosed with occasional longer distance views on the more open valley sides. The area comprises deep wooded valley and wooded valley sides, interspersed with pasture. The enclosure is particularly evident in areas in close proximity to the south of the site along the Churnet Valley where it contains a high proportion of tree belts and ancient and semi-mature woodlands. The lower level valley landscape is screened from the site by the mature and ancient woodland blocks of Key and Carr Woods. These woodlands link to Hays, Newhay and Hawksmoor Woods on the southern

slopes of the Chernet Valley.

1.6.3 On the rising ground to the north of the application site, field patterns are larger in scale, pastoral and often enclosed by dry-stone walls. These areas tend to have a more open moorland character. Mature and semi-mature woodland belts and blocks are located along the northern quarry boundaries. The proposals are located on the quarry floor, cut down into the valley sides and below a ridgeline and therefore views from the north are screened.

1.6.4 To the west, the landscape contains a series of low ridgelines where the land fall down to the River Churnet Valley. The landscape is relatively open in places with occasional woodland blocks and belts. A combination of ridgelines and woodland belts generally screen views from all but close distance locations. However there are some localised longer distance views to the quarry areas, particularly from elevated locations. The views tend to be filtered by vegetation and more open views are generally to the quarry faces.

1.6.5 To the east, the land runs along the northern Churnet Valley side. The area contains small-scale field patterns with extensive areas of woodland blocks and belts. There are localised areas with close distance views, particularly from slightly elevated locations towards to the east of quarry 1. Beyond the local area, the extensive woodlands and intervening topography in this area screen long and middle distance views from the east.

1.6.6 In summary, the site is generally well screened. Views at close distance are localised and often glimpsed or filtered through vegetation. At longer distance localised views are occasionally possible from the west and south. These views are filtered and glimpsed through substantial vegetation on the quarry boundary and vegetation within the surrounding landscape. The Lower level of the quarry floor, surrounding intervening topography and mature boundary vegetation tend to screen views from the north, east and south east. These viewpoints will be discussed in detail later on in the report.

1.6.7 Settlements within the study area are dispersed and are comprised of nucleated and liners villages set on ridgelines to the west and set within valleys to the south and east. The village of Whiston is located on a ridgeline approximately 0.8km to the north-west. Froghall and Kinsley Holt are located on a ridgeline at approximately 1.8km to the west. Cheadle is located at 4km to the south-west and also partly located on a ridgeline. The village of Oakamoor is located at 0.8km to the south-east in a deep valley and Alton Towers is located at 3 km to the south. Longer distance views to the east and south-east, including Oakamoor and Alton Towers, are screened from the proposals by a combination of intervening quarry faces, topography and mature woodlands and tree belts.

1.6.8 Little Eaves Farm is located approximately 250m to the west of the proposals and Cowtrees Farm, and associated properties, are located approximately 240m to the east of the proposals. Other scattered properties and farms are located at Moneystone and include: Rock Cottages, Wood View, The Bungalow, Moneystone Farm and Moneystone Cottages. These properties are located at between 120m to 300m to the east of the proposed site.

Whiston Barn is an agricultural structure located at approximately 30m to the north west of the northern quarry boundary, beyond the boundary tree belts. It will not be considered as a receptor in this report as it does not currently appear to be a residential property. Cottage Farm is located to the north of Eaves Lane at approximately 650m east of area D and is screened from the site by intervening topography and woodland and likewise will not be considered as a visual receptor in this report. Other residential properties and farmsteads within the 1km radius will also be discussed later in this report where intervisibility with the proposals may be possible.

1.6.9 Eaves Lane links Whiston (to the north west) to Oakamoor (to the south east) and divides the quarry. Blakely Lane runs from Eaves Lane and close to the eastern boundary of quarry 2 in a northerly direction to the settlement of Cotton. These areas are screened from the proposals by intervening topography and mature vegetation. A disused rail line runs from the southern site boundary to link to a discussed rail line in the Churnet Valley, approximately 200m to the south of the quarry boundary.

1.6.10 There are a number of footpaths in close proximity to the site that have potential intervisibility. These areas will be discussed in detail later in this report.

1.7 Initial Area of Search and the Study Area

1.7.1 The initial area of search for the LVIA was determined by drawing a circle to include all points within the site boundary and offsetting this by 5km. The extent was set to enable a general understanding of the wider landscape context within which the site is located, while limiting information to that which is most relevant and avoiding excessive analysis which does not directly benefit the appraisal. As such it conforms to best-practice.

1.7.2 The desk study was clarified and ratified through field observations on 25th April 2013. Following verification of the initial area of search on site, the study area was retained at 5km as there are a limited number of locations at which middle and long distance views may be possible. However the views tend to be very localised and from the most elevated and/or open locations to the south west and west. Close distance views are also possible from a number of locations near the quarry boundaries and often through and over existing boundary vegetation. Northern and eastern views are generally screened, as the proposals are located within the quarry at a lower level, and below the adjacent ridgelines. Extensive woodland cover is also an important factor in screening the proposals from the majority of publicly accessible locations within the study area, particularly from the south and east. Therefore the focus of this assessment will be within 1km of the proposals as this is where the majority of the potential landscape and visual impacts will be evident.

1.7.3 Within the 5km study area, centred at grid reference SK 04688 46030, national and local landscape designations and landscape character areas were reviewed. Public Rights of Way (PRoW), roads, properties and other publicly accessible areas were assessed to a distance of up to approximately 5kms, but users were only assessed as visual receptors if likely to experience

views towards the site. Individual residential properties and farms that may experience views have also been identified within a 1km radius only. Beyond 1km potential visual receptors will be grouped as appropriate.

1.7.4 The 5km study area extends from Cauldon and just outside The Peak District National Park boundary to the north, Alton to the south east and takes in part of Cheadle to the south west and Ipstone to the north west. Kingsley Holt, Oakamoor, Cotton and Whiston are included within the study area.

1.8 Scope of the Assessment

1.8.1 The landscape and visual assessment methodology is in accordance with industry standard guidance set out in the Guidelines for Landscape and Visual Impact Assessment (Third Edition - April 2013), see the methodology in Appendix 4. Essentially it is a two stage process consisting of firstly, a baseline desk study to identify key landscape and visual receptors within the study area. Fieldwork will clarify and ratify the desk study findings and eliminate receptors unlikely to experience effects. Secondly, an objective evaluation of the likely effects of the proposals on the remaining receptors will be undertaken, if appropriate.

1.8.2 If individual historic features such as Scheduled Ancient Monuments, Listed Buildings or Conservation Areas are indicated as having potential intervisibility with the proposed solar arrays, impacts on their setting will be considered.

1.8.3 The baseline section has been written to include references to the revised quarry restoration proposals and does not consider the cumulative impacts of other similar developments within the area.

1.8.4 <u>Sources of Information</u>

Landscape and visual receptors were identified by searching online information including:

- www.magic.gov.uk – National landscape designations and character areas
- www.staffordshirelocal view - Local landscape designations, public rights of way and local landscape character areas.
- www.StaffordshireMoorlandsDistrictCouncil - Local Plan, Core Strategy (revised submission) and saved policies.
- http://list.english-heritage.org.uk/mapsearch.aspx - Heritage designation.

The OS base mapping was analysed to identify visual receptors such as local residents, users of public rights of way and visitors to open spaces and areas of countryside. This report contains standard landscape and visual impact assessment tables outlining the likely sensitivity of certain receptors to the development.

1.9 Consultation

1.9.1 The proposed development site has been discussed by the client with the planning officers at Staffordshire Moorlands District Council and Staffordshire

County Council. The location of the photo viewpoints submitted with this report has also been agreed with the planning officer at the District Council. A screening opinion was issued on the 5th September 2013 by the District Council which confirmed that the proposed development did not constitute EIA development.

2.0 BASELINE CONDITIONS - PLANNING

2.1 National Planning Policy

2.1.1 National planning guidance was completely revised with issue of the new National Planning Policy Framework (NPPF) in March 2012. This single document supersedes all previous Planning Policy Statement and Guidance documents. It is accompanied by a letter to the chief planning officer, a separate document dealing with traveller sites and a technical guidance document dealing with flood risk and minerals policy. Government advises that this major revision was implemented to form "… *a key part of our reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth. …".*

2.1.2 The NPPF has a presumption in favour of sustainable development and defines sustainability in line with the internationally acknowledged broad definition provided by *"…Resolution 42/187 of the United Nations General Assembly* (which) *defined sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs. …*". The favour of sustainable development principle is as follows:

- At the heart of the National Planning Policy Framework is a **presumption in favour of sustainable development**, which should be seen as a golden thread running through both plan-making and decision-taking.

For **plan-making** this means that:

- local planning authorities should positively seek opportunities to meet the development needs of their area;
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change, unless:
- any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this framework taken as a whole; or
- specific policies in this framework indicate development should be restricted.

For **decision-taking** this means:

- approving development proposals that accord with the development plan without delay; and where the development plan is absent, silent or relevant policies are out of date, granting permission unless: any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this framework taken as a whole; or specific policies in this framework indicate development should be restricted.

After stating the presumption in favour of sustainable development, the NPPF goes on to outline 12 core planning principles, summarised below:

- To be genuinely plan lead with focus on local people
- Encourage creativity and improve places
- Proactively drive and support sustainable economic development
- Encourage high quality design
- Local distinctiveness and Green Belt protection

- Transition to a low carbon future
- Conserving and enhancing the natural environment
- Reusing previously developed land
- Mixed use developments and multi-functionality of spaces and land
- Conserving heritage assets
- Manage patterns of growth and concentrate development in places that can be made sustainable
- Local strategies to improve health, social and cultural well-being

The principles are to be applied to delivering sustainable development by addressing the following topics as part of proposals as appropriate:

- Building a strong, competitive economy
- Ensuring the vitality of town centres
- Supporting a prosperous rural economy
- Promoting sustainable transport
- Supporting high quality communications infrastructure
- Delivering a wide choice of high quality homes
- Requiring good design
- Promoting healthy communities
- Protecting Green Belt land
- Meeting the challenge of climate change, flooding and coastal change
- Conserving and enhancing the natural environment
- Conserving and enhancing the historic environment
- Facilitating the sustainable use of minerals

2.1.3 The only topic directly relevant to renewable energy development is **topic 10 - Meeting the challenge of climate change, flooding and coastal change**. It also refers to the National Policy Statement for Renewable Energy Infrastructure (July 2011), but this is not relevant for the proposals under consideration as it only applies to large biomass, offshore and onshore installations, with onshore capacity of >50MW. It is stated that planning has a key role in supporting the delivery of renewable and low carbon energy and associated infrastructure. Local planning authorities are asked to (in order to increase use and supply of renewable and low carbon energy):

- *"…recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources.*
- *They should have a positive strategy to promote energy from renewable and low carbon sources;*
- *design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*
- *consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;*
- *support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning;*
- *identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers. …"*

2.1.4 Other statements with potential relevance to this landscape and visual impact assessment are included in some of the other topics. In Topic 8 Promoting healthy communities it is stated that *"…Planning policies should protect and enhance public rights of way and access. Local authorities should seek opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails. …"*

In Topic 11 Conserving and enhancing the natural environment it is stated that *"…The planning system should contribute to and enhance the natural and local environment by:*

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*
- *… Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important and their impact within the planning system.*
- *… Planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest. Consideration of such applications should include an assessment of:*
    - *the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;*
    - *the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and*
    - *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated. …"*

2.1.5 Topic 11 also deals with noise and tranquillity:

- "…*Planning policies and decisions should aim to identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.''*

2.1.6 Noise is unlikely to be an issue for a solar PV installation during operation, but may have to be considered during construction subject to construction methods used. Tranquillity can also be associated with landscape character

and quality and may be briefly discussed in this assessment as part of the landscape character evaluation.

2.2 Renewable Energy Guidance

2.2.1 In July 2013 the Department for Communities and Local Government published the 'Planning Practice Guidance for Renewable & Low Carbon Energy'. This document replaces the previous 'Planning or Renewable Energy: A companion guide to PPS22'. The guidance provides advice on planning issues associated with the development of renewable energy. The document points out that although communities have a responsibility to increase green energy it does not mean this overrides environmental protections and planning concerns.

2.2.2 In paragraph 26 the guidance states that '*The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.*'

2.2.3 Paragraph 27 points out particular factors a local planning authority will need to consider in relation to large scale PV farms, of which the following are relevant to the landscape:

- *'encouraging the effective use of previously developed land, and if a proposal does involve greenfield land, that it allows for continued agricultural use and/or encourages biodiversity improvements around arrays*

- *that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use*

- *the need for, and impact of, security measures such as lights and fencing*

- *great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset*

- *the potential to mitigate landscape and visual impacts through, for example, screening with native hedges'*

2.3 Regional and Local Planning

2.3.1 The Localism Act provided for the abolition of the regional planning framework. On the 20th May 2013 the Department of Communities and Local Government revoked the Regional Strategy for the West Midlands and any

saved Structure Plan policies. This now gives local authorities the responsibility for making strategic planning decisions. The Staffordshire & Stoke–on-Trent Structure Plan set out the framework for development to 2011 and it predates the NPPF. Although the policies in the structure plan now have no weight in a planning context, they provided a strategic framework for use in the development of land in Staffordshire on which local plans had been based.

2.3.2 Staffordshire Moorlands Local Plan was adopted in September 1998. The plan was prepared in accordance with the then current national and regional government guidance and was based on policies and proposals contained in the Staffordshire Structure Plan -1986-2001 which has now been superseded by the Core Strategy.

2.3.3 Core Strategy for Staffordshire Moorlands District Council was adopted on March 26th 2014 and it is the key Local Development Framework (LDF) which has replaced the Local Plans. The LDF sets out the Authority's policies and proposals for development and other use and it provides the framework for making decisions about planning applications and conservation matters within the area.

2.3.4 The Council's Core Strategy contains Policy SD2 (Renewable and Low-Carbon Energy). This covers the Council's assessment approach to proposals for larger, stand-alone renewables installations including wind turbines and solar etc. Section 1 of Policy SD2 states:

2.3.5 *"The District will strive to meet part of its future energy demands through renewables or low carbon energy sources (which could be thorough a variety of technologies, for example wind power, solar energy, bio-mass etc), in line with current evidence which identifies the feasibility of these forms of energy across the District. This will be achieved by supporting small and large scale stand alone renewable or low-carbon energy schemes, subject to the following considerations:*

- *The degree to which the scale and nature of the proposals impacts on the landscape, particularly having regard to the Landscape Character Assessment and impact on the peak District National Park (taking into account both individual and cumulative effects of similar proposals).*
- *The degree to which the developer has demonstrated any environmental/economic/social benefits of a scheme as well as how any environmental or social impacts have been minimised (e.g. visual, noise or smell);*
- *The impact on designated site of European, national or local biodiversity and geological importance with policy NE1;*
- *The impact on the amenity of residents and other interests of acknowledged importance, including the historic environment;*
- *The degree to which individual proposals reflect current local evidence regarding the feasibility of different types of renewable or low-carbon energy at different location across the District.*

2.3.6 Other policies in the Core Strategy which may have relevance to the site are listed below:

2.3.7 DC 1 – Design Considerations

All development shall be well designed and reinforce local distinctiveness by positively contributing to and complementing the special character and heritage of the area in line with the Council's Design SPD. In particular, new development should:

- *be of a high quality and add value to the local area, incorporating creativity, detailing and materials appropriate to the character of the area;*
- *be designed to respect the site and its surroundings and promote a positive sense of place and identity through its scale, density, layout, siting, landscaping, character and appearance;*
- *create, where appropriate, attractive, functional, accessible and safe public and private environments which incorporate public spaces, green infrastructure including making provision for networks of multi-functional new and existing green space (both public and private) in accordance with policy C3, landscaping, public art, 'designing out crime' initiatives and the principles of active design;*
- *incorporate sustainable construction techniques and design concepts for*
- *buildings and their layouts to reduce the local and global impact of the development, and to adapt to climate change, in accordance with policy SD1;*
- *protect the amenity of the area, including residential amenity, in terms of satisfactory daylight, sunlight, outlook, privacy and soft landscaping;*
- *promote the maintenance, enhancement, restoration and re-creation of biodiversity and geological heritage, where appropriate, in accordance with policy NE1;*
- *provide for safe and satisfactory access and make a contribution to meeting the parking requirement arising from necessary car use;*
- *ensure that existing drainage, waste water and sewerage infrastructure capacity is available, and where necessary enhanced, to enable the development to proceed;*
- *ensure, where appropriate, equality of access and use for all sections of the community.*

2.3.8 DC 2 The Historic Environment

The Council will safeguard and, where possible, enhance the historic environment, areas of historic landscape character and interests of acknowledged importance, including in particular scheduled ancient monuments, significant buildings (both statutory listed and on a local register), the settings of designated assets, conservation areas, registered historic parks and gardens, registered battlefields and archaeological remains by:

1. *Resisting development which would harm or be detrimental to the special character and historic heritage of the District's towns and villages and those interests of acknowledged importance.*
2. *Promoting development which sustains, respects or enhances buildings and features which contribute to the character or heritage of an area and those interests of acknowledged importance through the use of conservation area appraisals, design statements, archaeological assessments, characterization studies and*

Masterplanning.

3. *Preventing the loss of buildings and features which make a positive contribution to the character or heritage of an area through appropriate reuse and sensitive development, including enabling development, unless their retention is not viable or there would be substantial planning benefits to outweigh the loss.*

2.3.9 DC3 - Landscape and Settlement Setting

The Council will protect and, where possible, enhance local landscape and the setting of settlements in the Staffordshire Moorlands by:

1. *Resisting development which would harm or be detrimental to the character of the local and wider landscape or the setting of a settlement and important views into and out of the settlement as identified in the Landscape and Settlement Character Assessment;*
2. *Supporting development which respects and enhances local landscape character and which reinforces and enhances the setting of the settlement as identified in the Landscape and Settlement Character Assessment;*
3. *Supporting opportunities to positively manage the landscape and use sustainable building techniques and materials which are sympathetic to the landscape;*
4. *Identifying through the Site Allocations DPD and protecting from inappropriate development, areas of visual open space where the intention will be to retain the land's open and undeveloped appearance. Where appropriate the Council will seek public access agreements with the land owners and seek proposals for the enhancement or improvement of these areas as part of the green infrastructure network in accordance with policy C3. In exceptional cases, limited development of areas of visual open space may be acceptable where this will bring about overriding improvements to the open space itself;*

5. *Recognising and conserving the special quality of the landscape in the Peak District National Park, and ensuring that development does not adversely affect the wider setting of the National Park.*

2.3.10 R1 Rural Diversification

All development in the rural areas outside the development boundaries of the towns and villages will be assessed according to the extent to which it enhances the character, appearance and biodiversity of the countryside, promotes the sustainable diversification of the rural economy, facilitates economic activity, meets a rural community need and sustains the historic environment.

Appropriate development should not harm the rural character and environmental quality of the area or any sites designated for their nature conservation, or historical interest by virtue of the scale, nature and level of activity involved and the type and amount of traffic generated or by other effects such as noise and pollution.

Wherever possible development should be within suitably located buildings

which are appropriate for conversion. Where new or replacement buildings are involved, development should have minimal impact on the countryside and be in close proximity to an existing settlement.
Within the Green Belt, inappropriate development which is otherwise acceptable within the terms of this policy, will still need to be justified by very special circumstances.
Priority will be given to the re-use of rural buildings for commercial enterprise, including tourism uses, where the location is sustainable and the proposed use does not harm the building's character and/or the character of its surroundings.

2.3.11 NE 1 –Biodiversity and Geological Resources

The biodiversity and geological resources of the District and neighbouring areas will be conserved and enhanced by positive management and strict control of development by:

1. *Resisting any proposed development that could have an adverse effect on the integrity of a European site alone or in combination with other plans or projects unless it can be demonstrated that the legislative provisions to protect such sites can be fully met.*
2. *Conserving and enhancing any Sites of Special Scientific Interest. The Council will not permit any development proposal which would directly or indirectly (either individually or in combination with other developments) have an adverse effect on a Site of Special Scientific Interest.*
3. *Conserving, and enhancing regional and locally designated sites. The Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests including ancient woodland, unless it can be demonstrated that:*
   - *there is no appropriate alternative site available; and*
   - *all statutory and regulatory requirements relating to any such proposal have been satisfied; and*
   - *appropriate conservation and mitigation measures are provided; or if it is demonstrated that this is not possible*
   - *the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented.*
4. *Supporting opportunities to improve site management and increase public access to wildlife sites including supporting the objectives of the Staffordshire County Council Rights of Way Improvement Plan.*
5. *Ensuring development where appropriate produces a net gain in biodiversity and ensuring that any unavoidable impacts are appropriately mitigated for.*
6. *Ensuring development promotes the appropriate maintenance, enhancement, restoration and/or re-creation of biodiversity through its proposed nature, scale, location and design. The Staffordshire Moorlands Biodiversity Opportunity Map, in conjunction with the Staffordshire Biodiversity Action Plan, will be used to guide biodiversity enhancement measures to be included in development*

proposals as appropriate to the nature and scale of development proposed and other environmental interest, in particular supporting opportunities to increase grassland and heathland habitats including supporting targets in the UK and Staffordshire Biodiversity Action Plan.

7. *Protecting and enhancing habitats and species of principal importance for the conservation of biodiversity as identified in legislation, and recognising and implementing appropriate measures, including landscape-scale conservation management, to take account of the fact that the distribution of habitats and species will be affected by climate change.*
8. *Recognising the value of the natural environment for sport and leisure activities and the need to manage such activities to ensure there is no conflict.*
9. *Ensuring the provision and protection of green infrastructure networks in line with Policy C3.*

2.3.12 The Localism Act became Law (and subsequently the Planning Regulations in April 2012) which made a number of significant changes regarding the preparation process of Development Plans and introduced the concept of 'neighbourhood planning' allowing communities to both develop their own Plans and enact their own 'development orders'.

2.3.13 The Localism Act aims to make the planning system clearer and more democratic. Regional strategies have now been abolished. Some of the relevant strategies of the Localism Act aim to encourage neighbouring local authorities, or groups of authorities, to work together on planning issues in the interests of all their local residents. The Act introduces a new right for communities to draw up a neighbourhood plan and allow communities to come together through a local parish council or neighbourhood forum to influence planning decisions providing it is in line with national planning policy, and the strategic vision for the wider area set by the local authority. Local people will be able to vote on it in a referendum. If the plan is approved by a majority of those who vote, then the local authority will bring it into force. The Act also includes a new requirement for developers to consult local communities before submitting planning applications for certain developments.

3.0 BASELINE CONDITIONS - LANDSCAPE & CHARACTER

3.1 Introduction

3.1.1 This section outlines the baseline conditions for landscape designations and character. Landscape policies and designations have been considered if directly relevant to the appraisal of landscape character or visual amenity. The reasons for taking forward particular designations to be assessed in more detail later in the report are also discussed within this section.

3.2 Landscape Designations

3.2.1 Landscape related planning designations, polices and features present in the 5km study area are illustrated on BTH 03.

3.2.2 Green Belt
The eastern sections of the Green Belt boundary is located at approximately 2.2km to the west of the proposals located along ridgelines, which are visible from areas in and adjacent to the proposals. Therefore there is the potential for the development to have an effect upon the setting of the Green belt. The Green Belt will be taken forward as a landscape receptor in this report. Visual receptors may be considered from individual locations within the green belt if appropriate.

3.2.3 Peak District National Park (Policy SD2 & DC3)
The western boundaries of the Peak District National Park are located approximately 5km to the north east of the proposals. The proposed PV arrays are at low level and visually contained within the quarry on a southerly facing slope. Intervening ridgelines and woodlands effectively screen potential views from the north-east. Therefore the potential for the development to impact upon the setting of the Peak District national Park at this distance is negligible. Therefore it will not be considered further as a landscape or visual receptor in this report.

3.2.4 Sites of Special Scientific Interest (SSSI), (policy NE1)
There are a number of SSSI within the study area. Whiston Eves SSSI is located at approximately 0.6 km to the west of the proposals beyond an intervening ridgeline associated with Little Eaves Farm. The SSSI is designated for its neutral lowland grassland and covers 10.4ha at OS grid reference SK4039461. The site is not publicly accessible and therefore it will not be considered as a visual receptor. However, due to the proximity to the site there is the potential for the proposals to have an indirect impact on the setting of the SSSI. Therefore Whiston Eaves SSSI will be taken forward as a landscape receptor in this report.

3.2.5 There are a number of other SSSIs identified within the 5km study area: Froghall Meadows and Pastures and Churney Valley SSSI (at approximately 2 kms to the north west), Bath Pasture, south of Cotton SSSI (1.4 km to the north east), Rue Hill & Caldon Dales SSSI, south of Cauldon (4.5 km to the north east) and Dimmings Dale and the Ranger at Threaps Wood SSSI (2 km to the south). No views to the proposals were evident during the visual survey

due to intervening ridgelines and mature woodlands. Therefore due to the screening and distance from the proposals there are unlikely to be any indirect impacts as a result of the development. Therefore these SSSI will not be taken forward as receptors in this report.

3.2.6 Nature Conservation Sites (Policy NE1)

There are six nature conservation sites identified within the 5km study area. Cotton Dell is located at approximately 1 km to the east of the site and covers 63 ha. The site contains a range of habitats from ancient woodland valleys, flower rich grasslands, ponds, scrub and bog areas. A number of public rights of way, including footpath number Oakamoor 5 (Staffordshire Moorlands Walks) and Oakamoor 22 are also within the site. No intervisibility with the proposals was evident during the site visit due to enclosure by mature woodland, the quarry boundary planting and ridgelines. However, the large scale of the conservation site and close proximity to the proposals could result in the potential for the development to have an indirect impact on the setting and character of Cotton Dell. Therefore, it will be taken forward as a landscape receptor in this report.

3.2.7 Hawksmoor Nature Reserve is located at approximately 2km south west of the site. At this distance indirect impacts on the integrity of the site are unlikely. However, footpaths within the nature reserve where occasional glimpsed views to the site are possible have been included as visual receptors later in this report.

3.2.8 Black Heath nature reserve is located at approximately 4km to the north and Coombe and Churnet Valleys RSPB reserve and Consall Nature Park are located at 4km to the north west. Harston Wood is located 2 km to the north of the proposals. Hoften's Croft Meadows is located at 2 km to the north east and Hales Hall Pool and Cecilly Brook are located at Cheadle at 4km to the south west. There is no identifiable intervisibility with the proposals due to intervening ridgelines. The sites are at a distance and therefore it is unlikely that the proposals have the potential to impact on the setting or character of these reserves. Therefore they will not be considered further in this report.

3.2.9 Conservation Areas (Policy DC2)

Four conservation areas have been identified within the study area. Alton & Farely at approximately 2.5kms to the south east; Caldon Canal & Ipstone at 1.8 to 3.9 km to the north west and Cheadle at 4.2 km to the south west. Mature woodland cover and intervening ridgelines screen views to the proposals from Conservation Areas, with the possible exception of Cheadle. In Cheadle, there is the potential of long distance elevated view to sections of the proposals located in the northern quarry areas from properties within the Conservation Area. The town is set on a ridgeline and is visible from some areas in close proximity to the development within the quarry. However any impacts on the setting of the area are likely to be negligible due to the distance to the development and the relatively small scale of the proposals set within the wider landscape context. No location could be identified during the site visit with views to the proposals. Therefore no conservation areas will be considered as landscape receptors, although areas within and around Cheadle will be taken forward as visual receptors later in this report.

3.2.10 Scheduled Ancient Monument (SAM) (Policy DC2)

A number of Scheduled Ancient Monuments (SAMs) have been identified within the 5km study area. A number of bowl barrows and a moated site are located in the region of North Wood and Weavers Hill at approximately 2.5 to 3 km east of the site. A bowl barrow is located at Treelows Cottage 3km south of the proposals and Bunbury Hill Fort and Alton Castle are listed monuments located approximately 3.5km to the south east. The areas have not been identified as having intervisibility with the proposals due to intervening woodland, ridgelines and other features and it is unlikely there will be any indirect landscape effects as a result of the proposals. The highest turret of Alton Castle is visible from PROW to the west of Moneystone Quarry, but no areas within the application areas where identified as having intervisibility. Therefore no Scheduled Ancient Monuments have been carried forward as landscape receptors.

3.2.11 Registered Parks and Garden (RPG) (Policy DC2)

Alton Towers contains an RPG identified within the study area. The area has not been identified as having intervisibility with the proposals due to intervening woodland, ridgelines and other features and it is unlikely there will be any indirect landscape effects as a result of the proposals. Therefore no Registered Parks and Gardens have been carried forward as landscape or visual receptors.

3.2.12 Listed Buildings and Structures (Policy DC2)

Four individual listed buildings and structures have been identified close to the west of the proposals during the desk study. Little Eaves Farm and Barn are located at approximately 0.3 km to the west of the former quarry entrance and located on a low ridgeline with views towards the southern sections of the application area. Therefore Little Eaves Farm and Barn will be carried forward as a landscape receptor due to the potential impacts on their settings by the development. Little Eaves Farm will also be carried forward as a visual receptor later in this report. Whiston Eaves Farm and stables are shown as listed buildings on the local council's web site but have now been demolished to make way for the quarry extension 3.

3.2.13 A number of other listed buildings have also been identified within 1km of the proposals at Whiston and Oakamoor. However no intervisibility with the proposals could be identified during the site survey. Lightoaks and the attached greenhouse are listed structures which are located approximately 1km to the south of the development on the southern valley side of the River Churnet, and to the south of the B5032. The property is screened from the roadside by substantial planting and therefore potential impacts by the proposals on the setting of the structures and views to the north are unlikely. Lockwood Hall and Thornbury Hall are listed building located on Lockwood Road at approximately 2 km to the west of the site. Although there is the potential of distant glimpsed views none could be identified during the site visit. Listed buildings within the above areas have not been taken forward as receptors due to distance to the site and the unlikely significant impact on the setting of the buildings. There are a large number of other listed buildings within 1 to 5 km of the site, particularly within Alton, Alton Towers, Farley, Kingsley and Cheadle. However due to the lack of intervisibility and distance from the proposals, listed buildings in these outlying areas will not be taken

forward as receptors. Potential impacts on the settings of these structures are considered to be negligible at long distance when set within the context of the wider landscape. Relevant locations in outlying areas will be discussed as visual receptors later in this report.

3.2.14 Open Access Land

A numbers of areas have been designated as Open access Land under the Countryside and Rights of Way Act 2000 (CROW) act have been identified at between 1.5 to 5 km to the north and north east of the site. The areas have not been identified as having intervisibility with the proposals due to intervening woodland, ridgelines and other features and it is unlikely there will be any indirect landscape effects as a result of the proposals. Therefore Open Access areas have not been taken carried forward as landscape receptors.

3.2.15 Ancient Woodlands (Policy NE1)

Ancient and semi natural woodlands and ancient re-planted woodlands have been identified in close proximity to the site boundaries, particularly at Key Wood and Car Wood to the south west and east of quarry 1. A block of ancient re-planted woodland is also located close to the south eastern boundary array area E in quarry 1. For the location of adjacent woodlands refer to plan ACLA/BTH 06. NPPF paragraph 118 states:
'Planning permission should be refused for developments resulting in the loss or deterioration of irreplaceable habitats, including ancient woodlands'

3.2.16 There will be no direct impact on ancient woodlands surrounding the development, however there is the potential for the development to impact on landscape context of the ancient woodland on the eastern boundary of quarry 1 due to the close proximity to the application boundary. The impact of the proposals in relation to the ancient woodlands will be discussed in section 5.6 'Effects on the Site's Landscape Features' later in this report.

3.3 Landscape Character

3.3.1 Landscape Character Assessment is a technique used to develop a consistent understanding of what gives a landscape its character to ensure future development is well situated, sensitive to its location and contributes to environmental, social and economic objectives. The assessment identifies distinctive features, recognisable and consistent patterns of elements and natural and/or human features in the landscape that makes one area distinctive from another. An assessment of pressure for change, the ability of a given landscape to accommodate change and landscape sensitivity to change may also be undertaken. The assessment can also include strategies and guidelines for future development and management, to retain and enhance particular aspects of the landscape. The Character Areas referred to below are illustrated on BTH 02.

3.4 National Character Areas (NCA)

3.4.1 National landscape character is set out in Natural England's Character Map of England. The new NCA profiles update the previously published Joint Character Area (JCAs) and Countryside Character Area descriptions (1998-

1999 by the Countryside Agency). The 5km radius study area and site are covered by NCA 64 'Potteries and Charnet Valley'. The relevant key characteristics which are evident in the landscape of the study area have been extracted and include:

- Strongly dissected hills and small plateaux rising up to the Pennines, cut by major river valleys.
- Strong contrast between remote uplands, urban areas, sheltered wooded valleys and hillside pastures.
- Prominent Millstone Grit and Coal Measures ridges.
- Sprawling industrial towns of the Potteries forming a major conurbation.
- Extensive former industrial and extractive sites, many now reclaimed, intermixed with settlements and open land.
- Open moorland and rough grazing on higher ground.
- Rural settlement pattern of sheltered villages on low ground with hamlets, scattered farmsteads and cottages elsewhere.
- Brick and sandstone older buildings with tile and slate roofs.

3.4.2 NCA 52 'White Peak' is located approximately 0.5 km to the north-east of the proposals. Although the development is not within this character area and has a low visual relationship with Moneystone Quarry, the development has the potential to influence the setting of NCA 52. The key characteristics which are evident in the landscape of the study area include:

- Elevated limestone plateau dissected by steeply cut dales and gorges with rocky outcrops, screes and cave systems.
- Long, narrow shelter belts of broad-leaved trees on high ground and along lead rakes with semi-natural broad-leaved woodland along dale sides.
- Clear, fast-flowing rivers and streams in some dales; others are dry or seasonal.
- Nucleated villages and small towns connected by crest and valley roads.
- Improved farmland for intensive dairy farming characterised by small narrow fields, often of medieval origin, around many villages and large rectangular fields away from the villages, formed by white, limestone, dry stone walls and walled up lead rakes (forming a combination of white walls and green grass).
- Mosaic of herb-rich grassland, woodland and scrub along dales.
- Lack of a unifying style of architecture for buildings and settlements due to the availability of two dissimilar rock types, limestone and 'gritstone' used either singly or in combination in various parts of the area.
- Large-scale limestone quarries creating major scars in limited places in an otherwise attractive landscape.
- Long-disused workings for limestone and ores, particularly lead rakes, provide features rich in ecological, historical and cultural interest.
- Features of special archaeological interest together with strong cultural heritage dating from the earliest prehistoric past.

3.4.3 NCA 53 'South West Peak' is located approximately 4km to the north of the proposals, however there is no intervisibility with the development area.

3.4.4 Due to the large scale of the character area in relation to the limited scale and visual influence of the proposals within it, potential impacts on the key

landscape characteristics and elements and overall integrity are likely to be negligible. NCA 52 'White Peak', NCA 53 'South West Peak' and NCA 64 'Potteries and Charnet Valley'. will not be taken forward as landscape receptors in this report. Character changes are more appropriately discussed on a local level discussed below.

3.5 Local Landscape Character Areas (LCA)

3.5.1 The original historic landscape character data available on Staffordshire County Council's website was used to inform the Landscape Character Assessment referred to in this report. Refined Historic Landscape Character data for Staffordshire Moorlands, when available from SCC, has been used in conjunction with the Landscape and Settlement Character.

3.5.2 The Churnet Valley Landscape Character Assessment 2011 was commissioned by Staffordshire Moorlands District Council to input into the emerging Local Development Framework (LDF) for the District, in particular the Churnet Valley Masterplan. The Churnet Valley Masterplan will be a Supplementary Planning Document (SPD) stretching across this central part of the District and encompassing a number of significant redevelopment sites. The SPD will support and inform the LDF by identifying opportunities and measures to help regenerate the rural area based around sustainable tourism, in a manner which is sensitive to and enhances its important heritage, landscape and ecology. The Landscape character Assessment of the Churnet Valley has been developed from the Staffordshire wide assessment, undertaken by Staffordshire County Council in 2001 The 'Planning for Landscape Change' Landscape Character Assessment Supplementary Planning Guidance and the subsequent Landscape and Settlement Character Assessment (2008) aims to inform the Core Strategy. The latest sections of the character areas relevant to Moneystone Quarry and the proposals have been extracted and are outlined below. This study also outlines information on landscape opportunities, threats and development guidelines.

3.5.3 Moneystone quarry and the proposals lie on the junction of 3 character areas.

- To the South of Eaves Lane, the PV array area E lies in sub-character area 'Dissected Sandstone Cloughs and Valleys 1b – Froghall and Consell'.
- PV array areas, B & D, north of Eaves Lane, lies in character area 3a - 'Dissected Sandstone Highland Fringe –Ipstones & Whiston'.
- Sub character 1a - 'Dissected Sandstone Cloughs and Valleys - Oakamoor' is located immediately to the east of the site.

3.5.4 There are a number of other Local Landscape Character Areas identified within the study area (see plan ACLA/BTH 02). These are at a distance from the site and/or are likely to have no or very limited intervisibility with the proposals and have therefore not been assessed. A summary of the relevant sections of the assessed character areas is outlined below:

3.5.5 1b Dissected Sandstone Cloughs and Valleys - Froghall and Consell

Location

This Landscape Character Type Sub Area follows the main valley of the River Churnet and its tributaries through Froghall and Consall Forge. It lies between the sub areas of Alton and Oakamoor (1a), and Cheddleton and Longsdon (1c) and covers the southern section of Moneystone Quarry, south of Eaves Lane.

Key Characteristics

- *Deeply incised wooded valleys with winding watercourses*
- *Broader valley bottoms of the River Churnet with more open floodplain*
- *Remnant Historic Parkland of Sharpcliffe Hall and part of Consall Hall*
- *Stone buildings and boundary walls*
- *Churnet Valley Railway and Caldon Canal*
- *Sheep and cattle farming with smallholdings*
- *Large broadleaf woodlands with newer conifer plantations*
- *Narrow sunken lanes with hedgebanks and tall hedges that limit views*
- *Dominant views to higher ground*
- *Moneystone Quarry (Key Opportunity Site)*

Capabilities and sensitivities of the landscape to accommodate change

Planning for Landscape Change Supplementary Planning Guidance to Staffordshire and Stoke on Trent Structure Plan, identifies this landscape character type as locally very sensitive to the impacts of development and land use change. The Churnet valley is identified as an area of active landscape conservation.

Geology, Landform and Soils

Deeply incised wooded valleys of the River Churnet and its tributaries associated with Carboniferous and Permo-Triassic sandstones, particularly north of Froghall. Smaller incised valleys and streams further south of Froghall. More open floodplain along valley floor. Strongly undulated with pronounced rounded landform above valley sides. The acid soils, brown earths and stagnogley soils originally supported vegetation communities between lowland and upland heath. These now support extensive woodland areas.

Vegetation

Extensive woodland blocks and belts of deciduous and coniferous trees. Tall hedgerows and hedge banks line roads limiting views. Limited remnants of historic parklands are characterised by woodland plantations and parkland trees.

Field Pattern & Enclosure

Sunken lanes with extensive hedge banks and tall hedges confine views and create a sense of enclosure. In places the small intimate wooded valleys contrast with the glimpses of wider distant views. A small scale well structured pastoral landscape lies to the south east of this area within the Moneystone Quarry Key Opportunity Site. Enclosures are generally hedgerows with some

drystone walls often associated with dwellings.

Land Use and Settlement
Farming is pastoral and appears to be small scale in this area. Moneystone Quarry is an incongruous feature within a small-scale landscape. Consall Nature Park and Combes Valley Nature Reserve provide recreational destinations. Churnet Valley Railway and Caldon Canal run through this area from Froghall via Consall along the River Churnet. This is a well used section of the Churnet Valley for all forms of recreation. Froghall lies within the centre of this Landscape Character Type Sub Area and is an industrial settlement associated with the long established Bolton Copperworks, which dominates the landscape. Froghall lies at the end of the current active railway and canal network. Smallholdings and buildings associated with the railway and canal are found throughout the valley. There are still derelict former industrial buildings and features in the vicinity of the railway, canal and industrial settlements which are undergoing or worthy of renovation. Building styles are mainly red brick or traditional sandstone..

Water Features
The River Churnet is a key feature of this character area, along with Combes Brook and other tributaries of the Churnet. The Caldon Canal follows the line of the River Churnet ending at Froghall.

Transport and Access
The A52 and B5053 run through a small part of this area at Froghall. Access through this area is limited. Churnet Valley Railway, a steam railway and tourist attraction, runs along the bottom of the Churnet valley with stations at Consall and Kingsley/Froghall. The Caldon Canal passes through this character area following the line of the River Churnet. The active railway and canal both end at Froghall. The landscape is crisscrossed by a well walked and cycled network of towpaths, extensive Public Rights of Way and informal paths created through the nature parks.

Historic Features
Caldon Canal, Churnet Valley Railway, the Bolton Copperworks, Froghall Wharf, and the Limekilns at Froghall and Consall reference the varied industrial heritage of the area.

Views
Views are generally experienced from higher ground particularly from roads along the boundary of the character area and also along the B5053 within the character area.

Features with Potential for Tourism/Recreation
Consall Nature Park, Combes Valley Nature Reserve, redevelopment of the Key Opportunity Site at Bolton Copperworks, Caldon Canal, Churnet Valley Railway, the disused railway lines and the extensive network of footpaths. Disused buildings have potential for holiday/short break accommodation. The redevelopment of Moneystone Quarry could provide future tourism and recreation within this landscape area.

Landscape Change/Incongruous Landscape Features

Moneystone Quarry lies partly within this landscape area. The busy A52 crosses the area at Froghall. Bolton Copperworks is an industrial site of heritage value.

Analysis of Character Sub Area

a) Strengths

- *Substantial woodland belts.*
- *Small scale landscape around Moneystone Quarry and Foxt.*
- *Strong recreational and tourism opportunities associated with the Churnet Valley Railway, Caldon Canal, Consall Nature Park, Combes Valley Nature Reserve and the Staffordshire Way.*

b) Weaknesses

- *Landscape sensitive to change from tourism pressures and lack of management.*

Opportunities

- *Making better use of the network of paths and rights of way for walking and cycling could divert the concentration of activities away from one key area.*
- *Increased forestry management.*
- *Provision of design guidance for improved tourist facilities e.g. car parking etc*
- *Moneystone Quarry redevelopment as a potential recreation destination.*

Threats

- *The tourist attractions and destination sites result in pressures across the landscape through lack of appropriate facilities, investment and repairs.*
- *Tourist hotspots could result in significant demand for improved infrastructure, such as road improvements and car park facilities, which could result in loss of key landscape features and erosion of the landscape structure.*
- *Erosion of hedgerows is creating a larger scale landscape.*
- *Lack of woodland management will result in the loss of these notable features within the landscape.*

Key Planning and Management Issues

- *Moneystone Quarry Key Opportunity Site*
- *Busy roads*
- *Stock proof fencing and deteriorating hedgerows*
- *Loss of woodland – poor management practices*
- *Tourist and recreation pressures associated with Destination Sites:*
- *Moneystone Quarry redevelopment proposals*

Landscape Planning Guidelines

a. Hedgebanks which are significant local feature should be protected and maintained.

b. Field boundaries should be retained, maintained and, in places, replaced to maintain the scale of the landscape. Stone walls or native hedgerows should be used as a means of enclosure dependent upon local character.

Replacement of hedges and dry stone walls by fencing should be discouraged.

c. *The grouping and form of new buildings should reflect the juxtaposition, scale, form, enclosure and materials of traditional local buildings characteristic of this local area.*

d. *New planting should take account of landform, landscape scale and small field pattern. Consideration should be given to the spatial relationship between woodland blocks and open areas so that the rhythm of the landscape is not disrupted.*

e. *Both broadleaves and conifer species occur in this landscape and new plantings should generally reflect this mix. However woodland plantings should follow best practice advice provided by the Forestry Commission. Care should be taken not to interrupt important views across the landscape. These are generally contained views from within the valley or from higher ground. In particular from Froghall, Caldon Canal towpath, Churnet Valley Railway, and Public Rights of Way.*

f. *Parts of the Key Opportunity Site at Moneystone Quarry are generally well screened from views. However redevelopment proposals should take into account the sensitive nature of the small-scale landscape in terms of its protection. Particular regard should be taken of woodland planting that may result in the infill of this small scale landscape and which can create an adverse impact on the landscape character.*

h. *New broadleaved woodland planting may be needed to reinforce landscape structure and counteract the effects of fragmentation and isolation of ancient woodland.*

l. *Care should be taken not to introduce unnecessary urban features into the rural scene (e.g. signage, urban road kerbs), in particular where providing recreation facilities and new development at the Key Opportunity Sites.*

m. *The colour of prefabricated agricultural buildings should be determined taking careful account of position, predominant tones of adjacent vegetation, local materials and sky, so as to minimise the visual impact of the development.*

n. *Squatter enclosures are very small in scale and should be protected from development and change.*

o. *Small scale landscapes are generally sensitive to change and care should be taken to protecting these areas from development and minimising the loss of landscape features and erosion of the vegetation structure which will result in change of scale.*

p. *Encourage the use of Public Rights of Way through increased access, circular walks, and appropriate signage and interpretation which demonstrate a chosen 'house style' for the Churnet Valley.*

q. *Key viewing opportunities should be created supported by signage and interpretation.*

<u>Land Management Guidelines</u>

The loss of some semi-natural vegetation, particularly ancient woodland, semi-natural grasslands and hedgerows is one of the key planning and management issues for this landscape character type.

a) Ancient/Semi-natural Broad Leaved Woodland

It is highly important to the character and quality of the landscape that

ancient/semi-natural broad leaved woodlands are maintained and enhanced. Degraded sites should be restored and new woodlands should be recreated or regenerated.

Ancient and semi-natural broadleaved woodland is generally particularly important to the form and character of historic parkland landscapes. Similarly the maintenance, safeguarding and restoration of the remains of wood pasture and parkland are also important. It is likely that a number of veteran trees will be found within remnant historic parkland.

There should be more emphasis on conservation and restocking of existing woodlands, and the restoration of semi-natural character to plantations on ancient sites, to maintain the present well wooded character of the landscape.

b) <u>Pasture Land and Horsiculture</u>

Consideration should be given to how good pastoral land management practices can be encouraged and monitored in relation to maintaining the quality of the grassland habitats. This can include rotational grazing with some cropping of hay meadows, maintenance of ditches and restocking of hedgerows. Further consideration should be given to horsiculture practice with guidance and monitoring in relation to appropriate land and field boundary management.

c) <u>Hedgerows</u>

It is highly important that ancient and diverse hedgerows, particularly those with hedgerow trees along them, are maintained and managed. Where hedgerows are planted or restored they should be species rich reflecting local indigenous hedge mixes and that the plants where possible should be grown locally. Consideration should be given to how the current practice of the erection of stock proof fencing rather than maintenance and management of hedgerows can be checked and the retention and maintenance of hedgerows be encouraged.

e) <u>Invasive Species</u>

Along the River Churnet, Himalayan Balsam (Impatiens glandulifera) a non native invasive species has colonised overwhelming native species. Advice and guidance needs to be provided to control Himalayan Balsam and for the reestablishment of native riverbank species.

f) <u>Reedbeds</u>

Opportunities should be taken to maintain and create reedbeds.

g) <u>Rivers and Streams</u>

It is highly important that the quality of all natural existing channel features is maintained and that the quality and quantity of water should be improved. This is particularly relevant in relation to the River Churnet and the industrial heritage at Froghall.

h) <u>Arable Field Margins</u>

Arable field margins should be maintained, improved and restored where possible.

<u>Development within Moneystone Quarry Key Opportunity Site</u>

Redevelopment proposals of Moneystone Quarry should be in-keeping with the scale and nature of the landscape character of the three sub areas within which it is located. Active workings of Moneystone Quarry are generally well

screened from views.
Redevelopment proposals should take into consideration the openness and high visibility of areas outside of the active quarry particularly around Whiston. Development within these locations should be low key and should be of a nature, character and style that are intrinsic to the character of Whiston.
Any housing development should create a contiguous link to Whiston to ensure a natural flow with the village core and be of a layout that reflects the traditional expansion of the village.
Additional planting should be of a nature that complements the informal wooded setting of the Dissected Sandstone Cloughs and Valleys and relates to the existing woodland planting associated with the quarry. Woodland planting should aim take on the form and character of the ancient and semi natural woodland which is typical of the landscape character type. This should avoid the introduction of incongruous woodland blocks within the landscape. Formal planting should be discouraged throughout the redevelopment proposals as it is out of character with the area. Redevelopment proposals should take into account the sensitive nature of the small scale landscape in terms of its protection. Particular regard should be taken of woodland planting that may result in the infill of this small scale landscape and which can create an adverse impact on this landscape character. Proposals should seek to reinforce and appropriately manage existing hedgerows and hedgerow trees.
Development proposals that encourage the use of static caravans and lodges in visible locations should be discouraged. Static caravans and lodges should be located where they do not impinge on the small scale landscape or the open, visible landscape and where they can be well screened by existing vegetation or can be screened by appropriately located new planting.
To minimise the impact of vehicle movements associated with this redevelopment and pressure to carry out visually intrusive road improvement, sustainable transport measures and practice should be considered such as the creating of off road cycle routes to this attraction and partnership working with Moorland and City Railway Ltd to extend local rail access. Necessary road improvements associated with the expansion of the facility should be in-keeping with the character of the area and avoid creating intrusive urban features. Roads within the site should be of a scale and nature that are not intrusive to the landscape character and should minimise hedgerow and tree removal.

3.5.6 1a Dissected Sandstone Cloughs and Valleys - Oakamoor

Location
This Landscape Character Type Sub Area follows the main valley of the River Churnet and its tributaries through Froghall and Consall Forge. It lies between the sub areas of Alton and Oakamoor (1a), and Cheddleton and Longsdon (1c). This character area lies immediately to the east of the site.

Key Characteristics
- *Deeply incised wooded valleys with narrow winding watercourses*
- *Extensive Historic Parkland*
- *Rocky Outcrops*
- *Stone buildings and walls*
- *Italianate influence on buildings in and around Alton*

- *Sheep and cattle farming with smallholdings*
- *Large broadleaf woodlands*
- *Narrow sunken lanes with hedgebanks and tall hedges that limit views*
- *Dominant views to higher ground*
- *Alton Towers Resort (Key Opportunity Site)*
- *Moneystone Quarry (Key Opportunity Site)*
- *Churnet Valley Landscape Character Assessment.*

Capabilities and sensitivities of the landscape to accommodate change
Planning for Landscape Change Supplementary Planning Guidance to Staffordshire and Stoke on Trent Structure Plan, identifies this landscape character type as locally very sensitive to the impacts of development and land use change. The Churnet valley is identified as an area of active landscape conservation.

Geology, Landform and Soils
Deeply incised wooded valleys of the River Churnet and its tributaries associated with Carboniferous and Permo-Triassic sandstones. Strongly undulated with pronounced rounded landform above valley sides and rock outcrops to valley tops. The acid soils, brown earths and stagnogley soils originally supported vegetation communities between lowland and upland heath. These now support extensive woodland areas.

Vegetation
Extensive woodland blocks and belts of deciduous and conifer, much of which is Ancient Woodland. Tall hedgerows and hedgebanks line roads limiting views. Historic parklands are characterised by woodland belts containing open grassland with parkland trees and avenues. Formal pleasure grounds with introduced species are located close to the main house.

Field Pattern and Enclosure
Sunken lanes with extensive hedge banks and tall hedges confine views and create a sense ofenclosure. In places the small intimate wooded valleys contrast with the glimpses of wider distant views. Ramshorn Common is a moorland landscape. Very small scale squatter enclosures are still evident around Toothill.
Land Use and Settlement
Farming varies from large intensive sheep and cattle farms to smallholdings. The main tourist attraction in this area is Alton Towers Resort. Caravan parks are located in Cotton and Alton. Holiday Lodges within woodland on Ramshorn Common. Building styles in Oakamoor are mainly of traditional sandstone, characteristic of the surrounding geology although red brick properties are also found. In Cotton a mix of stone and brick buildings are found including Cotton College, a visually impressive former seminary. In Toot Hill brick properties associated with newer developments dominate. Alton is influenced by its proximity to the historic parkland at Alton Towers, with Italianate style estate properties mixed with traditional stone dwellings. Farley Hall is mock tudor in style with a mix of stone and rendered properties within Farley.

Water Features

The River Churnet is the main water body within the landscape defining the valleys, with numerous tributaries and streams. There are lakes at Alton Towers associated with the designed early 19th Century landscape and park.

Transport and Access

The B5417 passes west-east through this area, and the B5032 forms the boundary to the south of the character type sub area. A network of small lanes is notable within this area as are a substantial network of Public Rights of Way. The lanes are deeply cut and narrow often tree lined or within woodland belts. Disused railway line at the bottom of the valley is used as the Oakamoor/Denstone Greenway Cycleway. Sabrina Way a National Bridleroute Network follows a series of small lanes and Old Carriage Ways. A section of the Staffordshire Way runs through this area. Extensive areas of Open Access Land include Threap Wood, Toothill Wood and Hawksmoor Nature Reserve.

Historic Features

Grade 1 Registered Park and Garden of Alton Towers is laid out around a major early 19th Century Country House. Extensive remnant historic parkland extends around Alton Towers and Farley Hall. Old Carriage Ways associated with Alton Towers run through the woodlands and remain visible today, some extending towards Cheadle in the west. Other historic features include Moor Court Hall and Lightoaks both remnant historic parklands, and Cotton College. Numerous listed buildings associated with the parkland landscapes. Alton and Farley Conservation Area provides further historic reference.

Views

Broad views of the parkland landscape briefly experienced from Farley, where parkland fencing replaces vegetation enabling views. Key views of Alton Castle and Alton Mill are experienced along New Road on the approach to Alton. Further views are generally experienced from higher ground where there are gaps in vegetation.

Features with Potential for Tourism/Recreation

Old Carriage Ways through woodland could be reformed to provide recreation links to Cheadle and re-opening of the railway line between Froghall and Alton could provide alternative transport links. Encourage use of public footpaths and Open Access Land. Moneystone redevelopment proposals and Alton Towers Resort's long term plan proposals could provide further opportunities for recreation and tourism.

Landscape Change/Incongruous Landscape Features

- *Alton Towers Resort and associated busy roads and realigned junctions.*
- *Stock proof fencing and deteriorating hedgerows.*
- *More recent development with no reference to building character within the area.*

Analysis of Character Sub Area

a) Strengths

- *Substantial woodland belts.*
- *Stone vernacular to small settlements.*

- *Very small- scale landscape associated with squatter enclosures.*
- *Strong valley features with rocky outcrops.*
- *Registered Historic Park and Garden at Alton Towers and extensive remnant historic parkland including Farley.*
- *Focal points of Alton Towers and Alton Castle and key vantage points from high ground.*
- *Open Access Land and network of Public Rights of Way.*
- *The Staffordshire Way.*
- *Sabrina Way Bridleway.*
- *Denstone/Oakamoor Cycleway.*

b) Weaknesses

- *More recent development with no reference to local vernacular or pattern.*
- *Alton Towers Resort has resulted in changes to the local road network increasing junction sizes, with busy roads which create access problems for local residents and businesses.*
- *Stock proof and chain link fencing providing uncharacteristic boundaries.*
- *Abandoned development at Cotton College.*

c) Opportunities

- *Making better use of Open Access Land and network of paths and rights of way for walking and cycling.*
- *Encourage good farming practices to maintain/replant hedgerows.*
- *Forestry management schemes to maintain biodiversity and good quality woodland.*
- *Create viewing opportunities with signage and interpretation.*
- *Moneystone Quarry redevelopment as a potential recreation destination.*

d) Threats

- *Erosion of hedgerows is creating a larger scale landform.*
- *Tourist hotspots could result in further significant demand for improved infrastructure, road improvements and car park facilities, which need to be well managed so as not to result in loss of*
- *key landscape features and erosion of the landscape structure.*
- *Moneystone Quarry redevelopment proposals may cause loss of small scale landscape features further eroding the character of the local landscape.*
- *Lack of woodland management will result in the loss of these notable features within the landscape.*

<u>Planning and Management Issues/Future Pressures</u>

- *•Part of the Moneystone Quarry Key Opportunity Site*
- *Route of disused railway line • Busy roads*
- *Modern agricultural practice resulting in change of landscape scale through enlarging field sizes*
- *Stock proof fencing and deteriorating hedgerows*
- *Loss of woodland – poor management practices*
- *Tourism and recreation associated with Destinations Sites:*
- *Moneystone Quarry (in part)*

Landscape Planning Guidelines

a. *Hedgebanks which are significant local feature should be protected and maintained.*

b. *Field boundaries should be retained, maintained and, in places, replaced to maintain the scale of the landscape. Stone walls or native hedgerows should be used as a means of enclosure dependent upon local character. Replacement of hedges and drystone walls by fencing should be discouraged.*

c. *The grouping and form of new buildings should reflect the juxtaposition, scale, form, enclosure and materials of traditional local buildings characteristic of this area. The influence of the building style associated with the historic parkland at Alton Towers extends into adjacent settlements.*

d. *New planting should take account of landform, landscape scale and small field pattern. Consideration should be given to the spatial relationship between woodland blocks and open areas so that the rhythm of the landscape is not disrupted.*

e. *Both broadleaves and conifer species occur in this landscape and new plantings should generally reflect this mix. However woodland plantings should follow best practice advice provided by the Forestry Commission. Care should be taken not to interrupt important views across the landscape in particular from higher ground towards Alton Towers and Alton Castle, from Farley and Oakamoor.*

f. *The Key Opportunity Site at Moneystone Quarry is generally well screened from view. However redevelopment proposals should take into account the sensitive nature of the small-scale landscape in terms of its protection. Particular regard should be taken of woodland planting that may result in the infill of this small scale landscape and which can create an adverse impact on the landscape character.*

g. *New broadleaved woodland planting could be used effectively to counteract the effects of fragmentation and isolation of ancient woodland although this must consider the context and form of the existing woodland, and due regard to small scale landscape and squatter enclosures.*

h. *Development and new tree planting including that within the Key Opportunities Site of Alton Towers should take account of the setting of the Registered Parkland of Alton Towers and the extensive remnant historic parkland of Alton Park and Farley, of the setting of important buildings and of important local views. Any proposals for development or land use change which impacts upon the setting of an historic parkland must take account of the unique character of that designed landscape.*

k. *Care should be taken not to introduce unnecessary urban features into the rural scene (e.g. signage, urban road kerbs) including Oakamoor, Alton and Farley, particularly as a result of the influence of Alton Towers Resort.*

l. *The colour of prefabricated agricultural buildings should be determined taking careful account of position, predominant tones of adjacent vegetation, local materials and sky, so as to minimise the visual impact of the development.*

m. *Squatter enclosures are very small in scale and should be protected from*

development and change.

n. *Small scale landscapes are generally sensitive to change and care should be taken to protect these areas from development and minimising the loss of landscape features and erosion of the vegetation structure which will result in change of scale.*

o. *Encourage the use of Open Access Land, Public Rights of Way, cycleways, and bridleways through increased access, circular walks, and appropriate signage and interpretation which demonstrate a chosen 'house style' for the Churnet Valley. Existing old Carriage Ways through woodland, associated with Alton Towers, should be considered for restoration to provide recreational links from Cheadle to Alton Towers and the Churnet Valley.*

q. *Rocky outcrops are a notable feature in this landscape character type sub area and should be retained and protected from development or change.*

r. *Key viewing opportunities should be created supported by signage and interpretation.*

s. *Consideration should be given with the development of any lodges for recreational development, taking careful account of position, loss of valuable woodland or creation of screen woodlands with regard to the sensitive landscape and existing woodland form, materials, and access, to prevent any visual impact of the development or new planting.*

t. *Consideration should be given to providing recreational opportunities along the Sabrina Way Bridleway for long distance horse riding accommodation. This small scale form of development should be considered alongside all other landscape planning guidelines specific to this area.*

<u>Land Management Guidelines</u>

a) *Ancient/Semi-natural Broad Leaved Woodland It is highly important to the character and quality of the landscape that ancient/semi-natural broad leaved woodlands are maintained and enhanced. Degraded sites should be restored and new woodlands should be recreated or regenerated.*

Ancient and semi-natural broadleaved woodland is generally particularly important to the form and character of historic parkland landscapes. Similarly the maintenance, safeguarding and restoration of wood pasture and parkland is also important. It is also likely that a number of veteran trees will be found within an historic parkland. There should be more emphasis on conservation and restocking of existing woodlands, and the restoration of semi-natural character to plantations on ancient sites, to maintain the present well wooded character of the landscape.

b) *Pasture Land and Horsiculture Consideration should be given to how good pastoral land management practices can be encouraged and monitored in relation to maintaining the quality of the grassland habitats. This can include rotational grazing with some cropping of hay meadows, maintenance of ditches and restocking of hedgerows. Further consideration should be given to horsiculture practice through provision of guidance and monitoring of appropriate land and field boundary management.*

c) *<u>Hedgerows</u>*

It is highly important that ancient and diverse hedgerows, particularly those with hedgerow trees along them, are maintained and managed. Where hedgerows are planted or restored they should be species rich reflecting local indigenous hedge mixes and that the plants where possible should be grown locally. Consideration should be given to how the current practice of the erection of stock proof fencing rather than maintenance and management of hedgerows can be checked and the retention and maintenance of hedgerows be encouraged.

d. *Heathland*

It is of high importance that heath at Ramshorn Common is protected from development and damaging activities and that former heathland areas are re-created and new heathlands are created.

f) *Reedbeds*

Opportunities should be taken to maintain and create reedbeds.

g) *Rivers and Streams*

it is highly important that the quality of all natural existing channel features is maintained and that the quality and quantity of water should be improved.

h) *Invasive Species*

Along the River Churnet, Himalayan Balsam (Impatiens glandulifera) a non native invasive species has colonised overwhelming native species. Advice and guidance needs to be provided to control Himalayan Balsam and for the reestablishment of native riverbank species.

i) *Wet Woodland*

Wet woodland should be maintained, enhanced, restored and that further losses are prevented. Opportunities should be sought to increase the number and extent of these woodlands.

j) *Arable Field Margins*

Arable field margins should be maintained, improved and restored where possible

3.5.7 Dissected Sandstone Highland Fringe 3a - Ipstones and Whiston

Location

This character area covers the northern sections of the site, north of Eaves Lane. It lies between the Dissected Sandstone Cloughs and Valleys of the Churne Valley (1a and 1b) and the Gritstone Highland Fringe (outside of the study area) that extends through into the Peak Park.

Key Characteristics

- *Steep sided valleys and rounded dissected landform*
- *Narrow wooded stream valleys*
- *Intact small to medium scale pastoral landscape*
- *Fields hedge lined or bounded by dry stone walls*
- *Scattered hedgerow trees*
- *Stone built farmhouses*
- *Narrow, steep and winding lanes*
- *Wide and distant views*
- *Moneystone Quarry (Key Opportunity Site).*

Capabilities and sensitivities of the landscape to accommodate change

Planning for Landscape Change Supplementary Planning Guidance to Staffordshire and Stoke on Trent Structure Plan, identifies this landscape character type as locally very sensitive to the impacts of development and land use change. It is identified as an area of landscape maintenance. This is one of few landscapes within Staffordshire that is identified in the Supplementary Planning Guidance as sensitive to woodland planting.

Geology, Landform and Soils

Steep sided valleys with small streams create a rounded dissected landform with wooded valleys leading from an open highland edge.

Vegetation

The area is not as vegetated as the Sandstone Cloughs and Valleys although the valleys remain wooded. The broadleaved woodlands of the valleys have been extended by the introduction of large blocks of conifer. The condition of hedgerows is variable. Hedgerows contain small plots with isolated trees to the boundaries that reduce the scale of the landscape. In places poor maintenance has resulted in overgrown remnant hedgerows often consisting of single lines of trees. Broadleaved woodland tree species comprise oak, rowan, birch, beech and sycamore. Holly can be locally significant as a hedge species.

Field Pattern and Enclosure

Fields are small scale and generally enclosed by hedges. However in parts the hedges are poorly maintained displaying large gaps, giving a larger sense of scale. Post and wire fencing has replaced some hedgerows for stock control. Along the boundaries of the gritstone character area, drystone walls are used more widely to enclose fields. A number of squatter enclosures within the area provide a very small scale landscape.

Land Use and Settlement

This is mainly a pastoral landscape with sheep and cattle farming. Commercial forestry plantations to the east of Moneystone Quarry. A golf course is located at Whiston. Extensive quarrying at Moneystone Quarry lies south east of Whiston crossing into the Dissected Sandstone Cloughs and Valleys (1b). The Key Opportunity Site of Moneystone Quarry lies partly within this sub area. Small villages and individual properties have developed along the lanes. Properties are mainly constructed of stone or red brick. Farms are generally in poor condition showing signs of dilapidation. The main settlements are Ipstones, Upper Cotton, Whiston and Foxt.

Water Features

Tributaries to the River Churnet provide small wooded valleys within the landscape. Small streams and ditches are prevalent within this landscape running along field boundaries.

Transport and Access

The busy A52 and the B5053 cut across the character area. Minor roads around the area are narrow, steep and winding. There is a substantial network of Public Rights of Way within this area. Sabrina Way, a National

Bridle route Network, follows a series of small lanes through this character area 3a connecting the southern Dissected Sandstone Cloughs and Valleys around Alton (1a) to the Gritstone Highland Fringe to the east.

Historic Features
The small scale landscape is largely intact reflecting the historic field patterns. A number of squatter enclosures provide a very small scale landscape.

Views
Extensive views from high ground with an open aspect across the landscape.

Features with Potential for Tourism/Recreation
The extensive network of Public Rights of Way and the Sabrina Way provides opportunities for encouraging riding and walks through the area. Moneystone Quarry redevelopment proposals could provide additional recreational opportunities within the area.

Landscape Change/Incongruous Landscape Features
Run down isolated farms and buildings. Post and wire fencing has replaced the hedgerows for stock control. Busy roads. Moneystone Quarry.

Analysis of Character Sub Area

a) Strengths
- *The small scale landscape and squatter enclosure that reflect historic field patterns are particularly evident within this landscape.*
- *Villages of Whiston and Foxt generally retain context and recent development respects local vernacular.*
- *Views from high ground.*

b) Weaknesses
- *Busy main roads.*

c). Opportunities
- *Redevelopment proposals of Moneystone Quarry should provide recreational opportunities.*
- *Extensive Public Rights of Way.*
- *Management plans for field management.*

d) Threats
- *Suburban influences on village character.*
- *Erosion of field boundaries is creating a larger scale landform.*
- *Tourist hotspots could result in further significant demand for improved infrastructure, road improvements and car park facilities, which need to be well managed so as not to result in loss of key landscape features and erosion of the landscape structure.*

Key Planning and Management Issues
- *Part of the Moneystone Quarry Key Opportunity Site*
- *Run down, isolated farmsteads*

- *Busy roads*
- *Large scale agricultural pressures*
- *Stock proof fencing and deteriorating hedgerows and dry stone walls*
- *Tourism and Recreation associated with Destinations Sites:*

<u>Landscape Planning Guidelines</u>

a. The open character of the upland edge should be maintained.

b. Field boundaries should be retained, maintained and, in places, replaced to maintain the scale of the landscape. Stone walls or native hedgerows should be used as a means of enclosure dependent upon local character. Replacement of hedges and dry stone walls by fencing should be discouraged.

c. Improvements to run down and isolated farms and buildings should be encouraged but changes that detract from local character and over urbanise properties and their settings should be avoided

d. The grouping and form of new buildings should reflect the juxtaposition, scale, form, enclosure and materials of traditional farm buildings characteristic of this area.

e. There are limited opportunities for additional woodland planting. Planting should be generally restricted to the valleys where additional small scale plantings can reinforce the existing vegetation and landscape structure. Woodland plantings should follow best practice advice provided by the Forestry Commission.

f. The Key Opportunity Site at Moneystone Quarry is generally well screened from views. However redevelopment proposals should take into account the sensitive nature of the small-scale landscape in terms of its protection. This impacts on the setting of Whiston. Any housing development associated with Moneystone Quarry near to Whiston should be low key and should be of a nature, character and style that are intrinsic to the character of Whiston. Particular regard should be taken of woodland planting that may result in the infill of this small scale landscape and which can create an adverse impact on the landscape character.

g. Care should be taken not to introduce unnecessary urban features into the rural scene (e.g. excessive or inappropriate signage, urban road kerbs).

h. The colour of prefabricated agricultural buildings should be determined taking careful account of position, predominant tones of adjacent vegetation, local materials and sky, so as to minimise the visual impact of the development. The scale of these buildings should be minimised where possible to reflect the scale of the landscape. Planting may also be used to reduce visual scale.

i. Squatter enclosures are very small in scale and should be protected from development and change.

j. This character sub area has a large proportion of small-scale landscape. Small scale landscapes are generally sensitive to change and care should be taken to protecting these areas from development and minimising the loss of landscape features and erosion of the vegetation structure which will result in change of scale.

k. Encourage the use of Open Access Land, Public Rights of Way, and bridleways through increased access, circular walks, and appropriate

signage and interpretation which demonstrate a chosen 'house style' for the Churnet Valley.

m. *Consideration should be given to providing recreational opportunities along the Sabrina Way Bridleway for long distance horse riding accommodation with livery. This small scale form of development should be considered alongside all other landscape planning guidelines specific to this area.*

n. *Key viewing opportunities should be created supported by signage and interpretation.*

Land Management Guidelines

a) *Pasture Land and Horsiculture Consideration should be given to how good pastoral land management practices can be encouraged and monitored in relation to maintaining the quality of the grassland habitats. This can include rotational grazing with some cropping of hay meadows maintenance of ditches and restocking of hedgerows. Further consideration should be given to horsiculture practice with guidance and monitoring in relation to appropriate land and field boundary management.*

b) *Hedgerows/Dry Stone Walls*
It is highly important that ancient and diverse hedgerows, particularly those with hedgerow trees along them, are maintained and managed. Where hedgerows are planted or restored they should be species rich reflecting local indigenous hedge mixes and that the plants where possible should be grown locally. Consideration should be given to how the current practice of the erection of stock proof fencing rather than maintenance and management of hedgerows/dry stone walls can be checked and the retention and maintenance of hedgerows/dry stone walls be encouraged.

c) *Lakes and Ponds*
The maintenance, enhancement and increasing the number of water bodies is a lower priority. However, the redevelopment of the Key Opportunity Site at Moneystone Quarry could provide lakes for recreation and wildlife.

d) *Streams*
It is highly important that the quality of all natural existing channel features is maintained and that the quality and quantity of water should be improved.

e) *Wet Woodland*
It is highly important that wet woodland is maintained, enhanced, restored and that further losses are prevented. Opportunities should be sought to increase the number and extent of these woodlands.

3.5.8 On site observations confirmed the findings the Churnet Valley Landscape Character Assessment and broadly agree with the landscape planning and landscape management guidelines above. Due to the sensitive nature and relatively large scale of Moneystone Quarry, which contrasts with the surrounding rural land use, character areas 1a, 1b and 3a will be taken forward as landscape receptors in this report.

3.6 Local Landscape Character

3.6.1 The immediate surroundings of the application area are generally contained by broadleaved woodlands and other areas of the former quarry. The quarry is divided into 2 distinct areas north and south of Eaves Lane which is visually separated by the higher level lane. Likewise quarry 3 is a distinct and incongruous low-level excavation separated from the main quarry by the access road, but not visually prominent across the wider landscape.

3.6.2 Quarry 1 is representative of a disturbed industrial site. The silt ponds are larger scale waterbodies in the north of the area with unsympathetic engineered bunds and embankments. Plant and buildings have recently been removed across the processing plant area and the light coloured silica sand is visually prominent when viewed from localised areas off-site. With the quarry restoration scheme of open grassland, scrub, woodland planting, wetland and natural regeneration the adverse and incongruous effects of the recently worked quarry on the local landscape character should be reduced. The retained infrastructure and buildings associated with former quarry activities however are prominent local features detracting from the high quality of the local landscape elsewhere.

3.6.3 Quarry 2 is a large scale man-made feature cut down into the hill side and is locally less visually prominent, although upper sections of the quarry faces are visible at longer distance from the south. The woodland screening around the quarry plays a major role in reducing its impact across the more sensitive rural landscape surrounding it.

3.6.4 The recently worked quarry floor, large scale silt pond in the west and stockpiles of tailings have resulted in a derelict industrial character. The high level of enclosure, steep quarry side and lack on any human activity, buildings or other development the quarry however gives quarry 2 a remote and quiet character. With the proposed restoration scheme the area should become less industrial in character with the softening of quarry sides and greening of the quarry floor. However the man-made landform as a result of quarrying is likely to remain overall and contrasts with the surrounding rural landscape.

3.6.5 Together with the surrounding undulating landform and other off-site woodlands the extent of the influence of the quarry on the surrounding landscape and wider rural countryside is very limited. The recently worked quarry strongly influences the sites character. The approved quarry restoration should re-establish a higher quality landscape across the quarry. However the influence of the quarry is unlikely to be completely removed but will go some way to reducing the residual industrial character and enhance the natural habitat/wildlife and bio-diversity value of the site and local area site.

3.6.6 Any development should aim to be located within the quarry to minimise and effects on the highly sensitive local landscape beyond the quarry boundaries. It should take advantage of the existing vegetation and new green infrastructure introduced as part of the approved restoration scheme to reduce visual impacts within the local area.

4.0 VISUAL AMENITY AND VIEWS -BASELINE

4.1 Introduction

4.1.1 This section examines the influence of the landscape on the visual amenity in the area, focusing on landform, vegetation and key visual features and characteristics, linked back to the previous landscape character descriptions as appropriate. This is followed by the visibility and the key views photographed for the assessment. Existing visibility of the site is illustrated on analysis plan Figure ACLA/BTH 04. Key viewpoints selected for the LVIA are included on photo sheets in Appendix 3.

4.2 Landform

4.2.1 The solar PV proposals are located over two sites (see plan ACLA/BTH 06) within Moneystone Quarry. The solar PV sites are set below a ridgeline with a predominantly southerly aspect, which rises to approximately 290m AOD to the north of the quarry near Blakeley Farm. The quarry boundaries rise to 240m to the northern edge and fall to approximately 150m on the southern boundary. To the south the topography falls towards the River Churnet Valley, (110m AOD at 200m to the south). The excavated quarry floor to the north of Eaves Lane is generally well enclosed by surrounding quarry faces and mature woodland vegetation which will be retained as part of the approved quarry restoration scheme. The quarry floor is part restored and final restoration levels will be between approximately 40-35m below the surrounding landscape. The proposed solar PV arrays will be located on the restored quarry floor. The key components of the current situation and revised restoration scheme together with a description of the proposals have been discussed in section 1.0 at the beginning of this report.

4.2.3 The site is located in a predominantly rural landscape of scattered farmsteads and isolated properties with small to medium scale fields. There is a high proportion of mainly ancient and semi-ancient deciduous woodland cover to the south of the site. This contrasts sharply with the industrial character of the quarry itself. The combination of local ridgeline and surrounding woodlands and tree belts contribute significantly to reducing the impacts of the quarry on the character surrounding rural landscape. The views to the proposals are therefore generally only available from close distance footpaths, properties, farms and Eaves Lane. Occasional longer distance views from elevated valley sides with a northerly aspect, to the south of the River Churnet, are also possible, together with views to localised area on more distant ridgelines to the west. For an additional assessment of views, see section 1.0 of this report.

4.2.4 Area E is located to the south of Eaves Lane and occupies the former processing area. Demolition and remedial works in area E have been completed and the site has been graded to provide a gently sloping surface. Area E was hydro-seeded in autumn 2014. However, the proposed restoration scheme will reduce the visual impact of these features over time and the existing vegetation which filters and screens may views will be retained. Further broadleaf planting will be implemented along the quarry

access road access and along the north west of the application boundary, which will further screen views over time. As the quarry is at a lower level than the surrounding landscape, and often screened by intervening trees and woodland blocks, close and long distance views from the east and north and from Oakamoor are generally screened.

4.2.5 To the north of the site, on the rising ground, field patterns are larger in scale and more open in nature. These fields are of a moorland character and often contained by drystone walls. To the south of the quarry, the landscape is more enclosed and small-scale with occasional longer distance views to the valley sides. This area comprises a complex topography of deeper wooded valleys and wooded valley sides. To the west, settlement patterns within the study area are dispersed and tend to be nucleated and linear settlements located on ridgelines. To the south and east, settlements tend to be located within valleys. The village of Whiston sits on a ridgeline approximately 0.8km to the north-west. Froghall and Kinsley Holt is located on a ridgeline 1.8km to the west. Cheadle is located at 4km to the south-west and also partly set on a ridgeline. The village of Oakamoor is located at 0.8km to the south-east in a deep valley and Alton Towers is located at 3 km to the south-east. The lower elevations adjacent to the site are visually enclosed by boundary tree belts, woodlands and valley sides. Views to the site are predominantly from glimpsed close distance views and longer distance views to the west and occasionally to the south. These viewpoints will be discussed in detail later on in the report.

4.3 Views - Within 1km of the Site

4.3.1 There are a number of areas close to the site that have been identified as having views to the proposals.

4.3.2 From Eves Lane there could be potential views to the solar arrays in quarry 2 (area D). These views are below the tree canopies of roadside tree belts, as well as more limited views to the southern quarry area 1. These views are limited to locations on Eaves Lane adjacent to the quarry only and likely to be less prominent in summer. The existing quarry entrance and western boundary is more open than other areas surrounding the quarry. Therefore there are potential views to the development areas from the ‘Kingsley 49’ PRoW along the quarry access road together with views from Little Eaves Farm, which is set on a ridgeline overlooking the southern areas of the application at approximately 300m from the boundary.

4.3.3 Views from Little Eaves Farm and the adjacent PRoW will remain partially screened although summer views will be less extensive with leaf cover. The views form the quarry access will become further screened over time as the proposed woodland planting as part of the quarry restoration scheme matures to the eastern boundary of the road. Workers at Sibelco Laboratories close to the quarry entrance will also have views to the western perimeters of area E. Other receptors such as Cottage Farm and Littleheath House Farm, within 1km of the western boundary, were not identified as having visibility due to intervening ridgelines and tree screening.

4.3.4 Crowtrees Farm, Hightrees and associated PRoW, approximately 200m north east from the southern application areas, have elevated views to quarry 1 (area E). However views are generally filtered and screened by boundary tree blocks and other intervening vegetation which will be retained and views are likely to be less prominent during summer due to leaf cover. Views are not possible into quarry 2 from these eastern boundary locations due to the low level of the proposals.

4.3.5 Other views where identified at 1km from the site, on the southern valley sides of the River Churnet in the area of Lightoaks on the B5417. Views towards the processing area, in the southern quarry 1 (area E), are possible through boundary tree belts. When the trees are in leaf it is likely that the views will be substantially reduced. Potential views into quarry 2 (area D & B) are screened by mature tree belts bordering Eaves Lane. These views are more prominent at the moment because of the substantial areas of white silica sand, which contrast with subdued colours of the surrounding fields and woodlands. The white silica sand will progressively green up as part of the quarry restoration.

4.3.6 Partial views are possible towards some lower sections of quarry 2 from localised areas on the PRoW 'Kinglsey 50' to the west of the quarry at up to 1km, between the quarry and Whiston, although potential views from the majority of potential views are screened by quarry boundary plantations and bunds. No other views from PRoW were identified within the 1km study area. Areas on the valley floors tend to be screened by substantial woodlands around the quarry boundary.

4.3.7 Moneystone Cottages are located close to eastern the boundary of the northern quarry 2. There are potential views from the upper windows of these properties to the southern areas of quarry 2. The views where identified from within the quarry and no views could be established from the cottages due to access issues. No other views were established from residential properties or farms including Blakely Farm, to the north of the proposals. Views from properties and buildings in and around Oakamoor are not possible due to intervening woodlands and valley side topography and ridgelines.

4.3.8 A proposed PRoW will run along and through the woodlands on the eastern boundary of quarry 2. There may be some localised views towards the arrays in area D where the woodland is less extensive particularly, to the west of Moneystone Cottages. In many other locations along the proposed PRoW the dense woodlands should screen views. Any thinning outlined in the approved quarry management plan should aim to preserve the overall integrity and screening potential of the woodlands on the eastern boundary of quarry 2.

4.3.9 In summary: the quarry faces, location, mitigation measures to screen the former quarry and existing woodland cover and topography have been effective in substantially limiting the visual effects to a relatively small number of receptors. With additional woodland planting and retention of the woodlands and tree belts as part of the approved quarry restoration scheme

the current level of screening will be retained and further enhanced over time. From many location summer views are also likely to be far less prominent when vegetation is in leaf. The key receptors are listed below on which the proposals could have a visual effect within approximately 1km of the site. The complete list of potential visual receptors are assessed in detail in Appendix 1, table 5.

- Eves Lane
  Dividing the quarry sites.
- Little Eves Farm
  300m from the western boundary.
- Crowtrees Farm
  200m from the eastern boundary.
- High Trees
  A detached property 270m north east of the boundary.
- Moneystone Cottages & other properties
  Small group of properties 200m from the eastern boundary.
- PRoW ,Kingsley 49
  On the access to Little Eaves farm leading off the site access.
- PRoW Kingsley 50
  Leading to Whiston, from the north west site boundary.
- PRoW Oakamoor 7
  Behind Crowtrees Farm 200m from the eastern boundary.
- Lightoaks and environs on the B5417
  Properties, roads and other publicly accessible areas.

4.4 Views - Within 1 to 5km of the Site

4.4.1 More distant views to the proposals are relatively few and can be difficult to locate through the wider study area due to the undulating landform and often extensive tree cover. Eastern, northern and south-eastern views (from Oakamoor and environs) are screened by intervening woodlands and topography. Locations on ridgelines to the west have some limited views to the quarry faces and stockpiles in quarry 2, and hence potential views to the proposals in areas B & D. Localised filtered views could be possible from areas at higher elevations to the eastern boundaries of Whiston, such as Whiston Hall into the eastern sections of quarry 2. No views could be identified from properties in Whiston or from locations to the south of Whiston, such as properties on Ross Lane or from Eaves Lane leading out of Whiston due to screening by local ridgelines and woodland blocks. Localised and filtered views are possible from paths at isolated locations at Hawksmoor Nature Reserve at 2km to the south-west and properties and roads in and around Kinglsey Holt, and Lockwood Hall, at just over 2km to the west. There is the potential for long distance views to Cheadle, although no specific locations could be identified during the site visit and views are not likely to be significant at this distance. Higher wooded ridgelines to the south are visible from the quarries although no specific visual receptors of publicly accessible location with views could be located in this area during the site visit. There are no views from Alton Towers, properties or other visual receptors to the east and north due to intervening woodlands and ridgelines. For the purposes of this report, visual receptors between 1 to 5km of the site will be referred to in general terms rather than as individual receptors, as appropriate.

4.5 The Existing Zone of Visual Influence

4.5.1 Due to the complicated topography of the quarry, the proposed restoration scheme and substantial screening elements a bare earth computer generated Zone of Theoretical Visibility plan (ZTV) has not judged to be a useful tool to illustrate the visual impacts of the proposals. The alternative recognised approach has been to produce a visual analysis plan using topographical analysis and on-site viewpoint surveys as illustrated on figure ACLA/BTH 04. This will be discussed further in the visual impact assessment section of this report. The visual analysis has been conducted according to the methodology contained in Appendix 4.

5.5.2 Based on the topographical study in combination with field observations, the distance boundaries for the assessment have been set as follows:

- At up to 1km Close Distance – the solar PV array and associated infrastructure are likely to be recognisable and a prominent new element in views;
- At 1km to 2km Middle Distance – solar PV array and associated infrastructure likely to be a recognisable but not prominent new element in views;
- At 2km to 5km Long Distance – may be noticed in clear conditions but without perception of detail;
- Over 5km Very Long Distance – solar PV array and associated infrastructure are unlikely to be perceptible.

4.5.3 <u>Brief Description of Key Viewpoints</u>

The key views for the appraisal were selected from a number of viewpoints assessed in the field based on an initial evaluation of the topography and a site survey. They have been selected to provide a typical range of receptors, distance and directions of view. Those areas visited but omitted included Oakamoor, Froghall, Cotton and the Cauldon and the Weaver Hills area, to the north-east. The viewpoints are discussed in Appendix 1.

Table.1 Key Viewpoints		
Key View	***Easting, Northings***	***Description***
1- From the existing quarry access and & PRoW 'Kingsley 49'	E404387 N345977	Close distance view south (approximately 140m to proposed PV array area E (in quarry 1). Elevation 175m AOD. The quarry entrance is visible towards the centre. Potential view will be partly screened by existing vegetation. Views will be towards the western perimeters of the arrays and possible parts of the rear of the panels and proposed security fencing in area E. View towards the switch gear, inverter and transformer cabin may be possible although viewed in context with Sibelco Labs and associated infrastructure. Selected to represent localised views experienced by PRoW users. Planting as part of the quarry restoration is likely to screen views within 5 to 10 years.
2- From PRoW 'Kingsley 49' & Little Eaves Farm	E404157 N345969	Close distance view looking east and south east at approximately 400m to the proposed PV arrays in area E. Elevation 183m AOD. Potential views are from the PRoW running to the rear of Little Eaves Farm and represented localised views on the ridgeline overlooking quarry area 1 & partial /glimpsed side views to the arrays. Views are partly screened by boundary vegetation, particularly to the south. Selected to represent localised partial views experienced to the proposals boundary from the footpath and Little Eaves Farm. There were no views identified to the northern quarry area 2. Planting as part of the quarry restoration is likely to screen views within 5 to 10 years.
3-From PRoW 'Kingsley 49' on the eastern boundary of the quarry access.	E404443 N346083	Close distance views looking south-east at approximately 260m to proposed PV array area E. Elevation 184m AOD. Generally well screened locally by mature tree belts to the quarry access. Glimpsed and partial views over the settlement lagoons to the rear of the arrays in quarry 1. When vegetation is in leaf these views are likely to be screened. Selected to represent typical views experienced from the PRoW at higher elevations.
4- From Eaves Lane, close to the quarry entrance road into quarry 2.	E404494 N346188	Approximately 260m distance to proposed PV array areas in the northern quarry 2. Close distance view looking north-east from Eaves Lane. Elevation 195m AOD. The proposed quarry floor PV arrays are screened and at low- level. The views are to the northern quarry faces and the tailings stockpiles in quarry 2 (part location of area B). Selected to represent typical very localised & glimpsed views experienced by users of Eaves Lane in the immediate vicinity of the quarry looking north.

Table.1 Key Viewpoints		
Key View	***Easting, Northings***	***Description***
5- From Eaves Lane west of Cowtrees Farm	E404811 N346074	Close distance view looking south at approximately 280m to proposed PV array area E, in quarry 1. Elevation 202m AOD. Occasional filtered and partial views below the canopies of tree belts lining the lane to the rear of the proposed PV panels. The view is likely to be further screened over time by woodland planting within the quarry floor as part of the quarry restoration. Selected to represent typical views experienced by users of Eaves Lane in the immediate vicinity of the quarry, looking south.
6-From PRoW 'Oakamoor 7' adjacent to Cowtrees Farm	E405019 N345909	Close distance partially screened view looking south west to the proposed PV arrays area E in quarry 1. Elevation 200m AOD. Elevated panoramic views to quarry 1 through site boundary tree belts to the side/rear elevations of the arrays. Summer views to area E are likely to be less extensive when vegetation is in leaf. The view is in context with other infrastructure such as Sibelco Labs adjacent to the quarry. Selected to represent typical close distance views from PRoWs, Crowtrees farm and potentially Hightrees property to the east of the proposals.
7-From a PRoW 'Kingsley 50' within Whiston Hall golf course to the north west of the proposals.	E404295 N347021	Middle distance views at approximately 530m to quarry 2 looking south east. Elevation 237m AOD. Views from a localised area on a PRoW and represents the effectiveness of the boundary tree belt screening to be retained as part of the quarry restoration. Localised filtered and glimpsed views to small sections of the area D and possibly E. When vegetation is in leaf these views are likely to be less extensive. Views to quarry 1 are not possible from these areas due to topography and tree belt screening. Selected to represent potential possible views on PRoW and properties in and around the eastern edge of Whiston, including Whiston Hall (no views from Whiston identified during the site visit).
8- From the B5417 1km to the south of the proposals	E404550 N344500	Middle/long distance views looking north and north-east. approximately 1 km south of the site. Elevation 178m AOD. Typical elevated views for a localised area to the south of the River Churnet. Views are filtered by boundary vegetation to quarry 1 (area E) and screened by tree belts adjacent to Eaves Lane to quarry 2 (areas B & D) Selected to represent typical partially screened views from roads, properties and other publicly accessible areas.

Table.1 Key Viewpoints		
Key View	***Easting, Northings***	***Description***
9-From Hawksmoor Wood	E403249 N344038	Long distance views from within mature woodlands at approximately 2km to the south west. Elevation 226m AOD. Potential views are glimpsed and occasionally from localised sections on footpath within the upper areas of the reserve only. Views are possible to sections of quarries 1 and 2. When vegetation is in leaf views are likely to be less extensive and/or screened. Selected to represent occasional or glimpsed views from long distance to the south west.
10-From Lockwood Road on the southern perimeters of Kingsley Holt.	E402184 N345914	Long distance views at approximately 2.2km to the west. Elevation 197m AOD. Occasional elevated views particularly to the more elevated areas within quarry 2 and parts of area B. Views to lower levels within the quarry are generally screened by woodlands and intervening ridgelines. Views to quarry 1 are screened by topography and intervening mature vegetation. Selected to represent typical views form PRoW, properties and roads from Lockwood Road and Kingsley Holt.

4.6 Potential Landscape and Visual Receptors

4.6.1 Based on reviews for the proposed PV solar array, combined with field observations and professional judgement, those landscape and visual receptors that potentially may experience an effect as a result of the proposals are outlined in appendix 1.

4.6.2 Other receptors considered unlikely to experience effects, either due to their location in areas without views or at such a distance that the development would not be perceived as a distinct element in the view, are not considered further in the assessment as outlined in the baseline section.

4.6.3 Some individual properties and paths may not be included if key receptors have been discussed that are similar to views from those receptors. Key receptors include properties within 1km radius and local PRoW within 1km radius around the site, settlements, main roads, trails and other receptors selected by professional judgement during site work and desk study. The aim is to present a thorough and reasoned evaluation of the whole study area whilst keeping the amount of information at a reasonable and accessible level of information.

Table 2 Potential Landscape Receptors			
Receptor	**Approximate Distance and direction from site**	**Sensitivity**	**Description of existing situation & quarry restoration scheme**
Green Belt	2.2km west of the proposals	Medium	The primary function of the green belt is to prevent inappropriate development within its boundaries. The site constitutes a minor element within the wider surrounding landscape and there will be no direct impacts on the Green Belt. Solar development within the quarry has limited potential to affect the setting of relatively small areas on the eastern sections of the extensive coverage of the Green Belt.
Whiston Eaves SSSI	600m to the west of the proposals	High	Due to the proximity of the site development within the quarry this has the potential to affect the setting of the SSSI but will not have a direct effect on the material integrity of the area.
Nature Reserve at Cotton Dell	1km to the east	High	Due to the proximity of the development and the large scale of the reserve there is the potential to affect the setting of Cotton Dell Nature Reserve. However, there will be no direct effect on the material integrity of the Nature Reserve.
Little Eaves Farm & Barn – Listed Buildings	300m west of the proposals.	Medium	Potential partially screened views from residential areas within the farmstead to quarry 1. Therefore there is the potential for the development to impact on the setting of the farm and listed barn set within the context of the current 'industrial' quarry site and the revised restoration proposals.

Table 2 Potential Landscape Receptors			
Receptor	**Approximate Distance and direction from site**	**Sensitivity**	**Description of existing situation & quarry restoration scheme**
LCA 1b - Dissected Sandstone Cloughs and Valleys–Froghall & Consell	On site, south of Eves Lane & north west along the River Churnet valley	High /Medium	This LCA has assessed a locally very sensitive landscape with a low or limited capacity to absorb development in the published document. The small-scale landscape around Moneystone Quarry has been identified as a 'strength' in the LCA assessment & the high quality landscape has retained its overall integrity despite the quarry development. This is primarily due to the low-level of the quarry and high level of mature vegetation creating a small-scale & intimate character which has already accommodated a minor or moderate degree of change in the form of Moneystone Quarry without a substantial adverse impact on the wider area.
LCA 1a - Dissected Sandstone Cloughs and Valleys -Oakamoor	To the east of the site	Medium	As above. However, development will not have a direct impact on the LCA but it has the potential to impact upon its integrity and setting.
LCA 3a – Dissected Sandstone Highland Fringe –Ipstones & Whiston	On site, north of Eves Lane & to the north of the proposals	High/ medium	As for LCA 1B above. The site is located within the southern sections of this character area.

Table 2 Potential Landscape Receptors			
Receptor	**Approximate Distance and direction from site**	**Sensitivity**	**Description of existing situation & quarry restoration scheme**
Local Landscape Character	The sites immediate setting	Medium	The recently worked quarry obviously has a strong influence on the immediate setting of the application site & local character of the area. The retained infrastructure and buildings are also locally prominent and incongruous features in the wider rural area. The character and influence of the quarry is not likely to be completely removed as a result of the restoration scheme but will go some way to reducing the residual industrial character and enhance the natural habitat/wildlife and bio-diversity value of the quarry site. The introduction of a new element could cause a localised change to the perception of the landscape and its character within a quarry context. However, the influence of the quarry on the wider area is limited as the development is visually contained & set within the current and proposed landscape features visually contained within the quarry. The sensitivity of the local landscape should therefore balance the high sensitivity of the surrounding landscape and the man-made incongruous character of the quarry and associated infrastructure which is unlikely to be completely removed as a result of restoration.
The site's landscape features	On site	Medium	No hedgerows or trees on site or on the site boundaries will be lost or directly impacted by the proposals. A standoff is included within the proposals to ensure that the arrays are located outside of the root zones of boundary trees, this is particularly relevant along the eastern boundary of application area E. The restoration scheme aims to create a range of habitats across the quarry site. The impacts to the approved scheme could be mitigated by amending the restoration proposals and/or providing additional habitats elsewhere to compensate. Species rich grasslands will be introduced across the application site which will provide bio-diversity and habitat benefits.

Table 3 Potential Visual Receptors			
Receptor	**Approximate Distance & direction from site**	**Sensitivity**	**Description of existing views**
Users of Eaves Lane	<5m	Low	Potential close distance transient views of the proposals. Many views are filtered and partially screened views by mature woodland belts. Potential views to upper northern and lower southern sections of the quarry and proposals are possible through tree cover.
Residents/workers at Little Eaves Farm	300mm west of quarry 1	Medium	Potential close distance views from an elevated location to southern sections of quarry 1, set within the context of the restored quarry and retained, infrastructure and buildings. Views partially screened by western boundary vegetation, particularly the southern sections of area E. Summer views will be less extensive due to leaf cover. No views are possible to the northern development areas in quarry 2.
Residents/workers and visitors to Cowtrees Farm	280m east of quarry 1	Medium	Potential close distance elevated views through and over boundary screen belts on the eastern quarry boundary, set within the context of the restored quarry and retained sub-station, infrastructure and buildings. Summer views less extensive/screened due to leaf cover. No views are available to the northern development areas.
Residents of Hightrees	160m east of Cowtrees Farm	Medium	Potential close distance views from upper windows and key areas filtered and partially screened by intervening and boundary vegetation. Views less extensive than Crowtrees Farm above, due to additional vegetation along Eaves Lane.

Table 3 Potential Visual Receptors			
Receptor	**Approximate Distance & direction from site**	**Sensitivity**	**Description of existing views**
Residents of Moneystone Cottages	150m east of quarry 2	Medium	Potential close distance elevated views over the quarry boundaries to southern sections of the northern quarry for upper windows. Summer views likely to be substantially screened by boundary tree belts on the quarry boundary. This location may also be representative of views from the proposed PRoW to the east of quarry 2.
Workers/visitors at Sibelco Laboratories	15m to the west of quarry 1	Low	Close distance views to the proposals from the compound area through the proposed security fencing.
Users of PRoW 'Kingsley 49'	40m to 300m west of quarry 1	Medium	Potential close distance views from an elevated location to quarry area 1 (area E), set within the context of the restored quarry and retained infrastructure and buildings. Views partially screened by western boundary vegetation, particularly the southern areas. Summer views will be less extensive due to leaf cover.
Users of PRoW 'Oakamoor 7'	300-400m east of quarry 1	Medium	The PRoW runs behind Cowtrees Farm to Carr Wood. Close distance elevated views through and over boundary screening belts on the eastern quarry boundary from elevated sections of the PRoW, but set within the context of the restored quarry and retained infrastructure and buildings on site. Summer views less extensive/screened due to leaf cover. No views are available to the northern development areas.

Table 3 Potential Visual Receptors			
Receptor	**Approximate Distance & direction from site**	**Sensitivity**	**Description of existing views**
Users of PRoW 'Kingsley 50'	To the west of quarry 2. 100-500m	Low	Localised glimpsed and filtered views to small areas in the eastern quarry floor of quarry 1 and eastern boundaries of quarry 2, viewed between existing tree belts to the quarry boundaries. Potential views to the quarry are generally screened with substantial boundary plantations and bunds and will be further screen when vegetation is in leaf.
Properties in and around Whiston	800m west of quarry 1	Medium	Possible views from properties and key living areas. Although potential views from most areas are screened by quarry boundary plantations and bunds. No properties identified during the site visit with the exception of Whiston Hall.
Residents of properties adjacent to Lightoaks on the B5417	1 km south	Medium	Elevated views are filtered to quarry 1 by woodlands to the south of the proposals. Views are unlikely to the proposals in quarry 2.
Users of the B5417	1 km south	Low	Transient and localised views filtered and screened to quarry 1 by woodlands to the south of the proposals.
Users of Hawksmoor Nature reserve	2 km south west	Low	Filtered and transient views through mature woodland cover for higher elevations only. Very localised partial and filtered views to quarry 1 and the stockpile in quarry 2. It is highly likely that summer views will not be possible due to leaf cover.

Table 3 Potential Visual Receptors			
Receptor	**Approximate Distance & direction from site**	**Sensitivity**	**Description of existing views**
Residents & visitors to Properties on Lockwood Road & users of PRoW	2 km west/south west	Medium	Occasional views from more elevated and open areas (such as Woodhouse Farm & Lockwood Hall). Likely views are to the more elevated areas within quarry 2, and the current stockpiles. The potential impact of these views will be reduced by the latest quarry restoration proposals over time. Views to lower levels within the quarry are generally screened by woodlands and intervening ridgelines.
Users of Lockwood Road	2 km west/south west	Low	As above
Residents of properties in & around Kingsley Holt	2km to the west	Medium	As above, but restricted to potential receptors to the eastern and southern boundaries of the settlement
Residents in and around Cheadle	3.5 to 5kms south west	Low	Potential long distance views to quarry 2 from higher ridgelines in and around the town. The proposals will be set within the context of other developed ridgelines when viewed within the wider context of the landscape and only available from elevated and very localised areas, if at all. No location could be identified during the site visit.

5.0 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

5.1 Introduction

5.1.1 The baseline study, in conjunction with the planning policy review, provides a sound basis to identify and discuss potential impacts and effects of the proposals on the landscape and visual resources. Impacts on landscape receptors and visual receptors are assessed separately. The assessment is conducted in accordance with the definitions / criteria described in Appendix 4.

5.1.2 The overall effects of the proposals on the landscape and visual amenity of the study area are outlined below and detailed impact assessment tables for individual receptors can be found in Appendix 1. Mitigation measures have been incorporated in the layout and design of the proposal as described in sections 5.10 & 5.11.

5.1.3 The purpose of the impact assessment is to determine what level of changes would be caused by implementation of the proposals and to provide the local authority with professionally produced and evaluated information to enable an informed decision on the acceptability of the proposals in the given site and landscape context as described in this report.

5.2 Predicted Landscape and Visual Effects

5.2.1 Construction effects are briefly discussed below, but are not represented in table format as they are not expected to differ considerably from the operation effects. For details of the construction process refer to technical information submitted with the planning application.

5.3 Construction Effects

5.3.1 Principal construction effects on the landscape resource in the area are likely to be:

- Increased activity on the site and lanes leading to it for a period of 3 months.
- Potential to impact on site boundary vegetation if no suitable temporary protection is put in place.
- Storage of construction material and plant in localised areas.
- The disturbance of recently restored quarry floor and habitats introduced as part of the quarry restoration scheme.
- Progressive increase in visual impacts as the site is developed.
- Visual and noise impacts on workers at the Sibelco Laboratories and potentially other localised areas adjacent to the site.

5.3.2 The increase in activity for approximately 3 months is not considered an issue in the wider context of the character area as residential properties and PRoW are generally at some distance and other activities such as activities at the laboratories, the removal of the plant area and restoration has been ongoing. Eaves Lane may be affected locally during weekly working hours, but it is not intended to work over night or on Sundays, therefore this impact on the road users is unlikely to be more than slight for a limited period of time.

5.3.3 The existing quarry access roads and tunnel will be used to access the site and there for there will be an increase in traffic for the PRoW along the quarry access road which is currently used as Sibelco Laboratories. The presence of areas of bare soil during construction may result due to the clearance of vegetation prior to seeding. It is unlikely to lead to any significant perceived change in the area as it is currently a part restored quarry, with demolition activities and disturbed and un-restored areas of tip material and spoil. The timetable for the construction of the solar park will aim to coincide with the restoration works to reduce the perceived impacts of construction.

5.3.2 The temporary construction and set down areas are small in scale and for area E adjacent to Sibelco Laboratories and partial views will be within the context of the modern buildings and compounds and any disturbed areas will be made good and restored.

5.3.4 Therefore the impacts of the construction works on landscape and visual receptors are likely to be negligible, slight to locally moderate over time in line with the impacts of the operation effects.

5.3.5 Early establishment of the proposed woodland planting as part of the ongoing quarry restoration along the quarry access and to the north of area E, together with the early establishment of the species rich grassland within the application boundary may reduce the perceived character and visual impacts slightly. However planting and grass will take time to establish and are not likely to have a significant mitigating effect within the short time scale of the construction activities.

5.4 Operational Effects

5.4.1 Principal operational effects on the landscape resource in the area are likely to include:

- A change of land use from the restored quarry to species rich grassland.
- The potential loss of the range habitats within the current restoration scheme.
- Introduction of a large new technical infrastructure installation within the context of the revised quarry restoration proposals, although this is a secondary layer over the proposed species rich grassland.

5.4.2 The introduction of a large new technical structure would result in a localised change of character but contained within the quarry. There are already modern infrastructure elements which will be retained within the quarry boundary, such as the Sibelco Laboratories and associated infrastructure, compounds, hardstanding and the existing quarry access road which detract from the high quality rural character locally. Any character impacts would be localised and perceived in close relation to adjacent land uses and associated residual quarry infrastructure and restored quarry setting. The high level of enclosure by existing woodlands and tree belts associated with the quarry boundaries and across the local area are to be retained and new woodland planting as part of the ongoing restoration will further screen area E over time.

5.5 Glare and Glint

5.5.1 For a discussion of glare refer to Appendix 4. In summary, glare is unlikely to be an issue as solar panels are designed to maximise absorption of light and have a surface that is anti-reflective and diffusing. As a result, there may be some localised glare in very close proximity to the panels, but not from any distance. At a distance, the glare will simply be perceived as a lighter area in the landscape. In addition, glare and glint would only be perceived at very specific times of year and day in a limited area defined generally by a narrow segment to the east and west coinciding, with sunrise and sunset or evening sun times.

5.6 Effects on the Site's Landscape Features

5.6.1 The existing access will be used during installation and for any maintenance purposes, therefore, no additional access will be required. Internal tracks will be retained. The Moneystone Quarry restoration scheme aims to create a variety of habitats across the quarry floors and faces, ranging from water bodies, marginal aquatic habitats through to open grassland and broadleaf woodlands. The solar PV arrays will therefore result in the partial loss of the range of habitats within the restoration scheme as some of woodland and wetland habitats would not be practical in close association with solar PV arrays. He effect on the sites landscape features is therefore assessed as **moderate.**

5.6.2 Ancient woodland blocks to the south eastern boundaries of area E will not be directly impacted by the proposals. Substantial standoffs are also included within the proposals and the arrays are mounted on driven posts and the inclusion of deer fencing around the boundaries will minimise ground disturbance and visual intrusion. The landscape and ecological context of the boundary woodlands will be enhanced as part of the quarry restoration scheme.

5.7 Compliance with Planning Polices

5.7.1 The NPPF seeks to promote high quality design and conserve and enhance the natural environment and identify and protect areas of tranquillity which have remained relatively unchanged. Renewable energy guidelines state solar farms can have a negative impact on the rural environment, particularly in undulating Landscapes. However, the visual impacts of well-planned and well screened solar farms can be properly addressed within the landscape if planned sensitively. The guidelines also points towards the potential to mitigate landscape and visual impacts through, for example screening with native hedges.

5.7.2 The Staffordshire Moorlands District Council Core Strategy relating to renewable energy states that consideration should be given to the scale and nature of the proposals impacts on the landscape. Policy SC2 states that

renewable energy installations should consider the nature and scale of the proposals impacts on the landscape having particular regard to the Landscape Character Assessments. Policy DC 1 states that development should be designed to respect the site and its surroundings and protect the amenity of the area in terms of residential amenity, outlook, privacy and soft landscaping. Policy DC3 states the council will protect the local landscape by supporting development which respects and enhances the local landscape character.

5.7.3 The tranquillity of the area has already been effected by the current man made large-scale and industrial nature of the quarry, ongoing quarry restoration and activities associated with the retained buildings and infrastructure adjacent to the proposals in quarry 1. The low level of the quarry floor and substantial areas of screening ensures that the character impacts of the quarry and any development within it on the surrounding landscape are likely to be generally negligible to slight and only locally moderate. As a result much of the surrounding landscape, even at close distance to the site boundary the character of the area should remain overall rural and tranquil.

5.7.4 In this case the high level of screening surrounding the quarry, together with further woodland planting as part of the quarry restoration scheme should ensure that the visual impacts of the proposals are minimised. This will reduce further as existing and proposed woodlands develop and summer views will further substantially screen views. The visual effects are very localised and not judged as substantial.

5.8 Effects on Landscape Character

5.8.1 LCA 1b – 'Dissected Sandstone Cloughs & Valleys - Froghall & Consell' & LCA 3a – 'Dissected Sandstone Highland Ridge – Ipstones & Whiston' will experience a direct change to the character of a small part of the overall area through the introduction of a new element in a predominantly rural landscape within the restored quarry. The proposals however will not affect the integrity or character of LCAs as a whole. Locally the landscape has a higher capacity to absorb change due to the high level of screening and it has already accommodated the current quarry landform without a significant detrimental effect on the wider area. The ability to meet the objectives and guidelines outlined in section 3 are not compromised as a whole, although the potential after-use of the site as a recreational destination could be partly compromised for the 25 year life span of the solar arrays.

5.8.2 The LCAs are identified as a receptor of medium to locally high sensitivity and the proposals have been assessed as having the potential for a low magnitude of change on the fundamental integrity and character of the areas as a whole. The areas with high sensitivity to change are likely to be in the more open areas to the north and the generally undisturbed rural landscapes surrounding the quarry.

5.8.3 The proposals have taken into account the sensitive nature of the small-scale landscape surrounding the quarry by being located in an unobtrusive area on

the quarry floor which does not have strong relationship with the surrounding rural landscape. The proposals have low potential to detract from the wider quality of the landscape due to its low level, low visual influence and extensive screening by existing vegetation set in the context of the current quarry. The quarry itself and retained buildings and infrastructure detract from the rural character of the area to the south of Eaves Road. The overall character of a worked out quarry is unlikely to be completely removed as a result of the quarry restoration. However the restoration will soften and improve upon the current industrial character of the site considerably. The proposed planting as part of the agreed restoration scheme should further screen views of the solar arrays and associated infrastructure over time. The ground within the application boundary will be seeded with green hay and managed to produce species rich grassland with low intensity grazing by sheep. Potential impacts are reversible as removing the solar array from the site would leave a negligible trace and the proposed restored landscape would continue to develop.

5.8.4 The proposals are however a modern and technical new element covering substantial areas of the quarry floor but are temporary in nature. On balance it is considered that the erection of the solar PV array at Moneystone Quarry would therefore result in **moderate adverse** effects on the local landscape character immediately surrounding the application area and within the quarry. The impacts are likely to reduce to **slight adverse** on the overall landscape character of the rural areas surrounding the quarry and decreasing in degree with distance from the site. The woodland planting as part of the quarry restoration will also further reduce the perceived intrusion on the proposals on the local landscape over time.

5.8.5 The report also concluded that proposals would have a **negligible** effect overall on the adjoining character area LCA 1a 'Dissected Sandstone Cloughs & Valleys – Oakamoor' to the east due to the high level of screening and low-level quarry landform. There are no direct or indirect impact on other LCAs in and around the study area.

5.9 Effects on Landscape Designations

5.9.1 The effects on the green belt have been assessed as **negligible** due to the high level of screening and distance to the site.

.

5.9.2 Whiston Eves SSSI and Cotton Dell nature reserve were assessed as high sensitivity receptors due to the close proximity, sensitivity and scale in relation to the proposals. The proposals do not have any physical or visual relationship with these sites and the potential landscape effects on these receptors is assessed as **slight.**

5.9.3 The potential effect on listed buildings within the study area is likely on Little Eaves Farm and Barn. Impacts where considered as **slight** adverse as the development has the potential to result in a minor loss to a key characteristic on the setting of the listed building within the context of the quarry restoration.

5.9.4 The site's landscape features have been assessed in relation to the effects on

the quarry restoration proposals. The proposals have the potential to reduce the range of habitats on site as wetland and woodland restoration land use is unlikely be compatible with solar PV arrays. The sensitivity of the site is assessed as medium. There is the potential to amend the restoration strategy or provide additional habitats elsewhere. The magnitude of the potential effect without mitigation is therefore assessed as medium with a **moderate** adverse effect on the site landscape features.

5.9.5 To compensate for the loss of habitat included in the quarry restoration scheme, it is proposed to provide additional ecological enhancements to land within the landowners control to the east of area E. This has been discussed in detail in a separate Ecological Appraisal produced by FPRC.

5.10 Effects on Visual Receptors and Key Views

5.10.1 Only moderate or greater likely visual impacts are discussed in detail in this section. Lesser impacts are detailed in Appendix 1.

5.10.2 Visual impacts on the proposals are primarily from close distance elevated areas near the site boundaries and longer distance views across the River Churnet Valley to the south and south-west. Elsewhere views are screened by a combination of intervening topography, tree belts and woodlands.

5.10.3 The highest visual impact was found to be on Public Rights of Way 'Kingsley 49' & 'Oakamoor 7' and Little Eaves and Cowtrees Farms, all at close distance to the west and east of quarry site 1. Here the proposals have the potential to bring about readily noticeable changes through and over boundary screening. Visual impacts were assessed as **moderate** adverse in these areas. Kingsley 49 and Little Eaves Farm are likely to be progressively screened as the proposed planting along the access road established. It has been assessed that the visual effects form these areas is likely to be reduced to **negligible** within 5 to 10 years as the woodland planting establishes.

5.10.4 For views form Crowtrees Farm and a section of Oakamoor 7 the visual impacts have been assessed as **moderate to slight** adverse. Potential views should be largely screened when the trees on the eastern site boundary are in leaf and will continue to grow to further screen views over the lifetime of the proposed development.

5.10.5 In all other areas the visual impacts where assessed as **slight to negligible** largely due to the existing boundary screening, low-level and unobtrusive nature of the proposals and/or distance to the site. The current quarry boundary planting, undulating ridgelines and wooded valley landscape also play an important role in contributing to the limited visual impacts of the proposals.

5.10.6 The highest visual impacts are assessed for close distance views into quarry 1. Views into quarry 2 and the proposals are well screened by intervening landform and the dense boundary vegetation surrounding the quarry. During summer when vegetation is in leaf it is likely that views will be substantially reduced. Overall the potential visual impacts are very localised and will be

further reduced as the proposed woodland planting and existing vegetation in and around the quarry develops. Visual impacts therefore are not considered significant overall.

5.11 Mitigation Strategy

5.11.1 The mitigation proposals take into account the approved quarry restoration scheme. The predicted landscape and visual impacts of the proposed PV arrays are negligible to slight for the majority of the receptors with a moderate effect for localised visual receptors reducing over time as existing planting as part of the quarry restoration scheme develops.. Further measures have been included within the overall design of the proposals to further reduce the impacts of the proposals in line with national and local planning polices and guidelines and accepted good practice in design.

5.12 Mitigation-by-Design

5.12.1 Mitigation measures were highlighted at an early stage of the assessment and discussed with the client. These have been incorporated in the final proposals and include:

- Retaining as far as possible a regular geometric layout to the rows of panels and associated infrastructure so that the solar farm has a legible layout. With a very regular design, the array will work more closely with the structure of the landscape, for example reflecting subtle changes in terrain, slope and aspect.
- Using the existing landscape framework and quarry to break up and screen the proposal and retaining all existing vegetation to screen & filter views.
- Incorporating substantial buffer zones to all boundary vegetation to ensure there is no impact at any stage of the development and the proposed PV coverage areas do not appear crammed.
- Reduce the density of the solar panels and number of inverters and transformers to reduce the impact on the local landscape character and views.
- Remove panels from area B and restore to species rich grassland to reduce the scale of the development and impacts on the local landscape character and more distant views from the south.
- The use of deer fencing rather than steel palisade fencing surrounding the solar arrays. This will be a lightweight and semi-transparent structure often associated with rural and wooded areas.

5.13 Longer-term Mitigation

5.13.1 The Moneystone Quarry restoration scheme aims to create a variety of habitats across the quarry floors and benches ranging from water bodies, marginal aquatic habitats through to open grassland and broadleaf woodlands. The ground below the PV arrays however will be seeding using a green hay technique across the application site and managed to develop species rich grassland as outlined in a Framework for the Restoration and Management of Grassland Habitat report. This will provide species rich habitat and foraging areas for wildlife across the application site.

5.13.2 The quarry restoration proposals illustrate areas of broadleaf woodland planting within quarry 1 & 2. Over time, as the planting matures, this will additionally filter, break up and screen some of the close distance views identified in this report. The boundary vegetation will be retained and managed over the life time of the solar park. Therefore the substantial screening by mature woodlands and woodland belts will be retained and is likely to be enhanced.

5.13.4 To further enhance biodiversity in the local area a Bio-diversity Enhancement Report has been prepared by FPCR Environment & Design Ltd. This report identified additional areas outside of the application area but within the land ownership, which have been identified for bio-diversity enhancement; changes to management practices and treatment of invasive species. The management strategy is mainly aimed at sward and heathland enhancement and diversification of existing grassland currently used for grazing by the harvesting and spreading of green hay. Other management strategies include the control of invasive Himalayan Balsam; planting of native woodland species and creating micro-habitats for invertebrates, birds and bats.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 The appraisal examined landscape and visual impacts within approximately a 5km radius study area around a proposed solar PV array a Moneystone Quarry at OS grid reference SK 047704 46125.The proposals are for a solar PV array achieving approximately 5.0.MWp output within an area of 14.25 hectares located in two former mineral workings excavated to each side of Eaves Lane. Quarry 1 and application area E is located to the south of Eaves Lane and quarry 2 and application areas D and B are located to the north.

6.2 Landscape designations and character impacts were evaluated in detail for individual receptors in Appendix 1. It was found that there may be slight to negligible impacts on regional and local landscape designations. Other designations within the study area are likely to experience negligible effects.

6.3 Given the scale of the PV array and infrastructure in combination with its low-level location and the high level of mature woodlands and tree belts surrounding the quarry the impacts on the surrounding landscape character are very limited. Further planting as part of the approved quarry restoration scheme will further limit the influence on the surrounding landscape over time. The impacts on the local landscape character within the quarry and its immediate settings is therefore assessed as moderate which will decrease in significance with distance. Across the wider Local Landscape Character areas LCA 1b and 1a are likely to experience slight effects overall as a result of the proposed development.

6.4 It was concluded that there would be moderate landscape effects on the proposed quarry restoration scheme as a result of localised character impacts. To further enhance local biodiversity, substantial areas of bio-diversity enhancement have been proposed to the south west and north of the site. This will have a significant benefit over a wider area and provide a net gain.

6.5 Panels within area B have been removed and the area restore to species rich grassland to reduce the scale of the development and impacts on the local landscape character and more distant views from the south.

6.6 Green hay applied across the application site to create species rich meadows will introduce an additional habitat to further compensate for the potential loss of habitat within the quarry restoration proposals.

6.7 When the proposals are decommissioned after the life span of the solar panels in 25 years the areas below the arrays can be incorporated within the ongoing ecological enhancement programme of the quarry.

6.8 Visual impacts were evaluated in detail in Appendix 1, and illustrated by the panoramic photos in Appendix 3. Moderate adverse visual impact were identified for residents of Little Eaves Farm and Cowtrees Farm & users of local Public Right of Way. These views will be further screened as existing boundary vegetation grows and woodland planting as part of the approved restoration scheme. Due to intervening vegetation around the quarry

boundaries summer views are also likely to be less adverse when the vegetation is in leaf. Although a small proportion of visual receptors will experience greater than negligible/slight impacts on their visual amenity initially, vegetation will mature and the proposals should be considered acceptable within the context of the quarry restoration proposals.

6.9 The purpose of this appraisal was to examine the magnitude of impacts and the degree of effect taking account of sensitivity of receptors. This report concludes that the proposals may not cause unacceptable or significant landscape or visual impacts. The implementation of additional mitigation as outlined in this report will also further reduce the landscape and visual impacts. In addition, the proposals can be removed without trace at the end of their lifespan, assumed to be 25 years from installation. Upon removal additional bio-diversity enhancement and management can then be undertaken within the application area.

Appendix 1: Impact Assessment Tables

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Green Belt	2.2kms	Medium	The proposals represent a minor and localised alteration within the context of the wider landscape and are reversible. There are no direct impacts on the Green Belt. The proposals do not materially impact on the overall integrity of the Green Belt policies and will not be visually conspicuous when set within the context of woodland screening and the low level of the development, which is largely screened and below the distant ridgeline at 2.2 km.	Negligible	Negligible
Whiston Eaves SSSI	600m	High	The proposals do not have a noticeable visual or physical relationship with the SSSI and therefore will not physically affect the setting or integrity of the sites designation. There will be no alteration to any key elements or characteristics of the SSSI. This development is also set within the improved context of the quarry land-use of open grassland and acid heath restoration throughout the life of the solar park. .	Negligible	Slight

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Nature Reserve at Cotton Dell	300m	High	As above, the proposals do not have any visual or physical relationship with the reserve and therefore will not materially impact upon effect the setting or integrity of the sites designation or any key elements or characteristics of the area	Negligible	Slight
Little Eaves Farm & Barn - Listed Buildings	300m	Medium	Due to the elevated location and visual intervisibility to quarry 1, the proposals have the potential to impact on the setting of the Listed Buildings, and have the potential to form a minor loss to a key characteristic of their setting when judged within the context off the restoration proposals and retained buildings and infrastructure. The quarry restoration planting will increasingly screen views over time.	Low	Slight

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
LCA 1b –Dissected Sandstone Cloughs & Valleys – Froghall & Consell	On site, south of Eaves Lane and the River Churnet Valley	High/ Medium	The proposals have the potential to bring about a local and minor to partial loss of a key feature and characteristic land uses of the LCA with the introduction of new modern & technical elements in a predominantly rural landscape within the context of the restored quarry. The proposals have a lower potential to detract from the wider quality of the landscape however due to its location which is well screened by woodlands, at low level & not generally visually intrusive, particularly in the context the quarry and retained infrastructure and buildings to the south. The development should therefore not fundamentally alter the key characteristics of the sensitive small-scale landscape surrounding the quarry. A secondary use for species rich grassland and grazing will in part retain the character likely to be achieved as part of the wider quarry restoration scheme.	Low	Moderate to slight
LCA 1a – Dissected sandstone Cloughs & Valleys -	To the eastern boundary	Medium	As per LCA 1b above, although there will be no direct impacts on the LCA key characteristics by the proposals.	Negligible	Negligible

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
LCA 3a –Dissected Sandstone Highlands Ridge	On site to the north of Eaves Lane & north of the proposals	High/ Medium	As per LCA 1b, the proposals have the potential to bring about a local and minor to partial loss of a key feature and characteristic land uses of the LCA with the introduction of new modern & technical elements in a predominantly rural landscape within the context of the restored quarry.	Low	Moderate to Slight

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Local Landscape Character	The sites immediate setting	Medium	The influence of the quarry on the wider area is limited as the development is visually contained & set within the current and proposed landscape features and strong landscape framework. The quarry itself and retained infrastructure and buildings detract from the rural area overall and this is unlikely to be completely removed as a result of the restoration scheme. However the restoration will soften and improve upon the current industrial character of the site considerably. The proposals however will introduce a modern & technical elements in a predominantly rural local landscape overall. The effects should be balanced against the context of the restored quarry. The proposed solar arrays are therefore likely to represent an alteration to a key element/character of the restored quarry and the local area.	Medium	Moderate

Table 4 Predicted Landscape Impacts					
Receptor	**Approximate Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
The site's Landscape Features	On site	Medium	The proposals have the potential to reduce the range of habitats and bio-diversity on site as wetland and woodland restoration land use is unlikely to be compatible with solar PV arrays. Species rich grassland are proposed across the application area. No trees or other significant vegetation will be lost as part of the proposals and a suitable standoff to boundary trees should be included to prevent any potential damage to root zones if necessary.	Medium	Moderate

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents/workers at Little Eaves Farm	300m	Medium	Upon restoration of the quarry the proposed PV arrays have the potential to bring about a readily noticeable change from westerly views from the property and key areas. Views will be a side elevation of the arrays towards northern sections of the PV arrays in area E, but set within the context of the retained quarry infrastructure and buildings. The exposed quarry floor which is noticeable in the view will be greened as part of the quarry restoration. Southern sections of the proposals are currently screened by boundary tree groups planting which will further screen during summer. It is unlikely that the inverters, transformers or switch gear cabin will be visible. Over time the proposed woodland planting associated with the restoration scheme along the quarry access is likely to progressively screen views with 5 to 10 years.	Medium To negligible over time	Moderate to negligible over time

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents/workers & visitors to Cowtrees Farm	280m	Medium	As above, upon restoration of the quarry the proposed PV arrays and associated fencing have the potential to bring about a readily noticeable change from south- westerly elevated views from the property and adjacent key areas. Views will be through and over boundary tree belts towards the PV array area E, in quarry 1 & set within the context of the retained sub-station and other buildings. Summer views will be largely screened when the trees are in leaf the existing vegetation on the eastern application are likely continue to grow during the lifetime of the development to further screen views.	Medium to low	Moderate to slight
Residents of Hightrees	160m east of Cowtrees Farm	Medium	A similar view to Crowtrees, but at a greater distance and additionally screened by boundary tree belts associated with Eaves Lane. Potential views are from upper windows and key areas, which will be largely screened during the summer months.	Low	Slight

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents of Moneystone Cottages	150m	Medium	Views towards the solar arrays on the quarry 2 restored floor may be possible. There are areas of boundary tree screening which will further screen views in summer. As the vegetation matures on the northern quarry benches, this will have the potential to further mitigate views. Potential views are from upper windows with a western/south westerly aspect. No individual properties were identified.	Low	Slight
Workers/visitors at Sibelco Laboratories	150m	Low	As the work place is located adjacent to the current quarry plant site and infrastructure, there are potential close distance views to the arrays and boundary fencing within quarry 1. The proposals will form a visible and recognisable element within the southern sections of the restored quarry however the development is reversible.	Medium	Slight

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Users of PRoW 'Kingsley 49'	300 to 40m	Medium	Close distance views into quarry 1 from sections of the footpath, for approximately 500m along the southern sections of the existing quarry access road and more elevated sections close to Little Eaves Farm. Views to the restored quarry and proposals will be partially screened and filtered by sections of boundary tree belts which filter and partially screen views from some locations along the PRoW. Planting as part of the quarry restoration along the site access will screen views with 5 to 10 years.	Medium to negligible over time	Moderate to negligible over time

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Users of PRoW 'Oakamoor 7'	300 to 400m	Medium	Within the restored quarry, the proposed PV arrays and associated fencing have the potential to bring about a readily noticeable change from higher elevation of the footpath, particularly in the vicinity of Cowtrees Farm. Views will be through and over eastern boundary tree belts towards PV array area E, in quarry 1, but set within the context of the retained buildings, infrastructure and quarry. Summer views will be largely screened when the trees are in leaf and the trees on the eastern site boundary will continue to grow over time and are likely to further screen localised views.	Medium/low	Moderate to slight

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Users of PRoW 'Kingsley 50'	50-500m	Low	Possible glimpsed/transient views to small sections of the PV arrays in the northern quarry area 2 from localised areas on the path. Boundary tree belts screen the majority of potential views. Most views would constitute a minor component in the wider landscape and may be missed by a casual observer. During the summer months it is likely that that any potential transient or glimpsed views will be further screened and mitigated by leaf cover on the surrounding quarry woodland belts.	Low/Negligible	Negligible

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents/visitors to properties in Whiston	800m west	Medium	Possible glimpsed middle distance views to small sections of the PV arrays in the northern quarry area 2. Views are set within the context of extensive woodlands and tree belts on the quarry boundary and the quarry topography. The change may be missed by a casual observer. Potential views from Whiston Hall but no other locations for potential views could be identified during the site survey in or around Whiston. Boundary tree belts screen the majority of potential views. During the summer months it is likely that that any potential filtered views will be further screened and mitigated by leaf cover on the surrounding quarry woodland belts.	Low/Negligible	Slight/ Negligible

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents of properties adjacent to Lightoaks on the B5417	1 km	Medium	Elevated views to the proposals in quarry 1, although filtered and screened by boundary vegetation and woodland block south of the site. These views will be further screened by leaf-cover during the summer months. There are potential open views to higher elevations in quarry 2 although views to the PV arrays are unlikely as arrays in quarry 2 will be screened by the low level restoration and set below the well wooded topography adjacent to the proposals and trees adjacent to Eaves Lane. The proposals will constitute a minor component in the wider landscape, leaf cover in summer will substantially screen views and the proposals are reversible in nature.	Low	Slight
Users of the B5417	1 km	Low	Transient views along the road corridor for approximately 500m in the region of Lightoaks. The visual effects are as describe above.	Low	Negligible

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Users of footpaths in Hawksmoor nature reserve	2 km	Low	Long distance filtered and transient views to the upper faces in quarry 2 and restored area B but views of the arrays are unlikely. Views to a small section of the arrays and filtered and screened views to the proposals in quarry 1 and potentially quarry 2. During the summer months it is highly likely that potential views will be screened by leaf cover. The proposals form a minor element when viewed at this distance.	Low/Negligible	Negligible
Residents & visitors to properties on Lockwood Road & users of PRoW	2km	Medium	Potential long distance views to the proposals in the more elevated locations in quarry 2. Quarry 1, being at lower level, is well screened by intervening ridgelines, close to the western proposals boundary, and intervening mature woodland block and hedgerows. The proposals are likely to constitute a minor component in the wider landscape when viewed within the context of the low level restored quarry and surrounding wooded ridgelines.	Low	Slight

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Users of Lockwood Road	2 km	Low	Transient views along the road corridor for approximately 500m in the region of Lightoaks. The visual effects are as described above but generally less open due to roadside hedgerow screening in many locations.	Low/Negligible	Negligible
Residents of properties in & around Kingstone Holt	2 km	Medium	Potential long distance views to the proposals in the more elevated locations in quarry 2. Quarry 1, being at lower level, is generally well screened by intervening ridgelines, close to the western proposals boundary, and intervening mature woodland block and hedgerows. The proposals are likely to constitute a minor component in the wider landscape when viewed within the context of the low level restored quarry and surrounding wooded ridgelines.	Low	Slight

Table 5 Predicted Visual Impacts					
Receptor	**Approx. Distance from site**	**Sensitivity**	**Predicted Change**	**Magnitude**	**Effect**
Residents in & around Cheadle	3.5 to 5km	Low	Potential long distance views to elevated areas within quarry 2 proposals on the quarry face. Views will be set in the context of the wider landscape of wooded ridgelines and other settlements and constitute a minor component in the wider view potentially from isolated and localised areas.	Low/Negligible	Negligible