THE NOVERS LIMESTONE QUARRY CONSERVATION STATEMENT

<u>1. Introduction:</u>

Titterstone Clee at a height of 533m AOD is the second highest hill in the county of Shropshire. It is today a significant landscape feature which is prominent within the landscape over a radius of perhaps some 70 miles. Standing at the geographical junction between the predominantly flat arable lands of the Midland plane to the east and the pastoral hill country of the Marches and Welsh Hills to the west. The depiction of the hill as the only named hill in the representation of England on the 13th century Mappa Mundi demonstrates that the hill was an equally important landmark in the medieval period. The Clee Hills have been described as a landscape of 'social geology', defined as 'an archaeological and cultural landscape dominated by the nature of its mineral resources'.

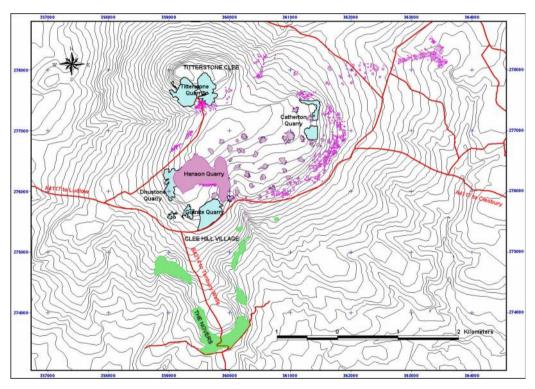


Figure 1:

Titterstone Clee Extractive Industries past and present. The active Hanson quarry can be seen roughly central, disused quarries in light blue, coal workings in magenta and the limestone quarry area in green

There are few places in Shropshire, or for that matter the West Midlands region, where one can so clearly see the complex and intimate relationship between people and their environment. It is still a living and evolving environment since the landscape includes an active quarry producing the Clee Hill's most famous product: the Dhustone (black stone) used principally as a graded crushed stone whose doleritic qualities make it valuable to the road construction industry. Visible and substantial remains are quite extensive and well preserved, spanning, prehistory, the Middle Ages, and the early Industries of the 17th-19th centuries. All have left their mark in

varying degrees, but perhaps not surprisingly the Industrial Age has had the greatest visual impact on the hill as it survives today (fig. 1). One of the earliest extractive industries upon the hill was the quarrying of limestone for building stone, iron smelting and lime burning.

The remarkable survival of the Novers limestone quarry and mine is a microcosm of this industry.

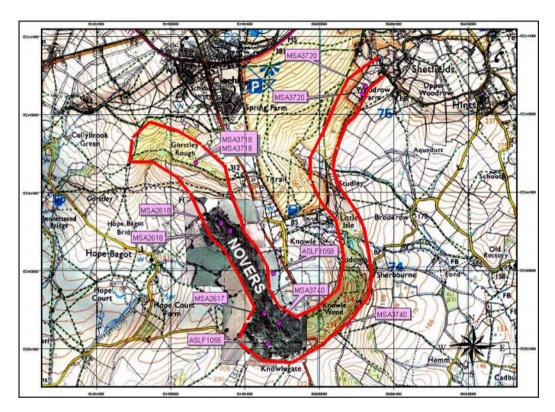


Figure 2: The limestone working belt around the southern outlier of Titterstone Clee, outlined in red The Novers itself is the area of woodland on the west face of the hill.

1.1 Location:

The Novers is an area of regenerated woodland which lies on the south slopes of Titterstone Clee Hill at Knowlegate, approximately 1.5 miles south of Clee Hill village and 3 miles north of the market town of Tenbury Wells. The site lies on the immediate west side of the B4214, centred at grid reference SO59907350. The woodland occupies the south-west slope of a small outlier hill, known locally as Knowle Hill and extends from SO59807340 in the south to SO59607415 in the nor th with a total area of some 11.4 ha (fig 2). Most of the hillslope has been surface quarried in a series of scooped hollows, following the limestone seam around the hill. These workings are a continuation of an extensive belt of opencast quarrying which follows the outcropping limestone around the south side of Titterstone Clee Hill, commencing near the Cornbrook at SO36047540 running through Knowle Wood and The Novers and ending in Gorstley Rough at SO59167469 (fig 2.). As such it is part of an extensive limestone industry which commenced in the 17thc and continued up until the closure of the Gorstley kilns in the 1940s.

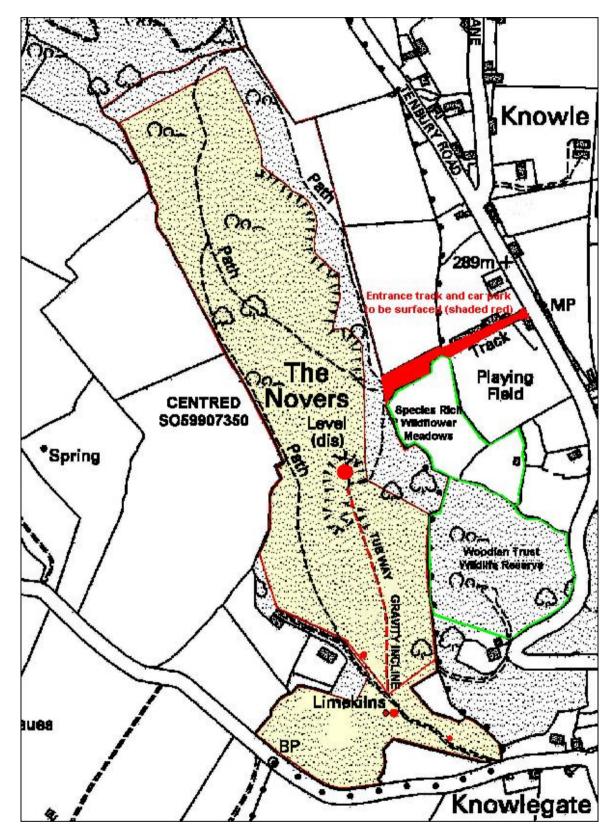


Figure 3: The extent of the Novers site edged in red, the quarries shaded yellow with principle features marked. The adjacent areas to the immediate east are areas designated as species rich wild flower meadows and a small woodland nature reserve

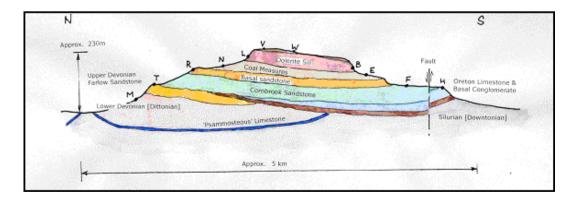
2. The Novers – Geological Notes

The limestone at The Novers is part of an outlier of the Car boniferous Period which forms the Clee and Titterstone Clee Hills. The outlier, which is surrounded by much older rocks, is some 13 kms long and 3 kms wide. The strata are gently downfolded into a synclinal structure with an axis trending NE to SW. The lim estone at The Novers and the underlying pinkish conglomerate lie at the base of the Carboniferous series on the southern flanks of the outlier. This lower sequence of Carboniferous Limestone is well developed [up to 45m thick] between the villages of Farlo w and Oreton situated on the NE edge of the outlier. Consequently these limestones and those to the south of the outlier are known as the Oreton Limestone.

The limestones are not present around the full periphery of the outlier, in some places they are faulted out and to the NW they are absent – either never have been laid down or deposited and subsequently eroded. A simplified geological map and schematic NS geological cross section of the outlier are given below.

The Carboniferous sequence is remarkable here in having representative strata from the Lower, Middle and Upper Carboniferous Period [Oreton Limestone, Cornbrook Sandstone formation and Coal Measures, respectively] all lying within about 1.5 km of The Novers site. In addition there is a spectac ular sill of igneous rock intruded into the Coal measures. This olivine dolerite is known locally as the Dhustone (from the Welsh 'black' stone). The sill forms a capping to the Clee and Titterstone Clee Hills.

The Coal Measures were particularly important as far as activities at The Novers were concerned in that they supported a working coalfield until the 1920s. They were thus a source of coal for the limekiln. The Coal Measures strata were also worked for ironstone. There were several iron smelting work s in the area and limestone from The Novers and adjacent quarries would have been used as a smelting flux.



Figutre 4 Cross section showing stratigraphy of Titterstone Clee

The Oreton Limestone at The Novers appears to be 25-30m thick. At the site it overlies a basal Carboniferous conglomerate which in turn rests on Silurian strata

[Downtonian Series], the expected intervening Devonian Period rocks are absent. This represents a gap in deposition [an unconformity] of some 60 million years. However to the NE of the outlier in the Oreton and Farlow areas the Devonian rocks are present and the Oreton Limestone lies on Upper Devonian strata [see figures below].

During the Upper Silurian and Devonian periods, about 350 million years ago, this part of Shropshire was on the southern shores of a continental land mass south of the equator. Deposits of gravels, sands, silts and muds were formed in braided rivers cutting through, or building up, large deltas and in shallow lakes. With time these deposits became conglomerates, sandstones, siltstones, mudstones and shales. These rocks are greenish, purple or red in colour and are known as the Old Red Sandstone. The red colour of the soils in the fields immediately to the south of The Novers advertises their presence.

At times during the formation of the Old Red Sandstone the climate was relatively hot and this led to the formation of calcretes where evaporation brings calcium carbonate and other minerals to the surface. Leaving them as a natural lime cem ent and building up over time to form a thin limestone. Calcretes are being formed under similar desert conditions today. At the end of the Silurian such a pronounced rubbly limestone was formed and this is widespread across this area of Shropshire. It is called the Psammosteous Limestone and is considered to be the boundary between the Silurian and Devonian periods.

It is about 2-3m thick and in the past has been extracted from shallow workings at a number of sites around the Clee Hills. Such excavation s can be seen near Hints, about 2km to the east of The Novers. Pieces of the limestone can be found in the old works. That it was considered worthwhile to extract these thin limestones indicates what a valuable resource the limestone was and how important the much larger quarries at The Novers and adjacent areas must have been to the regional economy.

At the end of the Devonian period this area of Shropshire was inundated by a warm, shallow, clear sea, teaming with life. Limestones were built up on the sea floor from fragments of many shells, crinoids and corals. Fossil remains of these creatures can be found in the Oreton Limestone at The Novers. During this formation about 350 million years ago the area was located close to the equator however, as a result of shifts in the earth's tectonic plates since then, it has moved progressively northwards to its present position.

The Oreton Limestone appears to have been formed on the southern margins of a landmass [St George's Land] which extended east to west across the Midlands. The limestone, which is Tournaisian in age, appears to have more in common with the much thicker Carboniferous Limestones to the south [S.Wales, Bristol, Mendips] than those to the north [N.Shropshire, Derbyshire, N.Pennines]. It is infor mative to contrast the appearance of the marine Oreton Limestone at The Novers with the terrestrial Psammosteous Limestone at Hints.

A fall in sea level or a rising land surface led to the build up of a thick succession [approx. 210m] of conglomerates, grits and sandstones on top of the Oreton Limestone. These sediments, formed under deltaic conditions, are known as the Cornbrook Sandstone Formation. They are present at The Novers and extend over

much of the area to the north. Because the strata contain o nly a few fossils there is some doubt about their age. They probably equate to the Millstone Grit in the lower part of the sequence and the younger Coal Measures in the upper part.

The deltaic conditions that led to the formation of the Cornbrook Sandston es were followed by swampy rivers, floodplains and lagoons, at times carrying a rich vegetation with large trees and ferns. During this period sea level rose and fell many times leading to the deposition of a repeated sequence of sands, muds and coal [from the vegetation] which formed the Coal Measures. In the Clee area there are four principal coal seams ranging from 2 -6ft in thickness. The shallow coals have been worked in 'bell pits' since mediaeval times and the deeper coals have been mined using more modern methods until the 1920s. At the end of the Carboniferous period the igneous sill was intruded into the Coal Measures due to volcanic activity.

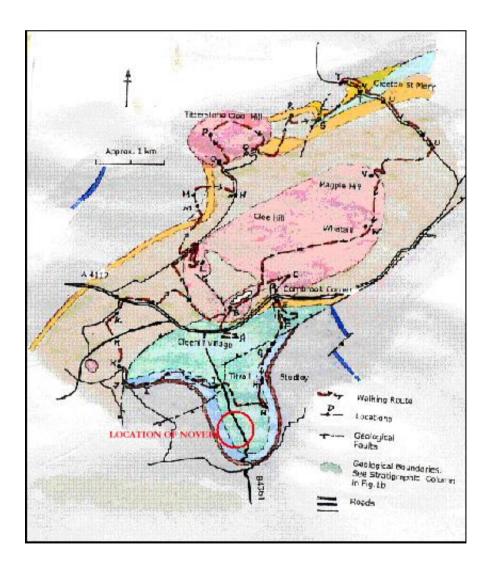


Figure 5 Sketch showing geology and location of the Novers

During the most recent Devensian glaciation which ended about 11000 years ago massive glaciers occupied the Welsh hills and extended over the Cheshire plain as far south as Bridgnorth but the high ground of the Clee and Titterstone Clee Hills was not glaciated. However there is ample evidence of frost action splitting the hard dolerite and releasing large boulders which can now be found on the lower slopes of the hills.

It is evident that a wide variety of 'geological environments' can be discerned by inspecting the rocks at The Novers and within 1-2 km of this site. These include: hot desert conditions, warm sunlit seas, marine deltas, swampy lagoons with luxuriant vegetation, volcanic activity and arctic conditions. Because of the many interesting geological features present in a relatively small area the Carboniferous outlier and its environs is an attractive location for amateur, student and professional geologists alike.

The Shropshire Geological Society has recently published a walkers' guide to the area [ref.]. This does not include The Novers because of access limitations. However, improved access to The Novers, with its wonderful limekilns and unique tunnels, would add greatly to an appreciation of the intimate association between local geology and industry.

The old limestone quarry faces are overgrown but it should be possible to remove vegetation over a narrow section to reveal the limestone face and in particular the contacts with the overlying Cornbrook Sandstone, the underlying Basal Conglomerate and the Old Red Sandstone. Such contact features are important in the interpretation of local geology but cannot be seen readily elsewhere across the outlier. If the tunnels could be safely opened they should give an insight into any local faulting and lead to a better understanding of the geological structure of The Novers and beyond.

The Novers should not be seen as a 'stand alone' feature but as a key enabling a weaving together of a whole range of geological threads. In this respect it should be considered in relation to the 2004 - 2009 'Titterstone Clee Hill Geodiversity Management Plan' and the 2008 Conservation Plan for the Historic Mining & Quarrying Landscape of Titterstone Clee.

3. Site History:

The earliest references to limestone from Clee Hill relate to limestone and lime being bought for use at the Castles of Ludlow, Montgomery and Stokesay, though the specific site of the quarries are not recorded. The early workings appear to have been open cast extraction of seams close to the surface. Examples of such surface workings can be seen around the south of the hill and to the north on Catherton Common and around Oreton. Some of these shallow exposures are doubtless medieval in origin. However by the late eighteenth century the shallow seams seem to have been exhausted and drift mines were driven into the hillside from the quarry floors, following the bed of limestone and probably employing the same pillar and stall mining technique that was used in the early coal mines. The Novers is the only known such drift mine to survive as a built structure. It is known to have been in production by 1846, when the lease was held by John Reynolds, who is listed in the 1900 edition of Kelly's Directory as a 'Farmer and Lime burner'. The Novers mine c ontinued in production up until 1910 when faulting of the limestone seam caused the mine to close. It seems therefore that the drift mine may have been in operation for some 64 years, though production may not have been continuous. Interestingly the 1884 Ordnance Survey 1st Edition 1: 25 inch plan (fig 6 below) shows the Novers workings annotated as 'Old' suggesting that at the time of this survey the mine was not in production. However the 1903 2nd Edition drops the 'Old' and adds 'The Novers Limeworks', suggesting that the mine and kilns where back in production (Fig 7 below).



Fig. 6: Extract from OS 1st Edition 1:25 inch

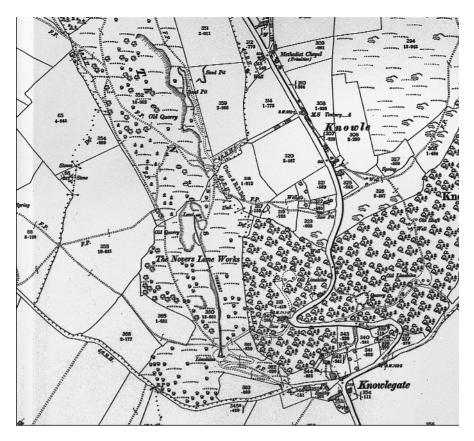


Fig. 7: Extract from OS 2nd Edition 1: 25 inch

4. The Cultural & Archaeological Resource:

4.1 Preliminary Report on the Surface Archaeology and Structures:

The surviving earthworks and structures at the Novers clearly represent a very full record of the industry and is unique upon the hill, in having in direct association with the early opencast workings, surviving lime kilns, a tramway and incline, and a drift mine. The earliest workings comprise a series of scooped quarries running along the west face of the hill, four in all, linked by a perimeter track -way and roads running into each quarry. There are no stone exposures visible, suggesting either subsequent slumping and erosion or that the whole of the available shallow limestone was removed.

4.1.1 Opencast Working:

These early quarries are now heavily vegetated with regenerated mixed woodland and provide a valuable wildlife habitat. The earthwork and spoil remains provide a record of the phasing of the workings and from the presence of limestone burning waste, may also contain evidence of early kiln sites. To more fully understand the morphology of the complex a programme of det ailed archaeological work is proposed should purchase be achieved to inform a comprehensive conservation management plan. At the request of TCHT the Novers has been assessed and designated as a nationally important monument SAM (Scheduled Ancient Monument) any work upon the site will therefore be subject to Scheduled Monument Consent (SMC) from EH (English Heritage).



Plate 1, The interior of one of the early quarries



Plate 2, Quarry access road

4.12.2 Drift Mine:

Following this initial open workings phase there was a drift mine driven in from the bottom of the lowest quarry on a NNW orientation. This latter episode appears to be an attempt to continue the industry once the close to surface limestone resource s had been exhausted. The mine entrance lies at SOSO59637375 and survives well, with a stone built entrance arch 1.8m wide (plate 3). The entrance continues as a barrel vaulted tunnel running roughly NNE for some 20m before being blocked by a fall. This surviving part of the tunnel may have been built as a surface structure in an open cutting which led into a quarry which lies now above and north of the mine entrance. It seems probable that the tunnel dips beneath this quarry following the limestone into the hill. Further survey work is required to fully establish this relationship.

Jenkins writing in 1983 gives an account of a conversation with Jim Reynolds a member of the Reynolds family who had worked the mine from the mid 19 th century. Mr Reynolds recalls as a boy taking food to the mines and that the tunnel extended for perhaps a mile into the hill and that on the hill above the mine was a ventilation shaft with a ladder, down which the miners would descend to the quarry face (Jenkins 83).



Plate 3, The drift mine entrance

4.1.3 Tramway:

From the mine entrance a causeway (plate 4) with an average width of 1.8mm, probably constructed using spoil from the drift mine, runs roughly SSE for some 135m over and through the earlier open workings to end at the top of a steep incline at SO59667359. This gravity incline (plate 5), 1.8m wide runs for some 74m south to end at SO59667352 (now the entrance way to Kiln House).

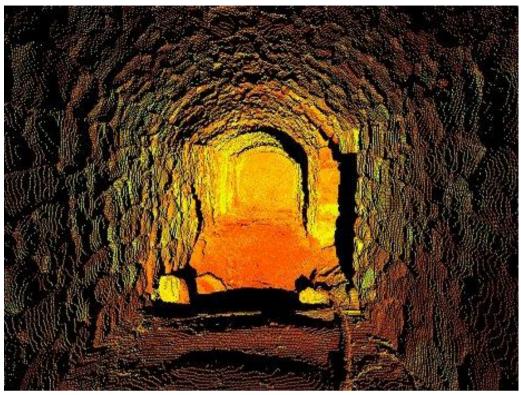


Figure 8, Laser scan of the surviving access ible part of the drift tunnel



Plate 4, The tub line causeway running south from the mine entrance



Plate 5, Looking down the gravity incline

4.1.4 Gravity Incline:

At the southern end of the incline is a flattened area between the end of the incline and the two kilns which lie at SO59667350 and SO59677350. This would have been the work area above the charge cones. To the west, centred at SO59617351 is an extensive area of spoil tipping which is probably waste material from the construction of the drift mine. It seems clear that considerable effort was made to construct this mine and from the amount of spoil that is present today, that it is likely to extend for some considerable distance into the hill. There is a second much smaller arched structure at SO59657354 which may also be a drift mine entrance.



Plate 6, The arches of the western kiln

4.1.5 Lime Kilns:

The two substantial lime kilns are constructed into the so uth slope of the hill. The western kiln has a central cone, though in-filled and today recognisable only by a shallow dished hollow 8m in diameter and 0.5m deep This is flanked by two large barrel vaulted discharge vaults of stone construction in an excellent state of preservation, visible below the cone hollow (plate 6).

The top of the more easterly kiln was excavated some time in the 1980s as a project by a local group of historians. This has exposed a substantial stone and brick cone some 8m in diameter and 10m deep. Below the cone is a stone built buttressed archway leading into two barrel vaulted chambers large enough to allow unloading of the processed lime into a cart of some type. The archway is however now blocked by a fall of earth and the remains of the root and trunk of a felled ash tree. The tree has fallen this year and is leaning against the inner face of the arch. There is a danger that this substantial weight pushing against the inner face of the kiln arch could push the arch wall out of alignment, or even cause a collapse. There is therefore an urgent need to remove the tree at the earliest opportunity and to consolidate any structural damage.

These two kilns are thought to be the last phase of the lime works, designed to be fired continuously over a three month period (information C Richards). They clearly represent the remains of a substantial local industry. Below and south of both kilns is a flat work area, which leads into the remains of a hollow way, which would have once linked with the lane to the south.



Plate 7, the interior of one of the west kiln discharge chambers



Plate 8, The blocked mouth of the eastern kiln

5. Preliminary Report on Habitat

5.1 Site description

For the most part, the site supports semi-natural, broadleaved woodland, however, at either end of the wood are small areas of species-rich calcareous and neutral grassland, dense bracken (*Pteridium aquilinum*) and a small area of heath.

The semi-natural broadleaved woodland (which is not recognised on the Ancient Woodland Inventory) falls within the NVC W8 *Fraxinus excelsior-Acer campestre-Mercurialis perennis* community. The woodland canopy is characterised by abundant ash (*Fraxinus excelsior*), with the occasional field maple (*Acer campestre*), yew (*Taxus baccata*) and an understorey of unmanaged hazel (*Corylus avellana*) coppice and scattered hawthorn (*Crataegus monogyna*). Wych elm (*Ulmus glabra*), elder (*Sambucus nigra*), holly (*Ilex aquifolium*) and bramble (*Rubus fruticosus*) occur less frequently as do pedunculate oak (*Quercus robur*), wild cherry (*Prunus avium*) and beech (*Fagus sylvatica*) in the canopy. A number of planted conifer trees including Scots pine (*Pinus sylvestris*) and European larch (*Larix decidua*) can be found close to the north-eastern boundary in and around the quarried section.

(Left) Unimproved neutral grassland at the northern end of the wood. (Right) Small area of heather in amongst dense bracken



(Left). Species-poor quarry with locally abundant nettle amongst moss. (Right) One of the lime kilns



Plates 9-12, habitats

The ground flora is patchy and varies according to the undulating nature of the site. The most common species are ivy (*Hedera helix*), and dog's mercury with damper patches supporting locally dominant ramsons (*Allium ursinum*). Other frequent species occurring throughout include wood anemone (*Anemone nemorosa*), enchanter's nightshade (*Circaea lutetiana*), false brome (*Brachypodium sylvaticum*), herb robert (*Geranium robertanium*), sanicle (*Sanicula europaea*), wood sorrel (*Rumex sanguineus*) and wood avens (*Geum urbanum*). Conspicuomale fern (*Dryopteris filix-mas*) and broad buckler-fern (*Dryopteris dilatata*) are also scattered within. Other woodland species of note include bluebell (*Hyacinthoides non-scripta*), yellow archangel (*Lamiastrum galeobdolon*), common twayblade (*Listera ovata*), primrose (*Primula vulgaris*) and wood speedwell (*Veronica montana*). The moss *Thamnobryum alopecurum* is particularly abundant.

The vegetation in the former quarries is rather poor with small amounts of dog's mercury, enchanter's nightshade and sanicle but generally much locally dominant nettle in amongst abundant mosses *Brachythecium rutabulum* and *Eurhynchium praelongum*.

Located along the north-west perimeter of the wood is a small area of species -rich unimproved neutral grassland, which is surrounded by rank grassland and dense bracken (NVC U20). This rabbit grazed area of grassland with ant hills is recognised as the more calcifugous (NVC) MG5c sub-community. In amongst the frequent crested dog's tail (Cynosurus cristatus), common bent (Agrostis capillaris), red fescue (Festuca rubra), sweet vernal grass (Anthoxanthum odoratum) and Yorkshire fog (Holcus lanatus) are heath grass (Danthonia decumbens) devil's-bit scabious (Succisa pratensis), betony (Stachys officinalis) and tormentil (Potentilla erecta). Other species of note in this small but diverse grassland are bird's -foot-trefoil (Lotus corniculatus), field wood-rush (Luzula sylvatica), smaller cat's-tail (Phleum bertolonii), spring sedge (Carex caryophyllea), glaucous sedge (Carex flacca) common dog violet (Viola riviniana), common knapweed (Centaurea nigra), common milkwort (Polygala vulgaris), common spotted orchid (Dactylorhiza fuchsii) and rough hawkbit (Leontodon hispidus). Grazed ant hills characteristically support wild thyme (Thymus praecox), germander speedwell (Veronica chamaedrys), common mouse-ear (Cerastium fontanum), lady's bedstraw (Galium verum), mouse-eared hawkweed (Pilosella officinarum) and juniper haircap (Polytrichum juniperinum). Spring turfmoss (Rhytidiadelphus squarrosus) also occurs frequently throughout.

Close to here and secluded within the dense bracken are a few isolated islands of common heather (*Calluna vulgaris*) intermixed with species-rich (NVC MG5c) grassland similar to that above.

On an area of steep, west-facing ground at the opposite end of the site the community changes entirely to a diverse calcareous grassland recognised as the (NVC) CG3 grassland, although this community clearly has a transition to mesotrophic grassland on level ground. Commoner grasses within this community include upright brome (*Bromus erectum*, false brome (*Brachypodium sylvaticum*), red fescue, crested dog's-tail, smooth meadow-grass (*Poa pratensis*) and less frequently quaking grass (*Briza media*), heath grass and yellow oat-grass (*Trisetum flavescens*). The mosses *Brachythecium albicans* and *Pseudoscleropodium purum* are also frequent. A diversity of species occur here including cows lip (*Primula veris*), woolly thistle

(Cirsium eriophorum), hoary plantain (Plantago media), yellow-wort (Blackstonia perfoliata), spring sedge (Carex caryophyllea), mouse-eared hawkweed, fairy flax (Linum catharticum), carline thistle (Carlina vulgaris), restharrow (Ononis repens), small scabious (Scabiosa columbaria), dyer's greenweed (Genista tinctoria), wild thyme and common spotted orchid. This small area of grassland is under threat from the invasive hawthorn (NVC W21 Crataegus monogyna-hedera helix scrub), which presently occurs all over the steeper slopes. Ranker grassland with false oat -grass also occurs in transition with this scrub habitat. Less species -rich calcareous grassland occasionally occurs on the open banks of the track that passes through the wood.

A small patch of grassland located on level ground further west shares affinities with the calcareous grassland but is more mesotrophic falling within the NVC MG5 community. In amongst the Yorkshire fog, crested dog's tail, red fescue, meadow buttercup (*Ranunculus acris*) and red clover (*Trifolium pratense*) are common knapweed, bird's-foot-trefoil, lady's bedstraw and burnet saxifrage (*Pimpinella saxifraga*). A larger glade located on the eastern side of the track in the same area has undergone some form of improvement and although a few species of unimproved grasslands remain towards the perimeter, the grassland is for the most species -poor.

4.2 Recommended site management:

As well as conservation woodland management it will be important to enhance and increase the area of calcareous grassland, neutral grassland and heathland by means of scrub, tree and bracken clearance. Bracken clearance should ensue with caution as it may provide habitat for specific fauna such as adder (*Vipera berus*).

4.3 Potential For BAP species:

Biodiversity Action Plan (BAP) is an internationally recognized program addressing threatened species and habitats, which is designed to protect and restore biological systems. The original impetus for these plans derives from the 1992 <u>Convention on Biological Diversity</u> (CBD). As of 2006, 188 countries have ratified the CBD, but only a fraction of these have developed substantive BAP documents.

The principal elements of a BAP typically include [1]: (a) preparing inventories of biological information for selected species or habitats; (b) assessing the <u>conservation</u> <u>status</u> of species within specified <u>ecosystems</u>; (c) creation of targets for <u>conservation</u> and <u>restoration</u>; and (d) establishing budgets, timelines and institutional partnerships for implementing the BAP.

Table 1: Potential of Novers for significant species

Potential	BAP	Protected	
	Song thrush Wood white Polecat Dingy skipper Grizzled skipper	Dormouse Bats. The lime kilns, tunnel and other associated quarrying structures are likely to be of significant	

importance for roosting and hibernating bats. Badgers. There are a number of active	
badger setts scattered throughout the	
woodland.	

BAP species known to be present on the Novers site are, badger, polecat, bat, song thrush and mistle thrush.



Plates 13-16, spring flowering species common at Novers: top left cowslip, top right speedwell, bottom left wild violet and bottom right bluebells sur rounding old coppice hazel

5. T.C.H.T. CONSERVATION OBJECTIVES::

The Novers is clearly a valuable cultural and natural heritage site. In the case of the former it has been accepted by English Heritage as a site of national importance and is in the process of being scheduled as such. The scheduling of the Novers is as a direct result of consultation between TCHT and English Heritage, scheduling being recognised by TCHT as a prerequisite to any grant application. The density and significance of the cultural remains has led to the whole of the 28.8 acres of the site being designated as a SAM (Scheduled Ancient Monument).

The modern bungalow and barn, previously part of the Novers, has now been sold as a separate property 'Kiln House' and is excluded from the scheduling. The current owners are sympathetic to the purchase and management of the site by Titterstone Clee Heritage Trust, as is the owner of the woodland itself. It seems clear that the Novers has much to offer in historical and environmental value to both local and more distant communities in South Shropshire. The nature of the remains, currently uniquely intact, are fragile and vulnerable and should the property fall into more commercial ownership there is a real danger that this resource could be lost to the nation and to the local communities of which it is historically an important component part. The plight of the Novers was presented to a local audience in the Spring of 2006 and there was a very clear desire that it should if at all possible be preserved as a community space. It was this community enthusiasm, not only for the Novers but for the hill as a whole, that acted as a catalyst for the creation of 'Titterstone Clee Heritage Trust'. The aims of the Trust as stated in the Deed of Trust are:

- to conserve and enhance Titterstone Clee Hill and its surrounding environs, its heritage, history, flora and fauna, geology and substantial cultural remains
- to make known to the people of Shropshire visitors to Shropshire and the nation at large the unique nature of Titterstone Clee and its features of special archaeological, geological, historical and natural historical interest
- (iii) to establish and run a resource/study/visitor centre in furtherance of objects (i) and (ii) above built using sustainable building techniques and sustainable energy

The purchase and management of the Novers falls within the remit of these aims and is seen as a first step in an ambitious long term project to raise awareness of the unique landscape of Titterstone Cle e Hill.



Figure 9: Extract from a recent copy of the local Ludlow Advertiser

5.1 The Novers, phase one:

The acquisition of the 28.8ha of woodland is seen as the fundamental first step to secure the preservation of the woodland and what it contains. Some enhancement of the resource is planned within this first phase. This will be limited to an improvement of access to the site and where necessary signage and possible limited protection fencing. However, no major works will be undertaken in advance of a full evaluation and detailed management plan, which will be undertaken post aquisition.

The east access right of way will be cleared and surfaced as will the existing gated car parking area at its south-west end SO5968,7377. Initial approaches have been made to the Hanson Quarry and Clee Hill Plant for assistance in the surfacing of the access and car park.

The aim at this stage is to continue the already in place public access by way of signed footpaths, this existing footpath network can be seen in figure 3. these are already served by pedestrian stiles and clear signs.

A full risk assessment will be carried out over the extent of the site and any necessary remedial work undertaken. The aim at this stage is to secure the site from a health and safety perspective in support of the existing user base.



Plates 17-22, General views of existing access pathways

5.1.1 Existing User Base:

The Novers has by kind permission of the owner had limited public access over the last 12 years, these users have included:

• Individual walkers, using footpaths

Guided Groups:

- School parties
- Historical society groups
- University student groups

These groups have been drawn to the site principally by the surviving structures relating to the lime industry, with visits focused on the kilns and drift mine. In essence this represents perhaps only some 10% of the resource. They do however demonstrate that there is an existing audience for the Novers.



Plate 23: Community Group visiting the Limestone Mine in May 2006, one of several such well attended tours of the site

Through 2006 a series of guided walks were undertaken around the archaeological and natural historical sites of Titterstone Clee, under the joint organisation of the Shropshire Hills AONB and The Titterstone Clee Heritage Trust. These were well attended with considerable enthusiasm from both local and more distant visitors, some travelling from as far afield as Wolverhampton. This programme was continued through the winter by TCHT with a series of talks and lectures, which were equally well supported and reported in the local press. There is a genuine desire in the Clee Hill communities for the preservation of the Novers and a growing pride of place in the history of the hill as a whole.

Within the limited first phase these groups will continue to be supported and will be encouraged to take a wider perspective of the whole site guided by some initial interpretation and presentation of the site. Possible on site information boards, simple guide maps or a small booklet based on the material in this conservation statement.

5.1.2 Sustainability:

The initial phase is deliberately maintained at a low level of expectation to minimise the early running costs of the site, Work on site will be carried out on a volunteer basis. Key volunteers will be supported to undertake necessary woodland conservation and management training through courses offered by the Small Woodlands Association. It anticipated that some £4000 will be required annually to maintain the Novers at this level. This will be initially sourced from a combination of

- donations for access to the site,
- small charges for guided walks
- small local grant aid
- management agreement with EH
- management agreement with Natural England
- Themed fund raising events within the Novers
- A scheme to purchase and plant a tree to reduce the community carbon footprint
- Development of Wild Wood experience courses
- Development of permacultue forest garden and forest foraging

There is considerable potential for the latter, also possible charcoal burning, limestone processing, workshops on the use of lime mortar, coppice product workshops. wildlife watch events.

The Novers has been featured in TCHT events already undertaken in 2007 and 2009 within the context of a Rural Craft Skills Fayre, at the nearby Mahoral Farm cider farm. Visitors have participated in guided trips around the principal Novers sites.

Overall the woodland will be managed as a permaculture forest garden designed to provide foraging opportunities for as wide a range of native wild food plants as possible. In turn this will provide a diverse habitat for an equally wide range of fauna.

- It is proposed that the site be zoned into three areas relating to human survival strategies there will be therefore:
 - 1. A hunter gatherer zone
 - 2. Agriculturalist zone
 - 3. Industrial zone

In addition it will be possible, by appointment to live in a zone according to the technology of the zone for a short period of time. This latter facility will be offered in association with The Pioneer Centre, Cleobury Mortimer.

The project will have a very low physical profile with minimal infrastructure, limited to the type of structure used within a hunter -gatherer culture, simple and temporary and of local materials.

5.2 The Novers, phase two:

The main subject of phase one was to for purchase, to secure the immediate future survival of the Novers. Phase two will be based on a full conservation plan. It is necessary to fully understand the resource before committing to future plans. However it is possible to at least outline the longer term TCHT aspirations for the site.

- Provide a more complete access to the site with planned and sensitively constructed pathways.
- Enhance the interpretation and presentation of the site.
- Develop training and education facilities in collaboration with the Pioneer Centre, Cleobury Mortimer
- Develop courses in woodland skills
- Bring coppice back into production
- Enhance wildlife potential of the site with a program of nest-box and species specific habitat improvement. Examples include log piles for beetle and insect habitation, bee boxes, bat boxes, owl and other species bird boxes. There are several wet areas which may possibly be improved and may provide a suitable site for the establishment of a small pond or ponds.
- Develop the woodland product potential of the site towards a more secure financial standing, with full regard to diverse habitat retention.
- Pursue a planning application for a study facility building onsite

5.3 The Novers, phase three:

Such a building would provide facilities for educational visits to the site and in the longer term possibly look to some limited accommodation. The building or buildings would:

- Be built to 0-carbon standards from renewable building material, wood or straw based.
- Would showcase small scale renewable energy technology
- Collect and store water and re-cycle grey-water to secondary use-age

• Use compost based waste disposal

There are clear models for such a structure in the eco-cabin style study facilities at the CAT centre. Initial conversations with the planning authority have indicated that such a scheme may be favourably received. This element as seen as particularly important in view of the urgent need to raise public awareness, particularly in more rural communities, of alternative renewable building and energy opportunities

CONCLUSION:

Titterstone Clee is a regionally and nationally important and arguably an internationally significant landscape, strategically positioned on the main arterial route from the densely populated industrial West Midland westwards, as such it has enormous potential for visitor presentation. There is clear potential for such a resource, sensitively managed, to become a significant part of the local economy providing locally based jobs in the tourist sector.

The Novers Limeworks, the subject of this report, forms an integral part of the over-vision for the hill which encompasses a range of other potentially significant visitor attractions which include: The largest prehistoric enclosure in West Midlands, Bronze Age landscape elements, extensive medieval mine and quarry workings and one of the first hydro-electric schemes in the world.

The Novers project offers a key to unlock the considerable potential of this little known landscape and to breath new commercial life into the villages and rural towns lying within its hinterland.