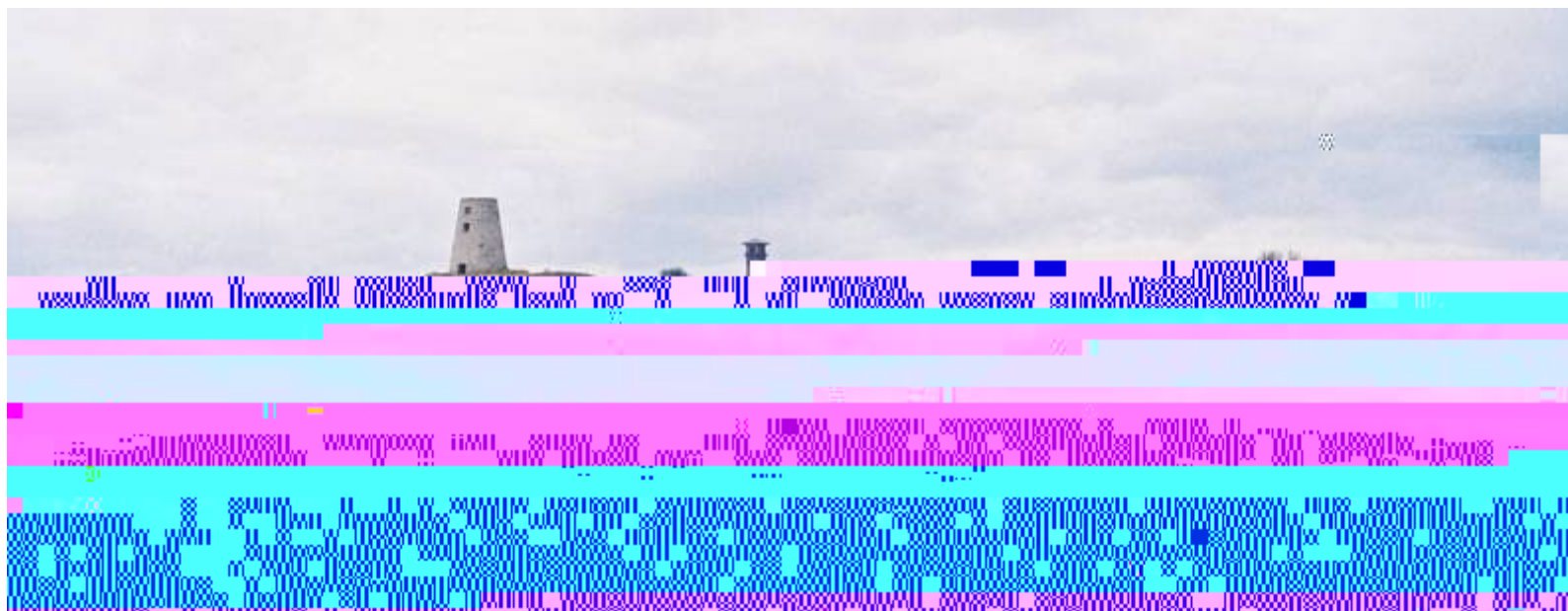




South Tyneside Council

Neighbourhood Services

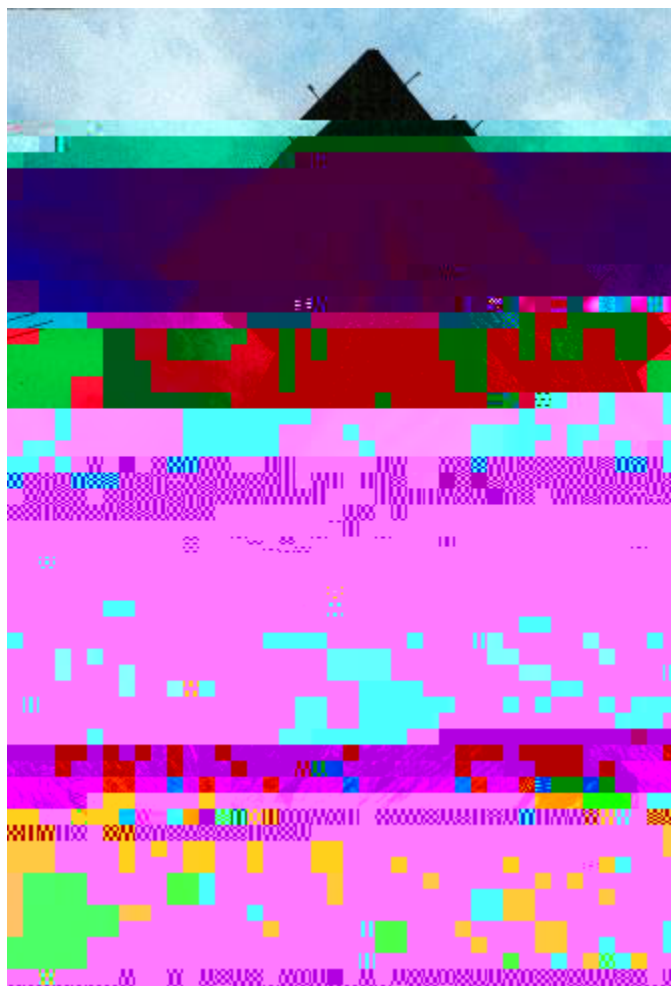
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Cleadon Hills Conservation Area

Character Appraisal

Prepared by North of England Civic Trust on behalf of South Tyneside Metropolitan Borough Council, March 2007



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Map 1: Cleadon Hills Conservation Area – Boundary



2 Cleadon Hills Conservation Area

The area has two very distinctive zones: the former Cleadon Water Pumping Station site (most now converted to private housing) together with Sunnyside Farm, and secondly the extensive elevated open grassland of the Cleadon Hills, an accessible, windswept landscape including exposed rock. Wide panoramic views, and the prominent, isolated pumping station chimney and ruined Cleadon

quarried to build the windmill and field boundary walls; its strata is naturally water-carrying with aquifers ideal for exploitation by a major water pumping station site; and it has generated locally rare grassland with habitats of national significance.

3 Location, Setting and Views



The conservation area lies on elevated land approximately 1km north east of the ancient village of Cleadon. To the north and west of the conservation area is the Cleadon Park housing estate, and the Cleadon Hills stretch away to the south and east of the area. South Shields town centre and the mouth of the River Tyne are some 4km north. The suburban expansion of South Shields did not encroach on the vicinity until the 1930s with housing off

Sunnirise Road to the west and a school north of the pumping station being laid out by 1938. Sunnyside Lane, forming one long edge of the conservation area, originally provided access to the corn mill, quarries and farms around (including Sunnyside Farm) and later to the water pumping station as well.

The North Sea is only 2km to the east and, as land in the south and east is some 75-80m (240ft) above sea level, the coast is characterised by rugged cliffs. The conservation area is the highest point in the borough and also for many miles to the south and west. As a result, the 30m (100ft) red brick Italianate tower in the former pumping station is very prominent, sited at some 80m above sea level, giving it a combined height of over 110m above sea level.



These factors mean there are spectacular panoramic views out of and into the area, on both a local and sub-regional scale. The

chimney in particular, therefore, has high visual impact in the densely populated suburbs of South Tyneside and Sunderland (and further afield along the coast), and the extent of wider public experience of the conservation area is therefore very extensive.



the most northern part of the exposed Durham Magnesian limestone plateau north of the River Wear.

The Plateau is a gently undulating low upland plateau exposed to coastal influences. The landform and its underlying geology have produced a pattern of predominantly arable farmland which dips to the south and east, and is often interspersed with large active or disused earlier quarries. The greater part of the conservation area is on the higher land of this plateau with evidence of many small

4 Historical Origins

An 1862 map of the area (probably surveyed before this date as the water pumping station built 1859-62 is not shown) shows it is part of a wider, elevated grassland landscape of farms and quarries including Sunnyside Farm, Cleadon Corn Mill and (outside the conservation area but with an access across it) Cleadon Hills Farm. Such scattered farmsteads, limestone walled fields, quarries and mills characterised the early nineteenth century landscape of this,

beneath the site. The pumping station was built straddling a section of the exposed west-facing scarp of this shallow rock but this critical topographical feature is now largely hidden in the northern section by tree and ground cover. All the buildings and structures on this site are on the lower western level apart from the spectacular chimney tower on the upper level to the east.



The mid nineteenth century origins for the pumping station's location, architecture and operational design were due to an urgent need, on health and economic grounds, for better provision of clean accessible water for the increasing populations of industrial

Wearside and Tyneside. An Act of Parliament created the Sunderland & South Shields Water Company in 1852 in response to local water quality problems. There was more opportunity for the area to benefit from the expertise of Thomas Hawksley (1807-1893), a nationally eminent water supply engineer who had already worked for the company on two earlier stations on the Durham Magnesian limestone Plateau, first at Humbledon (1846) and then Fulwell (1852). Hawksley's earlier career started in his home town of Nottingham, significant in that its location is at the southern end of the same geological belt of water bearing magnesian limestone rocks as the Cleadon Hills.

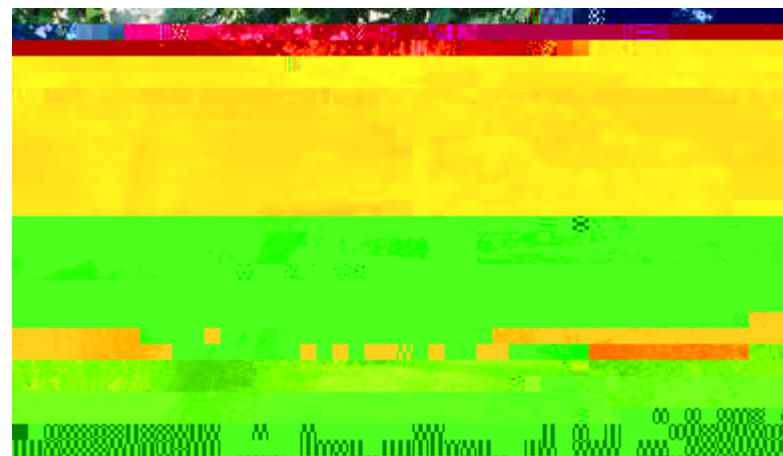
The pumping station was originally operated by steam from coal fired Cornish boilers, using about 470 lbs of coal per hour,

actually a 'chimney' that provided a draught for the boilers as well as dispersing waste gases from the squat Boiler House which is attached to the taller Engine House in the centre of the site. The 'artificial' cooling pond to the south of the site, fed by water from

6 Sub-Area 1: Pumping Station & Sunnyside Farm

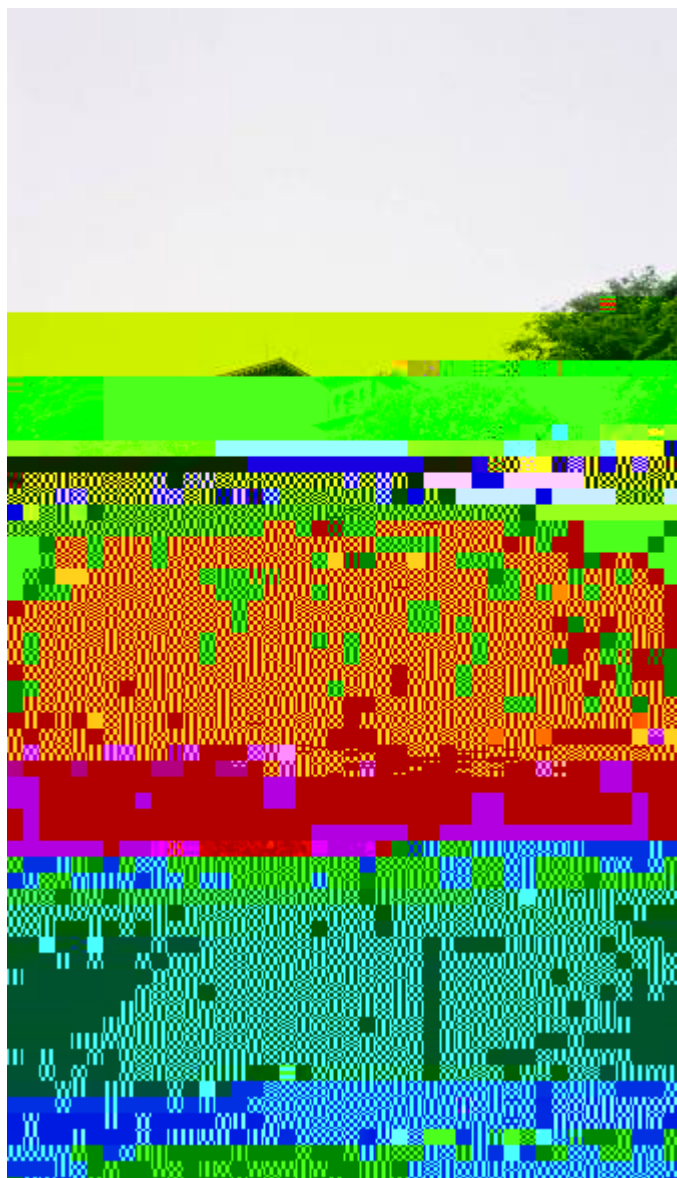
6.1 Boundaries, Setting and Views

This sub-area includes two clearly defined areas – the former pumping station and Sunnyside Farm. The conservation area boundary on its north and west edges follows very tightly around the very prominent limestone walled enclosure of the sub-area. The two sub-areas abut each other down the length of the east wall, most of which has two rows of barbed wire along its top. On the west side, the new housing is screened by a more formal and substantial version of the perimeter stonewall with rounded copes (still with barbed wire) strengthening privacy.



Extensive views out over rooftops are possible from within the site, with walled boundaries also dominating the farm group, making Sunnyside Lane a distinctly channelled route. The chimney tower is a distinctive point of orientation adding diversity

to the regional and local sense of place. It can be seen on the horizon across the region and as such it is the main signature of the Cleadon Hills, being more distinctive than the windmill, but the two work best when seen together. The chimney's prominence creates a sense of anticipation and expectation upon arrival at Cleadon Hill.



6.2 Use

This sub-area has three identifiable uses. The former pumping

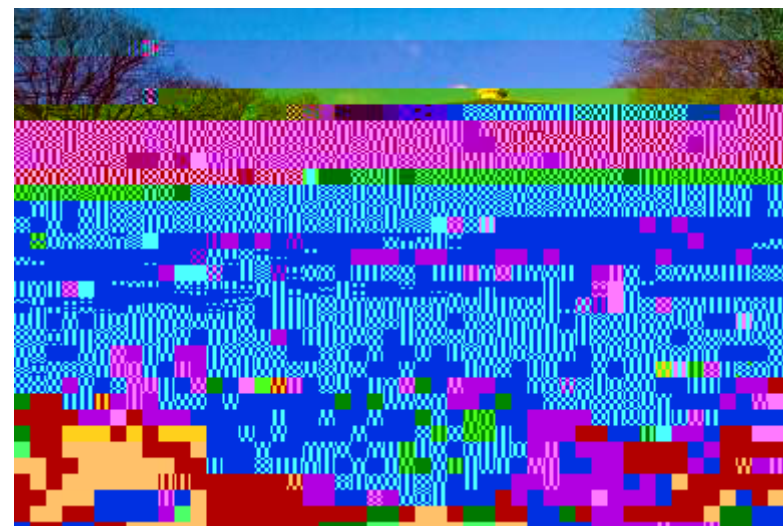
6.3 *Layout*

With the exception of the tower and covered reservoir, all the former pumping station buildings are now in residential use. They form a dramatically arranged and structured group due to the original detailed planning of operational and domestic buildings and infrastructure by the water company. The buildings and remainder of the former operational site are still private and enclosed by a high stone boundary wall, now with security controlled gates.



The waterworks buildings are arranged in a clear north to south layout, only the chimney tower being on the higher level. In the north section of this zone the buildings are now linked by a new, elegant, ornamental landscape of curved lawns, low hedges, potted

shrubs, restored fountain basin, mature trees and a deliberate but subtle attention to detail through the use of surface materials. The restored curtilage-listed fountain is now unfortunately lost to general view by recent laurel hedging.

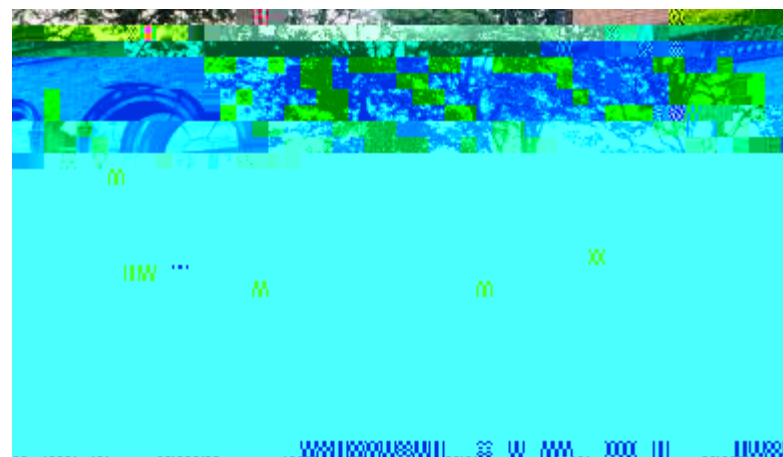


The undergrowth and self seeded trees covering the otherwise visually dominant central north-south limestone scarp, create a dense impenetrable green barrier in the summer, through which only glimpses of the chimney tower are possible from this part of the site. This makes it difficult to see the base of the tower, whilst the curved track up to it is also screened by trees, the rocks and quarry remains themselves.

The layout of the southern part of this enclosed site can only be seen from within or through the gates of the detached cottage. There is an expansive area of grassland on two distinct levels, separated by a 2m stone retaining wall and tree band that follows the natural north-south line of the scarp edge.



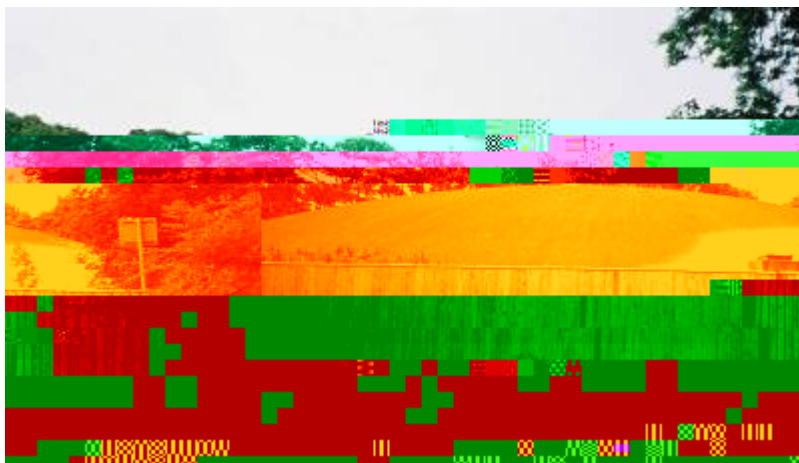
Sunniside Lane separates Sunniside Farm from the former pumping station. The farm group also has an enclosed operational layout, here the stone buildings themselves forming the outer walls of the space. The traditional farmyard layout of barns and byres is a typical farmstead layout, providing shelter, efficiency and security for both stock and operational activities. The squarish farmhouse stands attractively, guarding the gap through into the working courtyard.



6.4 Scale

The buildings in the main group are of differing heights, footprint and shape, defined by their operational use, but uniformity is provided by the common approach to architectural style and detail throughout, cleverly disguising them with domestic character. The large industrial scale of the engine house can be appreciated up close. The covered reservoir is the most unusual of all the structures in this zone, significant in size and historical development. Its circular shape with a smooth light grey 50m diameter concrete dome makes it difficult to appreciate in its entirety, and it is generally only glimpsed over walls, through trees and behind buildings from both within and outside the site. From

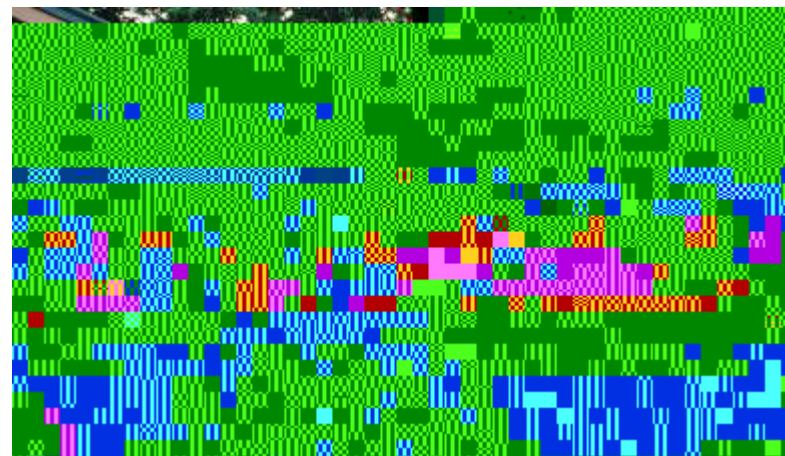
the top of the chimney, however, its vast proportions are quite dramatic. It is currently fenced off and inaccessible.



The scale of the square-section chimney tower and the generous proportions of the other buildings suggest the specific functional past but the external architectural ornamentation and grandeur in a strong classical style, also suggest more refined civic or even religious overtones.

The four new hip-roofed double garages next in amongst the residential conversion of these buildings also have a common form and detailing. Together with the residential extension of the former engineer's house at the main gate, these contemporary additions give a more clear domestic scale to the group as a whole.

A former lodge building stands alone at the southern end of the former pumping station site away from the remainder. Its is domestic in scale and detail but has received a large mid to late-twentieth century flat roofed extension to the east and is severed from the rest of the site by a fence that cuts through the southern tip of one of the reservoirs.



The Sunnyside Farm group is generally a uniform, two storey domestic and agricultural scale. The visual contribution that this extensive group makes within the conservation area is relatively subdued partly because of the elevated level of Sunnyside Lane, the inward looking layout and the homogeneous stone materials blending with the boundary walls. However, when viewed from outside across open fields to the west and south, the farm group is

seen as a prominent and extensive group of vernacular stone agricultural buildings.

6.5 *Density*

This sub-area generally has a low density with few buildings in total occupying a relatively spacious area. But instead of being evenly spread, buildings are concentrated in the northern half and at Sunnyside Farm, with larger open areas of former reservoirs and open land to the south of the sub-area. Yet even in the relatively densely developed northern part there are contrasts, as the single dome covered reservoir occupies a ground area greater than the footprint of all the other structures put together.

Density at Sunnyside Farm section is higher because the boundary is drawn tightly around the footprint of the built group. Nevertheless, less than half of this section is built over with the yard itself a key open space.

6.6 *Massing*

The massing of buildings in this sub-area varies, but this too is concealed by the clever use of common Italianate architecture in the pumping station. For example, the central former Engine House appears from the front to be a generous two-storey building similar in volume to the Engineman's House opposite, but is in

fact considerably bulkier. Its volume is disguised by 'stretching' its architectural features such as the more substantial plinth and taller windows.



However, overall, the buildings are read as a single organised group, by positioning the taller engine house centrally in the group facing the entrance, with lower buildings on each side and to the rear. The detached chimney continues this theme, resembling a detached campanile tower. The new garage blocks are much smaller than the original buildings. The circular covered reservoir has squat proportions, the dome having been added to an originally open reservoir.

Sunniside Farm has simple regular forms, the stone buildings having solid, substantial massing with few external features and, instead, a considerable solid mass of stone and slate with long unbroken stretches of roof and random rubble walls. The detached two-storey hip roof house is also uncomplicated in shape. The use of indigenous natural building materials reduces the visual impact of the mass of the Sunniside Farm group.

6.7 *Detailing & Materials*

The basis for much of this part of the conservation area's character and appearance is accurate observation of specific architectural styles, and a comprehensive, detailed use of high quality materials with high quality craftsmanship.

The former pumping station buildings, with the exception of the later concrete dome to the reservoir, are in a robust Italianate style, referred to in the listing as 'Rundbogenstil', a German influenced version. The chimney tower; engine house, boiler house, coal

The Tower is built of soft clay red brick with light-coloured lime-

The scheme for the conversion to residential use was designed by Jane Darbyshire and David Kendal Ltd, Chartered Architects, for Rivergreen Developments plc. It received a Hadrian Award in

sunken into the ground and lined with irregular coursed rubble stone, originally with a stone set floor and ornate railings around its rim. This is all now concealed by the stark light grey concrete dome, added in 1954. Its smooth tones and profile contrast dramatically with the warm tones and detailing of the adjacent buildings but the dome may have significance in its own right.

6.7.5 *Sunniside Farm*

The use of natural limestone and slate construction coupled with a minimal number of external openings makes this farm group a very discreet private group of functional buildings. In good condition with recent lime-rich pointing, the whole vernacular farm group type is simple and functional. The single high brick arched entrance into the courtyard through the north side is a notable detail. The farmhouse is a simple square hip roofed building with formal regular traditional fenestration details.

6.8 *Biodiversity and Land Management*

The former pumping station site contains a number of valuable habitats. Of particular interest is the former cooling pond, which now contains shallow soils that have developed a particularly varied and valuable flora. Many of the species, such as glaucous sedge (*Carex flacca*), wild thyme (*Thymus drucei*), hoary plantain (*Plantago media*) and purging flax (*Linum catharticum*) are typical

of older, high quality Magnesium Limestone grasslands. In addition, the raised grassland area, to the south of the tower, contains calcicolous species (favouring limestone-derived soils) such as greater knapweed (*Centaurea scabiosa*) and rough hawkbit (*Leontodon hispidus*) though it is heavily dominated by the coarse, upright brome (*Bromus erectus*).

In order to maintain the site in favourable condition and thereby preserve its visual and nature conservation contribution to the character of the conservation area it is essential that a biodiversity management plan is produced and implemented. This should feature a cutting/grazing regime to maintain/enhance the floristic diversity of the grasslands and prevent them from scrubbing over as well as a suitable woodland management regime.

The nature of the buildings in Sub-area 1, combined with the range of good habitat, make this area potentially attractive to roosting and foraging bats.

Summary: Sub-Area 1 Former Pumping Station & Sunnyside Farm

Special Characteristics

- Fine, unified group of classical historic and new buildings.
- Quality conversion scheme and re-use of most buildings.
- Good attention to detail, eg. fencing, setts, colour scheme
- Attractive vernacular stone farm building group
- Strong senses of enclosure providing different identities
- Quiet, lack of traffic.
- Attractive mature tree cover with far reaching visual impact
- Tower structure, a sub-regional point of orientation,
- Link between geology and historic engineering/architecture

across the area give informative details. Pathways and routes are also marked for guidance. At the notional point of arrival to the windmill, an information board gives useful interpretational material including contextual, historic, and habitat information. The character and appearance of this sub-area is very sensitive to changes in this informal use and management.

7.3 *Landform and Layout*



This is an expansive, exposed sub-area of the conservation area, containing only one significant structure, the sub-conical shell of an early nineteenth century corn mill. This light coloured rubble limestone vernacular structure stands alone with a shallow stone skirt as a retaining wall around its base (known as a reefing stage) from where the windmill sails were attended. It is seen against the

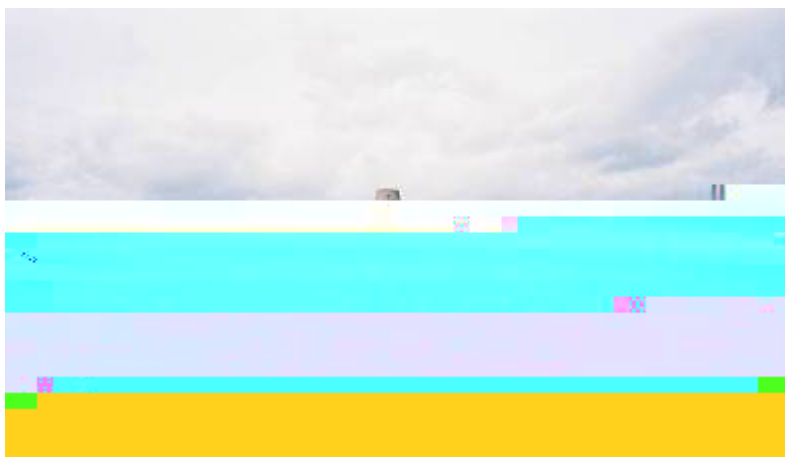
skyline amidst a wide, bare but highly accessible undulating grassed landscape, crossed by both informal grass tracks and designated pathways. The sub-area also contains many spots of disturbed ground, previously worked as ad hoc shallow rock face quarries, particularly around the south-west and north edges. These points are colonised by scrub plants and longer grasses.

The characteristic open and undeveloped landscape is informal and semi-natural, but notably delineated by strongly defined stone walled field boundaries along the eastern edges, with hedges and ditches to the west and south.

Landform describes a gently undulating, low upland plateau with a defined western scarp exposed as limestone rock outcrops, or staggered grassed slopes with gorse and scrub. These define the sudden rise above the greener arable fields immediately outside the conservation area to the south and to urban areas beyond.

Sunniside Cottages on the east side of the bend in Sunniside Lane are geographically part of the lower slopes of this grassland plateau. These buildings face the lane, have little land associated with them and, as a small relatively inconsequential group of indistinctive residential buildings, have little impact in their present form on the overall layout or landscape character of the sub-area.

7.4 Scale



In landscape terms the scale is expansive and visually far-reaching with only one or two key tangible features. The sub-area itself has no trees or internal boundaries so the expanse of land appears vast with the isolated windmill a strong marker at some 14m (42ft) high. In this exposed and elevated

The shell of the former windmill (which appears in good condition) is roughly coursed rubble limestone to three-unequal storeys, with a door and two window openings facing both north and south. This stripped, functional simplicity is key to its character. Made of material probably from the ground around, its style and appearance are vernacular and indigenous to this location.

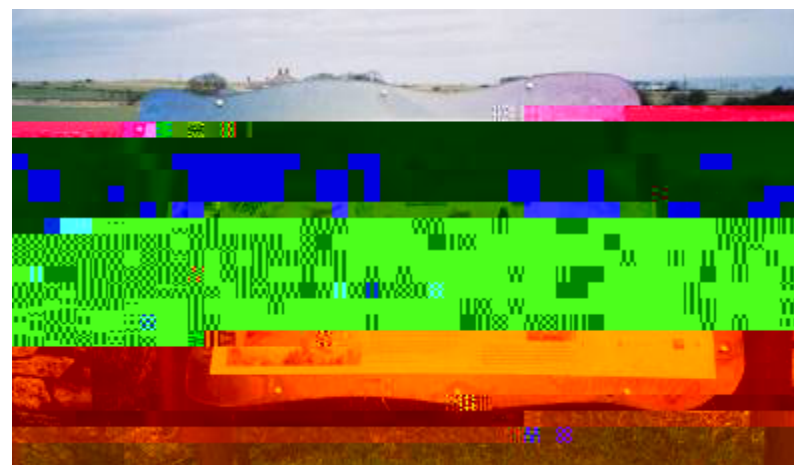


Sunniside Cottages are architecturally undistinguished workers dwellings near the farm group, but not part of it, being separated by topography, access and design. They appear more part of the wider landscape of this sub-area, but in a low-key way.

Peripheral stone field boundary walls have a tapered profile and varied methods of construction. Some are in roughly coursed rubble with deep recessed mortar and spaced copes, other stretches are squarer coursed rubble with more tightly packed, regular copes. There is variety in both types.

7.6 Biodiversity and Land Management

Cleadon Hill SSSI is a nationally important example of Magnesium Limestone grassland. As such there is a requirement in law that it is managed by the land owner, the Council, to maintain its favourable condition in relation to features such as the grassland flora and fauna, gorse scrub and limestone walls. In addition it is managed to promote public access and provide interpretation.

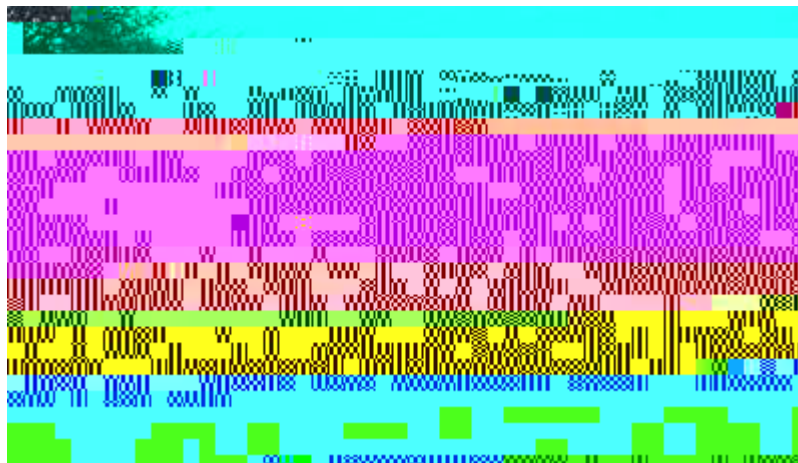


Summary: Sub-Area 2 Cleadon Hills and Windmill

Special Characteristics

- Elevated, undulating, exposed semi-natural landscape with open grassland
-

8 Other Designations



Cleadon Hills Conservation Area has other heritage, landscape and nature conservation designations as set out below. There are no Article 4 Directions, Tree Preservation Orders, or Local List entries in the conservation area. See Maps 2-6.

- Sub-Area 2, with the exception of the cottages and northern extension east of the former pumping station, was designated as a Site of Special Scientific Interest in 1983. This is a national designation made because Cleadon Hill is of interest for its Magnesian limestone grassland communities, which are associated with shallow soils, rock outcrops and old earthworks on the flanks of the hill. The

herb-rich turf holds species of grass and wild flower, which are near the northern edge of their range in Britain. Dense patches of gorse scrub provide nesting cover for yellow hammer, linnet and common whitethroat whilst the grasslands provide nesting areas for breeding skylark. Dry-stone walls surrounding the grassland are inhabited by several species of molluscs at their most northern station on the east coast. They also host the common lizard at its only known location in South Tyneside.

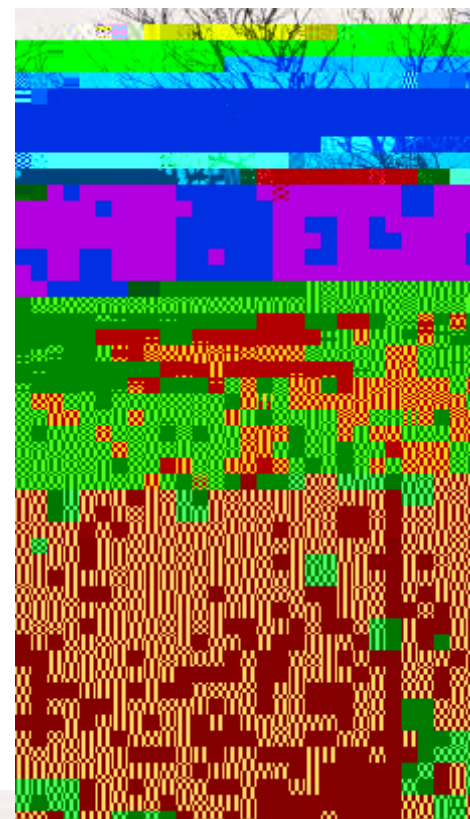
- The same area was declared a Local Nature Reserve in 1997.
- The former pumping station site is designated as the Cleadon Pumping Station Site of Nature Conservation Importance (SNCI), a local designation principally recognising it as a Magnesian limestone grassland habitat with additional valuable woodland, wall and rock habitats. A second SNCI, Cleadon Quarry, covers the northern part of Sub-Area 2 (ie. the section not owned by the Council) because of its value as part of the same magnesium grassland habitat as is recognised in the SSSI.
- All of the conservation area bar Sunnyside Farm is within the Cleadon Hills Area of High Landscape Value (AHLV),

designated to conserve the intrinsic attractiveness, quality and character of the landscape

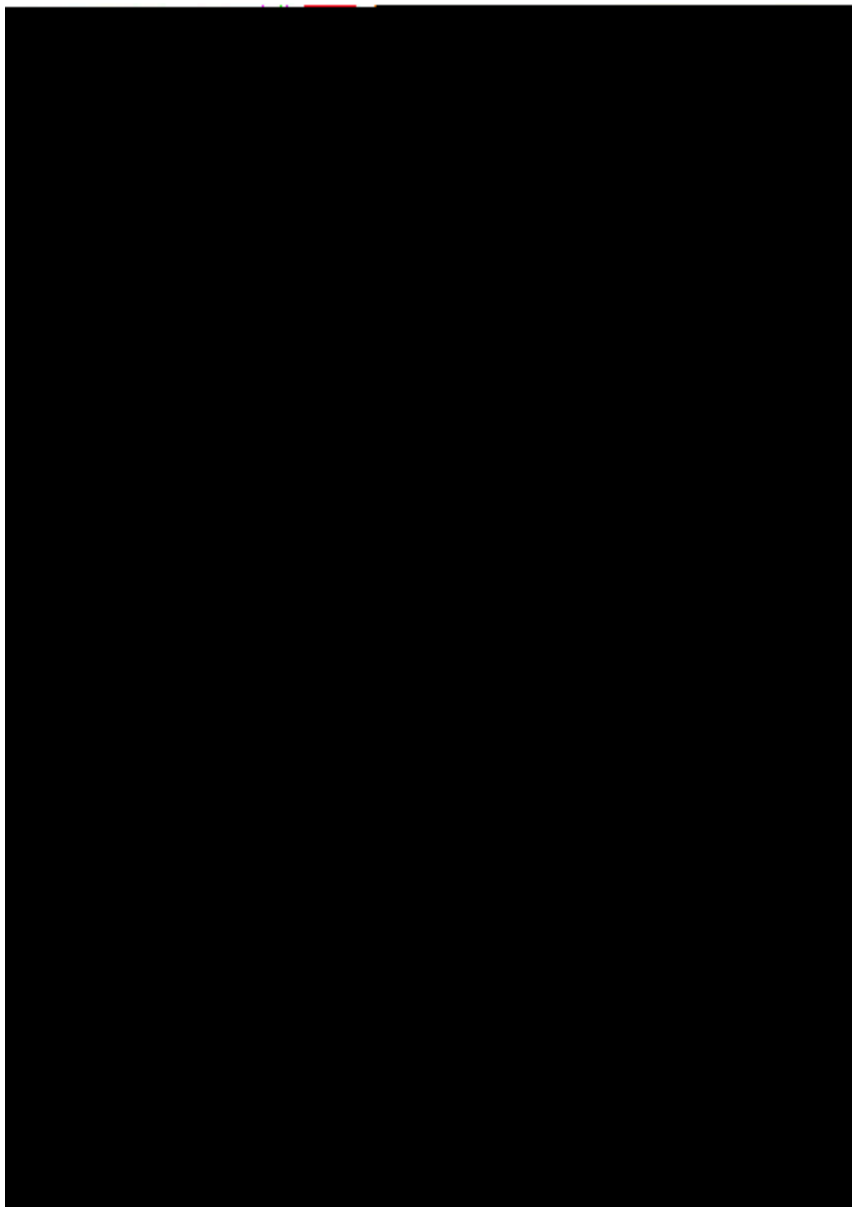
- The whole area is in the Tyne & Wear Green Belt where there is a presumption against 'inappropriate development', other than in 'very special circumstances' which may include the re-use of redundant listed buildings.

8.1 Listed Buildings

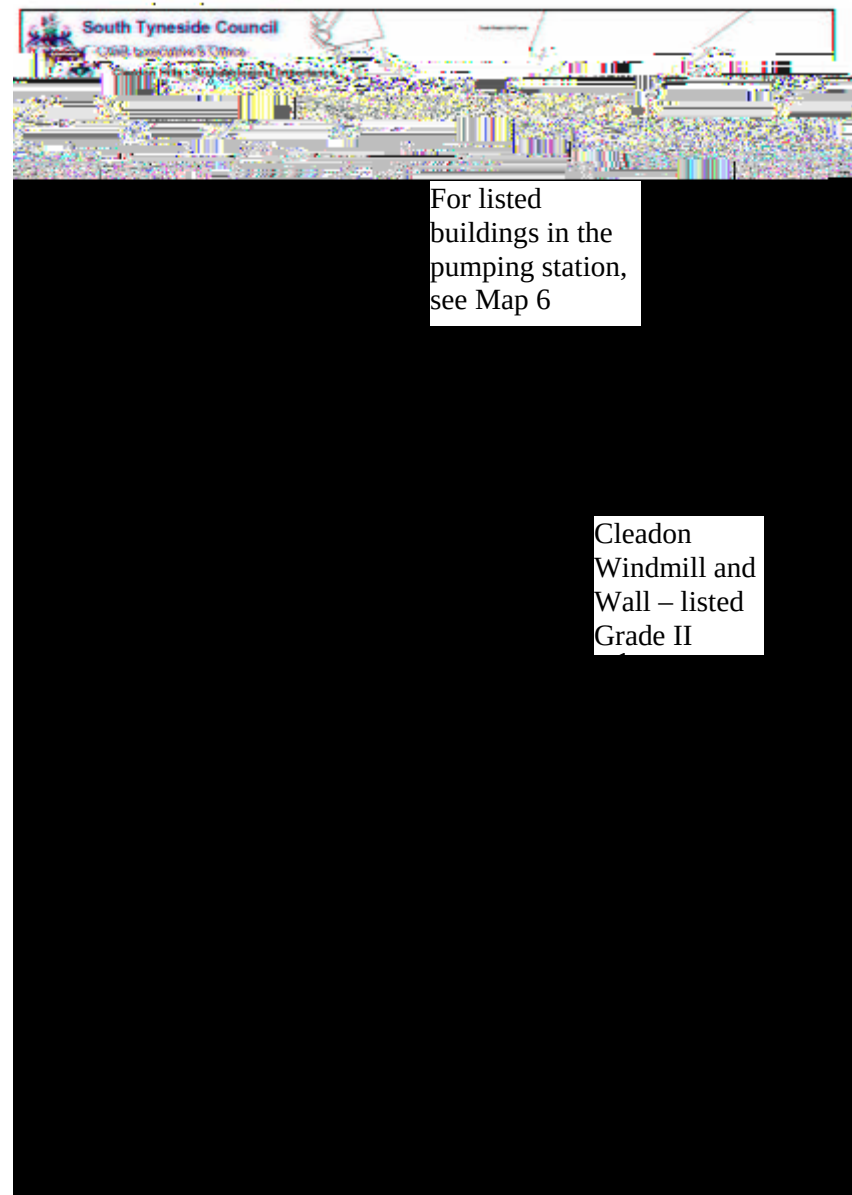
Grade	Listed Building
II (chimney tower is II*)	Combined engine and boiler houses, adjacent coal store, detached chimney, engineman's house and cottage at Cleadon pumping station
II	Cleadon Mill and surrounding wall



Map 2: Area of High Landscape Value



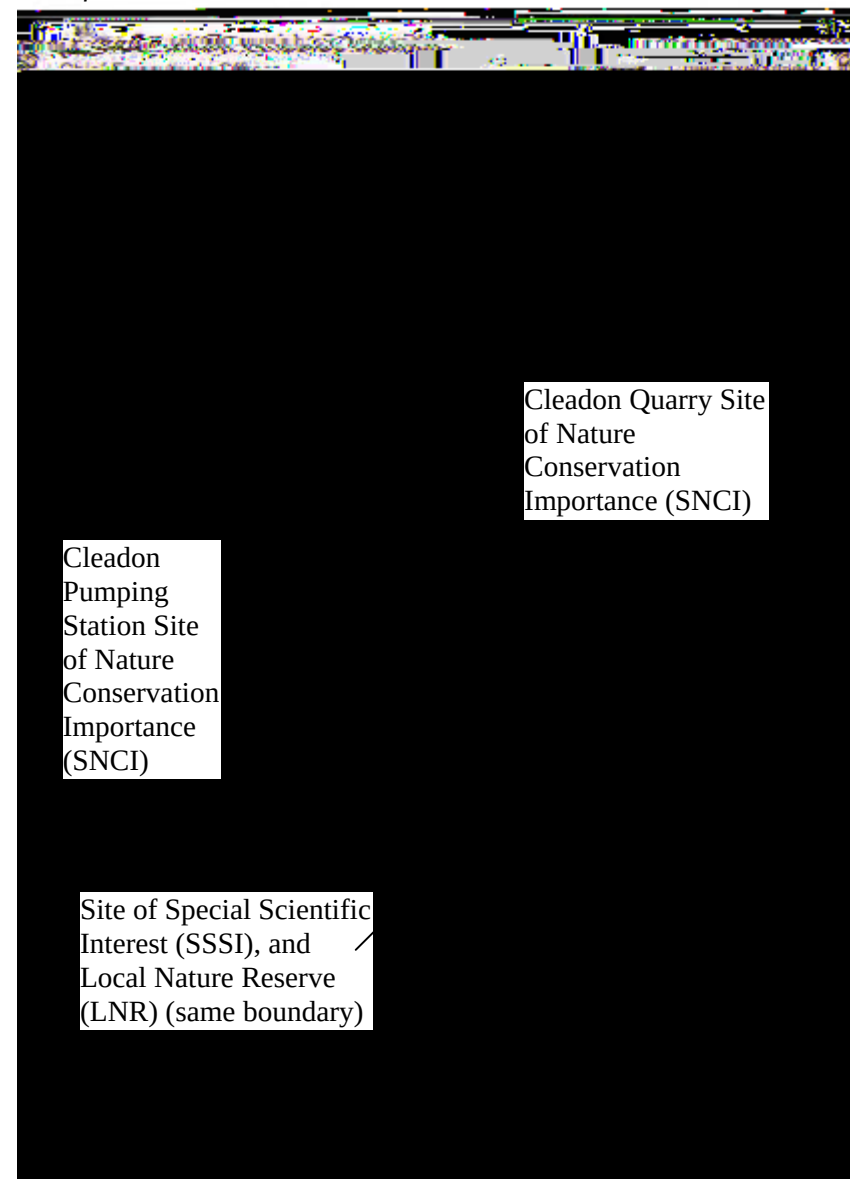
Map 3: Area of Archaeological Importance and Listed Buildings



Map 4: Green Belt



Map 5: SNCI, SSSI and LNR



Map 6: Cleadon Pumping Station Site Plan and Listed Buildings





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