

# CORNWALL AND ISLES OF SCILLY LANDSCAPE CHARACTER STUDY



## Landscape Character Area Description

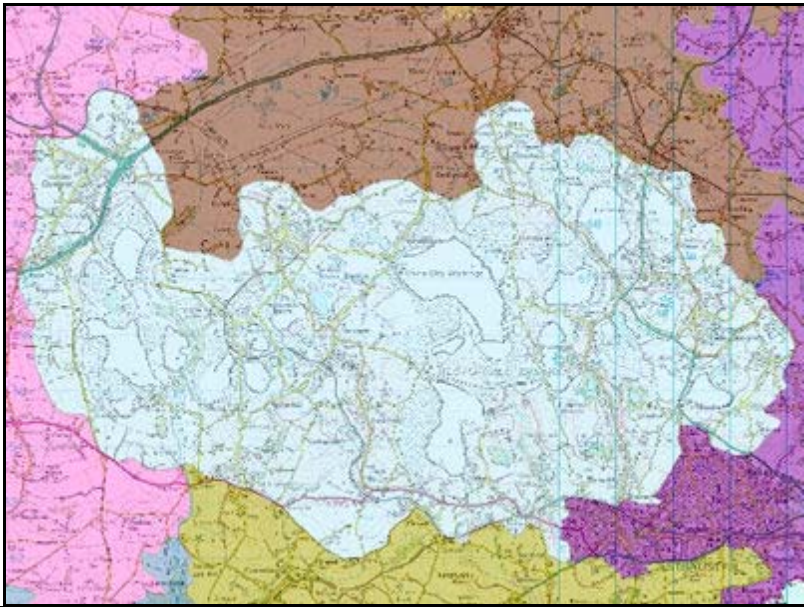
LCA - St Austell or Hensbarrow China Clay Area.

LCA No CA17

JCA

Constituent LDUs

Total 4: 298, 409, 410, 411



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Location	Inland area to the north-west of St Austell and bounded by the road network which stretches from Indian Queens on the west (B3275) via St Dennis in the north (B3279) to the A391 in the east (Penwithick) and the A3058 in the south, where it abuts the urban area of St Austell.
Designations	No AONB; SSSIs in LDUs 298,409, 411. 3 LDUs contain SACs; 3 contain SMs and there is 1 CGS site.

### Description

A very varied, dramatic landscape of china clay waste tips and areas of rough vegetation, characterised by open pit mining. The mix of active and disused sites creates a dramatic 'lunar' landscape of huge, light-coloured waste tips and settling ponds within a relic pastoral farming landscape. A rugged area of great variation and drama. Dominant visual elements include the large white spoil heaps, either conical or flat-topped in form, aqua-blue pools, areas of rough ground and natural and naturally regenerated scrub and heath, as well as large quarry pits. The scale of these features contrasts dramatically with the small scale field patterns. The fluctuating and changing condition and relationship of elements in this landscape, and the natural regeneration of heathland, new woodland planting and rough ground provides a vivid and dynamic visual landscape character quite unlike surrounding LCAs.

### Key Landscape Characteristics

- High extensive spoil heaps and vivid blue settling ponds, lakes and mica dams.
- Extensive industrial buildings, both active and derelict.
- Fluctuation and change in condition and relationship of landscape elements.
- Settlement pattern of large mining villages and terraces, and many industrial buildings.
- Huge scale of spoil heaps, contrasting with small scale of farmland.
- Small areas of pastoral farmland and rough grazing.
- Fragmented areas of Lowland Heathland, scrub and broadleaved woodland with areas of natural

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regeneration and restoration of heathland, woodland and roughground.

High density of open water in the form of pools

Small-scale field pattern of miners' smallholdings around St Dennis.

Visible time-depth of structures and patterns within landscape - Bronze Age barrows, medieval field pattern, 19th C mining relics and modern china clay workings.

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### Geology and soils

One of the granite intrusions, with accompanying metamorphic aureole which form a spine SW to NE through the centre of the county. It is the second largest granite area after Bodmin Moor, with poorly draining impoverished soils which support moorland and pasture and extensive china clay deposits.

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### Topography and drainage

Originally a domed structure rising above the general plateau to what was the highest point in Mid-Cornwall, Hensbarrow Beacon, 312m AOD, this Landscape Character Area continues to be significantly modified by industrial use. The northern half consists of shallow basins interspersed with higher granite outcrops that drain north and west into the River Fal whilst the southern half is cut by deep narrow valleys whose streams run southwards to join the St Austell River.

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### Biodiversity

This Landscape Character Area is Cornwall's most extensive area of still actively worked china clay extractive industry. This process has altered the area beyond recognition and the original habitat found on this high granite area of heath, bracken and small fields has been replaced by much disturbed ground, with large open pits and high heaps of spoil. However, this landscape contains remnant Lowland Heathland at Hensbarrow Downs, Longstone Downs and Burngullow Common, with fragments elsewhere, but there are also tiny areas of Fens, Purple Moor Grass and Rush Pastures and Upland Oakwood. Over time neglected areas of disturbed ground have been colonised with native plants naturally, developing into pioneer heathland, with Heather frequently colonising the acid spoil, or scrub, with European Gorse on drier spoil. Grey Willow and other wetland plants have colonised the many small pools, ditches and depressions created by the extractive processes around the pits, and along wet gullies. The area has the highest density of open water in Cornwall, but much of this is in the form of deep water, less rich in wildlife than the shallower waters of pools in the Mid Cornwall Moors to the north (LCA 20). Much of the grassland that has not been covered by spoil is improved with some fields of neutral grassland with invading Bracken or European Gorse and in the western and southern parts of the LCA small areas of land are used for arable. Many of the Cornish hedges have a scrub top, with Hawthorn and Blackthorn frequent and European Gorse sometimes abundant. The open stone walls around St Dennis have an interesting flora. Much of the broadleaved woodland is restricted to the small valleys on the southern part, as at Gover Valley, Tregargus Valley, St Austell River valley and Treviscoe, but in places these have been much invaded by the non-native invasive Rhododendron and Japanese Knotweed.. Two regeneration projects are being undertaken, the Heathland Project and the Woodland Project to help restore the vegetation of the area following the mining operations.

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### Land Cover

Largely industrial, with some original heath (and heath restoration e.g. at Singlerose Tip, Caerloggas Downs, where indigenous heather has been established) and rough grazing. Small patches of the original agricultural land still remain amongst the industrial activity. Although much altered and dominated visually by the china clay industry, this is the second largest area of upland landscape in Cornwall, after

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Bodmin Moor.

### Land Use

The historic land use of this area is pastoral farmland, but beginning in the fifteenth century, if not earlier, extensive mining and, from the later eighteenth century, china-clay working spread across the rough ground of the Hensbarrow Downs. Large-scale china clay pits and heaps have occupied much of the area, with a china clay-related landscape now dominant and masking or having destroyed much evidence of the earlier mining industry. The main china stone quarries were developed around Nanpean and St Stephen. Around these excavations are areas of rough grazing, heath restoration and naturally regenerated heath and scrub. The relict farmland is pastoral supporting cows and horses. The china clay industry still remains a major industry with the tips providing a huge resource of secondary aggregates.

### Field and woodland pattern

Where still present, the small-scale field pattern mostly dates from the medieval period, Anciently Enclosed Land on the lower slopes of the Hensbarrow massif. On the higher ground of the Downs, there are areas of post-medieval Recently Enclosed Land, particularly extensive around St Stephen but elsewhere surviving only in patches amongst the clay spoil heaps. Some of these are in the form of miners' and clay workers' smallholdings, others small farms of the post-medieval period. The pattern made by the stone walls in the St Dennis area makes a significant feature. The pattern of woodland varies according to previous land use, mainly persisting in the river valleys and around small farms, forming an important feature of the valley landscapes. The steep sided valleys of the south could be regarded as wooded but in many cases have been taken over by the non-native invasive Rhododendron. Waterlogged streamworking and mining remains are invariably found in the valley bottoms supporting some wet woodland. New woodland planting is a recent feature of restoration and project work.

### Settlement pattern

Historically the lower slopes and valleys of the Hensbarrow uplands were occupied by medieval farmsteads with the upland used for extensive grazing. There was a medieval churchtown at St Stephen-in-Brannel and a chapelry at St Dennis but settlement elsewhere was essentially dispersed and agricultural. Fragmentation of the former landscape through industrial development has meant that smallholdings are prevalent throughout both older enclosed land and more recent enclosure of rough ground. Several nucleated industrial residential and service settlements emerged from the mid nineteenth century, often through the coalescence of earlier hamlets, with the rise of an industrial population. These include Nanpean, Foxhole, Stenalees and Bugle; Indian Queens and Fraddon were small roadside settlements on the main east-west route (now A30) prior to their expansion as industrial settlements in the twentieth century. Built structures in the landscape include churches and the distinctive Methodist chapels. Many of the local buildings here and elsewhere in Cornwall use the china stone and granite from the local quarries, in particular the St Stephen's stone - a characteristically light stone.

### Transport pattern

The A391 cuts through the Landscape Character area from north to south linking St Austell with the major trunk road (A30). The A3058 runs along the southern boundary. Much of the old road system has disappeared under the china clay workings but there is still a network of tramways, railway branches and sidings, developed around Hensbarrow to transport finished clay to the ports of Par, Pentewan and Fowey.

### Historic features

St Stephen's Beacon is a substantial prehistoric enclosure, possibly of Neolithic date and a number of large Bronze Age barrows on the higher part of the Downs. St Dennis church, near the northern boundary of the LCA, is set within a small Iron Age hillfort or round. There is a medieval holy well at Menacuddle Farm, just north of St Austell, and a spectacularly sited 15th C chapel on the tor of Roche Rock. Indian Queen's

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preaching pit was important for non-conformist meeting sin the nineteenth and twentieth centuries. The area is however dominated by present and historic industrial remains. Carclaze was a huge openwork site, much visited by tourists in the 18th and 19th Cs, worked for both tin and china clay. Throughout the area there are important remains of both the former mining industry but also of the exploitation of various areas for china clay and their subsequent abandonment. Wheal Martyn Museum presents the industrial archaeology of the area. There are pockets of well preserved medieval farmland and farmsteads.

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### Condition

Subject to great change and poorly managed, with fragmented ecological corridors and intensive land use. Opportunities and examples of landscape scale habitat restoration. Temporary buildings and caravans, the construction of large barns and the sheds and fencing associated with horse keeping are recent trends which dilute visual Landscape Character and degrade condition. Renovation and alteration to domestic buildings with changes of fenestration are altering the character of the villages.

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### Pressures

The major pressure on this landscape and its settlements is the china clay industry's need for space for excavation and tipping.

Pressure for housing in the clay villages as well as the edge of St Austell.

Some areas much invaded by the non-native invasive Rhododendron and Japanese Knotweed to the detriment of native fauna and flora.

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### Aesthetic and sensory

The dominant scale of the china clay workings and the size of the spoil heaps is dramatic, as is the sense of a mobile and changing landscape. This contrasts with the intimate small field patterns of the surrounding agricultural landscapes.

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### Distinctive features

Huge pale spoil heaps and extensive turquoise lagoons and settling tanks. Trenance viaduct on the north edge of St Austell. Gover Viaduct. The Norman towers of both St Dennis and Roche are visual focal points when viewed from the north. Roche Rock. Hensbarrow Beacon.

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### Visions and objectives

This is a vibrant and dynamic industrial landscape of deep pits and steeply angled tips overlying an older farming and mining landscape, the remnants of which can be found amongst the present day workings. The objective must be to accommodate the needs of the China Clay Industry and local communities whilst restoring despoiled land in an appropriate manner so that the time depth of the landuse can be properly appreciated.

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## Planning and Land Management Guidelines

Promote the use of the China Clay Tipping and Restoration Strategy updating it where appropriate.

Ensure management plans are in operation for the care of restored land such as the heath and woodland.

Promote use of local building stone.

Prepare a strategy for controlling the spread of alien plant species, such as Rhododendron and Japanese Knotweed.

Identify and conserve important historic and ecological features while achieving balance with needs

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of current industry.