7 INDUSTRY

Plate 4: Barrasford Quarry

Key Historic Landscape Characteristics

- Historic landscape types: extractive sites (active and disused), other industry (active and disused), utilities
- Most active industry is 20th/21st century
- Relics of 18th and 19th century industry in the landscape
- Industrial activity concentrated in south-east Northumberland

Northumberland is predominantly agricultural but a range of industries operate across the county, from extraction of minerals to high-tech industries. These industries can be divided into those that exist in, or on the periphery of, towns, and those that exploit the natural mineral resources in the countryside. The 20th and 21st centuries have seen a change in the scale of industry, with vast open-cast coal mines replacing deep mines, and large industrial estates developing on the edges of urban areas. Although some heavy industry still operates, for example aluminium smelting at Lynemouth and open-cast coal mining, others such as ship building and deep coal mining, have been replaced by high-tech industries, pharmaceutical works, and light manufacturing.

The greatest concentration of industry occurs in the south-east of the county, where new industries have been developed, particularly outside Cramlington, and opencast coal mines continue to be active north of Morpeth and Ashington; unfortunately the last deep mine in the county, at Ellington, closed in 2005. Elsewhere, industrial estates and business parks have developed on the edges of towns like Alnwick, Berwick, Blyth, Hexham and Prudhoe. In the countryside, sand and gravel extraction is active in the Milfield area, and there is a significant concentration of stone quarries on the north side of the Tyne gap, near Hallington and Barrasford.

Most of the industry recorded by HLC belongs to the 20th century (64%), but there are significant relics and traces of earlier industries remaining in the landscape despite being largely disused. Some 18th and 19th century industries have made their mark on the landscape with quarries, coal mines, lead mining, and waterworks, for example; but in some cases successive development or expansion of industrial sites will have obliterated earlier industrial remains. Some of these early industries are quite dispersed, for example coal and lead working remains and have not been recorded by HLC. Likewise, there is only limited evidence for medieval and early post-medieval industries, for example iron bloomeries, saltpans, bell pits, ironworks and limekilns.

The industrial types identified by HLC are: extractive site (active and disused), other industry (active and disused), and utilities. These types occupy a total area of 4534ha (0.89% of the county) and comprise 245 polygons (1.57% of the total).

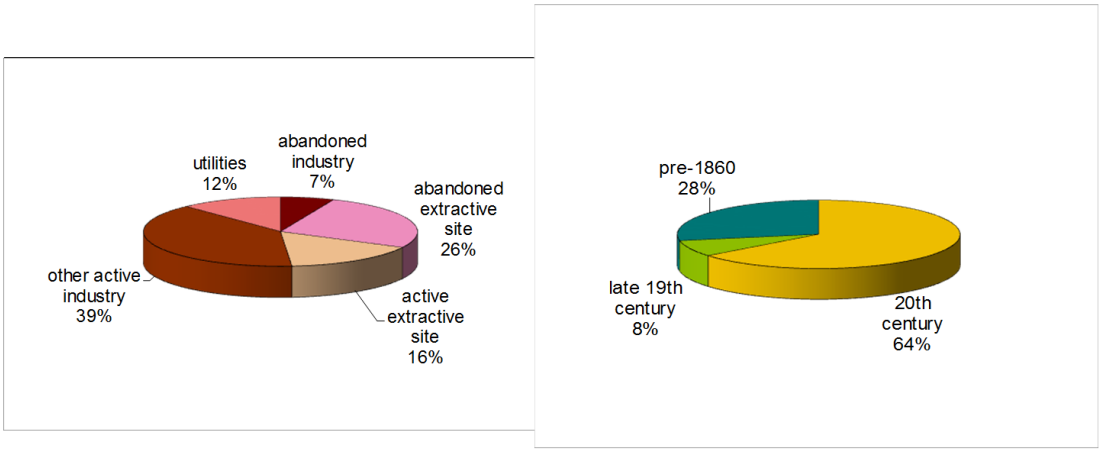


Figure 21: Breakdown of industry by HLC types (left); breakdown of industry by period (right).

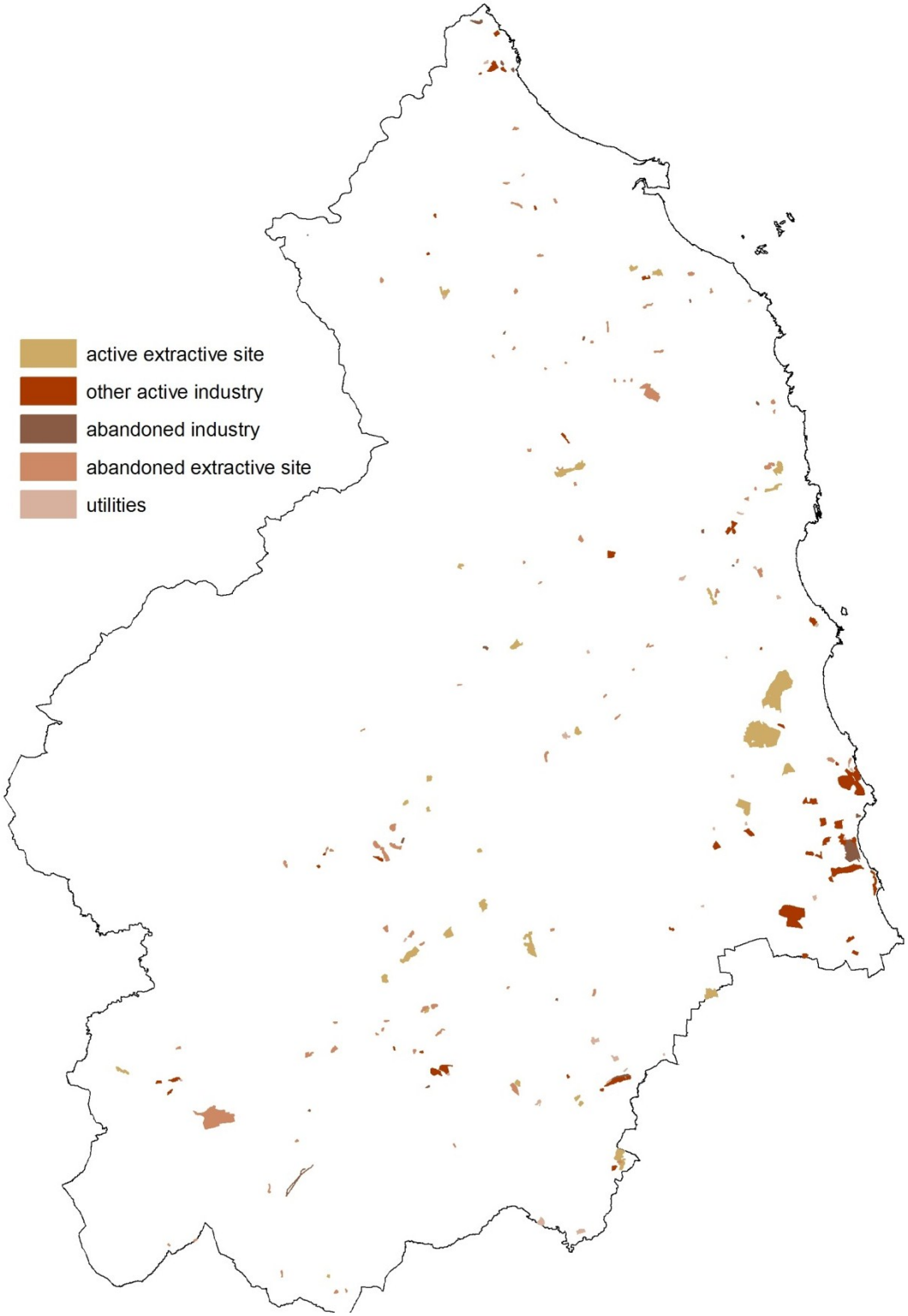
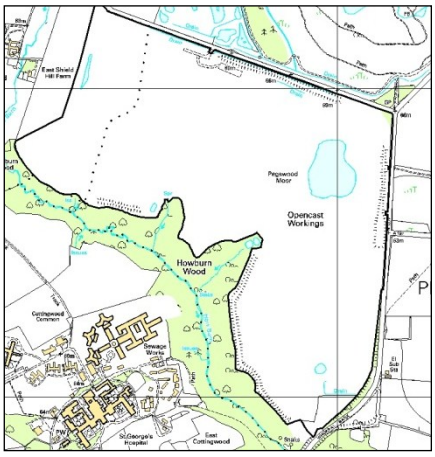


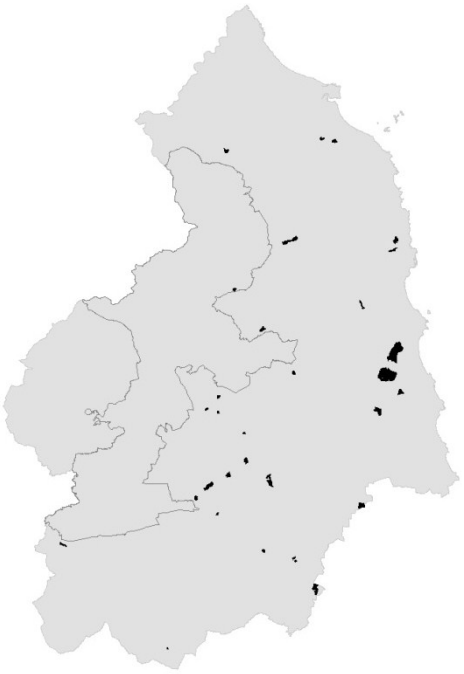
Figure 22: Industry HLC types.

7.1 Extractive site (active)

Key Features:

- Coal and aggregate extraction sites
- Mainly 20th and 21st century date
- Remains of post-medieval industries
- Total area = 1873ha
- Percentage of county = 0.36%
- Number of polygons = 36





The natural minerals of Northumberland are an important national economic resource. The location of such industries is dependent on the presence of the natural resource and as such these are some of the largest scale industries outside of urban areas. Their extraction can be on a vast scale in the case of opencast coal mining, but smaller operations do occur, for example in the case of stone quarries.

The sites included in this HLC type were all active at the beginning of the 21st century; they include coal and aggregate extraction sites (stone, sand and gravel). Although most began working in the 20th century, the working life of some started in the 19th century, for example Blenkinsopp Colliery, Longhoughton Quarry, and Thorngreen Quarry.

Northumberland produced 2.9 million tonnes of aggregates in 2004, and most is destined for use in the North East region. Nationally, coal production fell in the late 20th century as gas was increasingly used for electricity generation, and this trend was reflected in Northumberland. Coal production has fallen from two to three million tonnes in the 1980s and early 90s, to just under 800,000 tonnes in 2006-7; the number of active sites has likewise fallen from six or seven to just four. However, Northumberland still accounts for the lion's share of the region's coal production which stood at 77% in 2006-7.

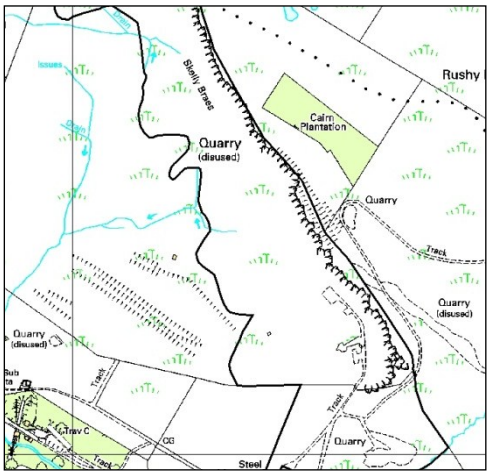
The range of archaeological sites that are known from active extraction sites is largely post-medieval and prehistoric. They include post-medieval industrial sites, such as quarries, lime kilns and tramways, as well as farms and associated buildings; the prehistoric sites include several settlements and burial monuments and discoveries of tools and weapons.

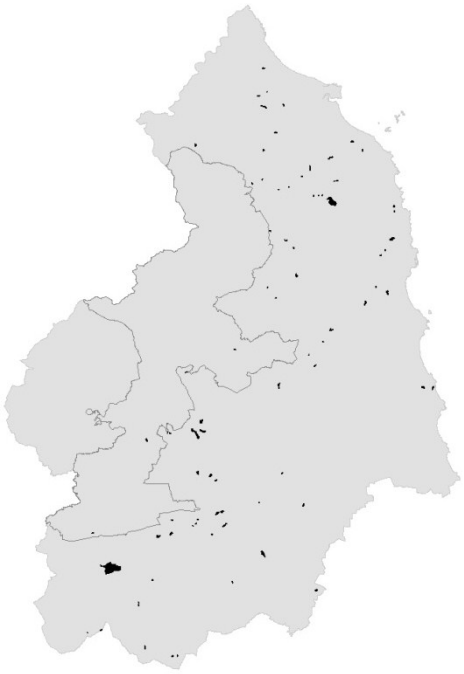
Rarity: occasional
Trajectory of change: increasing slowly
Susceptibility: medium

7.2 Extractive site (disused)

Key Features:

- Mainly 19th century stone quarries
- Total area = 948ha
- Percentage of county = 0.18%
- Number of polygons = 84





The natural minerals of Northumberland are an important resource and have been exploited to varying degrees for thousands of years. The location of such industries is dependent on the presence of the natural resource and these sites are largely sited away from larger settlements. They include extractive sites that have ceased operation and have not been restored to another character type, as these will be mapped under their present form. Most are 19th century and were stone quarries, with lesser numbers of coal, metals, and sand and gravel extraction sites. Sandstone was widely used for building, and to a lesser degree for roofing in the Tyne and Allen Valleys, and lime was quarried for burning to use for agricultural purposes. The distribution of this type is relatively central, along the fringes of the sandstone hills and the edge of the North Pennines, and many small quarries lie on the edge of villages that were built from these local sources.

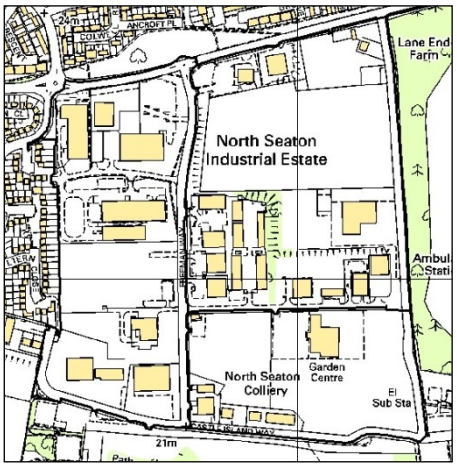
Most archaeological sites found in this HLC type are post-medieval in date and are related to the former industrial activity, such as quarries, tileworks, lime kilns and lead workings. Some of the Roman remains are also industrial and include an ironstone pit and a bloomery. The prehistoric sites range from Mesolithic flints and Neolithic rock art to Bronze Age burials and Iron Age enclosure.

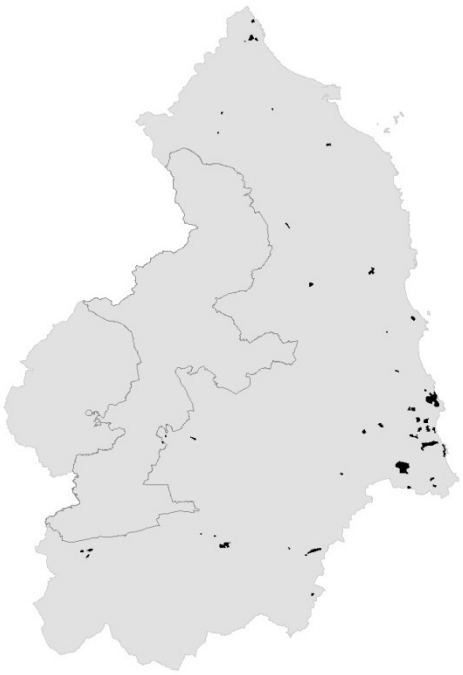
Rarity: rare
Trajectory of change: increasing significantly
Susceptibility: low

7.3 Other industry (active)

Key Features:

- Heavy and light industry
- Mainly 20th century
- Concentrated in south-east Northumberland
- Total area = 1284ha
- Percentage of county = 0.25%
- Number of polygons = 77





Other active industry is the largest HLC industry type and includes areas of heavy and light industry including: refining and processing, power stations, fabrication, storage and warehousing, depots, docks, auction marts and industrial estates. Nearly all this type is 20th century and is concentrated in the south-east of the county around Blyth, Ashington and Cramlington. However, there are also clusters around Berwick, Alnwick, Hexham and Haltwhistle.

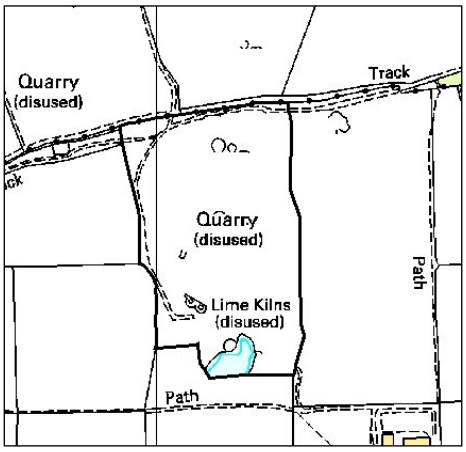
The range of archaeological sites is heavily weighted towards the post-medieval period and includes many industrial and industry-related sites, such as railways, lime kilns, mills, collieries, tile and brickworks. The small number of medieval sites are all settlements and ridge and furrow field systems, with the prehistoric records all largely Mesolithic flint finds.

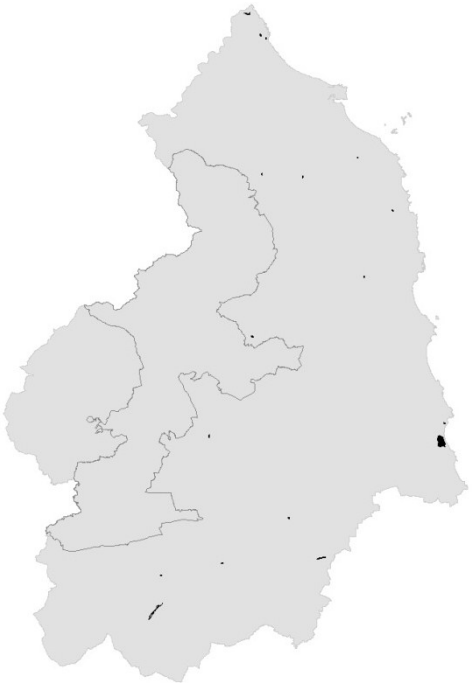
Rarity: rare
Trajectory of change: increasing significantly
Susceptibility: low

7.4 Other industry (disused)

Key Features:

- Mainly sites of former heavy industry
- Total area = 248ha
- Percentage of county = 0.04%
- Number of polygons = 19





This type includes all areas of former industry, excluding extractive sites, that are no longer active and that have not been altered or restored to another character type. Over half are former areas of heavy industry, such as lime works, fireclay works and ironworks, and the remainder are utility sites, including water treatment works, sewage works and power stations. Some of these industries have closed only very recently, for example Blyth Power Station in the 1990s.

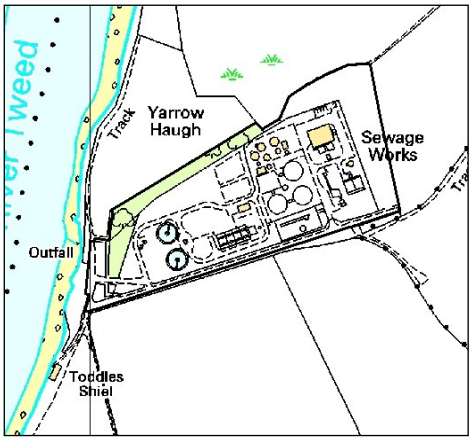
The number of archaeological sites in this HLC type is fairly limited and they are mainly post-medieval and modern in date. The post-medieval types are mainly former industrial sites like fire clay, chemical, iron and tile works; the modern sites are mostly Second World War remains and a few former industrial sites, including Blyth Power Station.

Rarity: very rare
Trajectory of change: increasing significantly
Susceptibility: medium

7.5 Utilities

Key Features:

- Mainly 20th century
- Total area = 179ha
- Percentage of county = 0.03%
- Number of polygons = 29
- Occurrence = very rare



This type includes active utility sites including sewage farms, water treatment works, landfill, waste sites, gas and electricity generating and storage sites. Nearly all examples of this type are 20th century, with only two late 19th century sites (a sewage works near Alnwick and a pumping station near Prudhoe).

Very few archaeological sites fall into this small category and most are related to the utility industry itself, such as water works and associated structures.

Rarity: very rare
Trajectory of change: new
Susceptibility: low