

BOVEY BASIN

INSET PLAN 31

LOCATION

(NGR SX 850755)

The Bovey Basin covers the low lying land between the towns of Newton Abbot in the south and Bovey Tracey in the north. The area includes a number of separate planning permissions, the largest of these being at Decoy and South Quarry to the south of Newton Abbot.

GEOLOGY

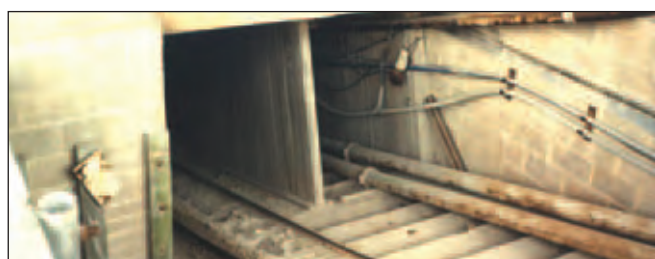
The Bovey Basin was created during the Alpine orogenic phase by the occurrence of a large fault zone, the Sticklepath Fault, which runs across the County in a north-west south-east direction. The area between the fault planes continually subsided, forming a sedimentary trap where clay, silt, sand and lignite collected.

Fast flowing streams running off the slopes of Dartmoor during the Eocene and Oligocene Epochs (approximately 50 million years ago), deposited their sediment, which was largely clays with some fine sands, into the lakes and marshland of the Basin. Organic material, either washed into the Basin or originated from plants growing within the marshy conditions, was also laid down within the clay and sand sequence.

Geophysical evidence has shown that the Basin extends to a depth of approximately 1300 metres, but borehole data of the local rocks has only penetrated to about 310 metres. The oldest commercial ball clays probably derived from the breakdown of slates and shales that overlaid the Dartmoor Granite. Younger clays owe their origin to the weathering of the Granite itself.

PLANNING HISTORY

Ball Clay workings of the 19th century were all small scale hand operations which were severely handicapped by ingress of water due to the high watertable. Many of the operations used underground mining to extract the clay as this could exploit the best clay seams without having to remove overburden. Mechanisation from the 1930s until the 1970s largely involved the use of pneumatic spades and dump trucks and the industry remained largely labour intensive. Since the 1980's, increased mechanisation and use of hydraulic excavators has reduced the numbers employed.



Entrance to No.11 Adit near Rixey Park Corner. Last worked in the early 1980's



Face workers in a clay mine circa 1930.

Today, over 70% of the total product sold is in the form of shredded clays. These are blended with clays of different properties to produce material to meet the exact requirements of the customer. The great majority of the clay extracted is used in tableware, sanitaryware, ceramic tiles and electrical porcelain, although some is sold for use as fertilisers and industrial fillers.



Working Ball Clay, Bovey Basin.

The Bovey Basin deposit is currently worked by two companies, and the mass of planning permissions granted since the 1940s have now been aggregated into a number of modern quarry units which produce about 600,000 tonnes of clay per annum.

In 1992, planning permission was granted for the diversion of the B3193 Rixey Park Corner to New Cross Road. If fully implemented this will allow the two pits on either side of the road to coalesce, enabling the mineral reserves below the line of the road to be exploited in addition to allowing the enlarged pit to work deeper into the deposit.

In 1996 two applications were made for development of land near Teigngrace. The first, for an extension of the Newbridge Tip, was refused. The appeal that was heard in July and December 1997 upheld this decision on the

Source: Devon County Minerals Local Plan, Adopted Plan: Part B, June 2004

grounds that the proposal would have an adverse effect on the Brocks Farm SSSI. A revised application to provide 2 years tipping was approved in July 1999.

The second application, for tipping and the diversion of the Rivers Teign and Bovey to enable an extension of the workings in the Southacre Pit, was called-in by the Secretary of State. During the Inquiry, which was held in July and August 1998, flaws were found in the applicant's flood flow predictions that resulted in the Company withdrawing its application.

ROMP STATUS

The Bovey Basin has three separate ROMP sites, Bovey Basin, Broadway and Ringslade, all of which are classified as Active Phase I sites. The Bovey Basin site covers the majority of the area due to the complex nature of the interlocking planning permissions within the Basin, including Decoy and South Quarry which are shown as insets on Inset Plan 31.

The approved scheme of conditions for the Bovey Basin Mineral Site uses a two stage approach in order to overcome the complexity of this large area. The first stage was approved on 1 November 1999. This deals in overall terms with the whole site and includes general conditions for mineral working and mineral waste tipping. The scheme includes a schedule which identifies all the current working units, giving a time table for the submission of specific schemes and conditions for their future development. This methodology is directed by a set of Guiding Principles, which has been agreed by the applicant and the MPA. The first of the specific schemes was submitted on 31 March 2001 and the final scheme for Southacre/Whitepit/John Acres Lane is expected to be submitted in July 2004

The Broadway and Ringslade schemes were determined in January 2000.

The approved Ringslade Scheme includes conditions governing the site's progressive restoration, landscaping and aftercare, improvements to roads and the site access, hours of working and the requirement for a hydrogeological investigation to determine the final depth and bankside gradients.

The Broadway Scheme includes conditions to protect the environment from the effects of dust, fumes and noise generated by the operations as well as for the landscaping, restoration and aftercare of the site.

The Site Specific ROMP Scheme for the Stover Ball Clay Works was approved in June 2002. This contained a number of conditions specific to this site in addition to those imposed by the Bovey Basin ROMP approval. These new conditions controlled the duration and extent of the permission, access and protection of the highway, dust and noise limits and monitoring, hours of working, landscaping, restoration and aftercare.

In October 2002 the County Council approved an application to amend the timetable for submission of Site Specific Schemes pursuant to the approved Bovey Basin ROMP. This also brought the Newcross site from the list of sites not anticipated to be worked within the next 15

years, into the timetable, and amalgamated the Southacre site with Whitepit/John Acres Lane, reflecting recent changes in WBB Minerals operations within the Bovey Basin.

In June 2003 the site specific scheme for the Chudleigh Knighton and Clay Lane Mineral Sites was approved with conditions governing a new access for the Chudleigh Knighton site, and conditions specifying the working programme, hours of operations, environmental controls, landscaping, restoration and aftercare for both sites. The Chudleigh Knighton site will be progressively restored to mainly heathland, while the Clay Lane site will not be able to be restored until the end of operations which are anticipated to continue for at least 20-25 years.

The site specific scheme for the Denistone and Newcross Mineral Sites was approved in August 2003, the scheme for East Golds was approved on August 2003 and the Newbridge Mineral Site scheme was approved in November 2003.

DESCRIPTION OF OPERATIONS

Clay is removed from the quarry face by hydraulic back excavators. The quarry face is frequently analysed to ascertain the exact chemical and physical properties of the various beds before they are dug out individually for separate transportation and storage. This method of quarry face selection of materials results in each pit having a large number of faces being worked at any one time. It has also meant that pits have a long life, often being left for long periods of time between working phases. The excavated clay is stored in separate 'bins' and either sold in bulk without further processing, shredded into pieces ranging in size from 2.5cm to 6.5cm, or dried and ground to a fine powder. Clays are transported from the Bovey Basin by lorry, either direct to markets within the UK, or shipped out of Teignmouth Docks to customers throughout Europe.



Loading dump truck by hydraulic face shovel with temporary roadways laid as an internal haul route.

Source: Devon County Minerals Local Plan, Adopted Plan: Part B, June 2004

COMMENT

- Area of Mineral Working. This comprises those sites subject to individual ROMP Schemes, (Ringslade and Broadway) and those specified in the approved timetable for submission of pursuant ROMP schemes as part of the Bovey Basin ROMP.
- The Consultation Area contains a number of designated SSSI's and the wildlife resources of the area are considered to be a high conservation priority.
- Stover Park SSSI is centred on a large lake dating from the 18th century which displays the best single example of open water communities in the South West. It is rich in fauna and flora, particularly invertebrates such as dragonfly and damselfly. The surface area is owned and managed by Devon County Council as a Country Park.
- Decoy Country Park, managed by Teignbridge District Council, is a very popular facility with local people. The park is centred around a lake which was formerly a claypit and which offers woodland walks and includes Wolborough Fen SSSI.
- Brocks Farm SSSI is a herb-rich field supporting a rare grassland community which includes several species of orchid.
- Bovey Heathfield SSSI contains an important area of Atlantic lowland heathland that supports a rich invertebrate fauna.
- Chudleigh Knighton Heath SSSI is another important example of lowland heathland which supports a varied flora and important breeding population of birds, amphibians and insects.
- The Southacre Claypits SSSI has been designated for its geological interest.
- There are three Devon Wildlife Trust managed Nature Reserves within the Consultation Area located at Chudleigh Knighton Heath, New Cross Pond and Bradley Ponds. Jetty Marsh has recently been acquired by Teignbridge District Council for use as a nature reserve.
- There are a number of listed buildings throughout the Consultation Area. Stover Park is an Historic Park and Garden that is likely to be added to the English Heritage Register in the near future.
- The Mineral Consultation Area lies within an area classified by the Environment Agency as a minor aquifer.
- The Basin includes major areas of floodplain associated with the River Bovey and River Teign as well as lower order watercourses such as the Ugbrook and Ventiford Streams. Any loss of floodplain would result in loss of floodwater storage capacity and an increased risk of flooding. All developments on floodplains will require a full investigation of the likely effects on flooding and, where appropriate, mitigating works being agreed.
- The Templer Way long distance regional footpath passes north south through the Consultation Area and there is a need for sympathetic landscaping and improved access along this route.
- The Consultation Area lies within the area covered by the Teignbridge Local Plan (which is currently under Review).
- Several areas of old planning permissions for clay working have been developed for other uses. These include residential areas at Kingsteignton, Chudleigh Knighton and Heathfield and industrial development at Decoy, Heathfield and West Golds.
- Mineral working and associated lorry traffic are significant concerns for the local communities within the Bovey Basin
- There is a need to investigate the use of rail for the bulk transportation of clays (and clay wastes), in particular the route to Teignmouth Docks.
- Need to rationalise the numerous historic planning permissions to reflect modern operational requirements and to secure the revocation of ball clay permissions where working is unlikely to resume.
- The Stover Canal is an important historic feature.
- The area around Twin Yeo Farm contains a range of prehistoric sites.
- Need for an ongoing programme of habitat creation and enhancement work.
- Need to assess archaeological interest as part of any future proposals.

LOCAL LIAISON GROUPS

A Local Liaison Group was established in January 2003 in order to consider the issues arising from operations in the whole of the Bovey Basin. Site specific liaison groups have been established for the Central Area, the Bradley/Chudleigh Knighton area, and the Newbridge/Stover/Ringslade/Broadway area.



Clay Lane Pit.

Source: Devon County Minerals Local Plan, Adopted Plan: Part B, June 2004

PROPOSALS

PROPOSAL: INSET 31.1

The MPA will encourage the adoption of working methods and phasing to reduce the effects of mineral working and mineral waste tipping on the environment of the Bovey Basin.

PROPOSAL: INSET 31.2

The MPA will seek to implement a comprehensive strategy for future working, tipping, restoration in the Bovey Basin.

PROPOSAL: INSET 31.3

The MPA will encourage the backfilling of mineral voids with ball clay waste.

PROPOSAL: INSET 31.4

The MPA will encourage methods and phasing of working which will bring forward the availability of void space for backfilling.

PROPOSAL: INSET 31.5

The MPA will encourage the movement of ball clay and ball clay waste by rail and by means other than road transport, in particular the potential afforded by the existing Heathfield and Newton Abbot branch line.

PROPOSAL: INSET 31.6

The MPA will encourage the preparation and adoption of a programme of habitat creation and enhancement, and its ongoing management.

PROPOSAL: INSET 31.7

The MPA will seek to safeguard the water environment in the Bovey Basin, and will have particular regard to the need to retain flood water capacity.



Whitepit with Preston Manor Works beyond.

PROPOSAL: INSET 31.8

The MPA will seek to promote the rights of way network in the Bovey Basin and to increase its potential for recreational use.

PROPOSAL: INSET 31.9

The MPA will seek to ensure that all possible available grades of ball clays within the existing planning permissions are fully utilised before new permissions are granted.

PROPOSAL: INSET 31.10

The MPA will encourage the increased use of ball clay sand as a secondary aggregate.



Face shovel loading clay from individual clay storage bins.

Source: Devon County Minerals Local Plan, Adopted Plan: Part B, June 2004

PROPOSAL: INSET 31.11

The MPA will monitor the extent of the boundary of the Mineral Consultation Area and consider the need for possible review.

PROPOSAL: INSET 31.12

The MPA will review the boundaries and extents of the Buffer Zones.

PROPOSAL: INSET 31.13

The MPA will have regard to sensitive developments and features in the consideration of ROMP submissions.



Ponds around the Denistone and Newcross sites.



Surface water settlement lagoon to separate solids before discharge to the River Teign.



Working Southacre Pit in the Central Area.

PROPOSAL: INSET 31.14

The MPA will encourage the exploration of ball clay within the Mineral Consultation Area.

PROPOSAL: INSET 31.15

The MPA will encourage operators in preparing submissions for new proposals for the surface tipping of ball clay waste to consider whether such tipping can be temporary prior to subsequent backfilling.

PROPOSAL: INSET 31.16

The MPA will consider the early preparation of an Area Action Plan for the Bovey Basin in accordance with the proposed new development plan procedures.

CONSTRAINTS PLAN 31

BOVEY BASIN

Environmental Constraints

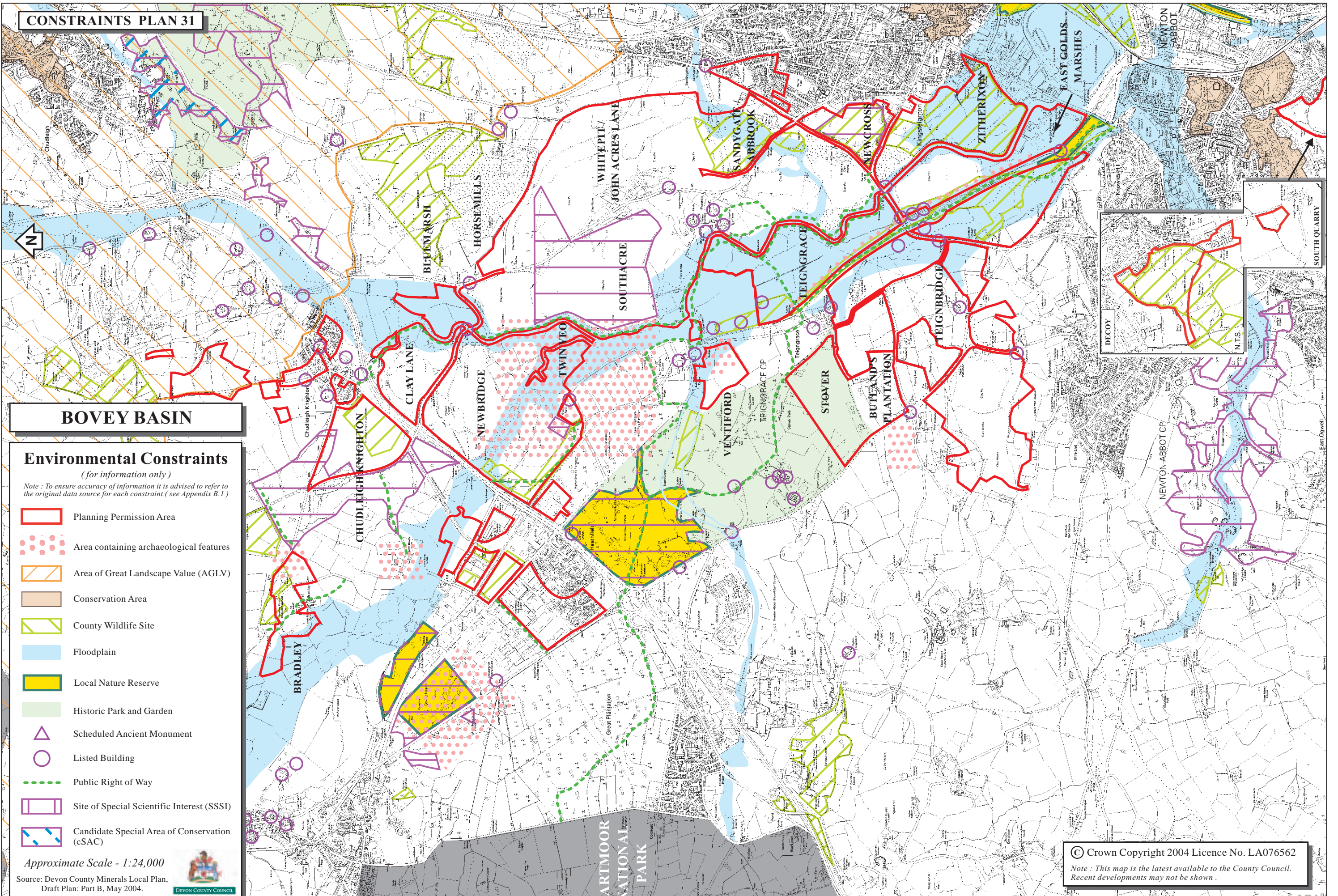
(for information only)

Note : To ensure accuracy of information it is advised to refer to the original data source for each constraint (see Appendix B.1)

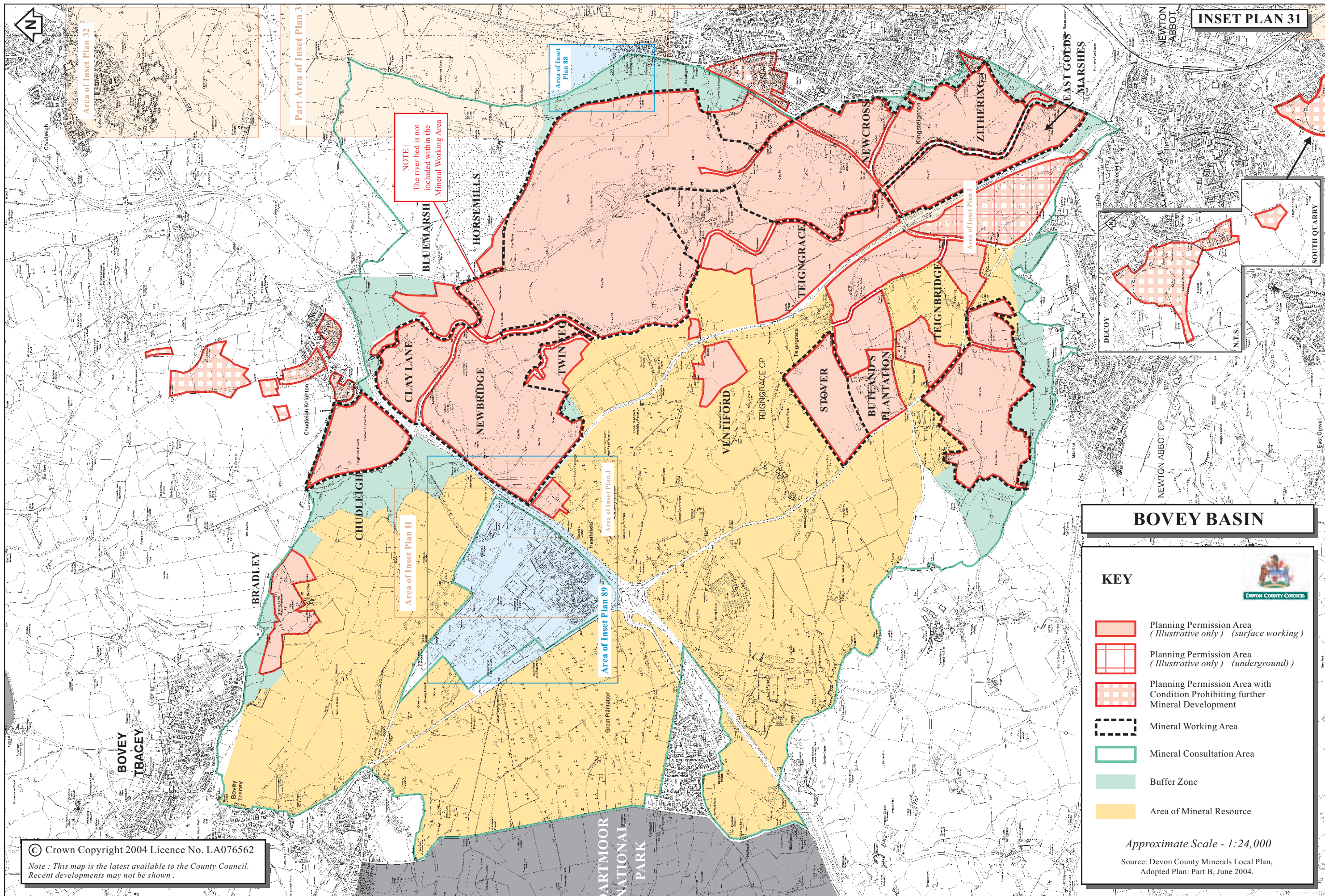
-  Planning Permission Area
-  Area containing archaeological features
-  Area of Great Landscape Value (AGLV)
-  Conservation Area
-  County Wildlife Site
-  Floodplain
-  Local Nature Reserve
-  Historic Park and Garden
-  Scheduled Ancient Monument
-  Listed Building
-  Public Right of Way
-  Site of Special Scientific Interest (SSSI)
-  Candidate Special Area of Conservation (cSAC)

Approximate Scale - 1:24,000

Source: Devon County Minerals Local Plan, Draft Plan: Part B, May 2004.



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 Note : This map is the latest available to the County Council.
 Recent developments may not be shown .



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