

CORNISH MINING WORLD HERITAGE

*Our mining culture
shaped your world*



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Objectives

Cornish Mining as a case study for how buffer zone issue was addressed for an extensive, serial WHS

Looking at

UNESCO perspective

UK planning context

key questions –

- what are we protecting?
- what are the threats?
- is it enforceable?





Management issue - Buffer zones or setting?

1. World Heritage Convention Operational Guidance (in 2006):

103. Wherever necessary for the proper protection of the property, an **adequate buffer zone** should be provided.

104. For the purposes of effective protection of the nominated property, a buffer zone is an area surrounding the nominated property which has **complementary legal and/or customary restrictions** placed on its use and development to give an added layer of protection to the property. This should include:

- - the **immediate setting** of the nominated property,
- - **important views**
- - **other areas or attributes that are functionally important** as a support to the property and its protection.



Key Issues we considered

Buffer zone is a ‘means to an end’; it does not have a value of its own, it is merely there to provide an extra layer of protection around the WHS.

What are we protecting – Outstanding Universal Value, authenticity and integrity, (in so far as they might be affected by events outside the boundary)

What are the threats?

Visual – negative impacts from outside on attributes of OUV within the boundary

Contextual - other mining landscape features that relate to OUV but didn't meet UNESCO criteria for inclusion within the Site boundary, eg due to remoteness or date range

Other factors

Enforceable? (does it carry weight in law)

Comprehensible? (is it clear and understandable by planning staff who implement)



Cornish Mining – understanding OUV

- **Extraordinary suite of minerals**
- **Principal producer of tin and copper**
- **Revolution in steam & mining technology**
- **World-wide transfer of technology, culture and its impacts**

Outstanding landscape survival



Extraordinary suite of minerals

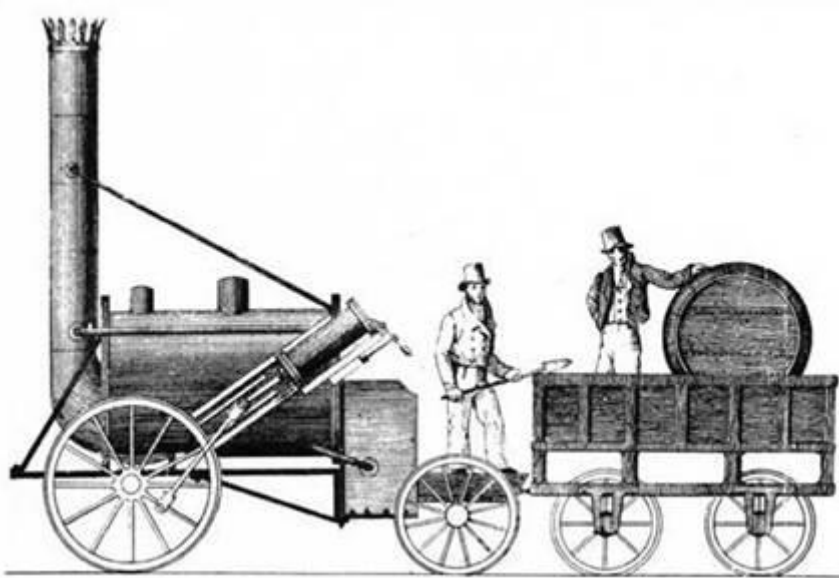
- over 400 species
- 115 type specimens



**Eg discovery of Botallackite [$\text{Cu}_2\text{Cl}(\text{OH})_3$],
Botallack Mine, West Penwith, 1865**



Principal producer of tin and copper



Alloys for **machine parts**



1810 first **tin plated cans**



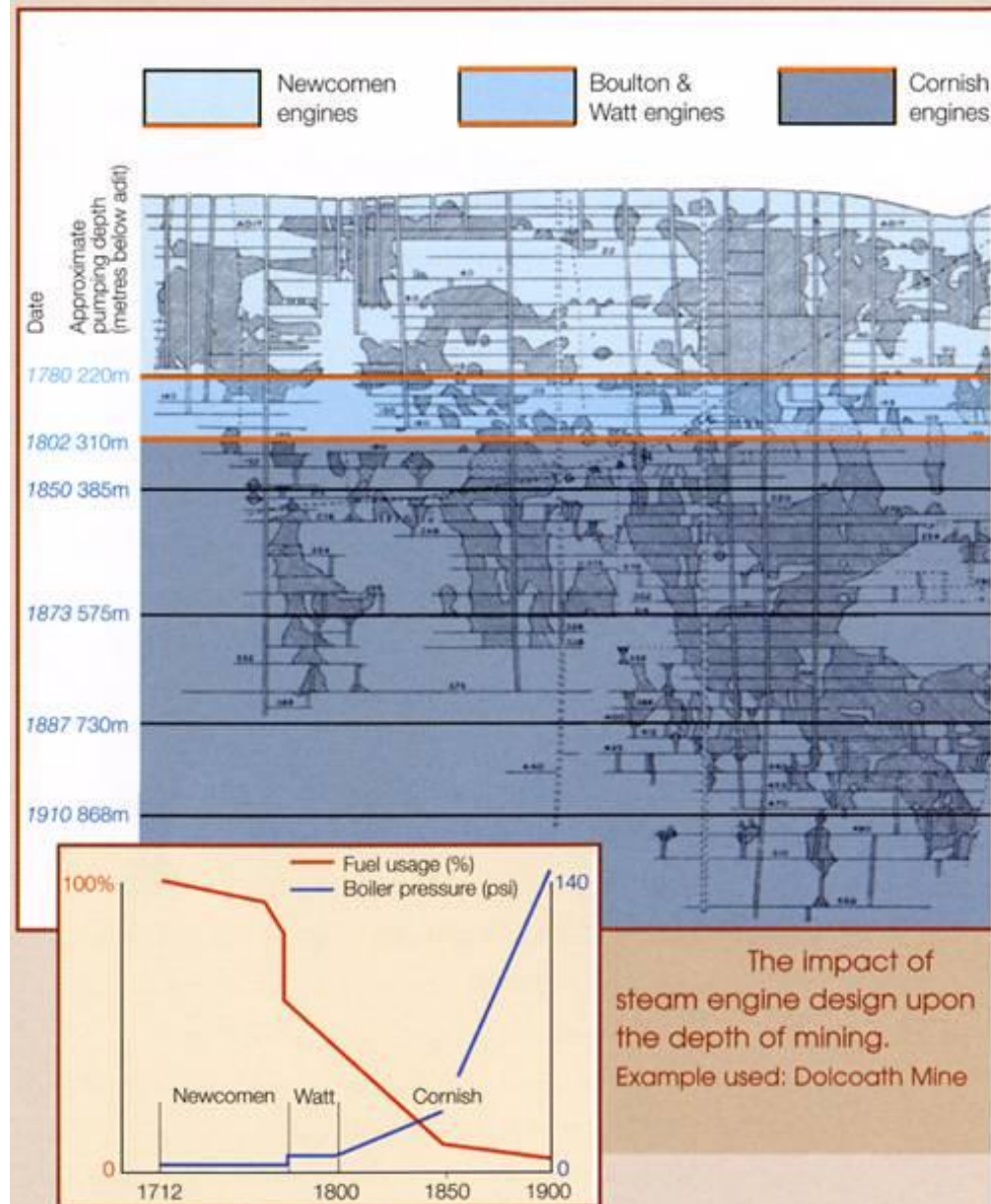
1780 - **HMS Victory's** hull below the waterline was sheathed with 3,923 sheets of copper to protect her against ship worm.



Engineering Innovation: Improvements in beam engine efficiency

Enabled mining at greater depths **Driven by need to increase efficiency and solve 3 key problems;**

- **Depth** – eg Dolcoath William's shaft 3000 feet by 1917, New Cook's at South Crofty over 3,000 feet
- **Water** – improving pumping technology
- **Hard rock** – removing huge quantities of ground





Technological step changes - Trevithick's high pressure steam goes "mobile"



First Steam railway locomotive 1804

World's first steam road locomotive 1801



Cornish Mining World Heritage industrial landscape

Landscape elements (“attributes”):

Mine sites

Mine transport

Ancillary industries

Mining settlements

Miner’s smallholdings

Great houses, estates and gardens

Mineralogical importance





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Mine Sites

Wheal Coates





East Pool and Agar Mine





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Poldice





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Morwellham Quay

Transport



Luxulyan Valley viaduct



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Liskeard and Caradon Railway





Associated Industries



Bickford Smith's Fuseworks,
Camborne – global centre of
safety fuse manufacture



Harvey's Foundry, Hayle –
manufacturers of the world's
largest steam engine cylinders



Settlements & Social Infrastructure



“Stippy Stappy” terrace,
St Agnes

Bedford Cottages, Tavistock





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Camborne





South Crofty, Pool



interrelationship of social and industrial structures is a characteristic of mining's cultural landscape



St Agnes

Miner's smallholdings



Carnmenellis

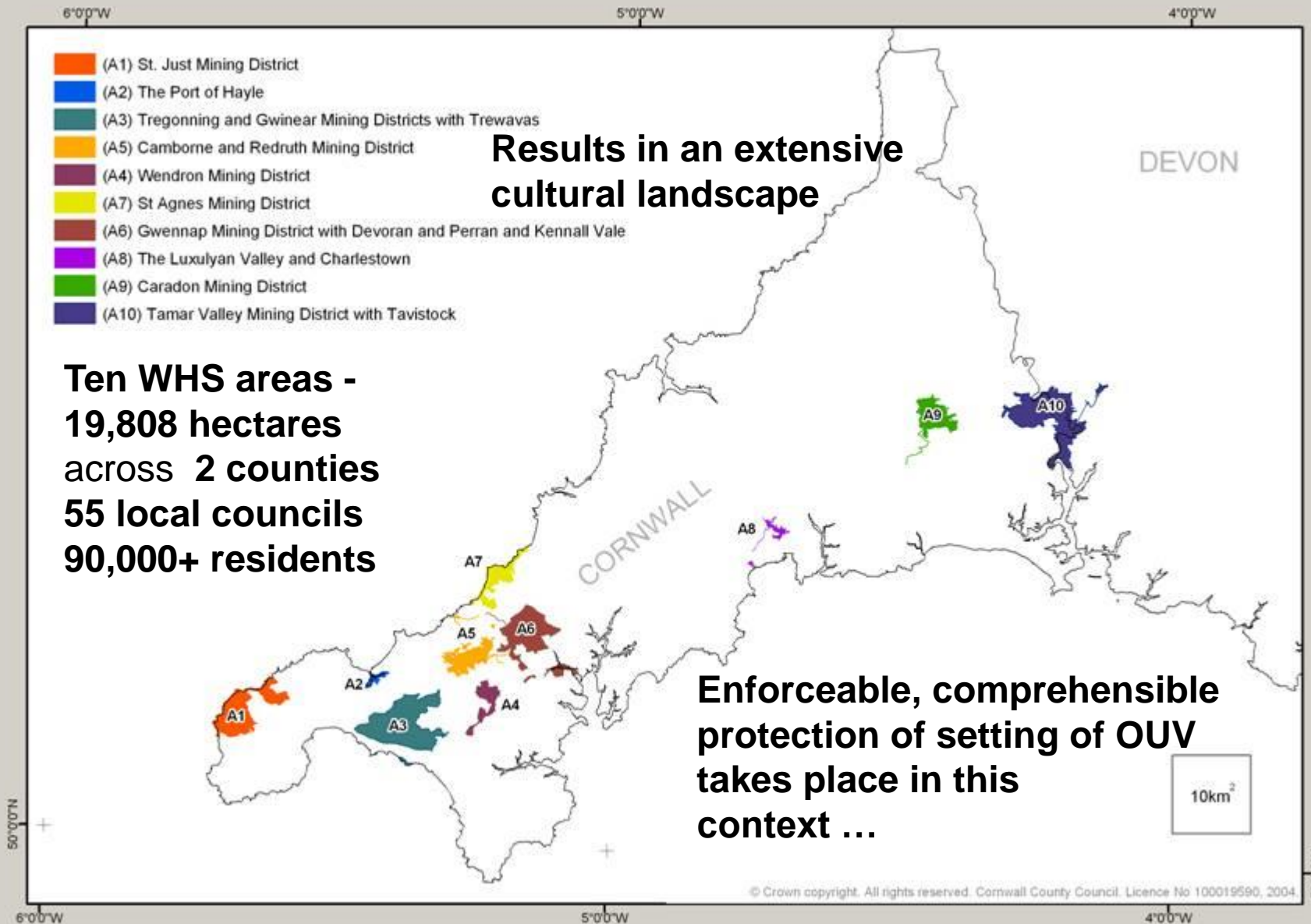


Great Houses & Gardens

Cotehele Estate



Godolphin House





Risk Management approach

What are the potential threats to OUV outside such an extensive and varied WHS that need to be managed ?

Visual – large scale development, eg

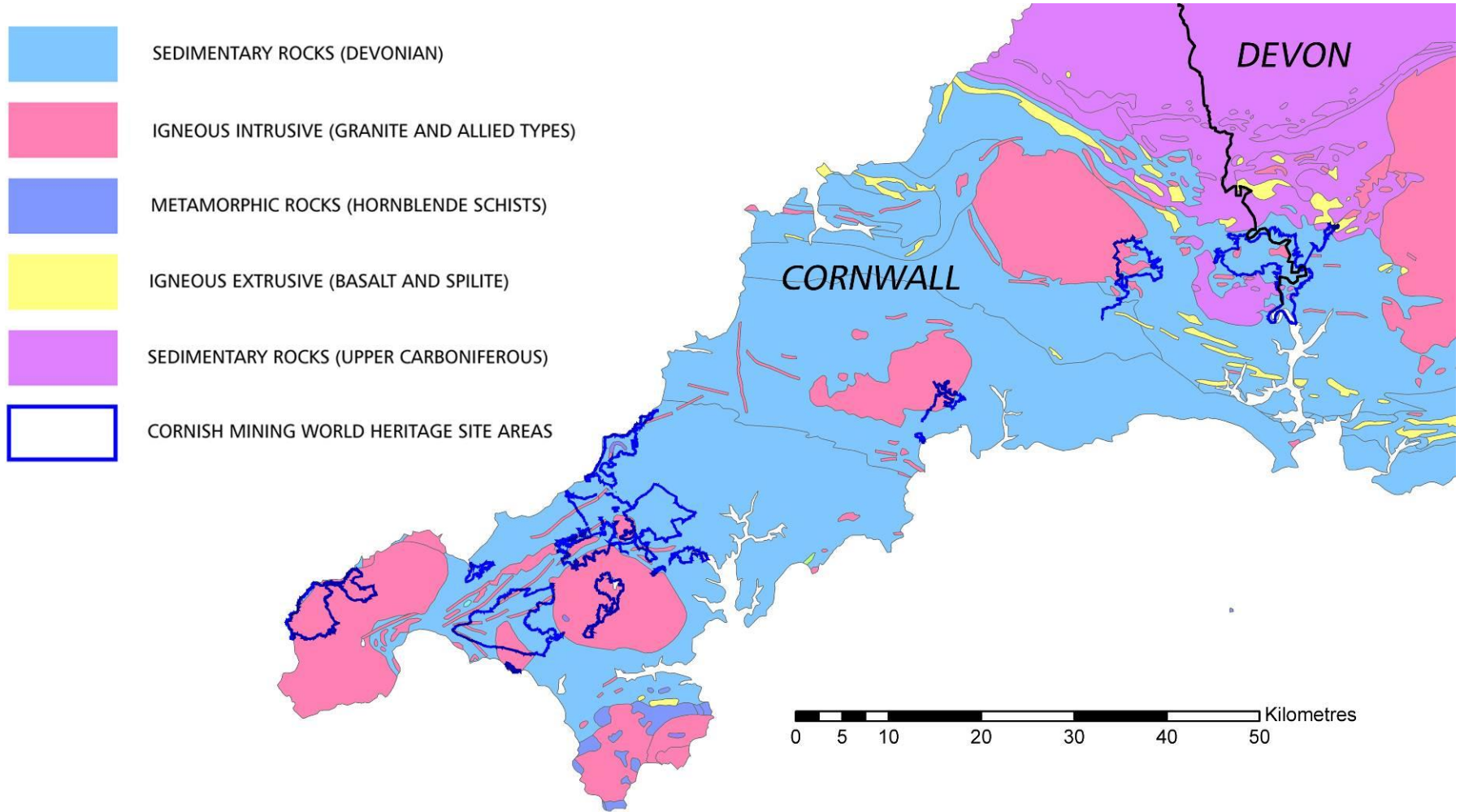
- Wind farms
- Major roads
- Industrial estates
- Housing estates

Contextual – inc. ‘historical’ ‘archaeological’ and ‘architectural’ values loss or other irreversible change in character , eg

- demolition of related mining landscape features
- inappropriate conversion or re-use (“domestication” of an industrial structure)



Cornwall & West Devon geology – granite “spine” = WHS areas are on high ground



The surface bedrock geology for Cornwall and west Devon shown together with the Areas which comprise the Cornish Mining World Heritage Site (sources: BGS and Cornwall County Council)



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Visual - Extensive views from top of Carn Brea (Area 5)





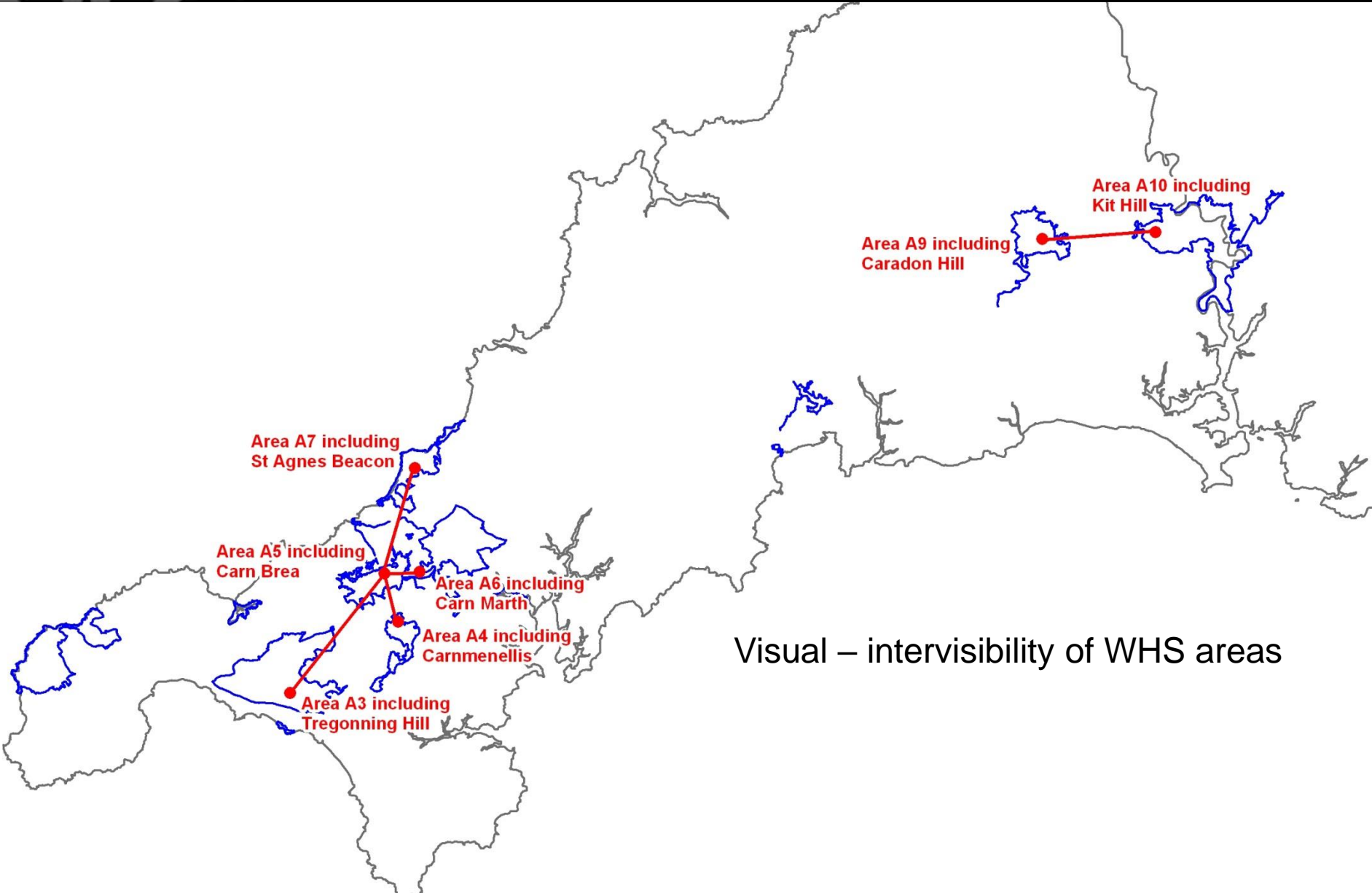
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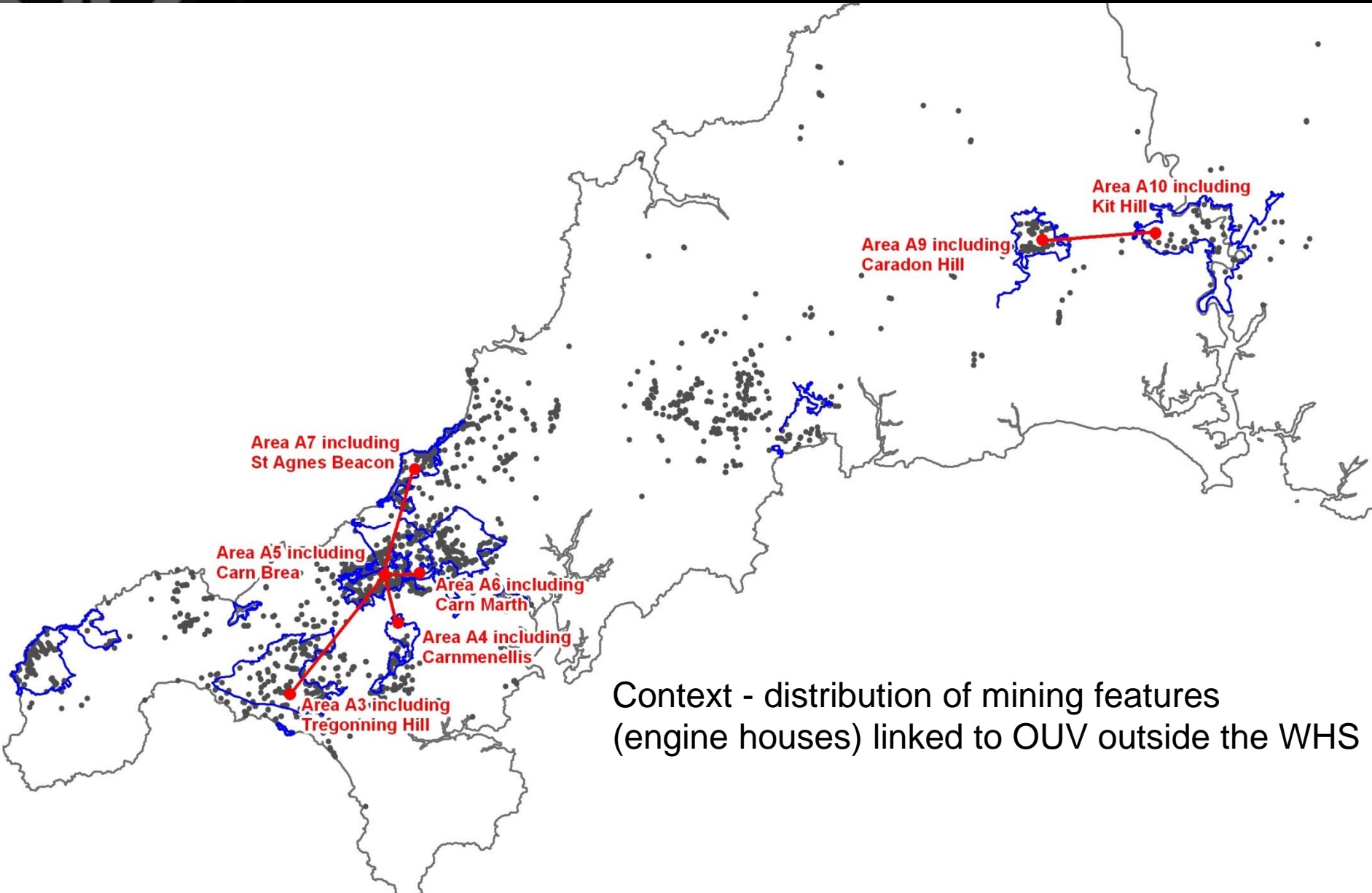


Caradon Hill (Area 9) as seen from Kit Hill, Tamar Valley (Area 10)





Visual – intervisibility of WHS areas



Context - distribution of mining features (engine houses) linked to OUV outside the WHS



With many viewpoints and the majority of the WHS inter-visible, we found it difficult to define a zone outside of which there will be never be any visual impact; and different types of developments have different zones of visual impact.



The concept of setting addressed our needs and the risks more closely; ‘surroundings in which a place is experienced; its local context embracing present and past relationships to the adjacent landscape’

Buffer zones are not mandatory. Operational guidance stated;

“Where no buffer zone is proposed, the nomination should include a statement as to why a buffer zone is not required”.



What the original (2005) Management Plan concluded;

“The setting of the Site is those sites, monuments, buildings and landscape components which provide additional historical context and **a physical space in which events could affect the appreciation of the Site...**”

This is an evolving cultural landscape, with the process of change driven by mining technology and economy from 1700 and continuing to the present day and into the future, following a period of decline and now regeneration...

The **extent of impact on the visual setting has to be determined on a case by case basis**, taking into account wider considerations and applying weight and judgement. Historic landscape characterisation is a vital tool in determining the appropriateness of development or land use change. Physical distance, scale, mass and materials may also be factors to take into account. This approach is already used when assessing impact on the setting of statutorily designated sites such as Scheduled Monuments, Listed Buildings and Conservation Areas”





Enforceable? UK position

National Planning Policy Framework 2018

194. **Any harm to, or loss of, the significance of a designated heritage asset** (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. **Substantial harm to or loss of:**

...**b) assets of the highest significance**, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and **World Heritage Sites, should be wholly exceptional.** (NB. With paragraph 193, 194 replaces the previous 132 in NPPF 2012)

NPPF Annex 2: Glossary - definition of setting

“The **surroundings in which a heritage asset is experienced**. Its extent is not fixed and may change as the asset and surroundings evolved. Elements of a setting may make a positive or negative contribution to the significance of an asset, may effect the ability to appreciate that significance or may be neutral”



Other policies in the planning framework

Cornwall Local Plan Policy 24

Development within the Cornwall and West Devon Mining Landscape WHS and its setting should accord with the WHS Management Plan. Proposals that would result in harm to the authenticity and integrity of the Outstanding Universal Value should be wholly exceptional. If the impact of the proposal is neutral, either on the significance or setting, then opportunities to enhance or better reveal their significance should be taken.



South West Devon Local Plan policy DEV 23 (emerging)

Development proposals within or within the setting of the Cornwall and West Devon Mining Landscape World Heritage Site will conserve or enhance the Outstanding Universal Value of the site. In particular, regard should be given to the following:

1. The historical and social importance of key buildings or other features and their contextual setting.

...

5. **Be in accordance with the principles and objectives of the relevant Cornwall and West Devon Mining Landscape WHS Management Plan** and other guidance/ adopted documents.



Cornwall & West Devon Mining Landscape WHS Management Plan Policies

“A WHS must have its setting protected from adverse impacts. For a Site Inscribed for its industrial landscape significance, not its landscape beauty, assessment of what constitutes adverse impact needs to focus on the effect on the OUV and the criteria under which it was inscribed...”

P2 – All relevant strategic planning documents will make provision for the protection, conservation and enhancement of the Site and its setting

P3 – Planning authorities will ensure that new development protects the Site and its setting

P8 – developments outside the Site that will adversely affect its Outstanding Universal Value will be resisted

(supported by explanations in Cornwall & West Devon Mining Landscape WHS Supplementary Planning Document section 5 “ The boundary and setting of the World Heritage Site”)



International context

Development of UNESCO thinking since the 2005 Management Plan

Expert meeting on buffer zones held at the Schatzalp in Davos, Switzerland, 2008

“The importance of the environment for the object must be properly recognized to be able to define a suitable perimeter as well as required protective measures for the buffer zone.

At issue is the following:

To what extent and how far is the environment relevant to the site?

What is the importance of the environment to the object?

What is its functional, visual and structural relationship to the object?

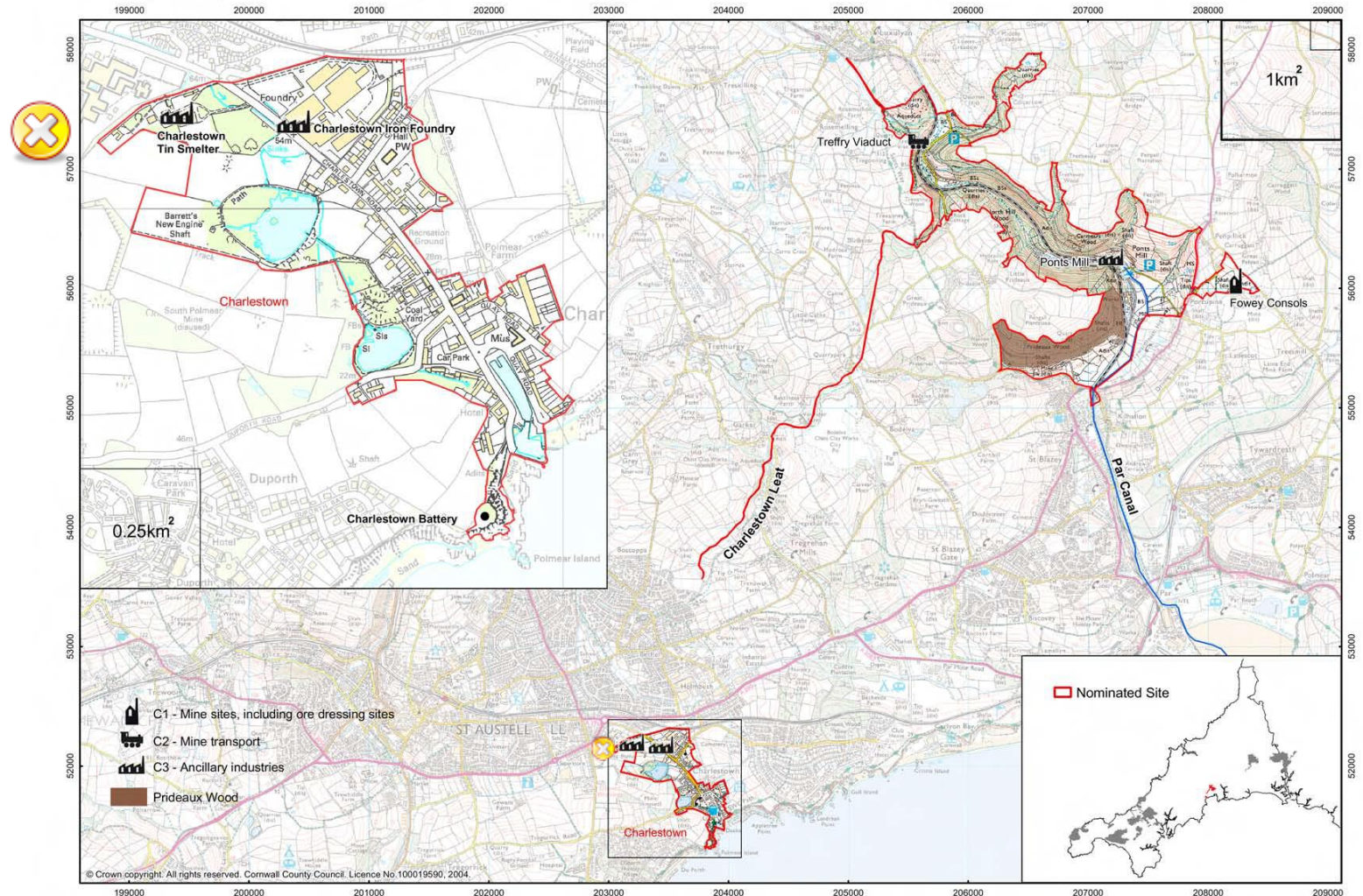
The definition of a buffer zone must inherently be in a position to regulate undesired influences. Provisions that regulate the value of the World Heritage site as well as the function of the environment in this sense **must be enforceable (under the law).”**

Johann Murner “World Heritage and Buffer Zones” UNESCO 2009



Relevant planning appeals : PA13/02301 Proposed detached dwelling & garages Mill Lane, Charlestown

A8 Luxulyan Valley and Charlestown - Principal Sites





Cornwall Council Historic Environment advice comments;

“Development of the surrounding green fields will weaken Charlestown identity as a significant historic place distinct from the neighbouring settlements of St Austell, Duporth and Carlyon Bay’.

...Charlestown is recognised as being the best preserved late 18th/early 19th century industrial settlement and china clay/copper ore port in the world. The scale, form, massing, design and use of materials of the proposed dwelling would be a stark contrast and at odds with the established built form along Mill Lane and the historic character of Charlestown.

We consider that the proposal would fail to relate positively to its historic setting, which is designated as being of the highest significance. “

Application refused



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Other relevant Appeals

Darley Abbey (Derwent Valley Mills) – refs **APP/C1055/W/15/3137935;**
APP/C1055/W/15/3141117

St George's Rd Penpol, Hayle (Cornish Mining) - **APP/D0840/W/15/3006077**