**Key Issues –**
Following the stalling of an initial application due to the economic circumstances, a new masterplan was prepared for an Eco-community at West Carclaze to provide a more deliverable scheme. The EIA actively integrated the emerging findings of the technical assessments and viability appraisals with the design process as the scheme was being prepared, to inform and modify the emerging parameters.

This case study will set out how a deliverable and viable scheme was prepared involving thorough and integrated assessment by the full team, including detailed consideration of:

- ground conditions;
- the water environment;
- ecology; and
- viability.

This enabled a greater awareness of site constraints and appreciation of viability to be incorporated into the proposals at an early stage. This helped to ensure that the application would not stall as previously experienced, whilst maximising opportunities to deliver environmental benefits.

**Purpose of the project**
Cornwall Council prepared a revised application for an Eco-community on land owned by mining company Imerys in the Cornish China Clay Area.

The project proposed to deliver a well planned, high quality, inclusive new community, restoring a damaged landscape to productive use, built upon the principles of Garden Cities.

**Description of the project**
The West Carclaze Eco-community is located north of St Austell in Cornwall. The outline application proposed 1,500 dwellings within a masterplan designed for 1,850. The wider masterplan included third party land holdings to ensure a comprehensively designed scheme incorporating community uses.

The proposal uses former china clay workings, leading to particular difficulties with regard to gradients, drainage, ecology and viability in this area of the country.
**Lessons learnt**

An overarching theme for development of the proposed Eco-community has been the landscape led principles set out by the Landscape Institute. These include to start with the landscape and to work with the landscape. The development site comprises a highly complex landscape dominated by evidence of previous mineral extraction.

The particular characteristics of the site, including significant level changes, gradients and areas of unstable ground, present challenges to the delivery of a workable and viable scheme. Of particular importance was the relationship between developable areas within the site and the need to deliver an appropriate drainage strategy.

A detailed understanding of the complex local topography was required to establish the land areas available for development, the current site drainage characteristics and how development could be arranged to allow for an effective drainage strategy. A key consideration was enabling the incorporation of on-site waterbodies into the drainage strategy as attenuation features.

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**Lessons learnt cont.**

- avoiding the need for expensive pumping solutions.

To achieve this it was essential for a co-ordinated approach between the design team and technical consultants looking at ground conditions and the surface water environment. Through a number of iterative design and assessment stages, moving from broad consideration of levels data to detailed knowledge of on-site gradients, both the masterplan and outline drainage strategy evolved to meet the project requirements. This enabled areas available for development footprints and ecological mitigation and enhancement to be identified and form the basis of EIA parameter plans.

A particular success was the ability to integrate the drainage strategy with the ecological mitigation strategy incorporating new shallow wetland areas and sheet flows to ensure preservation of important habitat.