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**National House-Building Council (NHBC)**



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# Land Quality Endorsement provides peace of mind to local authorities and land owners

**The Homes and Communities Agency (HCA) recently published a full list of its land holdings, which now gives local authorities and other public bodies a comprehensive insight into potential development sites across England for new homes.**

The single largest holding held by the HCA is the 290-hectare former RAF Oakington site in South Cambridgeshire, the proposed site for 9,500 new homes on brownfield land. But in difficult economic times, how can housebuilders ensure that the land they purchase is suitable for development, and also suitable for new home warranty cover to protect their eventual buyer?

For new housing developments on brownfield sites, both environmental and geotechnical remediation may be required. The National House-Building Council (NHBC) is assisting the industry to address these remediation issues for brownfield sites through their Land Quality Endorsement (LQE) service.

NHBC LQE is a pre-development land appraisal service, aimed at land owners who are remediating their land for subsequent sale to housebuilders. With a team consisting of specialist environmental, geotechnical, structural and civil engineers, LQE assesses the site and offers guidance on remediation solutions that will fully comply with NHBC Standards. The LQE service has been used by a number of public

## Case Study – Silverdale Colliery

NHBC was commissioned by the HCA to provide LQE service on their 105ha site; adjacent to Silverdale village in Staffordshire, where the construction of up to 300 residential and mixed-use properties is currently under way on the former colliery pithead area.

The site is characterised by redundant mine workings, including both open cast and deep coal mining, together with associated railway infrastructure and settlement lagoons for the treatment of mine water. A restored landscaped country park is planned on the remaining colliery spoil tips and partially backfilled open cast pits.

The LQE team appraised all reports produced by the client's consultant, including desk study, intrusive investigations, sampling and testing

protocols, human health and controlled waters risk assessments, remedial proposals and earthworks specification, thereby providing instant feedback and comment on compliance with NHBC Standards.

A remedial strategy was developed to manage contamination, address geotechnical issues; and thereby create a suitable platform for development. NHBC issued five LQE certificates, reflecting the stage of compliance with NHBC Standards at time of issue.

Consultants Whyte Young Green commented: "LQE focused attention on the issues of greatest importance for the housing developer and resolved general issues of foundation design and gas risk."

## NHBC: the development partner

Founded 75 years ago, NHBC helps builders, housing associations and local authorities to manage development risk and currently protects 1.6 million homeowners and landlords. Regular inspections for new home warranty and building control reduce defects and provide nationwide consistency, while technical and management training improve quality.

NHBC services also assist throughout the development process, starting with market appraisal reports and geotechnical and environmental advice for landowners. Sustainability reports support planning and building control, while health & safety and training services support construction alongside energy ratings and pre-completion sound and air leakage testing.

**For more information visit [www.nhbc.co.uk](http://www.nhbc.co.uk)**

sector bodies, including the Homes and Communities Agency on the former Silverdale Colliery site (see case study).

Phased environmental investigations identify potential risks from contaminants to receptors, which also includes end users of the site. Remedial works, which can include earthworks prior to development, may be required to provide a clean site suitable for a housing development platform.

Many LQE sites have been quarries, industrial sites or mines that have been restored using ground improvement techniques or engineered backfill. NHBC work closely with developers and their consultants by checking the adequacy of their investigations, earthworks proposals, remediation activities and the monitoring and verification of the works. The process is completed with the issue of an LQE certificate to confirm that the site is suitable for Buildmark warranty cover.

NHBC have accrued a significant amount of experience of sites that are subjected to remediation through the placement of engineered backfill. One

of the key geotechnical issues is the potential for excessive vertical or lateral ground movements, which could affect foundations. Other issues include ground failing to provide acceptable load/settlement characteristics, settlement caused by self weight of engineered fill materials, compression of the natural soils supporting engineered fill or the effects of negative skin friction on piles not being adequately catered for.

For a house builder intending to purchase previous brownfield land, the LQE certificate gives invaluable peace of mind. Not only does it make the warranty registration process simpler for the new homes, but it can increase the site's marketability.

Failure to adequately address environmental or geotechnical issues at an early stage in the process may cause costly delays, foundation failures and result in expensive additional remediation or repairs to homes that could have otherwise been avoided.

**For more information on NHBC LQE services please visit [www.nhbc.co.uk/lqe](http://www.nhbc.co.uk/lqe)**