Alternative configurations of the working scheme were designed and assessed to determine the least visually intrusive form of development and to identify the best form of afteruse following reclamation. Options for the treatment of the site during operation and following completion presented a variety of opportunities for biodiversity enhancement of the working area. These included the reclamation and reinstatement of land use that existed prior to development taking place, with the inclusion of a new wetland scrape within part of the site. There were however many tensions to overcome in considering alternative aspects of the scheme, not least, between viable farming practice once the site had been restored and preference for significant biodiversity gain by those statutory consultees with a nature conservation interest.

The Council and some of its consultees encouraged a biodiversity led enhancement of the restored landform, referring to Section 40 of the Natural Environment and Rural Communities Act (2006) which states ‘Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’. Statutory consultees noted that given the soil was ALC Grade 4- the lowest agricultural grade, the restoration of the site should be focused on biodiversity enhancement and pointed to the opportunity to restore the site with species rich hay meadows or pasture, which would provide botanical biodiversity, a nectar source for pollinators, habitat for breeding waders, a winter foraging source for birds and a flower rich display which would help enhance the local landscape. Other consultees saw the opportunity for the planting of local species of trees and other species tolerant of the exposed nature of the location.

In seeking to deliver additional meaningful biodiversity gain, whilst ensuring a viable agricultural afteruse, as exists at present, inspiration was taken from the ecological habitat study undertaken to inform the environmental impact assessment. This identified that that brown hare (*Lepus europaeus*), was present and likely to breed onsite, but that there was also significant alternative habitat for brown hare available in the immediate vicinity. Hares are a Kirklees Biodiversity Action Plan (BAP) species. The Kirklees BAP identifies habitats and species found within the district which are a priority for conservation (referred to as Habitats and Species of Principal Importance or Priority Species or Priority Habitats) and which are a material consideration for planning and development. The brown hare's status in Kirklees is 'widespread' though the Council had highlighted that the population of brown hare is decreasing locally. The creation of enhanced habitat for brown hare was therefore identified as an enhancement in the design of the scheme for the longer term.

In providing an enhanced habitat for brown hare, the scheme provides for the restored site to be manged to enhance biodiversity where areas of longer grass will be allowed to grow throughout the restored site by leaving corners of fields uncut and un-grazed. A 4m wide un-cut and a single un grazed margin around each field edge will be maintained, with interconnecting hare passage way within the dry-stone walling between each field, benefiting brown hare by reducing the risk of injury of young hares from cutting and grazing and to provide cover from predation.
The extraction of mineral was assessed to have an impact upon the surface water hydrogeology of the site, therefore the design of the reclaimed landform makes provision for surface water runoff to drain towards a perimeter drain, allowing water to be directed directly to water troughs located further down-stream. Surface water will also be directed to an area frequently waterlogged which will enable the creation of a year round wet scrape which will provide habitat for bird and invertebrate species.

The permission provides a balance between the level of public support for the scheme, which reflected the need for the continued local employment of a skilled workforce, and the significant investment in manufacturing technology and the local economy coupled with concerns over the potential impacts of minerals extraction such as traffic, dust and noise over the permitted term.

Development is due to commence on-site following the discharge of pre-commencement planning conditions and the completion of working at Johnsons Wellfields existing minerals operation, which the new Crosland Moor site will replace.

Following a collaborative approach between developer, statutory consultee and local interested parties, and the outcome of the assessment process, the option chosen for the restoration and after-use of the site made provision for habitat for brown hare and breeding wintering birds with ecological enhancement. This was assessed to be a beneficial direct impact of long term duration and of a permanent nature.

The EIA process enabled the early identification of options for biodiversity enhancement for the operational and restored minerals working site. The EIA proved an effective tool in assessing the options for biodiversity enhancement when considering surface water hydrology and landscape.

The process allowed for a form of enhancement to be chosen which with site management will enable both farming and nature conservation to co-exist, but entirely consistent with the upland and exposed Pennine landscape in which the site sits. The EIA process enabled the input of a range of expertise to the scheme design, allowing iterations of the scheme to be developed enabling choice of scheme to be taken forwards through the planning application process.

Johnsons Wellfield’s managing director James Berry said: “We are delighted to have obtained planning permission for our new working area. This underscores the significant investment Johnsons Wellfield has made in its business and the benefits this brings to the local community and the environment. We look forward to meeting our customers’ needs as the country’s leading supplier of natural hard Yorkstone”.

About Lichfields
Lichfields is a pre-eminent UK planning and development consultancy. Its specialists deliver insight, innovation and advice. It has offices in Bristol, Birmingham, Cardiff, Leeds, London, Thames Valley, Manchester, Newcastle and Edinburgh.

It was established in 1962 by highly decorated town planner Professor Nathaniel Lichfield and is owned by its staff through an employee benefit trust. It has annual revenues of more than £20 million and employs 215 people across its nationwide offices.

Lichfields was Royal Town Planning Institute Planning Consultancy of the Year in 2012, 2013 and 2014, making it the first consultancy to be awarded the title three years in succession. It is one of the largest independent planning consultancies in the UK.

Lichfields brought the following skills to the project: town planning project management environmental impact assessment economics community engagement services.

Jonathan Standen, Planning Director, Lichfields, February 2019.

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