Ambergate Asset Renewal Scheme

Key Issues
The Ambergate Asset Renewal Scheme required the construction of two new large reservoirs which, amongst other environmental effects, would generate a substantial volume of spoil, in a sensitive rural area. The key challenge was to ensure that an acceptable environmental solution was established for spoil management to enable this strategically important, large scale infrastructure project to be developed. Key issues addressed in the EIA included:

- Effects on a designated Special Landscape Area within which the site is situated;
- Effects on the Derwent Valley Mills World Heritage Site Buffer Zone within which the site is situated;
- Effects relating to a potential Site of Special Scientific Interest (SSSI) near the site, which encompasses ancient woodland and the medieval Crich Chase hunting forest;
- Effects relating to the Cromford Canal SSSI located to the south west of the site;
- The development layout in relation to designated Ancient Woodland within the site;
- HGV traffic impacts on narrow rural roads serving the development site.

Purpose of the project
The Ambergate Strategic Service Reservoir, located north of Ambergate in Derbyshire, is Severn Trent Water's largest covered service reservoir, with around 128ML of water storage capacity. It is of key strategic importance in providing storage along the Derwent Valley Aqueduct. Ongoing structural surveys established that it was in a poor state of repair, had exceeded its asset life of 80 years and needed to be replaced. Following option studies it was decided to replace the reservoir with two new covered drinking water service reservoirs.

Description of the project
The first phase of the project entails the excavation, construction and commissioning of a new concrete reservoir with associated infrastructure and the temporary storage of excavated spoil. Once the new reservoir is operational the second phase of the project will be undertaken, comprising the decommissioning of the existing reservoir and construction of a new reservoir within the existing footprint. Stored spoil will then be used to backfill the remaining void of the existing reservoir.
Lessons learnt

A detailed options appraisal exercise was undertaken at the outset which formed the basis of discussions with statutory consultees and also involved public consultation to establish key issues and concerns at an early stage. This provided the project team with a clear view on those effects that needed to be ‘designed out’ through avoidance and those that could be successfully mitigated. The environmental team worked in close collaboration with the design team through an integrated, iterative partnership, which proved to be an effective means to establish the preferred design option. Continued dialogue with consultees, particularly Natural England, the Derbyshire Wildlife Trust and County Highways, enabled the design to evolve against the context of ensuring that the key concerns of these stakeholders were addressed.

This approach enabled the project team to identify a solution which met the key guiding principle of minimising HGV traffic on the surrounding roads. An on-site solution for the temporary storage of excavated spoil was established which minimised the loss of ancient woodland on-site and which did not affect the ecological designations relating to land on and adjacent to the site.

Lessons learnt cont. -

A detailed visual appraisal of the proposed temporary spoil mounds, which was undertaken through the development of a series of visualisations, enabled the likely effects of these areas on ancient woodland to be properly considered and proved useful in discussions with the design team, the project promoter and the Derwent Valley Mills World Heritage Site Partnership.

Early and continued dialogue with consultees through the design evolution process ensured that no objections to the planning application were raised by statutory consultees.

Planning permission for the proposed development was granted in October 2012.

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