

Project Case Study



Much Wenlock Flood Alleviation Scheme

Much Wenlock has a long history of flooding in 2007 around 64 properties reported flooding to Shropshire Council, including an electricity substation which caused a power outage to a large part of the town.

The Much Wenlock Flood Alleviation Scheme comprised the construction of two attenuation ponds together with retaining structures and hydro brakes in two locations within the town. The works were design by WSP to capture and store water that could otherwise flood properties, businesses and roads in the town.

The scheme is designed to attenuate flows from a 3.33% AEP (Annual Exceedance Probability) plus climate change flood, has a total storage volume of 16,500m³ and required the excavation of 39,000m³ of material to create the ponds. 97% of the excavated material was re-used within the boundary of the site and certain features were constructed from the re-use of site won materials, such as the headwalls, weir and canal armouring.

Additional works involved the restoration of a disused limestone quarry. The quarry restoration was primarily achieved through construction of landscape bunds using the excavated material, specifically aimed to create a varied calcareous landscape and increase biodiversity. This option has reduced the impact from vehicle movements, the amount of imported construction material and the volume of material sent to landfill.

Shropshire Council plan that the quarry is to be made a publicly accessible space in partnership with the Shropshire Wildlife Trust and the National Trust.

The completed works not only provide a reduced flood risk to 171 properties and highways but have also created a public open space and enhanced existing SSSI.

The project won the Project Excellence award in 2018 for Sustainability.



Project Details:

Client
Shropshire Council

Location
Much Wenlock, Shropshire

Completion Date
July 2017

Value
£2m

Contract
NEC ECC Option B

Key Project Aspects

- Flood Alleviation
- Limestone Quarry Restoration
- Sustainability
- Retaining Structures
- Excavation
- Re-use of Site Won Materials