



Case Study

Brize Norton, Oxfordshire

Background

Cole Easdon Consultants (CEC) was appointed to design a flood alleviation scheme to protect a number of established properties near RAF Brize Norton in Oxfordshire.

Flooding from a local watercourse had occurred to these properties and to the airbase in 2007, and the client was keen to reduce the likelihood of future flooding. We undertook flood modelling to identify and assess various alleviation options that satisfied both the client and the landowner's needs.

Client

West Oxfordshire District Council.

CEC Input

- Hydraulic modelling using ISIS software to determine flood levels and floodplain extents for the existing (undefended) and proposed (defended) scenarios, for a range of flood return periods.
- Identification of a preferred flood alleviation solution with respect to type, size, flow control and level of protection.
- Advice regarding floodplain extent, preferred flood alleviation option & impact on flood risk in the locality arising from the preferred option.
- Liaison with West Oxfordshire District Council and landowner to formulate the optimal solution.

CEC advised that two flood alleviation ponds could be established to reduce flood risk arising from a 1 in 100 year flood event. CEC also recommended watercourse improvements and the removal of obstructions to improve water flow.

The ponds were designed with gentle side slopes, shallow storage and short detention times so that current arable farming land use within the pond footprint areas would not be compromised.

Benefits of Our Involvement

- Our consideration of current best practice and site specific requirements provided a basis for informed expert advice to our client.
- CEC delivered timely, accurate output that enabled the client to make critical decisions regarding flood defence options, design and cost
- Our proactive approach enabled CEC to resolve complex technical issues to the client's satisfaction.



Bristol Office
160 Aztec, Aztec West
Almondsbury
Bristol
BS32 4TU
Tel: 01454 800 474
Email: br@ColeEasdon.com

COLE EASDON CONSULTANTS

CIVIL ENGINEERING ~ HIGHWAYS
TRANSPORTATION ~ FLOOD RISK
BRISTOL & SWINDON

Swindon Office (Head Office)
Unit 2, York House
Edison Park, Dorcan Way
Swindon, Wiltshire
SN3 3RB
Tel: 01793 619 965
Email: sn@ColeEasdon.com