

Forres (Burn of Mosset) Flood Alleviation Scheme

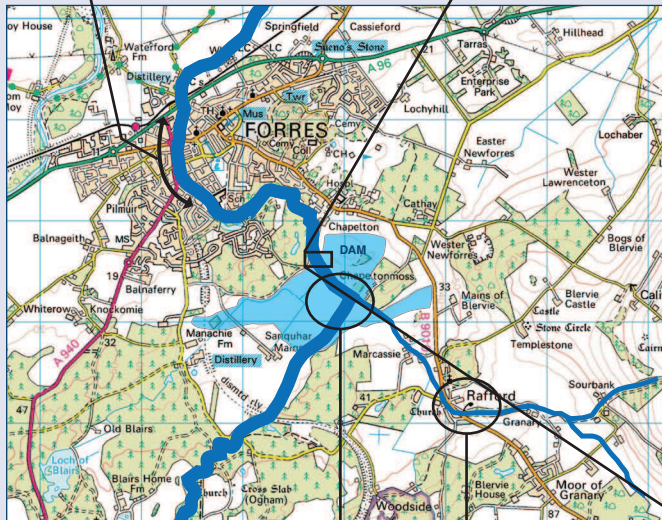
Saltire Category
Client
Designer
Contractor
Cost Consultant
Date

Project
The Moray Council
Royal Haskoning
Morrison Construction
EC Harris
28 May 2010

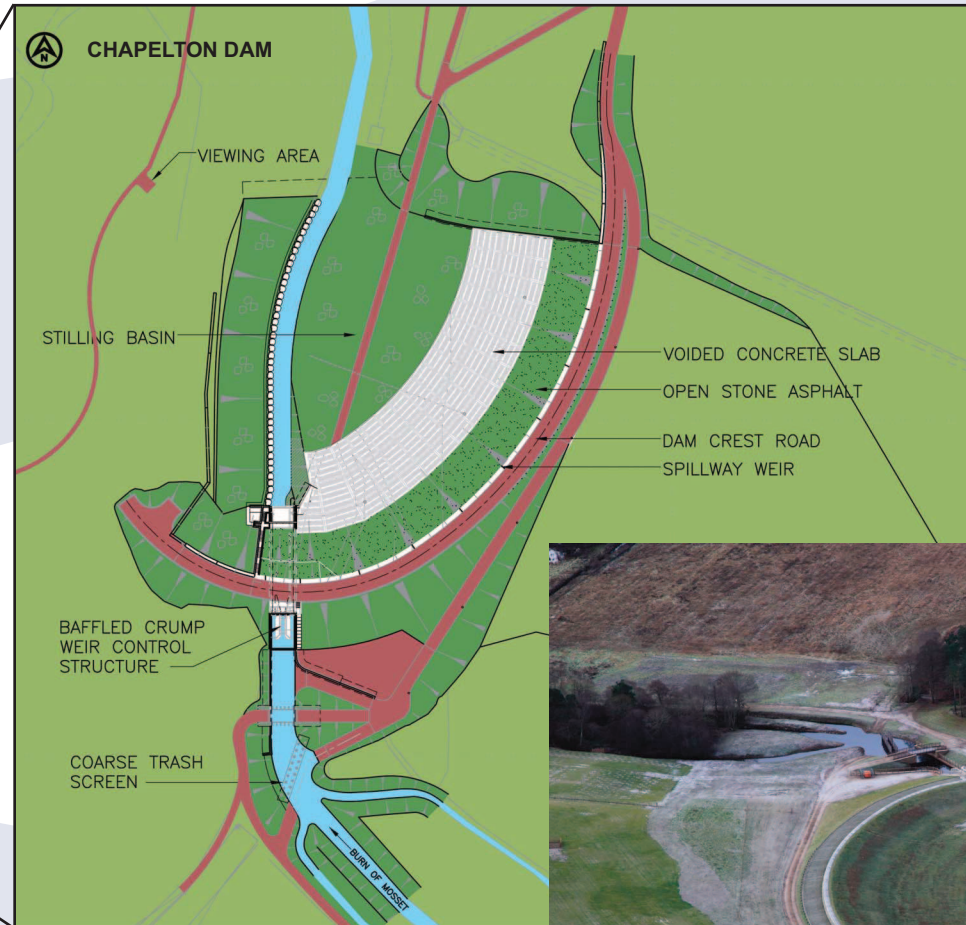
Project Description

The scheme alleviates flooding in Forres from the Burn of Mosset. It comprises a flood storage reservoir, situated on the Burn of Mosset at Chapelton, combined with flood defences through Forres. It provides a standard of protection of at least 1 in 100 years, including an allowance for climate change.

FLOOD DEFENCES
AT FOUR SITES
IN FORRES



BURN
MANAGEMENT
WORKS
RAFFORD FLOOD
RELIEF CHANNEL



"I challenged the team to deliver flood alleviation and complement the environment. My measure of success was that the scheme should be 'invisible' and prevent flooding. Not only was the challenge met, but the scheme was delivered ahead of programme and under budget. The team excelled and the outcome is very pleasing."

Peter Haslam, Project Sponsor, The Moray Council



Photograph courtesy of Scotavia Images

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Main Components

- An embankment dam which includes:
 - A flow control structure incorporating a baffled crump weir, the first to be constructed in the UK
 - A 160m wide overflow spillway running over the crest of the dam and the downstream face with a stilling basin at its toe
 - Sheet pile cut-off along the centreline of the dam to control seepage
- Two secondary embankment dams to limit the maximum footprint of the flood storage area
- Flood defences at four sites in Forres (Mosset Park, Strathcona Road, Plasmon Lane and Burdshaugh Cottage) to ensure that the residual flow can be conveyed without causing flooding to properties
- Flood relief channel at Rafford

Community Benefit

- Prior to the scheme, almost 20% of properties in Forres were at risk during a 1 in 100 year event
- Without intervention, the economic damage over the next 50 years would exceed £43million
- The scheme provides a standard of defence of at least 1 in 100 years, including an allowance for climate change
- Careful design has integrated the engineering and aesthetic requirements and delivered a scheme under budget and 8 weeks early that will be a valuable asset for the community at all times

Physical Achievement

The scheme was officially opened on 28 August 2009 by Richard Lochhead MSP and one week later on 4 September 2009 it successfully prevented flooding of hundreds of properties to the obvious relief of the residents of Forres. The economic flood damages without the scheme would have been approximately £9million. Bob Hellyer (Vice Chairman Forres Community Council) said ***“praise where praise is due ... there is no doubt in my mind that had it not done its job we would have seen a different story”*** (Forres Gazette, 9 September 2009)



On-site crushing operation to re-use waste material



Chapelton Dam, August 2008



Chapelton Dam stilling basin



New footbridge at Chapelton Dam



Chapelton Dam sheet pile seepage cut-off



Upstream coarse trash screen



Chapelton Dam control structure



Rafford flood relief channel outlet