



Forres (River Findhorn & Pilmuir) FAS

Frequently Asked Questions

October 2012

Q. What does a 1 in 200 year standard of flood defence mean?

- A. It is not possible to provide absolute protection against flooding. Flood alleviation works are therefore designed to give a specified standard of protection, reducing the risk of flooding to people and property in flood-prone areas. A 1 in 100 year standard of flood defence means that the flood risk in the defended area is reduced to a 1% chance of flooding in any given year. If a flood defence standard of 1 in 200 years is provided then the flood risk is reduced to 0.5% chance of flooding in any given year.

Q. Why are the flood embankments so large?

- A. There are unusual geological conditions under Forres such that the flood embankments are located on highly permeable ground. Therefore the embankment widths are much greater than normal to reduce the flow of water under the embankments. The embankment heights and widths have been designed to ensure that water levels associated with a 1 in 200 year flood event would be kept away from Forres. As is typical for flood embankments the design is trapezoidal in cross section with crest widths suitable to prevent water seepage through the embankment and slope gradients suitable for on-going maintenance e.g. grass mowing.

Q. Why not use a cut-off wall under the embankment to allow it to be narrower?

- A. If a cut-off wall were installed under the full or even only a large proportion of the full length of the embankments it could cause a significant change to the local ground water regime. This could have led to changes in the level of the water table which could have had an undesirable impact on local agriculture.

Q. Why are the flood embankments set away from the river?

- A. Set back embankments are better than embankments adjacent to the active river channel as they have a lesser impact on the natural behaviour of the river; less impact on the rivers ability to use its floodplain; less changes to sediment transport and channel alignment; and less impacts on the local ecology. By constructing the embankments further away from the active river channel is also allows the embankment height to be reduced, as there is more space for flood waters, without constraining the volume of the flood water through a narrower channel.

Q. Are there any impacts of building part of the scheme on the old WW2 airfield?

- A. A study was undertaken during the design development phase at the WW2 Balnakeith airfield by a specialist company to assess the risks of finding un-exploded ordnance (UXO) or other articles that may not be apparent when surveying the site. The whole site, both north and south of the river, was graded as low to medium risk of encountering any UXO. A study was also undertaken to investigate the risk of encountering contaminated land here and it was concluded that there is a low risk of the works disturbing contaminated land.