

# 14 What are the next steps?

## How long will the scheme take to complete?

This will largely depend on how quickly the scheme takes to get through the planning process. This, in turn, will be a result of the size and complexity of the project. For example, 2.5km (1.5 miles) of defences for the Water of Leith scheme in Edinburgh took 13 years from the first feasibility study to completion. The costs of this project increased from £18 million to £30 million.

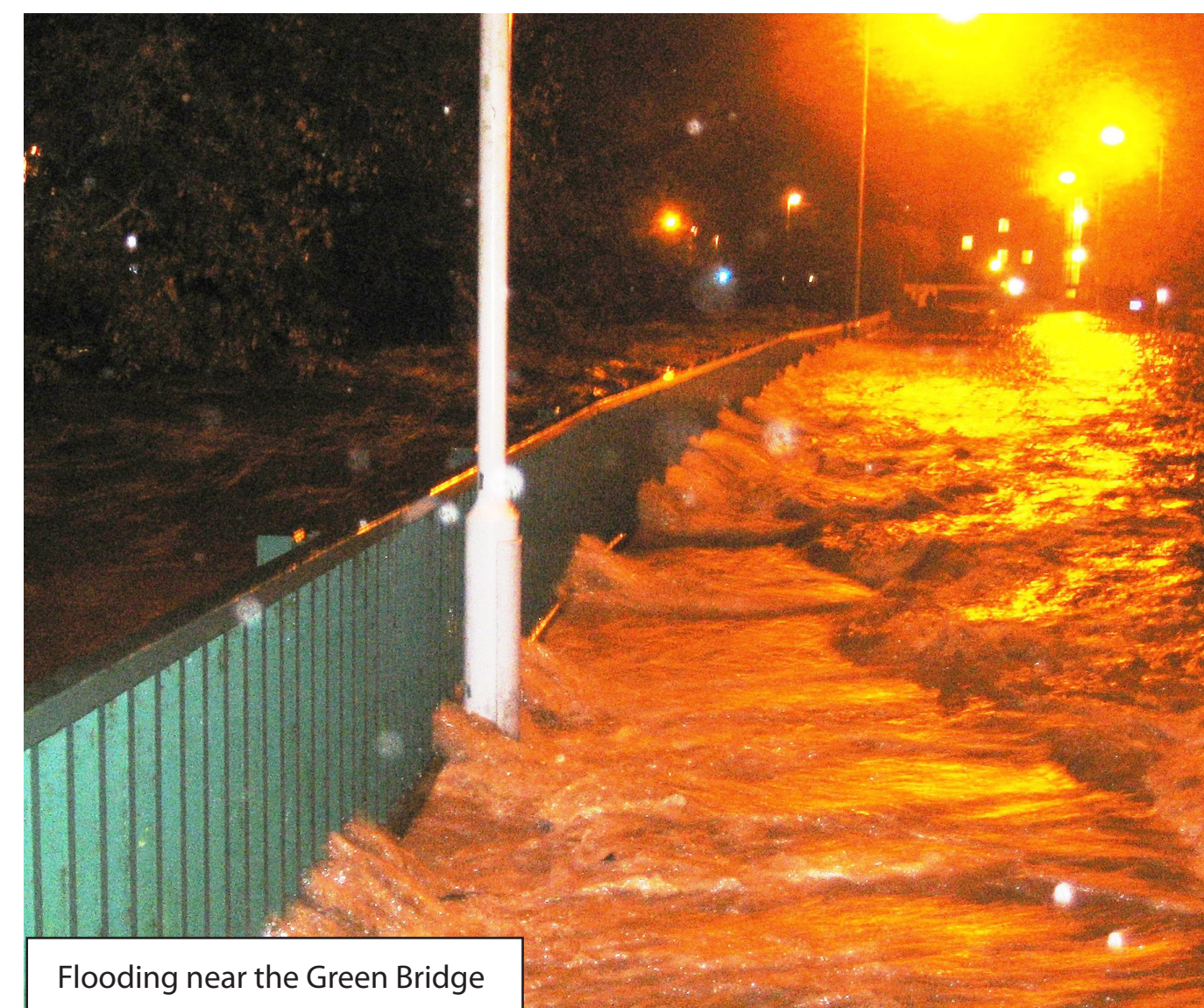
The most recent scheme (2009) at Cockermouth in Cumbria took 6 years to complete, cost £4.4 million and provided 1km (0.6 miles) of defences.

The Water of Leith cost increases were largely a result of it being a complex scheme of new defences in a restricted urban environment. Other factors included a large numbers of objections, difficult ground conditions, flooding during the works and landowner compensation claims. In contrast, the Cockermouth scheme was more straightforward, as it upgraded existing defences. There are similarities between Stonehaven and Cockermouth, although access to this site is more difficult, which may increase costs.

We hope to incorporate lessons learnt from these and other similar projects, in order to address problems early in the design and planning process. This should reduce the time taken to construct the scheme. However, it is likely to be at least three years before the project is complete.



Water of Leith Scheme Under Construction



Flooding near the Green Bridge

## How will the scheme be built?

No firm decisions have been made as to how the scheme will be constructed. However, access within Stonehaven is very restricted, particularly between the White Bridge and Bridgefield Bridge. It is therefore likely that the White Bridge will need to be temporarily removed which would allow the full width of the Carron Water to be used for access.

To reduce flood risk to businesses and residents during the construction period, works will be phased and prioritised within different areas of the town. However, we would need to ensure that the potential for flooding would not be increased for other areas whilst this work is carried out.

Although works will be phased and arranged to reduce disruption to Stonehaven, it is inevitable that some noise and interruption to residents, businesses and visitors will occur over a relatively long period of time.

## Resilience - what can you do in the meantime?

The scheme displayed on these boards is at the top of flood protection hierarchy. Smaller-scale, domestic measures may be highly effective in defending individual properties when specified, fitted and operated correctly. Whilst the use of makeshift protection such as sandbags and plastic sheeting can provide a temporary defence, Property Level Protection (PLP) provides much-needed support for those at the highest risk of flooding.

PLP can involve both manual and automatic measures, or combinations of both. Manual measures might include door and window barriers, air brick covers and toilet bungs. Automatic air bricks, non-returning valves, sump pumps and flood doors are examples of automated products.

Products should carry the Kitemark symbol to ensure that they have been adequately tested. Approval from the Council should be obtained where protection is to be fitted to listed buildings or properties within the Conservation Area.

Further details can be obtained from the Scottish Flood Forum [www.scottishfloodforum.org](http://www.scottishfloodforum.org)



Property Level Protection measures, including [top left, bottom right] door barriers; [top right] temporary barriers, reinforced with sandbags; [below] air brick cover.

Products should be tested to BSI standards and conform to Kitemark quality and reliability standards.

