

Board 14: Short-List Options – Increase Flow Area Beneath A75 Bridge

Introduction

The A75 embankment is a barrier to flow across the floodplain.

Ground levels on the river banks beneath the bridge rise, increasing water levels upstream, shown in Fig 14-1 below.



Figure 14-1: View from A75 Bridge During Flood (Looking Upstream)

Option Discussion

Stakeholder option discussion points:

Advantages of Option

- Construction work at the A75 bridge only
- Provides relief where there is a barrier to flow

Disadvantages of Option

- Area of work near to SSSI, possible constraints
- Stability work on A75 bridge may be needed

Other Points Raised

- Cost of option is very low, therefore benefit-cost ratio outcome is very high for decrease in water depths

Impact on Flood Risk

- No reduction in receptors
- Reduces water levels upstream
- BCR of 9.84

Option Conclusion

Stakeholder option decision:

- Progress option to outline design
- Simple solution
- Can mitigate water level increase due to direct defences

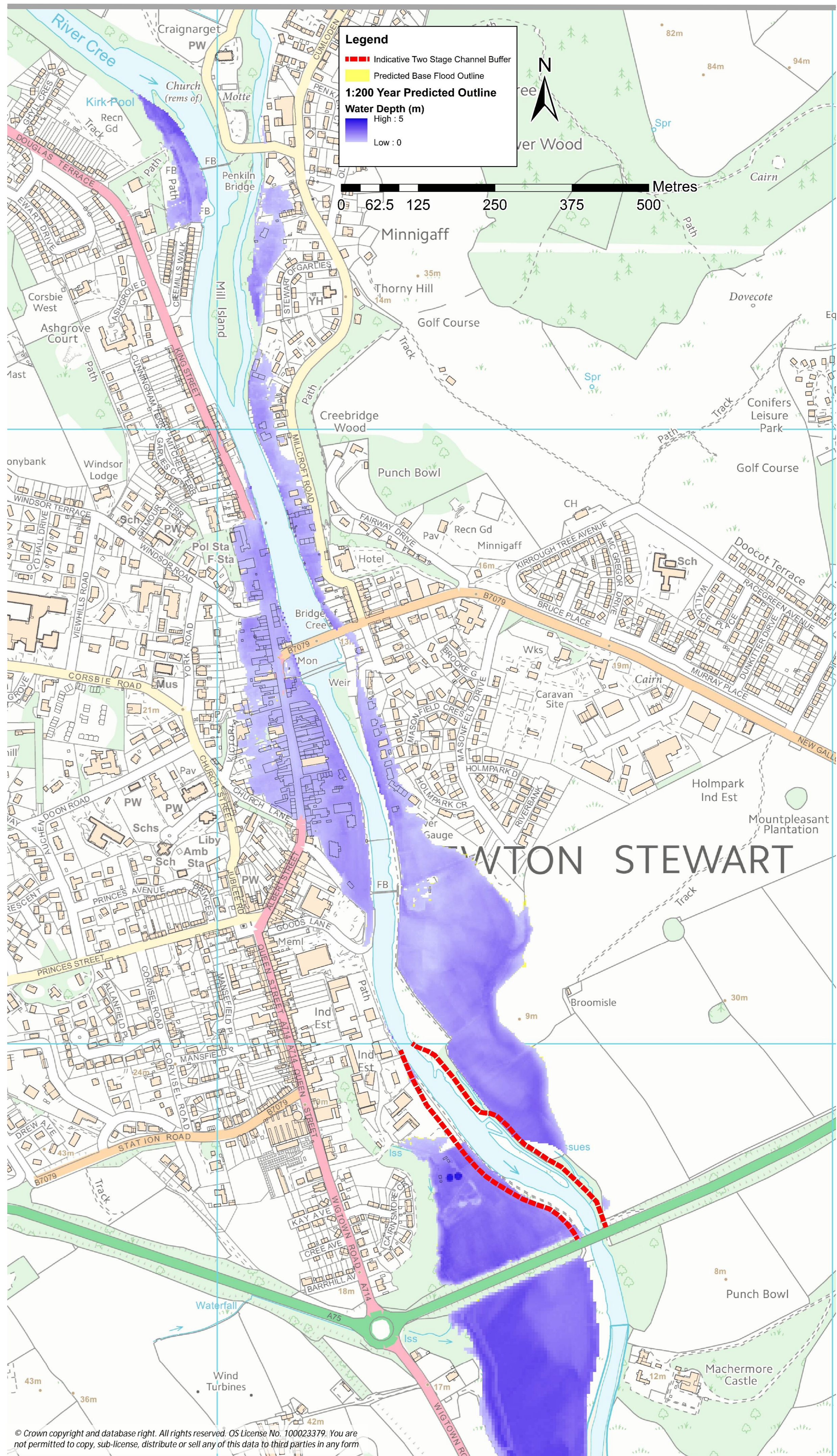


Figure 14-2: 1:200 Year Predicted Flood Outline – Increase Flow Area Beneath A75 Bridge