

## Appendix 1 - Short-listed Options

	Option Description	Progress to Modelling?	Progress to Further Evaluation?	Capital Cost (£M)	Benefit/Cost Ratio (BCR)
1	Upstream flood storage and natural flood management south of M90	Yes	Yes	Not fully costed as required land take (10% of upper catchment) to achieve benefit would take BCR significantly below 1.	
2	Improve drainage on M90 and Broxden area	Ruled out prior to modelling as no data available from Trunk Road operator. To be investigated further as part of the Perth Surface Water Management Plan.			
3	Increase flood storage at existing Perth Flood Scheme 'wet' ponds, Glasgow Road	Yes	Yes	£0.47M	0.66
4	Increase flood storage at existing Perth Flood Scheme 'dry' pond, Glasgow Road	Yes	Ruled out due to increased flood risk in more frequent flood events (1 in 5-year and 1 in 10-year floods)		
5	Culvert upsizing and flood storage area, Necessity Brae (Cherrybank)	Yes	Ruled out as only provides limited localised benefit at high cost		
6	Culvert upgrade, Buckie Brae	Ruled out prior to modelling – would increase flood risk; main issue is blockage, not capacity			
7	Channel modification (dredging) Buckie Braes to South Inch	Yes	Yes	£0.21M	1.0 (was found to be of limited benefit; additional costs for culvert upgrades and bank stabilisation would reduce BCR well below 1.0)
8	Flood storage area, Low Road to Orchard Place	Yes	Yes	£0.55M	0.60
9	New flood defences, Orchard Place	Yes	Ruled out due to limited benefit		

10	Improve culvert capacity, Queen's Avenue	Yes	Yes	£0.27M	1.39
11	Improve culvert capacity, Queens Avenue and modify adjacent river channel	Yes	Yes	£0.31M	1.42
12	New flood defences, Croft Park & improve Craigie Burn to South Inch reservoir spill mechanism	Yes	Ruled out due to high cost and increased flood risk from reservoir in extreme flood events		
13	Improve Craigie Burn to South Inch reservoir spill mechanism	Yes	Yes	£0.31M	0.88
14	Options 11+13 combined	Yes	Yes	£0.62M	1.0 (not considered a robust enough economic case at this stage).

## Location Plan of Short-Listed Actions

