

Appendix 1

Table 1: Option Appraisal Summary Table

	Option 1	Option 2	Option 3	Option 4
	Maintenance plus small flood defence ancillary works (The Cross and Abercairney Place)	Property Level Protection (PLP) (residential properties only)	Direct Flood Defences (Tullibardine & Highland Spring) + Property Level Protection (PLP) (residential properties)	Diversion Channel (Danny Burn / Back Burn / Kinpauch Burn) plus Direct Defences (Highland Spring) plus Natural Flood Management
All properties protected (200 year event)?	No	No	Yes	Yes
Initial Capital cost	£841,769	£192,000	£4,635,345	£7,823,860
Benefit:Cost Ratio	1.4	2.9	1.77	1.36
Assessment of option	<p>Option doesn't fully meet study objectives.</p> <p>Only defends The Cross and Abercairney Place. Other properties still at risk.</p> <p>Repeated dredging not recommended on environmental grounds.</p>	<p>Option doesn't fully meet study objectives.</p> <p>PLP not suitable for non-residential properties, which therefore remain at risk.</p> <p>Flood protection relies on measures being installed properly by homeowners (in advance of flooding), and suitable maintenance.</p> <p>Typical life span of around 20-30 years before replacement required.</p> <p>Uptake of PLP measures is historically poor.</p> <p>Only effective up to certain flood depths (typically 0.6m) – modelled 1 in 200 year flood depths are up to 0.4m (for residential properties).</p>	<p>All properties offered a degree of protection but see below.</p> <p>Flood protection provided by PLP relies on measures being installed properly by homeowners (in advance of flooding), and suitable maintenance.</p> <p>Typical life span of PLP around 20-30 years before replacement required also.</p> <p>Uptake of PLP measures is historically poor.</p> <p>PLP only effective up to certain flood depths (typically 0.6m). – modelled 1 in 200 year flood depths are up to 0.4m (for residential properties).</p>	<p>All properties defended – plus benefit to the A9.</p> <p>Diversion works are remote from the village thereby reducing impact (both during construction and longer-term).</p> <p>Visual impact of direct defences also limited.</p> <p>NFM opportunities through reuse of material claimed on site during construction.</p> <p>Potential for multiple benefits (biodiversity/habitat creation/amenity) along diversion routes and NFM.</p>
	Option 1 is not recommended	Option 2 is not recommended	Option 3 is not recommended	Option 4 is recommended