

APPENDIX G

Option Hazard Assessment

**East Worthing FAS – Teville Stream Restoration
Options Appraisal Report
Proposed Options Health and Safety Review**

Option No.	Location	Ref	Description	Existing hazards eliminated or mitigated	New hazards introduced	Potential hazard elimination and/or mitigation through design and management
SL1	Deacon Way Culvert Bypass (new open channel)	A	Do-nothing	• None	<ul style="list-style-type: none"> Increased potential for culvert collapse Increased potential for injuries due to spread of Giant Hogweed. 	<ul style="list-style-type: none"> None
		B	Do minimum	• None	• None	<ul style="list-style-type: none"> Giant hogweed Management Plan Consider other options
		C	New channel using existing ditches	<ul style="list-style-type: none"> Reduce sediment in culvert = reduced maintenance entry to confined space 	<ul style="list-style-type: none"> Reduced access to confined space for maintenance Increased drowning risk during higher flows in channel 	<ul style="list-style-type: none"> Reduced frequency of access
		D	Newly cut channel	<ul style="list-style-type: none"> Reduce sediment in culvert = reduced maintenance entry to confined space 	<ul style="list-style-type: none"> Reduced access to confined space for maintenance 	<ul style="list-style-type: none"> Increase life expectancy of culvert by reducing flow throughputs Reduced access requirements Flooding restricted
		E	Reed bed downstream of GSK outfall by dredging existing channel	• Contaminant silt removed from system	<ul style="list-style-type: none"> Working near/in water to manage reedbed Pollution risk from plant during construction 	<ul style="list-style-type: none"> Adequate training for operatives – install throwing line etc Contractor mitigation – surface boom etc
SL2	Meadow Lane Landfill Culvert	A	Do-nothing	• None	<ul style="list-style-type: none"> Increased potential for culvert collapse Ongoing risk of leachate contamination 	<ul style="list-style-type: none"> None
		B	Do-minimum	• Contaminant silt removed from system	<ul style="list-style-type: none"> Access into confined space Contact with explosive gases 	<ul style="list-style-type: none"> Access to confined space only after silt removal and ventilation methodology approved.

Option No.	Location	Ref	Description	Existing hazards eliminated or mitigated	New hazards introduced	Potential hazard elimination and/or mitigation through design and management
SL3	Brooklands Lake	A	Do-nothing	• None	<ul style="list-style-type: none"> Increasing potential for public coming into contact with contaminated silt over time. 	• None
		B	Do-minimum	• None	<ul style="list-style-type: none"> Increased opportunity for public to come into contact with contaminated silt 	<ul style="list-style-type: none"> Raise awareness among lake users Restrict access to upstream areas
		C	Dredge lake	<ul style="list-style-type: none"> Contaminated silt removed from system 	<ul style="list-style-type: none"> Transporting contaminated silt to landfill 	<ul style="list-style-type: none"> Dewatering reduces volume to be transported – reduced exposure
		D	Turn Brooklands into a saline intertidal habitat	<ul style="list-style-type: none"> Water quality issues improved 	<ul style="list-style-type: none"> Tidal changes in water level increases water related hazards including slippery surfaces, unexpected inundation, etc 	<ul style="list-style-type: none"> Minimise new tidal range within lake to approximately 0.5m over 4-6 hr period
		A	Narrow channel and make shallower at certain locations and stabilise bank	<ul style="list-style-type: none"> Collapse of bank and adjacent road Reduced risk of drowning, due to shallower channel 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Suitable training for operatives
SL4	General Channel improvements	A	Create reed bed to narrow channel and make shallower at certain locations and increase settlement of silt	<ul style="list-style-type: none"> Contaminate silt removed from system Reduced risk of drowning, due to shallower channel 	<ul style="list-style-type: none"> Working near/in water to manage reedbed 	<ul style="list-style-type: none"> Suitable training for operatives
			B			
		C	Do minimum bank-side improvements	• None	<ul style="list-style-type: none"> Working near/in water to manage reedbed 	<ul style="list-style-type: none"> Suitable training for operatives
		D	Create silt traps, fish refuges and reed beds to increase habitat diversity	• None	<ul style="list-style-type: none"> Working near/in water to manage reedbed 	<ul style="list-style-type: none"> Suitable training for operatives
		E	Create silt traps and reed beds to reduce silt	• None	<ul style="list-style-type: none"> Working near/in water to manage reedbed and removal of weir 	<ul style="list-style-type: none"> Suitable training for operatives

Option No.	Location	Ref	Description	Existing hazards eliminated or mitigated		New hazards introduced	Potential hazard elimination and/or mitigation through design and management
			movement downstream and remove weir				
	F		Create reedbeds to provide habitat at northern fringe of Brooklands lake	• Contaminated silt removed from system	• Working near/in water to manage reedbed	• Suitable training for operatives	