# Longlist options appraisal

**Key**

**+** Confidence that the option could achieve the Critical Success Factor, although further development is required.

**o** The option needs further development to understand whether it could achieve the Critical Success Factor.

**-** There is appropriate understanding to confidently conclude that the option would not achieve the Critical Success Factor.

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| Area | Number | Title | Description | Strategic Fit | Potential Value for Money | Supplier Capacity and Capability | Potential Affordability | Potential Achievability | Proposed To Shortlist |
| All | 1 | Walkaway | A mandatory standard baseline or reference scenario for consideration. It ‘means doing nothing, i.e. cease any and all current activities and walk away’ |  |  |  |  |  | Yes |
| All | 2 | Business as usual | A mandatory standard baseline or reference scenario for consideration. It is taken to mean ‘sustaining the current arrangements’ |  |  |  |  |  | Yes |
| Rivers West | 3 | Direct Defences – Flood Walls / Embankments | Localised defences within the town centre where they can provide direct protection from river flooding. | **-** | **o** | **+** | **o** | **+** | No |
| Rivers West | 4 | River Diversion | A reprofiling of the gradient of the Afon Rhyd-hir so that it diverts flows to the coast at a new location west of the town | **o** | **o** | **+** | **o** | **o** | Yes |
| Rivers West | 5 | Overpumping on the Afon Rhyd-hir and Afon Penrhos | High volume pumping stations to be constructed in Pwllheli, designed to pump high river flows to the sea when high tides would otherwise cause a backing up effect. | **o** | **-** | **+** | **-** | **-** | No |
| Rivers West | 6 | Upstream Storage | Introducing changes in the upstream land to create greater capacity for flood water to be stored there. | **o** | **-** | **+** | **o** | **-** | No |
| Coastal West | 7 | Realign Defences - Coastal | New coastal defences moved marginally inland but remaining consistent with the current alignment along the western coastal frontage, allowing the coastline space to regress. | **+** | **o** | **+** | **o** | **+** | Yes |
| Coastal West | 8 | Realign Defences - Inland | New coastal defences to the west of the town, perpendicular to the coastal frontage allowing the coastline to regress. | **+** | **o** | **+** | **o** | **+** | Yes |
| Coastal West | 9 | Beach/Sand Replenishment | Introducing significant volumes of sediment or sand along the western frontage to increase the extent to which the dunes and shore can act as a barrier to storm events . | **o** | **-** | **-** | **-** | **-** | No |
| Coastal West | 10 | Hard Engineering Defences | Hard engineered defences such as rock armour or rip-rap to protect the shoreline against scour and wave erosion. | **o** | **-** | **+** | **o** | **o** | No |
| Coastal West | 11 | Groynes and Breakwaters | Hard barriers (typically rock or timber) designed to help trap sediment and preserve the beach, improving protection from flooding and erosion. | **o** | **-** | **+** | **o** | **o** | No |
| Harbour/ Central | 12 | Raised Harbour Walls | Increase defence heights around the harbour where needed to manage the risk of flooding from future storm events. | **+** | **o** | **+** | **+** | **+** | Yes |
| Harbour/ Central | 13 | New Harbour Gate | A regulated barrier at the harbour entrance to create capacity within the harbour to manage river flooding and equally to manage tidal flood risks from storm surges. | **+** | **o** | **o** | **o** | **o** | Yes |
| Coastal East | 14 | Groynes and Breakwaters | Hard barriers (typically rock or timber) designed to help trap sediment and preserve the beach, improving protection from flooding and erosion. | **o** | **-** | **+** | **o** | **o** | No |
| Coastal East | 15 | Hard Engineering Defences | Hard engineered defences such as rock armour or rip-rap to protect the shoreline against scour and wave erosion. | **o** | **-** | **+** | **o** | **o** | No |
| Coastal East | 16 | Beach/Sand Replenishment | Introducing significant volumes of sediment or sand along the eastern frontage to increase the extent to which the dunes and shore can act as a barrier to storm events. | **o** | **-** | **-** | **-** | **-** | No |
| River East | 17 | Direct Defences – Flood Walls/ Embankments | Raised flood defences in Abererch providing a direct line of defence against flooding from the Afon Erch. | **+** | **o** | **+** | **o** | **+** | Yes |
| River East | 18 | Upstream Storage | Introducing changes in the land upstream, north of Abererch to create capacity for flood water to be stored there. | **o** | **-** | **+** | **o** | **-** | No |
| River East | 19 | Watercourse Conveyance Improvements | Changes existing structures to allow greater flows to pass, reducing the degree to which upstream water levels within the village are elevated during flood flows. | **-** | **o** | **+** | **o** | **o** | No |