JIM COOKE PARK STOPBANK RECONSTRUCTION OPTIONS COMPARISION

Attribute	Option 1 - Standard stopbank without amenity strip	Option 2 - Standard stopbank/ floodwall combination without amenity strip	Option 3 - Standard stopbank with amenity strip
Cost			
Cost to build	\$1,475,180	\$3,650,828	1,432,252
Cost to maintain and repair	Low – any damage can be easily repaired	Potentially very high. Damage can be difficult and expensive to repair, as the entire structure may need replacing if a section becomes damaged.	Similar to Option 1 Trees retained will require maintenance but this will be mainly undertaken by adjoining land owners. There is a saving in needing to plant and maintain trees required for offsetting.
Performance			
Durability during a flood	Very high. The design is well tested and is the standard used in New Zealand.	High, but some risk of erosion at base. Not well tested in New Zealand.	Slightly less than Option 1
Adaptive capacity (climate change)	Can be topped up relatively easily and inexpensively if required.	Some designs can be topped up if required, but this is expensive	Similar to Option 1
Community resilience to Earthquake/flood damage	Can be relatively quickly and cheaply repaired after damage from an earthquake or flood.	Costly and time consuming to repair, leaving the community vulnerable to flooding meanwhile.	Similar to Option 1
Amenity			
Visual Impacts	Low: blends in to river terraces but residential houses will be more visible with removal of trees along boundary	A concrete wall can look out of place and may attract graffiti.	Low: blends in to river terraces and residential houses will be screened by trees from river environment
Public access	No barrier to public access.	A floodwall presents a barrier to public access. This could also make it difficult to retrieve soccer balls from the playing fields.	Similar to Option 1
Public safety	No issues identified.	Area at rear of floodwall may attract undesirable behaviour — impacting on adjoining properties and users of park.	Similar to Option 1