

### Environmental Enhancement Works : Priority List

Priority	Description	Unit	Qty	Rate(\$)	Amount
<b>RIVER ALIGNMENT 2002-2004</b>					
1	Interpretation Platform	Sum	1	\$60,000.00	\$ 60,000.00
2	Additional rock for access to river	T	2,000	\$ 50.00	\$100,000.00
3	Vegetation, incl. prep. & maint.				\$158,000.00
<b>Subtotal</b>					<b>\$318,000.00</b>
<b>RIGHT BANK 2004-2006</b>					
4	Vegetation, incl. prep. & maint.				\$ 41,500.00
5	Landscaping & Planting at Ewen Bridge Area	Sum	1	\$ 5,000.00	\$ 5,000.00
<b>Subtotal</b>					<b>\$ 46,500.00</b>
<b>AVA BRIDGE STOPBANK – 2006-2008</b>					
6	Vegetation, incl. prep. & maint.				\$ 24,050.00
7	Landscaping & Planting at Ava Bridge Area	Sum	1	\$10,000.00	\$ 10,000.00
<b>Subtotal</b>					<b>\$ 34,050.00</b>
<b>LEFT BANK 2008-2010</b>					
8	Vegetation, incl. prep. & maint.				\$ 41,500.00
9	Landscaping & Planting at Ewen Bridge Area	Sum	1	\$10,000.00	\$ 10,000.00
<b>Subtotal</b>					<b>\$ 51,500.00</b>
<b>OTHER</b>					
10	Pou – right bank	No	3	\$10,000.00	\$ 30,000.00
11	Pou – left bank	No	2	\$10,000.00	\$ 20,000.00
12	Site Furniture	No	12	\$ 1,000.00	\$ 12,000.00
13	Walkways (assuming being formed after berms are finished and works to build the stopbanks are completed)	m	2,000	\$ 18.00	\$ 36,000.00
<b>Subtotal</b>					<b>\$ 98,000.00</b>
<b>Total</b>					<b>\$548,050.00</b>
<b>Contingency</b>					<b>\$109,610.00</b>
<b>Project Management</b>					<b>\$ 49,325.00</b>
<b>TOTAL</b>					<b>\$706,985.00</b>

## **Ava to Ewen: Environmental Enhancement Works Implementation Priority List**

### **Assumptions**

- Costings in the preliminary design report are approximate but are sufficiently accurate to prioritise the proposed enhancement works.
- It is more cost effective to undertake works according to the flood protection works construction schedule and make any economies with heavy machinery or undertake the works in such a way as to achieve the aims of the enhancement works.
- Works to reinstate the pathways and associated infrastructure along the stopbanks and project area are included as part of the capex works. These works are not considered to be 'enhancement works'.
- All opportunities for enhancement works are subject to the physical constraints of the flood protection works.
- Plantings should not be divorced from the attendant irrigation, mulching and maintenance required for the plants to survive. However, maintenance has not been included in these capex estimates.
- Any enhancement work will not compromise the integrity of the flood protection system.
- Proposed access to the river can be created in part by using a smaller quantity of rock and other construction methods.

### **Priority Criteria**

- Structures required for site interpretation be undertaken as soon as practicable to ensure the community is kept informed of the works being undertaken and is part of the ongoing dialogue between Flood Protection and the community.
- Where enhancement works rely on structural work, the enhancement work is undertaken at the same time.
- Works with ecological benefits have priority. This recognises that the flood protection works to be undertaken will result in considerable disturbance to the immediate environment and should therefore be remedied as soon as possible.
- Works that are not reliant on other project deadlines, or other work being undertaken, have the least priority.

### **Notes:**

- Estimates have been prepared using the figures supplied in the preliminary design report
- Detailed design work is required to realise the aims and aspirations presented in the environmental enhancement concept plans. This may affect the final estimates and costings presented here.
- To meet the available budget, the rock estimated to undertake the work has been decreased and maintenance costs have not been factored in. This will be discussed with Hutt City Council to investigate other funding options for capital and operational costs of implementing the design.

**Total Budget**

Flood Protection comprises:

<b>Capex 5% of base cost</b>	
Ava to Ewen works	\$410,000
Ava rail bridge strengthening	\$213,000
<b>Other Budget</b>	
Sundry enhancement work	\$ 50,000
Whitebait enhancement work	\$ 34,000
<b>TOTAL</b>	<b>\$707,000</b>