



Environment,  
Climate Change  
& Water



## **GUNNEDAH SHIRE COUNCIL**

# **BLACKJACK CREEK FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN**

## **APPENDIX A**

# **DETAILS OF COSTS OF FLOOD MITIGATION SCHEMES**

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**TABLE A1  
COST DETAILS IMPROVED CHANNEL/RIPARIAN CORRIDOR**

Item	Description	Unit	Rate	Quantity	Amount
1	Sediment Control over duration of project	Item	\$15,000.00	Item	\$15,000
2	Remove and dispose of vegetation	m <sup>2</sup>	\$1.05	162000	\$170,100
3	Excavate to remove topsoil (150 mm) and stockpile for later spreading over excavated surfaces	m <sup>2</sup>	\$0.85	162000	\$137,700
4	Excavate over 1900 m length to form trapezoidal channel, spread spoil on floodplain	m <sup>3</sup>	\$3.50	125000	\$437,500
5	Excavate from stockpile and spread topsoil over excavated surfaces	m <sup>2</sup>	\$0.92	162000	\$149,040
6	Sow and maintain native grasses over excavated channel batters (1900 m length)	m <sup>2</sup>	\$9.00	28000	\$252,000
7	Grass Seeding Channel Invert	m <sup>2</sup>	\$5.00	50000	\$250,000
8	Provide rock inverts to form isolated pools along length of channel	m <sup>3</sup>	\$50.00	1800	\$90,000
9	Riparian zone planting along channel overbanks ( 20 m strip each side)	m <sup>2</sup>	\$1.75	76000	\$133,000
10	Survey, Investigation and design (7.5%)				\$122,576
11	Unestimated items and contingencies (20%)				\$351,383
	<b>Total estimated Cost</b>				<b>\$2,108,299</b>

**TABLE A2**  
**COST DETAILS LEVEE SCHEME**

<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>	<b>Quantity</b>	<b>Amount</b>
1	Sediment Control over duration of project	Item	\$20,000.00	Item	\$15,000
2	Remove and dispose of vegetation	m <sup>2</sup>	\$1.05	51920	\$54,516
3	Excavate to remove topsoil (150 mm) over levee footprint and stockpile for later spreading over levee batters	m <sup>2</sup>	\$0.85	51920	\$44,132
4	Excavate over 300 m length to relocate existing channel near George Street (form trapezoidal channel, fill and compact existing channel)	m <sup>3</sup>	\$3.50	9000	\$31,500
5	Grass seed invert and batters of re-located channel Blackjack Creek	m <sup>2</sup>	\$5.00	7500	\$37,500
6	Roll and compact levee foundation	m <sup>2</sup>	\$5.00	21320	\$106,600
7	Supply and compact suitable impervious fill to form levee embankment	m <sup>3</sup>	\$40.00	22000	\$880,000
8	Excavate from stockpile and spread topsoil over all excavated surfaces	m <sup>2</sup>	\$0.92	58340	\$53,673
9	Grass seed levee batters	m <sup>2</sup>	\$5.00	22960	\$114,800
10	Excavate for storm water channel	m <sup>3</sup>	\$3.50	32800	\$114,800
11	Grass seed storm water channel surfaces	m <sup>2</sup>	\$5.00	24600	\$123,000
12	Survey, Investigation and design (10%)				\$157,552
13	Unestimated items and contingencies (35%)				\$606,576
	<b>Total estimated Cost</b>				<b>\$2,339,648</b>