

date. Strategy 12 seeks to identify unregistered sites and develop cultural management plans where appropriate to ensure on-going protection of cultural heritage around the estuary.

- Many of the major fisheries related issues (i.e. fish kills) are addressed by this plan by focussing on the source of issues, such as reducing environmental impacts of floodplain infrastructure (Strategy 4) and improving land management practices (Strategy 5). Other fisheries related issues are generally regulated by state government (principally Industry and Investment NSW) and the actions contained in Strategy 13 (Fishery Management) are related to improving community understanding of fisheries and aquaculture management in the local area and addressing specific concerns related to oyster harvest closures.

8. IMPLEMENTATION

The following table provides an overview of the recommended strategies, listing the key actions, responsibilities, location and indicative costs estimated over the ten year implementation period. The total cost of the CZMP implementation is estimated to be approximately \$16.4 million over ten years.

Table 2: Overview of the CZMP implementation schedule

Action	Lead Organisation	Support Organisations	Management Zones	10 Year Cost (\$'000)
FUNDAMENTAL MANAGEMENT STRATEGIES				
Strategy 1: Administration and Governance				
1.1	Review estuary governance and administration	EMC	BSC, LCC, RVC, RRCC, DECCW, I&I NSW, NRCMA, LPMA	Estuary-wide 200
Strategy 2: Climate Change Adaptation				
2.1	Planning for sea level rise and climate change impacts	EMC	BSC, LCC, RVC, RRCC, DECCW, I&I NSW, NRCMA, LPMA	Estuary-wide 100
Strategy 3: Monitoring and Evaluation				
3.1	EcoHealth monitoring program	EMC	BSC, LCC, RVC, RRCC, I&I NSW, DECCW, NRCMA, SCU	Estuary-wide 2,000
3.2	Develop catchment/water quality modelling tool to support decision making	EMC	BSC, LCC, RVC, RRCC, I&I NSW, DECCW, NRCMA, SCU	Estuary-wide 45
HIGH PRIORITY				
Strategy 4: Floodplain Infrastructure Management				
4.1	Identify, prioritise and optimise drains and levees	RRCC	BSC, LCC, RVC, DECCW, I&I NSW	Estuary-wide 3,420
4.2	Review floodgate management protocols	RRCC	BSC, LCC, RVC, DECCW, I&I NSW	Estuary-wide 55

Action		Lead Organisation	Support Organisations	Management Zones	10 Year Cost (\$'000)
Strategy 5: Farm Management					
5.1	Scientific investigations: strategies for retention of water on backswamp areas	I&I NSW	BSC, LCC, RVC, EMC, DECCW, RRCC, SCU	Zones 7, 10, 11	300
5.2	Farm management planning	I&I NSW	BSC, LCC, RVC, EMC, DECCW, RRCC	Estuary-wide	5,000
5.3	Liaise with agriculture industry bodies to improve education and ensure estuary friendly practices are incorporated into industry guidelines	I&I NSW	RRCC, EMC	Estuary-wide	90
MEDIUM PRIORITY					
Strategy 6: Riparian Zone Management and Erosion					
6.1	Identify priority riparian areas and rehabilitate	EMC	BSC, LCC, RVC, LPMA, NRCMA	Estuary-wide	2,300
6.2	Riparian buffer establishment (planning)	BSC, LCC, RVC	LPMA	Estuary-wide	30
Strategy 7: Vegetation Management					
7.1	Retain, rehabilitate and conserve existing native floodplain vegetation	BSC, LCC, RVC	RRCC, LPMA, NRCMA, DECCW, FNCW	Estuary-wide	930
7.2	Aquatic weed management	FNCW, I&I NSW RRCC	BSC, LCC, RVC	Estuary-wide	1,000
Strategy 8: Education					
8.1	Estuary-wide community education and consultation program	EMC	BSC, LCC, RVC, RRCC, DECCW, I&I NSW, NRCMA, FNCW	Estuary-wide	500
Strategy 9: Waterway Usage					
9.1	Develop strategic plan for estuary usage	EMC	BSC, LCC, RVC, NSW Maritime, LPMA, DECCW, I&I NSW	Estuary-wide	75
9.2	Cost benefit analysis of dredging operations in lower estuary	BSC	LPMA, DECCW, I&I NSW, NSW Maritime	Zones 1,2	20
Strategy 10: Wastewater Management					
10.1	Sewerage system risk assessment and prioritisation study	DECCW	BSC, LCC, RVC	Estuary-wide	25
10.2	On-going on-site sewerage management inspections and improvements	BSC, LCC, RVC		Estuary-wide	not estimated
Strategy 11: Urban Runoff					
11.1	Stormwater Management	BSC, LCC, RVC	DECCW	Estuary-wide	not estimated

Action	Lead Organisation	Support Organisations	Management Zones	10 Year Cost (\$'000)	
LOW PRIORITY					
Strategy 12: Cultural Heritage					
12.1	Identification and recording of cultural sites available to council planners	DECCW	BSC, LCC, RVC	Estuary-wide	100
12.2	Cultural Site Management Plans	DECCW	BSC, LCC, RVC	Estuary-wide	155
Strategy 13: Fishery Management					
13.1	Ensure key research findings in the fishing and aquaculture sector are communicated to the public	I&I NSW	BSC, LCC, RVC, RRCC, SCU	Estuary-wide	Included in Strategy 8
13.2	Identify and manage contamination sources in the estuary to minimise oyster harvest closures	I&I NSW	BSC	Zones 1,2,4	40
Total					16,385

EMC: Estuary Management Committee; BSC: Ballina Shire Council; LCC: Lismore City Council; RVC: Richmond Valley Council; RRCC: Richmond River County Council; DECCW: Department of Environment, Climate Change and Water; I&I NSW: Industry and Investment NSW; SCU: Southern Cross University; LPMA: Land and Property Management Authority; NRCMA: Northern Rivers Catchment Management Authority.

The implementation of the plan will be supported by a process for reviewing the effectiveness of the plan and adapting it as required. This aspect of the project is essential for ensuring that the estuary management options identified become a reality and that the estuary is sustainably managed into the future.

Following public exhibition and consideration of submissions, the draft CZMP will be adopted by Richmond River County, Ballina Shire, Lismore City and Richmond Valley Councils. The draft CZMP will also be submitted to the Minister administering the Coastal Protection Act 1979 for certification under the Act.

HAVE YOUR SAY

The EMS and CZMP are available for comment until 6 May 2011 and can be accessed at Council offices and from Richmond River County Council website: www.rrcc.nsw.gov.au.

A public meeting to present the Plan will be held on 28 March 2011, commencing at 5:30pm at the Richmond Room, Regatta Avenue, Ballina.

Submissions can be made via email to floodplain@rrcc.nsw.gov.au or:

By Post:

The General Manager
Richmond River County Council
PO Box 230
LISMORE NSW 2480
Attention: CZMP Richmond River Estuary

Drop Off in person:

Submission Box: The General Manager
Richmond River County Council
Level 4, 218-232 Molesworth St
LISMORE NSW 2480
Attention: CZMP Richmond River Estuary