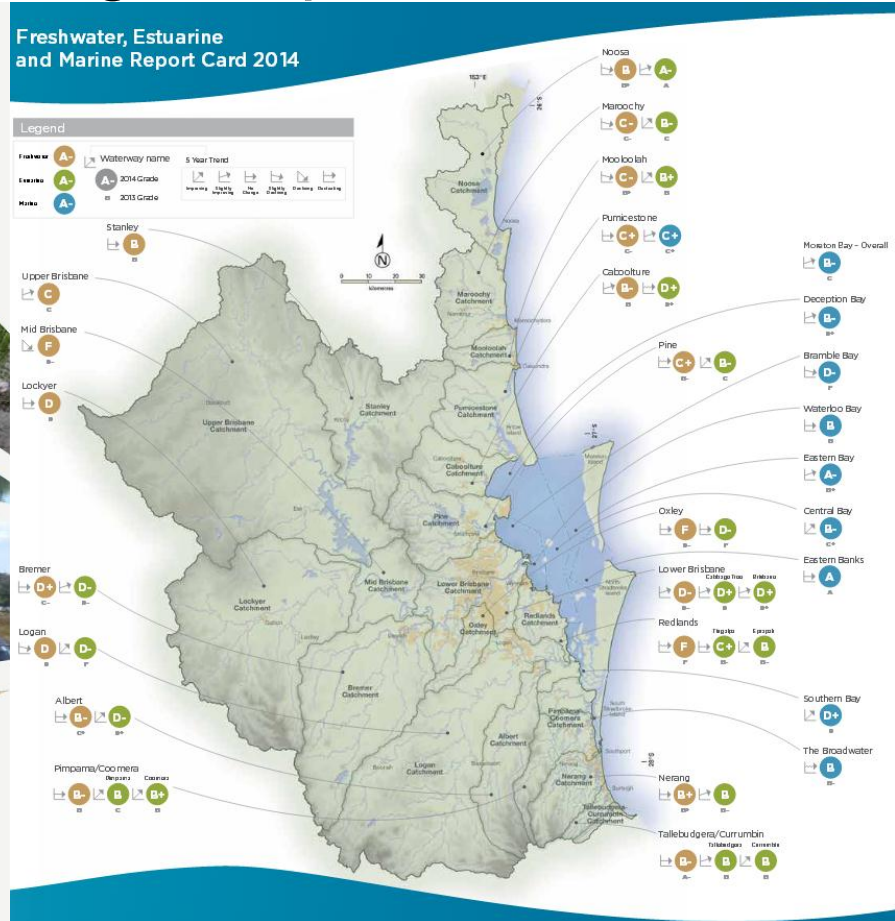
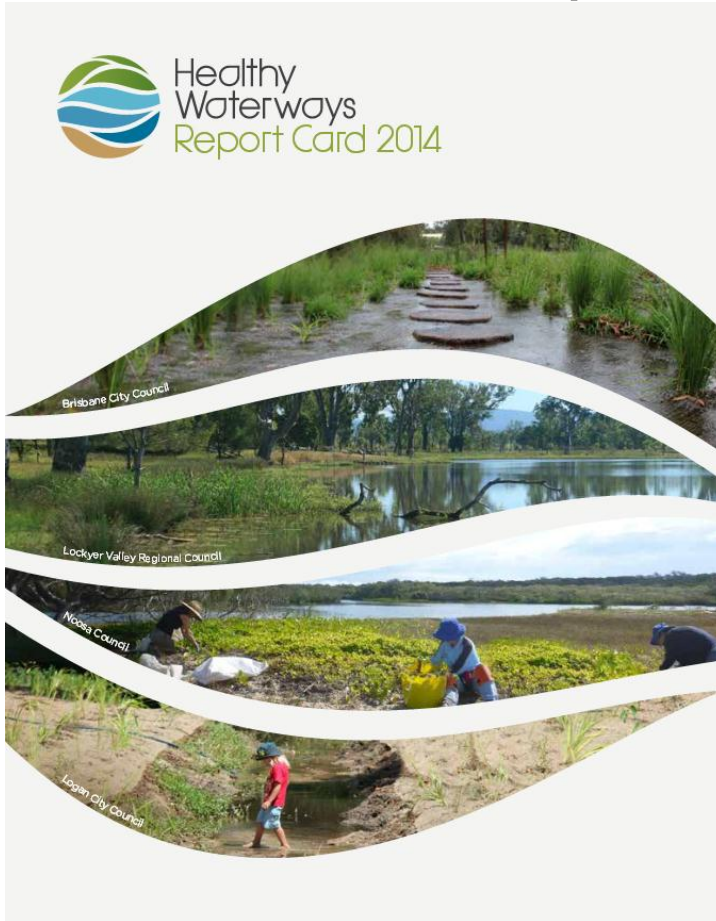


Urban Creek Recovery in a Regional Approach

Matthew Fullerton

How do we manage rivers?

Information for planning and prioritisation



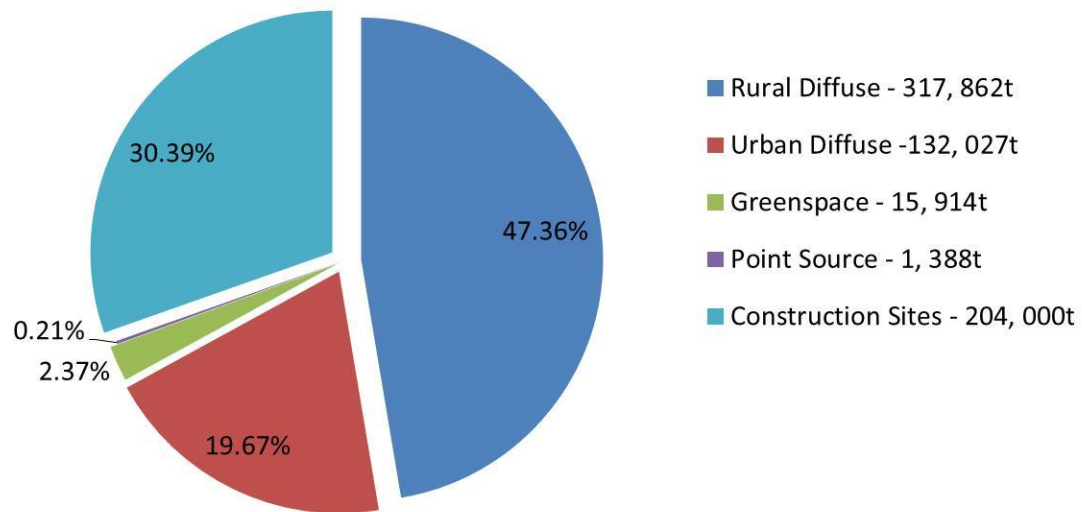
Monitoring and Modelling

Healthy Waterways Monitoring Program - Environmental Component

	FRESHWATER CATCHMENTS	RIVER ESTUARIES	MORETON BAY
Key pressures and management measures Used for model inputs to track progress towards targets	<ul style="list-style-type: none"> Riparian, wetland & gully extent Land use (eg agricultural land management) 	<ul style="list-style-type: none"> Point source discharge loads Diffuse loads 	<ul style="list-style-type: none"> Estuarine water quality discharged
Models To predict waterway condition	<ul style="list-style-type: none"> Source model (catchment) Stream health model (waterway condition) 	Receiving water quality model	Receiving water quality model
Monitoring Used to validate waterway condition	<ul style="list-style-type: none"> Aquatic invertebrates Fish Rates of primary productivity & respiration Water quality Load-based monitoring of sediments and nutrients 	<ul style="list-style-type: none"> Riparian, wetland & mangrove extent Chlorophyll a Toxicants Water quality <ul style="list-style-type: none"> Field monitoring (Physical/chemical, nutrients, chlorophyll a) Continuous sensors 	<ul style="list-style-type: none"> Seagrass & wetland extent & condition Coral Nuisance algae Fauna Mud content of sediment Water quality <ul style="list-style-type: none"> Field monitoring (Physical/chemical, nutrients, chlorophyll a) Underway sampling from vessels Continuous sensors

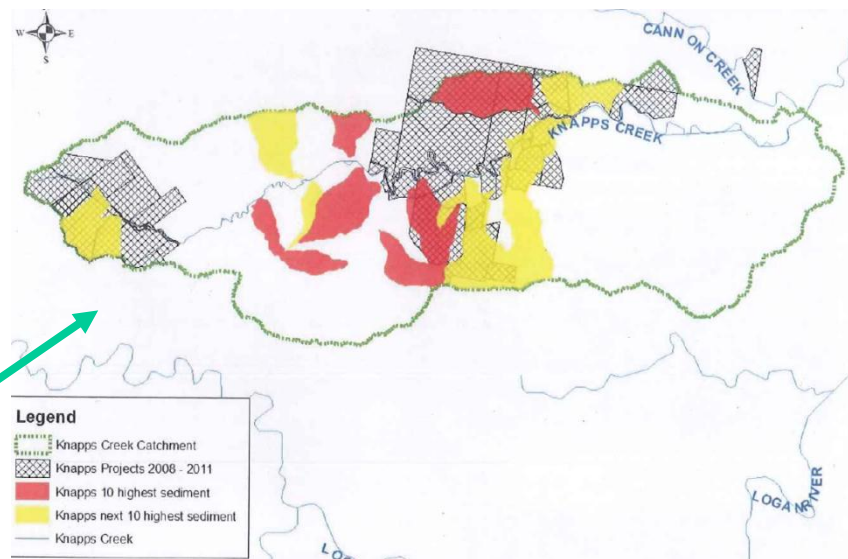
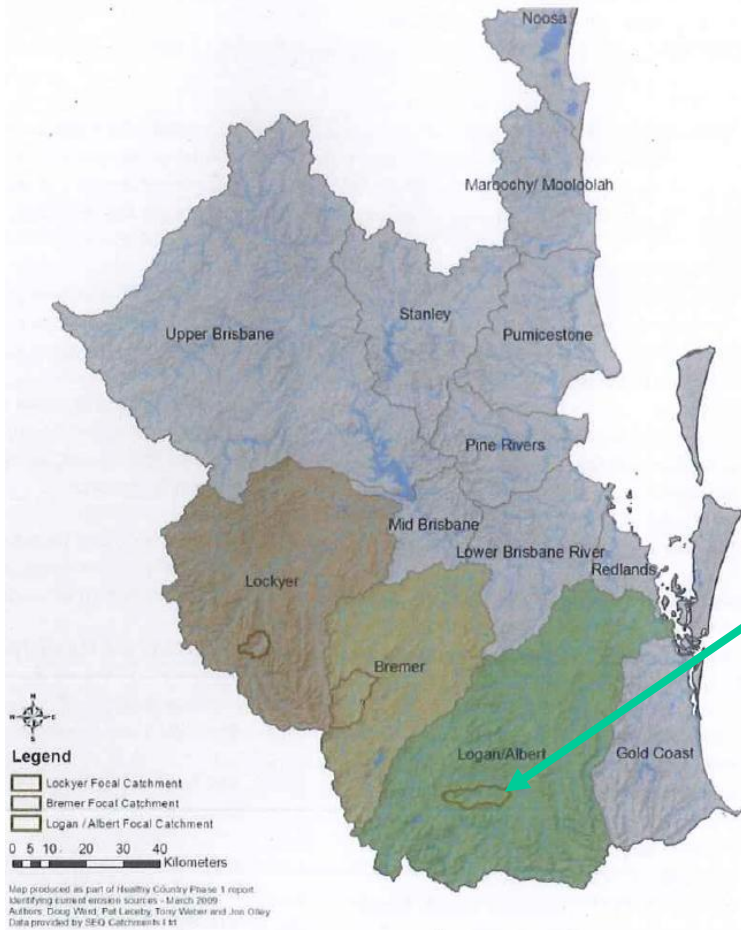
Modelling

Estimated Annual Sediment Contribution



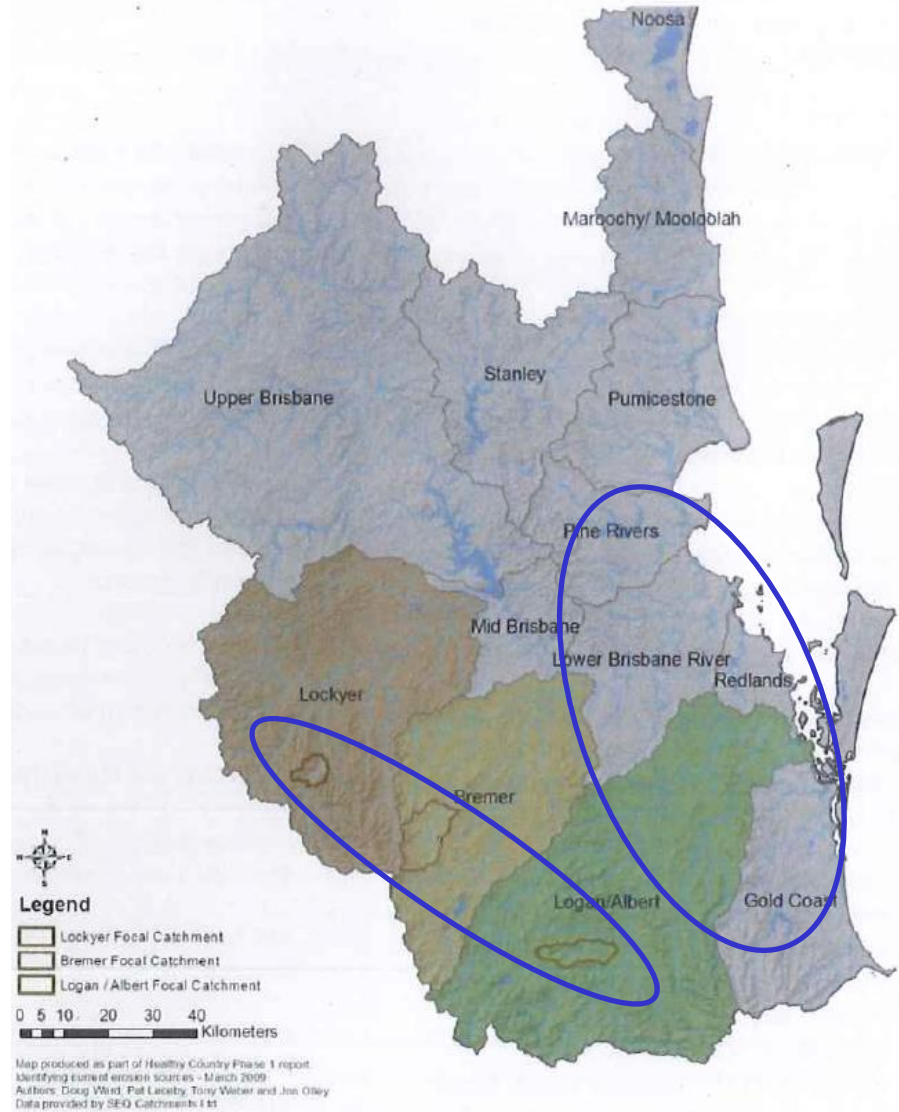
Source: *Healthy Waterways Integrated Urban Water Scientific Expert Panel*

Science



Source: Healthy Country Program 2007-2011

Personalisation



Personalisation



Urban river recovery



Urban river recovery

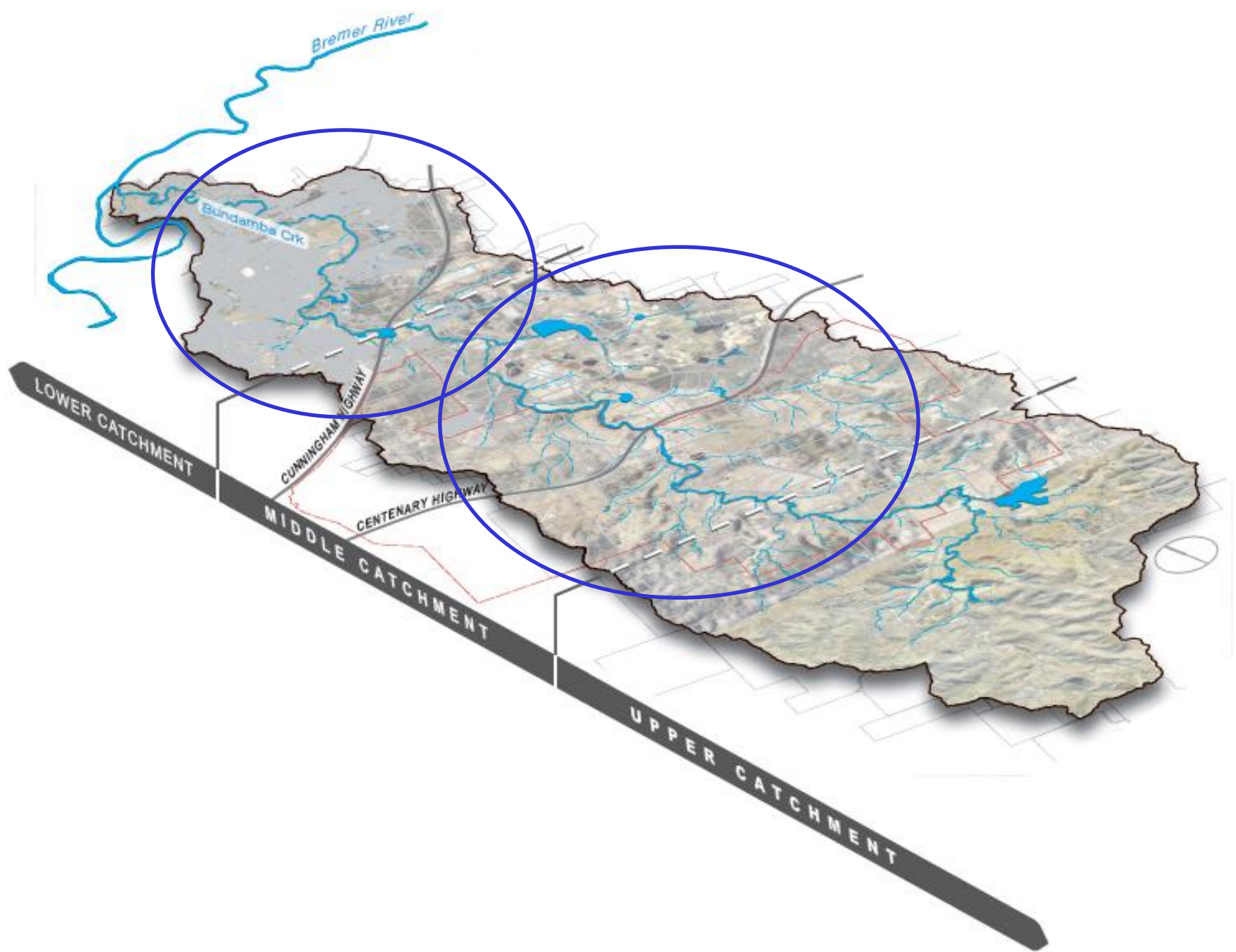


Bundamba Creek

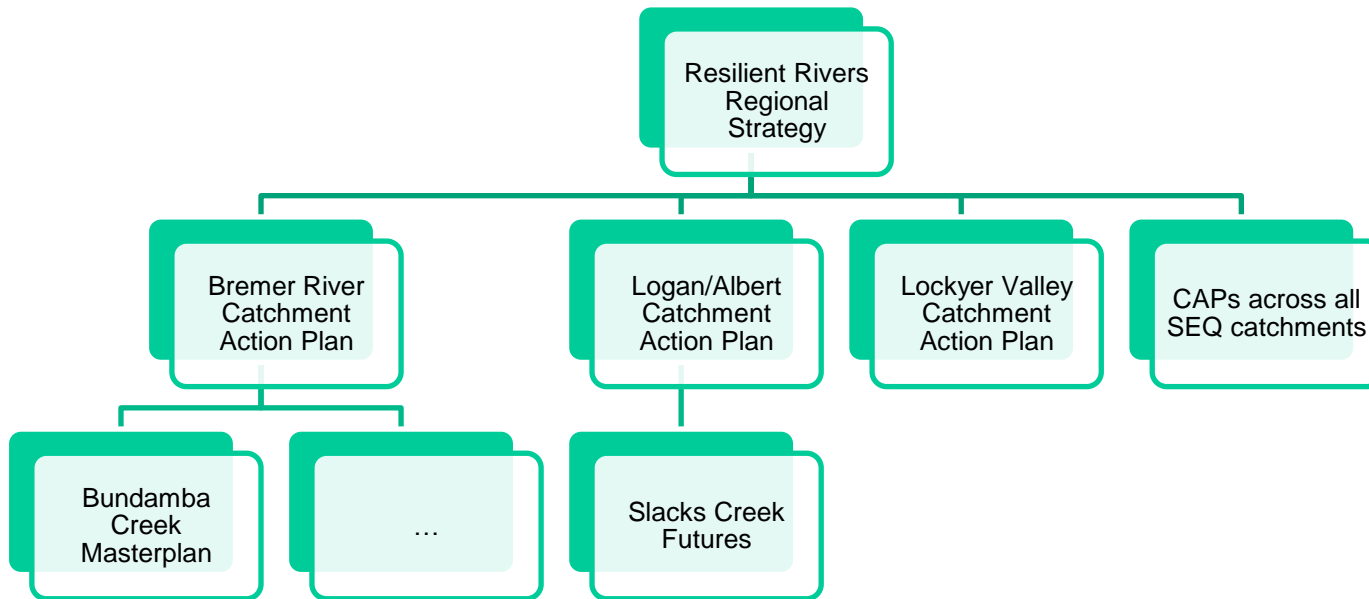


Bundamba Creek





In a regional approach



- Science
- Monitoring
- Modelling
- Citizen science
- Local knowledge
- Report card