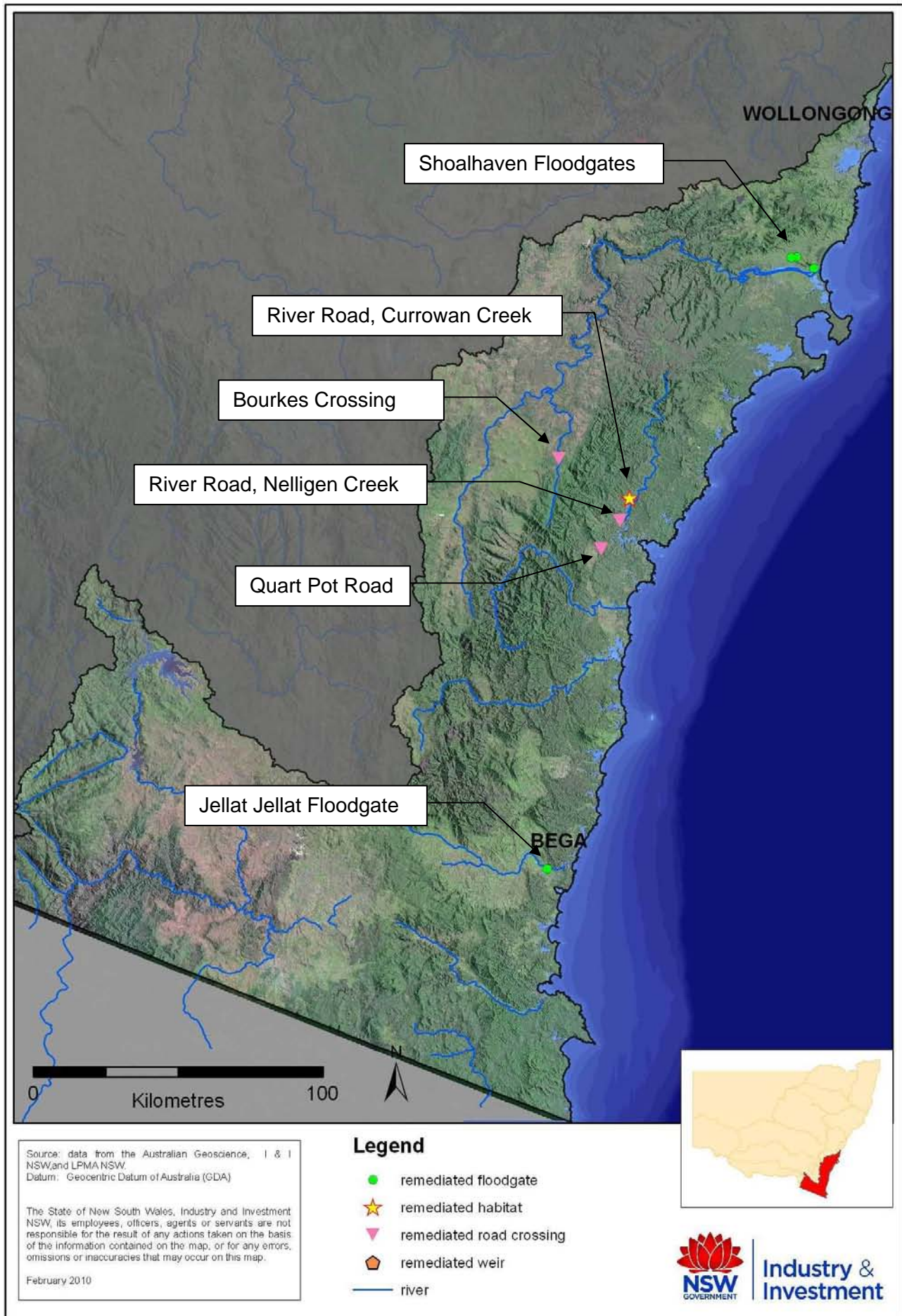
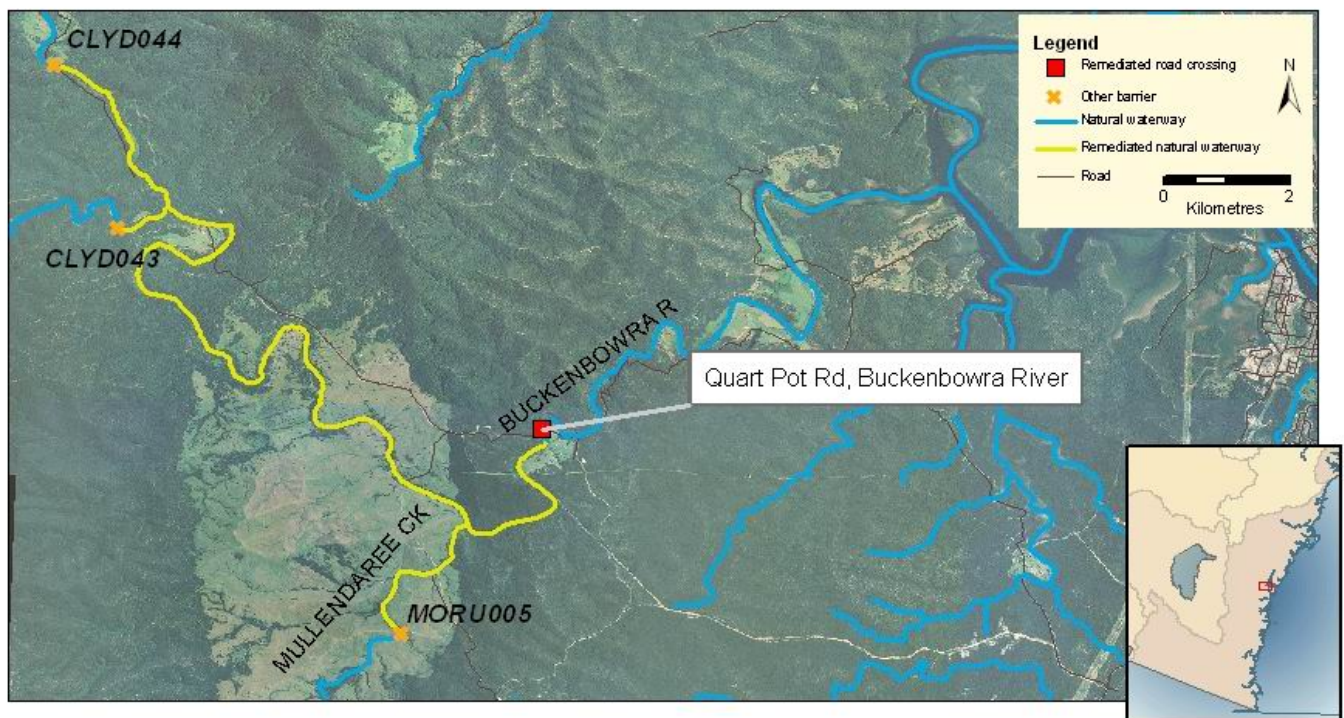


APPENDIX E: SOUTHERN RIVERS CMA SITE SUMMARIES



LOW FLOW CULVERTS, BUCKENBOWRA RIVER

Quart Pot Road, Clyde Catchment



Remediation Works

- Removal of existing causeway.
- Installation of 2 box culverts and approach ramps.
- Structure located on Crown Land.
- Works completed December 2006.

Remediation Benefits

- Improved fish access to 20 km of habitat.
- Australian Grayling have been recorded from the Clyde catchment within the last 5 years.
- Buckenbowra Weir upstream passes some fish through its fishway, but efficiencies could be improved.
- The next barrier (Hanns Rd) is 18 km upstream

Project Costs

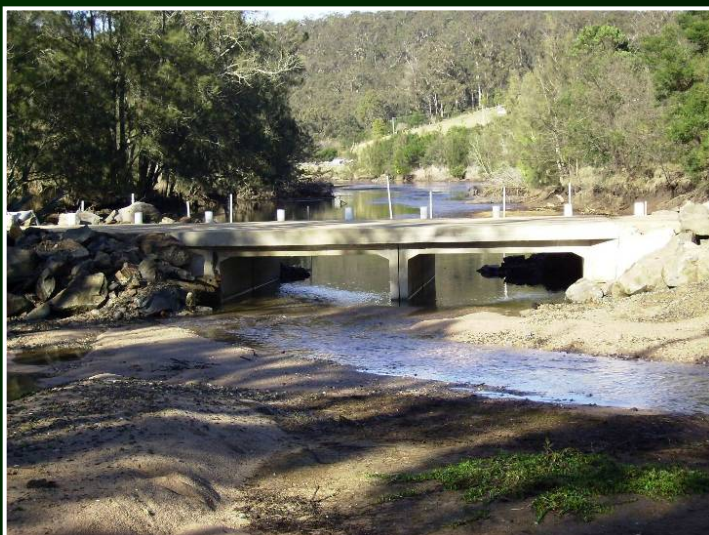
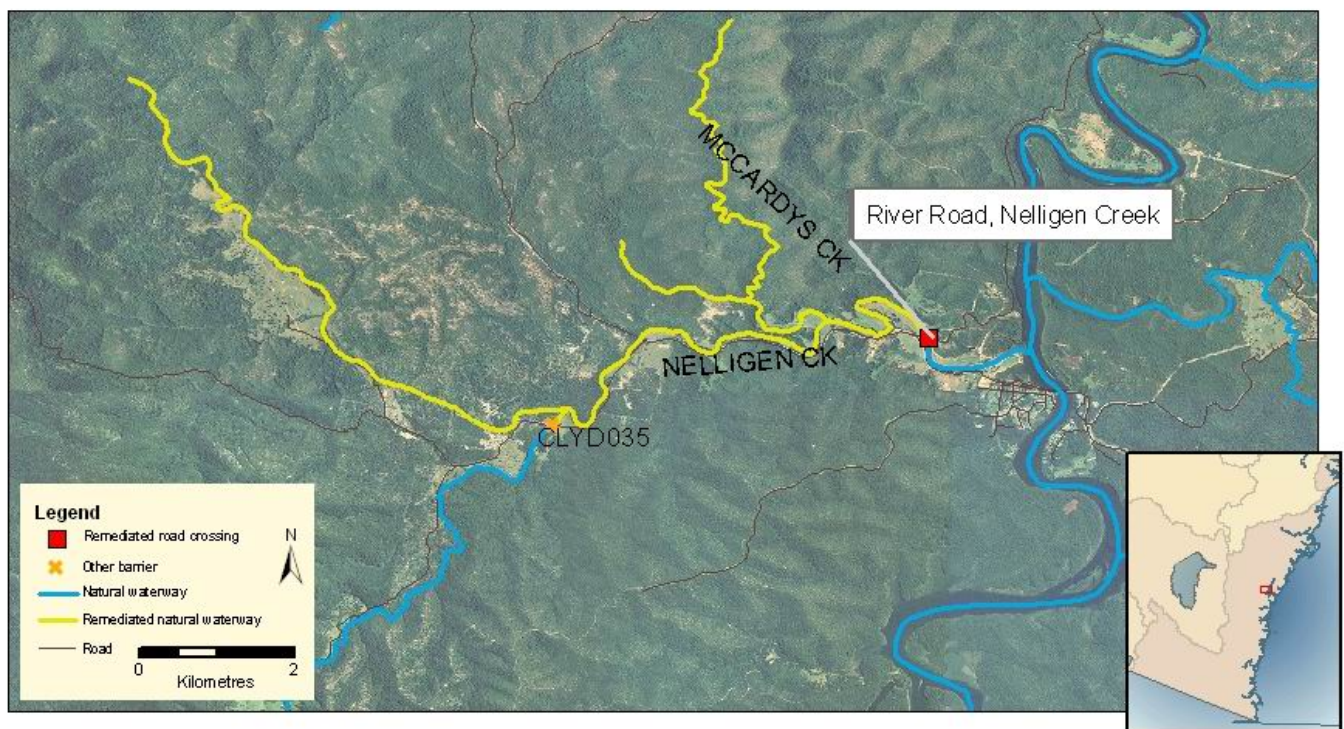
- Total project cost = \$88,800.

Partners

- Eurobodalla Shire Council (project managers), SRCMA (co-funding), Saltwater Fishing Trust (co-funding) NSW Environment Trust (co-funding).

LOW FLOW CULVERTS, NELLIGEN CREEK

The River Road, Clyde Catchment



Remediation Works

- Installation of 2 box culverts in addition to existing pipe culverts.
- Works alleviate velocity issues created by inadequate pipe culverts.
- Works completed July 2009.

Remediation Benefits

- Improved fish access to 22 km of habitat.
- Australian Grayling have been recorded from the Clyde catchment within the last 5 years.
- This structure was the second highest priority for SRCMA. There are no other barriers on the mainstem Nelligen Creek.

Project Costs

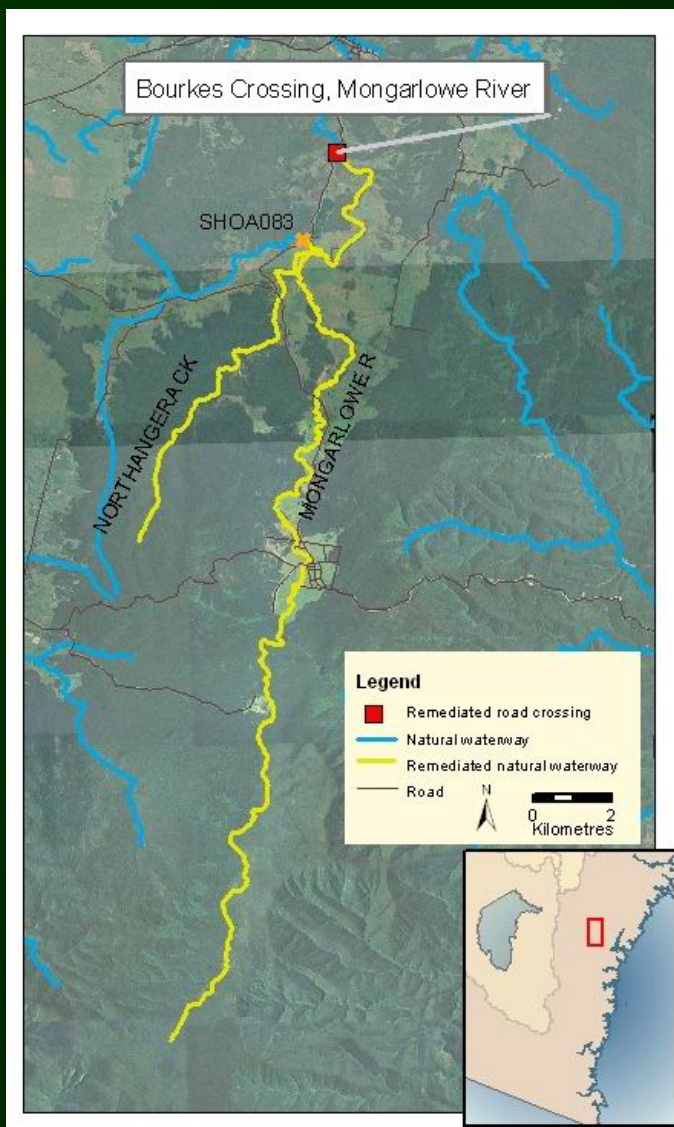
- Total project costs - \$127,360.
- Associated sediment control works - \$10,000.

Partners

- Eurobodalla Shire Council (project managers), Saltwater fishing Trust (co-funding), Department of Environment, Climate Change and Water (co-funding).

LOW FLOW CULVERTS, MONGARLOWE RIVER

Northanger Road, Shoalhaven Catchment



Remediation Works

- Replacement of 3 inadequate pipe culverts with larger box culverts.
- One low flow cell and one higher set cell installed at main channel.
- One higher set cell located on a secondary flow path. Higher set cells ensure lower velocities at higher flows.
- Structure located on Crown Land.
- Works completed October 2009.

Remediation Benefits

- Improved fish access to 43 km of habitat.
- Works will benefit the threatened Macquarie Perch population present in Mongarlowe River.

Project Costs

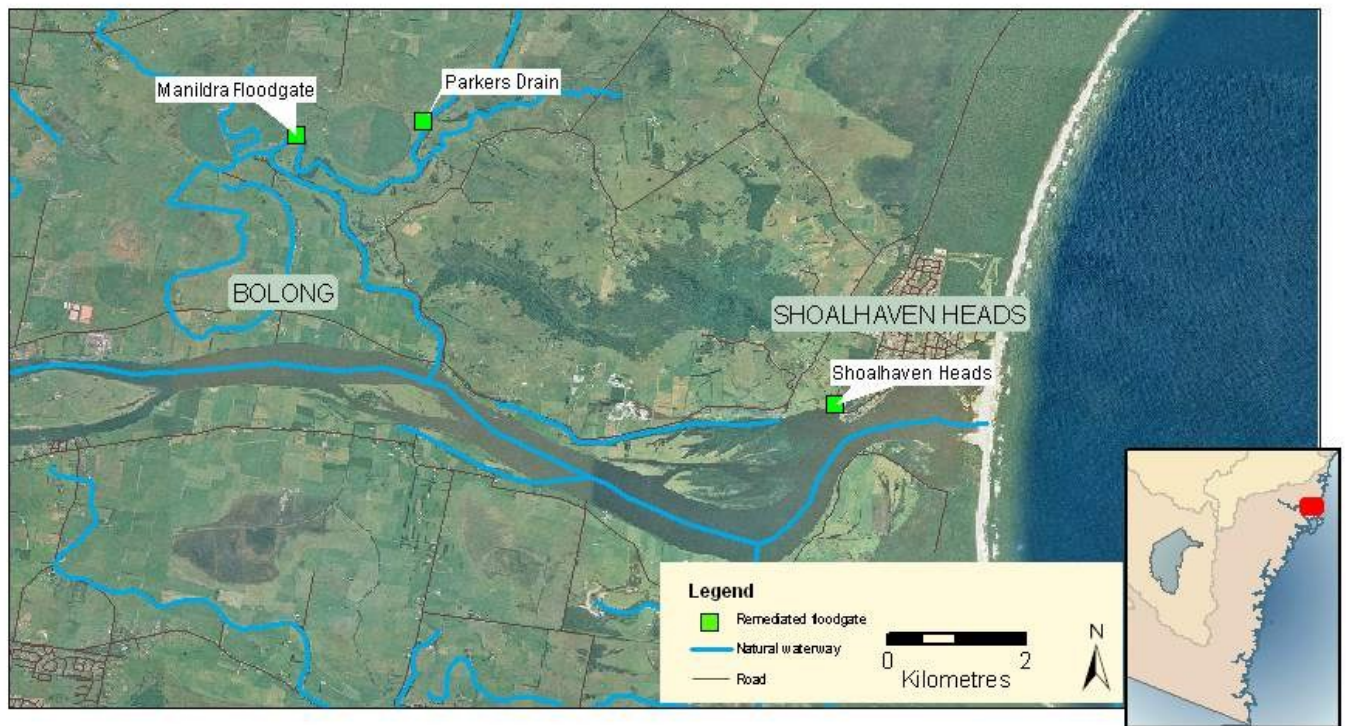
- Total cost of works - \$149,550.
- Preliminary works and design - \$9,760.

Partners

- Palerang Council (project managers).

AUTO-TIDAL FLOODGATES (3), SHOALHAVEN ESTUARY

Shoalhaven Heads and Broughton Creek, Shoalhaven Catchment



Remediation Works

- Installation of auto-tidal floodgates at Shoalhaven Heads Drain, Parkers Drain (Broughton Creek), improve operation of existing gate on Manildra (Broughton Creek).
- Management Plans developed for 4 sites involving liaison with Shoalhaven City Council and local landholders.
- Installation of flap gates on side drains at both sites to prevent unwanted water intrusion.
- Works completed between spring and summer 2009.

Remediation Benefits

- Improved access to 4 km of habitat (combined distance of drains upstream of floodgates).
- Improved tidal flushing within drains, weed control, and water quality (acid sulphate).

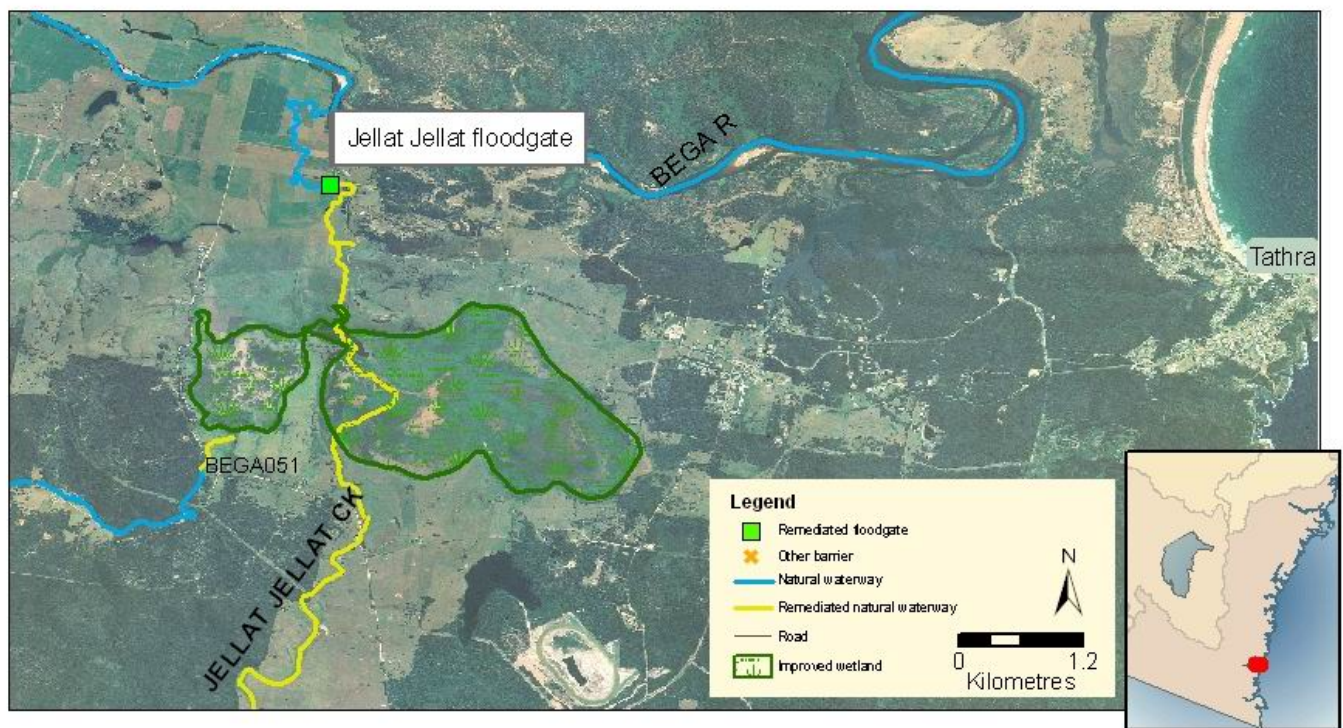
Project Costs

- Total cost of works - \$16,555 (Shoalhaven Heads); \$28,955 (Parkers Drain), \$0 (Manildra).

Partners

- Shoalhaven City Council, landholders.

WINCH OPERATED FLOODGATE, JELLAT JELLAT CREEK Tathra Road, Bega Catchment



Remediation Works

- Installation of winch controlled floodgates and safe work platform.
- Negotiation with landholders, Bega Valley Shire Council and formation of management plan for the gates.
- Works completed June 2009.

Remediation Benefits

- Improved access to 9 km of habitat including access to a 375 ha wetland.
- Improved ability to manage floodgates – allowing for longer opening time prior to closure.
- Management plan requires a log of opening and closing events to be sent to Council, SRCMA and I&I NSW.

Project Costs

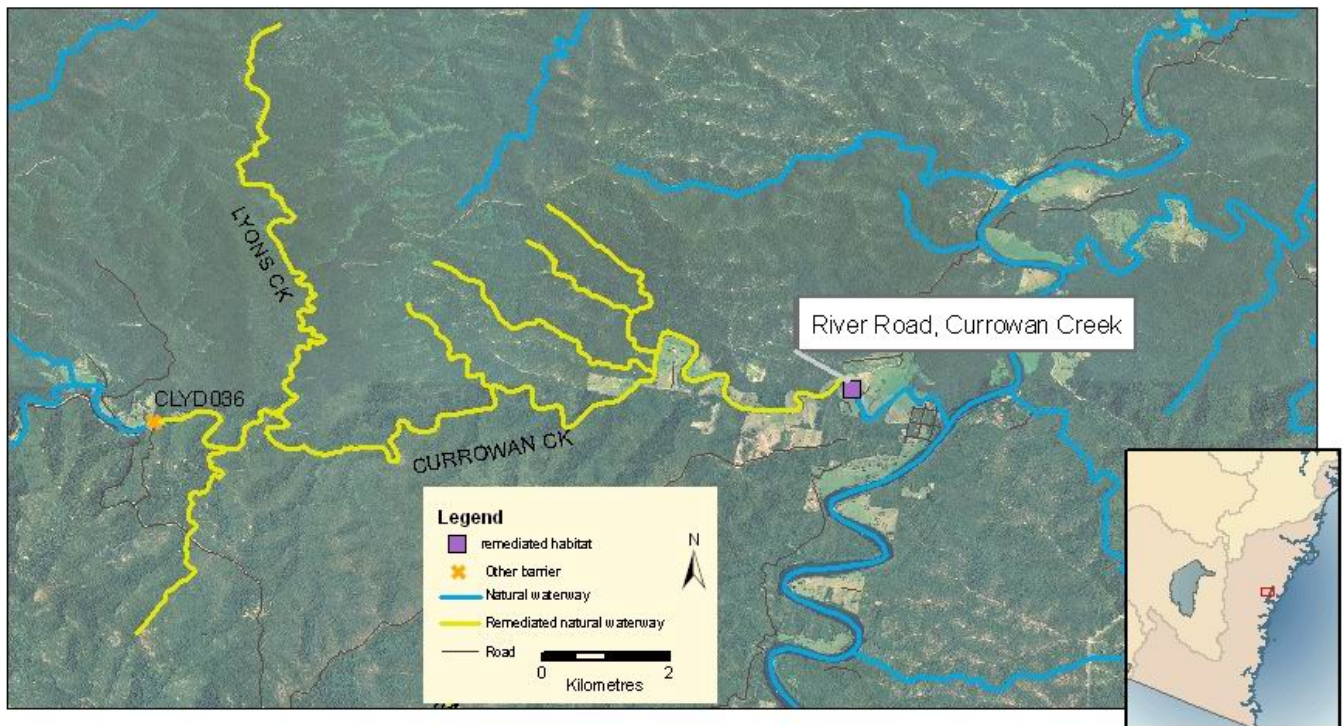
- Total cost of works - \$11,492

Partners

- Landholders, Bega Valley Shire Council, SRCMA.

FULL-WIDTH ROCK-RAMP FISHWAY, CURROWAN CREEK

The River Road, Clyde Catchment



Remediation Works

- Construction of a full-width rock-ramp fishway to overcome height differential (1200 mm) caused by causeway.
- Placement of concrete cheater boards to increase water depth over crossing.
- Revegetation of site.
- Structure located on Crown Land.
- Works completed November 2009.

Remediation Benefits

- Improved access to 40 km of habitat.
- Australian Grayling have been recorded from the Clyde catchment within the last 5 years.

Project Costs

- Total cost of works - \$157,738
- Preliminary works and design - \$5,186

Partners

- Shoalhaven City Council (project managers), Eurobodalla Shire Council (sediment control works), Saltwater Fishing Trust (co-funding), SRCMA.