

- Localised flooding on Rapid Creek is caused by water backing up from the 'choke' at Trower Road, which is really a large culvert, not a bridge.
- Removal of riparian vegetation will do nothing about that problem, and so will have no impact on the amount of water backing up whatsoever.
- Removal of riparian vegetation will however cause erosion, exacerbate weed risk, remove shade, increase water temperatures and lower water quality in Rapid Creek – especially during the > 350 days per year it is not flooded.
- The parklands and paddocks along Rapid Creek are very appropriate land uses for the floodplain, and having occasional minor flooding is the natural way of replenishing soil organic matter and fertility.
- The only way to minimise occasional localised flooding along Rapid Creek would be to build a bigger bridge at Trower Road and to substantially enlarge the channel there to remove the choke. That would make a relatively modest difference to the maximum flood height and duration upstream of Trower Road, for a very substantial cost. I doubt that it would pass any sensible benefit:cost analysis, given the number of days of flooding over a given ten year period.
- The best available science is very clear that native riparian vegetation plays a crucial role in moderating water temperature and maintaining water quality, habitat quality and ecosystem connectivity — and improving amenity for people.
- This is a classic issue where 'reasoned inaction' (i.e. 'do nothing') is the most sensible option. If NTG is determined to spend money on the 'problem', I suggest it would be best spent on community education to help people understand that occasional localised flooding on a natural floodplain in monsoonal northern Australia is not actually a problem, but an entirely natural event. We live in an amazing part of the world with a spectacular climate and we need to accept that we can't control everything.

Professor Andrew Campbell
 Head, School of Environment
 Director, Research Institute for the Environment and Livelihoods
 Director, Centre for Renewable Energy
 T. +61 8 8946 6574 | F. +61 8 8946 7720 | M. 0419 208 923 |
 Twitter: @AndrewCampbell2
 andrew.campbell@cdu.edu.au
 www.cdu.edu.au

CHARLES DARWIN UNIVERSITY
 Darwin, Northern Territory 0909 AUSTRALIA
 CRICOS Provider No. 00300K | RTO Provider No. 0373