Smartrivers



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Mr Ross Campbell Director National Competition Counc GPO Box 250B MELBOURNE VIC 3001

Dear Mr Campbell

RE: Significant news about the science in the Lower Balonne River and the impact on water resource planning

Smartrivers is a local stakeholder organization representing the interests of irrigators in the Lower Balonne region, centred on St George and Dirranbandi in south-central Queensland. The Lower Balonne is the downstream section of the Condamine Balonne River and eventually enters the Barwon-Darling as the Culgoa and Bokhara rivers near Brewarrina in NSW. Another distributary channel, the Narran River, terminates in Lake Narran and the Ramsar listed Narran Lakes Nature Reserve.

Smartrivers has previously presented to the NCC, on March 4 2002 in Brisbane. At that time we voiced our concern at the recognition of the Condamine Balonne as a stressed river by the NCC. A copy of our submission on that day is attached.

Our interest has always been in seeing an open, honest and soundly based water resource planning process but sadly that has definitely not been what the Queensland State Government has provided to date in this catchment. For your benefit, we thought a quick summary of the Queensland approach would be useful. The Qld Department of Natural Resources and Mines (NRM) administers water resource planning under the Water Act 2000. NRM establishes a hydrological model of the rivers (IQQM) which simulates flow, extraction, evaporation, usage etc. They then coordinate a Technical Advisory Panel of experts in various aspects of ecology and fluvial geomorphology in order to determine the condition of the river and what effect changes in hydrology, mainly related to extraction for irrigation, will have. These inputs determine the outcomes of a Water Resource Plan (previously called a WAMP, now called a WRP). Socio-economic considerations are also mandatory under the Act but they are rarely if ever done and in the Lower Balonne it was Smartrivers who undertook the relevant study and presented it to Government.

The TAP concluded that the Lower Balonne was severely ecologically degraded and this was as a result of water resource development. Cotton Australia sponsored an independent expert review of the TAP report and the review concluded that it was fundamentally unsound. Smartrivers also used expert consultants to review aspects of the regions hydrology and significant underestimates of flood flows were found. These were reported to Government and ignored until challenged in court. The TAP report and Draft WAMP, which was based on the TAP report, were apparently the basis upon which the NCC listed the Condamine Balonne as a stressed river.

The Anchorage V NRM hearing in the Land Court was a challenge by Smartrivers members of the hydrological and ecological basis of the Draft WAMP. NRM withdrew from the case after several days of evidence, we suspect because their own expert witnesses were actually in agreement with the contentions of Smartrivers. Despite a very clear outcome, NRM chose to print a colour glossy brochure saying that the result was not a problem and in fact the scientists on both sides were largely in agreement (with their case). This was so far from the truth that Smartrivers printed and distributed an alternative, truthful brochure.

NRM and the Minister then refused to consult with Smartrivers, instead choosing to develop planning options in isolation. They developed a number of options and used the CRC for Freshwater Ecology (CRCFE) as a sounding board and the CRC offered most support to "Option D" which was actually an option to resume Cubbie Station, a large cotton farm and irrigator in the region. The CRC's deliberations were not only based on the erroneous TAP report and error riddled IQQM, they again took no notice of Smartrivers critiques or the inputs of stakeholders. We now had an isolationist / academic approach to water resource management.

The proposed Cubbie resumption was a political disaster for Premier Peter Beattie. When he finally came to Cubbie and Dirranbandi he quickly realised what a stupid plan it was (intercatchment transfer via a massive man made cross floodplain channel; "removing the best cow from the herd" was a commonly heard cliché at the time) and agreed with locals that an independent expert review of the science was warranted as the final arbitrator. He named Prof Peter Cullen as the reviewer. Smartrivers objected because Prof Cullen was Chair of the CRCFE and had made his own views clear on a number of occasions. Prof Russell Mein and Dr Richard Marchant were added to the Review team.

The first NRM submission to the Panel still simply regurgitated the interpretation of the TAP and Draft WAMP, taking no notice of all the information Smartrivers had put before it or the results of the court case. The NRM Supplementary Submission included all the updated macroinvertebrate sampling yet concluded only that results ranged from poor to good and were variable. It was left to Dr Marchant to actually analyse the data and bluntly report the truth, that is, that it conflicted entirely with earlier interpretations. Some of Dr Marchants comments in the Report are quoted below:

"the fauna at the majority of sites was indistinguishable from that expected at undisturbed (or reference) sites"

"the distribution of invertebrate fauna in this region does not presently show evidence of substantial river degradation"

With respect to the key data available to the TAP "these samples were taken either during a receding flood, contrary to standard sampling protocols, or from habitats that naturally appeared to sustain very few species" (just as Smartrivers said, unfortunately we had to say it in court).

"The Panel finds that NRM's more recent sampling and analysis has not supported the preliminary interpretations made in the June 2000 Draft WAMP that the invertebrate fauna in the Lower Balonne downstream of the bifurcation was in a generally degraded state" (in fact the NRM submission and the TAP report did not report their findings as "preliminary interpretations", they reported them as "conclusions").

"The Panel is of the view that from the sampling that has been undertaken to date there is no present evidence from the invertebrate faunal composition of stress increasing downstream of the Beardmore Dam or in comparison to adjacent rivers"

With respect to samples from the Lower Balonne in NSW "10 of the (11) sites were indistinguishable from reference condition" (remembering that NSW researchers do not sample pools, that the original TAP concluded that things got worse downstream and that NRM in court contended that NSW data supported the TAPs findings, which of course it does not).

"The Panel believes the invertebrate data, both the taxa present and the O/E scores from the AUSRIVAS models, do not presently provide evidence of degradation in river health. There are no trends obvious either down the Lower Balonne rivers or in comparison to other adjacent river systems."

"Neither the SKM nor the NRM data show any clear differences in fish abundance or species diversity between the Lower Balonne and the adjacent Warrego and Moonie rivers. These adjacent rivers that do not have extensive water development....."

"The Panel has itself carried out statistical analysis which shows that there are no significant differences in numbers of species between sites upstream and downstream of the bifurcation"

The key results of the Cullen review <u>unequivocally and completely</u> support the contentions of Smartrivers with respect to ecology and largely support our contentions with respect to hydrology. The original TAP got it so far wrong that they concluded the Lower Balonne was severely degraded when in fact it is almost completely in Reference (best possible) condition (84% of sites tested using AusRivAS in fact). The Review Panel also found no evidence of a decline in ecological condition as one progressed downstream and no evidence of a link to water resource development. Prof Cullen is to be congratulated for his honesty and openness during this process.

This completely vindicates Smartrivers stance over the last 3 years and makes a mockery of the Governments attempts to ignore the truth and cover up their clear failings. The brochure published by the Minister after the Anchorage V DNRM court case can now be seen for what it was, a blatant attempt to fool the public that NRM had not made significant mistakes.

The extent to which the interpretations by the original TAP have invaded the psyche of beaurocrats, academics and the broader population can be evidenced by reference to some of the documents which used that interpretation. The "Review of the Operation of the Cap", by the CRC for Freshwater Ecology, concluded that flow regulation "has impacted on the fish and macroinvertebrate fauna" (underline added, we now know it has not) and that further development "is likely to have a dramatic impact on the ecological functions and eventually the sustainability of the river system downstream of Bourke". They even went further "There is a serious risk that a Cap implemented in the Condamine Balonne (based on the WAMP) will fail to recognise the relative importance and potential impact of water resource development in this sub-catchment on the ecological sustainability of the entire basin" (underline added). The Cullen review reports "any impacts on the Darling River are likely to be experienced in the

upper reaches, probably between Bourke and the junction with the Culgoa". In other words if there was to be an impact it would largely be restricted to <u>upstream</u> of Bourke primarily because as the Panel notes, the total flow in the Culgoa represents just 20% of the flow in the Barwon-Darling where it enters. Similarly the Panel reports that they expect a "gradual decline" rather than a dramatic impact. The extrapolations by the CRC bordered on hysteria and are a prime example of how the incorrect interpretations of the original TAP and the one-way error-riddled IQQM can lead to poorly based decision-making not just in the sub-catchment or even the State, but at the scale of the Murray Darling Basin.

The most significant outcomes of the review from Smartrivers point of view are:

- 1. There is no point undertaking these water resource planning exercises without good scientific data upon which management decisions can be made (the excuse that decisions must be made urgently therefore we cant wait for better data is a joke, as clearly shown by the length of time taken to produce WRPs in Qld in that time some very good data could have been collected). The clear winner from the Cullen Review is good science, as stated by Smartrivers members on a recent edition of Landline. This is not a debatable point.
- 2. The accepted best practice hydrological models produce estimates of flood event peaks with a 30-40% error. This is unacceptable for rural communities. Imagine a flood harvester going to a bank and saying the loan was based on an estimate which could be 40% wrong.
- 3. Local stakeholders MUST be intimately involved in the development of hydrological models and the entire planning process. The Review Panel was very strong on this point.
- 4. There is a clear need for independent peer review of the Government and academic outputs, or inputs, to such processes. Peer reviews at overview or policy level are a waste of time because the devil is in the detail. It took Smartrivers over 3 years, a court case and a guru level review to have the outcomes of such a reality check accepted by Government.

Smartrivers supports absolutely the concept of sustainability. To us, sustainability means that our community can maintain a perpetually acceptable standard of living through a way of life which is acceptable to us and does not impact upon the natural environment to an unacceptable level. Our definition of unacceptable would include, amongst other things, if it were no longer a pleasure to camp by our local rivers; if we could no longer readily catch fish or if we thought we needed to be concerned about contamination; if we no longer passed through significant areas of natural bush as we moved through the region; if we thought our actions had led to a species becoming extinct or if our local Aboriginal community were offended by our stewardship of the land. In the bigger picture, we are cognisant of the importance of protected natural areas and significant degradation of them would also fall within our definition of unacceptable. Land and water management has caused significant problems in various parts of Australia but our aim is to ensure that our practices are sustainable.

We were extremely concerned when told in TAP and WAMP documents that our river was severely degraded and that is why we sponsored our own environmental condition assessments and risk assessments. We should not have had to do it. An ounce of common sense, a reasonable consultative approach by Government and a peer review process which used practical scientists and stakeholders, would have avoided the need.

Smartrivers members are undertaking a number of water efficiency measures at the moment. One benefit of a drought is that you can work on your dams while they are empty. Many Smartrivers members are currently increasing the depth of their storages and dividing them into a number of cells. The reasons are:

- Deeper storages mean you can cut down on the surface area, and hence evaporation, of your stored water (in Qld the maximum legal height of non-referable dams has only recently changed from 5 to 8 metres and this simple change leads to saving huge amounts of water.
- Divided storages allows amalgamation of water as water levels drop, either as a result of
 usage or evaporation. Again this is a means of reducing surface area by putting the water
 in one cell on top of the water in another.
- The end result is more production from the same amount of extracted water, or, less water extracted next time because there is still some taking up space in storage.

The Government run storage at St George for example is relatively shallow so can never be as efficient with respect to water storage as can a deeper offstream storage.

The points above relate only to privately owned offstream storages and Smartrivers would like to advocate more use of this type of irrigation scheme. Large in-river storages which use the river as the conduit for transfer of water to users, are the major cause of degradation in our rivers. The Murray is a prime example. Offstream storages do not result in large blockages in the river effecting fish movement, changing water quality and altering the natural pattern of flooding. As water transfer from storage to field is also offstream, the impacts of flow regulation are avoided. As extraction from the rivers is only during flow, and usually flood events, the seasonality of flow in the rivers remains natural (the Murray for instance has a reversed seasonality because water is released down the river at times of year when it naturally would not be there). Flood harvesting to offstream storages is an example of working with nature to achieve a sustainable outcome and we hope Government and management group addresses it seriously as an option for design of future irrigation schemes. Favouring existing Government run irrigation schemes through the water planning process, as is occurring in Queensland, is not forward thinking.

One recent initiative of the Qld Government which does deserve commendation is the Rural Water Use Efficiency Scheme. Some of the experimental field trial results with respect to irrigation efficiency in our region have been very informative for farmers. These types of scheme and the local extension service offered behind them is extremely beneficial and should ensure implementation of the results. We believe Government at all levels should support these investigative schemes and the extension services which must follow behind. The CRC for Sustainable Irrigation, recently established, may be a vehicle for significant advancement, as long as it is kept practical and implementable and does not get lost in academic theory.

Smartrivers supports the fundamental basis of the National Action Plan for Salinity and Water Quality which sees the bulk of funds and the responsibility for implementation rest with regional community groups. This would appear to be supported by the outcomes of the Cullen review. We recognise that we are the riparian landowners, we are the users of water, we store and irrigate with the water, we are the ones who have the capacity to stuff the system or to manage it in a sustainable manner.

The community recognises existing problems and future risk, wants to be involved in the solution and thereby determine their own future, will not tolerate policy or process-based decisions and wants practical realistic actions put in place based on sound science. This willingness to be involved should be grasped by government with both hands. If NAP or NHT2 funds were in any way siphoned off to support existing state or joint government beaurocracies it would be a travesty.

The real risk here is that government is perceived as using the Precautionary Principle as the excuse, and the Expert Panel approach as the means, to implement policy rather than gather useful information for the purpose of informed decision-making. One argument used by government is that the need for action is urgent so they don't have the time to undertake significant data gathering. This is not substantiated by history with respect to the speed of implementation of WAMPs and WRPs in Queensland nor is it true in this catchment.

We request that the National Competition Council clearly note the results of the Cullen review in their next report and state that the Condamine Balonne is not a stressed river.

Our members are available for comment should that be required.

Yours sincerely

RICHARD LOMMAN

President