Our reference:
Your reference:

SP JONES
[redacted]

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ACCC
Review of water charge rules
By Email

Externalities and water charging

I am in irrigator in the MIA. I am writing to advise the ACCC of externalities occurring in the MIA and elsewhere, and effective steps that could be taken by the ACCC and other regulators to achieve economically efficient and sustainable use of water, infrastructure and government resources.

The externalities associated with irrigation areas are well documented, and are summarised by Kahn et al (2006) http://researchoutput.csu.edu.au/R?func=search&local_base=GEN01-CSU01. Management of salinity and siltation are critical. As was stated in the 1999 MIA and Districts Land and Water Management Plan, water quality is the key to the future of the MIA.

Yet, since the COAG led privatisation of NSW water infrastructure, cursory attention has been paid to water quality, including in water pricing mechanisms. This may be because upstream water users are the majority shareholders in water companies such as Murrumbidgee Irrigation, and individuals within such companies seeking to address pollution at source could find themselves without a job.

Privatisation was implemented on the basis of NSW water companies having licences and reporting requirements to ensure that externalities were managed in accordance with the principles of relevant legislation, including the Water Management Act and the Protection of the Environment Act. Included in the privatisation package was funding to implement a Land and Water Management Plan to address externalities. Key recommendations have not been implemented and there are serious ongoing water quality problems. The gross lack of transparency and auditing means that the water quality deficiencies are not being highlighted and appropriately managed.

MI pumps or allows others to pump shallow groundwater brought close to the surface by the irrigation system into the downstream water supply. Much of this water has high salinity, high specific ions that can cause harm, and a low Ca:Mg ratio which could lower the Ca:Mg ratio of receiving soils including downstream floodplains, causing loss of productivity. The implications of low Ca:Mg have been documented by the NSW DPI and others http://researchoutput.csu.edu.au/R?func=search&local_base=GEN01-CSU01 ; http://irec.org.au/farmer_f/pdf_170/Groundwater%20quality%20in%20the%20Murray%20irrigation%20districts.pdf

Shallow water tables can also lead to salts wicking to the surface and then running off farms, along with sediment, agricultural chemicals and nutrients including fertiliser and manure that has been applied. This cocktail can trigger chemical processes in the drains that generate toxic componds. These issues are explored by Rogers etc al http://www.researchgate.net/profile/Brad_Degens/publication/237498182_Geochemical_implications_of_salinity_mitigation_drainage_engineering_optionsa_global_overview/links/0deec538043d8a4e1e000000.pdf . Sulphides and metals are of particular concern.

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Contaminants including nutrients can be transported in the water in dissolved form and attached to small particles, and then released downstream, potentially triggering algal blooms which can cause harm to animals and plants. In the Wah Wah Irrigation District of the MIA, there was an algal alert in from February to September 2014 (See MI release attached). Researchers are investigating whether compounds in algae are linked to motor neurone disease.

Adverse physical, chemical and biological properties of contaminated water can be mutually reinforcing and cause catastrophic short term and long term damage in the receiving environment.

A simple and cost effective step that the ACCC could take is to mandate product description within the water industry, including continuous monitoring by an independent authority at water entry points and at key locations throughout the system, with real time publication. This information will empower customers and hold water companies to account for the management of externalities at minimal additional cost and great potential benefit for productivity right throughout the system. Such requirements would be entirely consistent with Commonwealth and State water quality objectives.

In summary, transparency is likely to greatly improve the functioning of the system and avoid the need for expensive regulatory interventions and inquiries. Continuous improvement and independent research would also be encouraged by the public availability of the information.

With regard to charging for conveyance water and the maintenance of downstream infrastructure, it is necessary for irrigation to be distributed in order to avoid rising water tables and the externalities described above. Conveyance is necessary for sustainability and this cost should be shared, including by the community as a whole via the NSW Government.

Further detailed information on water quality and its implications can be provided on request.

Yours sincerely

Sally Jones