Australian plantation industry

National Water Policy

The Australian plantation industry

The Australian community is becoming increasingly aware of the need to use our water resources more efficiently. As a responsible land user, the plantation industry has a role to play, in national water management alongside other dryland agricultural land users.

To assist this process the Australian plantation industry, represented by the Australian Plantation Products and Paper Industry Council (A3P), the Australian Forest Growers (AFG), the National Association of Forest Industries (NAFI) and Timber Communities Australia (TCA) has developed a national water policy and principles for dealing with interception in regional water plans.

National water policy

1. Plantation forestry is a dryland (non-irrigated) agricultural land use and any policy contemplated in relation to interception of water by plantations should be considered only as part of a full debate on water interception by all dryland agricultural land uses;

2. All policy on water interception must be underpinned by sound, repeatable and reliable science;

3. All policy on water interception should take into account issues of water quality as well as water quantity;

4. Clauses 55-57 of the National Water Initiative should only be implemented as written, that is, constrained to consideration of land use change (for example new plantations) not existing land uses.

5. Any inclusion of land use change to plantation forestry in a water entitlement system must take into account the differences between the physical extraction of water from the water supply system by humans and the natural interception of water by plants.

Supporting organisations:

a3p

Australian Forest Growers

NAFI
NATIONAL ASSOCIATION OF FOREST INDUSTRIES
ABN 40 008 621 510

TCA
Timber Communities Australia

Discussion:

The plantation industry acknowledges that:

- Forests (native and plantation) intercept a greater proportion of the total rainfall they receive than does grassland or pastures.
- Plantations are however, typically a much smaller proportion of the land area than other dryland agricultural land uses and the overall effect on water interception may be smaller in significance than the more extensive land uses.
- Forests (native and plantation) play an important and positive role in protecting and improving water quality by protecting soil from erosive forces. Plantations can also assist in managing dryland salinity by reducing recharge to groundwater and thereby potentially reducing salinity of waterways.
- The National Water Initiative (NWI) identifies certain land use change activities (including large scale plantation forestry) as having the potential to intercept significant volumes of surface / ground water.
- The NWI requires assessment of the significance of the impact of these land use change activities on catchments and aquifers, based on an understanding of the total water cycle, economic and environmental costs and benefits of the activities of concern.
- Appropriate planning, management and regulatory measures will be applied to land use change activities where necessary to protect the integrity of the water access entitlements systems and the achievement of environmental objectives.

The plantation industry considers that the implications of the interception of rainfall by plantations has been greatly exaggerated. This exaggeration has occurred in several ways:

- Plantation expansion scenarios are unrealistic and always biased grossly towards extreme overestimates (e.g. the CSIRO and MDBC publication “Risks to the Shared Water Resources of the Murray-Darling Basin” (MDBC Publication 22/06).
- Scaling up from small catchment studies has not adequately taken account of the areas within a plantation that are not intercepting at the ‘maximum’ rate. For example generally between 10 and 30% of the gross plantation area is not planted due to native vegetation retention, streamside buffers, roads and firebreaks. Within the planted area interception is reduced by fallow periods, time before canopy closure and plantation thinning.
- ‘Impact’ or water consumption figures are sometimes taken at source and ignore the very significant evaporation losses associated with the very large distance between the plantation and the downstream allocation owner.

Principles for Dealing with Interception in Regional Water Plans

The plantation timber industry continues to make a positive contribution to the implementation of the NWI. The following framework has been developed to assist the process of considering interception activities in the development of water plans:

1. A community consultation process on its own is not adequate to determine the significance of increased water inception associated with land use change. The significance must be demonstrated by science and socio-economic analysis conducted within the following principles.

2. Identification of significant interception resulting from land use change should include all forms of change in land use and land management practices which may result in increased or decreased interception of surface and or ground water, including:

- farm dams and bores;
- interception, diversion and storage of overland flows;
- clearing of native vegetation for urban development or agriculture;
- afforestation and reafforestation of land previously cleared for agriculture (whether natural or human induced);
- new crop establishment including:
  - timber plantations;
  - horticulture;
  - grains; and
  - fodder crops.
- changes in agricultural land management practices including:
  - stubble retention;
  - minimum or zero tillage practices; and
  - pasture improvement, rotational grazing, perennial pastures and drought resistant crops.
- changes in plantation management practices including:
  - rotation age;
  - species;
  - thinning regimes;
  - period of fallow between crops; and
  - treatment of logging slash.
- removal and regeneration of vegetation by controlled or uncontrolled fire.

3. For each of the above forms of change in land use and/or land management practices within a water plan region the following should be quantified as accurately as possible:

- the magnitude of likely impact on water quantity and quality over the plan period;
- the variability of this impact from year to year; and
- the error associated with the above estimates.

4. The estimation process must deal accurately with the extrapolation of impacts from detailed level (e.g. individual dam, plantation or paddock) up to a catchment or regional scale. This extrapolation process must accurately reflect the extent, configuration and timing of the land use or management practice change which is leading to the impact on water yield.

5. The threshold size of the interception to be used as the basis for defining the significance of a water interception activity should be determined having regard to regional circumstances and taking account of impacts on regional natural resource management outcomes.

6. The efficiency of the use of intercepted water to provide community, environmental and economic benefits through plantation management should be understood and compared with the efficiency, benefits and disbenefits of potential alternative water uses.

Supporting organisations:

The Australian Plantation Products and Paper Industry Council (A3P)
www.a3p.asn.au

The Australian Forest Growers (AFG)
www.afg.asn.au

The National Association of Forest Industries (NAFI)
www.nafi.com.au

Timber Communities Australia (TCA)
www.tca.org..au