Nature Conservation Council of NSW

INLAND RIVERS NETWORK

Macro Water Sharing Plans

In 2004, the NSW government implemented 31 water sharing plans for the most stressed rivers in NSW. Macro water sharing plans are now being developed for many of the remaining unregulated rivers and groundwater sources.

NCC and IRN have developed an eight step plan to bring NSW's Macro Water sharing Planning process in line with national water (NWI) commitments and the spirit of the original NSW water reform agenda. The steps will hopefully provide you with useful background and pointers when looking at what rules and clauses the macro plans should have.

STEP 1: **Over-allocated and/or overdrawn surface and groundwater systems must be returned to environmentally-sustainable levels of extraction, in volume and in timing (as per NWI commitment).**

1.1 - Plans should be consistent with the 12 EPA Interim River Flow Objectives[1].

1.2 - There should be **no increase in water extractions** from any source unless evidence can be provided that management is ecologically sustainable and that the source will not be compromised by the proposed change.

1.3 - The extractive share or daily extraction limit of licences should be altered where inactive licences become activated to ensure there is no additional water extraction.

1.4 - High conservation value water sources with high extractions need to be prioritised for reductions in water extraction, with gauges and meters installed in all sources classified as high extraction or high risk within 3 years of plan gazettal.

1.5 – **Need a cease to pump rule on all rivers.** A rule triggered at 'no visible flow' (as currently proposed for some water sources) is not acceptable because it fails to protect natural low flows.

1.6 - Cease to pump levels should ensure stream connectivity on at least 95% of the days that the water source is flowing (many of the rivers do not have gauges). Must include clauses that allow very low flow levels to be altered following field verification.

1.7 - **Refuge pools should be** identified within plans and **protected from pumping** during low flow periods.

1.8 - Low flows should also be fully protected from town water supply pumping within 2-4 years of the plan implementation.

1.9 – **All rivers must have commence to pump rules** to protect the integrity of small, medium and large freshes and floods. E.g. a fresh flow occurring after a period

[1] http://www.environment.nsw.gov.au/ieo/whatson.htm

of low flow (below the 80th percentile), need to be protected from extraction for the first 48 hours. **Requirements of downstream wetlands must also be recognised**.

1.10 – Important areas for endemic species and bird and fish breeding must be identified and provided with specific rules that protect natural flow variability.

STEP 2: **Surface and groundwater systems with high conservation value must be identified, acknowledged and their values protected.**

2.1 - **High conservation value ecosystems that are dependent on surface and groundwater systems must be identified and their values protected.**

2.2 - If not identified before the macro plans are gazetted, clauses must be included to enable the adjustment of the plan when this information becomes available.

2.3 - The overall environmental value of the water source must recognise in-stream values, terrestrial and floodplain environmental values, cultural and aesthetic values, and the essential ecosystem health functions.

2.4 - Protection of the water source should take precedence over water extraction as per the *Water Management Act 2000*.

STEP 3: **Recognition of the connectivity between surface and groundwater resources and connected systems managed as a single resource.**

3.1 - The current methodology includes a rule that **groundwater within 40 metres of rivers or creeks is to be dealt with in surface water sharing plans**. This rule should also include any groundwater extracted from an alluvial aquifer where there is a likelihood that pumping can decrease the water level in or below the stream.

3.2 – Due to a current lack of groundwater data all bores must be mapped, metered and monitored within 5 years (from 2006) and unlicensed extractions halted.

3.3 - Groundwater Dependent Ecosystems (GDEs), such as wetlands, hanging swamps and limestone cave systems should be identified and be given specific protection, including **rules excluding extraction within at least 400m of GDEs** for all access licences (unless evidence can be provided demonstrating that there is no impact). Bores within 1km of a GDE should be targeted for reductions in extraction.

3.4 - The plans must contain a clause that allows for a reduction in extraction where GDEs are stressed or where there will be degradation under current extraction levels.

3.5 – A 100% aquifer recharge must be guaranteed to avoid aquifer drawdown. Further, due to a lack of information about accurate sustainable yield figures, plans must include a clause limiting extraction in low yield years.

STEP 4: **A robust metering and monitoring program must be implemented to ensure on-ground implementation of the plan and ensure secure environmental water allocations.**

4.1 - A robust monitoring and compliance program must be implemented.

4.2 - **Gauges and meters must be installed for all high environmental value, high economic value and high risk water sources within 3 years of gazettal.** Restoration of flow volume and variability and ecological values must be prioritised.

4.3 - All water extractions, including for stock and domestic use, must be mapped, gauged and monitored within 5 years of plan implementation.

4.4 - Illegal extraction must be prevented. A rigorous compliance program needs to be implemented. Non-licensed water losses must accounted for and must never be deducted from the environmental water allocation.

STEP 5: **Independent rigorous river health assessments need to be conducted to ensure the plans are maintaining or improving river health.**

5.1 - An investment strategy into monitoring the impacts of the macro plan should be indicated on the release of the draft plans.

5.2 - **Performance indicators of the plans must be SMART**: specific, measurable, achievable, relevant and time-bound. The macro plans must include details of how performance indicators will be measured and monitored.

5.3 – Performance indicators should include:

- Protection of a certain percentage of small, medium and high freshes/floods
- Maintaining or improving the health of groundwater dependent ecosystems
- Maintaining / improving river connectivity and channel/floodplain connectivity.

5.4 – Rigorous independent assessments of plans must be made to ensure NWI compliance. Review of the plans must ensure adequate community consultation and a decisive role for the Minister for Environment and Conservation.

STEP 6: **Plans must include appropriate adaptive management provisions to utilise new knowledge and avoid costly remediation**

6.1 - Adaptive management clauses must be included to enable changes when more information is gained about appropriate sustainable management.

6.2 - Provision needs to be made to restrict basic landholder rights, irrigation and town water supply where a system is showing signs of stress.

6.3 - An investment strategy into improving knowledge on these systems and surface/groundwater connectivity should be detailed on the release of the draft plans.

STEP 7: **Objective, transparent and accountable processes must occur to ensure adequate community input and confidence in the NSW water reform.**

7.1 - Open and timely consultation is essential and clear consultation timelines must be secured and provide for adequate input from all stakeholders.

7.2 - Sound information must be available to all sectors during consultation.

STEP 8: **Water plans should be consistent with existing environmental policy, statements of intent, bilateral, national and international water agreements, including the National Water Initiative, State Water Management Outcomes Plan, EPA River Flow Objectives.**

If you require further information, please contact Amy Hankinson, Inland Rivers Network Coordinator at 02 8270 9904 or coordinator@irnnsw.org.au.