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NEW SOUTH WALES

MINISTER FOR THE ENVIRONMENT

In reply please quote: MOF8816

The Hon. Pam Allan MP
Chairman
Legislative Assembly
Standing Committee on Natural Resource Management
Parliament House
Macquarie Street
SYDNEY NSW 2000

9 JUL 2003

Dear Ms Allan

Thank you for the opportunity to make a submission to the Standing Committee on Natural Resource Management.

A number of factors influence the sustainable management of natural resources, including policy and regulatory frameworks and the values placed on those resources. With regard to water, the Government has introduced Interim Environmental Objectives for Water Quality and River Flow as the framework for identifying the broad goals for long term river health. These objectives have provided important guidance in river and catchment planning activities, such as the development of Catchment Blueprints.

Inadequate pricing of natural resources or externalities, incomplete understanding of natural systems, lack of awareness of resource use impacts and of sustainable alternatives, lack of clear frameworks for addressing diffuse source pollution and salinity are all key factors needing attention for sustainable natural resource management. The EPA is working to address these factors, both directly and in concert with other agencies, in order to promote sustainable natural resource management. A number of approaches are used, including increasing community awareness, investigating regulatory and economic measures and advocating improved pricing and valuation.

Innovative trading schemes such as the Hunter River Salinity Trading Scheme provide clarity in terms of setting a clear environmental objective (eg a cap on in-stream salinity concentrations) and some flexibility as to how goals are met. Trading also helps lower the overall cost of meeting an environmental objective. Offset schemes such as the South Creek Nutrient Trading Scheme allow for non-regulated entities to be brought within a regulatory framework, again allowing for optimal use of cost effective abatement options to meet environmental objectives. The EPA's experience with market-based instruments has the potential to be applied more widely in tackling other natural resource management challenges – including dryland salinity.

I hope the attached document provides some additional information useful to the Inquiry.

Yours sincerely

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EPA'S ROLE IN PROMOTING SUSTAINABLE NATURAL RESOURCE MANAGEMENT

Interim Environmental Objectives

In 1999, following a period of extensive public consultation, the NSW Environment Protection Authority (EPA) published Interim Environmental Objectives for Water Quality and River Flow. The interim objectives identify broad goals to achieve long term river health and help to secure sustainable water management for communities and industries dependent on water of a certain quality.

The Water Management Act 2000 acknowledges the Interim Environmental Objectives by requiring the State Water Management Outcomes Plan, gazetted under the Act, to be consistent with the objectives.

The Interim Environmental Objectives have provided important guidance to river and catchment planning activities, including the setting of salinity and other water quality targets through the NSW Catchment Blueprints and the establishment of environmental flow rules for NSW rivers.

Catchment Blueprints

The NSW Catchment Blueprints, endorsed by Government in 2002, have established targets for salinity and other water quality parameters appropriate for the environmental values identified by the relevant communities. The Blueprints also identify Management Actions to achieve the targets, which are the basis of investment strategies being developed by the Department of Infrastructure, Planning and Natural Resources.

The EPA contributed to the Blueprints through representation on most of the Catchment Boards and through a whole of Government review of the Blueprints prior to their gazettal.

Environmental Flows

The River Flow Objectives aim to improve and maintain river health by recognising the importance of natural river flow patterns in managing river flow. The objectives were the basis of environmental flow rules established for NSW inland regulated rivers in 1998 and for the subsequent development of Water Sharing Plans under the Water Management Act.

The EPA contributed substantially to both the 1998 environmental flow rules and the Water Sharing Plans. The Minister for the Environment has a concurrence role for the gazettal of Water Sharing Plans under the Water Management Act. The Plans include environmental water provisions which give statutory recognition to the environment's right to water. While the Water Sharing Plans do not specifically seek to address salinity, the impact of the plans will generally be beneficial as they establish clear rules for water allocation and use, and greater protection of stream flows for the environment, particularly during dry periods. Some water sharing plans have included flushing flows to help manage in-stream salinity levels in critical areas.

Hunter River Salinity Trading Scheme

The Hunter River Salinity Trading Scheme (HRSTS) started as a pilot in 1995 to manage discharges of saline water from coal mines and electricity generators to the Hunter River. It aims to ensure river salinity does not exceed levels that are detrimental to agricultural productivity or environmental quality downstream. This is achieved by:

- extensive and continuous real time monitoring of environmental conditions and discharges;

- scheduling saline discharges to complement high river flow rates and low background salinity levels so that salinity targets are not exceeded; and
- sharing the total allowable discharge according to dischargers' holdings of tradeable salinity credits.

An on-line credit exchange and register facility now provides timely information and service for the scheme members (http://www.epa.nsw.gov.au/licensing/hrsts/index.htm). By maximising discharge opportunities, while also delivering on conservative water quality objectives, the scheme minimises environmental management costs. Salt levels in the Hunter River have improved dramatically.

The scheme is recognised nationally and internationally as a leading edge approach to dealing with an environmental problem, utilising a market based framework, clear targets, tradeable credits and real-time response. The scheme is being used as a model for a controlled discharge system introduced in the Olifants River Catchment in South Africa.

The scheme was formalised by regulation on 1 December 2002 by the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation* 2002. The new regulation builds on the essential elements of the pilot scheme that successfully ran from 1995. A key result was to strengthen the scheme's discharge rules to automatically respond to increased discharge capacity as new development occurs and ensure water quality objectives are achieved at all times (including in flood flow conditions).

Auctions have been introduced as the primary mechanism for ongoing credit allocation. Every two years, auctions will be used to reallocate 20% of the credits to ensure the ongoing availability of credits in order to meet the needs of new and existing industry. The EPA will be consulting on the best auction design for the scheme in late 2003.

Green Offsets for Sustainable Development

Offsets can achieve environmental improvements at lower cost than regulation alone and allow resources to be used where they achieve the biggest environmental improvement. Where a new development would increase pollution in an already stressed environment, the developer would take action to cut other sources of that pollution nearby. That way the overall pollution level stays the same or is even reduced.

The NSW Government announced its intention to develop an offsets program in its 2001 mid-term environment statement *Action for the Environment.* As a first step, it released a concept paper *Green offsets for sustainable development* for public submissions in May 2002. EPA has contributed to developing a whole of government framework that is intended to provide wider applications of offsets. EPA has also developed new tools and pilot offsets, as described below.

South Creek Nutrient Offset Scheme

The South Creek Nutrient Offset Scheme is a two year voluntary pilot under the NSW Government's initiative *Green Offsets for Sustainable Development.* It provides a framework for trading between diffuse and point sources of nutrient pollution. If successful, a more permanent scheme could be implemented. Under a permanent scheme councils would adopt the scheme framework and require new developers (over a certain emission threshold) to clean up as much nutrient pollution as they create by reducing nutrients at locations outside (but near to) their sites.

The EPA, as Scheme Manager for the pilot, is locating sites within the South Creek catchment where nutrient reduction measures can be put in place. Possible nutrient reduction measures to be trialled include run-off detention, filter strips and modified fertiliser use at market gardens, riparian revegetation and urban measures such as bioretention and grass swales. Participants must sign an agreement to maintain and report on the measure and allow access to their site for demonstrations and monitoring the nutrient reductions achieved. Several sites have agreed to participate so far and detailed design of these measures has commenced.

Both Sydney Water Corporation and Landcom have contributed funds for implementation of on-ground measures. EPA is managing the project, including working with non-English speaking background landholders and local councils, industry and environment representatives. The EPA will estimate the nutrient reductions achieved from the scheme and allocate credits to the funding participants. Credits can be used to comply with the EPA's load based licensing system, or be traded in a permanent scheme if established.

Green Offsets for Sustainable Regional Development

The EPA is also exploring other opportunities for offsets, with a project *Green Offsets for Sustainable Regional Development* to implement three salinity offset proposals in the Western Regions of NSW. The project is one of 10 natural resource management projects nationally to receive funding under the first round of the National Market Based Instruments (MBI) Pilots Program, part of the National Action Plan for Salinity. Under the EPA project, licensed premises will be able to offset their emissions by investing in works that reduce salinity from diffuse sources, and so cost-effectively reduce salt loads to stressed rivers in the Murray-Darling Basin (in Gwydir, Murray, and Macquarie/Hunter catchments). The premises involved are Ulan Coal Mine, the Norske Skog Paper Mill and spa baths in Moree.

Valuation and Pricing

Proper valuation of resources, including provision for environmental externalities, is an important feature of natural resource management. If the full value, including the environmental value, of a natural resource is included in the cost of using that resource, the community can make better choices between consumption of that natural resource and alternatives (such as more efficient use of existing resources, consuming different resources or resource recovery from wastes).

Prices should reflect the full cost of supply, including environmental costs, to ensure consumption levels are ecologically sustainable. For example, the EPA has submitted to IPART that serious consideration should be given to the inclusion of a component in water prices to represent the external costs of water provision.

Signalling external costs is a means to encourage people not to create externalities. The inclusion of even a nominal environmental charge can be used to signal that all users share responsibility for resource degradation and increased resource protection. In the longer term, larger externality and resource management charges may be required to achieve environmental goals.

The EPA contributes to IPART deliberations regarding the pricing of resources such as water to promote pricing that supports sustainable resource use.

Metering

Natural resource price signals are at their most effective when they are felt directly by the persons who are using natural resources. In the case of water resources, for example, variable water pricing based on volumetric consumption will be more effective than fixed-charge pricing based on connection. This therefore requires accurate and effective metering of water used. The EPA supports, and has recommended to IPART, that universal metering of water consumers be adopted as a long term objective. However the marginal net benefit of installation needs to be considered before water authorities proceed in this area.

Data collection to inform natural resource management policy

Credible data is an important pre-requisite for monitoring natural resource use trends, informing policy development, and monitoring the impact of natural resource policy. There are challenges for any agency in the collection and use of data to inform the development of natural resource policy. Challenges include:

- ensuring data is collected in a coordinated manner to standard protocols with appropriate quality assurance and scientific rigour;
- linking data collection and monitoring to high level reporting products eg. State of the Environment (SoE) Report, the Biodiversity Strategy etc;
- reporting of data in a timely fashion, so that data or information required by policy makers and natural resource managers is available when needed;
- eliminating duplication in data collection for multiple purposes as local, state and national level for similar purposes eg. local, regional, state and national SoE reports, NSW Biodiversity Strategy, Catchment Blueprints;
- grounding monitoring programs in priority Government information needs eg. reduced salinity, improved groundwater quality etc;
- collecting long term, baseline data in changing contexts eg. of the varying roles of local government, state and Commonwealth agencies.

The EPA collects air quality data according to nationally agreed protocols. In the water area, the Interim Approach to Water Monitoring in NSW has addressed some of these challenges and will improve data collection and coordination for water monitoring programs of state significance. The Interim Approach has ensured that duplication amongst state water monitoring programs is prevented, and that these programs collect high quality and consistent data according to agreed protocols. Further improvements will be achieved as the State Water Monitoring Strategy is finalised in the coming months, putting in place a state wide monitoring program to address long term data needs. The EPA is also working to align data collection processes for national, state and local SoE reports.

Datasets for which the EPA is custodian are made available via the EPA's website and the whole of government website Community Access to Natural Resources Information (CANRI).