

WILSON INLET NUTRIENT REDUCTION ACTION PLAN (WINRAP)

Update Report for the Wilson Inlet Management Advisory Group, 18th May 2005

- **Point Source Project - Nutrient Audit of Dairies and Potato Farms**

This initiative constitutes implementation of WINRAP task IR3 which identifies the need for existing intensive rural land use activities to be mapped, waste management methods detailed, plans developed and work implemented to reduce nutrient export from these enterprises.

Following the completion of effluent management strategies for a number of dairies within the Wilson Inlet catchment, four (4) dairy operators have recently committed to undertaking a variety of on-ground works to improve their waste management practices. This work will consist primarily of trench construction, lined with either concrete or rubber matting, and installation of bio-solids trap or trafficable sump. This infrastructure will facilitate the collection of nutrient-rich wastewater that will be used to irrigate (fertigate) areas of perennial pasture.

The fertigation process is intended to use water resources efficiently, stimulate vigorous pasture growth and prolong the grazing season as well as limit the need for chemical supplements (fertiliser) and reduce the risk of harm to waterways and receiving waterbodies. By employing the practice of fertigation dairy operators can also lower production costs.

Approximately \$40,000 will be spent across these projects, the majority of which is funded by the Department of Environment and the Natural Heritage Trust's (NHT) National Action Plan for Salinity and Water Quality. Implementation of works is likely to commence within the next 4 to 6 weeks.

Nutrient audits of potato farms in the Lake Sadie area to progress late May/early June 2005.

- **Wilson Inlet Floodplain Mapping**

The Department of Environment recently released a report on findings of the landholder survey and floodplain mapping conducted August to December 2003. This report provides a synthesis of landholder responses to a survey on the impacts of flooding in the Eastern Wilson Inlet.

The objectives of the Survey and Floodplain mapping were to:

quantify the costs/benefits of increasing the water level in the Wilson Inlet before the bar is opened;
identify landuses on the floodplain;
to map the extent of the floodplain now (1.1m above AHD) and at higher levels (up to 1.5m above AHD);
identify landholders willing to undertake works; and
identify community attitude to Inlet water level change.

The floodplain mapping was conducted in accordance with Action IF1 of the WINRAP.

The landholder survey was conducted in accordance with Action WL1 of the WINRAP, which stipulates that any impediment to maintaining and increasing water levels in the Wilson Inlet must be identified and the costs and benefits of removing these impediments be estimated.

- **Fertiliser Workshop and Soil Testing Subsidy Program**

Tasks FM1, FM2 and FM3 of the Action Plan strive to undertake assessment of fertiliser use and promote best practice fertiliser management to farmers throughout the Wilson Inlet catchment. In order to progress this initiative a Fertiliser Workshop was conducted on Wednesday, 30th March 2005 at the Narrikup Hall.

Through a number of presentations by Craig Russell, Tim Overheu, Dave Weaver and Ronald Master from the Department of Agriculture, participants gained a better understanding of soil nutrient cycling and leaching processes. The workshop also included practical demonstrations of nutrient leaching from different soils, how to interpret soil tests, soil sampling techniques and alternative labs for soil test analysis. Participants were also given information about how to reduce nutrient loss from their properties and therefore reduce production costs.

The workshop was attended by 30 people, however due to heavy rainfall immediately following the workshop many people did not conduct soil testing on their property. The Wilson Inlet Catchment Group (WICC) and the Department of Environment will continue to provide a 50% subsidy to farmers who undertake soil testing when conditions become more favourable (drier) later in the year.

Following the workshop, the NRM coordinator for the Wilson Inlet Catchment Committee reported that participants expressed a high amount of interest in the topics covered and expects that similar events will be held in the future. Possibly multiple events will be held to cater for both upper and lower catchment landowners.

- Perennial Pastures Field Day and Sustainable Grazing from Saline Land Project

Despite the floods which caused damage to many farms in the Shire of Plantagenet, the 'Improving Production with Perennials' field day was held at Forest Hill (upper Wilson Inlet catchment) on the 5th April and was well attended by over 30 landholders.

The field day commenced at Rodney Drage's property with a focus on perennial selection and establishment. This was followed by a visit to John Howard's property to examine his approach to perennial pasture management.

Rodney, like many rural landowners, is concerned about areas on his farm that had become unproductive due to water logging and salinity. Subsequently, Rodney approached the Wilson Inlet Catchment Committee Land Care Officer who suggested applying to the Sustainable Grazing on Saline Land (SGSL) project for support. The SGSL aims to demonstrate integrated farming systems which improve productivity and sustainability on a range of varying saline soils.

As a result, a portion of Rodney's property is now dedicated to a perennial pasture trial whereby areas are divided to enable comparison of the varieties and establishment according to soil requirements. The following perennials have been established: Lucerne; Wavy leaf, Old Man and Creeping Salt bush; Rhodes; Setaria; Bambatsi; Signal Grass; Angleton; Tall Wheat Grass; Strawberry Clover; Kikuyu; and Perennial Rye Grass. One area has been established with the Evergreen sub tropical mix and another area is a control with standard annual pasture.

The evaluation of salt land pasture species, deep rooted sub tropical perennials and the Evergreen mix is ongoing with the assistance of Arjun Ryder, a hydrologist with the Department of Agriculture in Albany.

John Howard has a holistic approach to farming, based on a decision making process according to pasture availability for planned grazing. John uses pasture cages to monitor the growth and has a mathematical formula to determine the optimum duration for grazing a paddock. An example of a time frame for rotational grazing that John uses is 3 days grazing then a minimum of ten days spell. This allows the new growth that starts to regenerate 3 days after grazing, to grow for a minimum of seven days before it gets crashed again which ensures persistence of the perennials. John has reduced the size of his paddocks and increased the size of his mob ie 1200 ewes in a mob.

John has established Temperate Perennials, such as: Phalaris, Cocksfoot, and Tall Wheat Grass and an Evergreen sub-tropical mix. His choice and management of his pasture has successfully reduced the feed gaps and has had many other benefits, such as: reducing his sheep's worm count, the incidence of Red Mite and the occurrence of pasture weeds such as Cape weed. Although rotational grazing sounds like more work John has found it reduces his work load and expenses by using less chemical treatments (drench, pesticides) and less 'sheep work'. Rotating paddocks is a simple process of opening a gate to let the livestock move into the next paddock.

- Drains Project

Task DM4 of the Action Plan requires all Water Corporation and private drains subject to stock access to be fenced and revegetated (where necessary). To this end there are currently 13 projects costed at over \$40,000. These projects have either recently been completed or will be completed in the coming months and collectively represent nearly 15 kilometres of fencing, 15 hectares of revegetation, 6 stock crossings and 10 stock watering points.

A further 2 projects have been identified but are yet to be funded, however it is hoped that Water Corporation will contribute towards the cost of the on-ground work required in these cases.

- Perennial Pastures

The Denmark Agricultural College is establishing a trial site to enable comparison of varieties of perennial pasture. Tall fescue, Rhodes, Setaria and Evergreen sub-tropical mix plots will be sown and growth will be monitored and measured against a designated control plot.

- Funding

The Wilson Inlet Catchment Committee recently received a boost in NRM funding from Envirofunds (a Federal Government initiative) on behalf of 10 landholders within the Catchment.

\$92,000 will be used to implement on ground works such as fencing waterways to protect water quality and riparian vegetation. This funding also includes associated stock crossings and alternate watering points. Some of the projects included revegetation to enhance existing vegetation and fencing of remnant vegetation.

4 landholders in the upper Wilson Inlet catchment (around Mt Barker) will receive \$45,000 to erect 16 kilometres of fencing to protect waterways and remnant vegetation.

6 landholders in the lower Wilson Inlet catchment (around Denmark) will receive over \$47,000 to erect 16 kilometres of fencing to protect waterways and remnant vegetation.

- Education/Communication

Planning is currently progressing towards the State-wide NRM Conference to be held in Denmark on the 4th, 5th & 6th October 2005. The Wilson Inlet Catchment Committee's ongoing implementation of the Wilson Inlet Nutrient Reduction Action Plan is expected to feature prominently at this event, in collaboration with Wilson Inlet monitoring and activities of the Wilson Inlet Management Advisory Group (WIMAG).