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Nampoo and Cliffhouse Wetlands

Wetlands on Nampoo and Cliffhouse Stations are the first private wetlands within the Lower Murray Darling region to receive Adaptive Environmental Water (AEW) as part of the Private Property Wetland Watering Project conducted by the MWWG.

The aims of both projects are to prevent fringing River Red Gums and Lignum from further deteriorating in health, promote the establishment of an aquatic vegetation community and overall enable the continuation of healthy and functioning wetland systems.

Nampoo Station wetland inundated, Nov ’05. Photo courtesy A.Chatfield.

Pumping of water into Nampoo wetlands begun in late September 2005 and lasted for 18 days.

Pumping of water into the Cliffhouse wetland is scheduled to begin in March 2006. It is expected the wetlands will stay inundated for 12-18 months. Monitoring of pre and post watering will be conducted by MWWG in association with Jess Butler a PhD student with LaTrobe University. Monitoring will focus on aquatic vegetation response, River Red Gum health, water quality and zooplankton response.

Through these projects it has been discovered that the
This is considered a major achievement of the group and we hope the success of the waterings will lead to more landholders in the Lower Murray Darling area becoming involved.

Both stations are located south west of Lake Victoria. The Nampoo Station project involved watering two connected ephemeral wetlands, which cover 14.6 ha. A total of 170ML was used to flood the Nampoo wetlands. The Cliffhouse Station wetland covers approximately 3.3 ha with 27ML allocated for the inundation. It is estimated that these wetlands have not been inundated for 10-15 years.

Jess Butler collecting zooplankton samples at Nampoo. Photo courtesy A.Chatfield.

The current approvals process for the use of environmental water to restore wetland health is extremely time consuming, cumbersome and costly. By working closely with Lower Murray Darling CMA, Murray CMA and Department of Natural Resources a more streamlined approach to the approval process is being developed. It is hoped that by making the procedures more flexible, valuable opportunities to inundate wetlands under severe stress will not be lost, maximising the potential environmental benefits.

Nampoo Station wetland, inundated Sept. '05. Photo courtesy A.Chatfield.
Message from the Chairman

"2005 has been another busy and challenging yet successful year. The transition to be aligned with the LMD and Murray CMAs has been a seamless one, with the Group continuing its own activities whilst providing support to both the Murray and Lower Murray-Darling CMAs. The Wetlands on Private Properties Project’s success has seen it continue to flourish with water also being diverted onto private properties within the Lower Murray-Darling region for the first time. These projects have lead to the Group being heavily involved in the streamlining of the approval process for allocating environmental water to wetlands.

It is hoped through improving these processes the Group can further contribute to on-ground, natural resource management.

Ground-breaking initiatives with the South Australian Government has resulted in a sharing of resources between the States to achieve floodplain emergency watering for red gums and other wetland areas on Chowilla.

Demands for the Group’s services and advice from the public and Government sectors have been ever increasing, in particular through The Living Murray related projects and wetland areas on private properties. On behalf of the Group I would like to wish everyone a happy and safe Christmas and New Year”

— Howard Jones

Major Projects Round-up

The MWWG is currently involved in a number of differing projects.

Listed below are a few of the major projects and information on their progress:

**Thegoa Lagoon:**

- The announcement of supplementary flows on the 6th September resulted in the beginning of the inundation of Thegoa Lagoon. At the cessation of supplementary flows MWWG began diverting an AEW allocation into the Lagoon to allow it to continue filling.
- Monitoring of groundwater, aquatic vegetation and water quality is being conducted every two months by MWWG. Jess Butler, a PhD student of LaTrobe University, working with the MDFRC, will be carrying out more intensive monitoring including zooplankton and fish surveys.
- Funding has been made available for a bird hide. The design and position of the bird hide was developed in conjunction with the Wentworth Shire Coucil and the Sunraysia Bird Observers.

**Private Property Wetland Watering:**

- 27 wetlands (totalling 685 ha) are involved in this season’s project. Monitoring of vegetation, birds, photopoints and flood mapping is being conducted. Approximately 4107 ML of environmental water was used to inundate the wetlands with positive vegetation and bird responses recorded so far.

**River Murray Wetland Database Atlas:**

- The long awaited RMWD Atlas will be ready in March 2006! Maps photos and summary data from the RMWD is being printed as a hard copy atlas. The atlas contains valuable information on the commence to flow rates of wetlands on the Murray River Floodplain. Hard copies will be available in March 2006 from Trish Alexander (02) 6043 0124.

**Reports:**

- Final reports from the wetland watering of Pollack Swamp and Boomanoomana Swamp have been completed and the Review of Flow Management in Gulpa Creek conducted by Patrisha Bowen has been received by the Group. If you would like a copy of the reports please contact Paula D’Santos on (03) 5021 9446. The Acid Sulfate Soils report being conducted by the MDFRC is due for completion by the end of the year.

Non-MWWG Project Updates
Darling Anabranch Management Plan (DAMP)

- Following property visits during April and May, the pipeline design has been finalised. The NSW Natural Resources Minister, Craig Knowles has invited tenders for the construction of the Pipeline. Tenders will be rewarde early in 2006.
- The formation of "Anabranch Water" the Private Irrigation District is progressing. Elections for the Board of Anabranch Water will be held in January 2006 and will be made up of as many as six landholders.

Kulkurna River Red Gum Watering Project

- The Red Gum floodrunner that was watered in March this year is being re-watered in an effort to maintain the health of responsive River Red Gums at Kulkurna Station. Pumping commenced on the 17th November. An adjacent flood runner, which is dominated by Black Box is to also receive water during this pumping event. This project is a collaborative effort between the DWLBC and the MWWG with authorisation from DNR and River Murray Water and forms part of the resource sharing initiative between the SA and NSW Governments.

Boomanoomana Swamp - Wetland Watering

Boomanoomana Swamp and Forest has undergone a trial watering by the MWWG, in conjunction with Berrigan Shire Council, Forests NSW and Murray Irrigation Limited (MIL).

During October and November 2004 the Boomanoomana wetlands received 375ML of AEW with the aim to mimic a natural high-flow, creating opportunities to improve biodiversity.

Boomanoomana State Forest is located between Yarrawonga and Barooga on the edge of the NSW side of the Murray River floodplain. River regulation, irrigation practices and levee bank construction has reduced the flood frequency in the forest and wetlands to once to twice a decade. The close proximity to the Murray River and commence-to-flow data from the MWWG River Murray Wetland Database suggests that the area was "Many aquatic and semi-aquatic plant species were recorded throughout the flooded area and along the margins, including River Swamp Wallaby Grass, which is listed as vulnerable under the NSW Threatened Species Act," said Duncan.

The use of AEW to water this site has proved successful by providing valuable habitat and food resources for native animals and improving the health and regeneration of aquatic and riparian vegetation. Recommendations for future watering of the Boomanoomana Swamp and Forest include continuing a flood regime every second year depending on seasonal conditions, establishment of photo points, more frequent vegetation monitoring and exclusion of domestic stock during and after watering.

The incorporation of these recommendations into the
flooded every year prior to river regulation. The decrease in flood frequency has resulted in a decline in the health and diversity of plants and animals.

The flood event covered approximately 72 ha of swamp and had a duration of 5 months, with replenishment from rainfall events in January and February 2005. The trial flooding produced many positive outcomes including increasing our knowledge of the swamps flooding characteristics, regeneration of aquatic and semi-aquatic flora species, attraction of frogs, waterbirds and improved health of surrounding forest vegetation.

Duncan Vennell, who carried out the monitoring of the trial flooding, outlined the positives of monitoring the flood event: “It was previously unknown the amount of water required to fill the wetlands for several months and the flow patterns within the forest. The data collected from the monitoring and mapping of the flood event can now be incorporated into future flooding events ensuring the efficient use of the environmental water and the long term viability of the swamp and forest.”

“Bird response to the flooding event was also encouraging, with 14 waterbird species recorded including the pleasant surprise of two Brolgas. Every attempt was made to allow the Brolgas to breed with quick responses by Forests NSW to start a fox baiting program and by Murray Irrigation Limited staff to transfer extra water to extend the flooding if needed” explained Duncan.

The future management of the Boomanoomana Swamp is vital to maintain the integrity of the site. At present the use of AEW to flood the swamp and forest and/or to extend natural floods are the only options to maintain the environmental values of the area. The support of Government Agencies, Irrigation Companies, Local Councils and the MWG is paramount in achieving this goal.

It has also been recognised that Boomanoomana Swamp has the potential to be a successful education site. Ease of access and the number of visitors to the area would enable the wetlands and forest to be a popular destination. The use of interpretation signage and walkways could be used to inform the wider community about the importance of wetlands and the habitat and species diversities they can contain.

The success of the trial watering is due to the contribution of Forests NSW, MIL, Berrigan Shire Council, Rural Lands Protection Board, Murray CMA and Department of Natural Resources. If you wish to access a copy of the Boomanoomana Report please contact Paula D’Santos on (03) 5021 446.

Juncus and Azolla response at Boomanoomana Swamp during inundation. Photo courtesy D. Vennell

Students participating in tree health assessment and water quality activities at Thegoa Lagoon, Wentworth NSW. Photo courtesy P. D’Santos

River Red Gum Watering

The announcement of the "River Red Gum Rescue Package" by the NSW Government in September has brought relief to many stressed River Red Gums and associated floodplain areas within the Lower Murray Darling region.

The use of pumps will allow the watering of additional floodrunner and wetland areas which are unable to be inundated through the use of siphons and the weir raising.
A total of $500,000 and 6.3GL has been allocated to the River Red Gum Rescue Project, being conducted by the Department of Natural Resources (DNR). The 6.3GL of water has been sourced from the Murray River component of the Snowy River water savings program.

A combination of weir pool raising, siphons and pumping is being used to deliver water to high priority River Red Gum sites, most of which are located within the lower reaches of the Murray River from Lock 11 to 8.

In late September 2005 a combined effort by DNR, the Victorian Government, MDBC and SA Water resulted in the raising of Lock 8 by 64 centimetres, allowing water to naturally enter many floodrunners along the Murray River. The lock is now in the process of being drawndown. The raising of Lock 8 is considered a major achievement as it is the first time such an interstate initiative with environmental benefits as the primary aim has been conducted. It is hoped that the success of the weir raising will lead to similar weir manipulation projects being conducted in the future for environmental benefits.

Siphons placed over block banks and weir walls within Moorna and Wangumma State Forests have utilised supplementary flows within the lower Murray Valley to inundate creeks and wetlands. These creeks and wetlands are normally disconnected from the floodplain due to the presence of the weir walls and block banks.

It is estimated a total area of almost 3000 hectares of creeks, wetlands and floodplain areas will be watered through the weir pool raising, siphoning and pumping.
gathered together for three days in Mildura for the 2005 International River Health Conference. The Conference, which first ran in 1999, had over 600 students and teachers participating from every State and Territory across Australia. As part of the Conference the MWWG organised a day of activities at Thegoa Lagoon, Wentworth on the 18th October.

300 high school students an opportunity to experience the environmental values of the river, its floodplain and associated wetlands and develop an appreciation and understanding of their importance and management issues.

Activities conducted on the day included:

- Bird Observations - students were given expert advice from volunteers of the Sunraysia Bird Observers on different birds on the River, Lagoon and floodplain and the variety of habitats that the birds use.
- Indigenous Culture - Barkindji elders captivated their audience with stories of ceremonies, bush food and their extensive knowledge of the resources provided by the river and the wetlands within the region.
- Waterwatch - Mallee CMA representatives conducted a water quality and bug watch survey with students. Aquatic invertebrates collected were identified and used to determine the condition of the river.
- Tree Health Assessment - Representatives from the LMD CMA and the MWWG demonstrated to students how the health of River Red Gums can be assessed using a scoring system. Students assessed the health of trees from the bank of the Murray River to the floodplain. This activity clearly demonstrated the deterioration in health of the trees as they moved away from the water source highlighting the importance of flooding for the ecology of the floodplain vegetation.
- Seed Propagation - Greening Australia Victoria demonstrated how seed was collected, sorted, stored and finally propagated. Students were given the opportunity to propagate River Red Gum seeds.
- Bird/Bat Box Building - Natural State oversaw the construction of nearly 100 boxes which were donated to Parks Victoria.
- Natural Resources Management Scenario - Adrian Wells, Peter Atkinson (Thegoa resident), Cath Hall (MDFRC) and Jess Butler (MDFRC) led groups of students through a hypothetical scenario of the development of a holiday resort on the floodplain of Thegoa Lagoon. Students were divided into smaller groups to represent different stakeholders, for example local council, residents and an environmental group. The students formulated arguments for and against the development from their stakeholders point of view. With Adrian adjudicating a meeting of stakeholders the strong take home message that natural resource management is about managing people not only the environment was delivered.

With the enthusiasm of staff, volunteers, students and teachers the day was highly successful.

Many thanks to volunteers, Wentworth Shire Council and conference organisers for their assistance on the day.

Members inspecting a Red Gum floodrunner at Kulkerna Station. Photo courtesy A. Chatfield.
ASL 44th Congress

The 44th National Congress of the Australian Society of Liminology was recently held in Hobart.

The Congress was well attended by approximately 300 students and representatives involved in scientific research and management of inland waters.

The conference included a large number of talks and posters covering a wide range of topics including salinity, fish, zooplankton, floodplain vegetation and rehabilitation techniques of rivers and wetlands.

The conference was attended by Paula D'Santos and Anna Chatfield (MWWG project officers) and provided an excellent opportunity for the Group to learn about current research and how this new research may apply to the management of wetlands within the Murray Valley.

Anna Chatfield presented a talk on her Honours research which she completed earlier this year. Anna's study used a number of wetlands involved in the Private Property Wetland Watering Project around Deniliquin and looked at the influence of manipulated flood regimes on Black Box wetlands.

WWF Delegation Visit

Duncan Vennell, project officer based at Deniliquin, hosted a number of delegates from the World Wide Fund (WWF) for Nature for a tour around the central Murray region.

The delegates were from China, PNG and Brazil with one member from China being on the Three Gorges Dam Construction Committee. The delegates were interested in how environmental flows were managed in Australia using structures such as regulators.

The tour incorporated Reed Bed Swamp at Millewa Forest, which at the time was filling, and one of the regulators on the Murray River which is used to control water into Moira Lake.

The visit was such a success that the MWWG have been approached to host other such delegates for similar events.

MWWG Bi-Annual Meeting and AGM
In mid November the MWWG held its Bi-annual meeting and AGM in Wentworth, NSW.

Members of the Group were updated on the activities of Project Officers and progress of wetland rehabilitation projects.

In addition to this Todd Wallace from the South Australian Dept. Water, Lands and Biodiversity Conservation (DWLBC) presented the River Red Gum watering activities occurring on the Chowilla Floodplain, giving an overview of the use of the 1,500ML of AEW provided by the MWWG in 2004-2005. Keith Forster also presented an update on the progress of the Darling Anabranch Management Plan.

The following day the members attended a tour of some of the sites involved in the siphoning and pumping projects for the River Red Gum Rescue Package, as well as Nampoo Station to look at the success of the watering of a private wetland and finally Kulkerna Station, where pumping into Black Box and Red Gum floodrunners had recently commenced. It was wonderful to see work happening on the ground!

Congratulations... and thanks!

There have been several reasons recently to pop open the champagne amongst the members of the Group!

Congratulations to Deb, Richard and Philip Nias on the safe arrival of Juliet in August.

Congratulations to Damian Green and partner Helen on the safe arrival of their first child Isabel.

Congratulations also to Trish Alexander on her engagement to David.

Regrettably David Leslie will no longer be a member of the MWWG. Many thanks to David for his innovative thinking and contributions to the Groups activities since his involvement. David’s expertise will be sorely missed and not easily replaced! We wish David luck in his new position with the Murray CMA.