

From Sea to Scarp

Vasse Wonnerup Wetlands

CASE STUDY

VASSE WONNERUP WETLANDS



PROJECT TITLE

From Sea to Scarp
- Vasse Wonnerup Wetlands

PROJECT LEADER

Chris Fleay DEC

PROJECT MANAGER

Kim Williams DEC

PROJECT DURATION

01/01/2012 -15/06/2013

PROJECT AREA

Vasse Wonnerup Ramsar Wetlands

PROJECT PARTNERS

SWCC and Department of Environment and Conservation (DEC) partnership project funded under the 2011-2013 Caring for our Country Regional Investment.

BENEFICIARIES

Ramsar wetlands

ABOVE: Ducks at the home in the wetland. Photo SWCC.

INSERT: The wetlands regularly support at least 1% of the Australian population of the Red-necked Avocet. Photo: John Harrison



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This project is supported by the South West Catchments Council, through funding from the Australian Government's Program, Caring for Our Country and the Government of Western Australia.



Department of
Environment and Conservation
Our environment, our future



Vasse Wonnerup Wetlands: Wetlands of International Significance

The Vasse Wonnerup Wetlands are located adjacent to the City of Busselton and extend for approximately 14km covering an area of around 750ha. The wetlands make up part of an extensive, shallow, nutrient-enriched system known as the Busselton Wetlands.

The wetlands are a highly valued ecosystem which are listed under the international 'Ramsar Convention on Wetlands' primarily because of their importance in providing habitat to both resident and migratory water birds.

"The wetlands provide food and habitat for thousands of birds each year", explains Department and Environment Conservation (DEC) Officer Chris Fleay. A significant percentage of the global populations of Banded Stilt, Red-necked Avocet, Australian Shelduck and Sharp-tailed Sandpiper are supported by the wetlands. In addition many species who 'summer' in the Vasse Wonnerup are migrants who fly (often for days on end) from the northern hemisphere on an annual basis.

During 2011-13, DEC through funding from Caring for Our Country supported by the South West Catchments Council (SWCC) have undertaken an on-ground works program based on recommendations and management actions from the "Ecological Character Description Vasse Wonnerup Wetlands Ramsar Site South-West Western Australia" (WRM, 2007). The activities undertaken as part of this project build on previous DEC rehabilitation trials and investments made at the wetlands

that commenced in 2002 and laid the foundation for the more recent works. "The activities undertaken include rehabilitation of fringing wetland vegetation such as rushes and paperbark trees as well as using fencing, weed control and pest animal control to help maintain and improve the condition of the site" says DEC Project Officer Chris Fleay.

Activities undertaken:

Revegetation:

Revegetation using local province seedlings has been undertaken in DEC managed reserves adjacent to the wetlands, including the Tuart Forest National Park. This planting has focussed on building upon and linking fringing wetland vegetation in order to increase the habitat available for native species and to preserve the health of the wetland.

Due to the population of kangaroos supported within this park, fenced rehabilitation plots have been installed in many locations to help give seedlings the best chance of survival whilst still allowing access ways for kangaroos.

This project has resulted in approximately 20ha of rehabilitation

being undertaken. More than 60 000 seedlings using 20 native species have been planted. Survival success of seedlings has been mostly positive though with kangaroo and rabbit grazing, weed invasions and flooding all having a potential impact on seedling survival, each rehabilitation site presents new problems to overcome. Tuart regeneration trials using ash beds are currently underway in the Tuart Forest National Park.

Taking on the Arum:

Arum lily is a major weed in the Tuart Forest National Park, which has taken over the majority of the forest understorey, a legacy of grazing stock in the forest for nearly 100 years. This project has continued a large scale arum lily control project which was initiated in the park in 2010. "We have been undertaking an arum control program across 63ha to help reduce weed cover and promote regeneration of the native understorey" say Chris. Monitoring of the weed control program reveals the density of arum lily is reducing but due to the level of infestation further control work will be required into the future.

OPPOSITE: Before and after photos showing the impact of the arum lily control program along the Abba River in the Tuart Forest National Park. Photos SWCC.

LEFT: September 2010: Dense arum lily infestation

RIGHT: August 2012: Density of arum lily greatly reduced following control efforts



Invasive species control:

Fox baiting is undertaken in the Tuart Forest National Park as part of the Western Shield baiting program to assist the recovery of natural animal populations, including the threatened Western Ringtail Possum for which the Tuart Forest NP is important habitat and population stronghold. Rabbit control has also been undertaken at several project sites to reduce population numbers and help give seedlings the best chance of survival.



ABOVE: Vasse-Wonnerup Wetlands. Photo: Rick Miller

Project challenges:

- Heavy grazing by kangaroos has been a major problem at some sites explains Chris Fleay. "Even though fencing has been installed since the start of the project we have modified the design to effectively exclude all kangaroos during the first few years to give the seedlings a chance to grow beyond the reach of most kangaroo's". Being vigilant and keeping on top of any repairs and damage in a timely manner is a constant task. Works are currently underway to improve an existing fence in an area adjacent to irrigated crops which is a real mecca for roos over the summer time and hopes are that these works will make the rehabilitation sites roo proof. Fencing will be removed in a few years' time when seedlings have become established and are no longer at threat from kangaroo and rabbit damage.
- On ground actions are often dependent on the right seasonal conditions to be as effective as possible. Unfortunately weather conditions frequently don't comply with project deadlines and reporting requirements. Unseasonal dry spells, cyclonic strength wind storms and flooding events have all impacted to a certain extent on the success of the various rehabilitation sites, Despite the challenges, all sites are in a much better condition now than they were before these works commenced and with some ongoing maintenance will continue improving and providing functionality for many years to come.



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ABOVE: Arum lily in flower at the Tuart Forest National Park. Photo SWCC.

Future projects:

Plans are underway to continue on-ground works at the Vasse Wonnerup Wetlands into the future. It is hoped that further follow up works and infill planting will be undertaken at the sites rehabilitated during this project. Hopefully future investments will also extend into the Sabina Nature Reserve, which lies just west of the Tuart Forest National Park.

Upgrade of fencing and bollard installation to prevent illegal vehicle access is looking set to occur in the near future.



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