

WATERSHED TODAY

N E W S

No 6 News of Torbay Catchment Group & the Special Project: Watershed Torbay March 2004

IN THIS EDITION

Funds Available

Local History

Drainage Management Review

Recent Bar Opening

Report on Bus Trip

Blackberries!!

Conference Report

Reports on Events

Correspondence:
-CALM responds
-Bridge 4689

Check out the Watershed Torbay website:

www.torbay.scric.org

Contact: 9842 5760
Department of Environment or
9845 1081 Torbay Catchment Group

Catchment Chairman's Message- Work to be Done!



Andrew Marshall, Chair Torbay Catchment Committee and Watershed Torbay Steering Committee, with Naomi Arrowsmith, Department of Environment Regional Manager

I would like to warmly thank John Simpson for providing his time and regional perspective as Chair of the Watershed Torbay Steering Committee over the past two and a half years. We will miss his invaluable input – regretfully he has had to resign due to ill health.

It was great to have Jane Orchard join the Committee from the upper Torbay catchment. We look forward to seeing more landholders from this part of the catchment.

The 4 year Watershed Torbay project only has another year to run. In that time we must:

- Complete the catchment restoration plan – a draft will be circulated and community input workshops held around October this year.
- Decide how to use the information gathered on the management of the lower drainage district to improve its management if possible – an update is provided in this newsletter.
- Set up a monitoring program so the community through the Torbay Catchment Group can see if the work on the ground is making a difference!
- Gain financial support for ongoing landcare work on the ground – further funds for this year have been obtained through the Envirofund - see the article in this newsletter.
- Come to an understanding with the Water Corporation concerning the intention to take water for the Albany

Regional Water Supply from the Marbellup Brook.

We hope to see your application for funding support for on the ground works - fencing, revegetation, stock crossings and watering points!

Andrew Marshall

Funding Support Available



Help Available Now for:

- Stream and Drain Fencing
- Revegetation
- Stock crossings and watering points

The Torbay Catchment Group has funds available for landowners in the catchment wishing to fence and revegetate streams and drains on their properties. A limited number of stock crossings and watering points can also be funded.

A focus this year will be 15kms of fencing and 15ha riparian revegetation for streams and drains particularly in the Unndiup Creek and Marbellup Brook sub-catchments.

The funding is available through the federal Envirofund program and support from the state Department of Environment.

For more information please contact

Andrew Marshall 9845 1081

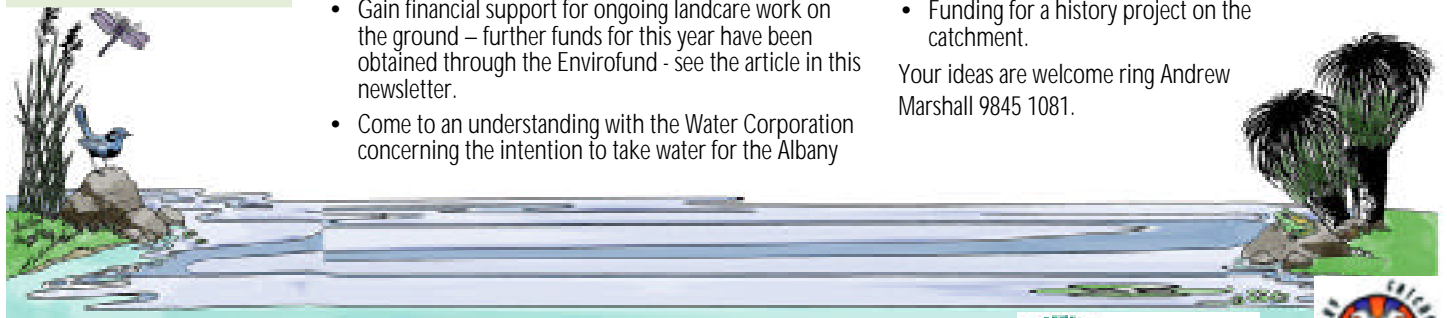
Dave Rushton 9841 0108

Applications going in!

Applications are currently being prepared with the Torbay Catchment Group for three projects:

- Assistance for perennial pasture establishment
- Funding to improve the access to the Lake Powell bird hide and provide a sign on bird identification
- Funding for a history project on the catchment.

Your ideas are welcome ring Andrew Marshall 9845 1081.



Aboriginal History

There is a long history of Aboriginal occupation in the Torbay area. There are sites located across the region. For example one study by anthropologist for the Western Australian museum, Charlie Dorch, documented:

- A skull in Lake Powell
- Artifacts near Lake William
- Fishing grounds at the Torbay Inlet
- Ochre pit near Wilgie Hill used for painting bodies when preparing for corroborees.

European History

Excerpt from Memories of Torbay & Districts 1988

It was a picturesque little property, there are snapshots from a Box Brownie to remind us of those times. Seated on a sandy ridge, overlooking Lake Manarup (generally referred to as Elleker Lake), it consisted of two rooms with a front and back verandah, which Bly soon enclosed with potato bags opened length-wise, and tacked to the battens then dressed them with a wonderfully durable solution of skim-milk and dry cement. When we took a trip out there 37 years later, the walls were still intact. Once while washing dishes I saw two blue wrens, a robin, a wagtail and a firetail finch on the fence only six feet from the kitchen.

With Mr Bill North senior fishing the inlet and the lake, we had a plentiful supply of fresh fish. Years later, Mr North was accidentally drowned in the lake, tangled in his nets. Woods Australian diary for 1946 may not be the most inspiring year of the last forty years, but it acts as a mirror of those times when the horse was still the main source of traction, and when a one-pound-note would keep a family for a week. . . The diary says *Arranged to have bulldozer clear an area near the lagoon* the bulldozer was the first in the district to our knowledge. Other entries mention tomato-picking, bean and pea-picking, potato digging, boils and earache, good prices and poor prices!

. . . Arthur Shirley, now retired from dairying, recently told me how in the days before there were any bridges in the area, the pioneers (namely Norths, Shirleys, McKennas and the Chinese market gardeners), would take their produce to the river in a wheelbarrow, transfer them to a small canoe and float them across. Then they would haul the empty barrow across on a rope, re-load the barrow, then wheel them to Elleker station with a man pulling a rope about his chest.

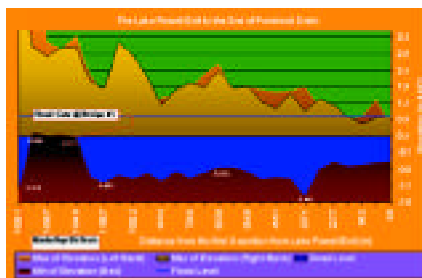
J.D. Shiner

Editor: If you know about other sources of information on Aboriginal and European history of the Torbay Catchment please give me a call - Louise Duxbury 9848 1019.

management review

Progress on research work to gather information about the drainage system, and a model of the system to look at different management options was presented recently to the Watershed Torbay drainage committee. The researcher, Aditya Kumar Jha from the Department of Environment in Perth, provided interesting information about the system. Using the data collected from a survey of the lower drainage district he showed that the waterways and low lying land of the high, medium and low level systems behave like connected bathtubs. This means the amount of change possible in management of the system is limited. Cross sections of the major drains and water bodies showed where the low points in the banks are and where flooding would occur.

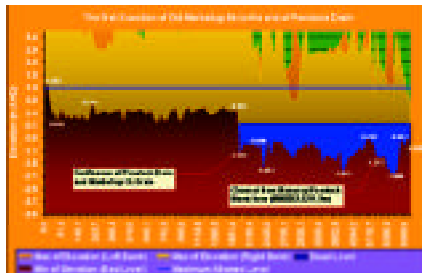
This highlighted that there is scope to modify the banks and reduce some of the constraints on managing the system. Aditya



Cross section of the Penstock drain from Lake Powell, the blue line shows the flood level and where the banks of the drain are low and where flooding would occur

also showed where high points in the bed of some channels would restrict the ability to flush sediment and nutrients from the system.

Aditya showed that the model does a reasonable job of mimicking what happens in real life and confirmed that Graham Wright does a very good job of managing the system



Cross section of the old Marbellup Brook to the Penstocks drain, the chocolate brown colour shows the bottom of the drain and where there is a natural high point that would hold back water and potential flushing.

for traditional stakeholders. The model will be even more accurate as more water level and catchment flow data is collected and understanding is gained into groundwater

community members on the drainage committee have already been run through the model with some interesting results. These will be reported in the newsletter once the additional monitoring data is included so the results are more accurate.

Recent bar opening

The Torbay Inlet bar is opened periodically to minimise flooding, avoid outflow during the commercial fishing season, and to increase water depth in Lake Manarup. The Water Corporation opened the bar before the professional salmon season started in February this year. There is anecdotal evidence that the dark tannin coloured water from the inlet either turns the fish away or makes it difficult to see the schools. To avoid a bar opening during the season it is critical to maintain reasonably low water levels in Manarup Lagoon and Torbay Inlet so that any summer storm runoff can be stored without flooding back onto low-lying land particularly in the North Creek catchment.

Prior to the bar February opening, the Department of Environment carried out extensive algal sampling and advised that there were no blooms of toxic algae that could be transferred through the waterways. The bar was initially opened on Wednesday 4th of February and it subsequently closed that night due to high swells and tide, it was then successfully re-opened the next day and the bar remained open until the night of Thursday the 12th February. The Torbay Inlet water level was 0.94m AHD when the bar was opened and 0.22m when it closed.

Report on catchment bus tour 7 March 04

Nineteen people jumping on the bus at the Elleker Hall on a rainy Sunday morning for the Torbay Catchment Group tour of the catchment.

A stop at Jane & Don Orchard's property on Marbellup North Road for morning tea was a chance for everyone to have a chat and to look at a pristine

farm in the upper catchment and a number of previously completed projects, including the constructed wetland on Phillip Marshall's farm. The tour incorporated a visit to the recently constructed bird hide at Lake Powell. Luckily there were no tiger snake encounters at this site, which can probably be attributed to the chilly weather conditions!

Ken Eade provided a fascinating insight into how the largest commercial tree farm in the



A highlight of the tour was the visit to the tree farm on Gunn Road. Ken Eade from the Water Corporation presented an overview of the Southern Hemisphere operates.

The tree farm is constructed on a 550-hectare site at the head of the 7-Mile Creek in the Torbay catchment. Secondary treated effluent from the Timewell Road wastewater treatment plant is pumped directly into two holding ponds at the Gunn Road site. These ponds feed a distribution pump station that delivers the effluent to overland flow, grass bays for the primary purpose of nitrogen stripping. Then a 365ML main irrigation dam collects all surface run-off from the grass bays and supplies the 110 litres per second irrigation pump station for distribution over the 280 hectares of effluent-irrigated blue gum plantation.

Discharge from the site into 7-Mile Creek is monitored at the Gunn Road gauging station on the southern boundary. An additional 120 hectares of rain-fed plantation serves as a visual and storm rainfall run-off buffer.

Controlling blackberries!

Blackberries are perennial plants, *Rubus* species ROSACEAE family, with arching prickly stems. The stems take root where they touch the ground, often forming dense thickets. The white or pink-tinged flowers each have five rounded petals 7 to 20 mm long, and numerous stamens. The succulent and delicious fruits are a collection of many tiny fruitlets and are at first red but turn black as they mature. Native to Europe, Blackberry is a serious weed of creeklines, spreading into forest and woodland. It flowers in spring and summer.

control is not easy, as most of the root system must be removed for good control, and burning is not effective apart from allowing better access.

Three annual, summer applications of 100 mL of Grazon(r) plus 25 mL of Pulse(r) in 10 L of water has provided eradication on 30 per cent of sites when assessed 10 years later. On large infestations, 1g metsulfuron (600 g/kg) plus 25 mL Pulse(r) in 10 L water, applied in summer when the blackberry is actively growing, provides a cheaper option to reduce the size of the infestation before Grazon(r) is used.

Grazon will damage most broad-leaved species but is the only chemical that has provided reliable control. It has little effect on grasses, so the area is not left bare, which also helps reduce seedling establishment.

One hundred mL glyphosate in 10 L water provides reasonable control and can be used in sensitive areas. Repeat as new growth appears. Trounce(r) (a mixture of glyphosate and metsulfuron) plus Pulse(r) is also effective. Grazing with goats is also reasonably effective. Biocontrol rust fungi has established but has had little impact. After control has been achieved replant native species in the area to help to reduce further blackberry infestation.

Assistance Available

Blackberry is a weed that is taking over our



Blackberry infestation on waterway - blackberry is declared under the Agricultural and Related Resources Act (1974)

environment. The seed is spread by birds, foxes and native animals, which means everybody in a community must control blackberry together to get lasting results and avoid re-infestation. The Department of Agriculture and Albany Bushcarers has some herbicide supplies left for this season and a sprayer if anyone needs a loan - contact the Department of Agriculture on 9892 8444. The Torbay Catchment Group also has a spray unit for the back of a ute and a knapsack sprayer for loan contact Andrew Marshall 9845 1081.

presented at conference

Louise Duxbury attended the Integrated Catchment Management Conference held in Sydney 26 - 28 November 2003, Australian Water Association.

There were speakers from NZ, England, Philippines and all Australian states. I delivered a paper on Watershed Torbay and the local approach to catchment issues emphasising community values with research and planning based on values. There was good feedback.

A key Conference theme was the need to deal with water shortages even in places where it has not been a concern in the past. There is debate about how much water is needed by the environment to sustain essential services and where that water will come from in areas which are over allocated. Sydney for example is using more water than the supplies can sustainably yield.

A New Zealand project reported on was initiated by dairy farmers in the north of the south island near Motueka. Cows in streams in the Sherry River were monitored by the local farmers by video. They decided to build bridges across the rivers. Several bridges on key farms were built at a cost of \$50,000 each with 50% paid by farmers and 50% by government (a high rainfall area!).

Another case study was the Taieri Trust based in the south of the south island. Their website is: www.taieri.net.nz

Conference Field Trip

The conference tour concentrated on storm water management and constructed wetlands in the Upper Parramatta River and the Sydney Olympic Park.

Plumpton Park Wetland was a good example. It services a 100ha catchment with 10,000 homes and three schools. Situated on a creek, the wetland has 5 cells with a gross pollutant trap, silt trap, reed beds and a lake. It represents 2.5% of the catchment and is designed to take a 100 year flood event with an average hydraulic residence time of 3 days for nutrient stripping and sediment settling.

The total system cost \$1.3million with \$850,000 for construction and the rest in education and landscaping. The annual cost of maintenance by the Blacktown City Council is \$10,000 although the wetlands are part of a



regional recreation park which has an annual budget of \$100,000. The reeds are regularly removed, mulched and used as a subsurface base for new playing fields as they are high in nutrients.

Lake Powell Nature Reserve

The Torbay Catchment Group recently wrote to CALM requesting the development of a management plan for the Lake Powell Nature Reserve.

CALM has responded positively saying that while a full Management Plan is a long process, CALM can help with developing Interim Management Guidelines in a shorter timeframe. The Guidelines would address issues raised by the Catchment Group including: fire and weed management and access.

Staff from the Albany CALM office will discuss issues and produce draft Guidelines for Catchment Group input.

Re: Bridge 4689 Grassmere Road Elleker
Jerome Goh Mains Road
17 February 2004
Hello Jerome

We – the Torbay Catchment Group – have not heard of any movement in this area. On asking the Water Corporation on their status in reporting facts and figures to yourselves they said “Who is this person, and has he asked for this information in writing?”

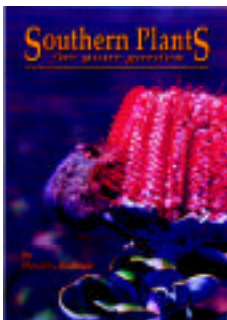
We are at a loss! At the meeting held by yourself at the Main Roads Depot (28.4.2003) in Albany we recall specific commitments made by all concerned.

As it is now 10 months down the track, and your own engineer set the deadline of closure of the bridge at 18 months, it is of interest to all in this area as to what is transpiring.

Is it at all possible for someone to send us a programme and timeline that is to be taken on this issue so we can keep the locals informed?

*Regards
Phil Mellon*

As a result of Phil's prompting responses are coming in - look for update in next newsletter!



Book & CD on Local Plants Available April!

This beautifully illustrated book and the associated interactive CD Rom feature local plants suitable for gardens. The book and CD provide information on size, form, soil

types and flowering times with handy propagation notes and maintenance tips. Order through Green Skills 9848 1019 for \$9.90 each or \$15 for both!

Workshop Message:

Soils & Fertilisers a Priority!

There was a good turnout for the Bornholm Soil and Fertiliser workshop on 21 January 2004.

Rob Summers from the Department of Agriculture presented the key theme on how to analyse soil tests. He emphasised that as little as 25% of applied phosphate is absorbed by plants!

The local Department of Environment is supporting action of fertilisers and provided a 50% subsidy towards soil testing with 22 out of the 45 landholders at the workshop taking up the subsidy.

Rob provided tables from Ag farm notes that use soil test results to produce fertiliser application rates. Participants commented that the exercise made them realise how important it is to treat each paddock and soil differently.

Craig Russell from the Centre of Excellence for Natural Resource Management Albany, explained the pathways of soil nutrient cycling.

Dave Weaver from the Department of Agriculture demonstrated phosphate-leaching processes in high rainfall areas using his impressive looking rainfall simulator. He showed how soil type can dramatically impact on nutrient loss.

The demonstration also showed how soils with a long history of fertiliser application could leach phosphorus, even with no additional fertiliser applied, after as little as half an hour of moderate rainfall. Workshop participants were surprised at the speed with which the phosphates leached.

Tim Overheu from the Department of Agriculture discussed good soil testing techniques. Use of a core sampler or pogo is highly recommended, however the implement must be clean! Tim suggested that local soil testing facilities were very good and comparable with any in Australia.

Dave Weaver and Simon Neville presented information about the nutrient simulation model and case studies for the Torbay catchment. This work has supported the Watershed Torbay Catchment Restoration Plan, showing that soil testing, independent fertiliser advice and perennial pastures are key actions.

For more information on soils and fertilisers contact Ron Master or David Weaver on 9892 8444 or Dave Rushton on 9841 0108.



The rainfall simulator and soil and fertiliser workshop presenters!

Torbay Catchment Group - meeting dates 2004

- 17 Mar Wed Torbay Catchment Gp
 - 7 April Wed Watershed Torbay Steering Committee
 - 28 April Wed Torbay Catchment Group
 - 19 May Wed Watershed Torbay Steering Committee
 - 9 June Wed Torbay Catchment Group
 - 30 June Wed Watershed Torbay Steering Committee
 - 21 July Wed Torbay Catchment Group
 - 11 Aug Wed Watershed Torbay Steering Committee
 - 1 Sept Wed Torbay Catchment Group
AGM & OGM
- Ring David Rushton for information:
9841 0108. All are most welcome to the Catchment Group meetings and the special project Watershed Torbay Steering Committee meetings:
Elleker Hall 7.30 - 9.30pm!

Coming up!

Farming for a Future Conference:

Focusing on Sustainable Agriculture
Now!

Albany Eastern Hinterland, Oyster Harbour
Catchment Group & Wilson Inlet Catchment
Committee

Thursday 1 April 2004
8.30am – 4.30pm followed by a
Taste of the Region social hour

Are you concerned about farming prospects into the future? Would you like leading information on climate variation, surface water management, the saltland revolution and perennial pasture, more sustainable production systems, benefits of phase farming, and weed invasion and control costs?

You are invited!

Contact: Lynn Heppell Wilson Inlet Catchment
9851 2697

lheppell@agric.wa.gov.au

Cost including lunch: \$27.50 individual, \$38.50
per farm

If you do not want to receive this newsletter

ring Louise Duxbury, newsletter editor on 9848 1019. Articles, poems, photos, and other contributions welcomed - mail to: Green Skills PO Box 577 Denmark WA 6333 •
louiseduxbury@greenskills.green.net.au