

Gippsland Waterwatch



STREAMLINES

Summer 2006/07

...And we need your feedback.

Each year Waterwatch produces a data report for almost every site monitored within that year – that's over one hundred sites, or 750 samples, or around 3500 tests for parameters such as electrical conductivity, pH, turbidity, temperature, and phosphorus across West Gippsland! And if that is not enough to convince you of the value of our volunteer network, consider that at \$19.26 per hour and with an additional 12.7% for the use of volunteers' capital equipment, such as cars (Ironmonger and Soupourmas 2001), the value of this volunteer network equates to more than \$12,000 per year.

Due to a combination of circumstances it has taken a while to produce the data reports for 2004, 2005 and now 2006, but at last the reports for 2004 and 2005 are available and we would like to use the feedback from these reports to feed into the production of the 2006 report which will be available by June 2007.

Evaluation questionnaires will be distributed with each data report and we ask that you return these with as much detail as possible on how the report is useful to you and how it can be improved.

Data users from various organizations will also be provided with a Thank You postcard. If you use the data, please use the postcard to

describe to the volunteer how their data was useful to your project and

**Data reports
are available!!**

show your appreciation by returning the postcard to Waterwatch to forward on to the appropriate volunteer.

The data reports have been designed to act similarly to the Gippsland Integrated Natural Resources Forum Report Card in that they are an A3 fold out card which visually reports on water quality across West Gippsland. The report card is accompanied by a more detailed document which includes further information on each monitoring site including, location maps, data confidence levels, sampling period and any local knowledge from the volunteer monitor. Data users and volunteers can choose to receive the report card or the larger companion document depending on their needs.

Volunteers take pride in their role in natural resource management and so take great care to produce quality results. The strengths of Waterwatch data include: frequency of monitoring, spread across the region, ability to detect emerging trends, and local knowledge of an area. The data has been reported against SEPP objectives. When using Waterwatch data please take the time to acknowledge us in your projects and notify us of its use so that we may keep a record of this for feedback to volunteers and sponsors.

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Waterwatch Data Report Card
Companion Document 2004

Community Monitoring



Waterwatch Data Reports for
2004 and 2005 are available.

Regional Ramblings in the West by Tammy Dawson

Welcome back to another year! This year in West Gippsland we hope to bring you many more knowledge and skill enhancing activities with all the feedback you need to pursue your Waterwatch related goals.

-This will include information sessions, training sessions, invitations to events and other opportunities as they arise. We will also be focusing on developing and implementing the Data Confidence Plan (you may remember the review conducted last year), developing and implementing a new strategic plan, and a monitoring, evaluation and reporting framework so that we can all have confidence that we are achieving Waterwatch objectives and providing high quality services.

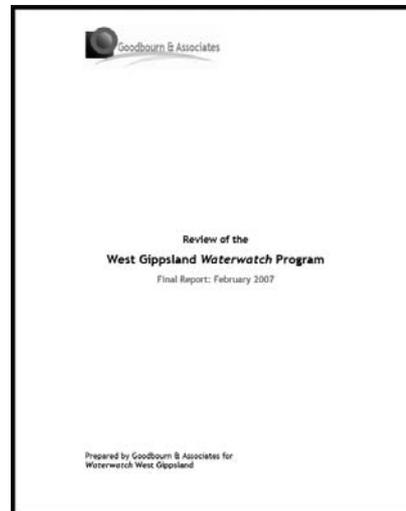
Speaking of high quality – the Lake Narracan Catch A Carp Day was recognized for outstanding contribution to the community at the Latrobe City Australia Day Awards this year. This was the first time we have been nominated but hopefully not the last.

Bruce Paton (Gippsland Lakes Education Officer) will be leaving us at the end of March to pursue travel and work ambitions. He has done a great job over the past year and has been a very enthusiastic member of our team. We wish him well.

Within the West Gippsland Catchment Management Authority organisational structure; Waterwatch has been moved from the Partnership Development Unit to a new Water Unit (which was previously part of the Integrated

Catchment Management Unit). This change should help us form stronger relationships with data users and encourage Waterwatch involvement in project planning from the inception stages. This will provide volunteers with new and more meaningful opportunities.

The final Report for the West Gippsland Waterwatch Review is now available electronically or in hard copy. To obtain your copy, contact West Gippsland Waterwatch.



To get your copy of the Waterwatch Program Review contact Tammy Dawson on 5175 7800

Regional Ramblings in the East by Becky Hemming

Summer by the Sea in the East

Waterwatch's participation in the 'Summer by the Sea' Program was once again a fantastic success with over 550 tourists and residents attending Waterwatch activities.

Waterwatch visited seven locations across East Gippsland – from Paynesville to Cape Conran and Mallacoota with many in between. The ever popular 'Bugs and Beasties' activity had participants collecting their own river and estuarine macroinvertebrates with scoop nets. Using microscopes they then identified a great diversity of creatures including nudibranchs, shrimp, crabs, scuds, sandworm and pipefish.

Many of the areas visited contain seagrass beds which form fantastic 'fish nurseries' so many young fish were also discovered. As these new 'aquatic scientists' discovered what lives beneath; they formed a connection with East Gippsland's magnificent natural environment and realised what they can do to protect our precious lakes and catchments. 'It's important not to litter or pollute our catchments – it might make animals sick or even kill them'.



Looking at bugs and beasties caught from the Mitchell River Silt Jetties at Eagle Point



Catching bugs in McMillan Strait, Raymond Island

Clean Up Australia Day – by Marni Speed & Vanessa Facey

Dates to Note

March

- 2 Schools Clean Up Day**
2 Communities Caring for Catchments Conference – bookings closed
4 Clean Up Australia Day
4 Classco Classic Bridge to Bridge swim, Bairnsdale
Have you ever wondered what lives under the water in the Mitchell River?
Do you use the river for any recreational purposes?
Come and learn about the Mitchell River this Sunday at the Crossco Classic Bridge to Bridge Swimming Competition. The Waterwatch trailer will be set up at the Bairnsdale Rowing Club platform (opposite the butter factory jetty) from 9am onwards.
- 4-10 Seaweek**
15 Lake Tyers Culture in the Catchment Canoe Tour
'Culture in the Catchment' canoe tours is an East Gippsland Catchment Management Authority (EGCMA) initiated program created to provide engagement with the local indigenous community, increase environmental awareness, and potentially create employment in a sustainable business.
- 21 World Forestry Day**
22 World Day for Water
25 Tarra Bulga Rivers and Rainforest Family Day
Join Waterwatch for a stroll through Tarra Bulga National Park to learn more about the natural landscape.
Contact Marni Speed for more information or to book your place. Places limited.

29-1 Farm World: Lardner Park Field Days

Waterwatch information can be found in the Baw Baw Pavilion with the West Gippsland Catchment Management Authority.

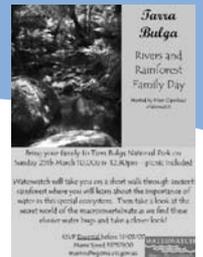
April

- 22 Earth Day**
27-28 East Gippsland Field Days
The East Gippsland Field Days has over 400 sites to visit. The EGCMA will be located at site K11; some come and visit and find out about river health, willow control, dreamtime stories, what bugs are in the Mitchell River and much more.....

May

- 6-12 Saltwatch Week**
East Gippsland: Join the East Gippsland catchment Management Authority and East Gippsland Waterwatch for many community events across the region, from canoe tours through to catchment tours, stay tuned for further details....
South Gippsland: A week dedicated to education on salinity issues. This year there will be a particular focus on the Yarram area schools. Please contact Tanya Cowell to be involved.
- 16 Run of the River teacher PD session (South Gippsland)**
Enable your year 9 - 10 students to think about water as a precious resource to be shared by user groups, including the environment in a fun way – playing the Run of the River board game. Location TBA. 9am – 11am. CRT to be reimbursed. Please call Tanya Cowell for more details / bookings.
- 17 Run of the River teacher PD session (Latrobe region)**
Enable your year 9 - 10 students to think about water as a precious resource to be shared by user groups, including the environment in a fun way – playing the Run of the River board game. Location TBA. 9am – 11am CRT to be reimbursed. Please call Marni Speed for more details / bookings.
- 22 International Biodiversity Day**
20-27 Arbor Week

Latrobe River Rumors
by Marni Speed



Latrobe River Rumors by Marni Speed

Unit Planning with Waterwatch

The Latrobe and South Gippsland regions joined forces this February to deliver two Professional Development sessions for Grades 3-6 Primary teachers on planning units of work incorporating Waterwatch. We had 17 teachers attend the sessions which was a very positive outcome.

Given the current climate, it is hardly surprising that water and the environment feature prominently as themes in our schools' curriculum this year. Waterwatch are pleased to be able to assist teachers with ensuring important messages are imparted to students in such a way that also meets the needs of the school and the new Victorian Essential Learning Standards (VELS).

Some of the units of work teachers are planning focus on topics such as; water as a vital resource, how urban development affects the environment, wetlands, community action towards improving waterways, the importance of habitat, different vegetation communities in estuarine areas and how drought affects us all.

Whilst water quality testing and macroinvertebrate monitoring are the core business of Waterwatch we also try to assist teachers with filling in the framework around these activities. Some suggestions we make include; making the focus for a unit a local waterway that students are able to identify with, linking in with groups already operating in the community such as Waterwatch, Landcare or Friends Groups; undertaking simple science experiments in the classroom before water testing to solidify some basic knowledge of parameters;

looking at catchments as a whole and the land uses that exist in them, comparing other areas to your own, learning about the various agencies who are responsible for water, and monitoring over time to identify long term patterns and changes.

It is important to note that the sessions weren't a one way street, the teachers who came along were able to share their broad range of knowledge and experiences with us and each other. One of the suggestions that both the Latrobe and South Gippsland regions will be implementing soon is making a school kit in each region available for schools to borrow. This will allow for increased monitoring activity and longer term programs to occur.

The enthusiasm and interest from the teachers in attendance was very inspiring and we hope the new relationships that have been established will continue. West Gippsland Waterwatch Facilitators are available to discuss any education programs that you may be planning whether they are in schools or other organisations. Waterwatch have a number of resources that can assist in preparing units and are happy to suggest or chase down additional resources if requested.



Some of the educational resources used by West Gippsland Waterwatch

Blue Green Algae

Because of dry hot conditions recently I have been receiving calls about blue green algae on farm dams. Here are some DPI notes on blue green algae that may assist if you are in a similar situation.

Blue green algae is the common name for a group of algae which have similar characteristics, some species of blue green algae are toxic to both humans and livestock.

Not all algae blooms are toxic but they should be treated as toxic until the water has been tested.

Signs to look for are a sudden change in water colour overnight due to a mass of vivid green algae floating to the surface

- the formation of scum which looks like green acrylic paint and leaves sky blue marks on rocks or plants around the edge of the dam, particularly on the leeward side of the dam or backwater of a stream
 - scums can be green, blue-green or khaki green, and can turn brown/green or white once it is dying off
 - scums may appear at dusk or dawn and disappear during the day
 - there may be a strong earthy smell, or if the bloom is breaking down it may produce a strong rotting smell in the early stages of a 'bloom', small green flecks may appear in the water
- Algal blooms are caused by a combination of factors including water temperature, water flow rate, light, and nutrients, although not all of these factors are easy for us to influence or change. So, the best opportunity for controlling the problem is to reduce the amount of nutrients available in water for algae to use.

Livestock are at real risk of poisoning by blue-green algae unless alternative drinking water supplies are provided, although livestock deaths are relatively rare. In extreme cases death can occur minutes after drinking.

Of far more serious concern to farmers are the productivity losses associated with milder cases of algal poisoning which in dairy cattle has been shown to cause loss of appetite, and consequently a decline in milk yield. But, if swallowed by livestock in sufficient quantities, blue-green algae may cause convulsions, paralysis, liver damage and skin sensitisation.

In the short term.....

- Inspect farm dams and water troughs regularly (2 or 3 times a week) during hot, dry times of year
- If you suspect you have a blue-green algae bloom:
- Isolate all people and stock from the dam or water supply
 - Ensure stock have alternative water supplies
 - If no alternative water supplies are available contact your local Water Authority. See below for information on water treatment
 - Collect water for testing (follow sampling instructions below)
 - Contact a veterinarian if livestock show symptoms of poisoning
 - Send sample for testing (see below) as soon as possible
- For diverters, contact the manager of the water body from which the water is diverted.

Sampling procedure

- Use gloves to avoid skin contact with affected water
- Collect algae from the windward side of dam, so that the sample is as concentrated as possible
- Collect about 1 litre of water, leaving an air gap at the top of the bottle
- Label the bottle clearly with you name, address and telephone number
- Contact the laboratory regarding best delivery arrangements

For local blue green algae tests at \$155 (ex G.S.T.) pr test try SGS laboratories in Traralgon, Ph: 51721555

To find out more please visit the DPI website <http://www.dpi.vic.gov.au>

Reference: Thomas, D. Martinelli 1999, Landcare Notes, Has your dam got a blue-green algae problem? State of Victoria, Department of Natural Resources and Environment.



Algal bloom on local dam, nutrient inputs may be reduced by fencing off stock access.

Estuarine Focus

Corner Inlet Community Seagrass Monitoring Project – Jonathan Stevenson.

Picture this: a boat trip on mirror calm water, fish darting away in the clear waters, seabirds wheeling overhead and the sun on your back. How much would you expect to pay for this experience? Absolutely nothing if you are a volunteer in the Corner Inlet Community Seagrass Monitoring Project. Of course you do have to jump of the boat and help record important data about the health of Broad Leaf Seagrass in Corner Inlet.

The Corner Inlet Community Seagrass Monitoring Project was formally launched in 2005 and aims to monitor the health of seagrass beds around Corner Inlet. By identifying which beds are in good condition and which aren't, better decisions regarding park management and integrated catchment management in the Corner Inlet catchment will be able to be made.

The project is part of the state wide Sea Search program initiated by the People and Parks Foundation and Parks Victoria. The sea grass monitoring project involves four trips out to Corner Inlet each year, visiting a variety of sites. Volunteers help by laying out transects and recording seagrass data such as shoot density, leaf length and epiphyte cover.

The day is a full day event and generally finishes with some relaxation time for participants to enjoy the magic of Corner inlet.

The project is being coordinated by Jonathon Stevenson, a Marine Ranger with Parks Victoria, and Rebecca Koss, Sea Search Project Officer for the People and Parks Foundation and Parks Victoria. For more information on the program contact Jonathon Stevenson on 5683 9000.

Foot note- Tanya Cowell.

Jill and I were lucky enough to take part in the recent seagrass survey in Corner Inlet. We were able to see first hand the broad leaf seagrass beds and encountered a diverse array of creatures while assisting with this important survey. The Corner Inlet Community Seagrass Monitoring Project is a fantastic opportunity for S.C.U.B.A. divers and snorkers to be involved with monitoring the condition of the Corner Inlet waters.



Seagrass surveying on a very low tide near Tin Mine Cove.

Afternoon tea at Tin Mine Cove

Common Ground

Local indigenous kids recently became aquatic scientists for the morning at North Arm, Lakes Entrance. Participants of the Common Ground initiative spent the morning with East Gippsland Waterwatch netting aquatic bugs and identifying them under microscopes in order to help determine estuary health. Participants enjoyed learning about the amazing and diverse 'bugs and beasties' that lie beneath the waters and sediment of North Arm.

Great partnerships and relationships were formed as The Department of Justice, Lakes Tyers Aboriginal Trust and Gippsland Lakes Community Health worked together to find a range of engaging summer activities for Common Ground participants to enjoy and learn from, including the Waterwatch 'Bugs and Beasties' activity being run at Lakes Entrance.

The thirty Common Ground participants not only learnt how these aquatic species are specially adapted to be able to live in both fresh and salty estuary waters; but also what they can do to look after their catchment by not polluting our waterways with things like detergents, litter, grass clippings, oil, dog manure and many more. Our precious Lakes are affected by what we do in our

catchment, so by reducing the amounts of pollutants entering our waterways we increase water quality and look after our coast.

Kaylene Wickham of the Department of Justice, Lakes Tyers Aboriginal Trust commented "A great day was had by all – it was great for the kids to participate in such an engaging and enjoyable community activity. It's so important for them to be involved in their community and environment."



Participants from the Common Ground initiative looking at the bugs and beasties through a microscope.



'Did you catch him' the boys trying to catch a shrimp they had found in the North Arm, in Lakes Entrance.

Communities Caring for Catchments *By Bruce Paton*

On Friday the 2nd of March Waterwatch hosted Communities Caring for Catchments: Volunteers Protecting our Waterways, an event for the hard-working volunteers, teachers and data users we see every day.

The aim of the event was to help everyone learn about water and catchment issues, while having fun at the same time! And since it would be rather boring just to have us talk to you all day we looked far and wide to gather together experts in every aspect of waterway science and management.

We've always regarded our volunteers to be true community scientists, so the event was organised like a scientific conference, with presentations on all sorts of topics for people to choose from. It's probably not surprising given the environmental upheavals that have been affecting Gippsland that the most popular sessions focused on the effects of fire and drought on our waterways and water supplies. Doctor Patrick Lane is an expert on the effects of bushfire on the Australian environment, and his research into the impact of previous fires and the implications for our current situation in Gippsland fascinated a packed audience. Just as interesting – and no less sobering – was the session on drought in Gippsland.

After a presentation explaining the drought and the implications of future climate change, representatives of water authorities provided some welcome relief by demonstrating how they are responding to our climatic emergency.

In addition to the presentations indoors, interested

participants visited local waterways and picked up new scientific skills. These included photopoint monitoring and assessing the habitat surrounding streams and waterways.

To go through all the other fascinating presentations would take more space than we have available but suffice to say that our volunteers, teachers and data users were treated to experts on the value of volunteers who conduct scientific research, the cultural heritage of our catchments, what happens to Waterwatch data and much much more. All in all it was an enjoyable day, with participants feeling they really learnt something valuable about our waterways, their place in our environment and what we can do to protect them.

If you're interested in the topics covered by our experts, contact your local Waterwatch facilitator for a copy of the PowerPoint Presentations and fact sheets from the event.





STREAMLINES - The Gippsland Waterwatch Newsletter

Key Stakeholders and Sponsors

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QA/QC Report in Brief

QA/QC – Latrobe Region by Marni Speed

QA/QC Week was a great event with all volunteers participating and achieving admirable results overall. Just a couple of things to note for all volunteers – remember to always mix your sample before assessing turbidity, check your calibration solutions are in date and if you have a pH or combo meter, make sure there is a piece of sponge wet with tap water or pH 7 in the cap. Remember if in doubt, I am always available to answer questions. Most volunteers also attended our Refresher Training and New Years celebration evening where we discussed water issues, learnt about new resources and ate some pizza along with testing our mystery solutions. Thank-you to all the volunteers that took part.

QA/QC – South Gippsland Region by Tanya Cowell

Thank you to the volunteers who participated in the January mystery sample event. Mystery sampling results were quite good across participating volunteers with samples being sent out in the mail. For the next mystery sampling event, in the week starting on the 4th of June, where possible I will hand deliver your samples and ensure your

monitoring equipment is in good working order. I will ring you beforehand to set up a meeting time.

Please note participation in mystery sampling allows us to assure data users that data being collected is of high quality and thus should be used with other data sets in the area.

QA/QC – Sale region by Tammy Dawson (onbehalf of Greg Gilbert)

Sale region volunteers responded and scored well with their mystery sample results; next time round we will try to organize a group refresher training session or some one on one sessions to allow equipment to be serviced and updated. If volunteers are still in need of new solutions or suspect faulty equipment please give me a call to work something out. Overall job well done!



Latrobe Region Volunteers going through their paces