



Waituna Landcare Group celebrates World Wetlands Day

Ramsar, the international convention for the protection of wetlands, recognises February 2nd each year as World Wetlands Day. The Waituna Landcare Group has planned to have an event to celebrate our own internationally recognised Ramsar site, the Awarua/Waituna Wetlands, on Saturday 13th February 2010.

Come along and join us for the following events:

10.00am to 12 noon: Guided walks around the new Waituna Loop Track

Leaving on the hour and taking about an hour and a half, come and explore the 5km of wetland trail, through manuka shrubland, wire rush/dracophyllum peatlands, sphagnum bogs and past open water tarns. Enjoy a connection with the secretive little fernbird, if you're lucky.

12 noon to 2.00pm: Waituna Wild Foods Experience

Have you ever tried duck sausages, Canada goose meat patties, hare back strap, smoked eel, whitebait fritters, venison steak? All sourced from our area. Salads and home made bread to finish off the feast. \$10 entry fee per adult, children free.

1.00pm to 4.00pm: Helicopter flights over the Awarua/Waituna Wetlands.

Ask those who tried this at the 2008 Fish and Food Day – it's a buzz! When you get in the air you suddenly realise the enormity and wonder of the magnificent wetlands right on our back doorstep.

10 minute flights – \$40 per person. Bookings essential, payment on booking. Contact Janice Kevern, 239 5095 or Nick Round-Turner, 239 5246.

(Cancellation on radio if weather is terrible – payment will be refunded.)

Waituna Landcare Group

Want to know more about it?

Want to join?

Call **Janice Kevern** (Chairperson): 239 5095

Waituna Wetlands Photo Competition

This will be held in conjunction with Waituna World Wetlands Day Celebration, 13th February 2010.



Great Prizes

Adult 1st Prize 20-minute helicopter flight for two over the Awarua/Waituna Wetlands from Bluff to Fortrose Estuary (value \$375).

Secondary and Primary 1st Prize 6-minute helicopter flight for two over Bluff township and harbour (value \$100).

Runner up prize for all three sections: DOC Hut Pass (value of \$60). Spot prizes also.

Historic Photo Competition. Got some photos of days gone by on Waituna Lagoon? Prize for best photo: book *New Zealand Wetland Birds and their Environment* by Geoff Moon.



Photo specifications: Standard 6x4 size photo.

Electronic copy of 2MB+ quality needs to be available.

WLG retains the right to use the photo for publication, with credit to the photographer.



Closing date: Friday 29th January 2010

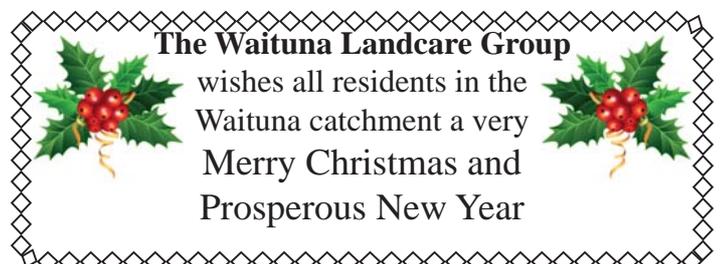
Entries, including name and contact details (phone number and/or email address), to WLG Chairperson, Janice Kevern, Kapuka South Rd, RD 5, Invercargill 9875 or drop them in to Nick Round-Turner at Venture Southland, 143 Spey Str, Invercargill.



Fifteen entries from each section will be selected for a Waituna Wetlands Display at the Southland Museum from the 5th through to the 28th of February 2010.

The Waituna Landcare Group

wishes all residents in the Waituna catchment a very Merry Christmas and Prosperous New Year



Waituna Lagoon – a renowned fishery

by Zane Moss, Southland Fish & Game

Early season fishing

As you probably know, Waituna Lagoon is a very popular trout fishing destination for many Southlanders. In fact the popularity of 'The Lake' continues to increase, with Fish & Game surveys now indicating that Waituna receives approximately 1800 angler visits a year. This makes trout fishing by far the most popular use of the wetland.

Some people consider that you need to be more hardy than most to fish the lagoon, with its frequent blustery westerlies! However, the widespread ownership of three and four-wheeled motorbikes has enabled comparatively easy access to the "breakout". This is the area where the lake opens to the sea, and is the most popular spot for fishing.



Long time fisherman of Waituna Lagoon, Roger McNaughton, with a fine catch at the beginning of the season.

At the start of this fishing season, the 1st of October, the lagoon was open to the sea, and in the days leading up to the opening Fish & Game received numerous calls from excited anglers. On opening day word had obviously spread that there was good fishing the previous year, because there were well over fifty fishermen there chasing 'the big one'. Good numbers of trout were caught and reports of good fishing have continued, even though the lagoon has now closed to the sea.

Trout spawning

As part of Fish & Game's management responsibilities we carry out annual spawning surveys on the Waituna tributaries. As all of the trout from the Waituna system spawn in these tributaries it allows us to closely monitor trends in the population. This allows us to adjust any regulations that influence harvest if this is required, such as reducing the bag limit. Also, any significant reduction in the population may be a sign of a decrease in the health of the lagoon ecosystem.

When spawning, between May and August, brown trout swim upstream into the lake's tributaries. The female trout then forms a "redd" in which to lay her eggs. Redds are formed by the female thrashing her tail while on her side, using the force of the water to displace the gravel. In the pocket that forms she lays her eggs. The male then adds his contribution, before the eggs are buried and protected by the surrounding gravel.

Trout choose a place to form their redds which has suitable gravel available and suitable current to carry water down through the gravel and supply oxygen to the eggs. This is generally at the head of riffles. Unfortunately, if stock are allowed access to the creek, these places



Typical trout redd in Maher Creek

tend to be where they choose to cross. This can crush the eggs, with the broken eggs becoming infected, causing the death of the other eggs. Fortunately, most of Waituna's tributaries are fenced to prevent stock access so this is not as big a problem as it is in many other Southland streams.

The amount of fine sediment that enters the stream can be lethal to the survival of trout redds. Sediment that finds its way into the stream from bank erosion or farm runoff can clog up the redd and prevent oxygen reaching the eggs and therefore suffocate them.

An increasingly significant issue in some stretches of the Waituna Stream is the amount of gravel available for trout to form a redd. Unfortunately, after over 50 years of stream 'cleaning' and the unavoidable removal of some gravel with the fine sediment, some stretches of the Waituna Stream now have too little gravel for trout to form a suitable redd. This leaves their eggs vulnerable in a flood event, and reduces their survival.

Environment Southland have recognised this issue, and have conducted a preliminary replenishment of gravels in one stretch. In this stretch (and many others) as a result of cleaning operations the stream bed had been lowered to well below the original design depth. This allowed the addition of approximately a foot of gravels without impacting on the drainage outfall of the landowner. Monitoring of spawning in this section shows that trout use has increased significantly since the addition of the gravels. These gravels are an important part of the stream ecosystem, and it is planned to extend this work in the future. If anyone is interested in replacing lost gravels through a section of stream on their property they should contact either Fish & Game or Environment Southland to discuss options.

Fortunately, despite concerns about water quality in the lagoon, record numbers of trout redds were recorded during this year's survey, indicating that over 3000 trout spawn in the Waituna catchment. If you don't normally fish yourself you should consider having a go down at Waituna, or the lower Mataura. Both are handy and interesting places to visit for a change of scene from the farm!

Waituna's Lignite Resource

by Mike McConachie

L&M Lignite Ashers Waituna Limited (L&M) have been undertaking background environmental monitoring in the Ashers Waituna area.

The objectives of the study are to better understand surface and groundwater movement and quality in the area of the lignite deposit. To achieve this, L&M has commissioned scientists and technicians from the consulting firm MWH New Zealand Ltd to monitor and assess aspects of the surface and groundwater systems.



L&M staff undertaking monthly checks on well levels.

The study is ongoing and has required the installation of a weather station, stream gauging station and numerous automatic water level recorders in boreholes throughout the area to monitor seasonal fluctuations in stream and groundwater levels. Monthly field visits by a technician allow the recorders to be read and additional data, including water samples, to be obtained. Data are being openly shared with Environment Southland and other interested people.

The weather station data can be viewed at www.envirodata.co.nz. The user name and password are both "ashers".

Data are automatically uploaded daily to this web site.

In August drilling was carried out at five sites (in the road reserve) to improve the understanding of the underlying geology, the lignite resource and aspects of the groundwater system.

Additional drilling will shortly be carried out at two sites to carry out detailed hydraulic testing to further enhance understanding of groundwater movement in the area.



Drilling on Caesar Road, August 2009

Anyone interested in further information about the study can contact David Manhire of L&M on 03 377 0045.

Stream Maintenance – A Necessary Evil

For those of us farming in the Waituna Catchment with open drains or streams running through our properties, keeping those waterways flowing and low is an important part of our farm management.

Most of the main Waituna Stream and its tributaries, the Jordan, Armstrong and Maher Creeks are cleaned three yearly under the Regional Council's Catchment Management programme, for which there is a special rate.

This cleaning is done in the autumn before the trout start heading up the streams for spawning. However, unfortunately for our native fish, which are not so nomadic and find the weeded up waterways just to their liking, any mechanical cleaning like this means a loss of the population.

For a 400m stretch of the Maher Creek cleaned out in April this year there were around 30 each of kokopu and eels returned to the waterway from the cleanings in the paddock. Some of the eels may have managed to get back to the water, but for the kokopu, our native trout and a threatened species, there is little hope of survival.



Sediment must be removed from our waterways to maintain drain outfall

So, if you are undertaking ditch or stream cleaning how about helping nature along by trying the following:

- Don't clean out the whole stretch in one go. By undertaking the cleaning of a length of stream in sections this allows somewhere for the fish to move to, as well as the downstream weed absorbing some of the sediment.
- Follow the digger and return any fish you find back to the waterway.
- Careful spraying with glyphosate can reduce weed build up and the need for regular mechanical cleaning. Move upstream while spraying.
- Plant your riparian strip on the north side with natives to shade the stream and reduce weed growth over time. Species like *Carex secta* and toe toe provide overhanging vegetation which give fish a cool sheltered area to live in, but these species will not cause bad obstruction to your waterway. Avoid using flax, which can fall into the waterway causing blockages that have to be cleared.



On a hot sunny day this juvenile eel is unlikely to find its way back into the stream after being scooped out by the digger.

What's Been Happening in our Catchment?



Sheep in lee of bush

Remember that windy weather? Here two farms have kept native remnants, which provide great shelter on those windy, cold days.



Calves in shelter of manuka



Drain pipe going in the ground – an essential part of farming in our catchment, especially on the organic soils. Keep track of where those drains go to make future maintenance easier.



The opening of the lagoon – breaking the sand barrier. Opened in July, closed in September. Collecting nutrients now, so please try to keep them on your farm – better growing grass there than algae in the lagoon.

Waituna Walking Track – walk it this summer. Pictured below right are DOC staff next to one of the many tarns that can be seen from the new track. *L to R*: Polly (Community Relations – Awarua/Waituna Wetlands), Ellie (SIT summer student studying land uses in the Waituna Catchment) and Stan (overseer of track construction). Below left, WLG member Brian McFaul helps Dave (DOC) spread gravel on the track. Although there is still some minor work to be done, the track is now open to the public.



Wasteland or Wetland?



This spring WLG gained a grant from the Community Conservation Fund to undertake a major restoration project in the disused gravel pit at the corner of Waituna Lagoon Road and Hanson Road. Next year work will begin on restoring the gravel

pit – converting wasteland to wetland. The focus will be on largely letting nature do its own thing, with a little bit of help from her friends!

Weed control will be the main issue, although plantings of flax and cabbage trees are also planned. Being hardy plants, they will survive the less than favourable conditions. The water level will be raised slightly to encourage wading birds into the area.

Already there are over 50 native plant species present and skinks have been recorded on site. Jointed wire rush (*Apodasmia similis*, formerly *Leptocarpus similis*) or oioi, which is the main vegetation around Waituna Lagoon, has naturally reintroduced itself to the old gravel pit (see picture above).

Black hard fern (*Blechnum nigrum*) found in the marshy areas of the gravel pit (see picture at right) is rarely seen across the Southland Plains, although it has been recorded previously in the Waituna area.



Share Your Views

Katrina Robertson, Environment Southland's Land Sustainability Officer for the Awarua Waituna Catchment, says...

Recently you may have received a survey from Environment Southland and The Department of Conservation. The purpose of the survey was to give you an opportunity to share with us your values, uses and concerns about water quality in the Waituna catchment, what you would like to know more about and where we can be of assistance to you.

The closing date for the prize draw for returning your survey early has now passed but if you still have a survey sitting in your to-do pile we would very much appreciate it if you could send it back in the postage paid envelope provided. If you have any questions about the survey please don't hesitate to contact either Roger Hodson or myself at Environment Southland (phone 211 5115).

Waituna Waterways is published by the Waituna Landcare Group.
For story ideas or additional copies, please contact Gay Munro (Newsletter Editor): 239 5827.