

Welcome back to 2015

It seems unbelievable that I have now completed 10 years in my current role as Education Officer here at the Council. In that time I have visited, hosted and hopefully supported teachers at virtually every primary, intermediate and secondary school in our region. In addition, I am having greater involvement with early childhood centres and tertiary institutions, which I really enjoy. Taranaki teachers are known to be 'right up there' when using modern educational practices, to provide their students with exciting inquiry-based opportunities to learn. Last term I was involved in two environmental investigations by students in north Taranaki schools.

One student, decided to make a film as part of her investigation into the freshwater quality in Taranaki streams. Her study involved interviewing and filming a variety of people about their views on that subject. Her choice of interviewees was interesting and involved a landowner, a fisher, a surfer and myself. Another student focused her study on the quality of our coastal waters and in particular what part stream and river health had in determining that. We were able to produce an accurate assessment of a New Plymouth stream, providing the student with useful information as part of her overall investigation. These kinds of insightful activities are obviously part and parcel of many innovative classroom programmes. Studies like these represent high quality learning and on both occasions it was the students, with the clear support of their teachers, who made the initial contact with me.

You will recall 'New Zealand Shakeout' in 2012, the highly successful nationwide earthquake drill involving more than one quarter of New Zealanders, including a very high proportion of Taranaki students. The Ministry of Civil Defence and Emergency Management (MCDEM) has announced that the nationwide drill will be repeated on Thursday 15 October this year. Every region in New Zealand experiences earthquakes and none is safe from them or from other local hazards. Having a definite plan to handle an emergency, while not necessarily preventing it from happening, gives everyone a better chance of lessening its damage, reducing the possible injuries and the potential loss of lives.

Term one is traditionally our rock pool season and this year looks to be no exception. If you are contemplating a rock pool study and seek my support, please contact me as soon as possible as many bookings have already been made.

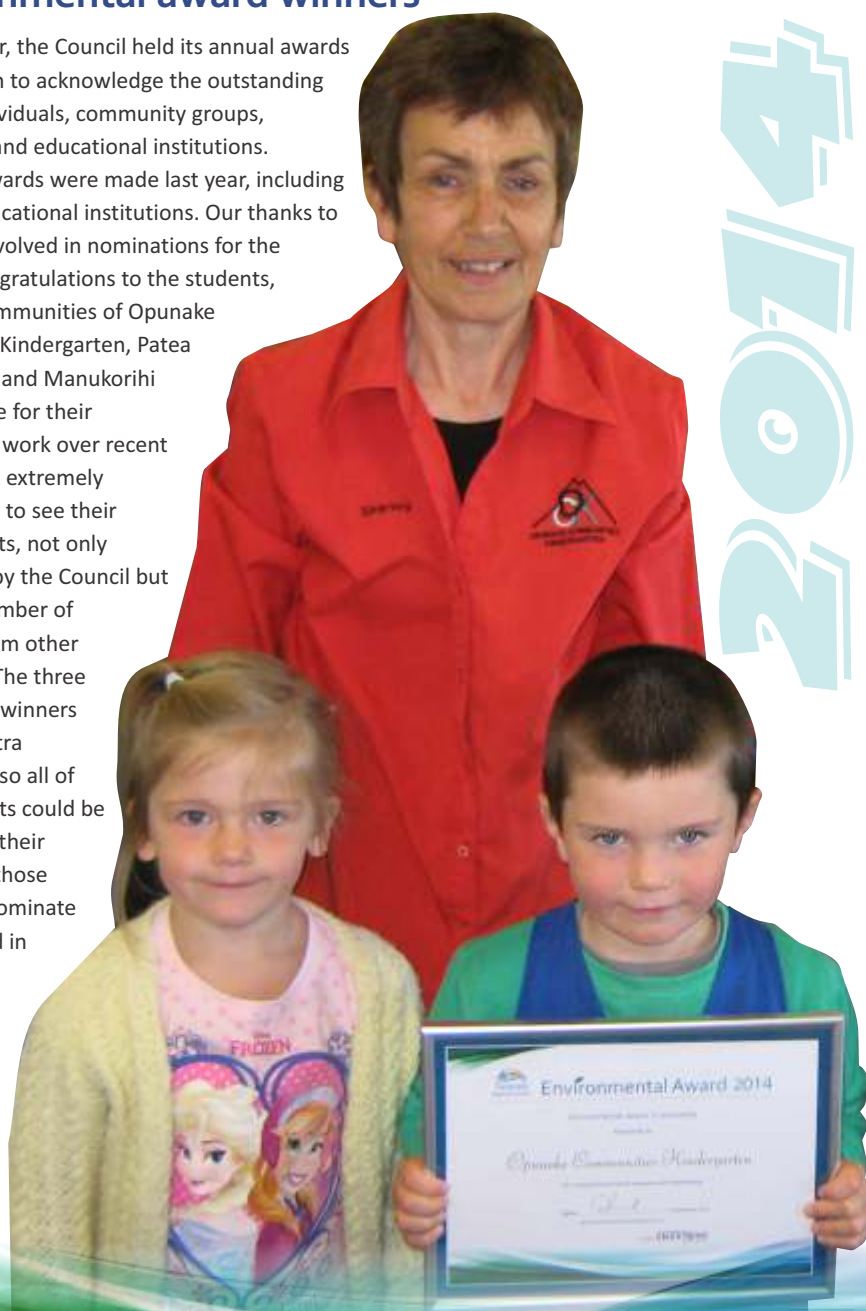
Have a great term everyone.
Kevin

Peringa Park wetlands and Lake Rotomanu

The focus of this newsletter is the Peringa Park wetlands and Lake Rotomanu in the Fitzroy area of New Plymouth. A visit to this area is a useful addition to any wetland study.

Environmental award winners

In November, the Council held its annual awards presentation to acknowledge the outstanding work of individuals, community groups, companies and educational institutions. Fourteen awards were made last year, including three to educational institutions. Our thanks to everyone involved in nominations for the awards. Congratulations to the students, staff and communities of Opunake Community Kindergarten, Patea Area School and Manukorihi Intermediate for their outstanding work over recent years. It was extremely encouraging to see their achievements, not only recognized by the Council but also by a number of sponsors from other categories. The three educational winners also held extra ceremonies so all of their students could be thanked for their efforts. For those looking to nominate for an award in 2015 the closing date will be the end of August and the awards will be presented in late October.



2014

Opunake Community Kindergarten wins Environmental Award.
The photo above shows Shirley Dons of the Opunake Community Kindergarten with students Leah Martins and Angus Heaps at their special environmental award assembly in November.

Fun in Fitzroy

Lake Rotomanu

Lake Rotomanu is a popular recreational spot. Taranaki families and other visitors regularly dot the shoreline of the lake for picnics and family fun. It is a perfect location for water skiing as boat access is easy. Many waterfowl have chosen the lake as their habitat. Its water is replenished occasionally from the Waiwhakaiho River and from naturally cleaned water from the nearby Peringa Park wetlands.



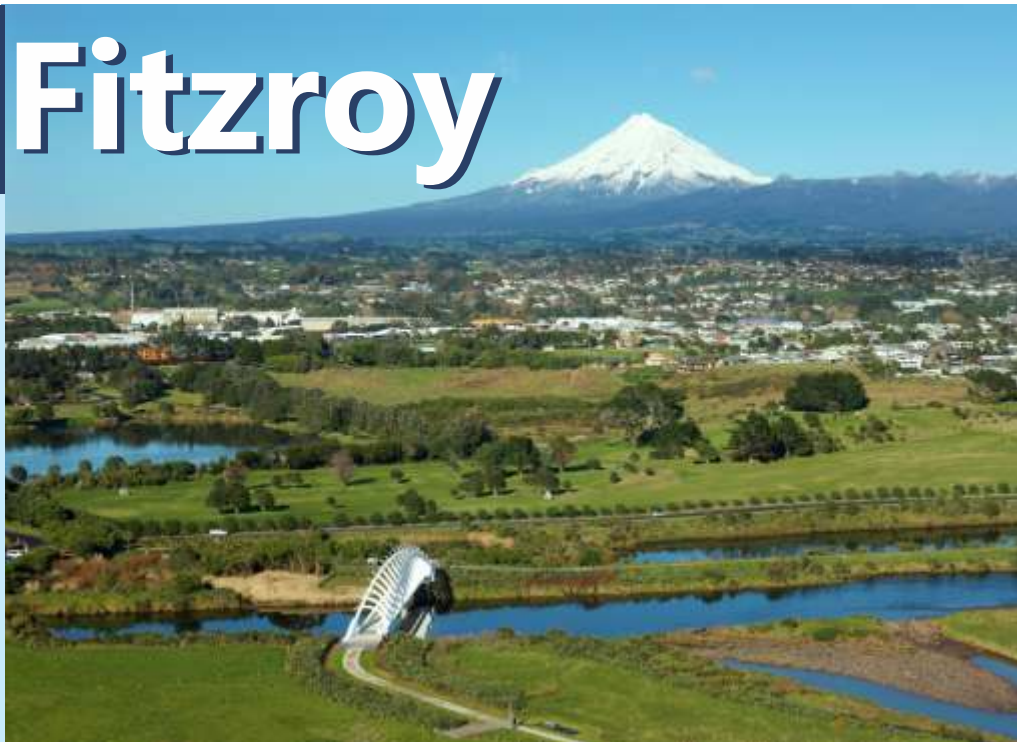
Te Rewa Rewa bridge

The Te Rewa Rewa bridge across the Waiwhakaiho River is a stunning piece of architecture on the New Plymouth Coastal Walkway. It has been recognised both nationally and internationally for its structural and aesthetic qualities. Many school groups, when visiting the wetlands and the lake, include a walk across the bridge as an exciting extra activity.



Council assistance

1. Download the wetlands study unit from our website www.trc.govt.nz/education or contact Kevin for a hard copy.
2. Invite Kevin to support your wetlands study in any of the following ways;
 - A PowerPoint presentation about wetlands, their history, their future and their importance to our biodiversity.
 - A wetland removal/bird migration game which demonstrates what happens to migrating birds when one, some or all of their wetlands resting and feeding places are removed from their migration flight paths by human actions such as drainage, urban development, drought, fire, floods, predation of birds, diseases etc.
 - An 'ecosystem' class activity which is called the web of life which shows how ecosystems work and what happens when a key component such as water is removed.
3. Invite Kevin to host your class on a visit to the Peringa Park wetlands and surrounding area.



Peringa Park wetlands

In 2008, the Peringa Park wetland area was created alongside New Plymouth's popular Lake Rotomanu near the mouth of the Waiwhakaiho River, in an effort to protect the lake's water quality. A series of public working bees were held, the initial ones mainly involved the clearing of non-wetland native vegetation. Subsequent working bees resulted in the planting of hundreds of suitable wetland plants and the majority have thrived in that environment.

The wetland provides natural cleaning for much of the stormwater from New Plymouth's suburb of Fitzroy. Wetlands have many benefits. They act as natural water filters by trapping sediments in their soil and plants. The wetland plants also take up nutrients in the water. These processes help to ensure cleaner water flows out the other side, into Lake Rotomanu.

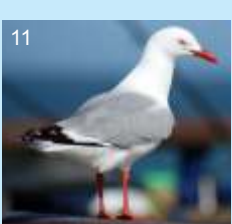
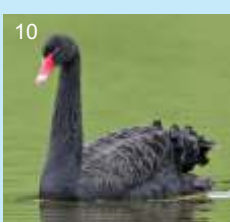
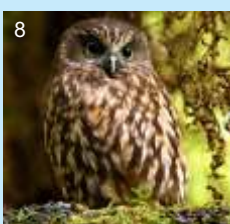
In addition, fish life, including shortfin eels have recently been sighted there. Fitzroy's St John's Bosco School has a particular interest in the area, as the school, along with several councils, various community groups and an army of interested individuals, was heavily involved in the establishment of the wetlands.





Wetland birds

Below are 12 photos of New Zealand birds, six of them are birds we often associate with wetland habitats and the other six we usually don't. List the six wetland birds and if possible say where we are more likely to see the others.



Watery puns

For those who don't know, a pun is a humorous use of words to suggest a different meaning. They are sometimes called 'plays on words'. See if you can firstly spot the 'watery puns' in these sentences and secondly (if you wish) work out the true meaning of the sentences.

1. "Have you been flooded with hundreds of answers to your question?" asked the student.
2. The man came home from work feeling completely drained from all the tasks he had not managed to complete.
3. The manager was feeling completely bogged down as everyone seemed to want her attention at once.
4. The exhausted teacher was swamped with work as all 35 of her students wanted her to mark their stories at the same time.
5. The supervisor was basin' all of his problems on the mistakes of his workers.
6. The neighbour watered down his complaint when he heard the reason why the young lad had climbed over his fence.
7. There was a long stream of bicycles crossing the bridge at once.
8. The burglar felt that his friend had sold him down the river when he told the police what actually happened during the burglary.
9. The lady said that her son was a nice lad but was still wet behind his ears.
10. World War two is sometimes referred to as a watershed event because of its impact on history.



Monster wetlands

Listed below are 10 of the largest wetlands in the world. See if you can match the wetlands with the country or countries they can be found in which are:

India, USA, France, Indonesia, South Africa, Australia, Vietnam, Bangladesh/India, Botswana, Brazil/Bolivia/Paraguay

1. Wasur National Park
2. Isimangaliso Wetlands
3. Mekong Delta
4. Kakadu Wetlands
5. Kerala Backwaters
6. Florida Everglades
7. Okavango Delta
8. Sundarbans
9. Pantanal
10. Camargue

Maori - English word

The list below consists of 10 Maori words which are linked to wetlands in some way. See if you can match the equivalent words in English:

swamp hen, cutty grass, flax, cabbage tree, fern bird, white heron, bulrush, swamp, eel, white pine

1. Matata
2. Ti Kouka
3. Raupo
4. Kotuku
5. Harakeke
6. Pukeko
7. Repo
8. Kahikatea
9. Toe Toe
10. Tuna

True or false

Five of these sentences are true and five are false, as it pays to be fair. See if you can work out which ones are true and which ones are false.

1. Wetlands are habitats for a variety of animals and plants.
2. Swamps, bogs, deserts and estuaries are all good examples of wetlands.
3. Freshwater marshes are more common than saltwater ones.
4. If you were to walk into a swamp you would probably drown in quicksand.
5. Israel is a very dry country which has absolutely no wetlands whatsoever.
6. Wetlands often provide animals with food, water and shelter.
7. In New Zealand it is quite likely that you will see frogs, mosquitoes, dinosaurs and ducks when you next visit a wetland area.
8. During migration, birds like to 'refuel and rest' at wetlands while on their journeys to their summer habitats.
9. If you drain a wetland you could cause an animal to become extinct.
10. Wetlands help clean the water so it is always safe to swim in them.





Pest information at Inglewood Primary

Council Environmental Officers Mark Nickel and Sean Gardiner talk to students from Inglewood Primary about the pest animals that cause so much harm to our native flora and fauna.

Pukeiti Explorer Family Day



This interested group of people are having a fun time identifying aquatic invertebrates at the last of the Pukeiti Explorer days for 2014 which was held on Sunday 6 December. Thirty seven keen attendees, including 23 mothers, fathers, grandparents and neighbours spent the day in a series of activities based around water quality and freshwater fish. Pukeiti Explorer Days are part of the Regional Gardens Education Programme (see right) and are not part of The Rainforest School programme which is especially designed to cater for school groups visiting Pukeiti.



Regional gardens public education

The Council facilitates a number of public education sessions at its three regional gardens. All sessions are suitable for family groups and everyone is welcome to attend. Coming up are:

PUKEITI

Sunday 1 February - 10:30am

A 3-hour guided walk to the Puketewhiti summit

TUPARE

Friday 6 February

Guided walk at 8.30am, garden fair from 10am and house tours from 11am

HOLLARD GARDENS

Sunday 1 March - 10am to 3pm

A celebration of International Children's Day with kids' activities and family fun

HOLLARD GARDENS

Thursday 16 April - 10am to 12pm

School Holiday Programme with the Bug Man, Ruud Kleinpaste

PUKEITI

Sunday 22 March - 10.30am

Puffer Fun Run

Further information on the above and other sessions can be found at

www.trc.govt.nz



This and that

Bumper sticker competition

In the last issue of SITE we held a bumper sticker competition to write a slogan to raise public awareness of our most serious animal pest, the possum. As it transpired, the competition proved to be a bonanza for Francis Douglas Memorial College as three of its students took out all three prizes. The winning slogan was 'Where there's possums, there's no blossoms'. Many thanks to all who participated.

Special environment days

- **World Wetlands Day** - Monday 2 February
- **Go by Bike Day** - Wednesday 11 February
- **Sea Week**
Saturday 28 February to Sunday 8 March
- **International Day of Action for Rivers**
Saturday 14 March
- **International Bird Migratory Day**
Sunday 3 May
- **Rainforest week**
Sunday 11 October to Saturday 17 October

Professional development for teachers

Sessions coming up soon

The Rainforest School at Pukeiti

Thursday 12 February

4.00pm - 6.00pm

Carrington Rd, New Plymouth

Rocky shore

Wednesday 18 February

4.00pm - 5.30pm

Bayly Rd (Cape Egmont) Lighthouse, Rahu

Thursday 19 February

4.00pm-5.30pm

Kawaroa Reef, New Plymouth

See the inserts for more details.



Francis Douglas Memorial College investigate the Huatoki Stream

In November, a class of enthusiastic students from Joan Coles' Y 10 class spent a morning assessing the water flow, pH, stream-bank vegetation, stream-bed composition, water temperature, conductivity and clarity of the Huatoki Stream at a site near the Huatoki tennis courts. The lads enjoyed all of the activities, especially wading into the riffles to firstly capture and subsequently identify the invertebrates living in the stream. They used all the gathered data to assess the stream health at the site. The intention is to keep the collected data for comparison this year with the water quality of the same river but at a different site. Great idea!

Answers from page 3

1.True 2. False 3.True 4.False 5. False 6.True 7.False 8. True 9.True 10. False. **Wetland Birds** The six wetland birds are fantails, pukekos, keruru, ducks, white-faced heron and black swans. **Monster Wetlands** 1.Indonesia 2.South Africa 3.Vietnam 4.Australia 5.India 6.USA 7.Botswana 8.Bangladesh/India 9.Brazil/Bolivia/Paraguay 10.France **Maori-English Words** Matata-fern bird, Ti Kouka-cabbage tree, Raupo-bulrush, Kotuku-white heron, Harakeke-flax, Pukeko-swamp hen, Repo-swamp, Kahikatea-white pine, Toe toe-cutty grass, Tuna-eel.

For assistance or information on environmental education contact:

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