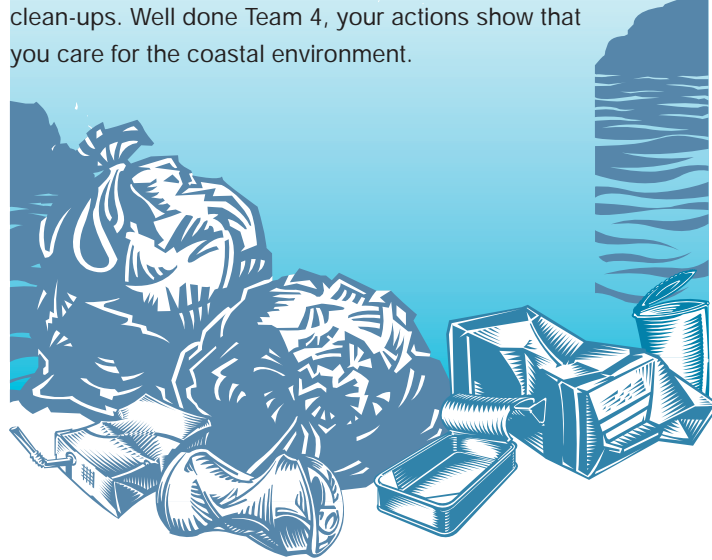


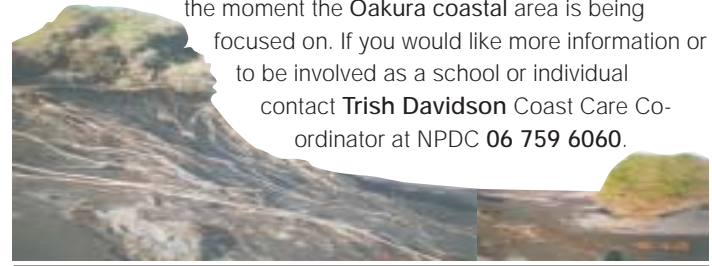
Devon Intermediate BEACH CLEAN-UP

Team 4 from Devon Intermediate cleaned up Fitzroy Beach recently as part of their coastal study. Not only did they complete an environmentally responsible activity by making the beach more attractive and safer for humans and marine life, they also provided the Taranaki Regional Council with some valuable data which has been sent to the National Sea Week co-ordinator to contribute to New Zealand-wide data on beach clean-ups. Well done Team 4, your actions show that you care for the coastal environment.



Coastal Care

Those people interested in actively protecting and enhancing their coastal environment may be interested to know of this new group. At the moment the Oakura coastal area is being focused on. If you would like more information or to be involved as a school or individual contact **Trish Davidson** Coast Care Co-ordinator at NPDC 06 759 6060.



Waitotara Sand Study

Children from Waitotara School took part in the most fascinating study recently and the topic was simply sand. As well as doing beach digs and a study of their own local sand, they also contacted schools all over New Zealand asking for a sample of their local sand. The response was fantastic and this turned into the most



STAFF MEETINGS

If you would like to know more about Environmental Education for Schools in Taranaki, contact Paul Radich at the Taranaki Regional Council 06 765 7127.

Presentations take a maximum of twenty minutes and give a useful insight into the rationale behind environmental education and what Taranaki Regional Council can offer. Recent feedback from teachers involved has been very positive.

MORE SITE

If you would like one copy of SITE for each classroom at your school instead of the standard issue your school receives, please phone or fax Paul Radich. You may also find it worthwhile to keep back-issues of SITE in your library or resource room for future reference.

Answers to Word Find

- 1 Bacteria 2 Landfill 3 PVC 4 Aluminium
- 5 Biodegradable 6 Compost 7 Recycling
- 8 Methane 9 Incineration 10 Ozone layer
- 11 Waste

NEXT S.I.T.E.

The next issue of SITE will focus on animal pests in the Taranaki region. This is an interesting topic which has a lot of practical applications across all curriculum areas. You may want to plan this for the third term as a major or minor topic

**Paul Radich - Information Officer
Taranaki Regional Council**

**Ph: 06 765 7127
Fax: 06 765 5097**



TARANAKI REGIONAL COUNCIL
NEWSLETTER TO SCHOOLS

Greetings,

It is now one year since I tentatively sent out the first S.I.T.E. newsletter and it is very satisfying to reflect on the progress made in the last 12 months. The willingness of Taranaki teachers and the belief that it is their responsibility to make the young people in their care aware of the environment they live in has been encouraging and the key reason for the success of the programme.

The summer term has been a busy one for me and certainly one of the most rewarding in my education career.

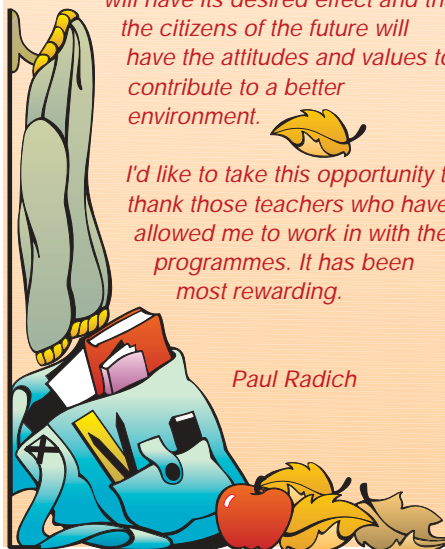
I have worked with over 1100 children in all corners of the region, from Uruti in the north to Waitotara in the south, Warea in the west and Matau in the east. Most studies have concentrated on the major focus for the term, the river, but other topics have been dealt with on request such as the coast, local geology and a sand study.

The most satisfying aspect of my work has been the feeling that environmental education does make a difference. Children are out there in the field taking action and responsibility for their environment and learning about environmental issues.

It is my belief that environmental education will have its desired effect and that the citizens of the future will have the attitudes and values to contribute to a better environment.

I'd like to take this opportunity to thank those teachers who have allowed me to work in with their programmes. It has been most rewarding.

Paul Radich



SITE

Schools in the Environment - Autumn 1998 - No.5

RECYCLING

With autumn leaves starting to fall and nature's great recycling process taking place, it seems an ideal time to study recycling.

Recycling is a stimulating study and offers many practical learning opportunities for children. This topic is also full of environmental education opportunities and relates well to science objectives from the 'Making Sense of the Material World' strand.

If you would like a unit of work produced by the Taranaki Regional Council about recycling and/or a classroom visit please contact Paul Radich at the Taranaki Regional Council.



Teachers and students from Moturoa School receive their environmental award from Taranaki Regional Council Chairman Mr Ross Allen.

Environmental Awards

Congratulations to Moturoa School on receiving an environmental award for their school planting programme. This is a fine example of children working toward enhancing their environment. Moturoa's was one of eight environmental awards given out by the Taranaki Regional Council recently.

River wrap-up

Hundreds of Taranaki school children got their feet and hands wet in local rivers in Term 1. They measured flow, temperature, turbidity and pH. The most exciting part, however, was looking for animals in the river.

Children were excited and surprised to find the invertebrate species living in the fast flowing water. As well as the usual invertebrates such as mayflies, stoneflies, caddisflies, dobsonflies (toe biters), worms and midges, children managed to find eels, fish and quite a few koura (fresh water crayfish).

Each field trip was a real success and complemented the work done in the classroom by the teachers.

Full credit to the Taranaki summer, not a single field trip had to be postponed.

The water will be cooling down now but if you require help with a river study at any time please contact Paul Radich.



Thomasina Maxwell and Christine Rosewarne from St Joseph's Waitara monitoring in the Manganui River

Recycled Wearable Art Competition

When 20th June 1998

Where
Spotswood College Hall

Judges
Dave & Nicky from Classic Hits
Mayors Stewart & Walter

Categories for all ages 5 and over

Prizes
1st & 2nd in each category
5-8 years all receive a prize

*Want to know more? Information & entry forms available from
Judy Atkinson 06 751 1994 Coral West 06 758 8708*

RECYCLING

Recycling provides individuals with an opportunity to do something positive for their environment.

This feature gives some information on recycling and recycling issues in Taranaki. Also included are some tips and advice on how you can contribute towards effective recycling and show you care for the environment.

Recycling in Taranaki

Taranaki's largest recycling plant is located at Waste Management's Katere Road depot in New Plymouth. Each month, 300 tonnes of recyclable waste from around the region are delivered to the site. Of that, 285 tonnes are successfully recycled and only 15 tonnes end up in the landfill.



Recycling Tip
Wash cans but don't worry about removing labels etc.




Steel Cans



Some paper collected in Taranaki is sent away to be made into recycled paper, for stationery
Paper that is mixed can be used to make egg cartons, kiwifruit trays and cardboard packaging.
It takes about 17 trees (2.5 tonne) to produce a tonne of newsprint, enough for 7000 newspapers.
To make one tonne of new paper requires 4750kW of electricity 440 000 litres of water and 2.4 tonnes of wood
To make one tonne of recycled paper requires only 2750kW electricity 1800 litres of water and no wood

 **Recycling Tip**
Sort paper for recycling, remove staples and paper clips

Aluminium Cans
Aluminium cans are a real winner when it comes to recycling. The cans are easy to recycle and use only 5% of the energy required to make primary aluminium. They are also a good fundraiser for your school.
About 15% of all aluminium produced is used for cans and packaging
A new can can be made of 95% recycled aluminium

 **Recycling Tip**
Put cans out for recycling or collect them as a school or community group. Crush them to save space

Why recycle?

Recycling saves **landfill space**. This reduces operational costs and the need to find new sites to locate them. For example, for every 140 million aluminium cans recycled, some 40 000 cubic metres of landfill space is saved.

Recycling saves **energy**. In most instances, making recycled products uses less energy than new products and creates less pollution to air and water. For example, making aluminium from recycled cans uses 95% less energy than making new aluminium.

Recycling saves using **raw materials** from our environment, many being non-renewable. For example, every tonne of aluminium recycled saves four tonnes of bauxite.

Recycling saves **money** through people buying products with less packaging, buying durable instead of disposable products and reusing items. You can also earn money from selling used products for recycling such as aluminium cans. For example you can earn around \$1.30 a kilo for used aluminium cans.

REDUCE Reduce waste as much as possible
For example: Reduce unnecessary packaging
Buy durable items
Buy only what you need

REUSE Reuse items to reduce pollution and conserve resources
For example: Use pots, takeaway containers, glass jars for storage
Repair broken items for further use
Borrow or hire items you don't use often

RECYCLE Support recycling programmes
For example: Use your council recycling system
Use other recycling options eg waste oil collection points
Buy recycled goods
Sort recyclables and avoid contamination

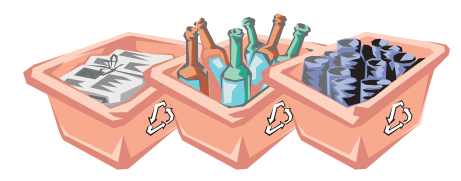
Hazardous waste

Hazardous waste includes materials that can harm people, animals, or the environment when stored, used, or disposed of. Some examples include batteries, pesticides, paint, oven cleaners, other chemicals (these need extra care, especially when being disposed of).

The three Rs of recycling still apply:
Reduce buy only what you need, use old stock first
Reuse give to someone who can use it safely
Recycle engine oil, car batteries, etc.

Disposal If you have to dispose of hazardous waste, do so safely. For example, never tip it down stormwater drains. These lead directly to waterways.

If you require more information on safe disposal of hazardous waste, contact the Taranaki Regional Council.



Composting is Great!

The contents of your rubbish each week include about 50% organic waste which can be composted. Composting is one of the most effective and environmentally sensible forms of recycling.

It **REDUCES** the amount of waste going into our landfills.

It **REUSES** kitchen and garden waste as compost in the garden.

It **RECYCLES** nutrients back into the soil, restoring the health and beauty of the environment.

For more information on composting and a free brochure contact Paul Radich at the Taranaki Regional Council.



compost ready to use
holes allow air to circulate


Incinerators - can be nasty


Although incineration can be a useful, cost-effective way of disposing of unwanted material there are some environmental considerations. Certain materials burnt in incinerators, especially at the wrong temperature, give off toxic fumes. These can be harmful to the environment and to people inhaling these fumes.

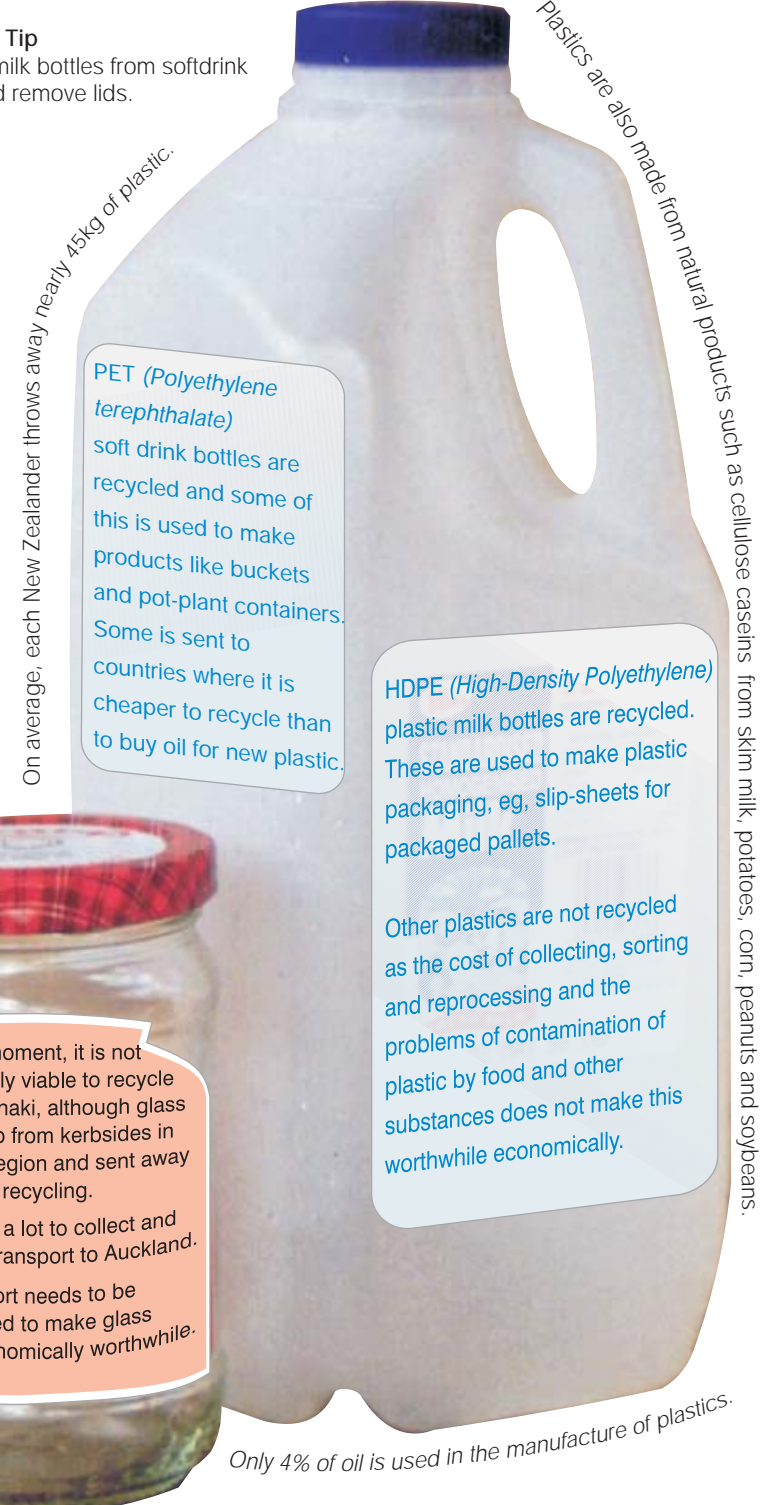
Not to be burnt in incinerators
Plastic, oil, rubber, textiles and chemicals should never be burnt in an incinerator. These fumes can be particularly harmful in the atmosphere, especially when children are around eg: school playgrounds.



Incinerator used for burning rubbish

 **Recycling Tip**
Separate milk bottles from softdrink bottles and remove lids.

 **Recycling Tip**
Lots of other things are recycled in Taranaki such as car batteries and waste oil and large pieces of steel.



On average, each New Zealander throws away nearly 45kg of plastic.

PET (Polyethylene terephthalate)
soft drink bottles are recycled and some of this is used to make products like buckets and pot-plant containers. Some is sent to countries where it is cheaper to recycle than to buy oil for new plastic.

HDPE (High-Density Polyethylene)
plastic milk bottles are recycled. These are used to make plastic packaging, eg, slip-sheets for packaged pallets.

Other plastics are not recycled as the cost of collecting, sorting and reprocessing and the problems of contamination of plastic by food and other substances does not make this worthwhile economically.

20% less energy is used to manufacture recycled glass.

At the moment, it is not economically viable to recycle glass in Taranaki, although glass is picked up from kerbsides in parts of the region and sent away for recycling.
Glass costs a lot to collect and process and transport to Auckland.
Transport needs to be subsidised to make glass recycling economically worthwhile.

Only 4% of oil is used in the manufacture of plastics.

Plastics are also made from natural products such as cellulose caseins from skim milk, potatoes, corn, peanuts and soybeans.