



Sand dunes are important

Sand dunes provide the sand reserve for our beaches. Although the dunes cannot prevent some sand from being washed away by direct wave action, they do reduce the impact that waves have on the foreshore and the amount of sand being removed. The sand dunes, by providing a natural buffer, absorb the worst of storms and as a result help protect the coastal land from erosion. Many sand dune plants are called sand binders because their roots are either deep or widespread or both. In addition some have the ability to trap sand in their leaves thereby preventing it from being blown away. Without vegetation the dunes become unstable and while some movement is natural, if it is allowed to get out of hand, the land protected by the dunes can be threatened.

So it is very important that people use designated access ways to the beaches, don't ride horses or bikes on the dunes and generally keep off them if at all possible.

Man-made sea walls

There is no doubt sea walls are an effective means of preventing erosion. They do stabilise the coast but can cause erosion at places beyond the ends of the walls. Depending on their design they can cause the loss of sand from any beach in front of the structure. In addition, their presence can remove the natural habitat of many insects and birds. Conversely, when constructed in a way that does not detract from the beauty of the area, coastal structures can bring other benefits from a recreational point of view.



★ The Taranaki Regional Council samples marine water quality at our popular bathing beaches regularly throughout the summer. The Ministry of Health has set guidelines for water quality and happily Council results show that generally our beaches are safe for bathing.

★ Our coastal environment is being used more and more for recreational purposes. Activities such as walking, fishing, surfing, kayaking, windsurfing, shellfish gathering and boating are common recreational pursuits.

★ Taranaki's black iron sand originates from volcanic material from Mt Taranaki that is washed down our rivers or is a result of coastal erosion or worn down from cobbles on the foreshore.

★ Our coast is eroding as a result of many factors including the clearing of vegetation, the changing of natural contours, our strong winds and of course the natural action of the sea.

★ Sand is made up of many components depending on its origin. It can be made from biological material that was once part of a living animal or plant such as broken shells, algae skeletons, crushed worm tubes, crab claws, fishbones, and even shark's teeth.

★ The Waitara River is the northern most river in Taranaki that delivers sand to the coast. Rivers further north drain mudstone country and don't contribute material to the foreshore. The sand on Urenui, Onaero and Wai-iti beaches has drifted north from other areas.

★ The Council's Regional Coastal Plan was prepared under the Resource Management Act 1991. Its overriding purpose is to control activities and promote the sustainable management of natural and physical resources in the coastal marine area.

★ Our coastline has many different types of features including rocky shores, sandy beaches, sub-tidal reefs, river mouths and estuaries.

★ The Taranaki Regional Council has responsibility for maintaining and enhancing water quality in the coastal marine area up to 22 kilometres offshore.

★ Huge volumes of sand are carried away from our region every year. This sand is not transported in trucks but is taken away in strong sea drifts both to the north and to the south. As a result some of our sand has been found as far away as Manawatu in the south and as far north as Northland.



The natural beauty of the coast must be protected?

The coastal environment is very fragile and it is important that the natural character of our coastline is preserved and protected from inappropriate subdivision, use and development. History has told us that when natural beauty is artificially removed it is very difficult to retrieve. Activities in the coastal area are controlled to protect amenity (beauty), recreational and landscape values, natural areas of vegetation and habitat, and to prevent accelerated erosion and loss of recreational opportunities.



Jumbled activities

See if you can unjumble the letters to form words describing popular coastal activities.

- rusinifgwd
- thcaygni
- iimmngws
- terwa iiksng
- uaiscngfrst
- vdingi
- eiijktsng
- sae kkaainyg
- nus tgbahin
- oiagntb

Coastal Quiz

- How long is 90 Mile Beach?

- Including all harbours, estuaries, inlets, sounds and fiords, how long is New Zealand's coastline? (to the nearest 1000 kilometres)

- What is the major difference between a breakwater and a groyne?

- NZ has the longest natural sandbar in the world. What is its name?

- What famous English explorer referred to our region's coastal area as 'the desert coast' after seeing all of the black sand.

- What is the name of the popular swimming beach situated within the waters of Port Taranaki?

- Name New Zealand's most colourful native sand dune plant. Clue - t starts with p.

- What South Island tourist attraction is thought to be the world's highest sea cliff?

- Where is New Zealand's northern most seal colony?

- Wai-iti Beach has tree stumps that are sometimes exposed at low tide. What does this show?

Coastal crossword

Across

- Type of shellfish
- A sea wall acts as a land __
- Steep rock face
- Influences tides
- Sea fish
- A tsunami is a __ tidal wave
- Sandy areas on the coast
- Marsh plants
- Native fish
- Sea colour (fr)
- Tidal mouth of a river
- Golden __
- Natural process
- Sea shore

Down

- Large seaweed
- Sea inhabitants
- Coastal bird
- Large stones
- Of tide(s)
- Beach area
- Solid material
- Waves
- Not man-made
- Dune plant
- Small wharf
- Taste of sea water
- Wave movement
- Brings warmth
- The tide is __

Coastal posters

Design a poster with a clear message showing you care about the coast. If you think you have a really neat one or two or three, please let us know and we'll pop in and take a photo of it or them for possible inclusion in the next issue of SITE. If you can write your own caption that would be great, alternatively you might like to use one of these.

*Plants Protect Dunes - Feet Kill Plants
Signs Show The Best Way To The Beach
Motor Bikes Are For Roads Not Dunes
Protect The Fragile Dune Plants
Surf The Waves - Not The Dunes
Fences Protect Plants
Hooves Damage Dunes
Don't Rubbish Our Beaches*

Mix 'n' match

See if you can match the Maori words on the left with their English meanings on the right.

1 rimurimu	A river
2 awa	B wave
3 ngaru	C sea urchin
4 pohutukawa	D NZ Christmas tree
5 koura	E sea shore
6 one	F seaweed
7 tatahi	G beach
8 kina	H fish
9 moana	I crayfish
10 ika	L sea





Taranaki Regional Council Chairman Mr David Walter presents a plaque to children from St Josephs (Waitara) School at a recent award ceremony. This school has been involved in riparian planting for five years at various sites close to the school. Well done St Josephs (Waitara).



We enjoy hosting all sorts of groups to the Council and it is most pleasing to see more school groups visit us whether it be to view the aquarium and/or listen to our entertaining pest management officers outline our pest management programme or to involve their children in the information-gathering session we offer in our display room. We have sets of questions pitched at all levels and the feedback we have received so far has been positive in terms of children's enjoyment and data gathered for research purposes.

With transport costs a major consideration, some schools are including a visit to us to go with a visit to another place of interest. This obviously takes some extra organisation but I am sure the end results are well worth the effort.

Please get in touch with Kevin Archer if you wish to have your class participate in any of these programmes.



Science Fair

The annual Science Fair will be held at the Pukekura Raceway Complex from 31 July to 2 August. The Taranaki Regional Council will once again be a sponsor by providing prizes for the top three entries which show an aspect of environmental science.

Conservation Week 7-13 August

The Department of Conservation is running a poster competition using the theme of 'Moods of Mt Taranaki'. There are three sections covering ages 5, 7, 8, 10, and 11-13 with the winners of each section receiving a \$50 prize. All entries need to be sent by 18 August to either the Percy Thomson Art Gallery, Miranda St, Stratford or to the Department of Conservation, Stratford Area Office, RD 21, Stratford.

Clean up New Zealand

This very worthwhile campaign runs begins on Monday 18 September. It is co-ordinated by the district council in your area and we at the Taranaki Regional Council fully support it. Should you wish to carry out a 'stream clean up' please contact Kevin Archer.



Answers from page 3

CROSSWORD: Across: 1- whelk, 5- retainer, 7- cliff, 9- moon, 10- cod, 11- huge, 13- dunes, 16- reeds, 18- eels, 20- azure, 22- estuary, 24- bay, 25- erosion, 27- beach. Down: 2- kelp, 3- fish, 4- seagull, 6- tidal, 8- foredunes, 9- mudstone, 12- breakers, 14- natural, 15- spinifex, 17- jetty, 19- salty, 21- surge, 23- sun, 26- in.

QUIZ: 1-Ninety Mile beach is only 55 miles or 88 kms long. The origin of the name is not known. 2-Over 18 000 kms. 3-The major difference is in their size. A breakwater is really a very large groyne. A breakwater is often associated with a reclamation of land within a harbour or marine area. A groyne is a small feature extending down the foreshore and possibly into the water. 4-Farewell Spit. It is located at the northern tip of the South Island. 5-Captain James Cook. 6-Ngamotu Beach. 7-Pingao. 8-Mitre Peak. 9-Around the Sugar Loaf Islands off New Plymouth. 10-It shows that this area of the coast was once part of an ancient forest.

WORD JUMBLE: 1- wind surfing. 2- yachting. 3- swimming. 4- water skiing. 5- surfcasting. 6- diving. 7- jetskiing. 8- sea kayaking. 9- sun bathing. 10- boating.

WORD MATCHUP: 1-F. 2-A. 3-B. 4-D. 5-I. 6-G. 7-E. 8-C. 9-L. 10-H.

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SITE

Schools in the environment newsletter

Welcome back

This is the time of the year when the Council's riparian management programme really takes off as farmers take delivery of thousands of plants to plant in places adjacent to waterways.

It is wonderful to see the involvement of more and more schools in these planting programmes. The children are always enthusiastic and often express their gratitude to their teachers and the landowners concerned. As we all know the environment is ignored at our peril and to involve the young in its care is a very sensible and purposeful course of action. If you see a possible involvement with your class or school for next year please let me know.

Next term's professional development session will be held on Thursday August 13. It will be organised by the Ministry of Civil Defence Emergency Management and will focus on the 'What's The Plan Stan?' resource kit which all schools have been issued with. It is very important that all schools are represented at this course.

Unfortunately insufficient registrations resulted in us cancelling our 'What's in our rivers' session in term two. We welcome any suggestions on how we can improve the programme and are currently working with teachers and principals to look at other ways to involve teachers in future professional development sessions.

The Youth Environment Forum was a big success. Our three representatives Alexandra Masters (NPGHS) and Sarah Peel and Harriet Kingston (Inglewood High School) spent the week mixing with other environmentally minded students, listening to presentations from different groups and organisations as well as taking part in project work. Without doubt they learned a great deal about environmental issues facing New Zealand, how education plays a major role and just what can be learned from hearing how others deal with issues in their regions.

The number of people receiving this newsletter continues to grow. If you no longer wish to receive SITE please let us know and we will take your name off our mailing list.

Have a great term everyone.
Kevin Archer

Our coast

The focus for this newsletter is the coast, with an emphasis on the special nature of our Taranaki coast. We have available a unit titled The Coast - Te Takutai Moana which we have recently reviewed and improved. It is available on request to teachers contemplating a coastal study in the near future.



Urenui School planting days

All Urenui School pupils have been involved in either a planting session at the Mimi River mouth or in an area within the school grounds. The older children, parents and staff made light work of planting over 700 trees in a couple of hours near the beach. These exercises are part of a schoolwide philosophy to promote sustainable land management. Below, Jason Loveridge of the Taranaki Regional Council lends a hand to two enthusiastic pupils as they prepare the ground for planting.

