

NEW PLAN FOR BROMLEY.....	4
BARK-RETRIEVAL APPLICATION WINS APPROVAL.....	5
COASTAL BIRDS IN DANGER IF DEVELOPMENT CONTINUES AT PACE.....	6
PUB STAFF COME TO AID OF DOLPHIN.....	7
THE PROFESSOR'S PLACE.....	8
TESTING ON SEWAGE IMPACT INDECISIVE.....	10
RECLAIMED INDUSTRIAL SITE TO BECOME ESTUARY AGAIN.....	11
FLAVOUR OF FRANCE.....	12
FRIENDS OF THE ESTUARY.....	14
ESTUARY PLAN CRUCIAL, COMMITTEE TOLD.....	15
GOVT OFFERS \$2.6 MILLION BOOST WILL HELP CLEAN UP MAPUA TOXINS.....	16
WEDDING IN A WILDERNESS WEDDING IN A WILDERNESS.....	18
ECOSYSTEM IN DANGER.....	20
ARC WORRIED ABOUT PLANS FOR HARBOUR.....	21
WANGANUI GASWORKS TARGETED AS POTENTIALLY CONTAMINATED.....	22
MARINA DISPUTE.....	23
SEAWEEK FOCUSES ON TREASURES OF COAST.....	24
MARINA DREDGING `DANGER TO ESTUARY'.....	25
AWARD-WINNING KILDARE DEVELOPMENT `SELLS ITSELF'.....	26
STUDENTS PLANT PINGAO AT NEW BRIGHTON BEACH.....	28
TOO SLOW AT THE BORDERS.....	29
NAPIER WOMAN CLAIMS TO HAVE CONTRACTED EXOTIC MOSQUITO.....	30
CITY WALKS - CLIFTON HILL.....	31
CITY WALKS - MCCORMACKS BAY.....	32
HILLTOP HAVEN.....	33
HOW TO PRESERVE WETLANDS TO BE DISCUSSED.....	34

RECYCLING COULD GET PERSONAL.....	35
CALL FOR CONTROL OF PREDATORS.....	36
COUNCIL FIRM ON PARK BID.....	37
MANAWATU BIRD BOOK FINDS READY MARKET.....	38
AUCTION-PROPERTY.....	39
PARK-EXTENSION DEBATE KEPT ALIVE.....	40
LIFE'S A BEACH.....	41
REVIEW OF WATER-QUALITY STANDARDS.....	42
COUNCIL MAY AVERT WATER THREAT WITH PUMPING PLAN.....	43
ANGRY CALL FOR EFFLUENT STATUS QUO.....	44
PROPERTY AUCTIONS.....	45
MAYORAL CANDIDATES ON - HEALTH.....	46
SOMETHING OLD, SOMETHING NEW.....	48
SEA OUTLET FOR SEWERAGE SYSTEM.....	49
DOC IN BID TO GUARD NATIONAL PARK'S SHORE.....	50
LAVENDER VIEWS.....	51
ROYAL VIEWS FROM BALMORAL.....	52
COMMUNITY CALENDAR.....	54
MAORI IMPOSE SHELLFISH BAN AT BOP ESTUARY.....	55
SEAWEEK TO START WITH FREE SLIDE SHOW.....	56
STUDY ON SEWAGE WETLANDS.....	57
LAST OF STRANDED DOLPHINS DIES.....	58
SECOND DOLPHIN DIES.....	59
WATCHING BRIEF ONLY FOR ESTUARY DOLPHINS.....	60
THREE DOLPHINS RETURNED TO SEA.....	61
BUBBLE NET MAY SAVE DOLPHINS.....	62
DOLPHINS RETURN TO SEA.....	63
TRAPPED DOLPHINS STAY PUT.....	64
DOLPHINS RESIST RESCUE EFFORTS AT GOLDEN BAY.....	65

FRESH WATER IN CANTY GETS MIXED MARKS.....	66
DOC MAY TRY BUBBLE NET TO FREE TRAPPED DOLPHINS.....	67
WILDLIFE OF THE CHCH ESTUARY.....	68
COUNCIL TO KEEP CHECK ON ESTUARY.....	70
PRISTINE FACADE RADIATES RELAXED FEELING.....	71
SMELLS BLAMED ON INDUSTRY.....	72
VIBRANT INTERIOR COLOUR WARMS HILLSIDE HOME.....	73
PATROL NETS MEN WITH ILLEGAL SNAPPER CATCH.....	75
SECRETS OF THE SEA COME IN SMALL DOSES.....	76
ROAD CLEAR FOR BYPASS PLAN.....	77
OKURA ESTUARY WINS PROTECTION.....	78
ARC moves to sift major threat from waterways.....	79
Prompt action saves estuary.....	81
Review of methods after CHEMICAL spill.....	82
TAURANGA gets \$7.5m for bypass.....	83
Scientist loss predicted in wake of funding changes. (2 of 2).....	84
Shellfish are gathered regardless of pollution.....	86
First step for estuary highway.....	88
\$80,000 bid to curb pollution.....	89
Oysters in fight against pollution.....	90
Department attacks special reclamation bill.....	91
Regional Water Board Budget cuts pollution inspections.....	93

NEW PLAN FOR BROMLEY.

By Mike CREAN.
268 words
26 November 1999
The Christchurch Press
6
English
(c) 1999 Knight-Ridder/Tribune Business News

A new plan for Bromley wastewater may allow the proposed \$50 million ocean pipeline to be shelved.

The Christchurch City Council and scientific consultants have been studying the possible discharge of treated wastewater from Bromley through a pipeline into the ocean from South New Brighton. They have been considering also a \$15m option of upgrading the present facility for discharging into the **estuary**.

City services committee chairman Denis O'Rourke said a community working party that had been following the research was split between the options. Many councillors were unhappy about the cost of the favoured option. Fifty million dollars seemed a lot for a steel and concrete pipe into the sea, Cr O'Rourke said.

He had proposed a "third way" solution, which consultants and a committee of the working party had started to study. This involved upgrading wastewater treatment for an estuary discharge, with enhancement of the estuary. The project was estimated to cost between \$30m and \$35m.

The project would involve biological and ultra-violet disinfection of wastewater that would improve water quality and eradication of weed in the estuary. This would allow development of the estuary and its edge into an aquatic playground and wildlife reserve that would equal Hagley Park in significance to Christchurch.

Cr O'Rourke said the process would be sufficient to cope with projected demand for a further 10 years. This would buy time for further research into long-term options for discharge.

By then, new technology would be much cheaper and might make a pipeline unnecessary.

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BARK-RETRIEVAL APPLICATION WINS APPROVAL.

264 words
23 November 1999
The Christchurch Press
6
English
(c) 1999 Knight-Ridder/Tribune Business News

NELSON - Nelson businessman David Irvine has won planning approval for a novel scheme to extract stored bark from an old industrial reclamation on the Waimea **Estuary** and return part of the area to the sea.

He wants to salvage bark fill from the 11ha reclamation established by the former Nelson Harbour Board for the Richmond chip mill and then recontour the shore, retaining a 5ha industrial site and allowing the sea to reclaim the balance as a tidal area.

Mr Irvine said the consent by Tasman District Council planning commissioner Richard Fowler, and Ian Black, representing the Minister of Conservation, had put a difficult seven-year time limit on much of the work along with other conditions but he accepted that. "Basically it's a framework we can work with," he said.

Mr Irvine's company, Richmond Horticultural Products Ltd, processes bark stored on the site into a medium for orchid growing and other horticultural uses, mainly for export to Japan.

The area contains an estimated 400,000 to 500,000 cubic metres of bark fill which he had planned to extract over 10 years.

He said the market for the processed bark product was "pretty strong" and growing.

Conditions imposed by the commissioners include a \$100,000 bond so the council can restore the site if the projected works are not completed. In their report the commissioners said they had not discerned any appreciable opposition to an application which in essence returned areas to the estuary which previously had been inappropriately reclaimed.

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COASTAL BIRDS IN DANGER IF DEVELOPMENT CONTINUES AT PACE.

319 words
18 October 1999
New Zealand Press Association
English
(c) 1999 New Zealand Press Association

Auckland, Oct 18 - Environmentalists warn time is running out for migratory and coastal birds if developers continue intensive development around New Zealand shore.

Such development was leaving coastal birds with a dwindling number of quiet **estuaries** and coastal areas essential for their survival, said Forest and Bird Protection Society conservation director Kevin Smith.

Coastal sub-divisions, marinas, marine farming and "sheer people pressure" were reducing the area of optimal seabird habitat, Mr Smith said.

He said the society's action plan for migratory birds included legal protection for the country's major estuaries as marine reserves or marine parks.

The society also called for changes to Hauraki Gulf Marine Park Bill's action plan to give priority to habitat and wildlife protection.

"The Department of Conservation needs to be resourced and directed to play a more pro-active role in Resource Management Act processes to defend New Zealand's coastlines from harmful developments," he said.

"The threat to estuaries includes poor management of adjacent catchment areas resulting in pollution and excessive sedimentation."

Mr Smith said holding coastal land did not automatically give the owner the right to sub-divide it.

The Resource Management Act said coastal development had to take sustainable management into account.

"We do not believe the management of the coastline is sustainable if we are not leaving stretches of open countryside for nature."

The New Zealand dotterel was in particular danger and numbers had declined in recent years.

"There are lots of impacts from the coastal developments and one of them is that there are a lot more dogs and cats on beaches that weren't there before.

"Another is sheer people pressure and the regular disturbance from people, and the absence of open, quiet coastal stretches which we believe is putting pressure on the birds."

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Document nzpa000020010908dvai007ls

PUB STAFF COME TO AID OF DOLPHIN.

139 words

14 October 1999

The Christchurch Press

7

English

(c) 1999 Knight-Ridder/Tribune Business News

Nelson publican Mike Gepp grabs an at-risk baby dolphin in the Waimea **Estuary**. After one of his staff saw the dolphin stranded just after high tide on Tuesday afternoon, Mr Gepp, the proprietor of the Honest Lawyer pub, on the Waimea Inlet, moved quickly to help save the dolphin before the tide went out across the mudflats. People from the hotel - with help from a couple of sheep dogs - stayed with the dolphin for about two hours, trying to shepherd it into deeper water, until officers from the Department of Conservation arrived from Motueka with a boat. Mr Gepp said that when he last saw the dolphin about 5pm it was in one of the inlet's deeper channels and heading for the open sea.

(c) The Christchurch Press, INL 1999.

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THE PROFESSOR'S PLACE.

By Mary KIRK-ANDERSON.
631 words
11 August 1999
The Christchurch Press
49
English
(c) 1999 Knight-Ridder/Tribune Business News

Located near the **Estuary** and the sea, and showing a pleasing lack of formality, this South Brighton home is as much the perfect summer home today as when it was built early this century, writes MARY KIRK-ANDERSON.

Built for a man of science but styled with a touch of whimsy, this South Brighton home was considered a very modern dwelling in its day.

It says much about its design qualities that it is still a charming and comfortable home.

The Kibblewhite Street property was built as a seaside house for Professor Alexander Bickerton, a brilliant but sometimes controversial Professor of Chemistry and later Physics at Canterbury College, now the University of Canterbury. Born in England, he was the first professor appointed to the newly instituted college, and arrived in 1874.

Reknown for his sometimes radical views, Professor Bickerton's forte was in bringing science to the general public. He was ahead of his time in using practical demonstrations, and interactive displays to demonstrate scientific principals. His talent for giving entertaining public lectures is remembered today in the annual Bickerton Lecture. Recent speakers have included fireworks expert Anthony Lealand, and MetService senior forecaster Erick Brenstrum.

Professor Bickerton had his summer home built in 1910. Some additions and renovations have been carried out over the years, but overall the house is not that different from the professor's day.

It has something of a gingerbread house quality with its tall, narrow structure and interesting shapes.

The main entrance is through a tiny portico to the left of the frontage. Here the first of the diamond-shaped leadlights with details in red glass greet the visitor. They are a theme which is continued throughout the house and are a nice extension of some of the more ornate feature stained glass and leadlight windows in some of the living areas.

The main living room is small but well proportioned. Floor to ceiling windows to the front provide plenty of light, along with a view of the garden and towards the octagonal gazebo.

The gazebo was completed only last year but the materials and style work well with the house. It also offers good views to the Avon and wetlands on the other side of Kibblewhite Road.

The kitchen, towards the rear of the home, is finished in rimu and opens to a semi-circular dining area retiled in terracotta and with a half-circle wood-clad vaulted ceiling. It is the circular theme carried through from the front part of the home.

Stairs to the second level lead up from the living room to a narrow landing. A small skylight ensures that this is a well-lit area despite its cosy confines.

The main bedroom is a sunny spot with windows wrapping around two sides. The wide window seat makes a perfect place to curl up with a book or enjoy the views over the river and beyond.

To the rear are two small bedrooms, both looking out towards the rear of the property. The bathroom is also on the first level.

Set on 513sqm, the compact home leaves plenty of room for the cottage-style garden dotted with native plants, and the brick paving is a good match.

Access to the garage at the rear of the property is from Falcon Street leaving the attractive frontage clear of garage doors and driveways.

The home, at 31 Kibblewhite Street, is for sale by negotiation over \$205,000.

It will be open for viewing today from noon to 12.30pm and on Sunday, August 15, from noon until

12.45pm.

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For further information contact Zena Smith of Harcourts Citywide Real Estate Ltd MREINZ on (03) 381-2361, or (025) 382-119.

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TESTING ON SEWAGE IMPACT INDECISIVE.

By Mike CREAN.
383 words
29 June 1999
The Christchurch Press
5
English
(c) 1999 Knight-Ridder/Tribune Business News

Scientific studies cannot show what effects pumping treated sewage into the ocean would have on Christchurch beaches.

Christchurch City Council wastewater engineer Walter Lewthwaite said modelling of currents in the Avon-Heathcote **estuary** and along the New Brighton and Sumner coastlines had produced information which was promising for the discharge of wastewater from an ocean pipeline.

However, patterns of water movement in the surf zone were too mixed for accurate predictions to be made there.

An Australian consulting firm, Unisearch, is modelling currents as part of a council investigation of the effects of a proposed ocean pipeline.

The pipeline would discharge treated wastewater from the Bromley treatment plant into the ocean off South Brighton Beach.

Mr Lewthwaite said results after six months of tests were useful for predicting current movements in all areas except the surf zone. This zone extends about 200m into the sea from the beaches at Brighton and Sumner.

A council consultative group, the Combined Coastal and Estuary Users Team, had agreed that results of the modelling corresponded with its observations. These results showed sufficient dilution and diffusion would occur outside the surf zone if wastewater was discharged from a pipeline.

The modelling confirmed observations that southerly winds could move material from the Estuary up the coast as far as North Beach. In northerly winds, material could be deposited at Sumner and Scarborough.

The tests showed also that sea water and sunlight killed bacteria faster than Mr Lewthwaite had expected.

Conditions in the surf zone were too turbulent to make accurate predictions of current movements there. A "vigorous mixing of surface layers and a longshore drift", tidal movements, and wind could cause various conflicting currents at the same time, Mr Lewthwaite said.

The studies failed to show whether conditions in the surf zone would be better with an ocean discharge than with the present Estuary discharge. However, the tests did show conditions in the surf zone would be better than outside it.

This was promising, since modelling had shown conditions outside the zone were favourable for an ocean pipeline. Modelling would continue for several more weeks.

The consultative group had completed its role of matching scientific findings with local observations but some members will stay involved.

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RECLAIMED INDUSTRIAL SITE TO BECOME ESTUARY AGAIN.

348 words
25 June 1999
The Christchurch Press
6
English
(c) 1999 Knight-Ridder/Tribune Business News

Businessman David Irvine is proposing a unique reversal of the New Zealand pattern of coastal development with a plan to return almost 6ha of reclaimed industrial land to the Waimea **Estuary**.

He plans to salvage material from the 11ha bark and log storage reclamation established by the former Nelson Harbour Board for the Richmond chip mill and then remove the bund walls, allowing the sea to reclaim more than half as a tidal area.

After 12 months of preparation and negotiation with the Department of Conservation, Friends of Nelson Haven, and his Mr Irvine's company, Richmond Horticultural Products, has lodged land-use, coastal-permit and discharge applications with the Tasman District Council for the work.

He is also negotiating to buy the reclamation from the council, which acquired title when the former harbour board was dissolved.

Planning consultant David Smythe said he believed Mr Irvine's proposal was unique in returning reclaimed land to the sea.

The area contains an estimated 400,000 to 500,000cu m of bark fill, which will be screened and processed into horticultural products, mainly for the Japanese market.

Mr Irvine said he bought the bark-processing operation at the reclamation about 21/2 years ago and started extracting bark fill.

The idea of removing the reclamation just grew.

"I didn't come looking for a challenge. It seemed to find me," he said.

Mr Irvine said he had the potential for some fairly large orders for the processed bark, which is used for orchid growing, but he was still looking at a 10-year process to extract all the bark from the area which would be returned to the sea.

His coastal permit application also involved reclaiming 1.6ha of mud flat and salt marsh in three separate areas to provide a "flowing curve" to the coast at the end of the project.

Environmental consultant Rob Davidson said the planting of salt marsh species on the reclamation batter would help balance the loss from the proposed reclamation areas.

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FLAVOUR OF FRANCE.

By Jan McCARTHY.
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19 June 1999
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English
(c) 1999 Knight-Ridder/Tribune Business News

House design has become universal as influences circle the globe. The key is adapting these to the location, writes JAN McCARTHY.

A taste of provincial France permeates this Cashmere home, positioned high on the Port Hills to enjoy 180-degree views from the **Estuary** to the Canterbury Plains.

The four-bedroom home has strong architectural lines, its scale and form complementing those of its neighbours and the natural landscape.

Christchurch architectural designer Geoff Warren has created a home that is a skilful balance of space and light, being easily adapted for family or executive living. The design lends itself to casual and formal entertaining.

Steps lead down from the private cul-de-sac to a generous entrance courtyard, providing a threshold between the public and private worlds.

Tiled and ringed with raised planter beds and pots of textured and colourful plants, the courtyard is a sensual experience. There is a water feature and a metal pergola over which white roses are beginning to climb.

Inside, the home opens to a dramatic double-height foyer with gallery. Soft blue walls enhance the home's sense of peace and tranquillity.

Double doors open into the main living room. It is linked to the outdoor living spaces by large windows and french doors opening either side of a Jetmaster fire.

A patio extends along the front of the northwest-facing home, which is a clever E shape, offering separate, sheltered, and sunny outdoor living nooks and views from every room.

Flowing to the east and linked by double doors is the intimate, recessed formal dining room, with french doors opening to the patio. The dining room leads through to the designer kitchen, which basks in the morning sun.

A heated oak parquet floor, created by the owner from recycled church pews, adds a rich warmth to the room, which extends to the north to incorporate a family dining area and an area to sit and enjoy the sun as it arcs across the sky.

The kitchen has clean lines, featuring a box window to capture sea vistas, a central island granite-topped bench, the latest European appliances, and an integrated fridge/freezer and dishwasher.

Off the kitchen is access to a separate courtyard for al fresco breakfast dining. It also has a water feature to add to the restful ambience.

At the western end of the home is a recessed study, with outdoor access, a guest bedroom, downstairs bathroom, the laundry with external access, and internal access to the double garage.

A wine cellar is built under the stairs that lead to the three generous bedrooms and the bathroom on the second level. Each room captures its own special vista of the city.

The main bedroom takes centre stage. It is a generous room, with double wardrobes either side and large windows to enjoy the sweeping panoramic views. The ensuite has twin semi-recessed handbasins and a spa bath.

Also on-site is a separate workshop at the bottom of the garden.

This property, at 14 Harry Ell Drive, Cashmere, will be auctioned on Thursday, July 8, at 6pm at the Avon River Centra. Bidding will start at about \$500,000. It will be open for inspection tomorrow from 1pm to 2pm, and Wednesday from 7.30pm to 8.30pm.

For further information phone Shaun Stockman of Harcourts Beckenham Realty Ltd MREINZ on 337-1316 or 025 985-086.

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FRIENDS OF THE ESTUARY.

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17 June 1999
The Christchurch Press
18
English
(c) 1999 Knight-Ridder/Tribune Business News

Becoming a voluntary **Estuary** Warden is the topic for a Friends of the Avon Heathcote **Estuary** public meeting on Monday at 7.30pm at the Mt Pleasant Yacht Club. Speaker: Alison Taylor-Hayhurst, Christchurch City Council Parks Unit. All welcome. No charge.

Clan Macfarlane

All those with the name Macfarlane in all its various forms and spellings, those married to a Macfarlane, and family septs of the clan are invited to a gathering on Sunday, June 27 at 12.30pm in the Balmoral Room, Caledonian Hall, 135 Kilmore street, Christchurch. Those attending are asked to bring enough finger food for themselves and one other. Inquiries: phone (03) 359-9803.

Our Children's Voice

Our Children's Voice is a coalition promoting children's special educational needs. Roger McClay, Commissioner for Children, will talk about his role, and his views on Special Education 2000, at a meeting of the group on Wednesday June 23, 5.30pm to 7.30pm, in Avon Block at Christchurch College of Education, Dovedale Avenue, Ilam. For discussion: people's experiences to date, and is a parent advocacy team needed? Finger food available. RSVP appreciated for catering, phone Jilly (03) 312-6717, fax (03) 312-6990.

Doll show

Legacy Dolls is having its seventh show of class efforts at the Cloisters Gallery, Arts Centre, on Friday, Saturday, and Sunday, 10am to 4pm. Entry: \$2.

Brain Injury Association

Representatives from Disabled Skiing and Riding for the Disabled will talk about the recreational activities their groups offer, at a Brain Injury Association support group meeting on Thursday, June 24 at 7.30pm. Venue: YMCA, Hereford Street. Inquiries: phone social workers Caroline or Lis, 351-9786.

Line dancing

Shore Line Dancers are starting a 10-week line dance class for beginners, on Wednesday, June 23, 6.30pm to 7.30pm, at the New Brighton RSA, 557 New Brighton Road. To enrol phone Lyn 382-1190.

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ESTUARY PLAN CRUCIAL, COMMITTEE TOLD.

260 words
17 June 1999
The Christchurch Press
8
English
(c) 1999 Knight-Ridder/Tribune Business News

The Avon-Heathcote **Estuary** is dying and will continue to die unless its management becomes integrated, a joint committee of the Christchurch City Council and Canterbury Regional Council has been told.

Professor Kevin O'Connor, of the Christchurch **Estuary** Association, told the committee yesterday that the fragmented management of the **Estuary** and divided responsibilities of the councils and Government agencies were causing the certain death of the **Estuary**.

The association presented a case for a non-statutory body to plan for the integrated control, enhancement, and protection of the Estuary. The body would include representatives of both councils, the Ministry for the Environment, the Department of Conservation, the Ministry of Fisheries, the Fish and Game Council, Ngai Tahu, Canterbury and Lincoln universities, the Estuary Association, Friends of the Estuary, and industrial and commercial groups.

Association member Les Batchelor said people who cared about the Estuary were frustrated at the evasiveness of officers from both councils on issues relating to it.

Dr O'Connor presented a 10-point charter for management of the Estuary. He said the goals in the charter were compatible with several pieces of legislation. He urged the committee to adopt the charter.

Cr David Close said the charter seemed to be consistent with the proposed City Plan and the Resource Management Act. The committee decided to recommend that both councils work in partnership with other bodies to prepare a management strategy for the Estuary, ensuring opportunity for involvement of all interest groups and the wider community.

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GOVT OFFERS \$2.6 MILLION BOOST WILL HELP CLEAN UP MAPUA TOXINS.

571 words
20 May 1999
New Zealand Press Association
English
(c) 1999 New Zealand Press Association

Wellington, May 20 - A big boost in Government funding for the clean-up of New Zealand's worst toxic waste site at Mapua, near Nelson, may make it possible to trial innovative new technology developed in New Zealand.

The site, 31km west of Nelson, once housed a pesticide factory and a store of toxic pesticides, and in recent years has been leaching DDT and other organochlorines into the Mapua **estuary**.

But Tasman District Council environmental information manager Andrew Fenemor said today a lot would depend on what strings the Government attached to the \$2.6 million funding boost announced in the budget, such as requiring a matching contribution from the council.

A spokesman for Environment Minister Simon Upton said after the budget announcement the extra money had been allocated on the expectation that there would be an increased contribution from the local community.

The waste sites include the legacy of five decades of production by an agrichemical company, which stopped operating in 1987.

The council negotiated unsuccessfully for years for the purchaser of the Fruitgrowers' chemical company site, Ceres Pacific - a subsidiary of listed company Corporate Investments Ltd - and the owner of the Lime and Marble site, Auckland mineral processor Mintech to pay the full costs of a clean-up of the soil and groundwater contamination.

The 3.3ha area near the Mapua wharf also held for eight years 40 tonnes of chemicals, mainly organochlorine and organophosphate pesticides such as DDT, dieldrin and lindane.

The Government and the council initially set aside \$1.2 million each to deal with the site, with the idea of sealing it at a cost of about \$2.75 million.

But the council decided in 1997 it would be better to decontaminate the soil if possible, since sealing the site would limit its future use.

Decontamination would cost about \$6 million, so under previous mayor Kerry Marshall the council agreed to boost its funding to \$2 million and sought further help from the Government.

But this year present Tasman mayor John Hurley said he wanted the council to drop its decontamination proposal, because the estimated cost of \$6 million to \$9 million was too expensive.

He favoured removing the contaminated soil and storing it somewhere else, until a cost-effective treatment process could be developed.

Mapua residents have criticised the slow progress of decision-making on the cleanup, and have said that if the site were in downtown Wellington it would have been cleaned up immediately.

The Government is interested in the project because the technology used at Mapua could be applied to other sites around the country contaminated with organochlorines, such as at Hanmer Springs.

Mr Upton has already said he is confident that a decontamination technique called thermal desorption could be used at Mapua and other sites.

This process was developed by the crown's Environmental Science and Research Institute (ESR) and Australian Federal government technology developer ADI Ltd, Sydney. It has been tried on a small scale near Wellington, and entails mixing contaminated soil with lime and indirectly heating it in a sealed chamber.

The cost would vary according to whether the council set low targets for the decontamination - the process can achieve levels of fewer than 50 parts per billion of pentachlorophenol (PCP) and one part per billion of dioxin, or DDT, or lindane.

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WEDDING IN A WILDERNESS WEDDING IN A WILDERNESS.

By Jacqui RAYMOND.
569 words
17 April 1999
The Christchurch Press
15
English
(c) 1999 Knight-Ridder/Tribune Business News

Two gardening dunces have six months to carve an Eden from their wilderness. JACQUI RAYMOND follows their progress.

A young Redcliffs couple have a simple wish for their wedding in September: to get married in the garden of their cottage on the shores of the **Estuary**.

The only problem is the garden. Neither Rebecca Lovell-Smith nor Christian Carruthers know anything about gardening or plants.

Consequently, the once pretty cottage garden on the sheltered side of their house has deteriorated into a wilderness. Beyond this, a makeshift wire fence keeps at bay the nondescript shambles of weeds which fade into an arid Estuary foreshore.

Although Rebecca, the owner of two gift shops, and Christian, a website designer, have tried to befriend the garden, it has spurned them. "When we took it on, it was beautiful," says Rebecca.

To help, Weekend Gardening called in landscape gardener Allan Paterson, who rather than letting the state of the garden affront his horticultural sensibilities, is excited about its potential.

"It has a huge view," he says, which he feels needs to be brought into perspective with the house. The low house needs some height about it, such as palms and cabbage trees which are hardy enough to withstand the easterlies. The makeshift fence and plants around it not in good condition must go.

Remembering that his clients are not gardeners, he suggests a simple mix of plants around the house, such as daisies, rhododendrons, and lavenders.

One of his more eye-catching suggestions is a circular sunken courtyard outside the living room, with alternating triangles of chamomile and blue chip gravel divided by wooden beams. The sunken garden will give the cottage height. Banking the courtyard will be lavenders and sages, "a herb you can go mad with", he says.

Allan Paterson has split the garden into four rooms, with one plant in common: rhododendrons.

The first thing is to put the paved areas and trees in. Other plantings should be done after the beds have been developed, and the sandy soil mulched.

The garden could be developed one area at a time, or expert help could be called in, and the lot done in two weeks for about \$10,000.

As much as Rebecca and Christian like his plan, they are not convinced that they want to spend that much on the garden. "We like most of his ideas," says Rebecca, "such as the paving, removing the fence, and the fernery down the street side.

"We just want it to look good for the wedding."

Having a plan drawn up is a good starting point. The circular courtyard is "too fussy, but we will put some sort of courtyard there", says Christian.

The suggested plantings do not mean a lot to these two dedicated non-gardeners. Nor does the idea of doing the work themselves appeal.

Her interest in things botanical extends only to popping in a bright array of plastic flowers in a small bed by the front door. His closest link to gardening is a friend who is a gardener.

"A nephew who is a student at Lincoln is going to help," says Rebecca.

In case deep in each of their psyches a budding gardener is lurking, Weekend Gardening will return to their garden in September to report on the transformation, or otherwise.

(c) The Christchurch Press, INL 1999.

Document thepre0020010912dv4h000m1

ECOSYSTEM IN DANGER.

By PHILLIP ENGLISH.

169 words

6 April 1999

New Zealand Herald

English

(c) 1999 The New Zealand Herald

About 32,000 tonnes of sediment is likely to be swept into the Mahurangi Harbour in the Mid-North when land around it is developed. The Mahurangi environment has some of the last natural ecosystems that show the transition from coastal mangroves to land-based native forests in the region.

A National Institute of Water and Atmospheric Research report for the Auckland Regional Council highlights the negative impact that planned urban development would have on the **estuary**.

The report says the amount of lost sediment, which is very fine and hard to trap, will be 100 times the amount lost from existing activities on the land in the affected catchments. Water in the Mahurangi would be more muddy, and shellfish numbers and their growth rate would drop. However, toxic effects from stormwater contamination should stay within guidelines up to 2100.

The ARC is also concerned about the effect of sedimentation on man grove forests in the harbour.

(c) The New Zealand Herald, 1999.

Document nzhld00020010908dv460058e

ARC WORRIED ABOUT PLANS FOR HARBOUR.

By WAYNE THOMPSON.
391 words
6 April 1999
New Zealand Herald
English
(c) 1999 The New Zealand Herald

The Auckland Regional Council is challenging growth plans for settlements on the sensitive Mahurangi and Matakana **Estuaries** for fear the project will pollute the Mahurangi Harbour.

In 20 years the population of Sandspit, Snells Beach and Algies Bay is expected to rise from 3500 to 9200, because the area will be just 6km from the Northern Motorway at Warkworth and within commuting distance of Auckland. It is also the next coastal playground to the Hibiscus Coast.

Rodney District Council has prepared a structure plan pointing to where the growth can take place and what services will be needed. The plan suggests discouraging Sandspit development, yet creating four pockets of high-density living zones on the Snells Beach foreshore and near its town centre, and the southern end of Algies Bay and along Goldsworthy Bay.

These zones, with buildings restricted to three levels, could be used for a Club Med-type resort, retirement village or two-storey townhouses. The door is left open for a marina-based development at Goldsworthy Bay.

But a suggestion to allow housing to spread from the slope draining into Kawau Bay to areas in the Mahurangi River catchment is an issue that the regional council is taking up with Rodney planners.

ARC planning coordinator Hugh Jarvis said the council was concerned about the potential impact of urbanisation on the Mahurangi Harbour.

"We want more details on how Rodney intends to manage urban growth so it can avoid detrimental impact on the water quality of the harbour" Council staff said that sediment run-off from subdivision earthworks would affect not only recreational values of the Mahurangi Estuary but also the export oyster-farming industry and one of the region's few remaining sizeable mangrove forests.

Mahurangi oyster farms already stop harvesting after heavy rain because of sediment runoff concerns, but oyster farmer John Nicholson said he could not see a problem with lifestyle blocks.

The structure plan supervisor for the district council, Lee Joffe, said the ARC was being a "a bit alarmist" in saying development would harm the estuary. Stormwater could drain on to reserve land and builders took precautions to trap rain runoff.

Mr Joffe said the structure plan called for a stormwater management plan. Public submissions are due on Friday.

(c) The New Zealand Herald, 1999.

Document nzhd00020010908dv460058c

WANGANUI GASWORKS TARGETED AS POTENTIALLY CONTAMINATED.

172 words
18 March 1999
New Zealand Press Association
English
(c) 1999 New Zealand Press Association

Palmerston North, March 18 - The old Wanganui gasworks site on Taupo Quay is being targeted by the Manawatu-Wanganui Regional Council as a potentially contaminated site.

Resource director Brent Cowie said the site would be further investigated, because it was large, had operated for a long time, and was close to the Whanganui River **estuary**.

The investigators would look into possible contamination of soil and groundwater. Some remaining tar pits could be full of cancer-causing hydrocarbons. But the risks to the environment were low, and those to the public negligible.

The gasworks closed 29 years ago.

Dr Cowie said seven former gas works sites had been investigated, and the Wanganui site had been given the highest priority. The other sites were at Levin, Foxton, Marton, Feilding, Woodville, and Pahiatua.

The risk at those sites was low, and did not justify further action. Property owners and district councils were being advised where the sites were, and the level of risk.

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Document nzpa000020010908dv3i019wl

MARINA DISPUTE.

61 words

17 March 1999

New Zealand Herald

English

(c) 1999 The New Zealand Herald

About 200 people attended a public meeting in Coromandel to discuss a proposed 350-berth marina, 1.5km channel and ferry terminal in the town's mangrove **estuary**.

Opponents say it would damage marine breeding grounds.

Those in favour of the proposal say new mangrove areas could be replanted to replace those destroyed.

(c) The New Zealand Herald, 1999.

Document nzhld00020010908dv3h0084p

SEAWEEK FOCUSES ON TREASURES OF COAST.

67 words

16 March 1999

The Christchurch Press

6

English

(c) 1999 Knight-Ridder/Tribune Business News

Birdlife, offshore islands, marine reserves, **estuaries**, and breeding colonies are the focus of Seaweed this week. Seaweed activities include studies of beach debris, harbour cruises, and school visits to the Avon-Heathcote **Estuary** and Travis Swamp.

Tanya Jenkins, the co-ordinator of Seaweed in Canterbury, said this year's theme was Treasures of our Coast.

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Document thepre0020010912dv3g001rw

MARINA DREDGING `DANGER TO ESTUARY`.

By MELISSA MOXON.

463 words

15 March 1999

New Zealand Herald

English

(c) 1999 The New Zealand Herald

COROMANDEL - A Coromandel man has started a campaign to scuttle "crazy" plans for a 350-berth marina in the township's mangrove **estuary**.

Lee Sutherland has organised a meeting in the northern Coromandel Peninsula township for today because of his concerns about the dredging of a 1.5km channel rough the tidal **estuary**, and the environmental effect.

"It's crazy," he said. "It doesn't stack up. You don't mess with estuarine areas. It's so delicate." Mr Sutherland said Coromandel needed a marina and ferry terminal, but he wants the Coromandel Marina Society, which is behind the project, to build them in deep water in nearby Long Bay, west of the settlement.

He said he had no vested interest in Long Bay, but the rocky cliff area at the south end of the beach would be ideal for a marina.

The planned \$20 million complex would threaten the mangrove wildlife habitat and the channel could silt up again and be difficult to navigate.

"No one's going to come down here to see a hole in the bloody mangroves," said Mr Sutherland, who is a self-taught environmental consultant and has been involved in the design and construction of marinas for 15 years.

The chairman of the marina society, Gilbert James, said the project would be funded by the sale of the berths to its members, who numbered 290 so far.

The marina and terminal would give regular ferry access to Auckland, attract more boats and boost the local accommodation, food and service industry.

Mr James said the society's proposed site was a piece of wasteland. Mangroves would be planted on the south side of the marina basin to compensate for 3.5ha of mangroves that the project would destroy.

Hydrology tests had shown that only minimal maintenance dredging would be needed in the canal.

Mr Sutherland said that if mangroves could grow at the south of the basin, they would be growing already.

Harbourmaster Neil Macdonald said the estuary was extremely tidal and the current wharf was not accessible below half tide.

On a big tide the estuary drained out for at least 200m. "If it [the project] goes ahead, there will be 2m of water in the channel at the lowest tide, which would be a decided advantage."

A spokeswoman for the Coromandel Motel and Holiday Park said the ferry terminal would be great for drawing tourists, but she expected the marina would generate little extra business.

The present ferry service from Auckland currently drops passengers at a jetty at Te Kouma, 10km south-west of Coromandel.

Submissions close on Friday for the consent hearing before Environment Waikato and the Thames Coromandel District Council.

(c) The New Zealand Herald, 1999.

Document nzhd00020010908dv3f0080h

AWARD-WINNING KILDARE DEVELOPMENT 'SELLS ITSELF'.

568 words
10 February 1999
The Christchurch Press
33
English
(c) 1999 Knight-Ridder/Tribune Business News

"Just look at it," enthuses Chris Harding, his arm sweeping across the magnificent panoramic views that envelop the premier Kildare subdivision.

From its enviable location nestled into a gently contoured ridge, accessed from Moncks Spur, the award-winning Kildare development offers unequalled views. From Shag Rock, across the **Estuary** and the ocean to the city and distant mountains, the magic of Kildare unfolds.

Chris Harding, Cowdy and Company's sales consultant for the 53-lot subdivision, says Kildare "sells itself".

"Once people have visited the high-quality subdivision and seen the stunning views, they are sold."

Kildare was released on the market in August, attracting widespread interest, including overseas buyers. A number of sections have already sold.

"In 10 years there will be more than 50 substantial homes on the site. It will be an old Cashmere: good quality homes on well-established sections."

Chris Harding says Kildare is a place where people "are making a dream".

The north-facing land is bathed in all-day sun, while the ridge protects against the prevailing easterlies and creates a micro-climate for growing an array of sub-tropical fruits, grapes, and olives.

This enhances the relaxed, peaceful ambience that washes over the hillside, mixed with a hint of energy and drama from the ocean below.

Each section has been individually designed to ensure buyers have the flexibility to create a unique environment tailored to their lifestyle.

The sites range in size from 655sqm to 2242sqm and have been landscaped with natives to harmonise with the environment. Prices range from \$160,000 to \$225,000. "There is a section for everyone. Kildare is a great investment, particularly for younger people, as there are no time constraints on when buyers have to build a home," Chris Harding says.

Kildare has been developed by Jerry Blakely, who lives at Kildare. He bought the untamed land five years ago to develop his vision: a subdivision that followed the natural contours of the land and captured the essence of hill living - sun and views.

It was important to him that the development was in harmony with the land and that it had its own identity.

A hallmark of the subdivision is the meticulous attention to detail, ensuring there was no compromise to the commitment to quality.

"The amount of work and effort to achieve this is commendable."

Chris Harding says Kildare is where people have a sense of freedom, but are close to Redcliffs, and neighbouring Sumner, which offer an abundance of facilities and professional services, including some of Christchurch's leading boutique shops, restaurants, and cafes.

Kildare also offers easy access to a wealth of recreational opportunities. A network of walking tracks are peppered through the Port Hills, as are tracks for mountain-biking.

The site offers varied terrain for runners and multi-sport athletes, and Moncks Bay and the Estuary lie at the foot of the hill for those with a passion for watersports, such as windsurfing and surfing.

Chris Harding says he feels like the "king of the castle" at Kildare. "It is a magic place. I love coming up here."

*For further information about Kildare phone Chris Harding of Cowdy and Company on 0800 4 KILDARE (0800 4 545-3272) or 021 353-450, or call at the Kildare site office, Friday to Sunday, from 2pm to 5pm.

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Document thepre0020010911dv2a003lx

STUDENTS PLANT PINGAO AT NEW BRIGHTON BEACH.

133 words

29 January 1999

The Christchurch Press

24

English

(c) 1999 Knight-Ridder/Tribune Business News

Julie Addicott, front, and Tyler Salvo, left, joined 17 other American students in a friendly invasion of New Brighton beach to plant pingao along the coastline. Coast Care co-ordinator Kay Holder said the students were visitors from University Prep High School in Christchurch's sister city, Seattle. They spent time yesterday with their Shirley Boys' High hosts planting at the "toes" of the sand dunes. Ms Holder said pingao was a tough native sand-binder plant, and the students planted 1000 of them. "They were taking part in our programme to restore native vegetation of the Brighton sand dunes," she said. The group later went to the **Estuary** where it was introduced to conservation issues and the birdlife there.

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Document thepre0020010911dv1t006vp

TOO SLOW AT THE BORDERS.

515 words
15 January 1999

The Dominion

8

English

(c) 1999 The Dominion, INL .

EVERY time an exotic mosquito is found - and it is happening disconcertingly often - the alarm bells should sound loud and clear in politicians' ears. The discoveries highlight the fact that despite all the efforts to keep them and other nasties out, undesirable aliens are still slipping through our border defences. The message to politicians and departments charged with biosecurity is to redouble their commitment to keeping the invaders out.

The discovery near Napier's Ahuriri **Estuary** of two mosquito breeds new to New Zealand is the latest jolt to complacency - and the latest justification for a bigger allocation of funds to protect health and crops from noxious newcomers.

The fact that one breed, *Culis australicus*, is not considered a health risk is of little comfort: the fact is that it got in, and it should not have. The other variety, identified as *Aedes camptorhynchus*, is much more serious. It is believed to be the main carrier of the Ross River virus in Australia, which causes fatigue and pain in the joints that can recur over months and years. Another disease in its repertoire is Murray Valley encephalitis, which can be fatal.

The earlier these insects are found, the greater the chances that they will not have gone far and that a determined trapping and spraying programme will eradicate them. In the past two years the biosecurity squads have beaten back unwanted mosquito migrants such as *Aedes albopictus* and *Aedes japonicus*, the forest-threatening gypsy moth, the white-spotted tussock moth, and various fruitflies which could spell disaster for fruit and vegetable growers if they became established here.

Alarmingly, a Health Ministry official says the Hawke's Bay mosquitos could have been in the area up to two years. Their progress has been fortuitously checked by dry weather depriving them of breeding places rather than by the border vigilantes. The strategy to combat them must now concentrate on getting rid of them before they spread - which would eliminate the risk of new disease outbreaks.

The danger to humans from Ross River virus is bad enough, but there are fears that possums could also become hosts to the virus, adding a new peril to the bovine tuberculosis which they already spread among cattle. Considering the menace they are today, it is hard to believe that possums once had statutory protection, enabling them to breed prolifically, destroy native trees, and with this the foodstock for native birds.

Despite these warnings, only last year former Agriculture Minister Lockwood Smith gave his blessing to introducing another potential predator, the Bengal "supercat" - a cross between domestic varieties and the Asian leopard cat. There are fears that if these cats escape into the wild they could spell the end of the kiwi. It is almost as if the lessons to be learnt from the well-intentioned but disastrous release of the possum, rabbit, ferret, stoat, goat and deer have still not registered.

Keeping New Zealand clean and green means keeping out new pests, and waging a relentless war on those already here.

(c) The Dominion, INL 1999.

Document domn000020010904dv1f001ae

NAPIER WOMAN CLAIMS TO HAVE CONTRACTED EXOTIC MOSQUITO.

535 words
12 January 1999
New Zealand Press Association
English
(c) 1999 New Zealand Press Association

Napier, Jan 12, NZPA - A Napier woman claims to have been struck by the Ross River Virus as tests yesterday confirmed the mosquito which carries the disease is breeding in Hawke's Bay.

Despite Australian tests positively identifying two exotic mosquito species living near Napier's Ahuriri Estuary, HealthCare Hawke's Bay is down-playing the woman's claims.

But Julie Walker said her doctor suspected she had the Ross River Virus disease (RRV) as she was showing all the classic symptoms. The fevers and chills she was experiencing felt like "someone walking all over me," Mrs Walker said.

Blood tests to confirm whether she has contracted the disease were due back later today.

She said she was gripped with pain in her joints, had earlier experienced a rash and was struck with a fever that made her pour with sweat.

Mrs Walker claims to have been attacked by dozens of mosquitoes in the paddock adjoining her Bay View property just after Christmas.

"We've lived here four years and never had a problem with mosquitoes," she said.

About four days after a crop of mosquito bites on her legs flared up, Mrs Walker started getting the symptoms of a mystery illness which she initially thought was malaria.

"I have not been sick in two years. If I get a cold I get over it," she said. "Now I have been having this raging fever which won't go away and my husband had to go out and buy extra fans to keep me cool.

When the first story about the possible presence of the foreign mosquitoes appeared in the Daily Telegraph on Saturday, she said "it all started to add up".

"I thought 'that's what's wrong with me'," she said. "I now have these pains in my legs and feet, cramps and cold shakes. I feel sick as a dog. I just feel dreadful because I can't cope with this fever."

Mrs Walker is calling for the mosquitoes to be eradicated, claiming they are making the outdoor lifestyle enjoyed by many Napier people impossible.

But HealthCare Hawke's Bay spokesperson Karalyn Van Deursen said there were still no confirmed cases of the virus in Hawke's Bay and it would be "a most unusual case" if Mrs Walker had contracted the disease.

HCHB is renewing calls to the public to avoid being bitten by mosquitoes. It has set up a pre-recorded mosquito information line which can be reached on (06) 834 1811.

Aedes camptorhynchus prefer swampy salt-water breeding grounds and, unlike other mosquitoes, can bite during the day. HCHB reminded people that swelling around a bite did not mean they had contracted the virus.

However, they advised that those who developed any known symptoms of RRV (such as a rash, fever, chilly sensations, swelling and pains in joints or lethargy) should contact their doctors.

The incubation period for the disease is usually between three days and three weeks, with symptoms usually occurring seven to 14 days after being bitten. There is no known cure for the virus which can reappear over weeks, months or years.

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Document nzpa000020010908dv1c013ut

CITY WALKS - CLIFTON HILL.

288 words
4 January 1999
The Christchurch Press
25
English
(c) 1999 Knight-Ridder/Tribune Business News

From the car-park follow the Main Road past Shag Rock, using the gravel path alongside the **estuary** as far as the yacht club at Moncks Bay.

Cross to the signposted Mulgans Track, next to 262 Main Road.

This zigzag track climbs through well-established trees and shrubs to the end of Kinsey Terrace. Pause here to enjoy the wonderful views over the estuary.

Follow Kinsey Terrace, with its impressive older houses, until it reaches Clifton Terrace.

Turn right and walk up Clifton Terrace (note the distinguished tree house) until you reach the top half of the Zigzag.

Turn right and follow the Zigzag up to its exit onto Panorama Road.

Cross the road and follow a steep but short earth track, which climbs to the top of Brownlee Reserve.

There is a children's playground and picnic table - it's a good place to admire the views through the pine trees. From here, wander down the gravel and earth track to the exit onto Clifton Terrace.

Continue downhill along the footpath on Clifton Terrace until you reach the Zigzag on your right.

This track descends rapidly and is steep in places, with great views over Sumner.

The track exits onto Nayland Street and from here you can head for the beach and back to the surf club car-park.

DETAILS: 1hr 30min, 3.5km long, can be reached by No. 3 Sumner bus. Start at car-park beside the Sumner Beach Surf Club, off Main Road.

From Walk Christchurch: 60 short walks that explore your city, published by the city council, \$24.95. Available from bookshops, civic offices, and council service centres. The book includes walk maps.

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Document thepre0020010911dv14004w0

CITY WALKS - MCCORMACKS BAY.

390 words

28 December 1998

The Christchurch Press

29

English

(c) 1998 Knight-Ridder/Tribune Business News

Start from the community centre and follow McCormacks Bay Road into McCormacks Bay Reserve. There is a children's playground here.

Cross the footbridge that leads to the edge of the lagoon and find an interesting display board which features information about the history, plants, and animals of the Avon-Heathcote **estuary**.

More than 100 species of birds have been observed on the estuary, including the South Island pied oyster catcher (torea), variable oyster catcher (torea-pango), pied stilt (poaka), red-billed gull (tarapunga), black-billed gull and black-backed gull (karoro), white-fronted tern (tara) and black shag (kawau), white-faced heron and paradise shelduck (putakitaki).

The route heads eastwards across gravel and grass near the water's edge, crosses a footbridge over a creek, then travels across an open grassed area towards a block of toilets. From here, walk along McCormacks Bay Road to cross Main Road. Be careful, this is a busy crossing, although fortunately there is a pedestrian island.

Once across Main Road turn left into the relative quiet of Beachville Road. Here you pass Redcliffs Park on the right, and then the pretty Celia Street Jetty on the left.

Further along Beachville Road there are popular fishing spots and a house built like the superstructure of a ship.

Watch out for the tiny Beachville Road Reserve, a secluded enclave of seats with a great view over the estuary.

From that reserve, Beachville Road turns inland and rejoins Main Road. Turn right into Main Road.

Since this is a busy road, you might find it safer and quieter to turn right into Celia Street around to Redcliffs Park and its children's playground. Then cut through the park by the toilets to Main Road again. Directly opposite is the Moa Bone Point Cave, a deep hole carved into the dramatic rock face.

Cross Main Road. Rather than walk along the traffic-heavy causeway, wind back along the McCormacks Bay track to the starting point.

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DETAILS: Walk takes 1hr 20min, is 4km long, and can be reached by the No. 3 Sumner, Redcliffs, and Mount Pleasant bus.

From Walk Christchurch: 60 short walks that explore your city, published by the city council, \$24.95. Available from bookshops, civic offices, and council service centres. Book includes walk maps.

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Document thepre0020010927ducs003jf

HILLTOP HAVEN.

By David KILLICK.
497 words
16 December 1998
The Christchurch Press
47
English
(c) 1998 Knight-Ridder/Tribune Business News

Llama Heights enjoys panoramic views from the top of Moncks Spur - ideal for both llamas and mountain goats, writes DAVID KILLICK.

From this hilltop sanctuary, you can gaze down over the **Estuary**, out towards the mountains, and across the ocean to the Kaikouras.

For those who like the idea of living on the Port Hills but also hanker after a country lifestyle, this property offers an appealing combination: it has a huge section for the hills, 9699sqm, or 2 1/4 acres, sloping downwards in a triangular shape.

Its rural zoning will be changed to Living Hills residential. The location and neighbouring pine plantations help shelter it from easterlies and southerlies, but it does cop winter snowfalls.

The original owners planted a vineyard on the slopes but abandoned the venture.

The present owner, who has been here for 10 years, imported products from South America - hence the name. Her pet llama unfortunately died, but a pet sheep and pet goat happily graze. Both are for sale along with the property.

Architect Alun Wilkie designed the spacious house in a traditional style 12 years ago. It is well designed both for family living and running a business.

The sloping drive leads down from Moncks Spur Road to a large double garage. Stairs lead up to a loftroom - great for a studio, gamesroom, guestroom, or escape pad for teenagers. A door opens from the garage to its own private deck.

In front of the entranceway a fountain bubbles away.

Easy-maintenance tiled areas lead to the dining room and main living room on the left. Exposed beams impart a tranquil feel, enhanced by the property's quiet secluded setting. All joinery is rimu, and built-in shelves are a useful feature. Steps lead down to window seat. French doors open to a sunny sheltered timber deck, just the place for relaxing in a hammock.

On the other side of the entranceway are the kitchen, breakfast and casual dining area, and another living room. The kitchen has a wall oven and separate hob, and more french doors open to another deck. Areas flow together well to make practical living spaces. A woodburner provides warmth in the middle of winter.

Also on the ground floor are a toilet, shower, and laundry. Stairs climb to four double bedrooms built into the roofline. The main one has its own balcony and space is available for building an ensuite.

A bathroom with a shower and bath serves this level.

In front of the house, the garden descends in a series of terraces. Proteas and shrubs flourish, while enormous potential exists to expand the garden.

Offers for the property are being invited over \$595,000.

It will be open for inspection today and Sunday, at 226 Moncks Spur Road, from 1.30pm to 2.30pm.

For further information, telephone Marilyn Still, of Ray White United Kent Prier Real Estate Ltd MREINZ, (03) 326-5134.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927ducg004lx

HOW TO PRESERVE WETLANDS TO BE DISCUSSED.

136 words
25 November 1998
New Zealand Press Association
English
(c) 1998 New Zealand Press Association

Wellington, Nov 25 - How best to protect swamps, bogs and coastal **estuaries** in the Australasia and Pacific region will be discussed at a meeting in Hamilton next week.

Wetland specialists from around the Pacific will attend the first ever Oceania regional meeting of the Ramsar Convention on Wetlands.

The international Convention on Wetlands was signed at Ramsar, Iran, in 1971. Five wetlands in New Zealand are listed under the convention as being of international significance.

The convention provides support to member countries on the conservation and sustainable use of wetlands.

Up to 80 delegates from 12 countries will take part in next week's meeting, which will serve as a briefing of Oceania delegates attending the world conference in Costa Rica next May.

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Document nzpa000020010926dubp006gn

RECYCLING COULD GET PERSONAL.

By T W WALKER.
429 words
21 November 1998
The Christchurch Press
21
English
(c) 1998 Knight-Ridder/Tribune Business News

Modern man living in highly urbanised societies is the first animal not to return his own excreta directly to the soil for the recycling of its essential nutrients. The development of sewerage may have solved problems of personal hygiene but shifted pollution problems sideways, often to waterways and the seas.

The disposal of liquid effluent from Christchurch to 2km offshore may well be better than running it into the **estuary**, but surely there are better ways.

The other week at the annual Grassland Conference in Richmond I met up with a former student who is doing excellent work on the recycling of wastes. Mike O'Connor, stationed at Ruakura, is working with engineers to develop a scheme for recapturing the nutrients from sewage at Taupo.

Sewage, treated to remove solids and faecal coliforms, can lead to nutrient enrichment when discharged into waters and increased weed and algal growth. How much better if these nutrients can be harvested by land plants. The Taupo scheme involves the weekly application of 30mm of effluent over 135ha of Taupo silty sand growing rye-grass. During the year each hectare receives a total of 540kg N, 145kg P, 156kg K, and large amounts of sodium and sulphate.

The grass is cut preferably five times a year to make baled silage which is sold to farmers as stock feed. In 1996/7 income exceeded production costs by \$500/ha. The silage is tested regularly for feed quality and freedom from faecal coliforms and listeria.

Some 70 to 75 per cent of the applied N is removed in the silage. Some N must be accumulating in soil organic matter and only about 75kg of the 540kg N applied in the effluent is being lost to the ground waters.

There are problems associated with the system but this research at Taupo is well worth following up. We would need much larger areas of suitable soils, and to pump the effluent for longer distances. Only from November to February could we apply 30mm of effluent a week without water draining through the soil. It may well be cheaper to dispose of the effluent in the sea, and hope it will increase plankton growth and fish numbers out there.

After all, it is not 100 years since we recycled the so-called night soil from our privies in village England. I remember spreading it over a field to be ploughed in. It didn't smell too good but it grew a wonderful crop of cauliflowers.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927dubl006dm

CALL FOR CONTROL OF PREDATORS.

By Seth ROBSON.

276 words

17 November 1998

The Christchurch Press

1

English

(c) 1998 Knight-Ridder/Tribune Business News

Cats, possums, and other pests are the big threats to native birds returning to Christchurch, say experts.

Royal Forest and Bird Society of New Zealand field officer Eugenie Sage said native planting around waterways had encouraged the proliferation of native waterfowl in areas like the **Estuary** but extensive predator control would be required if, and when, native birds returned.

"There is a huge amount of work that needs to be done in terms of plantings and predator control before we get anything like a dawn chorus in Christchurch," she said.

Forest and Bird was trying to raise public awareness about the damage cats, for example, could do to native birds.

"There is no point in bringing the birds back if they are going to get munched by moggies," Ms Sage said.

The Canterbury Regional Council land management officer Rob Gerard said pests like possums were keeping native birds away by stopping native bush regenerating.

"If we bring back the bush we bring back the birds as well," he said.

The regional council will hold a field day at Victoria Park from 2pm on Saturday to teach Port Hills residents how to eradicate predators such as possums, rabbits, goats, ferrets, and other pests on their properties.

Christchurch City Council ecological adviser Colin Meurk said people could encourage native birds to return to the city by planting native plants such as kowhai and New Zealand flax in their gardens for birds to feed on.

There was evidence that native plantings were bringing native birds back to areas where they had been absent for years.

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Document thepre0020010927dubh0067j

COUNCIL FIRM ON PARK BID.

167 words
12 November 1998
The Christchurch Press
8
English
(c) 1998 Knight-Ridder/Tribune Business News

NELSON - The Tasman District Council has responded to public concerns by hardening its line on the question of whether **estuaries** and beaches should become part of the Abel Tasman National Park.

A submission to the Department of Conservation from the previous council on whether the foreshore should be added to the park raised concerns about several aspects of the proposal.

It stopped short of outright opposition.

Now the new council has decided to write to Conservation Minister Nick Smith opposing the proposal to extend the park boundary and expressing concern about the process used in the Department of Conservation investigation.

Mayor John Hurley said there was a groundswell of public opinion against the proposal and the council wished to reflect that.

He said the council, which currently administers the foreshore, agreed that the foreshore and adjacent coastal waters were in need of careful management.

The council was prepared to work with DOC to improve the situation.

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Document thepre0020010927dubc005jo

MANAWATU BIRD BOOK FINDS READY MARKET.

310 words
12 November 1998
The Dominion
9
English
(c) 1998 The Dominion, INL .

A SMALL book titled Birds Seen in the Manawatu is being snapped up by Ornithological Society members who view it as a valuable record of birds they fear could be under threat.

Described by its author Palmerston North amateur photographer Alex Scott as a personal essay, the book features photographs of 45 species of birds, most of which are found at the Manawatu River **estuary**.

Mr Scott said the estuary's value as an ecological sanctuary for New Zealand birdlife and migrating species should not be underestimated.

"Because it's under threat I felt some urgency in creating a record of the birds found there," said Mr Scott.

"The estuary's an important part of the Manawatu region's heritage but the effort to protect it is not going far enough.

"Beach buggies, motor bikes and jet skis are frightening birds away and there's a very real danger that they may not return," Mr Scott said.

"Conservation Department signs warning people to take care have been vandalised and unfortunately they don't appear to have been replaced."

Mr Scott said if human activity was not balanced with the needs of godwits and other migrating species from the northern hemisphere, they could run out of feeding grounds and move elsewhere.

Noise from vehicles being deliberately driven through the estuary was frightening away the birdlife and he feared vehicle tyres were damaging the birds' delicate feeding grounds in the mudflats, he said.

He said he had heard of several people going to Foxton to visit the site after the release of the book four weeks ago.

Mr Scott said he didn't claim to be an expert on birds but he knew enough to know that the Manawatu River Estuary was worth protecting and that something had to be done.

(c) The Dominion, INL 1998.

Document domn000020010923dubc005pv

AUCTION-PROPERTY

59 words

4 November 1998

The Christchurch Press

49

English

(c) 1998 Knight-Ridder/Tribune Business News

A property featured in The Press last month, at 104a Rockinghorse Road, Southshore, was passed in for \$320,000 on Saturday, October 31 (Trevor Petrie, Harcourts New Brighton).

The large family house, fronting on to the **Estuary**, was built in 1987 for engineer and former Olympic canoeist, the late Geoff Walker.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927dub4008hc

PARK-EXTENSION DEBATE KEPT ALIVE.

264 words
29 October 1998
The Christchurch Press
7
English
(c) 1998 Knight-Ridder/Tribune Business News

NELSON - Opponents of a proposed Abel Tasman National Park extension to include adjacent **estuaries** and beaches will get another chance to influence a Department of Conservation report on the proposal.

The department is conducting a formal inquiry for the New Zealand Conservation Authority on whether 1000ha of intertidal land should be added to the park and had received more than 2000 submissions by the closing time on Tuesday.

Nelson-based community relations manager Alan White said 1794 of the 2058 received seemed to be for submissions opposing the inclusion of the foreshore in the park.

Other submissions included opposition from boating groups, iwis, and some of the commercial operators with concessions in the area, and support from environmental groups, the Federated Mountain Clubs, New Zealand Council of Outdoor Recreation Associations, and the Tourism Industry Association.

He said the submissions showed there was a need for further discussion with groups such as Awaroa and Torrent Bay residents, boating organisations, commercial operators, Tourism Nelson, local iwis, and the Tasman District Council before the department prepared its report.

While there was concern at the implications of including the foreshore in the park, part of the problem was inadequate information in the public discussion document and the quality of information presented by the lobby group Concerned Abel Tasman Ratepayers.

Mr White said the process of further discussion should reassure critics that the department was prepared to listen to public concerns. It was still the department's target to submit at least an interim report by next June.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927duat00cil

LIFE'S A BEACH.

By David KILLICK.
573 words
21 October 1998
The Christchurch Press
49
English
(c) 1998 Knight-Ridder/Tribune Business News

A beachside setting with tranquil views over the **Estuary** are key attractions of living in Southshore - an under-rated part of the city, writes DAVID KILLICK. Rockinghorse Road in Southshore runs almost as far as the end of the Brighton spit, with the **Estuary** on one side and the dunes and ocean on the other.

"Want to know how the road got its name?" asks real estate agent Trevor Petrie, who has lived in the area for the last 27 years. Apparently, pioneering businessman Peter Skjellerup owned a house here in the early part of the century, long before the road was sealed. As his vehicle bumped and bounced its way along, his children dreamt up the name Rockinghorse, and it stuck - the name, not the vehicle.

Views over the Estuary make this a relaxing place to live, finds Trevor Petrie. You come home and almost feel you are on holiday, he says. Windsurfers skim across the water, while to the west the mountains rise up over the city.

Engineer and former Olympic canoeist, the late Geoff Walker, appreciated the site when he built a home here 11 years ago. It is ideal for boating. Canoes can be launched from the ramp on the front lawn straight on to the Estuary.

The driveway leads up to a three-bay garage with plenty of storage space, next to a vegetable garden. Native plants, such as cabbage trees, akeake, flax, and a ngaio surround the pergola that leads to the main entrance. Construction is painted brick on the lower level with a timber top storey.

A priority when designing the home was to make sure all main rooms, including the kitchen, enjoyed views west over the Estuary. Windows in all main rooms are double-glazed. From the separate living area, a ranchslider opens to the paved courtyard. Double french doors with leadlights lead into the family room and kitchen.

More ranchsliders open to the courtyard. Here you can relax sheltered from the easterly, watch the sun set, take a dip in the solar-heated pool, warm up in the spa, have a barbecue, dine out or party with guests, or launch that boat.

"When the tide is out, the beach becomes a cricket, rugby, baseball, or volleyball pitch," says Trevor Petrie. Golf practice, fishing for flounder, and nature walks are other possibilities.

Plenty of space is available for family or guests, with three downstairs bedrooms on the eastern side of the house, as well as a bathroom with a big shub, or combined shower and bath. Another toilet is next to the laundry. Stairs lead up to a fourth bedroom, great for teenagers, and further storage space built into the roofline. This bedroom also has a view.

Another staircase leads to the fifth, main bedroom, which has its own balcony overlooking the Estuary, and a small ensuite with a shower. Behind the bedroom is a study or workroom.

The property has a 1060sqm section, or more than quarter of an acre. The 1995 capital value was \$295,000. The property will be open for inspection, at 104a Rockinghorse Road, Southshore, today from 12.30pm to 3.30pm and Saturday from 10am to 11am. It will be auctioned on site on Saturday, October 31, at 1.30pm.

For further information, telephone Trevor Petrie, of Harcourts New Brighton Realty Ltd MREINZ, (03) 382-0043.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927dual00bfi

REVIEW OF WATER-QUALITY STANDARDS.

By Seth ROBSON.
442 words
29 September 1998
The Christchurch Press
6
English
(c) 1998 Knight-Ridder/Tribune Business News

Proposed water-quality standards for the **Estuary** would make an ocean sewage outfall for Christchurch mandatory, local authorities say.

Revisions to the Canterbury Regional Council's coastal plan, due for release on Saturday, require water in the **Estuary** to be suitable for bathing.

Christchurch City Council waste water services manager Walter Lewthwaite said discharges from the Bromley oxidation ponds meant a substantial amount of water in the Estuary would not comply with the coastal plan's standard. It was unlikely that the ponds and treatment plant could be altered to produce bathing quality effluent. "It is technically almost impossible to do it if we retain the oxidation ponds," Mr Lewthwaite said. The proposed \$50 million ocean outfall would solve the problem because it by-passed the Estuary, he said.

The consent for the Bromley treatment plant expires in 2001 but the regional council can review its conditions at any time.

Regional council policy analyst Frank Stewart said there needed to be a gradual improvement in water in the Estuary. "We want to bring it up to the contact recreation standard. That will force the city to take sewage discharge out of the Estuary," he said.

The coastal plan allowed for lower-quality water in the Estuary near the mouths of the Heathcote and Avon Rivers but the regional council would still try to improve water in the rivers, he said.

The plan also proposed lower standards for areas around discharges at the ports of Lyttelton and Timaru, the Timaru sewage treatment plant, the Pareora freezing works, and several other smaller areas. In these places the standard of the water only had to be sufficient to allow fish to survive.

Previously a single water-quality standard had been proposed for the Canterbury Coast, requiring that all sea water be suitable for bathing and gathering shellfish.

The revisions will go through another phase of public hearings but other parts of the coastal plan, based on the decisions of a committee that has been hearing submissions on the plan since 1994, can only be appealed within 15 days before the Environment Court.

Included in the "decisions" are provisions giving more freedom to people living in coastal hazard zones at the end of South Brighton spit.

"We're still proposing to prohibit new homes in hazard zones but repair and maintenance is now permitted so long as it is not needed as a result of sea erosion ... if your house burns down you can replace it, but if it is washed away, then you shouldn't build another one," Mr Stewart said.

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Document thepre0020010927du9t009e7

COUNCIL MAY AVERT WATER THREAT WITH PUMPING PLAN.

237 words

17 September 1998

The Christchurch Press

4

English

(c) 1998 Knight-Ridder/Tribune Business News

The Christchurch City Council may pump water from Linwood to houses in the Woolston-Heathcote area where the groundwater supply is threatened.

City council water services manager Alan Watson said that salt water from the **Estuary** could seep into Woolston-Heathcote groundwater if the amount of water taken by residents and 10 industrial users was not reduced.

"Concentrations of chlorides in this area have been increasing over the last 20 years or more and in some wells are already outside the guideline levels of the drinking water standards for New Zealand," Mr Watson said.

"The reduction needed to maintain groundwater levels at a safe level is in the order of 3000 cubic metres per day." Pumping in water from Linwood would reduce the amount of water taken by two council wells in the area by 1500 litres per day.

Although there were water pipes connecting the Linwood pump station to pump stations in the Woolston-Heathcote area, the system would need to be upgraded and a new booster station built at a cost of about \$360,000.

Mr Watson said industrial users with their own wells in the area would either have to reduce consumption or buy water from the council.

However, this would cost more than using their own wells since more water would have to be pumped in from outlying areas.

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Document thepre0020010927du9h00gcq

ANGRY CALL FOR EFFLUENT STATUS QUO.

By Mike BRUCE.

353 words

16 September 1998

The Christchurch Press

4

English

(c) 1998 Knight-Ridder/Tribune Business News

Leave the treated-effluent outfall in the **Estuary**.

That was the clear message from many of the 55 residents at a public meeting in South Brighton last night.

Many residents said that sewage from a proposed 2km ocean outfall pipe could foul their beaches within three hours of discharge.

The Christchurch City Council has decided to give the option of pumping treated waste water from the Bromley plant underground to a point 2km off the South New Brighton beach "favourable consideration".

The council has approved further scientific investigation and consultation on the outfall.

Council liquid wastes engineer Walter Lewthwaite said the \$30m upgrading of the Bromley sewage plant, combined with the \$48m outfall, would vastly improve water quality in the Estuary and the ocean. "That will reduce the bug count 20 times and have a much higher dilution. Logically it has to be better than now," Mr Lewthwaite said.

However, one resident reacted angrily when Mr Lewthwaite was unable to guarantee that the discharge would not wash up on Brighton's coast.

"If you can't promise me that my kids won't get sick from swimming here, then I want someone held responsible," the resident said.

One resident said that if the \$30m Bromley plant upgrading was to improve the treated waste water quality as much as the council claimed, the discharge should be left in the Estuary.

"The working party has been captured by the estuarine people who are pushing their own barrow. If the improved water quality is as good as you say, then leave it in the Estuary," he said.

Other residents said that the council was preferring to listen to consultants rather than people who had local knowledge of the tides and conditions. "We live here and we know what happens here. What if you have got it wrong?" one resident asked.

Resident Peter Haughey cited examples where ocean outfalls had proved inadequate. Mr Haughey said in an average easterly, the ocean discharge could reach the beach in about 3 1/2 hours.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927du9g00g2l

PROPERTY AUCTIONS.

68 words

2 September 1998

The Christchurch Press

47

English

(c) 1998 Knight-Ridder/Tribune Business News

A property at 204 Cannon Hill Crescent, Mount Pleasant, which featured in The Press, sold at auction for \$410,000 on August 27 (Nerina Higgins, Harcourts Phoenix).

The home, which has commanding views over Christchurch and the **Estuary**, was designed by Bill Gregory, of Architecture Warren and Mahoney, incorporating both new and old materials to give it a classic appearance.

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Document thepre0020010927du9200ejz

MAYORAL CANDIDATES ON - HEALTH.

1,212 words
1 September 1998
The Christchurch Press
5
English
(c) 1998 Knight-Ridder/Tribune Business News

Yesterday on this page The Press featured health - identified as one of the top 10 voter concerns in a July poll on local body election issues. Today mayoral candidates offer their views on the subject.

DEREK ANDERSON (Making It Happen for You): Council should be a mover and shaker, an advocate and facilitator, but not a service provider for hospital services. I am a strong advocate of council encouraging residents to adopt healthy lifestyles with good exercise, diet, and stress-free lives. Many of these choices are free. It costs me nothing to row my old dinghy on the **Estuary** or walk in Barnett Park. Council has to make sure low cost opportunities are provided to all residents, including the free use of sports grounds. I support all council's activities in promoting sport and other exercise.

GRAHAM BERRY (Pick the Berry Team): One of the most important things I can do for the city as Mayor is to lobby central Government for adequate health funding for our region. For example the cardiothoracic unit cost \$5 million (plus \$4m pa), and the council funded \$80,000 but only the Mayor's lobbying made it happen. Being independent and with my working relationship with health professionals means I am able to work with whoever is in government and represent Christchurch in the decision-making process to ensure future health funding meets our growing needs, especially in senior, mental, and children's health rather than reacting after decisions.

CAROLYN DRAKE (Natural Law Party): The Natural Law Party's aim is to create a disease-free society through the introduction of the prevention-oriented, natural health care system of Maharishi Vedic Approach to Health. The first goal, backed by scientific research, is to eliminate 50 per cent of all disease in Christchurch within three years, thus significantly reducing health care costs. People can choose the best of both natural medicine and modern medicine. The party wants all genetically engineered foods labelled and advocates a total ban on the introduction of any more genetically engineered foods, which are the greatest danger of any technology yet introduced.

MORGAN FAHEY (Independent City Wide - City Pride): The Mayor and council have a vital role to monitor the health of the citizens and ensure that health care is affordable, efficient, safe, and prompt. As a family physician in Christchurch for 35 years, caring for thousands of patients, I have the experience to judge what is needed for better health and how this can be achieved. When others doubted that there was a safety issue at Christchurch Hospital I was the only councillor who actively supported the doctors and nurses in their claims, by lobbying the Prime Minister and speaking to the appointed health commissioner.

GORDON FREEMAN (Independent): Good health is a fundamental right for everyone in Christchurch. Council has a vital role to play in protecting and developing a healthy and safe city. The air we breathe, the water we drink, the houses we live in, the food we buy, the pools we swim in, and the parks we play in must be of the highest standard. The council must work with health authorities and social welfare organisations to ensure full access to health care for all residents, particularly the elderly, children, and those on a low income who worry about the cost of good health.

FRASER GRAHAM (Black Lodge): As a purely symbolic gesture I would like to ban Jenny Shipley from Christchurch. The council should advocate and lobby for a publicly owned health system. Apart from that, eat lots of fresh fruit and vegetables and you'll be fine. Smog? Stop using open fires otherwise it will never go away.

RUTH GRAY (Communist League): Health care is a basic human right and should be free for all. Government cutbacks have not only targeted patients but also health workers. I support and have participated in protest actions by communities to defend their hospitals, and by health workers to defend their wages and working conditions. It is only by fighting side by side through our unions and through actions on the streets that working people can defend our right to health care. The city council should actively build support for these protest actions.

BILL GREENWOOD (Independent): We are spending way too much on after-sickness treatment. Our goal should be preventative medicine.

MICHAEL HANSEN (Economic Euthenics): I believe all children should be inoculated in the public interest - needles are now very thin and don't hurt so much. Because of their low wages all apprentices should get regular free dental care via the Government. (Abridged for relevance).

GARRY MOORE (Chch 2021 - The Positive Choice): Garry Moore was a member of the Area Health Board. He is committed to being an advocate for good health services here. Council does not deliver

personal health services, but has some public health responsibilities. The next council will address unnecessary duplication between the city and Crown Public Health. Garry supports council housing initiatives alongside preventative health programmes for children and families, like the provision of sporting facilities, community based employment initiatives and family programmes like Wai Ora Trust and Early Start. Health is essentially the responsibility of central government and the council's role is to keep them delivering.

MARGARET MURRAY (Citizens - Responsible Leadership): Citizens identify safety and health as a high priority - starting with basics such as clean water, excellent sewer disposal, clean air, and jobs. We see more open public space as necessary for a healthier environment, and keeping sporting charges low. A healthy city needs a sense of security and togetherness. The major free concerts help community wellbeing. So do simple things, for example improved signage, better amenities, facilities, and street cleaning in every suburb. A healthy city is a safe city. We will take a proactive approach to this, involving everyone and giving it greater priority to find lasting solutions.

KEVIN O'CONNELL (Aotearoa Legalise Cannabis): I will support council initiatives (and lobby government) to encourage personal responsibility in the health area. We need to leave our polluting cars at home a lot more, and walk and cycle places instead, enjoying the fresh air. The Pegasus Doctors' excellent initiative to prescribe exercise courses reflects my positive health philosophy. I do not support harmful use of drugs, nor harmful use of drug laws. Cannabis prohibition is extremely poor policy. Enforcing the law is self-defeating and use of the drug is driven underground, worsening problems. Regulating and taxing the \$3 billion cannabis trade will provide considerable income.

PAUL TELFER (One Nation): Better parking needed, especially for the disabled people attending the Christchurch Hospital. I plan to achieve this by eliminating the red tape surrounding this parking project. Christchurch City Council permission to be granted for a helicopter pad to be moved closer to the emergency centre.

PETER WAKEMAN (Save Assets Spend Wisely): I support the Christchurch City Council and Canterbury Regional Council objective in getting clearer air for the city. We all need to do our bit, for example walking, cycling, or using public transport. I would support planting more native trees for birds to feed on due to the better smell more trees create.

Tomorrow: candidates' views on roading and buses.

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Document thepre0020010927du9100ec6

SOMETHING OLD, SOMETHING NEW.

By Jan McCARTHY.
463 words
8 August 1998
The Christchurch Press
41
English
(c) 1998 Knight-Ridder/Tribune Business News

Perched high on the Port Hills, this stately Mount Pleasant home has a touch of timeless elegance with its simple, clean lines. Its location gives it commanding views across the **Estuary** and Christchurch to the snow-capped mountains in the distance.

Designed by Bill Gregory, of Architecture Warren and Mahoney, the layout of the four-bedroom executive home maximises space, light, and views.

Bill Gregory says the design was sympathetic to incorporating a collection of salvaged building materials the owners had bought over the years. Classical-styled french doors from Coronation Hospital, and bay windows, polished hardwood flooring, and Marseilles tiles from old Christchurch villas give the three-year-old home an aged look.

The home has perfect symmetry: each level divided down the middle makes a mirror image. It opens to a generous entrance, with the eye drawn to the magical views that fill almost every room.

Throughout, polished wooden flooring adds a richness and warmth to the neutral decor, and the high stud gives a sense of loftiness.

The open-plan dining room and living room, each with a conservatory at the end to capture that first and last sun of the day, stretch the length of the ground floor. Each is light and sunny, and has three french doors opening to separate patios that lead to the extensive garden, which is still being developed.

The kitchen tucks into the rear of the dining area. It has a terracotta tiled floor, an island workbench with sink and gas cooktop over which hangs a large extraction unit, a large pantry, book shelving, and an inverted V-shaped seat.

Behind the living area is the downstairs bathroom and laundry, with external access.

Stairs wind to the second-level bedrooms. Two open off either side of the expansive landing, which incorporates a study area, with the yet-to-be-completed main bathroom on the southern wall.

Each bedroom has an angled ceiling, ample storage, and access to a covered balcony.

The house sits on a large 2705sqm section. An expanse of lawn extends from the patio to a stone-walled garden planted with roses and lavender. Steps lead down to a paved barbecue area. There is also a small formal garden with a fountain. Much of the remaining section is still to be developed.

This property, at 204 Cannon Hill Crescent, Mount Pleasant, has a capital value of \$350,000 and will be auctioned on Thursday, August 27, at 6pm at the Avon River Centra, 356 Oxford Terrace. It will be open for inspection tomorrow and Wednesday from 3pm to 4pm.

For further information phone Nerina Higgins of Harcourts Phoenix Real Estate Ltd MREINZ on 348-0923 or 025 316-330.

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Document thepre0020010927du8800cop

SEA OUTLET FOR SEWERAGE SYSTEM.

By Mike CREAN.

278 words

29 July 1998

The Christchurch Press

1

English

(c) 1998 Knight-Ridder/Tribune Business News

A \$47.6 million upgrade recommended for Christchurch's sewerage system would discharge treated waste water 3km out to sea.

A Christchurch City Council working party, set up 18 months ago to recommend on disposal of waste water from the Bromley treatment plant, has chosen sea discharge ahead of discharges to land and to the Avon-Heathcote **estuary**.

The sea outlet would involve a 1.5m-diameter underground pipe running down Bridge Street and into Pegasus Bay.

The pipe would not be visible at any point. Waste water would be treated and discharged into ponds as at present, with extra disinfection before discharge through the pipeline.

The cost of the scheme would be additional to the \$30m of improvements which have begun to enlarge the Bromley plant and reduce the smell from it. Operation of the sea discharge system would cost \$275,000 a year.

The working party consisted of council staff, elected members, community and business interests, and scientific consultants.

Its recommendation will be considered by the council over the next month.

If adopted, the sea outlet could replace the current outlet into the Estuary in five years.

Waste water engineer Walter Lewthwaite said the sea outlet was the best option environmentally, operationally, and economically.

The removal of human effluent from the Estuary would greatly improve water quality there. This would cut sea lettuce growth by up to 90 per cent, reducing a source of unpleasant odour.

Estuary water would become suitable for bodily contact, but continued pollution from the Avon and Heathcote Rivers would still make shellfish gathering in the Estuary dangerous.

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Document thepre0020010927du7t00j54

DOC IN BID TO GUARD NATIONAL PARK'S SHORE.

By Howard KEENE.

200 words

25 July 1998

The Christchurch Press

3

English

(c) 1998 Knight-Ridder/Tribune Business News

Conservation Minister Nick Smith has started a process that could add 1000ha of beaches, **estuaries**, and rocky shoreline to New Zealand's most overcrowded national park.

"It's an anomaly that the beaches of Abel Tasman are not actually in the park," Dr Smith said.

"It comes from an era when only land-based conservation was seen as important. The addition of the foreshore makes good sense and I hope the community will support it."

Adding the foreshore to the park would enable the Department of Conservation to better manage the park.

"Abel Tasman National Park is an icon of our region and our favourite playground. We need to focus on how we can ensure it stays that way for all of the next millennium."

DOC's Nelson-Marlborough community relations manager, Alan White, said DOC was not looking at the Abel Tasman foreshore for revenue gathering.

"What we're trying to do is grapple with how we deal with increasing use of the coast."

Some operators who transported people into the park by boat would need to get concessions, he said.

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Document thepre0020010927du7p00imx

LAVENDER VIEWS.

By David KILLICK.
484 words
15 July 1998
The Christchurch Press
45
English
(c) 1998 Knight-Ridder/Tribune Business News

Panoramic views and a botanical setting enhance this Clifton Hill home. Panorama Road on Clifton Hill is appropriately named. High above the Christchurch smog, views take in Pegasus Bay, the Kaikouras, the **estuary**, the city, and the snowclad Southern Alps to the west.

A unique microclimate seems to be always a few degrees warmer than on the flat, so roses and lavender still flourish, even in the dead of winter.

A home designed 28 years ago by J. Hodgen enjoys both these attributes. Set on a manageable 612sqm section, the garden is lush and well established. You follow the driveway which leads down from Panorama Road, past a cobbled off-street parking area for visitors, to a double garage underneath the house.

On one side is a goldfish pond. Other landscape features include an armillary sphere and a pergola surrounded with lavender. Rhododendrons and a magnolia will usher in spring colour, while gum trees and natives provide year-round greenery.

Open a gate and step down onto a flat lawn, ideal for secluded gatherings. An expansive area underneath the balcony creates shade - not a priority now, but practical in mid-summer.

Clean lines and a sloping roof are typical of trend-setting early 70s architecture. Materials used blend in with the landscape: a concrete base, dark-stained vertical battened timber, clinker brick, and a tiled roof.

Steps lead up to the main entrance. Inside, the clinker brick provides a feature wall, separating the main living area from the entrance hall. Terracotta tiles further define the hallway.

Picture windows in the open-plan living and dining area take in the view, providing a stimulating environment for friends and family. Ranchsliders open to a spacious deck, ideal for outdoor dining or entertaining, from the morning right through to sundown. Steps lead down to the garden.

The kitchen, at one end of the living area, has been brought up to date by designer Vicki Andrews, of Asmac Kitchens. Dark blue, easy-clean benchtops contrast with a stainless steel oven and gas hob. Vinyl flooring looks like terracotta tiles, but has the advantage of being warmer and softer.

A hallway leads back to four bedrooms on the shadier side of the house. Colours are warm wheat yellow, light eggshell green, and white. Two bedrooms are used as a study and workroom. Skylights and deep windows have generously sized rimu joinery.

The main bathroom has a terracotta tiled floor, and is fitted with a bath and shower.

The property, at 110 Panorama Road, Clifton Hill, has a capital value of \$270,000. It will be open for inspection on Wednesday and Sunday from 1pm to 1.30pm, and will be auctioned at The George Hotel, Christchurch, on August 11, at 7pm.

For further information, telephone Ron Kirkland, of Ray White United Real Estate Ltd MREINZ, (03) 326-5134.

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Document thepre0020010927du7f003yf

ROYAL VIEWS FROM BALMORAL.

By David KILLICK.
587 words
24 June 1998
The Christchurch Press
41
English
(c) 1998 Knight-Ridder/Tribune Business News

DAVID KILLICK is tempted to enjoy a cappuccino on the deck and soak up the views high above the smog on Balmoral Hill. Clean lines and an open airy feel characterise a house designed by architect Malcolm McClurg.

With a commanding position above Redcliffs on Balmoral Hill, the home enjoys sweeping views from Scarborough in the east to Christchurch and over the plains towards the mountains in the west. Below are the ever-changing tidal patterns of the **Estuary**.

Because the house is so open, with huge floor-to-ceiling windows, the views embrace you; you feel part of the scenery, instead of being walled off from it. You can sit on a sheltered deck on the north or eastern side of the house, or watch the sun set from a west-facing patio.

Malcolm McClurg says a curving roof was chosen - rather than flat - to be in harmony with nearby townhouses.

Corrugated iron on the sea-facing side gives the house a coastal bach-like feel, while solid plaster was used on the hill side. The walls were made as open as possible on the side facing the sea.

Colours from the Country Colours range, inside and out, were designed to reflect the sand and sea. External colours are eagle - a sand colour; and carnac - a shade of khaki. The metal roof and some of the walls are painted denim blue.

Walls inside are painted cord, another sand colour, rhone blue, and bruised plum. Carpets are sand-coloured sisal.

The deep-red coloured door, with its stylish chrome handle, opens into a light hallway with a rimu tongue-and-groove floor. To the left is the main living room, with a bifolding door opening out to a patio.

An alcove would be ideal for putting in a fire, or would be suitable for an entertainment centre. The home is piped for gas.

The living area also opens on to a west-facing balcony. Next is a casual living area, directly in front of the kitchen. This is a natural focal point, allowing meals to be cooked while still enjoying the views.

A barrel-vaulted roof curves down towards the front of the house. The kitchen boasts stainless steel appliances, including a gas hob, with a satin-finished sink set into a dark-grey benchtop. Walls are a deep, dramatic colour called pacemaker purple.

On the right side is a dining room, which opens on to its own east-facing balcony.

This room leads back to the entrance hall. Opening off the hallway are a bedroom, a guest bathroom painted bruised plum, and internal access to the two-car garaging.

Halogen lights guide you downstairs. The main bedroom opens out to the lawn, and has its own walk-in dressing room and ensuite bathroom, with a stepless shower and heated mirror. Another bedroom on the eastern side also opens to the garden, while the main bathroom has heated tiles, a shower, and bath. Next to it is the laundry. Between the two downstairs bedrooms is a large study or living area, which also enjoys fine views. This could be converted into two separate bedrooms.

Landscaping will feature easy, low-maintenance plants.

The property is priced at \$650,000 negotiable. A separate section next door, which could be suitable for a tennis court, is also available at \$200,000 negotiable.

For further information, telephone Julie Cunningham, of Julie Cunningham Real Estate MREINZ, (03) 326-6119.

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Document thepre0020010927du6o00gpp

COMMUNITY CALENDAR.

260 words
15 June 1998
The Christchurch Press
24
English
(c) 1998 Knight-Ridder/Tribune Business News

Heathcote River

Dennis Preston will talk about Lower Heathcote River development plans at a public meeting of the Friends of the Avon Heathcote **Estuary**, today at 7.30pm at the Mount Pleasant Yacht Club.

Linwood High open night

Guided tours of Linwood High School, Aldwins Road, will be available from 5.30pm to 8pm on Wednesday.

Infertility Society gathering

The Christchurch Infertility Society is hosting a free public Midwinter Gathering on Wednesday at 7.30pm, at Aldersgate Methodist Mission, 309 Durham Street (opposite Law Courts). Refreshments provided. Phone Debbie 337-0859.

Migraine support group

Pharmacist Neil Foster will address a meeting of the Migraine Support Group on Wednesday at 7.30pm at the Somerfield Community Centre, 47 Studholme Street. Cost: \$2 donation.

Papanui High fundraisers

The Papanui High School PTA is holding a Trivia Night on Thursday at 7.30pm at the Papanui Working Men's Club, Sawyers Arms Road. Cost: \$5 a head. Tickets: Papanui High. To reserve a table phone 352-3473. A garage sale will be held at the school, 30 Langdons Road, on Saturday, 9am to noon, for the First XI to attend the Sydney Youth Cricket Festival. If you have goods to donate, phone Margaret Cottrell 355-9975.

Women's Ball

A Women's Ball will be held on Saturday at 8pm at 520 Cranford Street to raise funds for four-year-old Karly, who is sight impaired. All-woman band Taboo will play. Tickets \$15, \$12, from Kate Sheppard Bookshop. Inquiries phone Chrissie Parker 388-3544.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927du6f00ne5

MAORI IMPOSE SHELLFISH BAN AT BOP ESTUARY.

118 words
27 May 1998
New Zealand Press Association
English
(c) 1998 New Zealand Press Association

Tauranga, May 27 - A three-week ban has been placed on the taking of seafood from Little Waihi **estuary**, south of Te Puke in the Bay of Plenty, following the drowning of a Rotorua man last week.

John Daly, 70, is believed to have suffered a heart attack as he was collecting pipi in the **estuary** last Thursday.

Mr Daly owned a home at Little Waihi and had been a regular visitor to the beach for many years.

Kaumatua Tewano Walters and Wikiriwhi Pararaki Wikiriwhi placed a rahui (ban) over the area on Sunday and it has since been endorsed by the local tribal committee.

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Document nzpa000020010926du5r00nos

SEAWEEK TO START WITH FREE SLIDE SHOW.

94 words

4 March 1998

The Christchurch Press

4

English

(c) 1998 Knight-Ridder/Tribune Business News

Seaweeek, an annual celebration of New Zealand's oceans, begins on Friday with a free slide show at the Aquarium of Discovery in Cathedral Square. This year's theme, Mountains to the Sea, focuses on the impact of rivers on **estuaries** and oceans.

On Saturday an **estuary** forum will be held at the Mount Pleasant Community Centre from 9am to 1pm and a discovery day at Seafield Park in Brooklands from 1pm to 3pm. The Canterbury Museum will have a display.

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Document thepre0020010927du3400onp

STUDY ON SEWAGE WETLANDS.

By Seth ROBSON.
360 words
12 February 1998
The Christchurch Press
4
English
(c) 1998 Knight-Ridder/Tribune Business News

The Christchurch City Council may create several hundred hectares of wetlands around the **Estuary**.

The wetlands would be used to treat sewage from the council's Bromley plant before it was discharged into the **estuary**.

They would also provide a habitat for native birds, fish, and insects, and a recreation area for people.

Consultant Cliff Tipler said creating wetlands was one of six options being examined closely.

The size of the wetlands would depend on the treatment options bought by the council.

A lower treatment level required 120ha to 180ha of wetlands but 300ha to 400ha could be used to produce a better quality effluent.

The council already owns hundreds of hectares of waste land around the Estuary, including a large farm, that could be converted to wetlands.

The land, like most of Christchurch, is low-lying and was originally a wetland.

Restoring wetlands around the Estuary was first proposed in 1994.

Plan on back burner

Council planner Christine Heremaia worked on the proposal, known as the Green Edge plan. The Green Edge was on the back burner while the council debated its City Plan but it would fit in well with the wetlands sewage treatment option, she said.

The Green Edge plan called for fresh and saltwater wetlands west of the Bromley oxidation ponds. Walkways through the wetlands would link suburban parks and cemeteries to the Estuary.

There would also be a visitor centre, picnic areas, and some grass fields where pukekos could feed.

Ms Heremaia said the wetlands proposed in the Green Edge plan could take some effluent from the oxidation ponds but not all of it.

There are two problems with the wetlands option.

Too many birds defecating in the water might pollute it and there was a question mark over the type of reeds that should be planted.

Wastewater engineer Walter Lewthwaite said the Bromley plant's consent was due for renewal in 2001 under the Resource Management Act 1991.

The other options being looked at include an ocean outfall, revised discharge into the Estuary, nutrient removal, disinfection, and discharge on to land.

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Document thepre0020010927du2c00uhj

LAST OF STRANDED DOLPHINS DIES.

131 words
27 January 1998
The Dominion
12

English
(c) 1998 The Dominion, INL .

THE last of a group of stranded dolphins in Golden Bay's Puponga **estuary** has died.

The dolphin, one of six that became trapped in the **estuary** on January 11, was the third to die. The other three were successfully led back to the sea last week.

The lone dolphin had been cared for by Golden Bay children, who poured water over it in shallow water and swam beside it in a tidal pool at the base of Farewell Spit.

The children and local Maoris were to take part in a karakia or funeral service for the dead dolphin at Puponga yesterday.

Samples of the mammal will be sent to Massey University for analysis. - NZPA

Supplied by New Zealand Press Association.

(c) The Dominion, INL 1998.

Document domn000020010923du1r00obz

SECOND DOLPHIN DIES.

164 words
20 January 1998
The Dominion

6

English

(c) 1998 The Dominion, INL .

A SECOND dolphin has died at Golden Bay, a week after six dolphins swam into the **estuary** at Puponga, northeast of Nelson.

The Conservation Department was waiting to see if the last dolphin left in the tidal pool would swim out to sea, field officer Kaye Stark said yesterday.

After the six swam into the estuary eight days ago, one died. Conservation staff took three out to sea at Pakawau last week. When the dolphins beached themselves on mudflats the staff took them out to sea at Port Tarakohe.

The staff found the second of the two dolphins at the estuary dead on Sunday. There was no obvious cause of the adult female's death and it had been put on ice to send to Massey University, Ms Stark said.

Conservation staff unsuccessfully used the dead dolphin to try to lure the other dolphin to the shoreline on Sunday. - NZPA

Supplied by New Zealand Press Association.

(c) The Dominion, INL 1998.

Document domn000020010923du1k00ne7

WATCHING BRIEF ONLY FOR ESTUARY DOLPHINS.

154 words

16 January 1998

The Christchurch Press

6

English

(c) 1998 Knight-Ridder/Tribune Business News

Two dolphins stranded in a Golden Bay **estuary** are getting enough food and will be left alone at present, the Department of Conservation says.

The two remained of a group of six dolphins which swam into the Puponga **estuary**, north-east of Nelson, on Sunday. One dolphin was later found dead and three were guided back to the sea on Wednesday night. DOC spokeswoman Kaye Stark said the remaining dolphins were not in any distress and enough food was coming into the **estuary** for them. They would be given the chance to leave the **estuary** by themselves. Visitors had not annoyed them and local people would keep an eye on them and report to DOC. Ms Stark said there were no reports of the three dolphins which had been taken out to sea coming back.-NZPA

Supplied by New Zealand Press Association.

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Document thepre0020010927du1g00sv9

THREE DOLPHINS RETURNED TO SEA.

221 words
15 January 1998
The Christchurch Press
7
English
(c) 1998 Knight-Ridder/Tribune Business News

NELSON - Three of the five dolphins stranded in an **estuary** in Golden Bay have been returned to sea.

Six dolphins became trapped in the Puponga **estuary** in Golden Bay on Sunday. One has since died.

DOC area manager Peter Lawless said yesterday that three of the remaining five dolphins became stranded on sand yesterday afternoon when the tide went out.

He told National Radio that DOC staff loaded the dolphins on to mattresses on the back of trucks and took them to a nearby beach.

"We held them in shallow water and guided them past the sandbar that was causing them a bit of trouble," he said.

"But they took to it quite well, and when they were last seen they were about a kilometre off shore and heading out to sea, so it looks like it has been successful."

Mr Lawless said DOC staff would keep a close eye on the two dolphins remaining in the estuary.

DOC staff tried unsuccessfully on Monday to shepherd the five dolphins toward the open sea using kayaks and a motorboat.

If the dolphins did not leave the estuary of their own accord, a decision would have to be made on when to attempt a rescue.-NZPA

Supplied by New Zealand Press Association.

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Document thepre0020010927du1f00sqz

BUBBLE NET MAY SAVE DOLPHINS.

251 words

15 January 1998

The Christchurch Press

7

English

(c) 1998 Knight-Ridder/Tribune Business News

NELSON - The Department of Conservation may use audio equipment or a bubble net to guide a group of dolphins stranded in the Puponga **estuary** in Golden Bay since Sunday.

DOC staff tried unsuccessfully on Monday to shepherd the five dolphins toward the open sea, using kayaks and a powerboat.

DOC spokeswoman Kaye Stark had said the dolphins would be left alone but closely watched. She said yesterday the bubble net was a rescue option as was use of audio equipment, although she preferred the net.

A compressor is used to blow bubbles out of a 170m hose. The dolphins interpret the bubbles as a solid mass and swim in the opposite direction.

Ms Stark said conditions had to be right to use the bubble net. It would not have worked on Monday, when a strong south-westerly was blowing across the estuary.

The department has bubble-net equipment in Takaka and has used it to rescue stranded pilot whales. Ms Stark said she would contact Marineland in Napier for an idea of how much food the dolphins would need to sustain them while trapped in the estuary.

If the dolphins did not leave the estuary of their own accord at high tide, a decision would have to be made on a rescue. If left too long without adequate food the dolphins might become too weak to survive in the open sea, she said. - NZPA

Supplied by New Zealand Press Association.

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Document thepre0020010927du1f00spg

DOLPHINS RETURN TO SEA.

146 words
15 January 1998
The Dominion

3

English

(c) 1998 The Dominion, INL .

THREE of the five dolphins stranded at Puponga **Estuary** in Golden Bay since Sunday were seen swimming out to sea yesterday evening after help from Conservation Department staff.

The department's Golden Bay area manager, Peter Lawless, said the rescue effort began after the dolphins appeared to lose their way and became stranded in shallow water by the falling tide yesterday afternoon.

The dolphins were covered with sheets and kept cool with water.

Staff then lifted them on to mattresses and loaded them on to trucks, which drove them to another part of the shore with deeper waters, where they could swim to sea.

They were last spotted at 7.15pm swimming out to sea.

Mr Lawless said department staff would watch the remaining two dolphins till they either became stranded or found their way to sea.

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Document domn000020010923du1f00nh3

TRAPPED DOLPHINS STAY PUT.

159 words
14 January 1998
The Dominion

11

English

(c) 1998 The Dominion, INL .

CONSERVATION Department staff are keeping a close watch on five dolphins stranded at Puponga, in Golden Bay, and will consider further rescue attempts in two to three days.

The dolphins, including one that died, swam into the Puponga **estuary** near Farewell Spit on Sunday morning. They are in two metres of water but are effectively cut off from the open sea when the tide recedes.

Department spokeswoman Kaye Stark said yesterday morning that the dolphins were in a confined space and could be under stress, and it was important the public respected that.

There was not enough food coming into the pool where the dolphins were, and they would start to get hungry soon.

The problem was judging when to make another rescue attempt, because if it was left too late the dolphins could be too weak to survive in the open sea. - NZPA

Supplied by New Zealand Press Association.

(c) The Dominion, INL 1998.

Document domn000020010923du1e00ndk

DOLPHINS RESIST RESCUE EFFORTS AT GOLDEN BAY.

301 words
13 January 1998
The Christchurch Press
7
English
(c) 1998 Knight-Ridder/Tribune Business News

WELLINGTON - A group of dolphins stranded in an **estuary** in Golden Bay, north-west of Nelson, yesterday resisted Department of Conservation workers' efforts to return them to the sea.

DOC Golden Bay area manager Peter Lawless said staff using boats and kayaks attempted to guide the five dolphins out of Puponga **estuary**, 50km north-west of Takaka, yesterday at high tide.

"But the dolphins were swimming quickly and freely and didn't take a whole lot of notice of the boats," he said.

DOC hoped the dolphins might swim out of the estuary by themselves at high tide at midnight. Six dolphins found their way up the channel of the estuary on Sunday morning. When the tide receded they became trapped in a pool of water. A bird watcher alerted DOC staff in Takaka. One female dolphin was dead but five others, including a mother and her calf, were still alive when DOC staff arrived at Puponga.

Mr Lawless said the dolphins had quite a lot of water to move around in and were not distressed or in any immediate danger.

"Eventually they'll get hungry and more eager to find their way out," he said.

DOC staff would reassess the situation this morning. In the meantime, a staff member would stay at the estuary to make sure no-one harassed the dolphins.

Mr Lawless said about 30 to 40 people were at the estuary at any one time to watch the dolphins.

The dead dolphin, about 70kg and just under 2m long, was removed from the estuary with iwi approval.

It was to be put on ice before being flown to the Massey University Cetacean Investigation Centre for an autopsy.-NZPA

Supplied by New Zealand Press Association.

(c) The Christchurch Press, INL 1998.

Document thepre0020010927du1d00w32

FRESH WATER IN CANTY GETS MIXED MARKS.

124 words

13 January 1998

The Christchurch Press

6

English

(c) 1998 Knight-Ridder/Tribune Business News

Water quality at Canterbury beaches is good this summer, but some fresh water areas do not pass, the Canterbury Regional Council says.

Water at 70 sites throughout the province is tested weekly during the summer to assess any risk of illness to swimmers. While coastal waters and most lakes are good, poor water quality has been recorded at 16 sites, mostly fresh water. Contaminated sites were: the Ashburton River, Centennial Park Lake in Timaru, two sites on the Selwyn River including Coes Ford, the Waimakariri River below State Highway 1, the Groyne picnic area, the Avon River at the Antigua boatsheds, two sites in the **Estuary**, and the Cust main drain.

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Document thepre0020010927du1d00w2z

DOC MAY TRY BUBBLE NET TO FREE TRAPPED DOLPHINS.

338 words
13 January 1998
The Dominion

1

English

(c) 1998 The Dominion, INL .

THE Conservation Department will consider using a bubble net for the first time today to guide to safety a group of dolphins stranded in an **estuary** in Golden Bay, northwest of Nelson.

Golden Bay area manager Peter Lawless said the department would review the situation this morning after attempts using boats and kayaks to guide the five dolphins out of Puponga **estuary**, 50 kilometres northwest of Takaka, proved unsuccessful yesterday.

The net, which had worked with stranded pilot whales in the past, created a bubble barrier that could attract dolphins, which navigate by sonar.

Compressed air bubbles would be blown through the net to guide the five dolphins out of the estuary.

The dolphins' sonar did not work in the shallow estuary.

Department staff were hoping that the dolphins would swim out of the estuary by themselves.

Mr Lawless said the dolphins might have become stranded because one of the group had become ill and the others had stuck around to help.

It was also possible they had been chasing fish and swam into the estuary by accident.

The dolphins had quite a lot of water to move around in and were not distressed or in immediate danger.

The water in the estuary channel was only deep enough for them for a couple of hours either side of high tide, he said.

"Eventually they'll get hungry and more eager to find their way out."

Puponga resident Deborah Warring said one dolphin had died on Sunday and the other five had ignored attempts to move them out of a tidal pool under the bridge leading to the farm park at the base of Farewell Spit.

"They're just cruising around - they don't seem to want to go. Maybe it's got something to do with the death.

"We've had reasonably big tides and they're still covered in water, but it won't be pleasant for them if the tides get smaller."

(c) The Dominion, INL 1998.

Document domn000020010923du1d00qoj

WILDLIFE OF THE CHCH ESTUARY.

560 words
26 August 1997
The Christchurch Press
24
English
(c) 1997 Knight-Ridder/Tribune Business News

ASK A SCIENTIST

Shanel Whiteford, of South New Brighton School, asks: How many different kinds of birds use the **estuary?**

Andrew Crossland, an ornithologist consultant, responds:

The total number of bird species recorded on the Estuary is 115, about one third of all bird species known to occur in New Zealand.

They weren't all seen at the same time. Some of them - for example, pied stilts and white-faced herons, live there year round, but most of the others visit for only part of the year.

Canada geese and paradise ducks nest in mountain valleys and lakes during spring, but in autumn and winter these places are too cold for them (the lakes often freeze over with ice), so they come to the Estuary where it is warmer and there is plenty of food.

Other birds migrate here from almost as far away as the North Pole. The most famous of these is the godwit, which arrives at the estuary in September and leaves in March. You can see them resting at high tide on a sand island near the Spit tip.

Some birds recorded on the Estuary have been seen only once or just a few times. Some of these are birds which migrate too far and forget to stop in warmer areas such as South-east Asia or the Pacific Islands.

Others are Australian birds which sometimes get caught in strong winds and find themselves blown across the Tasman Sea to New Zealand and the Estuary.

The Christchurch City Council has published a useful book - "The Estuary, where our rivers meet the sea" - which contains information on Estuary birds.

Jay Poutu, of South New Brighton School, asks: Why are there so many types of animals in the Estuary?

Islay Marsden, a zoologist at the University of Canterbury, responds:

Estuaries are among the biologically richest habitats in the world.

They may not have the diversity or range of species found on a rocky shore, but the animals are numerous (10s of thousands a cubic metre) living both on and under the mud surface.

Water from the Avon and Heathcote rivers and the oxidation ponds mixes in the Estuary with oceanic water from Pegasus Bay. This provides a nutrient-rich, sheltered habitat for small animals, over-wintering areas for migrating birds, and nursery grounds for coastal fishes. About 33 different types of invertebrate animals (without a backbone) are found here. Although they include snails and crabs, the most numerous types are small marine worms called polychaetes.

Just below the mud surface are filter-feeding cockles at densities greater than 400 a square metre. Mud crabs scuttle about on the surface and mud snails feed on sediment, plant detritus, and bacteria.

In the more salty water near the mouth of the Estuary we find different types of animals. At low tide on walls, boulders, or rocks near the Causeway, Cave Rock, and Sumner are chitons, sea anemones, crabs, and starfish that occur on rocky shores around Banks Peninsula.

The Estuary, where the rivers meet the sea, forms a distinct marine habitat containing high densities of relatively few invertebrate species. These specialised animals thrive in the widely fluctuating salinities that define the estuarine environment.

Teachers can forward questions for this column to "Ask a Scientist", PO Box 31-035, Christchurch.

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Document thepre0020011003dt8q00a4r

COUNCIL TO KEEP CHECK ON ESTUARY.

251 words
12 August 1997
New Zealand Press Association
English
(c) 1997 New Zealand Press Association

Nelson, Aug 12 - Tasman District Council will continue monitoring the Waimea **Estuary** for contamination after a recent study showed stormwater runoff from industrial areas in Richmond could affect it.

The study was the first of its kind and looked at the sediment at the mouth of four drains in the Richmond area, 12km southwest of Nelson.

Two of the drains had industrial catchments, one had a rural catchment and the other a residential catchment.

The two drains with the industrial catchments had the highest levels of heavy metals and PAHs (polynuclear aromatic hydrocarbons), which are potentially toxic to marine life.

The level of PAHs in one of the drains was high enough to adversely affect marine life.

The other drain carried higher than acceptable levels of arsenic and TBTO (tributyltin oxide).

The study said the TBTO contamination could be attributed to a spill at the Hunter Laminates timber processing plant in 1994.

Council environment and planning manager Dennis Bush-King said the council was working with the company to clean up the drain.

The work would involve excavating some sediment.

He said the council would also be making sure that industrial sites had proper sediment traps for their stormwater discharges and had plans to deal with chemical spills.

Mr Bush-King said the council would continue to monitor sediments at the edge of industrial streams for metals and PAHs every five years, or more frequently if the levels increased.

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Document nzpa000020011002dt8c00n6i

PRISTINE FACADE RADIATES RELAXED FEELING.

By Jan McCARTHY.
424 words
19 July 1997
The Christchurch Press
39
English
(c) 1997 Knight-Ridder/Tribune Business News

Nestled into a textured garden on the slopes of Mount Pleasant, this home has a pristine, white facade that radiates the relaxed atmosphere reminiscent of Southern California.

Bounded by gently flowing foliage gardens, the home has spectacular views across the **Estuary** and Southshore to the Kaikouras, and over the city towards the snow-capped alps.

From the street, a path meanders past the house to a tiled patio, screened by careful planting.

The patio is set back between the main bedroom and living area, and both open out onto it. A pergola and backdrop garden of palms set the tone.

A solid wooden door, flanked by glass tiles, leads to the tiled foyer. To the left is access to the generous living and dining areas.

A feature brick wall runs through the core of the room, giving each area its own identity. A sloping roof line with exposed dark-stained beams enhances the neutral decor of the room.

The sun-drenched living area faces north. An open fireplace is built into the brick wall. Two large windows frame the view across Pegasus Bay.

Set into the southern wall is the dining area, which leads through to a kitchen with a crisp, clean decor, floor-to-ceiling storage including a large pantry, modern appliances, and a breakfast bar.

A tiled patio, off the kitchen, leads down to a gently curving in-ground swimming pool, moulded into the section. Computerised for easy care, the pool is surrounded by tiled edges and secluded by an abundance of foliage plantings.

Steps, bordered by gardens, lead behind the home to a changing shed with toilet facilities.

To the right of the main entrance is the laundry with external access to the washing line, followed by a toilet, the main bathroom, and a separate shower room, each side by side along the southern wall of the house. Next, is the first of the four bedrooms and internal access to the five-car garage.

The big main bedroom and two other bedrooms face north. Each room has its own distinctive decor.

A spiral rimu staircase bathed in dappled light and views of the city leads to the second level, which contains a second living area and kitchen. A balcony offers further views.

This property, at 77 Cannon Hill Crescent, Mount Pleasant, is priced at \$392,000. Viewing is by appointment only.

For further information, phone Diane Astle, of Century 21 Beasley Realty Ltd MREINZ, (03) 366-2105.

(c) The Christchurch Press, INL 1997.

Document thepre0020011003dt7j008w9

SMELLS BLAMED ON INDUSTRY.

274 words

12 June 1997

The Christchurch Press

4

English

(c) 1997 Knight-Ridder/Tribune Business News

NELSON - Persistent smells from the Nelson Regional Sewerage Authority's Bells Island treatment ponds are being blamed on industry overloading the system.

The scheme serving Waimea basin urban areas, southern parts of Nelson, and three big industrial users adjacent to the Waimea **Estuary** - Frucor Processors, Nelson Bays Meat Processing, and Nelson Pine Industries - has suffered continuing odour problems despite a series of upgradings.

Yesterday one of the authority's Tasman District Council representatives, Murray Ruddenklau, blamed excessive industry loadings for increasing the odour problems at Bells Island.

He said Nelson Bays Meat Processors was pumping effluent into the system way over its estimate for 1997 volumes, while Frucor had recently exceeded its 2021 peak discharge estimate while processing this year's large volume of hail-damaged fruit.

The authority had told both companies to give immediate attention to the problem by upgrading their pre-treatment processes. Both could keep within their projected loadings by installing appropriate equipment.

Mr Ruddenklau was also critical of Nelson Pine Industries, which he said had been blamed for increasing smell problems at the Richmond pumping station.

Julie Thompson, the industries' representative on the authority, said they did not wish to comment at this stage on Mr Ruddenklau's complaints.

Authority chairman Murray Borlase said he had no problems with Mr Ruddenklau's comments, which had arisen from a meeting of the authority on Friday, when there had been "some pretty straight talking".

He said the public blamed the authority for the smells and it had cost a lot of time and effort to trace the source of the problems.

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Document thepre0020011003dt6c00aow

VIBRANT INTERIOR COLOUR WARMS HILLSIDE HOME.

578 words
13 May 1997
The Christchurch Press
31
English
(c) 1997 Knight-Ridder/Tribune Business News

Innovative architecture, combined with splashes of bold, vibrant interior colour designs, create a home environment to excite, as DAVID KILLICK writes.

Commanding views have made Scarborough Hill a popular place to live. You can look out over the **estuary** and Christchurch towards the Alps, and north-east over Pegasus Bay to the Kaikouras.

Homes here are bold and striking in design.

For Christchurch architect William Noordanus, the view was an obvious factor when designing a home for a family consisting of a busy professional couple and three children.

"They fell in love with the area and were determined to find a site on the hill," he says.

The house has been elevated to make the most of the view, but is also sheltered from the easterly winds.

Many people think the biggest possible panoramic window is a good idea on the hill. Instead, William Noordanus likes to have windows placed to give a variety of "little vistas": for instance, a bedroom might frame the Kaikouras, another room might provide a city vista.

The clients liked provincial French style but did not want "a pseudo French provincial house", he says. "A lot of it is about proportions, thinking about space.

"We wanted to restrain the fenestration." (translation: avoid windows that are too big.)

Construction is plastercoat over polystyrene block. This makes it a very solid house, well insulated for both temperature and noise. Thick walls give a sense of structure. Both concrete floors are heated and have good thermal mass.

The roof is cardboard, oddly enough: an imported French product called Oduline. "We have gone for a lot of natural type things," William Noordanus says. Raw metal on the stairs is an example.

"I think of it as one of those amethyst gems," he says.

"Muddy on the outside; on the inside it's really bright colours. It sparkles with colour. Natural tones outside become pretty powerful, and it has to be a strong house."

Colours were chosen in consultation with designer Karen Archibald, of Bramble Green on Sea.

"They are playful colours," she says. "I don't deal in pastels. We wanted to do strong colour but without its being a definite theme. We wanted to do something that wouldn't date and was a bit of fun, but also elegant."

A timber front door opens to a terracotta-tiled floor which continues through into the living room. Walls are yellow, contrasting with aubergine.

Wheat was the colour chosen for the living room walls. The strong earthy colours give the living area a warm, friendly, feel. It is hard to imagine ever feeling cold here, even in the dead of winter.

To one side, the kitchen is a gleaming combination of stainless steel, custom-mixed orange and dark blue cupboards, with high-tech appliances including a gas hob and wall oven.

A sitting room with a high ceiling is a vivid french blue, almost lavender. Both this room and the living room open to the terrace. Downstairs, a child's bedroom is painted a vivid green.

Upstairs, more bedrooms are similarly striking: one is gold, another blue, and a boy's bedroom is lime - his favourite colour. The main bedroom, which opens onto a balcony, is painted a more neutral mushroom. The bathroom is lavender.

As a whole the colours bring energy and life to the house, making it an exciting place in which to live.

(c) The Christchurch Press, INL 1997.

Document thepre0020011003dt5d00ebt

PATROL NETS MEN WITH ILLEGAL SNAPPER CATCH.

By ADELIA FERGUSON.
319 words
13 May 1997
New Zealand Herald
English
(c) 1997 The New Zealand Herald

Four men in a runabout have been caught with nearly 300 snapper, many of them undersized, as the Ministry of Fisheries continues its crackdown on the lucrative Auckland black market.

Fisheries officers on a routine patrol in the Tamaki **Estuary** found the fish hidden in the forward lockers of the 7m boat.

The snapper are believed to have been caught with handlines on Friday between Rangitoto and Waiheke Islands.

The catch was counted and measured yesterday.

A fisheries officer, Howard James, said that nearly half the 298 snapper were undersized. The men's runabout was impounded.

Ministry officials suspected that the fish were destined for the Auckland black market, estimated to consume 1800 tonnes of snapper a year.

Most of the poached fish - caught either by commercial fishers breaching quota regulations or by "pseudo amateurs" flouting recreational rules - was sold to fishmongers, restaurants, takeaway bars and the public.

The growing black market coincided with the Government's decision - backed by the High Court - to cut the commercial snapper catch in the area by 1900 tonnes because of fears that the fish was threatened.

Last year the Government agreed to spend an extra \$2 million over two years trebling the number of fisheries officers in Auckland in an attempt to stamp out poaching.

The Ministry of Fisheries' Auckland compliance manager, Ian Bright, said yesterday that seven new officers had just joined the unit. They would be used to keep a closer eye on commercial fishers.

The blitz on recreational fishers, which saw 35 people prosecuted over the summer for illegal possession of fish, shellfish and crayfish, would also continue, he said.

The maximum fine for those caught with fish taken illegally was \$10,000.

The Ministry of Fisheries has not yet decided whether to prosecute the four South Auckland men caught last Friday.

(c) The New Zealand Herald, 1997.

Document nzhd00020011002dt5d006ca

SECRETS OF THE SEA COME IN SMALL DOSES.

49 words

26 March 1997

The Christchurch Press

5

English

(c) 1997 Knight-Ridder/Tribune Business News

A mud crab exposes its secrets to Anna Thurnell, a Linwood Intermediate School teacher, during an orientation day at the **Estuary**. The day, organised by the Friends of the **Estuary**, was part of Sea Week.

(c) The Christchurch Press, INL 1997.

Document thepre0020011003dt3q00cm0

ROAD CLEAR FOR BYPASS PLAN.

410 words
4 March 1997
New Zealand Herald
English
(c) 1997 The New Zealand Herald

The settlement of six appeals over the proposed route of the Orewa bypass has cleared the way for its construction.

But the Environment Court has imposed strong conditions to protect **estuaries** and conservation areas on the Transit New Zealand project - part of the proposed \$165 million Albany-to-Puhi realignment of State Highway 1.

The Deputy Mayor of Rodney District, Pat Clapham, last night welcomed the settlement. "I am delighted and so will be thousands of Aucklanders that we can look forward at last to no traffic hassles."

She said that about 30,000 vehicles a day crossed the south Orewa bridge and Whangaparaoa intersection, and about 45,000 on holidays. "I have felt sorry for the travellers going through. The congestion has been totally frustrating. They don't want to come through Orewa anyway."

The Transit regional state highway manager, Terry Brown, said Transit could now let a contract within two to three months for design of section B of the bypass - an 11km section to run between Bankside Rd north of Silverdale and Puhoi at Tifords Bridge.

Section B is a four-lane motorway and two-lane state highway with passing lanes. The link road for Orewa will be built by the Rodney District Council.

Contracts totalling \$8 million were let yesterday for culverts and preparations for big contracts for the first stage of the highway project - section A which will extend the Northern Motorway 15km from Greville Rd to Silverdale.

The whole Albany-to-Puhi project is expected to start later this year and take six years.

A key part of the settlement deal was that Transit would buy the 250ha farm of John Hall who had appealed over the route running through his property.

Mr Brown said Transit had bought two other properties to the south of Mr Hall and would continue with purchases of half a dozen other properties for the section between Silverdale and Orewa.

The Environment Court spent 18 days hearing the six appeals.

Four of them were against Transit New Zealand's designation for the proposed motorway route. The appellants were the Minister of Conservation, Mr Hall, L. and F. G. Eder and the Auckland Conservation Board.

The other two appeals arose out of the Rodney District Council's designation of the link road between the motorway and the Orewa. The appellants were Mr Hall and Cabra Holdings with Hopper Nominees.

(c) The New Zealand Herald, 1997.

Document nzhld00020011002dt34008fq

OKURA ESTUARY WINS PROTECTION.

By PHILIP ENGLISH.

378 words

3 October 1996

New Zealand Herald

English

(c) 1996 The New Zealand Herald

The near-pristine Okura **Estuary** has come out the winner in a long running legal argument over whether North Shore City urban sprawl should swallow it up.

The Environment Court issued its judgment yesterday on the metropolitan urban limits case which has for years pitted Auckland councils, Government departments and wealthy landowners against each other in a battle over development of the **estuary** shores.

The Environment Court decision, released after a five-week hearing said to have cost all the parties well in excess of \$1 million, has effectively saved the ecologically sensitive estuary from urbanisation but allowed development behind the nearby Long Bay Regional Park.

Asked for responses to the result, which could be appealed against in the High Court, none of the parties would do so yesterday although a source at the Auckland Regional Council described it as "a judgment of Solomon."

The ARC fought the Okura Land Group which wanted to develop the Okura and Long Bay areas.

The council did not win all it wanted, its urban limit being pushed north by the decision.

But staff were encouraged by the judgment, which they took as sending strong signals reinforcing policies containing urban growth to prevent environmental degradation.

The chairwoman of the Okura Ratepayers and Residents Association, Mrs Elwin Cunningham, said residents would be delighted after years of fighting to protect the estuary.

Principal Environment Judge David Sheppard said in the judgment that the concept of sustainable management of natural resources was better achieved by protecting the Okura Estuary in its largely natural state than by allowing development which would result in contamination.

"We find it reasonably foreseeable that future generations of Aucklanders will need accessible experience of an estuary in natural condition."

Judge Sheppard said there were other opportunities for people and communities to obtain benefits from urbanisation "by greenfields development elsewhere, and by infill and intensification of existing urban areas."

The most appropriate line for the urban limit was the watershed or boundary between Okura and Long Bay, however.

The Long Bay coast was subject to wave and tide action and controls on development as well as treatment of stormwater would mitigate the effects of development on the coastal environment.

(c) The New Zealand Herald, 1996.

Document nzhd00020011019dsa3002jx

ARC moves to sift major threat from waterways.

580 words

23 July 1992

New Zealand Herald

9

English

(c) 1992 The New Zealand Herald

The economic benefits of Auckland streams, **estuaries** and harbours have been calculated to support the argument for introducing stormwater quality control measures in the region.

A long-term financial analysis of the benefits gained from Auckland waterways has been produced by the Auckland Regional Council as part of its strategy for dealing with stormwater.

Stormwater is the major pollution threat to Auckland urban waterways.

Unchecked, stormwater's physical, chemical and biological impacts on local ecosystems have the potential to cause hundreds of millions of dollars of financial loss to the region, the analysis shows.

The loss, in areas such as the long-term sustainable economic yield of harbours and activities including tourism, boating, fishing and watersports as well as environmental values provides a strong argument for treating stormwater.

The ARC is on the verge of introducing a range of policies for treating stormwater particularly at new developments.

Stormwater is the runoff caused by rain on urban and industrial areas as well as roads. It contains a wash of ingredients including sediments, organic waste, heavy metals, oils and pesticides.

The contaminated stormwater enters Auckland streams, estuaries and harbours through the drainage system. Sometimes it is mixed with raw sewage when ancient parts of the system overflow.

Four years ago the council initiated a study on the effect of stormwater on the Auckland environment.

The study is almost completed with a strategy for dealing with the problem expected to be adopted by the end of the year.

While the study finds returning Auckland streams and marine environments to a pre-urbanisation stage is not possible, it recommends maintaining existing conditions as a realistic goal.

The ARC aims at removing 75 per cent of sediments from the stormwater flow.

Stormwater quality control techniques can be implemented on all catchments from a few hundred square metres in area to hundreds of hectares.

Quality control techniques include comprehensive catchment planning by local bodies, and abatement programmes such as street cleaning to prevent litter from entering the drainage system and ending up in the harbours or Hauraki Gulf.

Structures to detain and filter sediments, the target contaminant in the Auckland region, are another control technique.

The structures can be ponds incorporating wetlands or sand traps to filter contaminants from urban runoff.

Some land uses such as petrol stations require special attention through more stringent controls on premises, treatment facilities and site management procedures.

Motorways and major roads are another land use likely to require greater attention in future. Runoff from roads is a major source of environmental pollution.

In Auckland, at present, regulations require stormwater discharges from roads to go into waterways for reasons which neglect the issue of water quality.

It is likely Transit New Zealand will have to start treating stormwater runoff from its highways and motorways as a result of the ARC study.

The ARC resource management scientists involved in the study, Mr David Greig, said Auckland led the country in preparing strategies for stormwater control.

Other cities such as Tauranga, Nelson, Christchurch and Whangarei would have to take note of the ARC investigations if they wanted to protect their shallow harbours, he said.

Auckland was also up with world leaders in stormwater control such as the United States, even though funding was restricted.

Water quality controls were already being introduced at sites in the region where industries or developers were installing measures to resolve disputes with objectors or out of concern for the environment.

Document nzhd00020011123do7n0054l

Prompt action saves estuary.

211 words
1 June 1992
New Zealand Herald
3
English
(c) 1992 The New Zealand Herald

The Christchurch **estuary** escaped serious environmental damage yesterday when firefighters sealed drains carrying large volumes of toxic water from a spectacular blaze in the city.

Drains were sealed near a paint products warehouse in Bromley, which erupted in flames about 4.220am.

The Anglo Santano Ltd building was gutted in the blaze during which exploding 44-gallon drums of chemicals were hurled into the air, endangering firefighters.

A Canterbury Regional Council spokesman, Dr Michael Freeman, said the prompt action of sealing the drains almost certainly saved estuary aquatic life. An inspection revealed there was no damage.

The water had been polluted by petroleum warehouse.

Underground drains not checked would remain sealed until today or tomorrow, Dr Freeman said. If the drains were found to contain chemicals the water would be removed.

A special tanker was used to take contaminated water from the fire site.

Five appliances, and command unit and a decontamination unite were also at the scene. Firefighters were washed down to remove any toxic chemicals from their uniforms.

Assistant Fire Commander Alan Osmond said the heat from the fire broke windows at a nearby factory.

Because of the chemical inside the building, firefighters fought the blaze from a distance, and by using an aerial ladder.

Document nzhd00020011122do6100a5q

Review of methods after CHEMICAL spill.

169 words
17 September 1991
New Zealand Herald

2

English

(c) 1991 The New Zealand Herald

Wellington Regional Council staff will investigate work practices at a Lower Hutt factory after thousands of litres of latex spilled into the Waiwhetu Stream.

The spill turned parts of the stream, Hutt River and **estuary** a thick milky white.

The latex spilled from a 20,000-litre tank at the Fibrelok Industries' plant on the bank of the stream, as the tank was being cleaned on Saturday.

The council harbourmaster, Mr Mike Pryce, said at least 1,000 litres of latex and water drained into the stream.

"Latex is water-soluble and was washed away pretty quickly by a tide change and heavy shower of rain."

Mr Pryce did not expect any significant environmental damage to result from the spill.

The council's harbour department yesterday began an investigation into Fibrelok's procedures for flushing tanks.

Mr Pryce said no traces of the spill remained on Sunday morning, except around the tank at Fibrelok.

Fibrelok's manager was not available for comment yesterday.

Document nzhd00020011124dn9h00j19

TAURANGA gets \$7.5m for bypass.

144 words
10 January 1991
New Zealand Herald
4
English
(c) 1991 The New Zealand Herald

Transit New Zealand has approved a \$7.5 million contribution towards a heavy traffic bypass at Tauranga.

Locally known as Route P, the multi-million-dollar expressway is planned around the eastern bed of the Waikareao **Estuary** to alleviate traffic pressure on Cameron Rd.

The Tauranga District Council would need to raise the balance of \$32 million for the staged project through other sources, including harbour bridge tolls and support from within the Bay of Plenty region.

In a joint announcement yesterday, the Mayor of Tauranga, Mr Nobby Clarke, and the Mp for Kaimai, Mr Robert Anderson, said the one-off Transit New Zealand grant was a result of a series of high-level deputations from the district council to Government ministers.

The district council will discuss the Transit New Zealand funding offer at a meeting next month.

Document nzhd00020011123dn1a00dh2

Scientist loss predicted in wake of funding changes. (2 of 2)

394 words

31 December 1990

New Zealand Herald

5

English

(c) 1990 The New Zealand Herald

The division now employs about 70 people at its headquarters at Great Pt in Wellington, about 40 on **estuary** and river work in Hamilton, 15 at its Taupo laboratory, 40 in Christchurchs, and a number gathering river flow data at 15 sites from Whangarei to Alexandra.

****FULL_TEXT** The director of the fruit and trees division, Dr James McWha, said he hoped to save his division's 70 jobs at the Mt Albert research centre in Auckland and 120 in Palmerston North by bidding for work in the growing areas of food processing and storage.

But he said horticulturists would be disappointed that the Government had cuts its own support to the industry just when growers themselves had agreed to pay an increased levy on fruit to contribute to more research.

The new priorities have allocated an extra \$1.3 million to food, fibre and wood processing research, and an extra \$250,000 to research on transport.

A further \$250,000 has been given for the first time to research on "commercial and trade services", although the ministry notes that the capacity of the country's researchers to take up these funds is "uncertain".

The Minister of Research, Science and Technology, Mr Upton, said the National Government had merely picked up work on the new priorities which had been well under way before the election in October.

Science funding changes (a)

- Increased amounts

Wood and paper processing	\$490,000
Dairy processing	\$230,000
Meat processing	\$199,000
Other food processing	\$331,000
Fibre, textiles and skin processing	\$83,000
Environmental Protection	\$294,000
Transport Services	\$250,000
Commercial and trade services	\$250,000
Urban and rural planning	\$250,000
Generic animal research	\$233,000
Science-technology training	\$200,000
Education, Knowledge and training	\$200,000
Dairy Production	\$196,000
Political and economic relationships	\$150,000
Alternative animal species	\$103,000
History, society and culture	\$100,000
Relationships and wellbeing	\$100,000
Energy	\$40,000
Fisheries	\$28,000

- Decreased amounts

Geological structures and processes	\$965,000
Marine and fresh waters	\$829,000
Forage plants (grasslands)	\$782,000
Horticulture	\$618,000
Sheep production	\$331,000
Engineering	\$117,000
Construction	\$53,000
Antarctica	

\$34,000

(a) Assumes total funding unchanged at \$255.4 million. Areas where there has been no change in funding are not shown.

Document nzhd00020011129dmcv003kx

Shellfish are gathered regardless of pollution.

602 words
4 May 1990
New Zealand Herald
20
English
(c) 1990 The New Zealand Herald

Misshapen and strangely coloured shellfish are being found in parts of the heavily polluted Tamaki Estuary, say water board officials.

**FULL_TEXT But people are still gathering shellfish in the more polluted upper stretches as well as the outer seaward areas of the estuary, says a report to the Auckland Regional Water Board's monthly meeting yesterday.

However, a full study of chemical contamination of shellfish was not yet finished, said the board's principal water quality officer, Mr Chris Hatton.

Officers surveyed 51 sites at 1 km distances, from Musick Pt to Middlemore Hospital and out to West Tamaki Head, and were surprised by the abundance of some species of edible shellfish.

There was widespread low-level harvesting, said Mr Hatton.

"The seaward areas are most popular, such as the reefs around Bucklands Beach and north of Glendowie Spit, but pupu, or mud snails, are taken from the upper reaches of the estuary right by residential areas," he said.

Pupu were the most common edible shellfish, particularly in the muddier upper estuary, but cockles were also widespread with some places having densities of nearly 600 of edible size to a square metre.

Pacific oysters were common, more so towards the seaward reaches, but the native rock oyster was rare.

Green-lipped mussels were found on outermost sites at Musick Pt and West Tamaki Head while pipis were abundant at Bucklands Beach.

Catseyes were also abundant where their rocky habitat was found.

Other edible species, including speckled whelk, flat oyster, limpet and top shell, were found in lower numbers.

But changes in health and abundance of the shellfish have occurred.

Sedimentation, pollution from land run-offs, particularly around development areas, is killing Pacific and rock oysters south of Bucklands Beach and cockles in the Tamaki's sheltered areas.

Misshapen Pacific oysters south of a line between Glendowie Spit to Bucklands Beach are probably the result of poisoning from tin compounds used in antifouling boat paints.

There is no explanation for the death of almost all oysters in rocky shoreline habitats where the unappetising appearance of the flesh of surviving oysters and absence of young indicate long-term problems rather than a single pollution incident.

Previously abundant pipi beds on Glendowie Spit have also disappeared along with the peharo, or trough shell, which used to be found throughout the Tamaki in large quantities.

The water board's own rigs of planted oysters throughout the Tamaki have also shown interesting results.

In the upper stretches, samples showed the oysters' flesh had turned greeny-blue which suggested copper contamination, said Mr Hatton.

Like most of the pollution, this probably arose from the general run-off from the surrounding land into the estuary.

The board is still awaiting the results of tests to detect organic compounds, such as pesticides, in the sample oysters.

"Those shellfish gathered at the outer seaward stretches will probably turn out to be relatively safe to eat but further up they are probably grossly contaminated," he said.

Meanwhile, other surveys have shown that Tamaki Estuary bathing beaches are safe for swimming since water samples showed acceptable levels of bowel inhabiting bacteria.

Water samples were taken from Karaka Bay, Pt England, the Panmure Yacht Club, the Panmure Basin and the north and south ends of Bucklands Beach over 30 days, in February and March this year.

All passed the Water and Soil Conservation Act bathing standard, which says the average faecal coliform count taken from five samples within 30 days should not exceed 200 to 100ml of water.

Some counts were only single figures, said Mr Hatton.

Document nzhd00020011128dm540013n

First step for estuary highway.

170 words

27 January 1990

New Zealand Herald

12

English

(c) 1990 The New Zealand Herald

Preparatory work for a \$28 million expressway down the Waikareao **estuary** has been recommended by the Tauranga District Council operations committee.

The council has been asked to approve the revocation of the need to define reserve areas, to report on a restoration strategy and to prepare a funding package for consideration by the Government.

At the suggestion of the chairman, Mr Ross Harris, the council will meet the Ngaitamarawaho people, of Judea, and discuss with them a report on the estuary by Professor Raudkivi, and the likely effects of the 17ha reclamation for the expressway.

The Ngaitamarawaho, who was opposed to the construction of the expressway, have a claim for the Waikareao estuary before the Waitangi Tribunal.

They have complained to the United Nations human rights committee that their submissions on the expressway have been ignored.

The committee also recommended that discussions be held on the protection of Motuopae Island, a Ngaitamarawaho urupa (burial ground) in the estuary, regardless of whether the expressway goes ahead.

Document nzhd00020011127dm1r002n0

\$80,000 bid to curb pollution.

142 words

24 November 1989

New Zealand Herald

3

English

(c) 1989 The New Zealand Herald

The Manukau City Corporation will spend more than \$80,000 to try to teach people not to pollute the Tamaki **Estuary**.

The council decided a formal education strategy was needed after inspecting about 500 industrial, commercial and residential premises in the East Tamaki area.

A task force surveying areas near the Tamaki Estuary decided 125 of the 500 sites could become pollution sources at any time.

Staff had tried to warn people about the consequences of pollution and the way factories and other industrial sites were run, said the council's supervising environmental health officer, Mr Ron Sutherland.

"But it's not enough just to warn those in industrial areas, as we inspect them," he said.

"We need to inform absolutely everyone and make them fully aware of what causes pollution and how to remedy things."

Document nzhd00020011130dlbo0034i

Oysters in fight against pollution.

200 words
22 July 1989
New Zealand Herald
2
English
(c) 1989 The New Zealand Herald

Several hundred Pacific oysters will give up their quality of life to help monitor pollution in the Tamaki **Estuary**.

Warnings against the eating of shellfish from the Tamaki were made after an Auckland Regional Water Board study last year showed high levels of contamination.

But the principal water quality officer, Mr Chris Hatton said new tests would give more reliable statistical evidence.

Clean, commercially bred oysters will be suspended in bags from six monitoring rigs in the Tamaki as well as a control rig outside the contaminated area.

After four or five months they will be tested for a variety of contaminants thought to be polluting the estuary.

"Our tests before were on shellfish already living there," said Mr Hatton.

"By using clean oysters and seeing the rate and level of contamination we will get more accurate results on the problem."

Last year's tests were particularly worrying because "parent" DDT was found, as well as its breakdown compounds, which indicated it had entered the environment only a few years ago.

Meanwhile, the first of three tests on flounder, carried out by the Auckland Area Health Board, has shown no trace of 15 pesticide byproducts.

Document nzhlid00020011129dl7m00h65

Department attacks special reclamation bill.

559 words
20 July 1989
New Zealand Herald
3
English
(c) 1989 The New Zealand Herald

A special bill giving the Tauranga City Council power to build a new expressway has been attacked by the Conservation Department as "contrary to the national interest."

****FULL_TEXT** The department has accused the city council of a "deficient" environment audit of the proposed expressway, which would require reclaiming 14ha from the **estuary** on the western edge of central Tauranga.

A delegation of Ngai Tamarawaho people also travelled to Wellington yesterday to tell MPs that the estuary, including the island of Motuopae, was "the last remnant" of the tribe's ancestral land.

They accused the city council of "an arrogant assertion of statutory power" by going ahead with the proposed new road against their wishes.

However, the Port of Tauranga has told Parliament that the proposal is "essential" to link the port, through the new Tauranga harbour bridge, to its hinterland.

Hearings on the bill are being conducted by Parliament's internal affairs and local government committee. They will continue next week.

The proposal needs special legislation because of a clause in the harbours Act banning any reclamation of more than 4ha except by special Act of Parliament.

The Conservation Department's submission opposes the scheme because it considers that traffic to the port could be accommodated simply by widening the existing main road through Tauranga, Cameron Rd.

It concedes that this would cause noise and other problems for residents and businesses in Cameron Rd. But it notes that there is already heavy traffic on the road, so "it is merely the degree of existing impacts that would increase."

"By comparison, the Route P proposal will reclaim 14ha or so of estuarine area and will introduce heavy traffic where none currently exists," the department says.

"It will also result in a loss of almost half of the estuary's high tide marginal bird feeding area."

The department says the environmental assessment report prepared for the city council should have been "audited" by a panel of independent experts, and should have given more detail of the costs and benefits of alternative options.

"Public submissions were clearly reacting to a favoured option," it says.

"As a consequence, the environmental impact assessment document did not engender adequate comment on alternative options."

The Ngai Tamarawaho delegation told MPs that the bill should be referred to the Waitangi Tribunal.

The tribe has already lodged a claim with the tribunal for compensation for the loss of most of its ancestral land, but this may not be heard for about two years.

Tribal elders told the committee that the estuary coastline was important to them spiritually and culturally. For example, members of the tribe were already being forced by pollution to search for pipis further up the harbour, from other people's ancestral land.

"When you go up the harbour you are actually stealing someone else's food," said Mr Hugh Sayers, co-ordinator of the tribunal claim.

"What happens now is that people have to go and rob other people's gardens to feed their guests."

The Parliamentary Commissioner for the Environment, Helen Hughes, backed up the tribe in a written

submission arguing that the Tamgatawhenua "have a particular right to protection of their possessions and the ecosystems that sustain them."

The Youth Hostel Association, whose Tauranga hostel adjoins the proposed expressway, has also made a submission opposing the bill.

Document nzhd00020011129dl7k00h3b

Regional Water Board Budget cuts pollution inspections.

532 words

4 May 1989

New Zealand Herald

2

English

(c) 1989 The New Zealand Herald

A \$1 million cut in the Regional Water Board budget this year will halt most of its water and soil management functions including bathing beach surveys and continued work on the polluted Tamaki Estuary.

**FULL_TEXT The board budget is almost certain to be cut by the Auckland Regional Authority in its attempt to keep down the levy increase on ratepayers.

The authority is expected to need at least 15 per cent more than last year's \$69.2 million levy just to cover losses of Government subsidy and revenue sharing, debit balances and inflation.

The water board has been told to keep its spending at last year's level plus 5 per cent which will result in 83 projects estimated to cost about \$1 million being cut.

The chairman of the water board, Mr Dough Cholmondeley-Smith, said yesterday most of the projects were high profile and statutory requirements of the board.

The likely cut comes at a time when public perception and awareness of the importance of pollution control and environmental monitoring is high.

The board fears losing its credibility if it is forced to drop the water and soil management functions under threat.

"We are all pretty dismayed with what is happening," said Mr Cholmondeley-Smith.

Projects under threat include:

Follow-up work on the Tamaki Estuary after a water board investigation last year found it seriously polluted.

Shellfish monitoring and the impact of harbour and estuary pollution on fish.

The impact of marinas on biological life and the effects of anti-foulants on the food chain, a new investigation for New Zealand in response to public and political pressure and because of a lack of information.

Bathing beach surveys throughout the whole region to provide guidelines for safe bathing and identify pollution problems.

An investigation of the treatment of urban and industrial stormwater, a major source of pollution to the region's harbours.

Groundwater resource investigations required to ensure catchments are not over exploited; and to monitor water rights.

The water board budget will be considered today by the authority estimates examination subcommittee before it sets its levy on May 15.

The board investigated 14 pollution complaints during March and up to the middle of April.

Ten complaints were made to the board on its pollution hotline by members of the public.

Seven complaints turned out to be minor not requiring further investigation and the remainder needed follow up.

During the period three black backed gulls were found covered in oil near the Tamaki Estuary and Manukau Harbour but it was not possible to find its source.

Board staff also inspected dairy farms as part of their monitoring work.

A bathing beach survey at Beachlands and Maraetai has found the water safe for swimming.

The board made the survey in January and February after high levels of bacteria were found in drains and creeks in the area.

The results suggest that household waste contamination of creeks and drains following moderate rainfall has little effect on bathing beach bacteria levels.

The 11 beaches surveyed were Sunkist, Shelly, Omana West, Omana East, Maraetai Boating Club, Te Pene, Maraetai, Ohinerangi, Walomanu, Magazine and Duders.

Document nzhd00020011129dl5400a9m