

Welcome to the second edition of **Sounds Advice**, a Council newsletter to keep in touch with what's happening to help protect and enhance the Sounds environment. Good water quality is crucial for aquaculture, farming, fishing, tourism and recreation and what happens on the land has a direct impact on that. This newsletter provides a snapshot of activities and services that Council is involved with in your community.

CHAIRMAN'S REPORT

The Sounds Advisory Group (SAG) is an important link to the Sounds community and stakeholders, who meet regularly to discuss broad issues. For example, coastal water quality, biodiversity, biosecurity, moorings, roading, reserves, waste and general resource management matters. The Chairman and Sounds Councillor Trevor Hook says "SAG allows for connectivity between the Council and community, helping parties to better understand the issues and provide a forum where we can all seek balanced resolutions to complex matters." Members of SAG are the eyes and ears of the Sounds - please contact your local representative if you have an issue for Council.



A recent image from the European Space Agency Sentinel satellite (courtesy: Cawthron Institute)

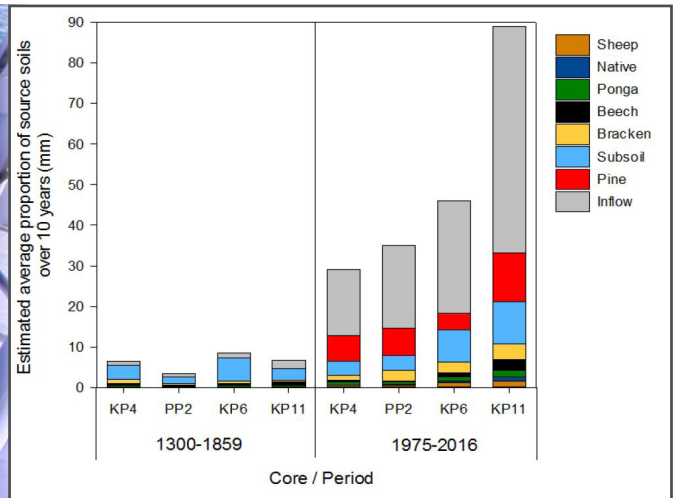
1,000 YEARS OF SEABED HISTORY

Many locals and visitors to Pelorus Sound/Te Hoiere have commented on the increase in sediment after storms. Concerns have been raised that this is affecting the ecology of the inner bays and reaches, and causing a decline in fish numbers. We know that fine sediment from land can smother the seabed, kill shellfish and affect fish health. In a bid to help us understand where the sediment is coming from, Council, the Ministry for Primary Industries and the Marine Farming Association joined together to fund NIWA to do a seabed coring project. NIWA has developed methods to calculate sedimentation rates over centuries, as well as to "fingerprint" the sources of sediment from different land uses over the course of history.

The rates of sediment deposited onto the seabed have increased from 5 to 20 times in the Kenepuru Sound since Europeans first settled the district. The graph on the next page shows that the inflow from the Te Hoiere/Pelorus and Kaituna Rivers are the largest recent source, followed by pine forestry in the Kenepuru Sound, and landslips.

A poster, YouTube presentation and scientific report are available on Council's website: <https://www.marlborough.govt.nz/environment/coastal/historical-ecosystem-change>

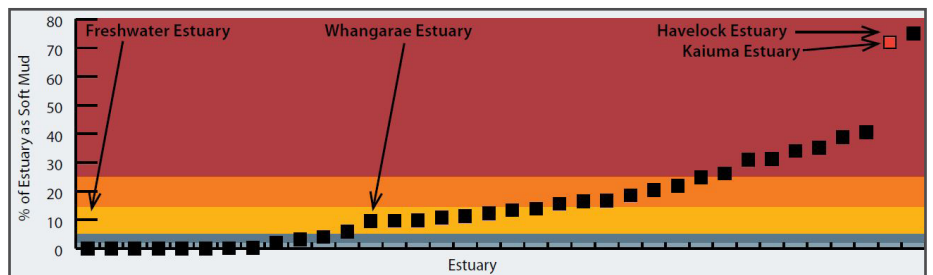
Council has also funded NIWA to core into the Havelock Estuary and Mahau Sound to try and identify what land uses are contributing to the large sediment loads in the Te Hoiere/Pelorus and Kaituna Rivers.



Sediment sources identified in the Kenepuru Sound since the year 1300 (courtesy: NIWA)

STUCK IN THE MUD – OUR ESTUARIES ARE IN TROUBLE

Large loads of sediment are also causing our estuaries to become muddier. Council commissioned estuary assessments of Kaiuma and Mahakipawa estuaries last summer. Results show that these estuaries are in poor shape, being amongst the muddiest in New Zealand. These estuaries were much less muddy in historic times, and had large areas of seagrass. Seagrass provides an important habitat for marine invertebrates and small fish, and feeding grounds for wading birds at low tide and larger fish at high tide. Seagrass now exists as tiny fragments in both Kaiuma and Mahakipawa.



Comparison of over 35 estuaries around New Zealand, showing Kaiuma and Havelock estuaries having the most mud (courtesy: Wriggle)

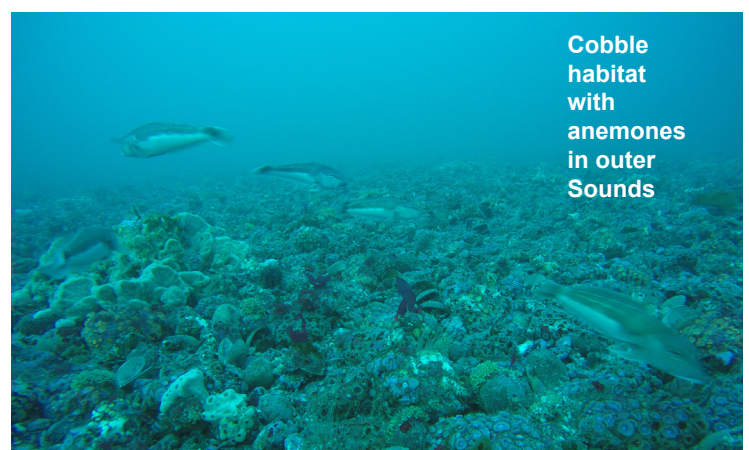
For more information on estuary monitoring, including YouTube presentations on the Kaiuma and Mahakipawa estuaries; visit <https://www.marlborough.govt.nz/environment/coastal/coastal-ecosystems/estuaries>.

SIGNIFICANT MARINE SITES

Fish life used to be abundant throughout the Marlborough Sounds. Bass, hāpuku, ling and tuna were once caught in the Inner Sounds. Overfishing, sedimentation and habitat destruction by dredging and seabed trawling has damaged and destroyed extensive areas of fragile reef habitats over the past 50 years. Council and the Department of Conservation have been surveying and monitoring the last known tubeworm mounds, rhodolith beds, bryozoan and sponge gardens, red algae meadows, and horse mussel beds.

These biogenic habitats are created from living tissue or by calcium carbonate, and provide three dimensional structures above the seabed.

Council and community is proposing to protect the remaining habitats from being disturbed through the notified Marlborough Environment Plan. Monitoring of biogenic habitats is showing a decline in area and condition at some sites, especially on soft sediments. For more information visit: <https://www.marlborough.govt.nz/environment/coastal/coastal-ecosystems/significant-marine-sites>.



Late 1940s: Hāpuku - Tawero Point (courtesy: Helen Godsiff)



PROPOSED MARLBOROUGH ENVIRONMENT PLAN UPDATE

Council has reviewed the Marlborough Regional Policy Statement, the Marlborough Sounds Resource Management Plan and the Wairau/Awatere Resource Management Plan to create a single resource management document for the district.

The Proposed Marlborough Environment Plan (PMEP) sets out what people can do on their land and how it may be developed. It also guides how individuals, businesses and the wider community may use public resources such as fresh water and coastal space.

Over 1,300 separate submissions were made on the PMEP, consisting of over 17,000 separate submission points in support of, or in opposition to, the notified PMEP provisions. In an effort to work through all submissions, topics were grouped into hearing blocks. The Hearings Panel commenced with two hearing weeks on 20 November 2017 for Hearing Block One. This process will commence in the New Year with Hearing Block Two in the week of 12 February 2018 and thereafter until they are concluded.

You can find more information on the hearings via the Council’s website: www.marlborough.govt.nz/your-council/resource-management-policy-and-plans/proposed-marlborough-environment-plan.

SEABED MAPPING – WHAT HABITATS DO WE HAVE AND WHERE ARE THEY?

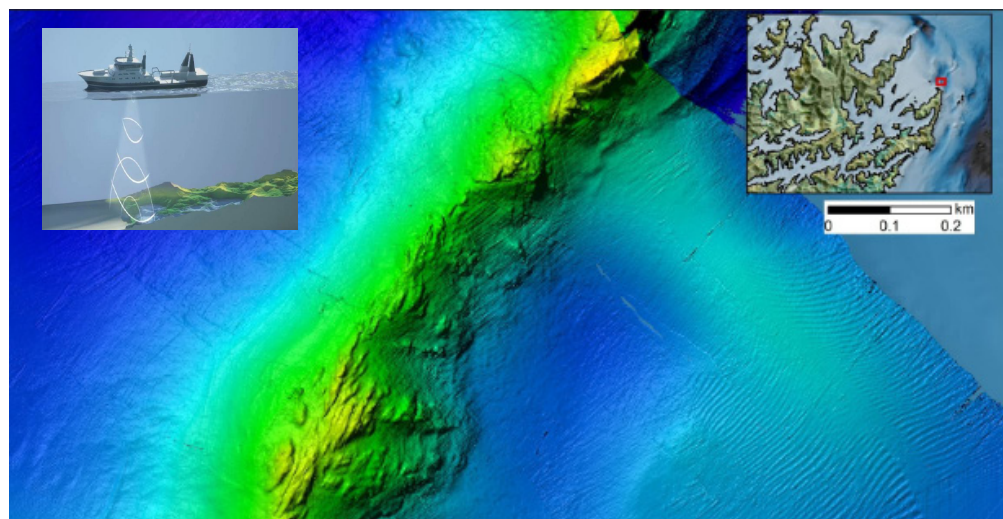
With mountains and valleys, canyons and plains, and ridges and reefs – the seabed is as complex as the land. To better manage human activities on marine ecosystems, Council needs a good understanding of where areas hosting high biodiversity are located. In order to achieve this, Council has embarked on a programme to map seabed habitats using state of the art multibeam echosounder technology. Multibeam echo sounders produce a fan of acoustic beams or ‘sound waves’ directly downwards from the bottom of a boat. These beams reflect off the seafloor, enabling the surveyors to calculate the depth of the seafloor and

scan and map the seafloor habitat in great detail.

Council and Land Information New Zealand joined together to map 43,000 hectares of Queen Charlotte Sound/Tōtaranui. The survey work was completed by NIWA and Discovery Marine in June 2017, and results are expected in 2018.

Visit <https://www.marlborough.govt.nz/environment/coastal/coastal-videos> to watch the NIWA video. (Sounds Survey Project).

For more information: www.marlborough.govt.nz/environment/coastal/seabed-habitat-mapping.

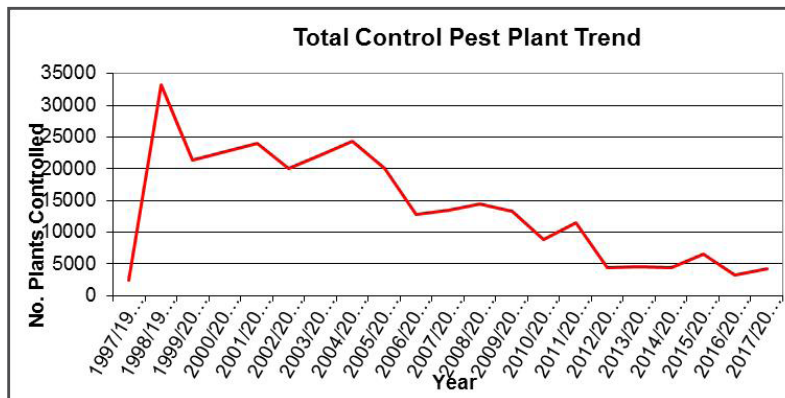


Multibeam echosounder sonar mapping the seabed in three dimensions (courtesy: NIWA)

PEST PLANT PROGRAMMES

Long-standing programmes to control and attempt to eradicate a number of invasive pest plants have been ongoing at sites across the Marlborough Sounds. This ranges from controlling boneseed in conjunction with the Department of Conservation in the Tory Channel/ Kura Te Au and Snake Point area, to evergreen buckthorn control in Manaroa. Others include a small number of sites of climbing spindleberry, madeira vine and cathedral bells.

The progress of all of these programmes combined can be seen in the graph below. It demonstrates the long, hard game of managing pest plant species as a whole – even when dealing with a small number of sites.



THREAT FROM MARINE PESTS EVER PRESENT

In the last decade we have seen the establishment of marine pests in the Marlborough Sounds. In particular the sea squirt *Didendum vexillum* and the establishment of the clubbed tunicate *Styela clava*. However, the immediate threat is from Mediterranean fanworm which is well established in northern areas of New Zealand, particularly Auckland.

This species has the potential to have a far greater impact than other species given it can form canopies on structures meaning competition for both space and filtering. In response, Council (in tandem with Tasman District and Nelson City Councils) declared a Small Scale Management

Programme under the Biosecurity Act 1993. This gives greater power to Council in managing risks as they appear. It also meant a commitment to conduct further surveillance. Given these small scale programmes are a short term tool (3 years), a programme has also been prepared

within the new Regional Pest Management Plan Proposal, due for consultation in February 2018 – see below.

Find out more about marine pests on the Council’s website: <https://www.marlborough.govt.nz/environment/biosecurity/marine-biosecurity>



Mediterranean fanworm

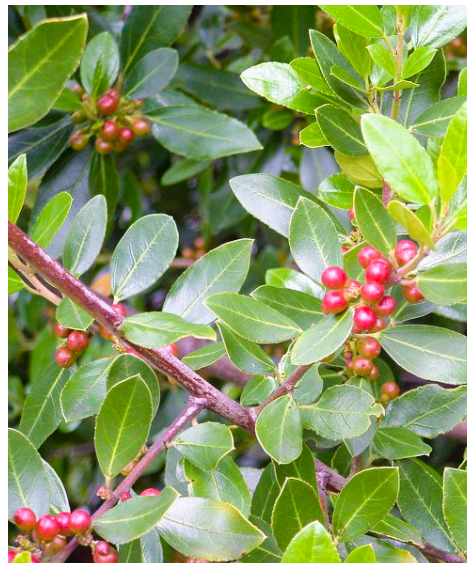
REGIONAL PEST MANAGEMENT PLAN

A new Regional Pest Management Plan (RPMP) Proposal is due to be finalised and released for public consultation during February 2018. We will notify you when this occurs so be sure to keep an eye out on all of the Council’s usual channels.

The Proposal outlines key work programmes for Council’s biosecurity over the next 10 year period. It will replace the old Regional Pest Management Strategy. Given the function includes a raft of other projects/programmes, Council has also produced an overarching Biosecurity Strategy that outlines where all the various components fit, including the RPMP. It is intended to also provide clarity over the decisions made.



Above: woolley nightshade
Right: evergreen buckthorn



SOUNDS DOMESTIC WASTEWATER SYSTEMS

With the holiday season approaching now is a good time to check that your wastewater system is operating efficiently. Malfunctioning wastewater systems present a risk to the environment and human health.

A good way to ensure that your system operates effectively all year round is to complete regular inspections and maintenance.

Wastewater systems that discharge to land that were lawfully established prior to

21 April 2005 are required to meet

the PMEP permitted activity standards for the discharge to land.

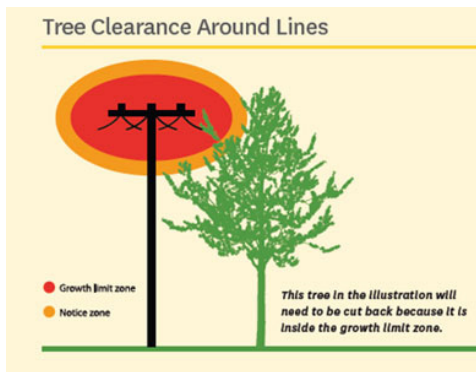
All Sounds wastewater systems that discharge to land established after 21 April 2005 require resource consent.

Council has found that when properties sell, the resource consent for the discharge of domestic wastewater is often not transferred to the new property owner.

It is recommended you check that any resource consent for the discharge of domestic wastewater has been transferred from the previous property owner to the current property owner. This can be done via the Property File search function on Council’s website, or alternatively contact Council’s Customer Service Team on 03 520 7400 and they can assist.

TREES AND POWER LINES – KNOW YOUR RESPONSIBILITIES

Did you know that 20% of all power outages are caused by trees around power lines, and dry conditions lead to increased fire risk. With warmer, drier weather approaching, now is a good time to check the trees around your property. Under the regulations, Marlborough Lines is responsible for the cost of a trees first trim. Subsequent work to maintain the tree and keep it clear of the growth limit zone is the responsibility of the tree owner. For more information visit: <http://www.marlboroughlines.co.nz/Safety/Tree-and-Powerlines.aspx>.



MISSION TO KILL WILDING PINES

It is nearly 10 years since the Marlborough Sounds Restoration Trust (the Trust) started its work to get rid of wilding pines and bring back the bush in the Sounds.

Wilding pines are spread by the wind and if nothing is done the hills could become covered in unwanted pines instead of native bush. If this occurred there would be little habitat for native birds and the natural skylines enjoyed by many people would be lost.

To date the voluntary trust has raised more than \$1.6m to pay for contractors to poison the trees. The Trust works with landowners, Council and the Department of Conservation, and their trail of dead trees that began in 2008 in Queen Charlotte Sound/Tōtaranui now extends into the Outer Pelorus/Te Hoiere and D'Urville Island.

For more information visit: www.soundsrestoration.org.nz.

Wilding pine control Endeavour Inlet before and after



SUMMER WATER MONITORING



Te Hoiere/Pelorus River

The Council is once again monitoring the most popular swimming sites around Marlborough over the summer period. A total of 10 coastal and seven river sites are being monitored every week. The results of the sampling can be found on the Land and Water Aotearoa NZ website: www.lawa.org.nz. If sampling shows the E.Coli levels are above the guidelines Council will place signs at the site informing the public. Monitoring will continue until the end of March 2018.

Coastal Beaches

- Whites Bay
- Robin Hood Bay - East
- Anakiwa
- Picton Foreshore
- Waikawa Bay
- Momorangi Bay
- Ngakuta Bay
- Governors Bay
- Mistletoe Bay
- Okiwi Bay

River Sites

- Te Hoiere/Pelorus River at Totara Flat
- Te Hoiere/Pelorus River at Pelorus Bridge
- Ohinemahuta River at Onamalutu Domain
- Wairau River at Ferry Bridge
- Wairau River at Blenheim Rowing Club
- Taylor River at Riverside
- Waihopai River at Craiglochart #2

2017 ENVIRONMENTAL AWARDS

Every two years the Cawthron Marlborough Environment Awards are held to showcase businesses or community projects that are good for the environment.

This year Sanford took out the Marine Award in recognition of the work they are doing to enhance the environment and use resources and energy more efficiently.

Sanford is a significant employer in Marlborough, with 185 mussel farms in the Sounds, a processing plant at Havelock and a waste management centre next door.

Judges noted the strong sense of innovation in the company, with staff encouraged and supported to find new ways of working to reduce their impact on the Marlborough Sounds environment.

Examples include:

- Developing biodegradable eco-rope to replace the plastic lashings on their farms.
- All mussel floats are recycled into plastic piping instead of going to landfill.
- Hydraulic oil for pumps and lifting gear has been replaced by a biodegradable vegetable-based oil.
- Installing BilgeKleen filters that remove 99.9% of hydrocarbons from bilge water before discharge.
- Fleet of vessels converting to new Hyundai engines that use less fuel, have lower emissions and are quieter.



Sanford staff, from left, Grant Boyd and Darren Brown with sponsor Ian McNabb (Port Marlborough) and Sanford's Lyndon Daymond

YOUR SOUNDS ADVISORY GROUP MEMBERS

Aaron Robinson	Marlborough Forest Industry Assn
Eric Jorgensen	Sounds Integrated Management Group
Debbie Stone	New Zealand Marine Farming Assn
Judy Hellstrom	Endeavour Inlet
Ken Roush	Port Underwood
Linda Booth	Duncan Bay
Lynley Perkins	Central Pelorus Sound/ Te Hoiere
Monyeen Wedge	Inner Queen Charlotte Sound/Tōtaranui
Poneke Rene	D'Urville Island Residents Assn
Rachel Drake	Outer Pelorus Sound/ Te Hoiere
Rob Schuckard	French Pass Residents Assn
Dave Hayes	Department of Conservation
Ross Withell	Kenepuru and Central Sounds
Tim Greenhough	Okiwi Bay
Victor Koller	Moetapu Residents Assn (Mahau Sound)
Nadine Taylor	Sounds Councillor
David Oddie	Sounds Councillor
Trevor Hook	Sounds Councillor (Chair)



PROTECTING AGAINST RURAL WILDFIRE – EVERYONE'S RESPONSIBILITY

Fire in our landscape is everyone's responsibility – make sure you are up to date with the latest on fire permits and how to protect yourself and your property from the threat of rural wildfire.

For more information visit: <http://www.mkrfa.com/>



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