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Record No: 21239941



Picton Regional Forum held at Picton Emergency Centre, Memorial Park, Picton, on Monday 8 November 2021, at 1.30 pm

Present

Clr Nadine Taylor (Chairperson).

Group Representatives

Clr Faulls, Dean Heiford, Raewyn Buchanan (Karaka Point), Monyeen Wedge (Queen Charlotte Sounds Residents Association), Graham Gosling (Picton Business Group), Rose Prendeville (Port Marlborough), Steve Merito (Rata Foundation), Rebecca Woledge (Karaka Point & Environs Residents Inc), Brian Henstock (Marlborough Sounds Community Vehicle Trust), Bryan Strong (Tirimoana Anakiwa Residents Association/Marlborough Community Vehicle Trust), Bruce Richards (Picton Bike Walk), Kersten Mueller (Guardians of the Sounds Association), Stuart Eyes (Bike Walk Picton), Linda Thompson (Envirohub Marlborough), John Reuhman (Picton, Marlborough Sounds Tourism), Margaret McHugh (Picton, Marlborough Sounds Tourism), John Welsh (Picton Historical Society).

Guest Speakers

Jane Robertson, (Marlborough District Council), Sarah Brand, (Marlborough District Council).

Absent

Bosun Huntley (Picton Historical Society), Yvonne Rigby (Picton Flower Ladies), Phil Black (Picton Police), Diane Smith (Picton Historical Society), Janette Howard (Greater Whatamango Bay Residents Association), Don Miller (Greater Whatamango Bay Residents Association), Graham Low (Waikawa Bay Ratepayers & Residents Association), Leith Manson (Tirimoana/Anakiwa Residents Association).

Attending

Kirsty Baldwin (MDC Secretary)

1. Apologies

Clr David Oddie, Ian Shapcott (Te Ātiawa Trust), Tim Newsham (Bay of Many Coves), Tim Healey (Queen Charlotte Sounds Residents Association), Beryl Bowers (Picton Historical Society).

2. Confirmation of previous meeting minutes

A motion was made to confirm the minutes of the meeting held on 4 October 2021.

3. Discussion around media presenting information from meetings

A member voiced her opinion about media having the opportunity to attend these meetings to enable people in the community know what is happening. Is the information made available to the public?

Picton Regional Forum Meeting Notes 8 November 2021

It was advised this is not a Council meeting, but community groups meeting therefore these decisions are the group's decision.

Information from the meetings is available on the Internet on the Marlborough District Council website in the form of Minutes.

It was stated that in the Local Government Act (LGA) anyone from the public can attend a Council committee or community local board meeting. Any member of the public are entitled to attend, including media, if they so wish. However, Dean Heiford, the Council manager present at the meeting, clarified again that the Picton Regional Forum (PRF) was not a Council meeting so not subject to the LGA.

Questions/Answers

 Dean Heiford advised PRF members can agree to close meetings to media as the representatives of their community groups. They can also disseminate the information to their members as they see fit.

PRF was formed when the local government commission turned down the community board. Dean was instructed by the previous mayor to gather together a forum for common issues among the Picton community. The reason it was originally set up was to have a meeting of common groups to distribute information to their individual members. It is not a forum open to individuals, but rather official representatives of local community groups. This group does not act under the Local Government Act, so that consideration is not relevant.

John Reuhman asked about the group being open to the public. It was moved, "that PRF invite the media to attend the quarterly forum meetings." This was Moved by Margaret McHugh and Seconded by John Reuhman.

Further discussion was held. It was noted that members represent community groups. Discussion has been had previously that the group did not want media to be present. Has anything changed since then?

Committee members had different reasons for their viewpoints. The general feeling was that everybody preferred to have discussions freely and openly without media present. A middle ground is for free community papers and *Sounds News* to be utilized. So long as it is news and what came out of the meeting. This is already happening to some extent, for example the speakers today have presented common information that has already been well canvassed in newspapers.

It was suggested that each member take it back to their group for guidance and bring it back to the Forum in March. However, the motion was withdrawn at the request of the mover and the seconder of the motion.

4. Actions from the previous meeting

	Action	Person Responsible
1.	Distribute a Council letter sent to Minister Mahuta in September about the Three Waters Program. <i>Completed.</i>	Kirsty Baldwin/Nadine Taylor
2.	Create a link to Council Three Waters Webinar. Completed.	Kirsty Baldwin/Nadine Taylor
3.	Distribute a written report by Tom Stein about Ungulates to the PRF Members. <i>Completed</i> .	Kirsty Baldwin/Barbara Faulls
4.	Provide a contact list of Holiday Home owners for shooting goats. <i>Completed</i> .	Kirsty Baldwin/Tim Healey
5.	Create a link to Environment Protection Agency decision document.	Kirsty Baldwin/Nadine Taylor
6.	Invite NZ Transport Agency/Waka Kotahi, to speak about the Broadway Street road closure. Completed. He is not available. Port Marlborough will speak to this.	Kirsty Baldwin/Steve Murrin
7.	Provide the Final Visitors Solution Study to the group. <i>No final study is available at present.</i>	Dean Heiford
8.	Put in a link to the Air Quality Report. Completed.	Kirsty Baldwin

5. Update from Marlborough District Council on Dog Bylaw Review – Jane Robertson

Refer to Appendix A.

Questions/Answers

 We have a lot of people in the Sounds who own Holiday Homes and are visiting from other locations and bring their dogs with them. In Blenheim Dog Control cannot follow up on this. It seems that there are two sets of rules. These dogs are making a nuisance of themselves, chasing wekas and other wildlife, and sometimes being aggressive.

It was suggested to ring Animal Control to deal with any issues here and they can deal with it. Jane will follow up with any useful information around this from Animal Control and have it sent out to the community groups to put in their newsletters.

- It was asked when the microchip come in, in the point of view of the tags?
 - 1 July 2006 it became a legal requirement.
- How does a dog get defined as dangerous?

Dangerous dogs need to have a sworn affidavit to attest to their aggressive behavior. There are many options for enforcement and classification is one of them. Animal Control will do an investigation but the process does need to start with a complaint being made about a dog.

Menacing dogs is another classification, based on either breed, or by their behavior. They need to be de-sexed or muzzled when out in public.

People can also be disqualified from dog ownership if they have had had three or more infringement from

Picton Regional Forum Meeting Notes 8 November 2021

separate incidents within a continuous 24-month period, or if they are convicted under the Dog Control Act. The disqualification can last up to five years.

Is a pig dog considered a working dog?

No, it is not.

679 submissions were received on the Dog Control Bylaw. There were two days of hearings. Site visits were also done around the district. On 24 June this year the new policy was adopted and came into effect on 1 August. The Policy and Bylaw are both on the Council website.

It was asked why such a big review was done.

The reason it was done is that it needs to be undertaken once every 10 years. A high number of submissions were received and it took a while to go through them. Some things were clear cut in what people wanted: others weren't. Maintaining balance between peoples' views was hard to achieve at times.

It came through in the submissions that peoples' dogs were very important to them and they wanted to take them on holiday with them.

A lot of issues were outside the scope of the Bylaw, ie, rubbish bins, etc. There were a lot of other things to consider which needed to be put to other areas of Council to decide upon.

There is a Dog Exercise Smart Map on the Council website. The map also includes toilets and rubbish bins.

Picton Foreshore is now a dog prohibited area. It is designated as a Premier Park. Animal Control does do irregular patrols to check the area. People can be educated if necessary.

There were a lot of submissions about Tirohonga Track and Essons Valley Tracks. These are popular walks as there are a lot of trees and they provide shade. Dogs are allowed off-lease on these tracks.

Animal Control is considered an Essential Service under Covid regardless of what level we are. You are encouraged to contact Animal Control if you do have any issues. They operate 24/7.

It was asked how many dogs people are allowed.

In residential areas it is two. If more than that you need to apply for a multiple dog license. This license will look at previous history, size of the property, making sure the dogs are well housed. If complaints are received the license can be revoked.

• Stuart Eyes asked about cats? Cats are out of control in Picton and the Marlborough Sounds. Are they allowed to put them outside at night? In other countries they are not allowed to have them outside at night. They are wild animals and are killing birds. Is any attention being paid to this four per property?

Cats are not really part of the Dog Bylaw. There is an Animals Bylaw stating that people are allowed to keep up to four cats. Cats are difficult because they are not registered to a person. Cats can wander. You can get feral cats and stray cats. There was a local government remit done on cat management a few years ago to discuss whether cats should be microchipped or registered. It has not progressed much further. There is no empowerment for this currently within Council. Perhaps the cats' owners could be registered like you do with guns. There is no legislation to enforce it.

A member disapproves of organisations that collect cats from the wild, de-sex them and then re-release them so that they can kill the stoats and rats, but we know that they do kill birds and wekas. Cats are killers by nature.

Cat Management is on the agenda for the next Animal Control subcommittee meeting. It is also a concern with Picton Dawn Chorus and eradication of pests.

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About eight years ago it was in the Annual Plan. Some effort could be made, especially for gardeners, whose gardens are being destroyed at night time by the neighbor's cats. It was suggested that Council put implementations in place to deal with it.

There are four chickens next door and they go to the Dairy every morning and wander the streets. They uproot the neighbor's plants. What can be done about those?

Wandering stock (which covers sheep, cows, deer, chicken, goats, etc.) can be dealt with under the Impounding Act and contact Animal Control in the first instance.

The average roaming cat kills 117 native species per year. The only way to get cat owners onboard is to film what is happening at night, which is what Picton Dawn Chorus are currently doing.

• Can the local Council create a Bylaw?

Not in the same way as the Dog Act. You could but there is a huge consultative process to go through.

There was a suggestion that the four cats per property could be changed to one cat per property as a starting point.

Jane Robertson exited the meeting at 2.30 pm.

6. Update from Marlborough District Council on Picton Air Quality Report – Sarah Brand

- Refer to Appendix B.
- Council studied the Picton air quality to address community concerns around the ferry terminal and steam
 train emissions. Previous studies involved intermittent monitoring and were short-term so didn't give a full
 picture. This study was done over the course of a full year, including both summer and wintertime with
 continuous monitoring. There were three air quality monitors, located on Wairau Road at the Kent Street
 intersection, one on the Foreshore by E-KoTours, and one at Queen Charlotte College.
 Multiple contaminants were monitored.

Questions/Answers

Are you able to pinpoint peak times?

There are peaks when the ferries come in, but they are not necessarily linked directly with the time of the ferries coming in, it depends which way the wind is blowing at that point in time. A future study could be a plume tracer study to see what the plume is doing and how it swirls around under different weather conditions.

Would the other monitors be able to tell you that specifically?

The plume tracer study would have so2 specific monitoring machines set up in multiple stations. Council would set up a couple of sites with different machines to monitor them, in different locations around town where there would be safe, secure sites, and accessible power. There is a bit of work to be done on this. Council would have temporary sites set up to enable this to be done.

Did this include the cruise ships or just the ferries?

Cruise ships were captured partially, before Lockdown occurred in March. Levels still went up in the winter without the cruise ships there.

• Fog does affect some of the systems. Some of the machines need special housing so that they're not affected by the weather, or humidity.

Will the report be recommended to Council?

Yes, approval has been given to look at sites and get quotes for the work.

• It was asked whether there was a timeline for when this will happen, whether it will be before full tourism kicks in again.

It was understood the ferries will be switching to diesel from 1 January. Talks are currently underway with NIWA to get monitoring for the so2.

What was the plan for cruise ships to use shore power?

With the new Interislander ferries the plan is for the new ships to have shore power at the new ferry terminal. Port Marlborough is working with Interislander to use that shore power for the cruise ships as well. The issue is that you have to have the power available.

What are the pollutants at Queen Charlotte College?

They have got elevated soot levels from domestic fires in the area. It is not pertained to the College itself.

Rebecca Woledge exited the meeting at 2.50 pm.

Waikawa Bay Residents and Ratepayers Association have been working on wattle eradication. There have been barriers to get onto peoples' properties to cut down trees. Picton Medical Centre has had a lot of clients due to pollen having a medical effect during the September-October peak time. Discussion needs to be held around having wattle as a plant species and whether people want to have them on the hillsides.

Everything was reduced during Covid Level 4 so peoples' activities do have an effect. A long term air quality study will be done in future apportioning differing pollutants. Council will be working with people in what the Picton community can do to improve air quality. This could go to inform Bylaws or changes.

- Has energy transfer from the ships been addressed?
- Has energy transfer to heat water for pools been addressed? There is no information currently about this.
- It was asked what the background is where there is no activity and what the levels are. What are the medical impacts on respiratory issues when these wattles and other emissions are reduced?

It is proposed that there are more stringent standards. The government is waiting for guidelines to come out. A New Zealand wide health and air pollution study is due out early next year with government proposals next year.

Sarah Brand is happy to answer any further questions via email.

7. Update from Port Marlborough about the Ferry Precinct and Broadway Road Closure – Rose Prendeville

- At the last meeting Port Marlborough provided a preview of the most recent project plans, that has subsequently been released publicly (<u>Picton New Interislander (irex.co.nz)</u>. These plans are further refined from the plans used for resource consent applications, now that KiwiRail has confirmed the way they will operate the rail yard (with the longer trains now intended to be made up at the Spring Creek KiwiRail yard, not Picton), and with the specifications of the new Interislander ships confirmed.
- The next steps in the process are to take the current concept designs, and develop these through to detailed design of all aspects of the project, from which construction will be delivered.
- Port Marlborough is working with KiwiRail and final stages of negotiations to agree commercial contracts.

• Forum members had asked about the Broadway closure, at the railway crossing and Wairau Road / Auckland Street. This intersection is currently five roads intersecting, two of them entering the intersection across railway lines. Several years ago, the intersection was been identified by Waka Kotahi and KiwiRail for safety improvements. Under the initial plans for the Waitohi Picton Ferry Precinct Project, KiwiRail intended to make up very long trains in Picton, and this required use of the line adjacent to Broadway to provide the required space. Although this operational need to close Broadway is not needed by the evolved project design, the safety issues are still relevant and so the intersection improvement will still go ahead for safety reasons, but not because of the project. The improvements will include safer transit for pedestrians and cyclists.

Questions/Answers

 Will there be a stop road process so citizens can raise any concerns? Will it be fast-tracked due to Covid?

Whatever legal requirements there are Waka Kotahi and KiwiRail will meet those through their standard processes. It has all been consulted on as part of the KiwiRail/Port Marlborough Resource Consent that has already been issued.

• Will Port Marlborough demolish the terminal, how does that work? Is there a temporary terminal?

Yes, the existing terminal will be demolished and a temporary terminal will be established in a similar location, within the overall project footprint.

Will the silos be demolished? What happens to any cement that is in the silos?

Yes, all three silos will be demolished. There is some cement in one of the silos, and Port Marlborough is working to recover the cement and use in the Port, possibly in some planned paving replacement work in Shakespeare Bay. They are working on plans to recover the demolition materials from the silos themselves, to incorporate this into the ferry terminal project or other construction, for best sustainability outcomes. There have been good results from recovered materials at CentrePort in Wellington and they are sharing their knowledge.

• Can piling work be done without noise with laser?

The project team is looking at different ways of doing the work to minimize the time and noise, this includes different types of piling. Port Marlborough is conscious of doing the work in an urban, highly developed environment. There is a wide range of experience of marine piling including the Port's own recent work in Waikawa. Best methods will be used for the site and the circumstances.

Rose Prendeville welcomes a phone call if people have any questions about the project and if she doesn't have the answer will seek it out.

The word "sustainable" has been seen in the project plans, but the website doesn't have anything specific about what that means for the Waitohi Picton part of the project. What makes it sustainable? Can some more detail be put on the website?

When working with the developers and design team there is a very clear set of sustainability criteria that they are required to meet. There is a framework called the ISCA Framework that buildings and developments need to meet to match the requirements. There is a comprehensive list of things the buildings and developments are required to take into account to meet requirements. Thanks for the prompt to add more sustainability details to the website – yes, we will do that.

Dean Heiford commented that there will be a wide range of mitigations while the project is being constructed, it will be a large project that will be constructed over several years, and it will have many working parts.

Rose said that Port Marlborough has a good working relationship with KiwiRail on this project and there is a shared priority for keeping the community informed, and delivering the project with the least possible adverse impacts.

Kersten Mueller left the meeting at 3.25 pm.

Steve Merito left the meeting at 3.30 pm.

Sarah Brand left the meeting at 3.30 pm.

8. Other Matters

- The group is still awaiting the final Visitor Solution Report. Dean Heiford will advise on this once he has received the completed report.
- The subject of cleaning the ramps at the public launching area was brought up and whether they have been cleaned. Rose Prendeville will follow up on this.
- Parking spaces at Shelley Beach was raised. Are people able to use it for unloading?

Yes. They could be time limited, for people to unload, for one hour or 15 minutes, as opposed to non-timing.

How are we going to separate the launching ramp from where children are playing?

The Yacht Club is responsible for Health and Safety enforcements for that area.

Will we have to pay for the alternative parking?

No, it will all be free.

Will a process be put in place, say in the Picton Happenings, or the newspaper, or the library, about letting the public know what is happening about the design plan of Shelley Beach?

- It was suggested that Dorien Vermaas (Marlborough District Council) comes to speak about the Long Term Marlborough Economic Wellbeing Strategy.
- Are we able to review the Picton Regional Forum group dynamics for an Agenda item? Is it serving the purpose it was intended to 12 years after it was established? Does it need tweaking?

The groups were directed to discuss it with their individual groups and bring it back to be discussed at the larger meeting.

This could be reviewed next year at the local body elections.

Monyeen Wedge exited the meeting at 3.40 pm.

9. Actions from the meeting

	Action	Person Responsible
1.	Send Minister Mahuta Three Waters policy letter to Monyeen. Completed.	Kirsty Baldwin
2.	Send the Dog Policy and Bylaw Council website link to Monyeen. <i>Completed.</i>	Kirsty Baldwin
3.	Follow up with Animal Control to get information regarding visiting Holiday Home owners and dog behavior to the Marlborough Sounds to distribute to community groups.	Kirsty Baldwin/Jane Robertson
4.	Invite Picton Dawn Chorus to speak about stray cats. Completed.	Kirsty Baldwin
5.	Follow up with Waka Kotahi to answer the question above about the Broadway closure and whether there is a public consultation process. <i>Completed.</i>	Kirsty Baldwin/Steve Murrin
6.	Re-send the IREX information to the group. Completed.	Kirsty Baldwin
7.	Liaise with Picton Happenings to distribute information to the public about Shelley Beach works.	Kirsty Baldwin/Nadine Taylor
8.	Distribute the final Visitor Solution Report once available. <i>Pending.</i>	Kirsty Baldwin/Dean Heiford

10. Future Speakers

- Picton Sewerage Update Stephen Rooney.
- Marlborough District Council regarding Picton Water Supply:
 - o Quality Monitoring Program.
 - o Quantity now and after 2020 upgrade.
 - o Usage Residential/commercial.
 - Plans for conservation roof water collection tanks, recycling systems in factories, fixing leaking pipes.
- Long Term Marlborough Economic Wellbeing Strategy Plan Update (Dorien Vermaas, Marlborough District Council).
- Picton Police Update.
- Picton Dawn Chorus Update.

11. Proposed Meeting Dates for 2022

Picton Regional Forum

- 7 March 2022
- 3 May 2022
- 4 July 2022
- 5 September 2022
- 7 November 2022

The meeting closed at 3.40 pm.

Appendix A - Dog Control Bylaw Review



Purpose of Presentation

- Provide information on animal control activities and statistical information for 2020-2021.
- Provide an update on the Dog Control Bylaw Review.



Contractor

Council engages a contractor **Maataa Waka** to provide Animal Control Services in accordance with the **Dog Control Act 1996** and the **Impounding Act 1955**.







Animal Control Services Contract

- · Providing annual dog registration services.
- Responding to complaints.
- · Reuniting lost and found dogs with their owners.
- · Providing patrol services.
- Dog safety education services.
- Maintaining the Pound and impounded animals.
- Managing stock on roads and in public places.
- Monitoring and enforcing compliance with the Dog Control Act and Dog Control Bylaw.

Dogs in Marlborough

As of 8 November 2021 there are;

Category	Number of dogs
Responsible dog owner	5,057
Standard dogs	2,884
Old dogs (over 12 years)	909
Dangerous dogs	9
Working dogs	1,698
Total active dogs	10,557





Dog Registration 2020-21

- Increase in online and credit card payments.
- Late fees were applied at the start of August.
- Currently there are still 109 dogs (89 owners) not registered.
- Animal Control follow these up with phone calls, emails and then property visits.



Dog Complaints 2020-21

Type of complaint	Number
Barking	389
Bylaws/Fouling	37
Dog Attack/Bite/Rush Person	64
Dog Bite/Rush Other	41
Found	629
General Request/Other	634
Lost	302
Roaming	360
Uncontrolled	43
Unregistered dog	64
Welfare	38
Total	2,650





Stock on roads

 From 1 April 2021 there have been 81 call outs for stock on roads.



Education















Impounded Dogs 2020-21

- Total of 193 dogs were impounded
- 158 dogs released to their owners
- · 25 dogs rehomed
- 10 dogs euthanised (all involved in dog attacks)





Classification of Dogs

- · One enforcement option to help mitigate risk.
- Classification extends over NZ.
- Owners have 14 days to object to a classification.
- Any objections have a hearing with Council's Enforcement and Prosecution Committee.





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Dangerous Dogs

- Currently, 9 dangerous dogs in Marlborough.
- Highest registration fee of \$135 (which is 150% of the standard dog fee).
- Must also be kept within a securely fenced portion of the owners property which allows safe access to at least one door of the dwelling.
- Dangerous dogs must be desexed, muzzled and on leash when in public.



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Menacing dogs by breed

- Dogs must be classified as menacing if they belong wholly or predominant to one or more breeds or types listed in Schedule 4.
- Currently, 28 dogs classified as menacing by breed.







Menacing dogs by deed

- · Currently, 66 dogs classified as menacing by deed.
- Dogs considered that they may pose a risk to any person, stock, domestic animal or protected wildlife because of observed or reported behaviour.
- Dog must be desexed, muzzled and on leash when in public.



Disqualification of owners

- When a person has 3 or more infringements for separate incidents within a continuous period of 24 months or is convicted of an offence against the Dog Control Act.
- Disqualification for up to 5 years.
- Must dispose of any dogs they own within 14 days and not be in possession of a dog at any time.
- · Currently 5 disqualified owners in Marlborough.



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Prosecutions

- 3 prosecutions during 2020/2021 for;
 - a dog attack on another dog
 - 2 dogs attacked a number of sheep
 - a dog attack on a person
- Guilty pleas for all cases.
- Court ordered the destruction for each of the dogs involved.



Microchipping update

 All dogs are legally required to be microchipped (except if they are dogs or born before 1/7/2006).



- In April 2021, a total of 8102 dogs were microchipped.
- Letters sent to the 874 owners that needed to get their dogs microchipped.
- \$15 May microchipping special at Animal Control (normally \$25).
- Now total 8,597 dogs microchipped and 389 dogs still need to be microchipped.





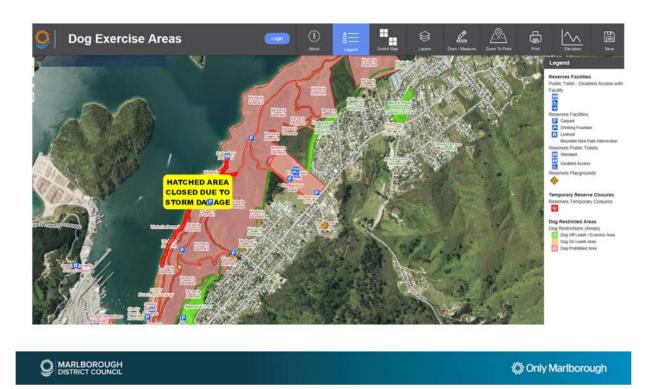


Dog Control Policy and Bylaw Review

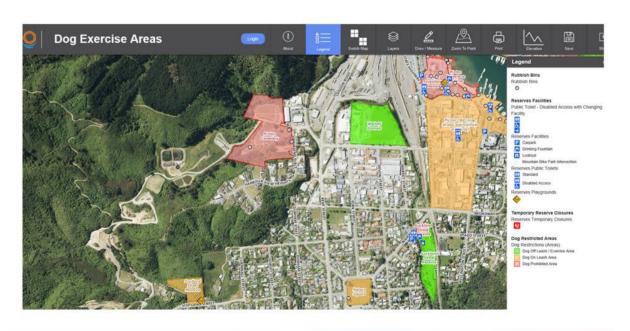
- Special consultative procedure followed.
- Review completed.
- New policy and bylaw came into effect on 1 August 2021.
- Website and form updates.
- · Signage updates.



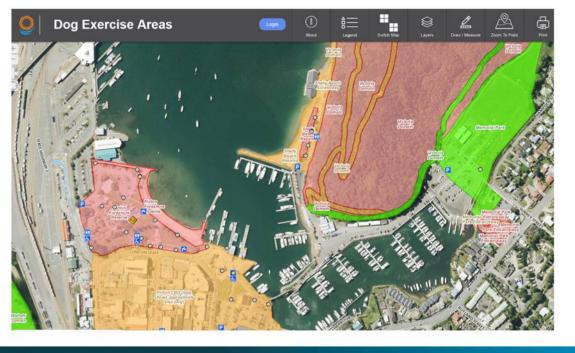
Dog Exercise Area Smart Map



Dog Exercise Area Smart Map



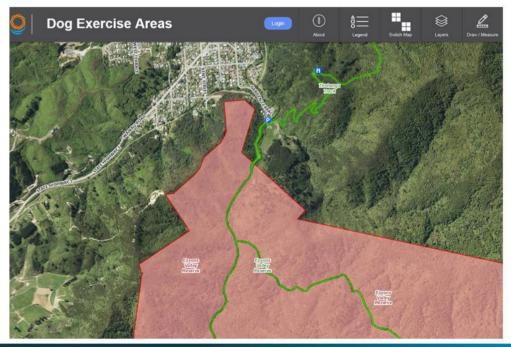
Dog Exercise Area Smart Map







Dog Exercise Area Smart Map



MARLBOROUGH DISTRICT COUNCIL

Covid-19 Update



- Animal Control is an essential service and continues to operate but the office was closed.
- In level 4 officers responded to urgent calls;
 including any dog attacks and stock call outs.
- They continued to care for any impounded dogs and arrange contactless return of dogs.
- The office has since reopened and appropriate precautions are in place.



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If you have any issues....



- Animal Control operate 24 hours

 a day 7 days a week. The on-call officer responds
 to urgent after hours calls.
- Please report any issues with stock on the road or in a public place.
- Please report any issues with dogs to Animal Control phone 520 9033.

Appendix B - Picton Air Quality Report



Why study Picton's air quality?

Picton is a unique mixture of housing, industry and a major port within a topographically confined coastally influenced space.

Previous studies:-

- · Focused on specific contaminants (e.g. particulate matter or methyl bromide).
- · Short term (overnight, days, months).
- · Intermittent monitoring (1 day sampled in every 3 days)
- Results inconclusive as to whether the area would exceed the NESAQ for PM₁₀

Current Study:-

- Address community concerns around the visual emissions from the ferries, steam train and domestic heating.
- Multiple contaminants (CO, NO₂, SO₂, O₃, PM₁₀, PM_{2.5}).
- · Capture a full winter and summer.
- · Continuous monitoring.









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Monitoring Locations

3 x Air quality (AQ) monitors – Wairau Road, Foreshore and QCC

11 Met Stations across the town.

Continuous monitoring of multiple contaminants (CO, NO₂, SO₂, O₃, PM₁₀, PM_{2.5}).

Points to note:-

- · Can't monitor every where.
- AQ sensors are "screening" sensors they are not NES complaint and can't be used as regulatory equipment.
- · Most limiting factors:-
 - affected by humidity;
 - lifespan (12 months),;
 - error margin can be 20%+.





Meteorological Results

0500 to 0650 NZST

1400 to 1550 NZST

ites with permanent feteorological stations only



Morning - winds are dominated by drainage flows down the hills and valleys and out to sea.



Afternoons – Sea breezes - flows reverse coming on shore from the north, northeast resulting in flows back onshore along the valleys.

Implications:
Air pollut

- Air pollutants taken out into Queen Charlotte Sound in the morning, can be brought back on shore and over the town in the afternoon.
- Makes pollution source apportionment difficult.







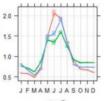
This pattern is the most dominant in calm conditions.

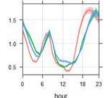


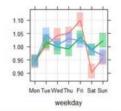
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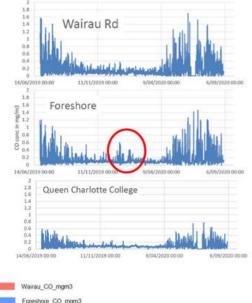
Carbon Monoxide (CO)

- Incomplete combustion sources traffic and domestic heating.
- NESAQ Standard 10mg/m3 as an 8-hour rolling average.
- Concentrations low, unlikely to be any exceedances of the
- Similar pattern across for all 3 sites, higher during winter, attributed to the increase in domestic heating. Wairau Rd > Foreshore > QCC
- Summer peak notable at Foreshore.
- Morning peak around 0700 NZST and a longer evening peak, around 1900 to 2200 NZST - Domestic heating signal.
- Day of week analyses shows Wairau Rd has clear decrease on Saturdays.













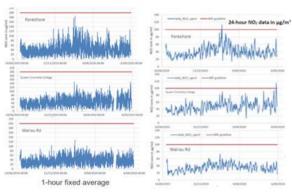
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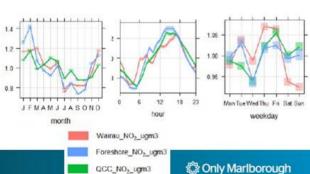
Nitrogen Dioxide (NO₂)

- Traffic (diesel) sources heavy-duty vehicles, rail locomotives, smaller commercial and larger recreational boats.
- NESAQ Standard 200µg/m3 as 1-hour fixed average. No exceedances, although Foreshore elevated in summer.
- Ambient Air Quality Guideline 100µg/m3 as 24 hour mean -Exceedances Foreshore and QCC.
- Wairau Road lowest level unexpected considered traffic site.
- Foreshore increased concentrations during summer unexpected - reflecting increased use of smaller commercial/recreational craft.
- Higher summer & afternoon concentrations expected photochemical reactions formation.
- Weekday plots variable signal. Wairau Rd low at weekends.





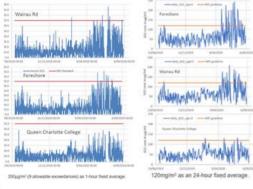




Sulphur Dioxide (SO₂)

- Shipping and burning coal and diesel byproduct.
- SO₂ concentrations found to be acceptable 80% of the time across all sites and most months greater than 90% of the time.
- NESAQ Standards
 - 350µg/m³ (9 allowable exceedances) as 1-hour fixed average. - exceeded Wairau Rd & Foreshore
 - 570µg/m³ (no allowable exceedances) as 1-hour fixed average. – No exceedances
- Ambient Air Quality Guideline 120µg/m³ as an 24-hour fixed average - exceeded in all three sites.
- Suggestive of the multiple sources a base level across the year potentially from diesel' sources, short peaks potentially from shipping and increase in total concentrations during the winter from home heating with coal.



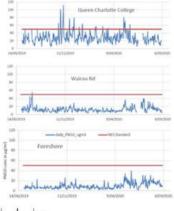


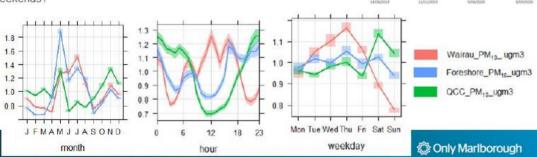


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PM_{10}

- Anthropogenic & natural sources domestic heating, industry, dust, pollen, sea salt.
- NESAQ Standards 50µg/m³ (1 allowable exceedance) as 24 hr fixed average Exceedances QCC and Wairau Rd.
- AQ sensors affected by high humidity fog resulted in large spikes QCC was the most affected site.
- Monthly highest in winter, secondary increase Sept Nov ?Dust/Pollen.
- No consistent pattern around town, Wairau Rd higher during day indicating different source – potentially traffic dust. Foreshore & QCC evening peaks - heating.
- · Foreshore and QCC show relatively consistent levels across the week.
- Wairau Rd elevated levels across the weekdays, drops off at the weekend reduction in HDV at the weekends?

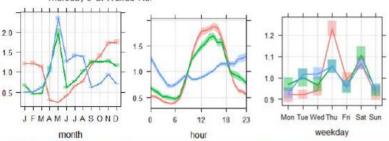


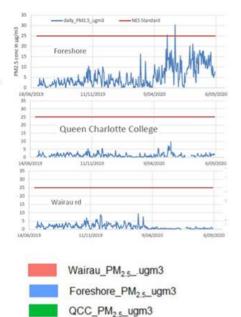




- Currently no standard for PM_{2.5} Proposed NESAQ Standard 25 $\mu g/m^3$ (3 allowable exceedance) as 24 hr fixed average.
- As for PM₁₀ periods of fog influenced concentrations.
- Wairau Rd decreases after April 2020, not seen in PM₁₀ data.
- Foreshore significant increase after April 2020 not seen to the same extent in PM₁₀ data. Possible exceedance of proposed 24hr.
- These variations are currently unexplained (Sensor/Source/Met?).
- QCC for both PM2.5 and PM10 are consistent throughout the sampling period.
- Monthly plot QCC and Foreshore have highest concentration in early winter, Wairau Rd peak in summer.

 Different pattern to PM₁₀, needs further work to understand this.
- QCC and Wairau Rd similar daily patterns with main peak being the late morning-early afternoon. Foreshore more consistent level across the day.
- Weekday plot all sites relatively similar across week except for the large peak on Thursday's at Wairau Rd.



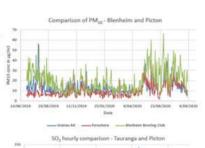


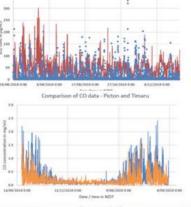


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Inter-site comparisons and trend comparisons to other locations

- Comparing different pollutants at each site shows things are:
 - Complex,
 - Difficult to assign pollutants to a specific pollutant source,
 - Time of day, week and season and weather patterns are critical to pollution levels and how they are moved around the town.
 - Further work required to have more confidence in understanding what is going on.
- PM₁₀ trend for Picton similar to Blenheim with greater winter concentrations in 2020 than 2019.
- PM_{2.5} does not show the same trends as Blenheim or PM₁₀ in Picton – different sources?
- SO₂ trend pattern comparable with Tauranga a base line concentration punctuated with peak spikes.
- CO trends compared well to Timaru.







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Shipping

The timing and area of the town that is subject to the ferry and cruise ship is critically controlled by the wind flows both at the time of emission and for a significant time afterwards – plumes have been seen to be blown back through the town several hours after vessel departures.

Home Heating

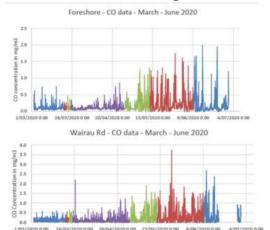
Dominant winter PM and CO peaks consistent with home heating signal.

Traffic

NO₂ pollution confined in N-NNE and S – SSE direction due to dominant winds and topography.

COVID-19

Effect of lockdown evident with decreased pollutant levels during Level 4 which then increased through the levels.







Overall conclusions of the study

- Results highlighted that there could be exceedances of the NESAQ standards for PM₁₀, SO₂ and possible NO₂ in the town and as such these contaminants require further monitoring.
- Further work and investigations are required to gain a greater understanding of the sources of air contaminants and how they behave and move around town under different weather patterns.

Next steps

- To investigate and design a long-term air quality monitoring program in Picton.
- To undertake further source apportionment work and plume tracer studies.
- To work collaboratively with the community, iwi and industry to consider all
 options for improving Picton's air quality and establish a combined strategy to
 undertaken chosen options.



