

Waimakariri District Council
215 High Street
Private Bag 1005
Rangiora 7440, New Zealand
Phone 0800 965 468

DISTRICT PLAN REVIEW

Proposed Waimakariri District Plan - Submission

Clause 6 of Schedule 1, Resource Management Act 1991

Submitter details

(Our preferred methods of corresponding with you are by **email** and **phone**).

Full name: M [REDACTED] Baynes

Email address: info@northbridgefinance.co.nz

Please select one of the two options below:

- ☒ I **could not** gain an advantage in trade competition through this submission (go to Submission details, you do not need to complete the rest of this section)
- ☐ I **could** gain an advantage in trade competition through this submission (please complete the rest of this section before continuing to Submission details)

Please select one of the two options below:

- ☒ I **am** directly affected by an effect of the subject matter of the submission that:
- A) Adversely affects the environment; and
 - B) Does not relate to trade competition or the effect of trade competition.
- ☐ I **am not** directly affected by an effect of the subject matter of the submission that:
- A) Adversely affects the environment; and
 - B) Does not relate to trade competition or the effect of trade competition.

Submission details

The specific provisions of the proposal that my submission relates to are as follows: *(please give details)*

Noise rules in regards to Audible Bird Scaring Devices

My submission is that: *(state in summary the Proposed Plan chapter subject and provision of your submission. Clearly indicate whether you support or oppose the specific provisions or wish to have amendments made, giving reasons) (please include additional pages as necessary)*

Noise R6 - Audible Bird Scaring Devices.

I propose amendments to this section to take into account a) a density rule of the number of hectares per device and b) and increase in the limit from the notional boundary of a dwelling

The proposed district plan makes note of the number of shots permitted per bird scaring device, but makes no mention of density limits for placement of devices ie 1 per 4ha. At the numerous number of meetings held at Council with interested parties, it was presented that the number of shots from bird scarers cannot be effectively regulated without a density rule to accompany the shots per hour restriction. ie 6 shots per hour may be fine assuming only 1 scarer in an adjoining property, but if there are 6 or 8 devices in one 10ha paddock, this becomes a very unacceptable amount. As per my discussion with Council in May 2019 around this, we have in the past encountered situations with over 2000 events per day which is highly stressful for those living nearby. I also challenge the distance limits proposed - 200m from the notional boundary is too close for something that generates 156 Decibel at source per attached Acoustic Engineer correspondence. A compliant distance for the noise limit proposed is closer to 500m.

I/we have included: 7 additional pages

I/we seek the following decision from the Waimakariri District Council: *(give precise details, use additional pages if required)*

That the section Noise R6 - Audible Bird Scaring Devices be amended to include the following;

- A maximum of 1 device per 4ha, being a space 200m x 200m centred around the device
- A minimum of 400m from the notional boundary of adjoining residences

Submission at the Hearing

- ☐ I/we wish to speak in support of my/our submission
- ☐ I/we do not wish to speak in support of my/our submission
- ☒ If others make a similar further submission, I/we will consider presenting a joint case with them at the hearing

Important Information

1. The Council must receive this submission before the closing date and time for submissions.
2. Please note that submissions are public. Your name and submission will be included in papers that are available to the media and public. Your submission will only be used for the purpose of the District Plan review process.
3. Only those submitters who indicate they wish to speak at the hearing will be emailed a copy of the planning officers report (please ensure you include an email address on this submission form).

If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- It is frivolous or vexatious
- It discloses no reasonable or relevant case
- It would be an abuse of the hearing process to allow the submission (or the part) to be taken further
- It contains offensive language
- It is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

Send your submission to: Proposed District Plan Submission
Waimakariri District Council
Private Bag 1005, Rangiora 7440

Email to: developmentplanning@wmk.govt.nz

Phone: 0800 965 468 (0800WMKGOV)

You can also deliver this submission form to one our service centres:

Rangiora Service Centre: 215 High Street, Rangiora

Kaiapoi Service Centre: Ruataniwha Kaiapoi Civic Centre, 176 Williams Street, Kaiapoi

Oxford Service Centre: 34 Main Street, Oxford

Submissions close 5pm, Friday 26 November 2021

Please refer to the Council website waimakariri.govt.nz for further updates

Submission for WDC Plan Review

Over the past few years, there have been numerous discussions between interested parties around Gas Gun use in the Waimak District. Following some informal community meetings (attended by Jim Palmer and Victoria Caseley), a facilitated discussion was put together by WDC, including representatives from Council (Shelley Milosavljevic, Nick Harrison, Trevor Ellis), Swannanoa residents (Michael Baynes, Marc & Rachel Palmer), a gas gun operator (John Larsen), and a Commercial Seed buyer (Steve – SPS Seeds)

Discussions were had around the use of gas guns – in terms of benefits for the farmer, but also the noise implications for neighbours. An amicable agreement around mindfulness of use was reached, but this did not extend to any formal arrangement between the parties, or any formal guidelines for use.

The pending WDC plan review was acknowledged as the best mechanism to deal with rules for use, via the review process.

With that in mind, I would like to submit some of the following notes around the current Gas Gun use in WDC for consideration as part of the review

What are the current regulations?

Unlike most councils, under the current District Plan, WDC advise their use is permitted (under the agricultural land use exclusion from noise rules), and thus are largely unregulated by council

There is no formal requirement from council as to;

- Separation Distances from dwellings
- Density of use (ie number of cannons per Ha or distance between units)
- Use of Cannons during Restricted Fire Season
- Time of use
- Frequency of shots per hour
- Direction of shots (ie away from dwellings)

What are the effects on neighbouring properties?

- Sharp, frequent, very loud detonations cause high stress for residents and animals, and severely impact people's enjoyment of their properties
- Long-term exposure to noise has been associated with stress, increased risk of heart attacks, poor educational and work performance, absenteeism, aggression and depression. Children are particularly sensitive to all types of noise.
- Echoes from dwellings/barns etc magnify the effect of shots
- This is especially so when used in an unreasonable manner ie in Swannanoa, Gas Gun use has been recorded at up to **2000 shots per day** from a single site

- Commence very early – 6am etc, 7 days per week, for several months in a row
- Unattended units have been recorded running all through the night

What do other Councils do?

Bird Scarer's are very common worldwide, but their effect on neighbouring properties is also well documented, and as such are generally subject to;

- Council Guidance as to use/location etc
- Supported with Best Practice Guidelines/Codes of Practice ie Ashburton District Council
- Most provide guidance around shots per hour and separation distances

In Waimak, the use of Gas Guns is currently self-regulated by the operator. The effects of gun shots are not well catered for under the current WDC noise rules, as noted in the case of WDC vs the Nth Canty Clay Target Assn

In other recent cases in Waimak & Hurunui, noise complaints around Bird Scarer's relate to units used by corporate/absentee owners that do not live on farm, and who are isolated from the noise effects created

Some examples from other NZ Councils

- Rodney DC – 6 events (ie 1 event = 3 shots), 65DB Max
- Wairarapa – six shots per hour max
- Ashburton – 15 shots per hour, 1 gun per 4 ha
- Marlborough – 12 shots per hour, 1 gun per 5 ha
- Hastings DC – 12 shots per hour, 1 gun per 4ha
- Hurunui – 65DB Max
- Western BOP DC – 12 shots per hour
- Napier DC – 12 shots per hour, 1 per 4ha
- Waipa DC – 12 shots per hour, 1 per 10ha

Fire Risk

Most units detonate a flammable gas, and are left unattended

- Australian Councils require management plans around the use of Bird Scarers in Restricted Fire Seasons
- i.e. clearing area around the device, secured from tipping over, equipment maintenance etc

Alternatives

Gas Guns are designed to be used as part of an active Management Programme. Birds adapt quickly to any sound that does not vary its magnitude, pitch or time interval.

They are one of many bird control strategies available: visual (streamers, balloons, lights, fake hawks); physical (nets), and acoustical deterrents (electronic sound devices, pyrotechnic pistols). Experts agree a combination of methods is required.

Proposal

I am not seeking the elimination of Gas Guns, but I think they must be subject to reasonable standards of use. Taking guidance from the other councils, and also what we think would be a fair outcome for neighbours, I would propose the following;

- Max density 1 per 4 ha. Minimum 200m between guns
- No use within 400m of a residential dwelling
- 12 shots per hour, per gun
- 7am to 7pm operating period
- No use in a restricted fire season

As one of many directly affected residents, I am very committed to helping however I can to improve the current situation around gas gun use, and I am happy to be included should you wish to have any discussions around this or seek further submissions or information

Kind Regards

Michael Baynes

info@northbridgefinance.co.nz

027 44 00 534

From: Rewa Satory [<mailto:rs@aeservices.co.nz>]
Sent: Monday, 24 June 2019 2:23 PM
To: Northbridge Finance <info@northbridgefinance.co.nz>
Subject: RE: Gas Guns

Hi Michael

I expect that this type of Gas gun would need to be over 500 metres away to meet the noise limit of 65 dB LAE.

The 10 second measurement period does not 'dilute' the noise level when described by the LAE descriptor. The LAE is the level which would result if all the sound energy in a measurement period had instead been contained in a 1 second period. So if you stand there for 8 seconds after the event has occurred measuring nothing, the LAE stays the same. If any additional sound occurred in the 8 seconds the LAE would go up however.

Kind Regards
Rewa

Sent from Mail for Windows 10

From: Northbridge Finance
Sent: Monday, 24 June 2019 1:50 PM
To: 'Rewa Satory'
Subject: RE: Gas Guns

Thanks Rewa

A quick query – for something like a Scatterbird (attached), which I would say is very typical of the types used near us, based on an the noise chart included is this likely to be able to comply with 65 DB LAE at 200m? Assuming 156DB at source

Also does the 10 second measurement period have the impact of diluting the actual noise measurement? I guess the gunshot part is in milliseconds, and at the most I would expect 2 gunshots in the 10 seconds (possibly only 1).

Just keen to know if the 200m is just a made up figure (as you say, for operational considerations) or if it does represent some approximation of distance that broadly meets the noise limits. Seems very close?

Cheers

Michael

From: Rewa Satory [<mailto:rs@aeservices.co.nz>]
Sent: Monday, 24 June 2019 12:48 PM
To: info@northbridgefinance.co.nz
Subject: Gas Guns

Hi Michael

We have reviewed the Waimakariri District Plan draft rule for noise from audible bird scaring devices and have the following comments:

The LAE measurement descriptor has become the accepted way within New Zealand District Plans to measure noise from percussive audible bird scaring devices. There doesn't seem to be any technical reason why an LAE measurement is not appropriate, except that it gives a low numerical value for the sound when compared with other descriptors that are often used for gunshots such as Lpeak or LAFmax. For non-technical people it is hard to conceptualise what a noise level of 65 dB LAE represents, and some sound level meters may not be able to instantly measure the LAE without further analysis whereas Lpeak or LAFmax could be measure easily.

The noise levels provided by manufacturers for Gas Guns varies considerably and there is very little information provided which would allow us to determine the actual noise level at a specific distance. However, we expect that many devices would produce a noise level of well over 65 dB LAE when situated 200 metres from the notional boundary of a neighbouring dwelling (that is, regardless of what minimum setback the Plan mentions, for many devices the setback will need to be larger to comply with the 65 dB LAE requirement – for example we have seen recent measurements for a Vinetech mobile bird scarer which would suggest a setback of more than 500 m would be needed).

We have reviewed Rules for noise from audible bird scaring devices in the proposed Selwyn Plan, Christchurch, Ashburton and Hurunui and Central Otago District Plans and have the following comments:

- It is typical for plans to allow operation during the daylight hours or between sunrise and sunset with some variation such as:
 - Devices cannot be operated before 0630 hours
 - Half an hour after sunrise and half an hour before sunset
 - Limited operation an hour each side of sunrise and sunset.
- Some plans give a minimum distance of 200 metres from the notional boundary or 200 m from an urban area and some give no distance. The distance is useful because it is an easy test for compliance; however, as stated above there is not guarantee this will ensure noise levels are below the specified limits.
- The noise limit of 65 dB LAE is typical for noise measured at the notional boundary or residential zone boundary. The Central Otago District Plan gives a limit of 70 dB LAE if device is more than 500 metres from Residential area. (i.e noise levels can be higher at rural dwellings if further from residential zones).
- Some plans have a limit of the number of shots, however, Christchurch and Hurunui have no limit, Ashburton has a limit of 15 in a 60-minute period and Selwyn has a limit of no more than 18 per hour.
- The condition which states based on measurements of not less than 10 seconds in duration is unusual as to provide an LAE the measurement only needs to cover the period of the event, and the dB LAE noise level would not depend on the length of the measurement period as long as the entire event is measured.
- We would also consider it appropriate to limit the number of gas guns per hectare with some plans limiting the number of devices to one device per four hectares, except where the land holding is less than four hectares in area, where one device is permitted.

I trust this is of assistance.

Kind Regards
Rewa

Rewa Satory

BE (Mech) MASNZ
Acoustic Engineer



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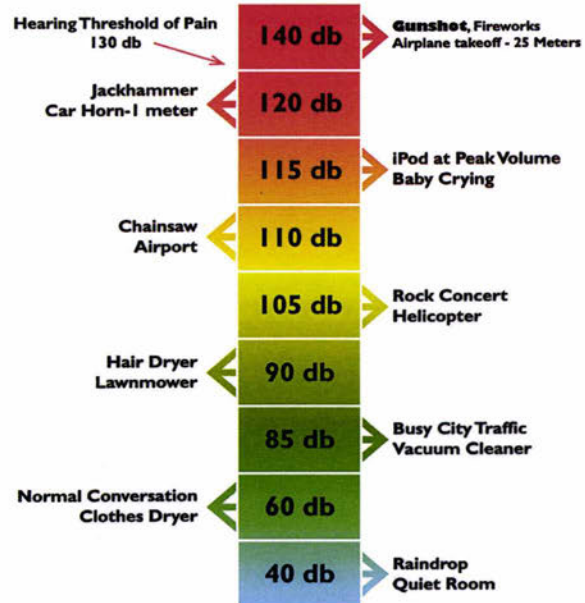
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Some Common Decibel Levels



Noise Exposure Levels

Noise-induced hearing damage is related to the duration and volume of exposure. Government research suggests the safe exposure limit is 85 decibels for 8 hours a day.

