

From: George Taylor
Sent: Monday, 8 December 2025 5:38 pm
To: s9(2)(a)
Cc: Libby O'Brien; Cami Nieva
Subject: RE: PTL & DOC End of Winter/Beginning of Summer Operations Meeting

Kia ora Jono

Putting another hold on this hui. We're dealing with another fire over here at Whakapapa.

Hopefully we'll find another spot between now and close down for the year.

Ngā mihi,

George

-----Original Appointment-----

From: Cami Nieva <cnieva@doc.govt.nz>

Sent: Wednesday, 7 May 2025 11:43 am

To: Cami Nieva; s9(2)(a); George Taylor

Cc: Libby O'Brien

Subject: PTL & DOC End of Winter/Beginning of Summer Operations Meeting

When: Tuesday, 9 December 2025 10:00 am-11:30 am (UTC+12:00) Auckland, Wellington.

Where: Microsoft Teams Meeting

Hi Jono,

As discussed, please find here the invite for a new date for this hui.

s9(2)(k)



Released under the Official Information Act

From: Sue Clearwater
Sent: Monday, 23 February 2026 4:24 pm
To: Mitch Black
Subject: RE: Snomax

Hi Mitch,
Thanks for the update. Yes April will be fine at this stage. I've just had an inquiry from another doc person (Jacob Williams in our team) re snomax, so I may as well get back into it.
Cheers
Sue.

From: Mitch Black <mblack@doc.govt.nz>
Sent: Monday, 23 February 2026 2:31 pm
To: Sue Clearwater <suclearwater@doc.govt.nz>
Subject: RE: Snomax

G'day Sue,

I spoke with [s9(2)(a)] today, he's had the opportunity to bring together some of the information you've requested over the summer season.

If you've got some time to pick this advice piece back up next month, he will be able to provide some more context to this.

As far as the questions below go, he has provided insight that they have 100% snowmax uptime when the system is running, but that the system itself is difficult to determine the % of snowmax coverage due to the supply feeding into some 30 or so outputs. He also mentioned that due to mitigating weather factors it is hard to get an annual average of uptime vs precipitation, last year was a key example of a poor weather season.

As far as a time table goes, how would scheduling April as our timeframe go in relation to your workload?

Mitch

From: Sue Clearwater <suclearwater@doc.govt.nz>
Sent: 04 November 2025 13:01
To: Mitch Black <mblack@doc.govt.nz>; [s9(2)(a)]
Subject: RE: Snomax

Thanks Guys,

[s9(2)(a)] I really appreciate that specific information.
Some estimates of time spent pumping water with snomax versus, time making snow without snomax would be useful. E.g, is snomax 50% of the snowmaking or say, 10%. And, ideally actual times pumping at those flow rates you list below, both with and without Snowmax would be useful. It's all about the dilution. As accurate and realistic as possible will help build trust with stakeholders.

I recommend setting yourselves up to properly document those activities next season, to future-proof your operation. Such info would probably help to improve and better understand the art of

snowmaking that you described.

I'll get back to writing up some recommendations. Mitch you probably need to constrain me to a time table to provide this as I'm always juggling this kind of work with research outputs.

Cheers

Sue.

From: Mitch Black <mblack@doc.govt.nz>
Sent: Tuesday, 4 November 2025 12:23 pm
To: s9(2)(a)
Cc: Sue Clearwater <suclearwater@doc.govt.nz>
Subject: RE: Snomax

Wicked, cheers s9(2)(a)

I'll leave it to Sue to reach out if she requires any further data

Mitch

From: s9(2)(a)
Sent: 04 November 2025 12:20
To: Mitch Black <mblack@doc.govt.nz>
Cc: Sue Clearwater <suclearwater@doc.govt.nz>
Subject: Re: Snomax

Thanks Mitch

Alright I dug through the trash and managed to find an empty Snomax bag. Empty bag is **22g**

Flow rate will vary depending on temperature, wind direction and overall snow making plans/goals. The lower pump station has a max operating flow rate of **1500lpm** and the upper pump station Around **6000lpm**.

The average snowmaking window is from the end of **May** until the end of **August**. Some seasons will continue into September depending on snow requirements and weather opportunities.

Rainfall data taken from our Harvest weather stations shows a season average of **1974.5mm**

Let me know if you need any further info

Cheers

s9(2)(a)



s9(2)(a) | Health Safety & Environment Manager

s9(2)(a)

www.turoa.com

Disclaimer - This email and any files transmitted may contain confidential information. If you are not the intended recipient you must not copy, distribute or use this email or the information contained in it for any purpose other than to notify us. If you have received this message in error, please notify the sender immediately, and delete this email from your system. We do not guarantee that this material is free from viruses or any other defects although due care has been taken to minimise the risk.

On Tue, 4 Nov 2025 at 08:32, Mitch Black <mblack@doc.govt.nz> wrote:

Thanks s9(2)(a)

The rest of the aspects I noted down here were:

- The weight of an empty bag (to compare average difference)
- The water flow when snowmaking (ie water used)
- The precipitation data (snowfall and rainfall)

The water data are the significant pieces as it allows Sue to calculate the diffusion rates when the snow melts back into the catchment.

Let us know how you get on with those, and we can discuss at the next ops hui how getting that data each season to us can be done in the lowest impact way on your staff workflows.

Cheers mate,

Mitch

From s9(2)(a)

Sent: 03 November 2025 16:03

To: Sue Clearwater <suclearwater@doc.govt.nz>; Mitch Black <mblack@doc.govt.nz>

Subject: Snomax

Hi Sue and Mitchell

Apologies for the delay in sending this information, now the season is over I have the capacity to address items like this a little more.

A bag of Snomax weighs approximately 300g, including the bag. The total area we snowmake on is roughly 79,083m², based on a Google Earth calculation.

I seem to have misplaced the notes from our meeting, but I recall these were the details you requested.

Thanks

s9(2)(a)



s9(2)(a)

Health Safety & Environment Manager

s9(2)(a)

www.turoa.com

Disclaimer - This email and any files transmitted may contain confidential information. If you are not the intended recipient, you must not copy, distribute or use this email or the information contained in it for any purpose other than to notify us. If you have received this message in error, please notify the sender immediately, and delete this email from your system. We do not guarantee that this material is free from viruses or any other defects although due care has been taken to minimise the risk.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

Released under the Official Information Act

From: Sue Clearwater
Sent: Monday, 23 February 2026 4:27 pm
To: s9(2)(a)
Cc: Mitch Black
Subject: RE: Snomax

Thanks s9(2)(a) I appreciate you sourcing that information. I can probably at least figure out a max use profile. And yes, understood about it's use in many places & derived from a bacteria etc.
 Cheers
 Sue.

From: s9(2)(a)
Sent: Monday, 23 February 2026 2:42 pm
To: Sue Clearwater <suclearwater@doc.govt.nz>
Cc: Mitch Black <mblack@doc.govt.nz>
Subject: Re: Snomax

Hi Sue

I have received some further information from s9(2)(a) (who leads our snowmaking dept) regarding our snowmaking operations and the use of Snomax.

s9(2)(a) noted that snowmaking flow rates are highly variable and dependent on several factors, including temperature, wind direction, humidity, and total power usage across the ski area. Regarding Snomax specifically, it is not a product we use selectively; rather, it is used whenever we make snow to optimize production and improve the efficiency of our snowguns. This helps us achieve a better water-to-snow production ratio. He also highlighted that Snomax is a natural, bio-friendly product used globally, including in regions with very high environmental standards.

I also recently spoke with Mitch and wanted to add that we have a season max water take of 320,786 cubic metres as per our RMA consent, which could be a useful figure for your calculations.

It's not exactly what you were after in full, but it might help with your monitoring plan/ scope of view.

Regards

s9(2)(a)



s9(2)(a) | Health Safety & Environment Manager

s9(2)(a)

www.turoa.com

Disclaimer: This email and any files transmitted may contain confidential information.
If you are not the intended recipient you must not copy, distribute or use this email or the information contained in it for any purpose other than to notify us.
If you have received this message in error, please notify the sender immediately, and delete this email from your system.
We do not guarantee that this material is free from viruses or any other defects although due care has been taken to minimise the risk.

On Tue, 4 Nov 2025 at 13:39, Joel Helliwell <joel@pureturoa.nz> wrote:

Hi Sue

To provide the level of s9(2)(a) you're requesting regarding snowmaking operations, I'll need to pass this inquiry to s9(2)(a), who oversees snowmaking and has comprehensive knowledge of the system.

He is currently working in the field this week due to the favorable weather conditions, so it may take a few days to gather the information from him.

Thanks
Joel

On Tue, 4 Nov 2025 at 13:00, Sue Clearwater <suclearwater@doc.govt.nz> wrote:

Thanks Guys,

s9(2)(a) I really appreciate that specific information.

Some estimates of time spent pumping water with snomax versus, time making snow without snomax would be useful. E.g, is snomax 50% of the snowmaking or say, 10%. And, ideally actual times pumping at those flow rates you list below, both with and without Snowmax would be useful. It's all about the dilution. As accurate and realistic as possible will help build trust with stakeholders.

I recommend setting yourselves up to properly document those activities next season, to future-proof your operation. Such info would probably help to improve and better understand the art of snowmaking that you described.

I'll get back to writing up some recommendations. Mitch you probably need to constrain me to a time table to provide this as I'm always juggling this kind of work with research outputs.

Cheers
Sue.

From: Mitch Black <mblack@doc.govt.nz>
Sent: Tuesday, 4 November 2025 12:23 pm
To: s9(2)(a)
Cc: Sue Clearwater <suclearwater@doc.govt.nz>
Subject: RE: Snomax

Wicked, cheers s9(2)(a)

I'll leave it to Sue to reach out if she requires any further data

Mitch

From: s9(2)(a)
Sent: 04 November 2025 12:20
To: Mitch Black <mblack@doc.govt.nz>
Cc: Sue Clearwater <suclearwater@doc.govt.nz>
Subject: Re: Snomax

Thanks Mitch

Alright I dug through the trash and managed to find an empty Snomax bag. Empty bag is **22g**

Flow rate will vary depending on temperature, wind direction and overall snow making plans/goals. The lower pump station has a max operating flow rate of **1500lpm** and the upper pump station Around **6000lpm**.

The average snowmaking window is from the end of **May** until the end of **August**. Some seasons will continue into September depending on snow requirements and weather opportunities.

Rainfall data taken from our Harvest weather stations shows a season average of **1974.5mm**

Let me know if you need any further info

Cheers

s9(2)(a)



s9(2)(a)

Health Safety & Environment Manager

s9(2)(a)

www.turoa.com

Disclaimer - This email and any files transmitted may contain confidential information. If you are not the intended recipient you should not copy, distribute or use this email or the information contained in it for any purpose other than to notify us. If you have received this message in error, please notify the sender immediately, and delete this email from your system. We do not guarantee that this material is free from viruses or any other defects although due care has been taken to minimise the risk.

On Tue, 4 Nov 2025 at 08:32, Mitch Black <mblack@doc.govt.nz> wrote:

Thanks s9(2)(a)

The rest of the aspects I noted down here were:

- The weight of an empty bag (to compare average difference)
- The water flow when snowmaking (ie water used)
- The precipitation data (snowfall and rainfall)

The water data are the significant pieces as it allows Sue to calculate the diffusion rates when the snow melts back into the catchment.

Let us know how you get on with those, and we can discuss at the next ops hui how getting that data each season to us can be done in the lowest impact way on your staff workflows.

Cheers mate,

Mitch

From: s9(2)(a)
Sent: 03 November 2025 16:03
To: Sue Clearwater <suclearwater@doc.govt.nz>; Mitch Black <mblack@doc.govt.nz>
Subject: Snomax

Hi Sue and Mitchell

Apologies for the delay in sending this information, now the season is over I have the capacity to address items like this a little more.

A bag of Snomax weighs approximately 300g, including the bag. The total area we snowmake on is roughly 79,083m², based on a Google Earth calculation.

I seem to have misplaced the notes from our meeting, but I recall these were the details you requested.

Thanks

s9(2)(a)



s9(2)(a)

Health Safety & Environment Manager

s9(2)(a)

www.turoa.com

Disclaimer - This email and any files transmitted by it may contain confidential information. If you are not the intended recipient you should not rely, disseminate or use this email or the information contained in it for any purpose other than to notify us. If you have received this message in error please notify the sender immediately, and delete this email from your system. We do not guarantee that this material is free from viruses or any other defects although due care has been taken to minimise the risk.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

Caution - This message and accompanying data may contain information that is confidential or subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you received this email in error, please notify us immediately and erase all copies of the message and attachments. We apologise for the inconvenience. Thank you.

From: George Taylor
Sent: Monday, 2 March 2026 4:19 pm
To: Jono Dean
Subject: DOC/PTL Operations Meeting(s)

Kia ora Jono,

I hope this message finds you well. I'm reaching out to coordinate a time for us to catch up and discuss some recent changes and updates from DOC. My work portfolio has been reset to concentrate primarily on the removal of redundant infrastructure, and as a result, we're transitioning the ski field operations aspects and related relationships to Libby and the District team.

I agreed to set up the initial operations hui with PTL and DOC to give us the opportunity to go over these changes and address any other operations matters that are on your radar. It also seems like a great time to map out our hui schedule for 2026 so we can plan ahead.

Would you have an hour to catch up? Here are a few suggested times:

- Tuesday the 10th, between 10am and 12pm
- Thursday the 12th, between 8am and 10am

Alternatively, if those dates don't work, I'm also available on:

- Tuesday the 24th or Wednesday the 25th, both between 10am and 12pm

Let me know what suits you best or if there's another time that works better. Looking forward to our conversation.

Ngā mihi,

George

George Taylor | Operations Manager, Ruapehu Projects | Pou Matarautaki
Department of Conservation Te Papa Atawhai
Tongariro National Park

s(2)(a)

Email: gtaylor@doc.govt.nz | www.doc.govt.nz

Mon	Tues	Wed	Thurs	Fri
Whakapapa	Ohakune	Whakapapa	Ohakune	Whakapapa



Released under the Official Information Act

From: George Taylor
Sent: Tuesday, 10 March 2026 8:48 am
To: Libby O'Brien; Cam Robertson
Subject: RE: DOC/PTL Operations Hui
Attachments: PTL DOC - Ops Hui Minutes - 14102025.docx

Morena kōrua

Please find the minutes to the last DOC/PTL Operations hui.

See you soon.

Ngā mihi,

George

-----Original Appointment-----

From: George Taylor
Sent: Tuesday, 3 March 2026 11:16 am
To: George Taylor; Libby O'Brien; Cam Robertson
Subject: DOC/PTL Operations Hui
When: Tuesday, 10 March 2026 10:30 am-11:30 am (UTC+12:00) Auckland, Wellington.
Where: Tūroa office

Tēnā kōrua

Thanks for the call Cam. As per my message, this hui to catch up and discuss

- Recent changes in DOC and PTL
- Set up meeting rhythm for 2026

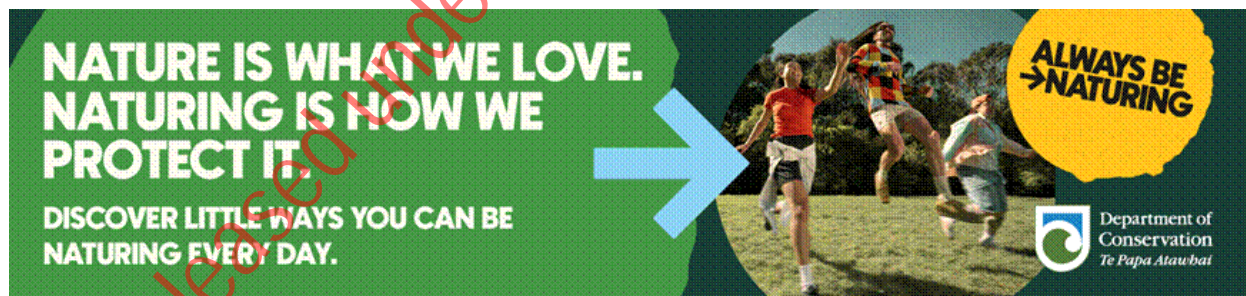
Look forward to seeing you on Tuesday.

Ngā mihi,

George

George Taylor | Operations Manager, Ruapehu Projects | Pou Matarautaki
 Department of Conservation Te Papa Atawhai
 Tongariro National Park
 Email: gtaylor@doc.govt.nz | www.doc.govt.nz

Mon	Tues	Wed	Thurs	Fri
Whakapapa	Ohakune	Whakapapa	Ohakune	Whakapapa



Released under the Official Information Act

Pure Tūroa Limited Concession

Meeting minutes

Date: 14/10/2025

Time: 13.30 – 14.30

Venue: Tūroa Ski Area

Pure Tūroa Limited Staff in Attendance:

Jono Dean

Department of Conservation (DOC) Staff in Attendance:

George Taylor

Cami Nieva

Health & Safety

1. Movenpick Hydraulic Spill: There has been no updates from Dopplemayr.
2. Telarc Audit Results: Certification is up to 2027 so no need for new certificates, TELARC visit in August was their yearly check.
3. Notifiable events: DOC would like to be made aware of Notifiable Events. The Scope of this should be any incidents that are deemed WorkSafe Notifiable Events.

General items

1. PTL's Projected End of Season is still Labour Weekend however a call will be made in the next 72hs to see if it ends sooner than that.
2. Forum for Road Management – Action still pending for DOC to support with reengagement of Road Management Forum.
3. Summer Operations: Unlikely that there will be Summer Operations at this stage. In the hypothetical case that they do happen; Operations would likely take place from mid December 2025 to April/Easter 2026.
4. Summer maintenance plans – not fully confirmed yet, depending on budget/capital available:
 - a. **Signage:** There are plans to put temporary signage up in certain points for visitor safety purposes. PTL will provide an outline of what this will look before doing so.
 - b. Potential replacement of snow guns: like for like in principal.
 - c. Snow Factory: PTL still intending to submit a variation and works approval application for a Snow Factory. Timing for this project is still to be confirmed but DOC is to set up a pre-application hui ASAP.

Note: This is the extension of the Summer Maintenance Plans, with no other major works planned at this change. Should anything change, PTL will notify DOC to confirm new plans.
5. PTL is looking at next Summer – 2026/2027 – to do upgrades to the High Noon. Work is to be done in the interior and should not require any exterior works, maintenance or earthworks. PTL will notify DOC before starting this to confirm whether Works Approval or any other type of approval will be required for the proposed work.
6. Snomax information: DOC Technical Advisor is still waiting for data from s9(2)(b) PTL to send this information to DOC.

7. Redundant Infrastructure update from DOC: no works will take place this summer at Tūroa Ski Field. Works are progressing at Whakapapa Ski Field.

Actions

1. PTL to follow up with Dopplemayr regarding Movenpick Hydraulic Spill.
2. PTL to inform DOC of Notifiable Events.
3. DOC to engage with RDC regarding Road Management Engagement Forum.
4. PTL to inform DOC if there are any changes to Summer Operations & Summer Maintenance Plans.
5. DOC to set up pre-application hui for Snow Factory.
6. PTL to send Snomax requested information to DOC.

Next meeting: Tuesday 18 November – End of Season Review

Released under the Official Information Act