Sent:

Wednesday, 16 May 2018 10:57 a.m.

To:

**Government Services** 

Cc:

Subject:

RE: Follow-up meeting with Bill O'Leary, NZDA

Follow Up Flag:

Follow up

Flag Status:

Completed

Hi DOC,

Can we please get a memo to support this meeting, in particular:

# Information to support discussion on tahr

- Data to show trend of tahr removed inside and outside the feral range by (1) Recreational Hunters (2) Aerial
  Assisted Trophy Hunting (3) Search and Destroy operations by DOC (will take your advice on timeframe and
  area)
- . Information on changes Tahr survey methods, including when it has changed and why
- The latest assessment of Tahr numbers and future predictions
- Future plans to re-establish the Tahr Liaison meetings and the Department's plan to reduce the size of the Tahr herd
- What contribution can the NZDA make to the future management of the Tahr herd?

Out of scope

Happy to take further suggestions on key points of relevance. Please provide by 3pm Friday 8 June at the latest.

Kind regards,

From:

Sent: Tuesday, 15 May 2018 12:50 PM

To: GSU Inbox (governmentservices@doc.govt.nz) <governmentservices@doc.govt.nz>

Cc:

Subject: Follow-up meeting with Bill O'Leary, NZDA

Hi All,

A follow-up meeting between the Minister and Mr O'Leary has been scheduled for Monday, 11 June 2018 at 2:00 PM-2:45 PM.

I understand that Mr O'Leary has suggested either also attend this meeting. Happy to leave this to DOC officials to determine – please just advise us whom we can expect to see on the day.

#### Cheers

Office of Hon Eugenie Sage

Minister of Conservation | Minister for Land Information | Associate Minister for the Environment

68 Sowen House, Parliament Buildings | Private Bag 18041 | Wellington 6160 | New Zealand

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Sent:

Monday, 11 June 2018 1:08 p.m.

To:

Andy Roberts

Cc:

Subject:

Thar control call with the Minister?

Hi Andy,

The Minister would like to have a chat for 15 minutes sometime this week about the tahr control plan, following the information provided for her meeting with the NZDA today. In particular she is concerned that the thar population is more than three times the level allowed by the Control Plan.

I'll ask the Minister's Senior Private Secretary to find the time in her diary, but is there anytime this week we should be aware of that you would not be able to make?

The Minister has also asked for forthcoming Business Plan information to include (if it wasn't intended to already): the funding allocated to effective thar control (which the Minister understands is defined as the Department and its contractors killing thar), and how many animals and hectares are expected to be culled in 2018/19. Our expectation is that the Department will ensure that adequate funding is available to bring the thar population well within the Plan limits by the end of 2019.

Kind regards,



Office of Hon Eugenie Sage

Minister of Conservation | Minister for Land Information | Associate Minister for the Environment 6R Bowen House, Parliament Buildings | Private Bag 18041 | Wellington 6160 | New Zealand

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This email message was signed and the signature has been verified by Trustwave SES

From: Sent: Saturday, 14 July 2018 4:09 p.m. To: Subject: Fwd: NZDA Conference Sanson Director-General Department of Conservation From: Sent: Saturday, July 14, 2018 3:2 To: Lou Sanson Subject: Re: NZDA Conference Thanks. Keen to catch up with you on this next week. ak. Sent from my Samsung Galaxy smartphone. ----- Original message -----From: Lou Sanson < lsanson@doc.govt.nz> Date: 13/07/18 10:31 PM (GMT+12:00) Subject: NZDA Conference Minister Sage gave a very strong speech tonight and I supported her. Thanks to for excellent breifings Key areas of focus - thanks for Backcountry Trust (huge success) - Thar must be brought back to 10000 level ( Zero in National Parks). Stated she was on tahr national cord group - access to Wilderness Areas shows very low returns (hunters not doing returns, up your game or loose access) - DoC will play key role with hunters in identifying high tahr areas (in some cases subsidising helo access) - Tier 1 monitoring showing increasing issues with deer numbers (esp Ruahines) This was challenged by a number of members( - disaappointed that GAC didnt participate in WARO review yet funded by DoC ( Don replied they didnt have resources to attend)

- low priority on estblishing Herds of National Interest

Sent:

Sunday, 22 July 2018 10:33 a.m.

To:

Subject:

FW: Kea Distracted by Tahr

Attachments:

Location 4 (2).JPG

I spoke to the Minister about this on Friday. She was keen to see this photo Can you please forward it to her

Thanks

Director, Operations

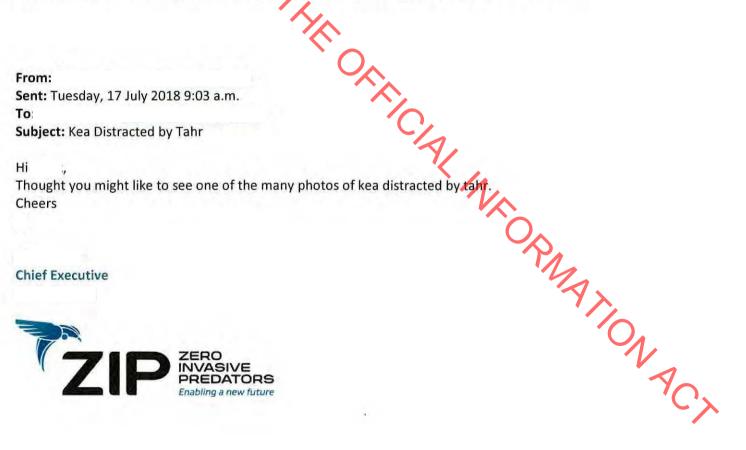
Western South Island Region

Department of Conservation Papa Atawhai

10 Sewell Street, Hokitika 7810

Mobile +

Conservation leadership for our nature Tākina te hī, Tiakina, te hā o te Āo Tūroa



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#### **NEW ZEALAND**

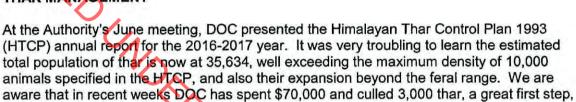
# TE POU ATAWHAI TAIAO O AOTEAROA

26 July 2016

Hon Eugenie Sage Minister of Conservation Parliament Buildings

Dear Minister

# THAR MANAGEMENT



Following a discussion of the report the Authority noted with concern an example of a pastoral lease property, outside the allowed range, which does not allow DOC contractors access to cull thar. The Authority noted that the Crown has a right to interfere on pastoral lease land, with the good husbandry clause of the Land Act 1948, if the land is being degraded to an unreasonable extent and where wild animals are not being controlled. We would suggest that DOC's legal team could provide more advice on this matter, as there is currently a \$20,000 annual 'work-around' cost for the taxpayer.

but extra funding will be needed to keep this momentum.

The Authority recommends an immediate reduction in the numbers, with initial focus on removing animals outside of the feral range. We have requested from DOC that the 2018-2019 Operational Plan for Thar Control is available at our next meeting in August, and that a review is conducted and made available to present to the Authority at our December 2018 meeting, along with a timeline of actions and milestones so we are able to monitor progress.

Please see attached an Authority paper prepared in June 2018 which provides a broader context on the problem, the challenge and the solutions. If you would like o discuss this MA HONACY further, please feel free to contact me.

Yours sincerely

Kerry Prendergast Chair, NZCA

D-G Conservation - Lou Sanson Cc

Encl.

#### Himalayan Thar - Urgent Policy Direction is required from the NZ Conservation Authority

The Himalayan Thar in the 1980s came close to becoming the first large introduced feral herbivore to be eliminated from New Zealand. Helicopter hunting to a supply a specialty restaurant market for feral thar meat coupled with thar extermination policies for National Parks that were managed by Lands & Survey reduced total thar numbers to the low thousands.

That are goats. They breed into large groups that travel as a mob and camp amongst native alpine to montane vegetation where they will eat large quantities of mountain vegetation. They have a devastating impact on palatable herbs with a favourite being *Ranunculus* species, particularly the alpine Godleys, Graham's and Buchanan's buttercups, as well as the more widespread and famous sub-alpine Lyall's buttercup or Mt Cook Lily. Mobs of that not only eat the leaves but also target the nutritious underground storage stems of these unique plants found only in the NZ.

The backlash against helicopter hunting of thar from the hunting community was strong. The Himalayan Thar Control Plan 1993, the "Thar Management Plan (TMP)", was developed by DOC as a consequence and is still operative, with Annual reports submitted to the NZ Conservation Authority. The TMP severely constrains helicopter hunting for thar within their "natural range" defined as being between the Haast Pass and the Rakaia catchment. A target figure of 10,000 thar as a total population was agreed in the Plan as the desirable maximum level, above which intervention is required by DOC to lower thar numbers to the 10,000 level.

Forest and Bird did not agree with the Plan and saw it as the sacrifice of our highest mountains and their unique natural biota to an introduced goat. Forest and Bird also doubted the ability of the land managers to maintain thar numbers within the population limits and contain thar geographic spread to the areas defined in the Plan.

A high level of control was established for the mountain area outside the so called "thar natural range'. Huge efforts have now gone into seeking to eliminate thar outside that range, with DOC sponsored shooting of thar in places including:

- The Humbolt and Thomson mountains in the Wakatipu country
- The Oteake Conservation Park, Bendigo and Upper Hakataramea Valley in Waitaki-Central Otago
- Intense control efforts closer just south of Haast Pass near Minaret Station and in the Okuru catchment.
- The northern range includes that that have bred in the Grey catchment (Gloriavale/Haupiri) and
  in the Craigieburn Range in the Waimakariri catchment.

DOC Control Plan Annual Reports list how many that are being killed each year by recreational hunters, trophy hunters and DOC staff in control operations. Here is a selection of the recent numbers:

- In 2010-2011 3183 thar were killed with 2115 (66%) of these killed by DOC funded operations.
- 2. In 2012-2013 4745 thar were killed with 3254 (69%) of these killed by DOC funded operations.
- 3. In 2015-2016 4375 thar were killed with 1835 (42%) of these killed by DOC funded operations
- 4. In 2016-2017 4615 thar were killed with 2809 (61%) of these killed by DOC funded operations.

Despite hunting, the DOC 2016-2017 Annual Himalayan Thar Control Plan 2016-2017 presented to the NZCA at its June 2018 meeting advises that total Thar numbers are estimated to have now reached the astonishing level of about 35,634 animals across the entire thar range (Page 7).

New Zealand Conservation Authority 21 June 2018 DOC-5538693

The TMP envisaged that most control of thar would be by recreational hunters. The reality is quite different. Using the 2016-17 figures, recreational and ballot hunting only accounted for around 12% of the thar recorded as shot. Aerial assisted trophy hunting (AATH) accounts for another 7% in bulls taken as trophies. AATH is required by DOC to shoot roughly 5 other non-trophy thar for every trophy taken, or contribute to helicopter flying time (7 trophy = 1 hours flying time). This accounts for about another 20% of the 2016-2017 kill.

Despite this recreational and trophy hunting, DOC hunters still accounted for 61% of the thar kill in those 2016-2017 figures. The DOC hunting is also likely to be the most difficult and expensive to carry out because they will be carrying out mopping up operations in pockets of country beyond the thar natural range. DOC are also hunting in the West Coast bush and sub-alpine scrub, where recreational thar hunting is less attractive than on the more open mountain tops of the central and eastern high country. Assuming the thar population is around that 35,600 level, half or perhaps even more of these are likely to be female. Estimating annual breeding and a young kid natural mortality as high as 30%, perhaps 10,000 young that may be added to the total population each year. Around 5,000 thar are being shot every year so that numbers in the wild could be increasing by as much as a nett 5,000 animals annually.

DOC's staff charged with hunting that have had their efforts capped by budget constraints and it seems that politicians have simply ignored the problem hoping that it will go away. That numbers have skyrocketed. DOC land managers and their researchers seem to have instead focused on developing new methods for trying to measure the that population and the that impact on vulnerable vegetation — instead of a major effort on reducing that numbers to the Plan's agreed level of 10,000 animals.

A clear message from local DOC staff charged with controlling that is that in every valley they fly up on control operations, especially on the West Coast, they are now encountering large herds of thar. The 2016-2017 report advises that in Westland *Tai Poutini* National Park, the cull rate in DOC operations was 44 that per hour of aerial hunting effort. A high-country farmer would be hard pressed to shoot that number of sheep on his/her range land. The National Park has become a that game park. Is that key issue addressed in the Draft Park Management Plan in preparation or is it considered an operational not a policy matter?

To reduce thar now to the Plan's 10,000 total "acceptable" level will require many years of intense hunting pressure largely funded by the taxpayer. It might be possible to re-establishment some specialty restaurant market to the level that was seen in the 1970s and 80s. Unless this occurs, the control of thar will remain an ongoing drain on taxpayer funds. One danger of a restaurant trade is that it could encourage the retention of large accessible herds of thar rather than their elimination. It is ironic that in the early 1980s with that well-established market for thar meat, a skilled helicopter than hunting industry coupled with land managers determined to eliminate thar, we came close to removing this challenge once and for all. We are now back to square one. It will cost millions and will be the subject of great hunter debate to reduce thar numbers to where they are legally supposed to be.

#### Recommendation:

 NZCA seek an immediate review of the Thar Management Plan to determine why the plan has been such a total failure in capping thar numbers to the agreed 10,000 level, and why it has also allowed thar to expand their range well beyond the agreed geographic limits in the Plan. Kerry Prendergast Chair, New Zealand Conservation Authority PO Box 10-420 Wellington

Dear Kerry

Thank you for your letter dated 26 July 2018 regarding managing the Himalayan tahr population. This is a matter of concern for the conservation of our unique alpine vegetation and habitats.

In response to an estimated tahr population on public conservation land of 35,000 animals the department is now increasing its control work. It is disappointing that the population was allowed to reach such a level, more than three times that provided for in the Himalayan Tahr Control Plan.

More than 2,600 tahr were recently removed from Aoraki/Mt Cook National Park and further control operations are planned.

In early August, the Department of Conservation began refining a tactical plan to direct the tahr control programme for 2018/19. This plan is expected to be finalised before the end of September. It will be seeking to balance larger-scale reduction of tahr numbers to meet the limits set by the Himalayan Tahr Control Plan (HTCP) against reduction of the tahr's range. I expect to see the tactical plan and anticipate that control operations will begin shortly afterwards. The department has refined the tactical plan with input from the Tahr Control Liaison Group which includes a range of stakeholders.

The department also recently provided me with details about tahr on pastoral lease land being managed by Land Information New Zealand (LINZ). There are 18 pastoral leases within the designated feral range that have tahr present on them and another 30 pastoral leases outside the feral range that have tahr on them. I will be asking LINZ both for information on how this occurred and to work with the department and stakeholders on how to best deal with this situation.

Thank you again for your letter. I appreciate the Authority's engagement on this issue and its efforts to identify why the Tahr Control and Management Plan has been such a failure and any recommendations for further action.

Yours sincerely

Hon. Eugenie Sage Minister of Conservation

# Tahr density estimates from aerial surveys - preliminary results

Dave Ramsey - Arthur Rylah Institute, 123 Brown Street Heidelberg, Victoria 3084. 9/7/2018

# 1 Summary

Aerial surveys of Himalayan tahr were undertaken on 38, 2 x 2 km plots sampled across the tahr range during 2016 and 2017. Density and abundance estimates from each plot were then used to estimate total tahr abundance on public conservation land as well as for each tahr management unit. The total abundance of tahr on public conservation land was estimated to be 35,633, with a 95% confidence interval of 17,347 - 53,920 tahr. Average tahr density within management units ranged from  $10.3/\mathrm{km}^2$  to  $0.23/\mathrm{km}^2$ . Tahr density in the two exclusion zones averaged  $0.06/\mathrm{km}^2$  for MU E2 and  $0.34/\mathrm{km}^2$  for MU E1. Average tahr density was higher than the management threshold of 2.5 tahr/km<sup>2</sup> on all management units except MU 7.

Analysis of ungulate faecal pellet monitoring data conducted at each plot indicated inconsistent relationships between tahr density and the faecal pellet index (FPI). Additional data collection undertaken during 2018 may shed futher light on these relationships.

# 2 Introduction

The Himalayan Tahr Control Plan (Department of Conservation 1993) defines intervention densities in terms of number of tahr per  $\rm km^2$  in each of seven management units (range: <1 to 2.5 tahr per  $\rm km^2$ ) and two exclusion zones (0 per  $\rm km^2$ ). Currently, it is intended that information on tahr abundance be collected from tier 1 plots located in the tahr management zone using faecal pellet sampling (Forsyth 2016). One obvious issue that arises is how to link the data on faecal pellet abundance to actual tahr abundance so that these can be linked to the control plan intervention densities. Hence, it is proposed that a calibration exercise be undertaken to estimate the relationship between tahr faecal pellet index and tahr densities (Forsyth 2016). Calibration is to be undertaken by estimating tahr density on 30 randomly selected tier 1 plots from the tahr management zone using aerial surveys from a helicopter. Abundance was to be estimated by monitoring a 2 x 2 km plot overlaid on the location of tier 1 plots where the faecal pellets monitoring is undertaken. Helicopter monitoring involved three seperate counts of tahr seen within each 2 x 2 km plot. Each count was undertaken at least 14 days apart to minimise the disturbance effects of the helicopter on each replicate count.

In order to undertake a robust assessment of the relationship between tahr abundance (estimated from repeat helicopter counts) and faecal pellet counts (estimated from the 4 transects at each tier 1 sampling location), a number of issues have to be resolved. The first issue is that faecal pellets counts could consist of pellets of several ungulate species such as deer, chamois and tahr as these cannot be distinguished from pellet morphology. However, it is proposed that DNA sampling of fresh pellets be undertaken to estimate species composition of nominal "ungulate" pellets. The second issue is that the repeat aerial counts at each 2 x 2 km plot are undertaken at least 14 days apart. While this was necessary to reduce disturbance of tahr by the helicopter (which could bias estimates), it raises an additional issue in that it may not be reasonable to consider the plot "closed" during the entire sampling period (i.e approximately 1-2 months between the 1st and 3rd count). Here lack of "closure" means that tahr abundance could change during the sampling period due to either immigration to, or emigration from, the plot.

During 2016, 16 2 x 2 km plots were sampled with a further 22 sampled in 2017 giving a total of 38 plots available for analysis. Here I analyse the aerial survey data obtained from the 38 sampled plots to estimate tahr abundance assuming the tahr population on each plot was open to movement related changes



Figure 1: Location of the 38 sampled  $2 \times 2$  km plots where helicopter counts of tahr were undertaken. Red squares indicate plot locations. Colour shaded area indicates the DOC PCL and black polyons indicate the tahr management zones.

between replicate surveys. I then examine the relationship between that density and the ungulate pellet presence/absence data from the 38 plots to examine whether a relationship between the two looks feasible.

#### 3 Methods

Helicopter count survey was available from 38, 2 x 2 km plots sampled over the period 1/2/2016 to the 29/4/2017 (Figure 1). Although each plot was nominally  $4 \text{ km}^2$  in area, this only indicated the 2D surface area of the plot. Due to the steep terrain on most plots, the actual surface area covered by each 2 x 2 km area could vary considerably from the nominal  $4 \text{ km}^2$ . Hence, to calculate the actual 3D surface area of each plot, each 2 x 2 km area was divided into 400 1-ha cells and the surface area of each cell calculated using a 15m digital Elevation Model (DEM). The 3D surface areas of each 1-ha cell were then added to give the 3D surface area for each plot. The 3D surface area was subsequently used for all density calculations for each plot.

#### 3.1 Abundance estimation

The counts of tahr at each plot, at each sampling occasion, were used to estimate abundance corrected for imperfect detection using an N-mixture model for open populations (Dail & Madsen 2011). Hence, this

model was able to account for movement of tahr on or off the plot between the three sampling occassion. Further details of this model are provided in Appendix 1.

In order to compare tahr density with pellet counts obtained from the tier 1 plots, we estimated an average abundance for each plot as the mean of the estimates from the three sampling occasions. Tahr density was estimated by dividing the abundance estimate by the 3D area of each plot. The mean tahr density for each management unit was then calculated as the mean density across the plots that occurred in each unit.

To estimate the total abundance of tahr within each management unit, we assumed that the sampled plots consisted of a stratified random sample of the total available plots that could have been sampled within each management unit, with management units forming the strata. We assumed a two-stage sampling design where the overall estimate of abundance within each unit was composed of two sources of error, the spatial variation in talk density among plots within each unit and the estimation error associated with the abundance estimate for each plot. Total abundance within each management unit was then estimated as the mean plot abundance in the init multiplied by the total available plots within each unit. The total number of available plots within each unit was calcuated by subdividing the (2D) area of conservation land within the unit into 2 x 2 km plots. Variance of the estimates of total tahr abundance within each stratum and overall abundance was calculated using finite sampling methods (Skalski 1994). More details on these calculations are provided in Appendix 2.

#### 3.2 Pellet counts

Ungulate pellet monitoring was conducted at each plot using two methods. The first method used the ungulate pellet monitoring data collected at each tier monitoring location. This involved a count of total pellets and pellet groups from four transects (30 plots per transect) radiating from the corners of the permenant 20m vegetation monitoring plot. The second method in olved measuring the presence or absence of ungulate pellet along 8 transects (5 plots per transect) radiating out from center, sides and corners of the 20 m vegetation

Estimates of the faecal pellet index of ungulates (FPI) at each site were expressed as either the number of pellets or pellet groups per plot (method 1) or the proportion of plots containing ungulate pellets (pellet prevalence) (method 2). The estimated FPI was plotted against tahr density estimated from the 2 x 2 km survey region covering each tier 1 plot to assess the relationship between FPI and tahr density. Assuming a reasonable relationship exists, it would then be desirable to calibrate FPI so it could be expressed as an estimate of thar density. In addition to thar density estimates from the 2 x 2 km survey region (i.e. 4 km<sup>2</sup>), we also examined relationships between FPI and tahr density, over subsets of the total survey region (i.e. 1 km<sup>2</sup>, 2 km<sup>2</sup> and 3 km<sup>2</sup>) to determine whether a smaller survey region could be used to estimate that density PMAZZ from helicopter counts.

## Results

#### Tahr density and abundance 4.1

The mean density of tahr on each plot varied widely, from zero to 28 thar/km<sup>2</sup> (Figure 2). However, precision of some of the mean density estimates was low due to the high variation in that density over the three sampling occasions at some plots (Figure 3). The corresponding mean density of tahr within each management unit was also highly variable (Table 1). Average tahr density was higher than the management threshold of 2.5 tahr/km<sup>2</sup> on all management units except MU 7. Tahr density in the two exclusion zones averaged 0.06/km<sup>2</sup> for MU E2 and 0.34/km<sup>2</sup> for MU E1. No sampling was undertaken on management unit 4a (Table 1).

Table 1: Mean Density of tahr (thar/km2) within each management unit. SD - standard deviation; lcl - lower 95% confidence interval; ucl - upper 95% confidence interval

MU	Density	SD	lcl	ucl	n
1	6.19	2.34	3.22	11.98	2
2	5.37	7.14	0.00	22.99	6
3	7.88	7.64	0.00	25.63	6
4	3.58	3.93	0.00	11.53	2
5	10.25	12.30	0.14	39.41	4
6	3.10	2.33	0.65	9.09	5
7	0.23	0.42	0.00	1.37	5
E1	0.34	0.38	0.00	1.25	2
E2	0.06	0.14	0.00	0.42	6

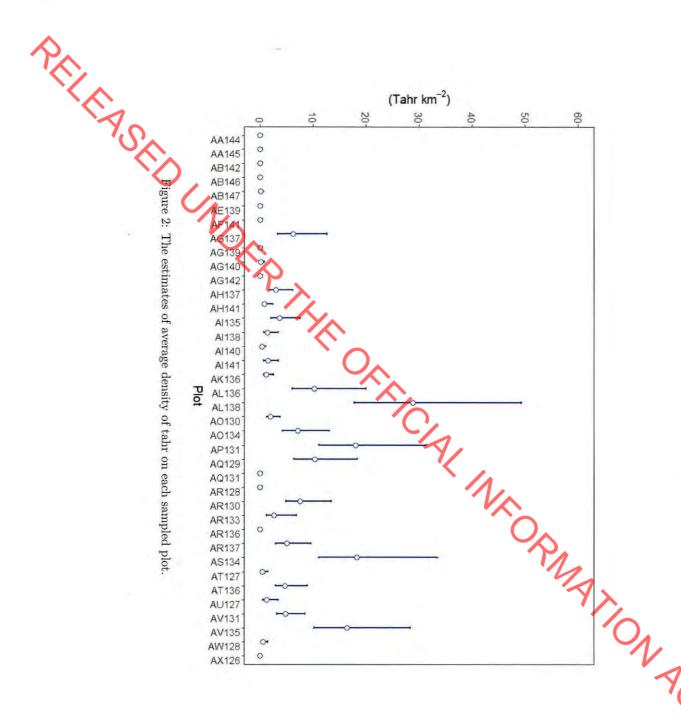
The total abundance of the across all sampled management units was estimated to be 35,633, with a 95% confidence interval of 17,347 53,920. Estimates of total tahr abundance were made for management units with at least two sampled plots (i.e. exluding MU 3b). Total abundance ranged from around 8000 tahr estimated to occur in MU 3, to a total of 102 tahr estimated to occur in exclusion zone E2 (Table 2). In general, the precison of the abundance estimates for individual management units was fairly poor with estimates having wide confidence intervals (e.g. the 95% confidence interval for MU 4 was 967 - 46,516 tahr!). This was a consequence of small sample sizes for most management units (relative to the total number of plots available for sampling) as well as the high spatial variation in abundance estimates among plots within a unit. Despite this, the precison of the estimate of total abundance was acceptable, having a coefficient of variation of 25%.

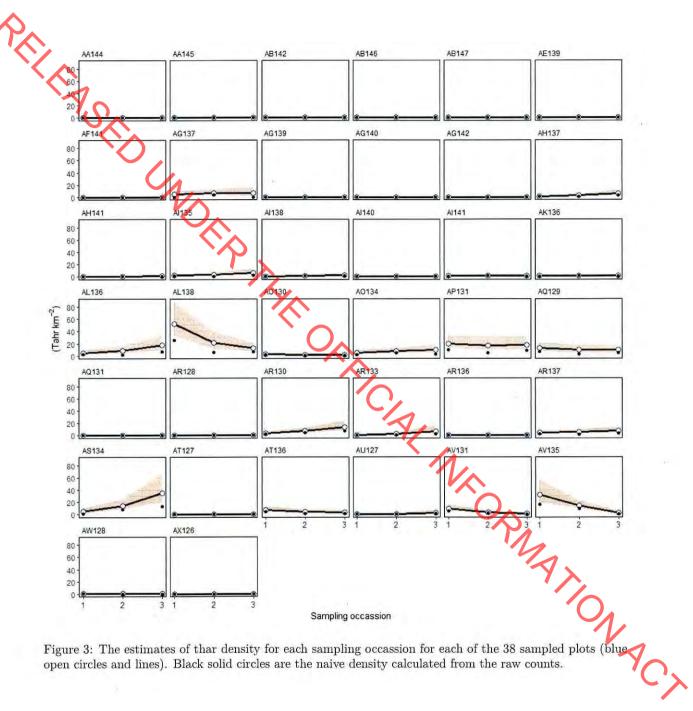
Table 2: Estimates of total abundance of tahr within each sampled management unit (N). SD - standard deviation; lcl - lower 95% confidence interval; ucl - upper 95% confidence interval; u - number of sampled plots; U - estimated number of plots available to be sampled

unitID	Nhat	SD	lcl	ucl	u	V
1	6166	1795	3485	10910	2	195
2	5757	3215	1927	17199	6	206
3	8168	3232	3761	17737	6	219
4	6705	6626	967	46516	2	372
5	5696	3606	1647	19697	4	112
6	2541	671	1515	4264	5	167
7	174	122	44	684	5	151
E1	324	288	57	1850	2	191
E2	102	42	46	227	6	343

#### Relationships between tahr density and FPI 4.2

OPMATION ACX Pellet counts were undertaken for 36 of the 38 tahr tier 1 plots. The estimates of ungulate FPI as indexed by ungulate pellet prevalence, pellets/plot or pellet groups/plot revealed inconsistent relationships with tahr density on the 4 km² survey region (Figure 4). Scatterplots of FPI against thar densities on smaller subregions of the survey area (1 km², 2 km² or 3 km²) revealed similar inconsistent relationships with tahr





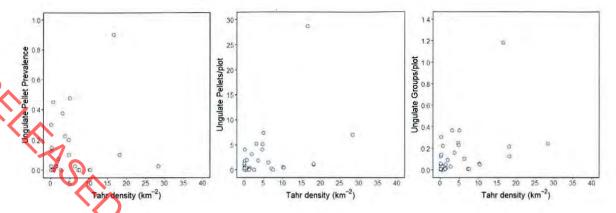


Figure 4: Scatterplot of the relationship between ungulate pellet prevalence (left), total pellets/plot (middle) and pellet groups/plot (right) and estimated average tahr density on the 4 km2 survey region at 36 of the 38 sampled plots.

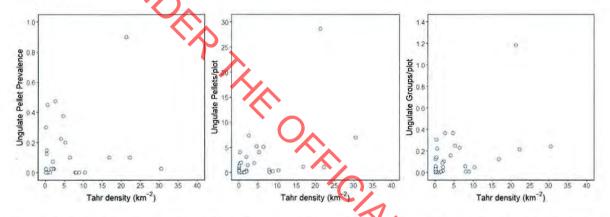


Figure 5: Scatterplot of the relationship between ungulate pellet prevalence (left), total pellets/plot (middle) and pellet groups/plot (right) and estimated average tahr density on the 3 km2 survey region at 36 of the 38 sampled plots.

density (Figure 5-7). Given the uncertain nature of these relationships. formal calibration of FPI with tahr density was not attempted.

# 5 Discussion

Tahr densities were highly variable across the tahr management zones with average densities exceeding the threshold of 2.5/km² from the tahr management plan for all zones except MU 7, E1 and E2. Average tahr densities were also greater than zero in the exclusion zones. However, the estimates for the exclusion zones also included zero in their 95% credible interval despite a single tahr being seen in sampled plots in zone E2 and 4 tahr seen in zone E1. The reason the credible intervals include zero for these zones is that the density estimate is the mean of the estimates over the three sampling occasions and, as the model allows movement of tahr between sampling occasions, the estimate for any one occasion could be zero.

Precision of total tahr abundance estimates for each management zone were generally poor, due mainly to the small numbers of sampled plots within each MU. Total abundance estimates were also highly dependent on the estimate of the number of plots within each zone that could have been sampled. This was estimated

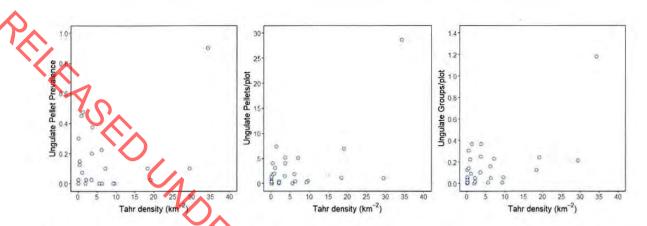


Figure 6: Scatterplot of the relationship between ungulate pellet prevalence (left), total pellets/plot (middle) and pellet groups/plot (right) and estimated average tahr density on the 2 km2 survey region at 36 of the 38 sampled plots.

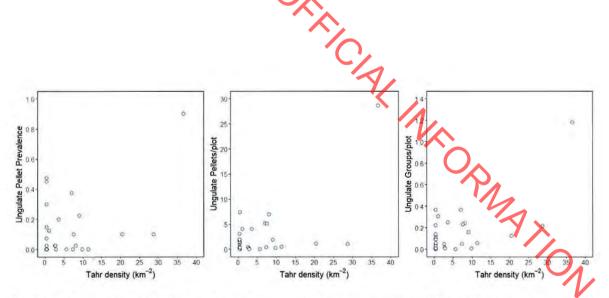


Figure 7: Scatterplot of the relationship between ungulate pellet prevalence (left), total pellets/plot (middle) and pellet groups/plot (right) and estimated average tahr density on the 1 km2 survey region at 36 of the 38 sampled plots.

using a map of the DOC PCL overlaid on the MU boundaries. However, it is highly likely that not all of this area may be suitable for tahr, which would induce bias in estimates of total abundance. Hence, more detailed maps of available tahr habitat would improve estimates. Alternatively, a model of the relationship between tahr abundance and habitat type would provide a means to more accurately map the distribution of tahr across the management area. However, inital attempts at identifying relationships between tahr abundance and habitat type have not been successful.

The relationship between tahr abundance and ungulate FPI from both the presence/absence plots and the pellet counts conducted during regular tier one sampling did not reveal signs of a predictable relationship. This uncertainty was present at all spatial scales examined (i.e. tahr density estimated on search areas of 1-4 km²) This uncertainty was mainly due to some sites having a high FPI at low tahr density. The presence of other ungulates could be one cause of the high FPI on sites with low tahr abundance and future work should include an investigation into relationships between total ungulate density from aerial surveys and FPI. Another cause could be the fact that pellets have likely accumulated over several months, while tahr densities were estimated over approximately one month, and were themselves, subject to some uncertainty. Hence, due to the uncertain nature of the relationship between FPI and thar abundance, no formal calibration of FPI with tahr density was undertaken. Additional data collection scheduled for 2017/18 may shed further light on these relationships.

# 6 References

Dail, D. & Madsen, L. (2011). Models for Estimating Abundance from Repeated Counts of an Open Metapopulation. *Biometrics*, **67**, 577–587

Forsyth, D. (2016). Tier 1 Himalayan tahr abundance monitoring protocol. Arthur Rhylah Institute, Heidelberg, VIC.

Plummer, M. (2003). JAGS: A Program for Analysis of Bayesian Graphical Models Using Gibbs Sampling. pp. 1–10. Proceedings of the 3rd International Workshop on Distributed Statistical Computing (DSC 2003), Vienna, Austria.

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# 7 Appendix 1

## 7.1 Abundance model

The counts of that at each plot, at each time period, were used to estimate abundance corrected for imperfect detection using an N-mixture model for open populations (Dail & Madsen 2011). We treated each of the three replicate counts at each plot as potentially being open to movement (immigration/emigration) between sampling times. Hence, that abundance at each site i and sampling period t (t = 1..3) was modeled as

$$y_{it} \sim Bin(p_i, N_{i,t})$$

In order to estimate abundance  $N_{i,t}$  at each sampling period t, it is assumed that abundance follows a first order Markov process where abundance at time t is dependent on the abundance at time t-1, as well as movement parameters  $(N_{i,t}|N_{i,t-1},\omega,\gamma)$ . This was achieved by decomposing  $N_{i,t}$  as the sum of two random variables

$$S_{i,t}|N_{i,t} \sim Bin(N_{i,t-1}, \omega_i)$$
  
 $G_{i,t}|N_{i,t} \sim Poisson(\gamma_i(N_{i,t-1}))$ 

where  $S_{i,t}$  and  $G_{i,t}$  are the additions and losses to the population at a plot at time t with  $\gamma_i$  and  $\omega_i$  representing movement parameters (immigration and emmigration, respectively) for each plot (Dail & Madsen 2011). In order to compare that density with pellet counts obtained from the Tier 1 plots, we estimated an average density for each plot as the mean of the estimates from the three surveys. That density was estimated by dividing the abundance estimate by the area of the survey region (4 km<sup>2</sup>).

The N-mixture open population model above was fitted in a Bayesian framework using Markov Chain Monte Carlo (MCMC) sampling using JAGS ver.3.3.0 (Plumper 2003). The movement and detection probability parameters  $(\omega_i, \gamma_i)$  were modeled as hierarchical random effects on either the  $\log{(\gamma)}$  or  $\log{it}(\omega)$  scale as  $N(\mu, \tau)$ . Weakly informative priors were placed on the hyperparameters  $(\mu \sim N(0, 10))$  and  $\tau \sim \text{half} - t(4)$ . The model was updated for 120,000 iterations using 3 chains with the first 20,000 iterations used as a burn-in and discarded. To reduce autocorrelation, each chain was thinned by keeping every 10th sample leaving a total of 10,000 samples from each chain with which to form the posterior distribution of the parameters.

#### Appendix 2 8

# Abundance estimates for each management unit

We used finite sampling estimators assuming a stratified random sampling design ((Skalski 1994, Thompson et al. (1998), Thompson (1992))) to estimate total abundance witin each stratum, based on incomplete surveys. Here, management units correspond to strata. If u number of plots are sampled from a total number U in stratum h, the estimate of abundance is given by

$$\hat{N}_h = \overline{N_h} U_h$$

where  $\hat{N}_h$  is the estimate of total abundance for stratum h,  $\overline{N}_h$  is the mean abundance over the u plots and  $U_h$  is total number of plots in stratum h. The estimate of variance is given by

$$\hat{Var}(\hat{N}_h) = U_h^2 \left\{ (1 - \frac{u_h}{U_h}) \frac{\hat{S}_{N_{hi}}^2}{u_h} + \frac{\overline{\hat{Var}(N_{hi} | N_{hi})}}{U_h} \right\}$$

where

$$\hat{\beta}_{N}^{u} = \frac{\sum_{k=1}^{u} (\hat{N}_{hi} - \hat{\overline{N}_{h}})^{2}}{u_{h} - 1}$$

and

$$\overline{\hat{Var}(\hat{N_{hi}}|N_{hi})} = \frac{\sum_{k=1}^{\hat{u_{h}}} \hat{Var}(\hat{N_{hi}}|N_{hi})}{u_{h}}$$

Isimpi,

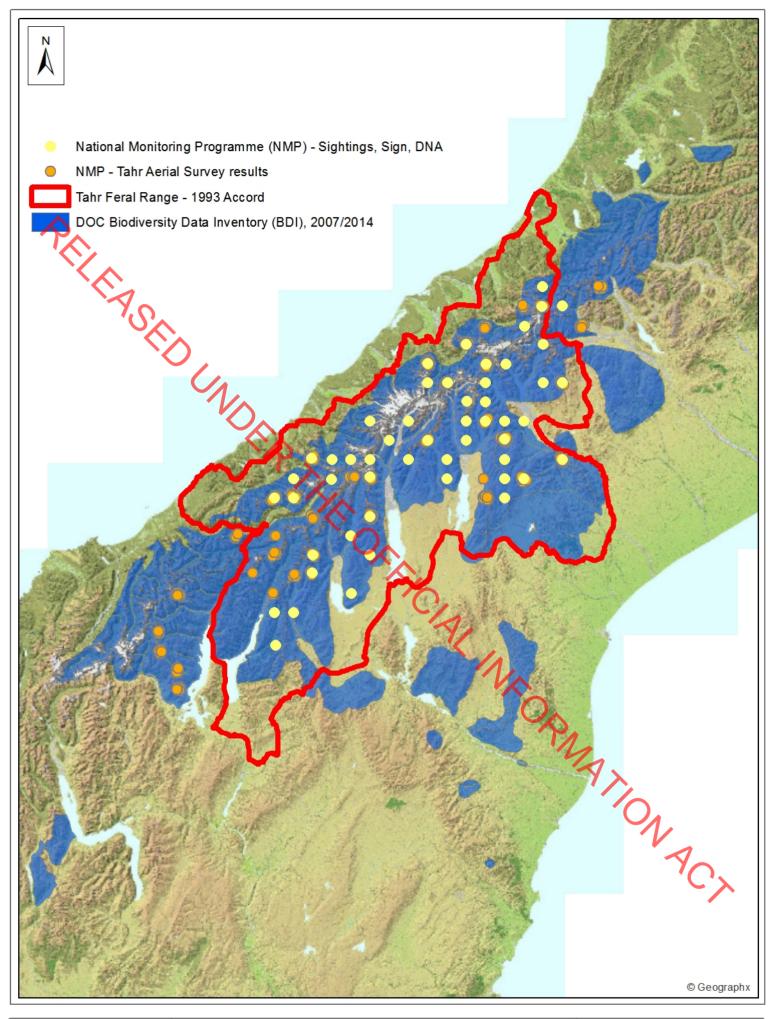
Monthson,

Mo The total abundance over all sampled management units is then simply

$$\sum_{h=1}^{n} \hat{N_h}$$

with variance

$$\sum_{h=1}^{n} \hat{Var}(\hat{N_h})$$



Sent: Monday, 6 August 2018 3:00 p.m.

To: Government Services

Cc: Andy Roberts;

Subject: Follow-up: 18-B-0786 - Wild Animal Control and Pastoral Leases

Follow Up Flag: Follow up Completed

Hi All,

The Minister considered has considered this paper, and has raised a few follow-up questions/points. She also indicated she found the advice to be very helpful.

MOC suggests this paper highlights a major issue with tahr being present on at least 28 pastoral leases well outside the feral range. She considers this is a major breach of the Tahr Control Plan and presents a risk to DOC's current search and destroy operations. She notes there is currently no formal agreement between DOC and LINZ on wild animal control to ensure joined up control work.

- 1. Can DOC please provide, as soon as practicable, the following:
  - A copy of the Monitoring Report referenced in paragraph 2 of his paper;
  - A map of the current range of feral tahr; and,
  - A map that compares the current range against the agreed/expected range indicated in the Tahr Control Plan.
- MOC would like to meet with relevant DOC staff leading our tahr control effort and plan implementation to discuss:
  - Tahr and wallaby control on pastoral leases;
  - Strategy re: joint control with LINZ and landholders.

I will follow up on timing for this meeting in due course – it could well take place in Christchurch, if easiest for DOC staff.

Subsequently we'll look for a time for the Minister to meet with the Commissioner of Crown Lands and relevant LINZ staff on these issues.

Cheers,

Office of Hon Eugenie Sage

Minister of Conservation | Minister for Land Information | Associate Minister for the Environment 6R Bowen House, Parliament Buildings | Private Bag 18041 | Wellington 6160 | New Zealand

Sent:

Tuesday, 7 August 2018 5:27 p.m.

To:

Cc:

**Andy Roberts** 

Subject: Attachments: FW: 18-B-0786 - Follow-up questions - Wild Animal Control and Pastoral Leases TahrExtent\_Updating.jpg; Tahr density estimates from aerial surveys - preliminary -

DOC-3233856.pdf

Kia ora

Please find attached the following requested documents:

The monitoring report (Tahr density estimates from aerial surveys – preliminary results)

A map demonstrating the current range of feral tahr and the range indicated in the Tahr Control Plan.

Ngā mihi

From:

NORP TH Sent: Monday, 6 August 2018 3:00 PM

To: GSU Inbox (governmentservices@doc.govt.nz) <governmentservices@doc.govt.nz>

Cc:

Subject: Follow-up: 18-B-0786 - Wild Animal Control and Pastoral Leases

Hi All,

The Minister considered has considered this paper, and has raised a few follow-up questions/points. She also indicated she found the advice to be very helpful.

MOC suggests this paper highlights a major issue with tahr being present on at least 28 pastoral leases well outside the feral range. She considers this is a major breach of the Tahr Control Plan and presents a risk to DOC's current search and destroy operations. She notes there is currently no formal agreement between DOC and LINZ on wild animal control to ensure joined up control work.

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  - A copy of the Monitoring Report referenced in paragraph 2 of his paper;
  - A map of the current range of feral tahr; and,
  - A map that compares the current range against the agreed/expected range indicated in the Tahr Control Plan.
- 2. MOC would like to meet with relevant DOC staff leading our tahr control effort and plan implementation to discuss:
  - Tahr and wallaby control on pastoral leases;
  - Strategy re: joint control with LINZ and landholders.

Sent:

Wednesday, 15 August 2018 8:17 a.m.

To:

Government Services:

Cc:

Andy Roberts;

Subject:

FW: 18-A-0429

-MOC request for advice

Good morning,

Following up on:

The Minister was keen to get some clarification on the use of lead in game animal shooting as she is aware that it has been phased out for the shooting of water fowl. Are you able to provide some brief advice by email on this please?

I can confirm that all three Operations Districts (ESI,SSI and WSI) have all agreed that:

All tahr culling by the Department will very soon be undertaken by rifles with non-lead ammunition.

Kind regards

Workflow Coordinator - Threats Pou Whakahaere- Toi Morearea **Biodiversity Group** Kahui Kanorau Koiora Department of Conservation—Te Papa Atawhai

Conservation House

PO Box 10 420, Wellington 6143 | 18-32 Manners Street, Wellington 6011

Conservation leadership for our nature Tākina te hī, Tiakina, te hā o te Āo Tūroa

www.doc.govt.nz

From: Andy Roberts

Sent: Tuesday, 14 August 2018 1:57 p.m.

To:

Subject: RE: 18-A-0429

-MOC request for advice

Kia ora

Andy Roberts, Director Operations - Eastern South Island response to the Minister's request for:

PMATION ACX

some clarification on the use of lead in game animal shooting as she is aware that it has been phased out for the shooting of water fowl'.

- All tahr culling by the Department will very soon be undertaken by rifles with non-lead ammunition.
- For hunting of game animals needs clarification on whether it covers all hunting on public conservation land - e.g. recreational, commercial, DOC hunting. As far as I know there is no national policy on lead. Should be a Biodiversity led.

Ngā mihi

PAILASE From

Sent: Tuesday, 14 August 2018 11:45 a.m.

Subject: FW: 18-A-0429

-MOC request for advice

Importance: High

Hi

Can you please arrange for Andy and his team to send through the response to the request below directly to Michael at the MOCs office and GSU? Please CC Threats in also

The Minister was keen to get some clarification on the use of lead in game animal shooting as she is aware that it ovide.

Who has a second of the second of th has been phased out for the shooting of water fowl. Are you able to provide some brief advice by email on this please?

**Thanks** 

Workflow Coordinator - Threats Pou Whakahaere- Toi Morearea **Biodiversity Group** Kahui Kanorau Koiora Department of Conservation-Te Papa Atawhai

Conservation House

PO Box 10 420, Wellington 6143 | 18-32 Manners Street, Wellington 6011

Conservation leadership for our nature Tākina te hī, Tiakina, te hā o te Āo Tūroa

www.doc.govt.nz

From: Government Services

Sent: Tuesday, 14 August 2018 11:11 a.m.

To

Subject: FW: 18-A-0429

-MOC request for advice

Hi Amber

Please see request below for further advice on this ministerial letter. Can you please respond directly to about this, copying in GS. Please ensure the subject line of the email contains the ministerial reference number, the correspondent's surname and something like "further advice requested"

thanks

Government Services Advisor (Government Services)

Policy and Visitors Group

Department of Conservation Te Papa Atawhai

Conservation House (Level 2) 19-32 Manners Street [ PO Box 10420, Wellington 6143 ]

Conservation for prosperity Tiakina te taiao, kia puawai

www.doc.govt.nz

From:

Sent: Tuesday, 14 August 2018 11:03 a.m.

To: Government Services < Government Services @doc.govt.nz>

Subject: 18-A-0429 Parry

Kia ora team,

We have sent out the attached Ministerial response this morning. The Minister was keen to get some clarification on the use of lead in game animal shooting as she is aware that it has been phased out for the shooting of water fowl. a. M.O. MANION AC Are you able to provide some brief advice by email on this please?

Thanks

Office of Hon Eugenie Sage

Minister of Conservation, Minister for Land Information, Associate Minister for the Environment

Parliament Building, P.O. Box 18041, Wellington 6160

This email message was encrypted and has been decrypted by Trustwave SES

This email message was signed and the signature has been verified by Trustwave SES

Sent:

Thursday, 16 August 2018 5:15 p.m.

To:

Subject:

FW: Tahr control

Hi

Not sure if you'll be seeing this or not, but it may come up in conversation about the Biodiversity Business Case...

From: Eugenie Sage

Sent: Thursday, 16 August 2018 12:13 PM To: Lou Sanson < sanson@doc.govt.nz>

Cc:

Subject: Tahr control

Greetings Lou

At a meeting today on progress with the WARO permit review the subject of tahr came up

The estimated population on PCL is 35,000. The population on pastoral lease would be in addition to this but I understand DoC has not had access to pastoral lease land to include this in the assessment so the actual population may well be significantly higher. (I am following this up with LINZ).

This summer breeding season will see a further significant increment in the tahr population which will make reducing it to the 10,000 level provided for in the Thar Control Plan much more challenging. Thar numbers need to be reduced as soon as possible with significant effort now, before another summer's breeding.

How many hours of SAD operations does the Department expect to fund between now and 31 December; and how many animals does the department expect to reduce the population by by 31 December?

My expectation is that there will be significant progress in reducing the tahr population in the next five-six months. Is that the Department's plan?

I would be very concerned if the department was

under any misunderstanding that it had the next four years to bring numbers down.

Thanks



MATIONACY Minister of Conservation | Minster for Land Information | Associate Minister for the Environment Parliament Buildings | Private Bag 18041 | Wellington 6160 | New Zealand E: E.Sage@Ministers.govt.nz



Please consider the environment before printing this e-mail

Sent:	Wednesday, 22 August 2018 1:12 p.m.
To:	DE 10 A OF10 M. C. H. H. H. D. H. D. D. H. D. H. E. H.
Subject:	RE: 18-A-0518 - MoC letter - Urgent Request - Response to the Editor OTD -
Follow Up Flag:	Follow up
Flag Status:	Completed
email implies he pu	at edited a version of the letter but it's not attached?
	mail: "I fully support the work of the Fiordland Wapiti Foundation, including its work on
From:	
Sent: Wednesday, 22 Aug	sust 2018 10:11 AM
Subject: FW: 18-A-0518 - Importance: High	Moc letter - Urgent Request - Response to the Editor OTD -
re	and the same and a second seco
	sorry there's some additional info re: GAC – are you able to incorporate this
(The DOC person	who drafted the response below) is not able to combine the two today.
	ces [mailto:GovernmentServices@doc.govt.nz]
Sent: Wednesday, 22 Aug	gust 2018 9:55 AM
То:	
Subject: RE: 18-A-0518 -	MoC letter - Urgent Request - Response to the Editor OTD -
Importance: High	
Via ora tatou this has a	one over to the Minister's office without input from
I note he has sent an ema	
Can you please ensure th	
	onse (see attached).
Ngā mihi	hise (see attached).
ivga iiiiiii	
	input is taken into account and resend the message to onse (see attached).  2018 4:45 p.m.
From:	
Sent: Tuesday, 21 August	2018 4:45 p.m.
То:	
Subject: RE: 18-A-0518 -	MoC letter - Urgent Request - Response to the Editor OTD

Kia ora

Here is the draft letter to ed as requested. Input from across the business and pulled together by Nelson tomorrow, so please phone if you have any questions. Note there is one component which recommends is dealt with by the office.

. I am in

Many thanks

Director Threats, Kaihautū Ao Mõrearea Biodiversity Group Kāhui Kanorau Koiora

To the Editor

This government and previous governments are committed to a predator free New Zealand where our unique wild and bird life can thrive.

Many years of research from multiple organisations and scientists show the benefits of 1080 in native species recovery. The science is irrefutable. http://www.1080facts.co.nz/

The Wapiti herd has been managed by the Fiordland Wapiti Foundation (FWF) since 1993 working closely with the Department of conservation.

They are tasked with protecting the environment and enhancing the Wapiti herd quality, and their current programmes include monitoring plant health maintaining herd control including aerial culling and more recently establishing 500 stoat control traps within the Wapiti Ballot. I agree FWF is doing good work in Fiordland National Park.

The tahr cull is science driven. A recent study estimated there are 35,000 tahr on public conservation land.

The Himalayan Tahr control plan, which is a statutory document set a limit of no greater than 10,000 tahr within the feral range. Each year, approximately 4,600 tahr are removed by DOC, recreational and commercial groups but the tahr herd is now breeding faster than these groups can remove them.

I have asked DOC to bring the tahr population back down within the limits of the plan before the situation OPMATION AC, gets worse.

From: Government Services

Sent: Tuesday, 21 August 2018 10:50 a.m.

To:

Subject: 18-A-0518 - MoC letter - Urgent Request - Response to the Editor OTD -

Importance: High

#### Kia ora tatou -

## Context and Purpose

The Minister's office is seeking an urgent draft response to a letter to the Otago Daily times (see below). as the SPA for this, but she may need to As the letter to the ODT refers to several issues, I have nominated call on each of you to provide input, bearing in mind the 250 word limit.

- Please send the email directly to the Minister's office by COP 22 August.
- Include full contact details in your email (name, position, mobile phone number)

Copy your response to Government Services; and

Use this subject line for the email:

18-A-0518 - MoC letter - response to the Editor ODT -

Ngā mihi

Ministerial Support Advisor (Government Services) Policy & Visitors Group Department of Conservation - Te Papa Atawhai



From:

Sent: Tuesday, 21 August 2018 9:39 a.m.

To: Government Services < Government Services@doc.govt.nz >

Cc:

Subject: URGENT - RE: Seeking a response to a letter -

Importance: High

Kia ora team,

XXICIAL WAORMA, Can we please have an urgent response to the letter to the editor below? If you are able to provide the draft text to me by email within the next couple of days we can get it approved by the Minister and the Press Secretary will forward it on to the ODT. Please note there is a limit of 250 words for this.

**Thanks** 

Office of Hon Eugenie Sage Minister of Conservation, Minister for Land Information, Associate Minister for the Environment Parliament Building, P.O. Box 18041, Wellington 6160

To:

Subject: Seeking a response to a letter -

Dear

The Otago Daily Times has received a letter to the editor (copied below) to which we would like to give Hon Eugenie Sage the opportunity to respond.

We would appreciate a response of no more than 250 words within the next three working days. Please let us know within this time frame if the minister does not wish to provide a response, at which point we may Parts, Plans III UNDER THE OFFICIAL MEORINATION ACT choose to publish the letter without her input.

Kind regards,

**Editorial Assistant** Otago Daily Times 52 Stuart St, Dunedin PO Box 517, Dunedin 9054

Otago Daily Times advertising reaches over 96,000 people on any given day\*
14des Natural Research Survey 01-04 2012

**Otago Daily Times** 

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Don Hammond
Chair
Game Animal Council
PO Box 1715
Rotorua 3040

#### Dear Don

As Minister responsible for the Game Animal Council ('the Council'), I am writing to outline the matters I expect you and councillors to consider for the Council's business planning and implementation for the 2018-19 fiscal year.

This letter contains the following:

- My entity-specific expectations for the Council
- Enduring expectations for boards of statutory Crown entities

### Entity-specific expectations for the Council

The Council is a Crown corporate entity listed under Schedule 4 of the Public Finance Act 1989. As such, normal Crown Entity monitoring requirements apply.

The Department of Conservation ('DOC') is your monitoring department, and your lead governance advisor is Mervyn English, Deputy Director-General, Strategy & People.

## Council workplan priorities

The Council's functions are outlined in section 7 of the Game Animal Council Act ('Act'). I understand the Council has a strategic workplan based on those functions and has commenced identifying priorities for 2018-19.

As previously advised, I have asked DOC to undertake an engagement project with key hunting, conservation and environmental stakeholders. This is to help me identify the most effective means of engaging with the hunting sector, and input into clarifying the future role of the Council. Your cooperation with DOC in that work will be appreciated.

In that context, for 2018-19 I intend to provide the Council with \$200,000 of Government funding. Within your 2018-19 workplan I ask that you:

#### One:

Develop, and provide me, a funding strategy proposal for the Council, recognising that the Council's statutory functions relate to both recreational and commercial hunting stakeholders.

I understand that previously the Council was encouraged to focus on establishing a game trophy export levy. However, I am not convinced that such a levy is

appropriate, because of its focus on one particular group of hunters and its vulnerability to future free trade agreements.

#### Two:

Work with DOC and all the key hunting sector groups, to develop a plan that will support DOC to:

- bring the tahr population back down within the limits of the 1993 Himalayan Tahr Control Plan; and then
- o maintain the tahr population once the tahr herd is back under control.

I am concerned at the current high number of tahr and have asked DOC to commence a culling operation as soon as practicable. You can expect that the culling operation will continue while the plan is being developed.

#### Three:

Provide me advice on what is required to develop and implement a comprehensive hunter safety and education plan that might (for example) consider the opportunity for integrating hunting safety knowledge or education requirements with hunting licences or permits.

In addition, I expect that you will continue to ensure that hunters' interests are represented and understood within the resource management and other relevant statutory planning processes. Further developing your position as representative of all hunting interests is important in this regard.

I ask also that you continue collaborating with DOC, Predator Free 2050 Ltd, regional councils, OSPRI and other groups contributing to the Government's conservation and biodiversity goals.

You will appreciate the need to maximize the capabilities of existing predator control technologies and resources. I wish to ensure that recreational and tourism hunting interests are well-directed for conservation outcomes – and their goodwill nurtured. In many areas, recreational hunters are key to maintaining halos around our nature reserves. I look forward to your continued support in mobilising, and maintaining the goodwill of, that sub-sector.

I understand that the Chair of Te Urewera Board and the Chief Executive of Tuhoe Te Uru Taumatua have expressed interest in working with you in developing plans for managing game animals Te Urewera. I encourage you to support Te Urewera in that way – again in collaboration with DOC.

## Business Planning and reporting

The Council is a Schedule 4 entity under the Public Finance Act 1989, meaning that the Council is subject to some sections<sup>1</sup> of the Crown Entities Act 2004 related to planning and reporting.

Recognising the workplan priorities I ask that you to develop and provide me a business plan and budget for the Council, for the 2018-19 fiscal year.

Delivery of the business plan within six weeks of this letter, will be appreciated.

<sup>&</sup>lt;sup>1</sup> Those sections are identified in subpart 2 of part 5 of the Public Finance Act.

The Council has an annual reporting obligation under section 150 of the Crown Entities Act. Your governance advisors at DOC will provide guidance on other reporting requirements that may be associated with draw-downs of funding.

You should also ensure that your governance advisors at DOC are kept fully informed of your activities and any material risks or issues, on an ongoing basis.

# Funding and draw-down

As mentioned earlier, I intend to provide \$200,000 of Government funding for the Council for 2018-19.

Draw-down of the funding will be managed by DOC, based on specific requests from the Council and reference to your cash flow needs. I anticipate those requests to be on a thirdly (3 times per year) basis.

# Operating disciplines

I expect you to adopt policies and procedures that satisfy your public-sector accountability and transparency responsibilities.

Your procurement planning and execution is to follow Ministry of Business, Innovation & Employment (MBIE) guidelines.

# Enduring expectations for boards of Crown entities

## No surprises

Government has a "no surprises" policy —meaning that boards are expected to:

- be aware of any possible implications of their decisions and actions for wider government policy issues
- · advise their responsible Minister of issues that may be discussed in the public arena or that may require a ministerial response, preferably ahead of time or otherwise as soon as possible, and
- inform their responsible Minister in advance of any major strategic initiatives.

#### Induction

Government expects that every Crown entity board member receives induction training on public sector governance. Attendance at a Treasury induction workshop (held approximately every six months) is strongly recommended.

#### Good employer

Crown entity boards must comply with the good employer provisions set out in the Crown Entities Act and manner of conduct for the State Services at <a href="https://www.ssc.govt.nz/code">www.ssc.govt.nz/code</a>.

Boards should also take account of Government's expectations for Pay and Conditions in the State Sector. Crown Entities Act and maintain standards of integrity and conduct set out in the code

Crown entity boards are expected to practise effective self-monitoring - including providing high-quality information on: performance against plan, implications for future performance, and risks and opportunities facing the entity.

# Transparency of performance

Boards are expected to operate transparently by disclosing non-sensitive entity performance information throughout the year, usually via a dedicated website following discussion with their responsible Minister.

It is important that your monitoring department (DOC) maintains a good understanding of the strategic issues, risks, and influences on the Council's performance.

In conclusion, I expect the Council to have a constructive working relationship with DOC in many areas of common interest. I understand that you are already working closely with Mervyn English as the governance lead at DOC. I also look forward to the strengthening of other relationships to assist us achieving better biodiversity outcomes.

And Rhydia.

Rhydrau Thomas.

Yours sincerely holds a servation of the control of Ninvite you to make an appointment to discuss my expectations, in-person. Please

From:

**Andy Roberts** 

Sent:

Thursday, 13 September 2018 3:19 p.m.

To:

Cc:

Subject:

RE: 18-B-1113-Advice-Request-Himalayan tahr cull

Andy Roberts is the lead Director for Tahr and Mervyn English is leads the relationship with GAC.

Here's Eastern South Island's response to the following question on Tahr:

Have you set dates, target numbers to be culled and areas to be culled?

The Department is in the final stages of planning when control operations will start. This plan will include the number of tahr to be removed this year, the areas they will be removed from and when the work starts. All the Tahr Liaison Group stakeholders will be advised of these details.

From:

Sent: Tuesday, 11 September 2018 3:05 p.m.

To: Government Services < Government Services@doc.govt.nz>

Cc:

Subject: Re: 18-B-1113-Advice-Request-Himalayan tahr cull

PARONAL MADO Hi can I suggest that this is led by Andy Roberts for the tahr information (happy for geoff suppot). And Mervyn A) ON AC ) for GAC info.

Thanks

Sent from my Samsung Galaxy smartphone.

Date: 11/09/2018 2:02 pm (GMT+12:00)

To

Subject: 18-B-1113-Advice-Request-Himalayan tahr cull

#### Hello

#### Context and purpose

The Minister's office has requested advice, see below, which we have assigned to you.

#### Outputs and timing

- Please send the email directly to the Minister's office by midday 12/09/18.
- Include full contact details in your email (name, position, mobile phone number)

Copy your response to Government Services; and

se this subject line for the email:

18-B-1113 - Advice - Title

#### Preparing your email response

- Start with the purpose why is the Minister's office getting this email? (E.g. "This email responds to the Minister's query today about...")
- Summarise your key points in a few bullet points.
- Then give your supporting information. Use short sentences, bullet points, headings to support quick comprehension. Indicate risks and next steps if relevant to the request.

Remember that your email may reach the Minister's desk. So it must be, like other forms of advice, professional and accurate. The Minister's office will assume the writer has authority to provide the information on behalf of DOC.

Many thanks

Government Services Advisor **Policy & Visitors** Department of Conservation Te Papa Atawhai

From:

Sent: Tuesday, 11 September 2018 12:02 p.m.

To: Government Services < Government Services@doc.govt.nz>

Cc:

Subject: Media Advice requested: Hunting & Wildlife Magazine article - Himalayan tahr and the NZ Game Animal

Council

Importance: High

Hi Team,

The Minister has received the below media query from Hunting & Wildlife magazine. Can DOC please provide a draft response to the question highlighted below?

Due midday tomorrow (Wednesday 12 September).

Cheers,

From:

Sent: Monday, 10 September 2018 2:59 PM

To: Eugenie Sage <em.sage@parliament.govt.nz>

Subject: Hunting & Wildlife Magazine article: Himalayan tahr and the NZ Game Animal Council

Dear Eugenie,

I'm about to go to press with your article on tahr following the NZDA conference, along with a wrap-up of the conference and some articles on related issues. I have a few last brief questions (7 in all, bulleted below) for you:

1. I am hearing widespread rumours that a start on a tahr cull by helicopter may be made any day now.

• Is there any truth in that?

 Have you set dates, target numbers to be culled and areas to be culled? PTHEOREGAL WORMATION ACT

**Out of Scope** 

I would be grateful for an answer within the next 2 days.

Regards

Editor, Hunting & Wildlife

From:

Sent:

Tuesday, 18 September 2018 9:44 a.m.

To:

Cc:

Subject:

FW: More re than

# DOC to reduce tahr numbers to protect alpine plants

The Department of Conservation (DOC) is stepping up efforts to control Himalayan tahr across the central South Island as numbers have reached damaging levels.

Tahr graze at high altitudes in the Southern Alps/Kā Tiritiri o te Moana where they feed most intensively on tall snow tussock and can kill entire plants.

New monitoring data gathered over 18 months has highlighted the population is much higher than expected and the Minister of Conservation, Eugenie Sage has asked for it to be reduced urgently.

"It's estimated there are at least 35,000 tahr on public conservation land and that's 25,000 more than allowed under the Himalayan Thar Control Plan 1993 for the whole of the tahr range," says Eastern South Island Operations Director, Andy Roberts.

DOC is aiming to remove 10,000 tahr over the next ten months. Tahr control will take place in the Westland/Tai Poutini and Aoraki Mt Cook National Parks.

"We will also be focusing on the Rakaia and Rangitata and Gammack and Two Thumb ranges where there are large numbers of tahr," says Andy Roberts.

The Tahr Liaison Group (made up of organisations with hunting interests and conservation groups along with Ngāi Tahu), has been asked to assist DOC in bringing tahr numbers back to within the limits set in the Thar Control Plan by hunting an additional 7500 animals over the next seven and a half months.

"This joint effort to remove 17,500 animals will stabilize the current population. We will need to continue to increase our combined efforts over the next few years to reduce these numbers further."

DOC controls tahr by running aerial operations with professional DOC hunters in helicopters. DOC recreational and commercial hunting groups have together been removing an average of about 4,600 tahr each year.

DOC first raised concerns about tahr not being counted effectively in 2015. A new monitoring programme was launched with data gathered over 18 months. The result was the new estimate of 35,000 tahr across conservation land of the central South Island.

"Tahr can now be found across more than 1,000,000 hectares of public conservation land," says Andy Roberts
A new tahr webpage will launch later this month to assist hunters so they can make informed decisions on where
they would like to go hunting. It will feature maps showing the locations of DOC aerial control operations and details
on where tahr can be found.

Hi again , as per our phone conversation, can I please request an update on DoC's planning to control Tahr in the South Island. We have had information that they plan to cull 20-thousand and would like as much detail as

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possible that can be released at this stage. Thank you,

# Departmental Memo



GS ref: 17 – B – 0736

DOCCM: 3203677

#### In Confidence

Date: 3 November 2017

To: Minister of Conservation

From: Andy Roberts - Director, Operations, Eastern South Island

Subject: Tahr control report

#### **Purpose**

1. This memo provides information on the Department's tahr control programme in response to your request on 31 October 2017.

#### Background and context

- 2. The Himalayan Thar Control Plan 1993 (the Plan) was developed as a mechanism to manage tahr densities to levels which provide protection to natural values.
- 3. The Plan sets out the prescriptions and methods for the control of tahr within and beyond the feral range feral range is defined as the range of the main tahr herd.
- 4. The initial control methods set out for management units of the Plan reflected existing land ownership and hunting patterns, knowing that these would change over time.

#### Present state

- 5. There is no reliable estimate of the tahr population. However, it is expected to be more than 10,000 individuals.
- 6. The Plan's measure of tahr/ha (and population target levels using this measure) has proven impracticable as a management tool. It is an expensive measure and data collection has been traded off against tahr control activity over time.
- 7. The Department is addressing this issue by assessing the technical and financial feasibility of helicopter-based surveys for estimating tahr densities (tahr/ha). A feasibility report is in the final stages of analysis and will be available for circulation before the end of the calendar year.
- 8. The Department's annual expenditure on tahr control between 2007 2017 ranges between \$280,000 \$320,000.
- 9. To drive increased consistency and effectiveness with tahr control, the Department has moved to one multi-year, multi-region Operational Plan for Tahr Control (2017-2020).
- 10. The Operational Plan is guided by objectives and goals in the 1993 Plan, will reduce duplication, and provide stakeholder clarity with a single consistent approach.
- 11. Recorded tahr kills by Department-managed work over the past 6 years (all control methods) are:
  - 2016/17 data not yet collated
  - 2015/16 4375

- 2014/15 5026
- 2013/14 3556
- 2012/13 4759
- 2011/12 4143
- 12. The use of Judas tahr continues to aid the detection of tahr in the exclusion zones. This continues to show tahr numbers remain consistently low and dispersed within exclusion zones with no significant change in the number of tahr being located.
- 13. Tahr control in exclusion zones appears to remain sufficient to maintain current density levels, however tahr populations in these exclusion zones have not been eliminated.
- 14. Tahr numbers remain low with no new self-introduced populations being recorded in tahr habitat beyond exclusion zones and outside of the feral range.

Wholes Take Oraca Macan Macan Marion Act Contact for queries: Andy Roberts, Director Operations,

# Departmental Memo



GS ref: 18–B–0606 DOCCM: 5495484

#### In Confidence

**Date**: 8 June 2018

To: Minister of Conservation

From: Andy Roberts, Director Operations, ESI Region

Subject: Follow-up meeting with Bill O'Leary, NZDA, on 11 June 2018

#### **Purpose**

1. This memo gives you information on tahr management and hunter access to inform your follow-up meeting with Bill O'Leary (NZDA President) on 11 June 2018. (You first met with Mr O'Leary on 9 May: 18-B-536.)

#### Background and context

- 2. Results from recent monitoring by DOC indicate that the Himalayan tahr population has been increasing in numbers and expanding its feral range.
- 3. The 1993 Himalayan Tahr Control Plan (the 1993 Plan') recommends a maximum population size of 10,000 animals.
- 4. The most recent population estimate for tahron public conservation land is 35,633 animals.
- 5. The confidence intervals for this estimate are currently large, and greater certainty will be achieved over the next 2 3 years of monitoring. The upper and lower confidence levels are currently 17,347 and 53,940 respectively.
- 6. The Tahr Liaison Group, established to ensure connectivity with stakeholders, has not been meeting regularly over the past two years.
- 7. A meeting was held in Christchurch, on 24 May 2018, to discuss the issues mentioned above, and to determine the actions required to successfully manage the tahr herd, in line with the 1993 Plan.
- 8. Bill O'Leary, and (all NZDA) attended the meeting, along with the key DOC staff involved with tahr control in the South Island.
- 9. The meeting was positive, with good sharing of context, views and information.
- 10. Clear actions have resulted from the meeting, aimed at re-establishing liaison with stakeholders, and re-invigorating the tahr control programme. The actions resulting from the meeting are summarised in the **Table 1** below.

#### Table 1.

No	Task	Lead Person	Due Date
1	Identify & task assign lead roles for tahr programme: lead Director – Andy Roberts;	Andy Roberts	30 June 2018

	lead Manager – for Tahr Liaison Group – TBC; lead Senior Ranger for coordination of all operations and relationships – Interim: Ranger form Geraldine, then to be new Twizel Senior Ranger permanently.		
2	Finalise a strategy to achieve the objectives of the 1993 Plan: Purpose of the strategy is to ensure that all parties work on an agreed approach to achieve the objectives of the HTCP.	New tahr lead	30 July 2018
3	Assign a DOC-led task team (with external members) to complete these tasks.	Andy Roberts	30 June 2018
4	Confirm methodology for a centrally held South Island tahr budget – to be dispersed as per agreed plan.	DOC business accountant	30 June 2018
5	Revise the Department's Operational Plan (annual implementation document) for Tahr Control. Purpose: one Operational Plan that provides an agreed tactical approach across the various parties to achieve tahr control and monitoring objectives.  Review the Annual Report format so that it aligns with management needs.	New tahr lead	30 November 2018
6	Tahr Plan Implementation Liaison Group to meet with a focus on rebuilding the function of the Group to confirm the strategy and subsequent Operational Plan.	Andy Roberts	30 August 2018
7	Population and Outcome monitoring to be rescoped. Including nationally co-ordinated data collection and management system (and database) to be scoped.		15 December 2018
8	Continue with aerial surveys to improve the accuracy of the population & density estimates (ie improve precision).	(1)	On-going
9	Determine whether DOC undertakes monitoring tahr population off conservation land to get an accurate population density for the entire management area.		15 December 2018

#### History of tahr culled in period 1 July 2011 - 30 June 2017

- 11. The information summarised in **Table 2** (below) was collated for an annual report to the NZCA in June 2018.
- 12. This illustrates that over the past 6 years approximately 50% of the recorded tahr culled have been taken in DOC operations. The other 50% have been taken by a mixture of aerial assisted trophy hunting (AATH), recreational hunters and wild animal recovery operation (WARO).
- 13. Over the past 6 years, an average of 4,483 tahr were culled per year. This figure should be considered as the minimum number culled, as other private hunting parties will have removed tahr without data being recorded.

Table 2.

Year	DOC	AATH offset culls	Ballot hunters	AATH trophies	Organised Rec hunters	WARO	TOTAL
16/17	2809	910	537	324	35	0	4615
15/16	1835	1206	589	302	438	0	4370
14/15	1923	1243	402	393	860	5	4826
13/14	1148	1466	420	387	125	205	3751
12/13	3254	803	466	176	512	10	5221
11/12	2280	288	451	160	938	0	4117
Total	13249	5916	2865	1742	2908	220	26900
%	49.3	22.0	10.7	6.4	10.8	0.8	100.0

#### History of tahr culled July 2017 – present (i.e. current year, to date)

- 14. The Department is currently undertaking cull operations, as June is an optimum time of year to undertake this work.
- 15. Current data available (as at 5/6/18) is summarised in **Table 3** below:

Table 3.

Year	DOC	DOC	AATH	Organised	Rec
to date	Outsid	Inside		hunters	
17/18	e feral	feral rg			
	rg				
Total	103	2092	180		67

## Information on changes to tahr survey methods, including when it has changed and why

- 16. Prior to 2015, consistent and robust monitoring of tahr abundance did not occur. A programme of regular and consistent ground-based population counts was abandoned in the early 2000s for cost reasons. Since then, herd assessments have been based on data collected during aerial control operations and survey flights. However, variation with these data is too large to derive reliable estimates of densities or population trends as required under the Himalayan Tahr Control Plan.
- 17. A scientifically robust, and cost effective, method for tahr abundance monitoring is required to fulfil the requirements under the 1993 Plan and provide for effective management of the tahr herd. In 2014, a report on historic tahr impact monitoring was completed by Landcare Research. This revealed significant impacts of tahr on tussock and vegetation cover and concluded that the current monitoring was not meeting the requirement of the 1993 Plan.
- 18. To address this, in the 2015/16 summer, DOC began a trial to integrate tahr abundance and impact monitoring with the national-level monitoring (Tier 1) undertaken as part of its Biodiversity Monitoring and Reporting System. Additional measurements, targeted at estimating tahr abundance (helicopter aerial counts) and tahr impacts (indicator species)

on vegetation, were added to the programme for implementation at 111 sampling locations over a 5-year period within the tahr management units and exclusion zones. By the end of the 2017/18 summer, 66 of the 111 additional sampling locations had the additional measures completed. The remaining 45 sites will be measured over the next 2 years. Analysis of the data collected to date is currently being undertaken, with 38 of the locations having a draft analysis completed.

#### The latest assessment of tahr numbers, and future predictions.

- 19. The draft analysis from the 38 locations where monitoring was completed in the 2015/16 and 2016/17 seasons concluded that total tahr abundance across the tahr management zones on PCL exceeds 35,000 animals.
- 20. Updates to these estimates will be made annually through inclusion of data from sampling locations scheduled for that year. An updated estimate that includes data from the 2017/18 field season is expected in the latter part of this year.

## Future plans to re-establish the Tahr Liaison Group and the Department's plan to reduce the size of the tahr herd.

- 21. At the 24 May 2018 meeting held in Christchurch, we agreed (with Bill O'Leary) to revitalise the Tahr Laison Group. We aim to reconvene this Group before 30 August 2018.
- 22. The focus for this group will be to confirm the strategy and Operational Plan required to achieve a reduction in the size of the tahr herd. We are expecting the NZDA to make a strong contribution to the future management of the tahr herd at a strategic and operational level.

#### Land access issues for recreational hunters, related to tenure review

## How many past land access arrangements from Tenure Review have excluded recreational hunter's access?

23. Of the 99 properties that have completed tenure review, 11 properties do not permit firearms on any of their easements; 6 have a mixture of firearms being permitted and not permitted on their easements; and 2 allow for access with firearms but require prior permission.

## How many current Tenure Review negotiations may feature exclusion of recreational hunter's access?

24. Of the 9 pastoral leases that are in the substantive proposal stage of negotiations, and have been publicly advertised, 4 of these properties have exclusions of recreational hunter access on some or all of the easements.

## What solutions can be found for Tenure Review negotiations that would include recreational hunter's access?

- 25. The land tenure review process is based on a consultation model, with the lease holder having an equal consultative right. The lease holder also has the right to withdraw from the land tenure review process if they are unhappy with the proposal. The discussion around firearms on easements can be one of the more divisive issues which LINZ need to weigh up in the overall outcomes.
- 26. We consider that, with the current land tenure review process (CPLA 1998), there is little more that DOC and stakeholders can do apart from advocating on behalf of the recreational hunters, and for the recreational hunters to actively participate during the public submission process.

- 27. We consider that the best solution for the facilitation of recreational hunter effort in tahr management is to include the recreational hunters as part of the authorised tahr management programme. This approach would require organised recreational hunting groups (such as NZDA) to work closely with DOC and therefore comply with the easement stipulations relating to access for DOC management. This will require further scoping work.
- 28. This potential solution was discussed at the tahr management meeting of 24 May 2018.

#### Risk assessment

- 29. The greatest immediate risk to advancing our vision of a co-ordinated approach to managing the tahr population is associated with the recruitment of an appropriately skilled and experienced staff member to lead this programme during the operational integration phases across the South Island. Previous recruiting attempts have not been successful as applicants have not come with the level of skill required. We are about to re-advertise in the next week.
- 30. The Department's tahr management programme will continue to be delivered across the South Island without filling this position. However, we consider that having a suitably skilled person task assigned the lead co-ordination role would enable the programme to be delivered to a higher standard and to deliver on our expectations, as well as those of our stakeholders.

#### **Next steps**

- 31. An action list (see paragraph 10) is being worked on with urgency. Tahr control is currently underway. There is an urgent priority on recruiting a senior ranger to lead the integration and coordination of the programme. A meeting with the Tahr Liaison Group is being planned for prior to 30 August 2018.
- 32. We will keep you informed on progress against this action list by including updates in the Status Report.

#### **Attachments**

33. Key points for your meeting on 11 June 2018 (Appendix A)

Contact for queries: Andy Roberts, Operations Director, Eastern South Island;

ENDS AC

#### Appendix A - Key Points

- I am aware that modifications to the tahr monitoring programme are still relatively recent and therefore the precision of the information being derived is still rapidly improving with the analysis of the data being collected each year.
- I have been briefed on the meeting that you attended recently with Andy Roberts and the key Department of Conservation staff involved with tahr management. I understand that the purpose of this meeting was to invigorate the tahr programme, and that a clear list of priority actions are now being implemented.
- 1 know that one of these actions is to re-establish the Tahr Liaison Group so that all interested parties are kept fully informed on the work programme and to ensure the opportunity to have a role in management of the tahr.
- I acknowledge that recreational hunter access onto some public conservation land is restricted by easement conditions. My Department is committed to working with you to identify solutions to these access issues and to ensure that our management of tahr is THE ORAL MORMATION ACT not restricted by this.

#### Status Report 31 - week beginning 2 July 2018

#### 2.14 Tahr Control

- DOC has a three-year Operational Plan for tahr control, which includes undertaking aerial hunting in the highest priority areas. This is supported with offset tahr control from Aerial Assisted Trophy Hunting, limited commercial WARO activity and some organised recreational hunting.
- Over the last financial year, DOC has spent an extra \$60,000 on tahr control and the data on numbers culled will soon be available.
- As part of the plan, we will be increasing the scale of aerial culling, proven to be the most effective way to quickly reduce tahr numbers. As part of this programme, DOC's highest priority is to target any new populations which have established outside the range of tahr, and the specific northern and southern exclusion zones of the tahr range. Control of the areas adjacent to high priority areas to prevent new invasions are important.
- Control efforts are also focussed on the Aoraki and Westland national parks, the Adams Wilderness areas and the areas around the Landsborough Valley.
- We are currently developing a tactical plan to bring the tahr population within the Himalayan tahr plan's limits and will be working with the New Zealand Deerstalkers' Association and the NZ Game Animal Council to define what support could be contributed by recreational and commercial hunters.

Contact: Andy Roberts, Director Operations Eastern South Island:

#### Tahr Media Strategy 2.15

- We are finalising a communications plan that highlights the damage caused by tahr and the urgent need for the population to be reduced.
- DOC's media and communications strategy focuses on working at both local and national levels. Suggested outputs include:
  - Opportunities for you to be involved in media site visits, and to announce an increase in the level of funding for tahr control. This would include a media visit to view tahr damage to plants and to see the scale of tahr population from the air.
  - Involving the NZDA to reinforce, from a hunting perspective, the need to reduce tahr numbers to a more sustainable level.
  - MATIONACY Our Twizel and Hokitika offices engaging with interested stakeholders to help them understand why the up-scaling of the tahr control programme is necessary.
  - Gathering our own aerial and on-the-ground footage of the tahr numbers and the damage being caused. This content will be repurposed into several videos for social media,
  - An article on the science behind the monitoring and the generational changes to threatened alpine plants that followed the introduction of the tahr. The article will link increased tahr control efforts to threatened species protection.

Contact: Andy Roberts, Director Operations Eastern South Island:

#### Status Report 34 - week beginning 23 July 2018

#### 2.5 Tahr Tactical Plan - update

- As an action arising from the 25 June status meeting, you have asked DOC to outline how we intend to reduce tahr numbers as soon as possible, and for a communication/media strategy for the planned cull.
- A tactical plan to bring the tahr population within the limits of the Tahr Plan is currently being drafted.
- The tactical plan will be finalised when key DOC staff meet in Christchurch on 9 August, with the draft communications / media strategy to be finalised once the tactical plan is completed.

contact: Andy Roberts, Director Operations, Eastern South Island

Status Report 42 - week beginning 17 September 2018

#### 2.1 Tahr Liaison Group meeting

- DOC held a meeting with the Tahr Liaison Group stakeholders in Christchurch on the 29 August?
- Following this meeting, and feedback from the group, a modified tactical plan from the version you saw when you meet with Andy Roberts and Twizel staff in Christchurch, along with letters of expectation have been sent out to all stakeholders.
- The letters of expectation have set the different stakeholder groups a target number of tahr that their group can remove from PCL before 30 April 2019. A range of conditions is applied to each group to deliver their individual targets.
- The target number of tahr for each of the stakeholder groups are:
- DOC's tahr control work will commence before 30 September.

Contact: Andy Roberts, Director Operations Eastern South Island:

#### Status Report 43 - week beginning 24 September 2018 - DOC-5582644

#### 1.1 Tahr

- Last week letters were sent out to all the stakeholders in the Tahr Liaison Group with the plan to reduce the tahr population.
- These letters have caused a very strong and vocal reaction from recreational hunters and hunting guides.
- DOC staff in Twizel have been contacted and made aware of a range of threats if DOC proceeds with reducing the population, especially removing bull tahr.

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 DOC has set up an Incident Management Team to monitor and manage the tahr situation.

Contact: Andy Roberts, Operations Director, Eastern South Island:

## Departmental Memo



GS ref: 18–B–1163 DOCCM: 5588946

In Confidence

27 September 2018

Minister of Conservation

From Andy Roberts - Director Operations Eastern South Island

Subject Tahr Liaison Group Meeting – Monday 1 October 2018

#### **Purpose**

Date:

1. This memo responds to your request on 24 September 2018 for information to support your attendance at a meeting with the Tahr Liaison Group on Monday 1 October 2018.

#### Background and context

- 2. You are meeting with the Tahr Liaison Group to hear its views and discuss the most effective ways to undertake tahr control and reduce current tahr numbers.
- 3. You have previously received the following briefings:
  - 17-B-0736 Memo Tahr Control 03/11/17
  - 17-B-0736 Memo Response to follow up questions Tahr Control Report 10/11/17
  - 18-B-0606 Memo Follow-up meeting with Bill O'Leary NZDA 7/06/18
  - Status report Tahr control and media strategy 2/07/18
  - 18-B-0786 Memo Wild Animal Control and Pastoral Leases 20/07/18
  - Status report Tahr Tactical Plan update 23/07/18
  - 18-B-1113 Memo Himalayan Tahr cull 13/09/18

#### Overall issues at play

- 4. This issue has escalated to a media (including social media) and political item. We are aware of matters including: a give-a-little funding campaign, petition, and threats of a legal injunction to prevent the culling of tahr.
- 5. The Department has a large number of OIA's (~97) and other public information requests.
- 6. This issue has surfaced many of the long-held widely diverse viewpoints of the Tahr Liaison Group members and their constituents.
- 7. Tahr Liaison Group members, including Ngai Tāhu, are taking their attendance at the meeting very seriously and most groups are likely to be represented by their usual (nominated) representative plus senior member(s) of their organisation.
- 8. The purpose of the meeting is for you to meet this group, hear their views and discuss the most effective ways to undertake the required control to reduce tahr numbers and make further progress on the make-up of the tahr control programme for the 18/19 year.

On 27 September Game Animal Council presented you with a draft proposal for tahr control. Officials are presently reviewing this proposal to understand it and make considered comments before the meeting on 1 October.

#### Proposed agenda for the meeting

10. Refer Attachment 1.

#### Brief Biographies of the TLG members in attendance

Refer Attachment 2.

#### Risk assessment

12. Dependent on the outcome of Monday's meeting including how Tahr Liaison Group members respond to the meeting, the Department may continue to receive OIA's and be the target for other action from interested stakeholders.

#### **Attachments**

Attachment 1: Draft Agenda for 1 October meeting

Attachment 2: Brief Biographies of the TLG members in attendance

Contact for queries: Andy Roberts, Director Operations Eastern South Island, TAN MORMANON ACX

### **Agenda – Tahr Plan Liaison Group Meeting**

Purpose of meeting:

To further progress on the make up of the tahr control programme for 18/19 year.

Date: Monday 1 October 2018

Time: 1:30pm-3.30pm

<u> </u>		
1	Karakia to open	1.30pm
2	Housekeeping, H&S, format of meeting	5 mns
3	Introductions/apologies	5 mns
4	Recap from last meeting & set purpose for this meeting	5 mns
5	Minister of Conservation	20 mns
6	Each stakeholder 3mins to provide summary of their position to Minister of Conservation	30 mns
7	Final points from MOC	10 mns
8	Any further discussion for TLG	60 mns
9	Confirmation of next steps	15 mns
4.00pm	Approx. finish	
	Closing karakia	

Note: This is a first draft of agenda for the meeting. This can be modified to suit the desired structure if the meeting.

## Meeting Notes from Tahr Liaison Group – 1 October 2018: draft for TLG representatives to review/confirm

Purpose: To make progress on the design of the operational plan for tahr control 2018/2019

#### Agenda

- 1. Context
  - a. Hear from MOC
  - b. Hear from Andy Roberts, Director Operations ESI
  - c. Hear from TLG Members on identification of key issues
- 2 Key Issues
- Break into working Groups
- Working groups report back
- 3. Next steps / summation

#### Housekeeping

- Group agreed to run to 4,30pm (not 4pm as proposed), if needed
- Meeting to be minuted (note-taking on computers); key points to be recorded on whiteboard
- Each member organisation to have one spokesperson (only)

#### Questions (Bill O'Leary, NZDA)

Process of consultation – what does this entail (including in context of this meeting)?

SAL WAS

Will the meeting minutes come out quickly?

- Introductions (around table/room)
- · Civility / Ground rules

#### 1a.) Welcome from MOC

- Welcome and thanks
- Acknowledge Ngāi Tahu
- Significance of meeting; high-level attendance, people have travelled far
- MOC has directed DOC to implement Tahr Control Plan 1993 (TCP)
- Population estimates (35 000) of tahr exceed plan limits
- This is an opportunity for consultation; there was extensive consultation on the TCP prior to finalisation in 1993
- Acknowledge huge expertise in the room; everyone values mountain lands.
- Many stakeholders acknowledge that tahr numbers need to come down.
- Looking forward to working together to support the Department in delivering its work to this end.

#### 1b.) Context from Operations Director ESI

- DOC Operating Principles [refer to handout]
  - Developed in the context of working through a range of possible different scenarios for implementing the TCP
  - o Derived from content in the TCP
    - (a) Partnership

PAIR

- Ngāi Tahu
- Stakeholders, including NZCA, GAC and Conservation Boards
- Other interested stakeholders organisations
- Tahr Liaison Group (TLG) is the entity and mechanism to inform DOC decision-making around implementation of TCP
- (b) TCP 1993 is statutory document informing management of tahr
- (c) Phased approach to implementation
  - · Adaptive management approach
  - TLG carries out the 'review' component of the phased approach
- (d) Information sharing
  - All parties openly share data/info; including via DOC and other organisations' websites
  - Is accessible to the public, except where this may be commercially sensitive
- (e) Increased effort is required to meet TCP objectives
  - This is where the 'rubber hits the road'; will give rise to key issues.
  - Tahr control effort has not kept pace with the need that is out there (includes DOC and across the sectors)
    - 1. To provide for recreational, commercial, tourist, hunting and DOC control as a means of maintaining tahr at or below target levels.
    - 2. Science-based information is critical
    - 3. Prevent range expansion
    - **4.** Protection of known high-value ecological sites which are at risk to tahr impacts with each management unit is a priority.
    - 5. Tahr will be controlled at or below the intervention densities set for each unit.
    - 6. The most efficient and effective control methods will be used for tahr population reduction, including concerted effort by recreational and commercial stakeholders, and direct control.
- Acknowledge the work of GAC in developing a proposal/presenting views.
- Appreciates others, some have yet to present a view
- Not everyone agrees, but Andy is heartened by engagement/feedback
- DOC is committed to ongoing engagement with TLG, particular in context of DOC's proposed 'phased approach'. Meetings would be required multiple times a year to engage with 'review'/monitoring work.

#### 1c.) Identification of Key Issues

- Each group to speak for 3 minutes on their perception of key issues.
- Timekeeper to signal orally at 20 seconds remaining.

#### Questions

Previous agenda proposed each organisation outline its position, instead of identify key issues. Is this a change?

Group agreed this was fine.

#### , High Country Federated Farmers

There are too many tahr in some pockets Shooting a lot of bull tahr is not sensible

- The original limit (10,000) factored into lands that have been subject to tenure review. Is this limit still appropriate, given the outcome of tenure review processes?
- 0 density in the National Park is impossible, there isn't a need for this if control is effective elsewhere

#### **Aerial Assisted Trophy Hunters**

- We are disappointed.
- Put a lot effort into offsets (etc) with DOC; built a relationship with DOC over the past 10 years. Got the rug pulled out from us a few weeks ago. Has cost our business for \$150k on basis of social media can't dial this back.
- You can't change what's out therein the public perception.
- We hunt Mt Cook National Park
- The outcome of this control will mean its harder to find appropriate animals, there will be conflict with rec hunters

#### Geoff Kerr, GAC

- Hunting Sector is concerned with the proposal advanced by DOC 3 weeks ago
   created anger but also lack of willingness in hunting sector..
- There is some fear of business failure.
- DOC proposal assumed a high willingness of hunting sector to participate.
- GAC has been working with sector to advance an alternative proposal. It has endorsement across the sector, although it requires further development.
- GAC considers its proposal will result in better conservation outcomes in some areas.
- GAC supports an adaptive management approach, given uncertainty of tahr
  population numbers.
- If we can coordinate control efforts, this will provide better outcomes on the ground.
- Why should the hunting sector participate in DOC's plan?
- There needs to be consideration of the approach going forward, in terms of management work between stakeholders.

#### New Zealand Professional Hunting Guides

- There's no disagreement amongst professional hunting sector that tahr numbers are considerably higher than plan allows for.
- Recreational and commercial hunters can offer a lot, in terms of work with DOC.

- Hunting tourism is significant for NZ (\$45 m); tahr hunting represents \$12m of that.
- Professional hunting guides support conservation and biodiversity.
- GAC is our statutory body. We welcome meaningful consultation.
- Bull tahr are essential. We already harvest significant numbers
- Role of science

#### NZ Tahr Farmers

Farmers she has consulted with have no objective to proposed cull. Farmers
have interest in supplying bull tahr/mitigate bull losses in the wild, without the
damage caused by breeding populations.

Need to flatten demand curve for commercial tahr so as to sustain demand Science / understanding of population of tahr in areas due to land tenure review

#### Safari Club International - NZ Chapter

- NZ has the only sustainable population of Himalayan Tahr available for hunting globally Red deer is available elsewhere.)
- Some tahr can be taken off private land; however, free-range tahr is a significant market and an important resource.
- A cull of tahr will affect tens of thousands of families in NZ.
- SCI does not support the culling of bull tahr by DOC (including National Parks) but will be party to control efforts.
- SCI doesn't agree that the 10,000 limits will maintain the hunting industry as it stands.
- Strongly science-based approach
- Incentives necessary

#### **NZ Tahr Foundation**

- Formed under GAC legislation
- Faults in management plan (HTCP? Or Operational Plan?)
- Would like to work with DOC to find common ground. We all want healthy vegetation. Some indigenous birds also affect alpine vegetation.
- Stakeholders here recognise the value of the tahr resource.
- More people we get outdoors, the more people are willing to protect it.
- Supports the proposal advanced by GAC.
- Has raised \$200k to support litigation. Would prefer not to have to litigate.
- We would like to find a better use for tahr carcasses (eg mahinga kai)
- Supports excluding bull tahr from control efforts.
- Three main concerns: no males to be taken; support for staged approach over 3 years while science builds; transparency / DOC to provide observer to control efforts.

#### **FMC**

- Keen interest in good backcountry relations, between trampers and hunters particularly.
- DOC's original proposal was going to set back backcountry relations.
- Supports phased approach (including how GAC has proposed)
- Population numbers may need to be fleshed out in greater detail.

- Support zero-density in National Parks but is getting last 2-3 animals in these areas worth the cost?
- Recognises bull tahr as an issue
- Supports more science being contributed to inform operational decision-making

#### **NZCA**

- Receives DOC's annual report on the TCP under the WAC
- Would like to see the objective/aims of the plan met (re: population and allowable range).
- Impact of tahr is affecting increasing numbers of National Parks. The expansion of range is very problematic.
  - Example of liberating chinchillas in
- DOC's proposal was generous in inviting each sector group in inviting it to do what it could.
- Neither MOC nor DOC is proposing to eradicate tahr.
- Everyone in the room has a role to play; the TCP is a plan we need to stick to.
- Aerial assisted were doing their offsets. Recreational hunters not doing much.
   Commercial hunters doing a little bit.
- We want to see conservation money deployed elsewhere, not on tahr. But this needs to be done

#### NZ Association of Game Estates

- (Explains definition of a Game Estate)
- Game Estates Assn members share a range of other memberships (Fed Farmers, SCI, NZPHGA).
- Support GAC proposal. GAC represents their interests.
- Part of a pan-sector solution; tahr on private land (incl. Game Estates) can make up for lower availability on PCL.

#### Bill O'Leary, NZDA

- NZDA works closely with DOC (and other orgs, like ZIP) as an advocate for hunters.
- Proposals should be based on good solid research.
- The research shows a wide range of tahr population estimate, with 35,000 figure as a mean. Further years of research will improve accuracy of population estimate.
- Hesitant to see a 'knee-jerk' reaction towards control; supports adaptive management approach as outlined by Andy Roberts.
- Opposed to taking of bull tahr; males are the primary attraction for recreational hunters. Would be useful to have availability of tahr on accessible terrain (e.g., areas 1 and 3).
- Recreational hunters do not have a DOC-provided method for recording kills.
- Would like to see DOC expend more effort in managing exclusion areas.

#### Te Rūnanga o Ngāi Tahu

- Role is as treaty partners of DOC. TRONT does not have a formal position at this time
- Support zero density of tahr in National Parks; this is very important to TRONT.
- 2/3 of PCL is in Ngāi Tahu takiwa. The National Park and World Heritage areas are natural landscapes are significant.

- Also support the ambition of others to access the natural resources of the environment (incl. tahr) to sustain themselves.
- Firming up NT expectations.
- TRONT will engage directly with DOC, as that is where the relationship sits. Appreciate opportunity to engage with other stakeholders today.

#### WARO

- Operates under Southern Alps Meats tahr recovery permit. Currently not economic.
- Would help if DOC could subsidise WARO operations. Could use some assistance to extract meat out.
  - Currently only shoot nannies; happy to take kids, others, if the incentives were right.
- Money from offsets hasn't been going into tahr control (?)
- WARO operators need certainty to encourage year-on-year operations.
- About 8,000-10,000 tahr have been shot in the last few months (across land tenures, including private lands)

#### Canterbury Aoraki Conservation Board

- Good to see some consensus that there is too many tahr
- HTCP is a statutory document that prescribes limits. Conservation Board would support any plan that sees the HTCP limits/objectives achieved.
- Conservation Board would support any plan that sees National Park Management Plan objectives fulfilled. This includes zero density of tahr in National Parks. National Park Management Plans are multilateral documents.
- Would like to see harmony/accord within sector; we need to work together.

#### F&B

- We want to see happy and vibrant alpine areas where the native plants and animals thrive. This doesn't preclude the presence of tahr, but it does impose limits on tahr.
- The HTCP is an important document that represents compromise on the part of all. The 10,000 limit, the maintenance of range, and zero density in the National Park were all outcomes of a process. These are hard lines, and not keen for compromise in this area.
- DOC is legally responsible to implement the HTCP.
- F&B is not here to say 'no' to everything happy to have a conversation about bull tahr, timing of control work. ONACY

#### 2. Proposed Key Issues for Working Group discussion

- Zero Density in National Parks
- Control of bull tahr
- Who does what: tactics, methods, location, timing/phasing
- Science, ecology, population monitoring (Role of science informing management)
- Impact on business/industry, including incentives: how to ensure that everyone feels there is room to participate

#### Proposal: Bill O'Leary NZDA

GAC to present their proposal to the group, in context of the key issues raised.

MOC: Small group approach would allow for more contribution for each representative

Bill O'Leary: A lot of us are behind the GAC proposal. Could use this time to socialise it with people who haven't gained good familiarity with it year.

Andy (DOC): There are elements of similarity and difference between GAC and DOC approaches. Both organisations have been contemplating different scenarios, would be useful to delve into these as a group.

Not comfortable having to respond to GAC proposal immediately, given having just received it.

Geoff (GAC): Time is probably too short today to get into the detail of GAC proposal. Suggest time could be better spent on key issues.

#### DOC Response to Key Issues (Andy Roberts)

Potential Scenario - Year 1

- Oct-Nov 2018: DOC and WARO look to take out 5,000 tahr (nannies and juveniles) from National Parks and other high-value conservation areas; and other areas that are hard to get to (steep, difficult, etc.)
  - o Keeping National Parks towards zero density is very important (this needs to go further than status quo, with a view to cost effectiveness; perhaps sector can play a part in assisting with males).
  - Focus on exclusion zones

Get to 5,000 or until kid drop (early Nov).

- Summer 2018/19: Hunting takes place; DOC undertakes further Tier 1 monitoring
- Apr 2019: TLG meets again to discuss/assess monitoring data
- May-June 2019: Additional control to get towards 10,000 decrease in tahr across PCL.

Note: There are still further questions to be worked through around who does what; management of competing interests within sector.

#### GAC Response to Key Issues and DOC Scenario (Geoff Kerr)

- GAC supports the phased approach (similar to that outlined)
- We need to get the incentives right to get everyone involved; this requires appropriate phasing and not covering ground twice.
- TANON ACY GAC supports focusing control on female tahr. (Why would we use public monies to kill bull tahr when there are people out there willing to do it for free? Having bull tahr available encourages the taking of offsets.)

Could second control phase take place in July-August in 2019 instead of May-June 2019 to avoid rut and impacts on hunters?

NZ Tahr Foundation: Support revised timing. Keen to avoid conflict.

GAC: Could increase initial control phase to 6,000 if we were able to shift second control phase to July-August 2019.

#### Key unresolved issues for further discussion (Kay Booth)

- 1. Bull Tahr
- 2. Who, what, when / phasing

Can control work be extended to pastoral lease land as well? This will be critical to meeting the goals of the HTCP. Eg) Mt Nicholas pastoral lease adjoins Mt Aspring National Park – lack of control on this land presents a significant risk to tahr incursion into National Park.

LINZ: This requires engagement with lessee. LINZ would support work in this area.

WARO: WARO would support being availed with opportunities to undertake control on pastoral lease land.

<u>Question: Conservation Board</u>: Would the DOC scenario enable meeting the limits set out by the HTCP?

DOC: Yes, if it was continued for a few years.

GAC: Yes, the adaptive approach combined with monitoring and science should enable us to reach the limit specified by the TCP. The TCP was supposed to be reviewed after 5 years; we may wish to revisit it at some point. This approach is appropriate toward reaching whatever limit happens to be in place.

F&B: The outcome of this plan has to be consistent with reaching population density of 10,000 individuals as specified by the TCP. Does not consider this proposal will deliver that.

<u>Comment SCI:</u> Would like to request further research on what Himalayan Tahr actually eat – the TCP does not seem to include much science.

(DOC): The focus is indeed about protection of native plants. The TCP was always intended to be rooted in science/research.

(DOC): Tahr don't just eat grass – it's also shrubs. DOC has been scaling up its monitoring work, and is increasing precision of our estimates.

<u>Comment NZDA:</u> Prefer carcasses are not left on the hill to rot; tahr meat is a resource. Recovering the meat would help bring the public along.

<u>Comment F&B:</u> The wording around the revised scenario needs to demonstrate that the <u>outcomes of the</u> scenario will move towards meeting the objectives of the plan

<u>NZCA:</u> In the context of the initial 6,000 control work, NZCA would like to see focus on exclusion zones, are these are key to protecting National Parks. DOC needs to have adequate funding to enable this.

#### Commercial can assist

DOC: There could be good commercial opportunities in buffer areas.

SOI Question: Focus on nannies and juveniles – what does this mean? Will you take any bulls?

DOC. We will take everything in the exclusion zones and outside the accepted feral range. We will do a first shoot on female and juveniles in National Parks – happy to let commercial sector take a crack at bulls in these areas.

#### **Final Roundtable**

#### **High Country Federated Farmers**

 Don't know why everyone is focused on eliminating tahr out of National Parks, when those areas are critical part of tahr zone

#### Aerial Assisted Trophy Hunters

Hunting sector has a number of hunters and shooters ready to go. Keen to help.

#### Geoff Kerr, GAC

 Pleased to see all the thinking that's been going on. If we do have a population of 35,000; then half of those are nannies. Getting rid of 10,000 is a huge first step.

#### **Professional Hunting Guides**

- Important to be able to demonstrate to the international market that there is a harvestable market here.

#### NZ Tahr Farmers

Science has been raised in terms of numbers; keen to see better science on the animal itself, how it moves around its range, how it might be replaced by other species eg. Chamois.

#### - Safari Club International – NZ Chapter

- Would like to see some assurances that input provided today gets reflected on paper.
- Keen for assurances around bulls in the control operation.
- Keen for outcomes to take primary focus; science re: vegetation especially.

#### **NZ Tahr Foundation**

- Keen to see ongoing role of industry

Congratulate DOC on recognising lead issues for keas

#### **FMC**

- Pleased to see this on pathway to resolution

#### **NZCA**

- WAROs have found roadends to be a problem; we should be looking to resolve roadblocks to encourage sector interests to assist in control.

#### **NZ Association of Game Estates**

Thank you for opportunity for us to make progress collectively on this issue.

#### Bill O'Leary, NZDA

- Good session. Good to see GAC and DOC making progress together.
- Important to resolve the issue that recreational hunters are able to report their kills to DOC.

#### Te Runanga o Ngãi Tahu

- TRONT will engage directly with DOC, as that is where the relationship sits. Appreciate opportunity to engage with other stakeholders today.

#### WARO

- We need to know if there sooing to be a subsidy or not.
- Agree with July or Sept for second cull (or WARO operations?)
- There's no way we'll get to zero density in Westland National Park

#### Canterbury Aoraki Conservation Board

 Noting that this year DOC has controlled fewer tahr than desired. Keen not to see this repeated next year.

#### F&B

This situation has come about after decades of not implementing the TCP. The process here is not an opportunity to further compromise the Plan. F&B will insist that Plan outcomes are delivered.

#### Andy Roberts (DOC)

- Will endeavour to refine the operational plan over the next few days. Will reach out to stakeholders individually on key issues. Will reach out to TRONT, and NZCA/Conservation Boards.
- We will be working very hard to remove 10,000 tahr off of PCL this year.
- Will circulate draft to you in confidence, for feedback.

#### MOC

- This is the most constructive meeting of the TLG that she has seen. Grateful for collaborative approach of people here today.
- Takes a strong interest in this, as DOC is bound to implement the TCP.
- Regarding the zero density, this refers back to the National Parks Act. There is legislative basis for this responsibility. Also strong recognition for Ngāi Tahu values and aspirations, as this issue affects landscapes and areas of deep significance to TRONT.
- Hope this marks the start of a much more constructive relationship around the implementation of the TCP.

#### Acting DG

- Resolving issues like this relies on hard work from interested stakeholders, without bombastic positioning in the media/public forums.
- Thanks for the work that people here have done.

# Departmental Memo



GS ref: 18-B-0786 DOCCM: 5527036

In Confidence

Date:

13 July 2018

**7o:** Minister of Conservation

From: Andy Roberts, Director Operations Eastern South Island

Subject: Wild Animal Control (including tahr) and Pastoral Leases

#### **Purpose**

- 1. This memo responds to your request on 26 June 2018 for:
  - a. a list of pastoral leases;
  - b. information on how the Department will implement its responsibility for wild animal control on Land Information New Zealand land; and
  - c. how the Department will work with LINZ, including what would the strategy be for working together on pastoral lease land.

#### **Background and context**

2. There has been much interest following release of a monitoring report on tahr numbers across the range of tahr on public conservation land. The population estimate is: 35,633 +/- 9,025 tahr. This sits well above the 10,000 tahr that is the population figure set out in the Himalayan Thar Control Plan 1993. You have asked the Department to urgently bring the tahr population back to that level. There are likely to be significant numbers of tahr on Crown pastoral land and land that have been freeholded through Tenure Review, as well as land that is now public conservation land. There are a range of animal pests on various Crown land with management roles spread between LINZ, DOC and Regional Councils.

#### **List of Pastoral Lease Lands**

- 3. A map of current Pastoral Lease properties has been supplied by LINZ and is attached as Appendix 1. The map has been colour coded with our current understanding of tahr range. More comprehensive geospatial mapping of the range of tahr relative to pastoral lease properties is underway but remains to be completed. This should be completed within in the next 3 months.
- 4. A list of properties and the known wild animal status (as known by LINZ) has been also provided by LINZ, this list is attached as Appendix 2. This list requires further analysis as the data is incomplete. The dataset will be updated as part of the mapping work identified above.

## How the Department will implement its responsibility for wild animal control on Land Information New Zealand land

The Department will implement is responsibility for wild animal control on LINZ land by four principle means:

- a. encouraging LINZ to undertake control of wild animals (Wild Animal Control Act 1977 listed species) and control of other animal pests (e.g. wallabies and rabbits);
- b. supporting LINZ to have lessees undertake greater and more targeted amounts of animal pest control;
- planning pest control operations with other landowners and agencies in a coordinated fashion (some rabbit and wallaby control operations are undertaken this way);
- d. undertaking action using the statutory provisions of the WAC Act 1977 on freehold or leasehold lands. i.e. taking direct control action under the powers of the WAC Act 1977.
- LINZ and DOC have close working relationships at national, regional and site-based levels on relevant pest management programmes. There are examples of joined up work e.g. goat control in the wider Queenstown area, and rabbit control generally between DOC, LINZ and regional councils. There is no formal agreement between the two organisations on animal pest management.
- 7. There has been recent communication between LINZ biosecurity and DOC regarding where animal pests on Crown land affects conservation land, particularly where pastoral leases act as a source for re-infestation after control operations. e.g. Godley River (Tekapo) where problem areas include Crown land or pastoral leases LINZ will join with DOC, councils and lessees to develop a joint control programme.

## What would the strategy be for working together on pastoral land in the future?

8. The Department and LINZ would support interagency work to include LINZ, DOC and Regional Councils to better coordinate effective control of wild animals and other animal pests. This would most likely predominantly focus on wallabies and tahr, and how joint operations would work across the range of these species. Other species to consider would include chamois, deer, pigs, possums, mustelids, black back gulls, Canada geese, etc.

#### Risk assessment

9. Risks associated with wild animal control on LINZ or other lands will be around perceptions of recreational hunting stakeholders who are opposed to loss of hunting opportunity, animal rights groups who will be opposed to large scale culling of animals and commercial operators who will be concerned at the loss of commercial opportunity. There is also a risk in the Department becoming the "owner" of all of the wild animal management activity, when we should provide sector leadership and then all agencies and land owners undertaking the work. These risks may be managed through a well-planned and executed communication strategy.

#### **Next steps**

- 10. As part of preparing for an upcoming increase in tahr control activity they Department will be improving geospatial data on animal pests and non-DOC lands. LINZ staff will be invited into tahr tactical planning meetings, and the Department will meet with ECan and LINZ on animal pest management opportunities.
- 11. Progress on planning re tahr control will be reported via the Status Report.

#### Attachments:

Appendix 1 – LINZ Pastoral Leases Map.



Those highlighted yellow are pastoral land properties inside the gazetted feral range of tahr known to hold tahr.

Those highlighted orange are pastoral land properties outside the gazetted feral range of tahr known to hold tahr.

Appendix 2 Pastoral Lease Susceptibility to Animal Pests.



Leases.pdf

Those highlighted yellow are pastoral land properties inside the gazetted feral range of tahr known to hold tahr.

Those highlighted orange are pastoral and properties outside the gazetted feral range of tahr known to hold tahr.

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Who have the second of Contact for gueries: Andy Roberts, Director Operations Eastern South Island