Independent Review for Department of Conservation of events leading up to the fatal accident at Wanaka in October 2018

Summary Report

FINAL

18 July 2022

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Contents

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Jonty Somers
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[redacted]

18 July 2022

Department of Conservation - Independent Review

Dear Mr Somers,

1. In accordance with your instructions we provide our Summary Report on our independent review for your consideration.

Introduction

2. On the morning of 18 October 2018, DOC Rangers Mr Paul Hondelink and Mr Scott Theobald took off from Wanaka Aerodrome aboard an Alpine Helicopters - leased Hughes 500 Helicopter, piloted by Mr Nick Wallis of Alpine Helicopters. Their destination was initially to be The Landsborough in the Haast Pass where they were to meet another crew and base themselves for a day of aerial hunting of Himalayan tahr ("tahr"), as part of DOC's Tahr Control Programme ("Tahr Programme").

3. DOC's analysis was that tahr numbers were well in excess of the requirements of the 1993 Himalayan Tahr Control Plan ("HTCP"). The control work to be conducted that day was the beginning of control activities under a 2018-2019 DOC Tahr Control Operational Plan ("TCOP") which had been in planning for several months. Shortly after take-off, the helicopter crashed near the Aerodrome, killing all three men on board.

4. An interim report released by the Traffic Accident Investigation Commission ("TAIC") in December 2018 recorded that the major items in the helicopter at the time of take-off included pairs of over-trousers, and recorded from its examination of markings examined on the helicopter and other evidence obtained, that *"These markings are a strong indicator that the over-trousers had come out of the helicopter and become entangled with the tail rotor at some point*".

Executive Summary

5. The control of tahr requires navigating two opposing forces – a legislative requirement to reduce environmental damage from an introduced species on the one – and the maintenance of a viable population for hunting purposes.

6. Tahr control is inherently risky. It involves helicopter hunting in some of the most challenging physical environments in New Zealand. DOC employees involved in tahr control generally live and work in communities where at least some of those community members are opposed to their work.

7. Inappropriate cultural traits within DOC, evidenced by significant disconnects between certain members of senior management, and between certain senior management and operational staff[1] has led to the mismanagement of the Tahr Programme and its risks.

8. Prior to the accident, certain experienced staff with institutional knowledge of tahr control have been side-lined, the trust in some senior managers, even by other senior managers, was severely eroded and certain staff found it difficult to raise concerns or provide evidence that contradicted the outcome desired by those they reported to.

9. The relationship between DOC and the hunting fraternity requires a reset. While some relationships between DOC senior management and some representatives of hunting lobbyists are constructive, there are diametrically opposed views on some matters which has contributed to a difficult relationship.

10. With respect to DOC's internal investigation of the Accident, a deliberate and methodical investigation was conducted, but was inadequate given the significance of the event, and the investigation and report should have been subject to close Deputy Director General oversight and critical review.

11. The summary of our findings and recommendations on these matters is contained within the body of this report.

Background and Purpose

12. DOC commissioned an internal investigation into the accident and produced a report: "*Investigation into the Fatal Work-Related Accident near Wanaka Airport*" which was finalised on 21 January 2019.

13. At the one year anniversary of the accident, DOC considered it appropriate and timely to seek an independent review ("Review") of the circumstances leading up to the accident from PwC.

14. This report is provided in accordance with our Consultancy Service Order dated 23 September 2019, the terms of business attached thereto and the Important Notice attached as Appendix 1 to this report.

15. **The purpose of this report** is to assist DOC to make the necessary changes to its management of the Tahr Programme, the risks thereto, and to any other operational matters that our findings may also apply to, by ensuring that:

    a. The events leading up to the helicopter accident are well understood;

    b. Any health and safety management or operational recommendations and learnings from DOC's own review of these matters have been captured appropriately; and

    c. Any issues relating to the management or operational recommendations and learnings about the Tahr Programme, have been captured appropriately.

16. The cause or causes of the accident are outside the scope of this review and in undertaking this review, we make no comment on whether a matter may or may not have contributed to this specific incident. Rather, we have examined processes and actions in the events prior to the crash, with a view to identifying matters that we consider need to be addressed in and of themselves, independent of whether they may or may not have contributed to the specific incident.

[1] According to DOC, senior management is defined as any DOC staff member with a position title of "Director" or above within the organisation. Operational staff is defined as those DOC staff members whose primary role is conducting operational activities as part of their "business as usual".

17. This report records relevant information collated from documents and interviews. It also records our assessment and judgments made on that information. We have included footnotes to provide additional narration, where it is not explicit in the wording itself.

Scope and approach

18. **The scope of our Review** was to consider and provide advice and recommendations to the Director-General of Conservation on:

    a. The design, implementation and operation of DOC's Tahr Programme and other matters relevant and material to the events under review (excluding the causes of the accident); and

    b. The quality and robustness of the DOC-led review that followed the accident – the "Investigation into the Fatal Work-Related Accident near Wanaka Airport".

19. To complete this work and draw our conclusions, we conducted over 20 interviews, obtained, reviewed, analysed, and compared information gathered throughout the engagement, developed an assessment criteria and incorporated DOC management and staff feedback into this Report.

20. At the request of DOC, we have prepared this Summary only for the purposes of recording our key findings and recommendations arising from our review.

Scope exclusions and limitations

21. The causes of the accident are not within the scope of this Review. TAIC is conducting an investigation to determine these matters. We do however, comment on matters immediately leading up to the accident as we consider that they are relevant to our findings.

22. The conduct and performance of individual DOC staff are also not within the scope of the review. We approached this limitation by recording the actions of individuals, or groups of individuals (i.e., operational staff and senior management) where relevant, but have not passed any judgment on specific performance. Unless specified, references to actions of operational staff or senior management are not about any one member of that staff grouping.

23. We note the following limitations in our work:

    a. Our work does not constitute a re-performance of DOC's investigation into the helicopter accident on 18 October 2018. In particular, we note that it was not the purpose of our work to determine whether any systems, procedures, events, actions or inactions by DOC contributed to the accident, and whether management immediately following the incident was effective.

    b. We have not assessed the investigation against, or determined whether its findings are in accordance with, the requirements of any applicable legislation.

    c. We have not independently verified the accuracy, reliability or completeness of the information provided to us by DOC or interviewees, whether provided in writing or orally.

    d. With the exception of the Consultant engaged by DOC for its ICAM internal investigation, we have not interviewed, or sought the advice from any third parties including the helicopter companies involved.

    e. The findings and recommendations are based solely on the work we have completed. Conducting further or different work could result in different findings.

24. Our Terms of Business record that the review's recommendations will be cross referenced to and against the Department's actions subsequent to the accident. On 25 September 2019, a

discussion was held DOC management to discuss the scope of work and were advised that PwC should record our own independent recommendations and subsequently, DOC will cross reference those recommendations themselves.

A brief history of tahr control to the time of the Accident

25. Tahr is a non-native species to New Zealand. It was introduced in the early 1900s to provide recreational hunting and to generate tourism to New Zealand by attracting overseas hunters.[2]

26. During the 1970s, commercial aerial hunting, such as that conducted by Wild Animal Recovery Operators ("WARO") resulted in the reduction of the tahr population by approximately 90%.[3]

27. The Wild Animal Control Act 1977 and the National Parks Act 1980 had introduced statutory responsibilities to control and eradicate tahr where necessary and practicable, and to exterminate introduced animals. Recreational hunter's lobbying about the impact of the WARO operators on tahr population levels appears to have led the Minister of Forests placing a moratorium on commercial aerial tahr hunting in 1983. [4]

28. In 1987, The Conservation Act established DOC and set out its statutory responsibilities to manage land and natural resources for conservation purposes.

29. The *Himalayan Tahr Control Plan* ("HTCP") was introduced and took effect from 1 July 1993. One objective of the plan was to provide for commercial, recreational and tourist hunting as a means of maintaining tahr populations at or below the target levels and to "*facilitate control by* [DOC] *where thar* [sic] *are not being held at or below target levels*". Further, the HTCP records that it was "*in part, experimental*", acknowledges that "*information is inadequate in some areas*" and "*recognises the need to continue monitoring and undertake further research".* The HTCP recorded that the tahr population was to be limited to 10,000 nationally, and established a "*feral range*" to which they would be restricted.

30. In 1994, the Tahr Plan Implementation Liaison Group ("TLG") was established combining stakeholders from hunting groups and conservation societies. Its objective was to "*To improve understanding by all parties of the conservation outcomes required in implementing the plan. To discuss, and where possible resolve, issues of concern about implementation of the plan*".[5] We understand that more recently this group met annually up until 2015.

31. Since 1993, an effective monitoring programme has not been established, despite the HTCP recording that one was required. A programme of ground-based population counts was stopped in the early 2000s. Subsequent population assessments were based on data collected during aerial control operations and survey flights. However, we have been advised that variations with this data was too large to derive reliable estimates of densities or population trends.

32. Since the HTCP came into force there have been periods of contention between the various stakeholders advocating for their positions on tahr. For example, on at least two occasions, hunting group lobbyists demanded that observers be allowed on board aircraft during tahr control exercises in order to verify that control exercises were being conducted in line with agreed parameters.

33. In 1999, Forest and Bird made a submission to UNESCO World Heritage Centre raising concerns that DOC was maintaining tahr at "*artificially high levels to provide opportunities for recreational hunting"* and that *"populations of these introduced browsing mammals are causing significant damage to the indigenous flora of the [South-West New Zealand] World Heritage site*".

[2] According to HTCP

[3] According to HTCP

[4] According to HTCP

[redacted]

34. Hunting lobbyist groups have objected to DOC's tahr control work and conveyed messages to this effect against DOC as an organisation and to specific staff conducting tahr control. In an effort to satisfy the demands of the hunting groups, DOC reduced the number of bull tahr that were to be culled, and agreed to allow third party observers in helicopters, although DOC's experienced tahr control experts held concerns about the presence of these observers.

35. Budget constraints and a lack of prioritisation by DOC, tahr control has been reduced to a relatively basic level of control, focussed on preventing range expansion than preventing expansion across the range.

36. In 2015 DOC raised concerns at a TLG meeting about the increasing tahr population, and the challenge DOC was having to adequately and cost-effectively monitor tahr numbers. DOC undertook to develop a new approach to monitoring tahr numbers and over the ensuing two years it collected and analysed data. The TLG did not meet during this period.

37. In late 2017, a senior manager [redacted] recorded in a memo to the Minister of Conservation that there was no reliable estimate of the tahr population, although it was expected to be greater than the 10,000 specified in the HTCP.

38. In August 2018, DOC's draft tactical control plan was presented and recorded how DOC would approach reducing the tahr population to 10,000 by 30 June 2019, i.e. in line with achieving compliance with the HTCP.

39. In response to stakeholders' feedback, DOC issued a revised plan that reduced the cull figure to 17,500 tahr, but some concerns around the approach to reducing tahr remained. An internal DOC email at this time referred to the receipt by DOC staff of a large volume of concerned and angry email, social media messages, and phone calls. It was noted that some messages had been referred to the Police.

40. Over the following month DOC received a number of threats, lobbying by the hunting fraternity and challenges associated with an increasing number of Official Information Act ("OIA") Requests. DOC established a Coordinated Incident Management System ("CIMS") structure for tahr. [redacted]

Key themes and comments on the Tahr Programme

41. Two themes run through our key findings. Firstly, that there are inherent cultural traits that appear to constrain an open and robust escalation and assessment of risks. Our judgement is that these inappropriate cultural traits within DOC, evidenced by significant disconnects between certain members of senior management, and between certain senior management and some operational staff has led to the mismanagement of the Tahr Programme and its risks.

42. A critical component of raising a concern in any organisation is an open and transparent culture and although DOC has elements of an appropriate "speak up" culture, it is clear that on the Tahr Programme where some experienced staff with institutional knowledge were side-lined, the trust in some senior managers, even by other senior managers, was severely eroded and staff found it difficult to raise concerns or provide evidence that contradicted the outcome desired by those they reported to.

43. Secondly, although the relationship between DOC senior management and some representatives of the Game Animal Council ("GAC") and other hunting lobbyists is constructive, there is a difficult relationship between DOC and the hunting fraternity. The relationship requires a reset. The interests of the hunting lobby groups is at least partially at odds with the requirements of the legislation that DOC operates under. In particular, not actively eliminating tahr from National Parks appears to be at odds to the legislative requirements.

44. In addition, an external party has questioned the integrity of DOC staff in conducting some tahr control activities and has, consequently, engendered a sense of distrust of those DOC staff amongst some members of DOC's senior management. We were told about a number of examples of threatening and destructive behaviours towards DOC and individual staff members that on the face of it, appear to be connected to a person or persons that opposes DOC's tahr control efforts, although we did not see evidence that attributed those actions to any identifiable individual.

45. DOC's approach to management of Health and Safety risks requires improvement. DOC does not appear to have fully considered the cumulative impact of risks prior to conducting aerial hunting operations, including those brought forward by certain senior management and operational staff. These risks included:

    a. The pressure to significantly reduce tahr numbers and proceed with tahr control as a matter of urgency, whilst prioritising the maintenance of the relationship with the hunting fraternity and avoiding the threat of legal action from it;

    b. Managing a challenging and time-consuming programme of work while maintaining "business as usual" roles and responsibilities, and without certainty of the funding amount or dedicated resource to deliver the programme;

    c. Threats to DOC staff and premises;

    d. An ammunition embargo by hunting lobby groups on suppliers who supplied to DOC, which complicated DOC's efforts to secure alternatives to lead ammunition to be used in culls;

    e. Proposals by an external party to place "independent" observers on board despite staff concerns and what appeared to be a possible attempt to circumvent CAA guidance and undermine DOC's position and staff members very close to 18 October 2018;

    f. A lack of management support, coordination and control in the 10 days or so leading up to 18 October 2018;

    g. Public and political opposition, including pressures from Parliamentary questions and Official Information Act ("OIA") requests;

    h. Media involvement up close to the operations;

    i. A lack of rigour around the risk assessment process immediately prior to flight; and

    j. A lack of funding and resource in prior years to enable sufficient monitoring and control of the tahr population.

46. DOC's operating model for team leadership and team membership is the "DOC Trilogy".[6] It has three components: Single point accountability, team process and leader led. This structure should create defined lines of reporting, decision-making and ownership. In our review we observed that the Single point of accountability did not appear to have been applied and supported effectively resulting in insufficient management support, ownership and control of the TCOP. We do not say that the Operating model itself is flawed – merely that in relation to the TCOP, implementation of the model requires review and adjustment.

47. Although in the scheme of DOC's operations, the Tahr Programme is relatively small, it is complex, involving multiple stakeholders, high-risk activities and is politically charged. It does not appear to have been adequately funded or resourced over an extended period and the entire management structure around the Tahr Programme appeared to be under stress from

[6] Based on [redacted] DOC Team Process operating model (Doccm-6082091)

absences,[7] lack of dedicated resource and decision making support, challenges with access to those with institutional knowledge about tahr control and overwork.

48. In addition to the above, DOC does not appear to have ensured the retention of relevant institutional knowledge about tahr control in DOC, and in particular in the Tahr Programme, thereby failing to ensure that there were people with relevant tahr control experience and expertise available to deliver what is a contentious, high profile programme of work.

49. The risk of using so-called "independent" observers from the hunting fraternity was one of the risks identified and discussed in some length internally.[8] Determined efforts were made by an external party to have its observers on board the helicopters up until the day of the accident, and these efforts created considerable concern for the operational staff who told us that they believed that it was unconscionable that DOC would consider permitting individuals from a group or groups that they considered had threatened DOC rangers, on board the helicopters. This included one staff member sending an email with the subject "*crew details*" questioning whether DOC should call *'stop/pause'* on the external conversations on the observer issue until the key personnel within DOC, have clarity on DOC's position on the matter.

50. In our view it would be helpful, if they have not already done so, for hunting fraternity organisations to make it clear that they have zero tolerance towards threats against DOC staff and its properties.

51. DOC staff obtained clear and unequivocal advice from CAA on 11 October 2018 that the risks were significant and that observers, in particular those who may make "*hostile threats in the form of violence and sabotage … have no place in the cockpit let alone near live weapon use. Difference of opinion in the cockpit as to what is an acceptable beast to cull is an unacceptable risk*" as well.

52. There is some disagreement over whether DOC's senior management agreed to accept and follow CAA's advice or not. However, DOC senior management continued to try to placate the hunting fraternity and avoid the threat of legal action from them by initiating a proposal that included the use of the hunting fraternity as observers, albeit with the caveat that DOC could veto the involvement of individuals. This proposal was notified to the TLG.

53. In our view, DOC should not have entertained any suggestion that members of the hunting fraternity could be the independent observers on board the helicopters. Dealing with allegations of improper or incompetent behaviour by public officials should be dealt with through DOC's own internal management and processes, and if necessary, by engaging the appropriate independent oversight of the Office of the Auditor General, State Services Commission or some other suitable body. As such, we consider that the objections of DOC operational staff to the suggestion were well founded and completely proper.

54. Based on the information we reviewed, known risks to operational staff were present immediately prior to the accident and as indicated above were inadequately assessed or acted on. The Job Safety Analysis ("JSA") process was not adequately completed and there appears to be an inconsistent approach to risk assessments.

55. Efforts were made by DOC to reduce the amount of lead ammunition used in the cull. This resulted in it having to secure alternative ammunition. Those efforts were made difficult as a number of ammunition suppliers refused to supply DOC, as they had allegedly been threatened by hunters that they would be subject to a hunter boycott, if they supplied DOC.

[redacted]

[redacted]

Key themes and comments on the Incident Cause Analysis Method ("ICAM") internal investigation

56. Although a deliberate and methodical investigation was conducted and the facts identified were robust, in our assessment, given the significance of the event, the investigation and report should have been subject to close Deputy Director General oversight and critical review at all stages.

57. The investigation sought to determine whether DOC's actions or inactions contributed to the accident. At the time the ICAM Investigation commenced, the immediate cause of the accident was both unknown and outside the scope of the ICAM investigation which, in our view, made this a challenging brief. Before the ICAM Investigation was finalised, evidence about possible causes of the accident was released by TAIC, although this was not considered by the investigators. The investigation was a health and safety investigation only, which did not in our view have the necessary oversight, review and critical analysis for such a significant and impactful event.

58. Although, the investigation report correctly identified a number of risk factors, it should have also considered the TAIC evidence released as it may have been relevant to the purpose and scope of the investigation.

59. As some health and safety factors relating to the cause of accident were not considered, DOC should consider whether a second health and safety investigation into DOC's systems and procedures relevant to that cause is required once the cause of the accident has been determined.

Key Findings and recommendations

60. Our key findings and recommendations from this Review are recorded in this section.

The Tahr Programme

Key Finding 1 – *There are material relationship disconnects between members of senior management, and between senior management and operational staff, combined with inherent cultural traits within the Department that constrain an open and robust assessment of risks and appropriately acting on those risks.*

61. On the face of it there are many processes in place to provide checks on high risk activity and assignments of accountability, however, material relationship disconnects between certain members of senior management, and between certain senior management and some operational staff impacted the Tahr Programme including the operational planning and implementation leading up to the accident on 18 October 2018.

62. Some senior management were under the impression from those to whom they directly reported that it was of utmost importance to reduce tahr numbers as quickly as possible, whilst maintaining a positive relationship with the hunting fraternity and avoiding their threats of legal action.

63. The pressure placed on some staff to urgently conduct tahr control while maintaining the relationship with the hunting fraternity and avoiding the risk of legal action has resulted in some DOC senior management appearing to conduct "sidebar" communications with hunting groups. This gave some operational staff the impression that the wishes of the hunting lobby groups were more important than the operational needs and safety of the DOC staff.

64. Although there is some difference in recollection of particular events between some of DOC's senior management, it is apparent that DOC did not adequately ensure that its most experienced tahr control experts were appropriately involved in developing the Tahr Control Operational Plan. We understand from interviewees that this was in part due to distrust in these staff members by some senior management as a result of the hunting fraternity's lobbying, and attempts by DOC to maintain a relationship with the lobby groups.

65. Staff, including some senior management, considered that those to whom they reported to were not open to their concerns, and, therefore, they found raising and obtaining such satisfactory resolutions to be extremely challenging.

66. The Single Point of Accountability System allowed individual managers to be accountable for certain matters. However, the decision making, resource support to address those matters and oversight provided, appears to us to have been uncoordinated and lacked coherence, leading to an inconsistent understanding and approach to the Programme.

67. All DOC managers and staff who were assigned responsibilities in the Tahr Programme, including on an acting basis, were assigned those responsibilities in addition to their usual roles, which created undue pressure because of the significant demands of the Tahr Programme.

Recommendations on Key Finding 1:

68. DOC relies heavily on processes and assignment of accountability to manage its risks. This is appropriate, but DOC leadership should drive and build a culture that embeds an open and trusting environment where speaking up is embraced, even if the messages received appear to be at odds with management's perspectives.

69. Although it is appropriate and necessary to consult with and consider the views of lobby groups on programmes such as tahr control, senior management should drive a culture and develop practices to ensure that its longstanding and experienced staff are at the centre of planning and delivery of programmes such as the Tahr Control Programme. This includes ensuring that lobby groups are not provided with inappropriate access to, or commitments from, senior managers which are contrary to the advice of DOC's experienced staff, without open consultation. In the absence of evidence to the contrary, full trust in the advice and concerns of experienced DOC staff should be preferred and senior management should openly support and demonstrate trust and confidence in its expert staff.

70. DOC should review its culture and systems for raising serious concerns, including the use of Team Process[9], to ensure that calls for "Stop and review" are acknowledged, and urgent matters can be promptly and simply escalated.

71. DOC's "single point of accountability" requires reassessment as it appeared to be used to sometimes assign responsibility without ensuring adequate support, consistency, fit or context in all instances.

Key Finding 2 - *Known risks to operational staff were present immediately prior to the accident and were not adequately assessed and acted on.*

72. Multiple risk factors that created pressure on those implementing the TCOP were present immediately prior to the accident including, for example, discussions on taking observers on board the aircraft, conducting media interviews on the day of the control operations. On the morning of the accident, a DOC individual received a number of threatening texts and calls about their involvement in the Tahr programme.

73. These were noted at the time by a number of staff. Although some staff were very concerned and took steps to call out some of these risks, no one in senior management appreciated the

[9] According to DOC's "Team Process Operating Model" (Doccm-6082091) "*Team process provides a decision-making tool. It ensure every team member can make contributions towards decisions affecting their work … Calling a stop and review can come at any stage in team process*".

severity of them or the pressure they were creating, or if they did, took action. In fact, actions taken immediately prior to the accident increased the pressure from those risks.

74. We have been advised that a Job Safety Assessment ("JSA") was partially completed during the drive from Twizel to Wanaka on the morning of 18 October 2018. There is no evidence that it was updated, or another JSA completed prior to boarding the two helicopters at Wanaka.

75. We note that there is an inconsistent approach to the completion of JSAs for A-B travel. Although the initial flights were relatively routine transport flights from Wanaka to The Landsborough, the Alpine helicopter had considerable ammunition on board. In our assessment, because of the inherent higher risk involved in helicopter transport, especially with a cargo of ammunition, firearms on board, in alpine terrain, and with the known multiple pressures that existed, a JSA should have been completed.

76. DOC staff we spoke to all understand that the process of being forced to turn one's attention to risks is key to the JSA process. We took it from some interviews that where some staff have completed an activity on multiple occasions, they would not consider it necessary to complete a JSA.

Recommendations on Key Finding 2:

77. Appropriately implementing the recommendations in Key Finding 1 should help to mitigate a reoccurrence of events that give rise to this finding. As part of dealing with those findings, we recommend that senior management engage in a facilitated process with its experienced tahr control experts and operational staff, including those who were closely involved immediately prior to the accident. This process should be structured to allow those staff to speak freely and without fear of consequences on these matters. Senior management should engage constructively and relay their perspectives too. A facilitated process should then be conducted to design organisation-wide policy, procedures and processes for dealing with these matters on the tahr and other programmes where similar complexities exist.

78. Determining when JSAs are to be completed should be subject to review to ensure that all higher risk activities are captured. Even a routine repeatable activity can involve unforeseen or different risk factors and the process of pausing to reflect is a powerful step to mitigate risk.

Key Finding 3 - *Assessment of Helicopter Safety is inadequate.*

79. The use of helicopters by DOC is core to many of its operations and DOC is the largest user of helicopters within New Zealand. Helicopters have unique risks. There was information publicly available that the type of Helicopter that crashed had issues regarding doors opening in flight. The TAIC Incident Report published in December 2018 recorded that the doors on the helicopter that crashed had opened in flight three times in the month leading up to the accident, however none of those occurrences were notified as a defect or in-flight incident through the operator's incident reporting system.

80. At that time, DOC relied almost solely on CAA certifications to satisfy itself that the aircraft, pilots and operators are safe.

81. Given the scale of use of helicopters by DOC, multiple purposes in those uses, and the risks involved, it is appropriate that DOC independently develops a system to assess risks in helicopter use, and the integrity of helicopter operators that it utilises.

Recommendations on Key Finding 3:

82. Develop and own a system of strong internal assessments of helicopter use in operations.

83. In addition to ensuring that the operator has the appropriate CAA certifications, assessments of operators could include direct interactions with the operators, contracts which give set obligations on operators to provide defined and material information to DOC (whether or not that same information is or is not required to be provided to the CAA) and/or risk assessments

in certain circumstances. This may result in a reduced number of approved DOC Helicopter operators to ensure that DOC's oversight is consistent and manageable.

84. Develop an accountability framework for Helicopter operators to ensure that DOC is pro-actively informed by those operators of any possible risk factors relevant to the operator, pilots and aircraft. The obligations should be wide-ranging and include serious financial challenges an operator may be facing, aircraft issues, whether reported to the CAA or not, and any matters concerning the pilots conduct, probity and behaviour.

85. Independent safety audits of this framework will provide a level of assurance that the operators are complying with their pro-active obligations.

Key Finding 4 - *There is no formal criteria as to when ownership of a programme should be escalated to DOC's National Team.*

86. DOC does not have a formal set of criteria which, if met, requires a programme of work to be taken under the ownership of the National team. We have been advised that the projects that are managed by the National team tend to be those that are complicated, multi-region projects. It could be argued that the Tahr Programme began displaying these characteristics by August 2018, however it was not escalated to, or identified by the National team, as one that should be led by it.

Recommendation on Key Finding 4:

87. DOC should develop formal criteria to determine when a programme should be under the control of a National Team, and once developed, consider whether the Tahr Programme should be included.

Key Finding 5 - *DOC has not funded or resourced tahr monitoring and control over an extended period.*

88. The control of tahr has not been adequately funded or resourced to develop effective monitoring techniques to monitor the tahr population:

    a. The limits imposed by the HTCP have not been substantiated through a science-based monitoring programme resulting in unresolved disagreements with lobby groups[10];

    b. The confidence range in the 2017/2018 tahr population figures published by DOC was so large that it was impossible for DOC to determine, and get stakeholders' agreement on, how many tahr were required to be culled in order to meet the HTCP requirements; and

    c. The lack of ongoing monitoring has most likely allowed the tahr population numbers to exceed the HTCP to such an extent that DOC had a substantial number of tahr to cull in a short window of time.

Recommendation on Key Finding 5:

89. DOC should seek appropriate funding and resources to fully implement the HTCP, including monitoring tahr numbers. It may be appropriate as part of this review to consider whether the HTCP should be reviewed, replaced or withdrawn.

[10] Based on a Forest and Bird submission to UNESCO World Heritage Centre and a published NZ media article

The ICAM internal investigation

Key Finding 6 - *Investigation was inadequate.*

90. Although the facts identified were robust and a deliberate and methodical investigation was conducted, in our assessment the nature of the investigation and report was inadequate for the significance of the matter under investigation and it should have been subject to close Deputy Director General oversight and critical review at all stages.

91. This appears to have been one of the more challenging investigations that the investigation team had ever conducted, and they were essentially left to their own devices. There was very little evidence to demonstrate what analysis was conducted and which information was and wasn't taken into account.

92. This is one of the factors that contributed to this matter being unresolved for many of those closely impacted by these events.

Key Finding 7 - *The significance of the risk factors was not fully addressed.*

93. The TAIC Interim Report was relevant to the ICAM investigation's purpose which included whether DOC's actions or inactions contributed to the accident. The ICAM investigation report correctly identified a number of risk factors. Those risk factors can be summed up as pressure and distractions and included stakeholder interference and involvement, threats, a proposal to place observers on board, media interest and so on. There was no consideration in the ICAM report of:

    a. what those risks mean; or

    b. the evidence available in the TAIC interim report which was relevant to whether DOC's actions or inactions contributed to the accident, which should have been obvious from the interviews conducted.

94. In our assessment the relationship between the risk factors identified in the ICAM report and the evidence pointing to the cause of the accident in the TAIC Interim Report were relevant to a consideration as to whether DOC actions or inactions contributed to the accident and this should have been apparent to senior management. We observed a high degree of angst still felt by those close to the Tahr Control Programme which appears to stem from the perception that DOC has not acknowledged and acted on this point.

Key Finding 8 - *Risk factors relating to the Tahr Programme were not all identified.*

95. Our review of the Tahr Control Programme identified a number of risk factors that were not identified in the ICAM Report including the allocation of roles to staff without institutional knowledge of tahr control and without providing them with sufficient access to such knowledge, in particular the side-lining of experienced tahr control experts in the planning and delivery of the programmes.

96. In our view, these were significant risks facing the operation and should have been considered.

Recommendations on Key findings 6, 7, & 8:

97. We recommend that the Department:

    a. ensures that it has fully assessed the risks identified in the ICAM report in the context of the evidence pointing to the cause of the accident in the TAIC Interim Report. In conducting that assessment, we recommend that DOC engage with its experienced tahr control personnel and, if it considers that those risks require actions to mitigate, that it implements a transparent programme of works ensuring that those staff have meaningful input. This will ensure that the most valuable insights from experienced staff are obtained,

and may go some way to bringing some acceptance and meaning from the accident to those impacted;

b. reviews its approach to investigations, in particular ensuring that:

   i. investigations are planned, directed and reviewed, and findings appropriately critiqued by, senior management with experience in investigations; recognising that providing someone with accountability for an investigation should not exclude DOC providing robust oversight on process and findings;

   ii. sensitive interviews are conducted at an appropriate time, taking into account the requirements to promptly secure evidence against the need to respect the wellbeing and psychological state of the interviewees; and

   iii. appropriate working papers are maintained. This may require training.

c. considers whether a second health and safety investigation into DOC's systems, procedures, events, actions or inactions is required once the cause of the accident has been determined by TAIC.

Conclusion

98. We found DOC management and staff to be uniformly passionate professionals, driven by a common desire to preserve and protect New Zealand's land and natural resources for conservation purposes.

99. On the evidence available tahr numbers are well in excess of the 10,000 that the HTCP stipulates and DOC has an on-going legal responsibility to address it. The government has made it clear to DOC that this is a priority matter.

100. Based on our review, a number of risk factors in the Tahr Programme present prior to 18 October 2018 created considerable stress and, in our assessment, enhanced risk for DOC staff. The cumulative impact of those risks was sufficient for some staff to signal that it might be appropriate to call stop on the Tahr Programme. That those calls were not properly made and/or received, evidences a challenge with the culture at DOC on the assessment and management of risk.

101. Two types of special interest groups – hunting and conservation – have an interest in tahr, and in the main, appear to share the passion for New Zealand's natural environment. DOC plainly has an interest to engage with those groups in a spirit of partnership that the HTCP anticipates. Regardless of the constructive engagement with DOC by the hunting fraternity, some members have also sought to disrupt the programme, including threatening DOC and individual staff members which has created distrust and anxiety. This requires strong action and commitments by all parties to reset the relationship.

102. It is not within our scope to ascertain the cause of the accident; however, it is possible that the cumulative impact of the risk factors present on the day may be relevant to the accident. If DOC accepts that possibility, then it should provide a strong reason for it to pause to consider its overall approach to high risk activities such as tahr control. Approaching operational risks against the backdrop of our findings and recommendations will require creating and nurturing a different culture where DOC's experts are trusted, respected, and sufficiently involved in the Tahr Programme. Individual accountability will always have an important function, but it should run alongside management's engagement with all of those staff members who have relevant institutional knowledge of tahr control and/or are engaged in a relevant programme. This should create a whole of DOC approach to operational risks, which accepts and acts on the cumulative impact of those risks.

103. We take this opportunity to thank DOC management and staff who willingly and constructively engaged with us during this review. Their commitment to ensure that our review was afforded easy access to information and insights is a testament to their passion and commitment to

DOC's purpose. For many of those that we spoke to, the grief arising from the events of 18 October 2018 is very present still and we trust that our findings, along with the other work that we know DOC has been doing, can help to find some meaning for them and DOC from this tragedy.

104. Thank you for your instructions on this matter.

Yours sincerely
PricewaterhouseCoopers Consulting (New Zealand) LP

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[redacted]

Appendix 1 – Important Notice

1. This Report is strictly confidential and (save to the extent required by applicable law and/or regulation) must not be released to any third party without our express written consent which is at our sole discretion. In any event, please note that there may be information contained in this report that is confidential to third parties that should be considered before this report is shared.
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3. Our findings are primarily based upon the information provided by DOC and by interviewees. We have relied on this information and have not independently verified the accuracy of information provided to us. We have not conducted any form of audit in respect of the information provided by DOC or the interviewees. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied.
4. The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise.
5. The statements and opinions expressed in this Report are based on information available as at the date of the Report.
6. We reserve the right, but will be under no obligation, to review or amend our Report, if any additional information, which was in existence on the date of this Report was not brought to our attention, or subsequently comes to light.
7. This Report is issued pursuant to the terms and conditions set out in our Consultancy Service Order dated 23 September 2019 and the Terms of Business attached thereto.