

Before the Independent Hearing Panel
Appointed by the Dunedin City Council

Under the Resource Management Act 1991 (**RMA**)

In the matter of an application by **Dunedin City Council** and the **Department of Conservation** for consent to construct and operate a carpark at Tunnel Beach, Dunedin

Dunedin City Council and **Department of Conservation**

Applicants

Statement of evidence of Shay van der Hurk

20 April 2022

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Qualifications and experience

- 1 My name is Shay van der Hurk.
- 2 I am a Senior Ranger with the Department of Conservation's (DOC) Coastal Otago District.
- 3 I have worked for DOC since 2008. The majority of this time my focus has been Heritage and Visitor work. I have worked in my current role since February 2020. I have had experience as a practitioner of DOC's visitor safety, visitor experience, heritage, and biodiversity systems. I have been involved in the management of Tunnel Beach since 2008 and have worked on the proposed Tunnel Beach track upgrade since 2016, including the strategy behind the proposed improvements and their detail.

Scope of evidence

- 4 I have been asked to prepare evidence in relation to the DOC track upgrade at Tunnel Beach. I will cover in more detail the overview that Annie Wallace has given. This includes:
 - (a) The increase in the number of people visiting Tunnel Beach,
 - (b) DOC's obligations in regard to visitor safety
 - (c) DOC's obligations in regard to the coastal turf ecosystem at Tunnel Beach,
 - (d) DOC's obligation to foster recreation at Tunnel Beach
 - (e) The DOC track upgrade and how it will reduce the potential for harm, reduce damage to the coastal turf ecosystem and foster recreation by improving the visitor experience
 - (f) How the proposal has sought to address neighbour concerns raised in the design stage.
 - (g) Significance of the area around Tunnel Beach to Ōtākou Rūnaka and how the upgrade will reflect Ōtākou's values.

Executive summary

- 5 Tunnel Beach Track provides access to a spectacular Dunedin coastal landscape, immersing visitors in the raw power of nature and unfolding views of a large part of the Otago coast. An un-told cultural narrative of this

coastline is waiting to be discovered. A unique coastal ecosystem and notable heritage fabric add interest.

- 6 Tunnel Beach is a significant tourism experience for Dunedin City as well as a popular local recreation site, its organic social media profile has driven an increase in visitors from ~30,000 to ~120,000 visits a year even with an active reduction in marketing and the absence of improvements to the experience.
- 7 DOC manages Tunnel Beach (and all visitor experiences) using a framework that breaks visitors into different categories based on risk tolerance and skills. The risk tolerance and skills of the visitors identified at Tunnel Beach means DOC takes a more active role in managing hazards at site than it would for a remote backcountry site. Currently, the design of the Tunnel Beach track encourages most visitors to spend time in close proximity to a high cliff. This gives rise to a level of risk that is not suitable for the visitor type.
- 8 DOC has an obligation to protect the natural values of public conservation land. Currently, the design of the Tunnel Beach track encourages most visitors to walk onto a critically endangered coastal turf ecosystem. Comparing aerial photography of this ecosystem and the data collected about the number of visits to Tunnel Beach over time shows that large numbers of visits results in a reduction in extent of the coastal turf. This reduction in extent is a negative impact on this ecosystem.
- 9 DOC currently has no direct ability to reduce visitation (i.e. the Department cannot limit visitor numbers) and limited ability to influence behaviour at Tunnel Beach to manage risk to visitors or protect the coastal turf ecosystem.
- 10 DOC has an obligation to foster the use of natural resources for recreation (s6(e) Conservation Act 1987). The delivery of this obligation is guided by DOC's Heritage and Visitor Strategy. The existing track does not deliver on the goals of the strategy because of the current impact on biodiversity, risk to visitors, lack of quality viewpoints and storytelling, and the steep track which is not suitable for the type of people visiting. The site also lacks the shorter experiences this type of visitor is seeking.
- 11 To perform its functions under the Conservation Act 1987 DOC is seeking to influence visitor behaviour by re-aligning the track, installing storytelling and multiple viewpoints to provide the quality of experience more suited to the type of people visiting Tunnel Beach. Multiple viewpoints and storytelling will create additional experiences aiming to reduce the number

of visitors in close proximity to high cliff hazards or walking on the coastal turf ecosystem.

- 12 The design of the proposed track minimises impact on neighbouring properties by retaining the maximum feasible distance from the boundary, building platforms and paddocks. It does this while still achieving the goals of a suitable grade of safe and sustainable track and an adequate quality and number of viewpoints to reduce the number of visitors walking all the way to the headland. This was done in response to feedback received from neighbours during the consultation and design process. In particular the alignment between the carpark and the first viewpoint is as far to the east as possible to respond to feedback.
- 13 The upgrade will capitalise on the visitor numbers and significance of the site to Ōtākou to increase the visibility of the cultural heritage of the area with storytelling.

The increase in the number of people visiting Tunnel Beach

- 14 Calibrated counter data shows that the number of visits to Tunnel Beach Track has increased from around 24,000 visits in 2013/14 to around 112,000 visits in 2017/18, representing an annual growth rate of 47% over 4 years. Between 2017/18 and 2021/22 this appears to have stabilized at around 120,000 visitors.
- 15 This is not a trend seen at other Dunedin tracks. Data from other Dunedin tracks shows an increase in visitors during this period but only by <10%. None of them have seen increases similar to Tunnel Beach. Statistics New Zealand and MBIE data show some growth in Dunedin population and tourism, this appears to be in line with the increased number of visitors at other Dunedin tracks but nothing that would be responsible for the level of increased visitors at Tunnel Beach.
- 16 During this increase in visitors there have been no meaningful improvements to the quality of experience at Tunnel Beach that would explain this (i.e. improvements to the track and facilities.)
- 17 The current Tunnel Beach carpark is too small to accommodate the number of visitors to the track. Ranger observations currently show that, although there are no international tourists, the carpark is full on busy days and cars are regularly parked on the verge of Tunnel Beach Road up to 160m from the carpark. Before the border closure Rangers, including myself, regularly observed cars parking on the entire verge of Tunnel Beach Road and on several occasions a significant distance up Green Island Bush Road. Photographs taken of this are attached to the consent application (Tunnel

Beach Car Park Transport Assessment, Appendix A) These patterns have been observed throughout the increase in the number of visits to Tunnel Beach, during this increase there have been no improvements to the carpark or increase to its size. The size or quality of the existing carpark does not appear to influence the number of visitors coming to Tunnel Beach, if the carpark is full visitors simply park on the verge.

- 18 Survey data and regular site observations by Rangers shows that most visitors travel to Tunnel Beach in a private car or van and that buses almost never visit. A small number of visitors get to Tunnel Beach on foot from the Corstorphine bus route or by bicycle. We do not consider it likely that more than 3 busses would visit in any given hour. The level of investment in the site is currently significantly below those provided at similar sites managed by the Department, such as Nugget Point which has 4 formal viewpoints, storytelling, experiences of various lengths, a track suitable for the visitor group, 40-space car park and 4-pan toilet facilities.
- 19 Changes to DOC and Enterprise Dunedin marketing has not been able to alter the number of visits. Since 2018 DOC and Enterprise Dunedin have actively reduced specific promotion of Tunnel Beach, visitor numbers continued to grow after this date and visitor numbers remain high.
- 20 The driver for more people to visit Tunnel Beach appears to be social media and word of mouth. Site observations, surveys, conversations with visitors and anecdotal review of the social media app Instagram further imply this and show that Tunnel Beach has a strong social media presence. On Queens Birthday 2017 (5th June) Tunnel Beach location tag was used on Instagram 72 times.
- 21 This is backed up by the tool DOC uses to measure social media data (Meltwater) which shows a 117% increase in public mentions of Tunnel Beach across a selection of social media channels between June 2019 and June 2020.
- 22 DOC has no direct 'levers' to pull to limit the number of visitors who come to Tunnel Beach. DOC's ability to influence visitors is generally limited to site design and providing visitors with information and messages that may influence their behaviour. This means that visitor numbers could conceivably continue to grow, and without management actions like the track upgrade, so too would the negative impacts on the conservation values and the visitor risk at site.
- 23 Pre-visit information at visitor centres and the DOC website are currently DOC's primary means of directing people to visit other sites. In comparison

to 'organic' social media and word of mouth popularity of Tunnel Beach our experience is that these have significantly less effect. For example: From 1 January 2021 to 31 December 2021 the Dunedin I-site received 35,400 visitors. Only a subset would have visited specifically for walking information, and only some of those would have sought information about Tunnel Beach. Compared to around 120,000 visits to Tunnel Beach it is clear that the I-site is not the main driver, or a particularly effective method of influencing behaviour.

- 24 DOC is seeking to re-configure Tunnel Beach track to provide some site-specific 'levers' using landscape design to influence the behaviour of people visiting. There are reasons this is important, which are explored in the following sections.

DOC's obligations in regard to visitor safety

- 25 DOC has a statutory responsibility for visitor safety. The DOC Conservation General Policy outlines a position for DOC to manage risks for visitors and DOC's internal policy, standard operating procedures and guidelines provide the framework for doing this. Additionally, the following legislation governs DOC's management of visitor safety.
 - (a) National Parks Act (1980)
 - (b) Conservation Act (1987)
 - (c) Reserves Act (1977)
 - (d) General Policy National Parks Act (2005)
 - (e) Building Act (2004)
 - (f) Health Act (1956)
 - (g) Occupiers Liability Act (1962)
 - (h) Land Transport Act (1998)
- 26 A hazard is something that can cause harm. DOC has obligations to identify hazards at visitor sites and provide appropriate management depending on the level of risk. Risk is a combination of the consequences and the likelihood of harm. The greater the level of risk the stronger interventions will need to be to reduce the risks to an acceptable level.
- 27 DOC's Visitor Risk Management Policy recognises that different kinds of visitors have different levels of ability to manage their own safety. Visitor

groups are defined in Standards New Zealand Handbook 8630:2004 Tracks and outdoor visitor structures.

- 28 The visitor groups present at Tunnel Beach, the Short Stop Traveller and Day Visitor have a low level of ability to manage their own safety in the outdoors.
- 29 DOC has identified a high cliff hazard at the headland at Tunnel Beach. This is particularly acute because the current visitor experience directs people toward the headland as the logical end point to the experience. Site observations and social media show that the headland is also a key photo opportunity for visitors.
- 30 These factors combined with the number of visits to Tunnel Beach mean that the likelihood of harm from the high cliff hazard is increased and DOC has responsibilities to intervene more strongly to reduce the risk to an acceptable level.
- 31 DOC has sought to reduce the risk by installing a low barrier before the headland, as a decision point, along with safety signage throughout the track encouraging visitors to manage their own safety. This has not proven effective, and many days of site observations show that most visitors cross the barrier and walk onto the headland.
- 32 This behaviour is most likely caused by the lack of any alternative comparable photo opportunity or experience on the track, and visitors perceiving the potential risk as low.
- 33 There have been two incidents where people who have crossed the barrier fell from one of the smaller cliffs onto a rock platform below, both needed to be rescued and one was injured. This means the risk remains high and it is now important for DOC to further intervene.
- 34 DOC has also identified the congested carpark at Tunnel Beach as a hazard to visitors. The carpark is located with no separation from an active roadway and is too small for the number of visitors to the track. I have observed cars parked on the entire verge of Tunnel Beach Road and on at least two occasions beyond the end of Tunnel Beach Road onto Green Island Bush Road. Currently visitors need to walk on the road to access the track entrance, this puts them in the path of vehicles accessing residential properties on Tunnel Beach Road or entering and leaving the parking.
- 35 These factors and the number of people walking through the road to the track create a higher likelihood of harm. DOC needs to intervene to reduce

the likelihood of harm. Dunedin City Council (DCC) manage the carpark on Tunnel Beach Road so DOC is working closely with them to do this.

- 36 This risk impacts the quality of the experience for visitors. Congestion also has a negative impact on the residents of Tunnel Beach Road.
- 37 DOC wholeheartedly supports DCC's proposal to shift the carpark into the Recreation Reserve and improve its size and design. This is crucial to mitigating these issues.

DOC's obligations in regard to the coastal turf ecosystem at Tunnel Beach,

- 38 DOC has an obligation to protect the natural values of public conservation land (s6(a) Conservation Act 1987).
- 39 The headland at Tunnel Beach is home to a coastal turf ecosystem. Coastal turfs are communities of short-statured herbs, grasses, and sedges.
- 40 Coastal turf ecosystems live where there are thin soils and high salinity. The headland at Tunnel Beach is ideal, with its thin soils and salty sea spray.
- 41 Coastal turfs are critically endangered. Their total, combined surface area in New Zealand is likely less than 40 ha, making them an incredibly rare and precious ecosystem. DOC scientists advise that their conservation requires urgent attention.
- 42 At publicly accessible sites foot traffic from visitors can remove coastal turf entirely, compacting the soil, causing erosion, and allowing weeds to invade. Coastal turf restoration/regeneration can be slow or nearly impossible, even if visitor numbers decrease.
- 43 The Tunnel Beach track terminates before the headland and entrance to the Tunnel Beach tunnel. There is a low barrier and signage discouraging people from crossing the barrier and walking on coastal turf. This is an attempt to protect the coastal turf. Site observations show that the majority of people cross the barrier onto the headland and walk on the coastal turf.
- 44 The natural extent of the coastal turf is the exposed headland, beginning at the barrier and extending to the cliff edge on the headland. Aerial imagery from 1947 to 2022 shows a significant decrease in the extent of the Coastal turf with the most notable change occurring between 2013 and 2018. This change corresponds to the period of increased visitation at Tunnel Beach I have outlined above.

- 45 This trend is likely to continue with visitor numbers remaining high unless the Department is able to exercise its management functions in regard to the design of the visitor experience at Tunnel Beach to reduce the number of people walking on the coastal turf.

DOC's obligation to foster recreation at Tunnel Beach

- 46 DOC has an obligation to foster recreation, the delivery of this obligation is guided by DOC's Heritage and Visitor Strategy. The three goals of the Strategy are:
- (a) Protect: New Zealand's natural, cultural and historic resources are preserved and protected to maintain cultural and historic values, biodiversity, ecosystem health, landscapes and natural quiet;
 - (b) Connect: Visitors are enriched and better connected to New Zealand's natural, cultural and historic heritage;
 - (c) Thrive: Tangata whenua, regions and communities benefit from protecting, and connecting visitors with, their natural, cultural and historic heritage.
- 47 The existing track does not deliver on these goals because: The ecosystem is not protected, visitor safety remains at risk, and the facilities are too basic to adequately provide visitors with a connection to the natural cultural and historic heritage of Tunnel Beach and the surrounding coast. This is the result of a lack of storytelling as well as the quality of the experience which is not suitable for the type of visitor using the site (i.e., it does not provide a shorter visit length option, is very steep and can be slippery.)
- 48 In fostering recreation, DOC is required to design and maintain tracks in accordance with the Tracks and Outdoor visitor Structures Standards New Zealand Handbook 8630:2004.
- 49 Site observations and comparison of survey data referencing the Tracks and Outdoor visitor Structures Standards New Zealand Handbook 8630:2004 has shown that the visitor group is a mixture of 'Short Stop Traveller' and 'Day Visitor.'
- 50 Inspection to the specification in the handbook show that the existing track does not achieve an adequate standard for these visitor groups. These visitor groups require a maximum grade of 10 degrees

The DOC track upgrade and how it will reduce the potential for harm, reduce damage to the coastal turf ecosystem and foster recreation by improving the visitor experience while being sympathetic to neighbouring properties.

- 51 The track and experience at Tunnel Beach need to be reconfigured to meet DOC's safety, biodiversity and fostering recreation obligations. DOC is seeking to reconfigure the experience including:
- (a) re-alignment of the track to obtain a maximum grade of 10 degrees and meet the specifications of a short stop traveler track as outlined by the Tracks and Outdoor visitor Structures Standards New Zealand Handbook 8630:2004;
 - (b) establishing multiple high quality viewpoints at locations with views that provide a comparable experience to the views from the headland;
 - (c) installing storytelling interpretation panels;
 - (d) providing quality wayfinding.
- 52 These plans are detailed in the consent application, and I will not go into detail here.
- 53 When combined the planned actions create multiple experiences of different lengths and multiple decision points for visitors.
- 54 The aim of this is to reduce the number of people who visit the headland and are exposed to the high cliff hazard there and damage the coastal turf. If visitors do choose to continue to the headland the aim is to reduce the length of time they spend there; further reducing the likelihood of harm and damage to the coastal turf.
- 55 DOC has taken a similar approach at Orau/Sandfly Bay where DOC sought to reduce visitor impact on Hoiho / yellow eyed penguin and Pakake / New Zealand sea lion and their habitat there. A quality walking track, viewpoint and storytelling was provided in 2008 located closer to the start of the track and separate to this habitat, wayfinding was also provided highlighting the change in quality of the track. These factors create a decision point. Counter data shows that 60% of the visitors to the site subsequently stopped at the viewpoint and never entered the habitat, where before 100% entered the habitat.
- 56 The reconfiguration sought at Tunnel Beach track is designed to achieve a similar outcome: reducing the number of people who venture as far as the headland where the coastal turf and high cliffs are present, as well as

reducing the time visitors spend in this area. The mechanisms by which this is achieved are:

- (a) the provision of multiple decision making points where visitors are more likely to turn back;
- (b) high quality experiences earlier in the track reducing the need for visitors to continue to the headland to obtain a quality experience;
- (c) these high quality experiences are also intended to reduce the time visitors will feel they need to spend at the headland.

57 Providing these experiences at a quality level consistent with the visitor group alongside storytelling not only ensures the optimal result of reduced likelihood of harm, and less damage to the coastal turf, it also makes Tunnel Beach a fit for purpose experience where people can connect with nature, culture, and heritage. Access to the coastal zone is also improved. This achieves DOC's obligations to foster recreation under the Conservation Act and achieves the New Zealand Coastal Policy Statement policy 19 walking access. This provides benefits to visitors, nature, culture, and heritage.

58 Additionally, the track upgrade will include:

- (a) planting of appropriate indigenous vegetation on the reserve;
- (b) remediation of the existing track alignment with planting, gravel removal, scarification, and sown grass.

How the proposal has sought to address neighbour concerns raised in the design stage.

59 DOC have been particularly mindful of neighbouring properties when designing the track and viewpoint location. DOC has employed a landscape architect to design the track alignment. A drone survey was used to obtain the topography of the site and the alignment was designed using this high accuracy data.

60 The design of the proposed track minimises impact on neighbouring properties by retaining the maximum feasible distance from the building platform and paddocks while ensuring a suitable grade of safe and sustainable track and adequately spectacular viewpoints to achieve their purpose as outlined above.

61 In particular attention was paid to the western neighbour's eastern boundary where DOC have designed the track a maximum distance from this boundary even though this will create additional switchbacks.

Switchbacks are undesirable for visitors, as they create additional length, tedium of walking in the same area multiple times and lead to people shortcutting. To prevent shortcutting additional management is required, in this case this will be in the form of planting.

- 62 The viewpoints have been located with purpose, for their separation both visually and vertically from neighbouring properties and to achieve spectacular views of the immediate coast and more distant places of significance.

Significance of the area around Tunnel Beach to Ōtākou Rūnaka and how the project will reflect Ōtākou's values.

- 63 DOC has had an ongoing dialogue with the Ōtākou Rūnaka about this project since its inception, Ōtākou identified the significance of the site, particularly as it sits within the coastal zone and the views it affords of sites of significance up and down the coast.
- 64 DOC is working closely with Aukaha to weave mana whenua values throughout the site. Mana whenua values will be represented at interpretation panels as part of the project at a minimum. Additionally, mana whenua values will inform the planting plan.

Conclusion

- 65 High visitor numbers to Tunnel Beach driven by social media popularity have increased negative impacts on biodiversity at site and increased the risk to visitors from hazards. This popularity also creates an opportunity to create a fit for purpose track and engage visitors in the natural, cultural and historic heritage of Tunnel Beach. The coast that Tunnel Beach Track provides access to has significance to Ōtākou. DOC is working with Aukaha to ensure Ōtākou's values are realised at Tunnel Beach. To deliver on this and to perform its functions under the Conservation Act 1987 and other legislation, DOC proposes a track upgrade project that will mitigate these impacts and risks to sustainably manage visitors to protect and enhance the values of the natural, cultural and historic heritage of Tunnel Beach.



Shay van der Hurk

20th April 2022

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