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Society for Protection of Western Springs Forest
C/o: Deborah Manning

APPEAL IN THE ENVIRONMENT COURT CONCERNING A PROPOSAL TO CLEAR-FELL THE WESTERN SPRINGS PINE STAND

I have been briefed on the matters relating to the appeal by the Society for Protection of Western Springs Forest ('the Society'), with a view to providing an impartial assessment of matters relevant to my area of expertise.

I confirm that I am a consultant arborist with 18 years' experience in arboricultural consultancy and as a Council consents arborist.

I hold the New Zealand Diploma in Arboriculture (with distinction) from WINTEC. I hold relevant qualifications in tree risk assessment. I am a Quantified Tree Risk Assessment (QTRA) registered user and have been since November 2007. I have attended Tree Risk Assessment Qualification (TRAQ) courses provided by the International Society of Arboriculture (ISA) and I am a qualified user of TRAQ.

I am a member of the New Zealand Arboricultural Association (NZArb). I have served on the executive committee of NZArb and am active on several sub-committees. In 2018 I presented at the NZArb national conference on the topic of report writing.

Previously, I recall only once visiting this forest. This was many years ago (approximately 2008), as part of an assessment of a track upgrade project, during which I saw only a small portion of the track network and forest. Up until 23 July 2019, I have had no involvement with, or detailed knowledge of, the matters at hand. My opinions can therefore be considered to be those of an impartial outsider.

The brief given to me was to provide a peer review of the work carried out by Mr Chris Benton, of Ask the Arborist Ltd. I have reviewed the methodology and some of the material that has been compiled by Chris Benton, which involved completing an assessment of each of the 218 standing trees and 'totems' within the Western Springs Forest. The assessment by Mr Benton entailed a visual tree assessment (VTA) and completing an ISA Basic Tree Risk Assessment Form for each tree.

The VTA methods and ISA Basic Tree Risk Assessment Form are widely accepted by the arboricultural community in New Zealand and around the world as an applicable standard for tree risk assessment. The ISA Basic Tree Risk Assessment form requires that the assessor collate, or at least consider, a comprehensive range of information pertinent to a tree and its environment.

Part of the ISA Basic Tree Risk Assessment requires consideration of targets, which are things that could be harmed in the event of tree failure. The form requires the assessor to consider and categorise the Likelihood of Failure and the Likelihood of Impact. The form then provides a matrix that informs the Likelihood of Failure and Impact. A second matrix then provides an overall Risk Rating, based on the Likelihood of Failure and Impact and the Consequences of Failure striking a target. The form also prompts the assessor to then consider mitigation options, which (once mitigation is carried out) leaves a residual risk rating.

In my opinion, the qualitative method described in brief above is a simplistic but suitable means of assisting a qualified practitioner in assessing and managing tree risk. While there are limitations and some criticism of the ISA method of tree risk assessment, it remains a useful tool that is available to arborists to assist in informing decisions on tree risk.

I confirm that I have read some of the many documents associated with this case. Time constraints have not allowed me to review all of the relevant documents. I am aware of the documented history of arboricultural reporting and assessment/reporting by other experts. The documents that I have read in preparation are listed below:

Treecare Services, Western Springs Lakeside Park, Stand of pines (Pinus radiata) bordered by the Auckland Zoo, Western Springs, Stadium and West View Rd, Review of Tree safety, November 2006 (dated 1 December 2006)

GreensceneNZ, Western Springs Pine Tree Removal Project Methodology – General Comments & Recommendations, 14 April 2016

GeoTree Ltd, Western Springs Lakeside Park – Pinus radiata above the zoo, below West View Rd – Tree failures from the storm on Tuesday evening on 10 April 2018, 4 May 2018

Western Springs Pine Trees Arboricultural Assessment, Auckland Council, Senior Arboriculture Asset & Horticulture Supply Specialist, Community Facilities, June 2018

Statement of Evidence, Resource Consent application LUC 6032124, David Stejskal, Senior Arboriculture Asset & Horticulture Supply Specialist, Community Facilities

Statement of Evidence, Resource Consent application LUC 6032124, Gerald Collett, Arborist, Arboriculture, 26 November 2018

Geo Tree Ltd, Memorandum (Draft at Short Notice), Western Springs – Stand of radiata pines below West View Rd, West View Rd boundary trees (with photo set), 29 November 2018

Auckland Council, Decision following the hearing of an application for resource consent under the Resource Management Act 1991, ref: LUC60321424, 21 May 2019

GeoTree, Western Springs – Stand of radiata pines below West View Rd – 24 July 2019 update on the trees, 24 July 2019



My primary focus in this case has been on the methodology and findings of Chris Benton. In my opinion the methods carried out are an appropriate way of gaining a detailed understanding of each of the trees in the forest and the relevant risk factors. The methodology allows data and assessment of sufficient detail to make informed decisions on tree risks and management. It is acknowledged that there are limitations and factors that require more detail where ground-level VTA does not provide all of the necessary information to fully understand defects in the trees. It is further acknowledged that, even with more detailed analysis, there are still unknowns in any arborist's ability to fully understand the severity of defects and to predict the probability of tree failure.

As part of my review, I have undertaken a review of a sample (approximately 10%) of the trees and the material compiled by Chris Benton. A random sample of trees was selected, and specific trees of interest were identified to me for review. These, along with the general nature of the forest were observed and inspected by me on 23 July 2019, during a guided tour by Mr Sam Parsons (engaged as a scribe to assist Mr Benton).

My review included 13 randomly selected trees and 4 trees that were selected as representative of the trees that require more scrutiny due to proximity to targets. I conducted a review of a total of 11 trees as a 'blind' review, without having Mr Benton's pages to refer to. For the remainder (6) of the assessed trees, I reviewed Mr Benton's completed forms and marked up areas where I had differences of opinion to Mr Benton.

The results of my blind review and Mr Benton's forms have been compared and it has been found that Mr Benton has assessed the tree risk more conservatively than I have. My review of forms completed by Mr Benton also revealed a more conservative approach to risk categorization than my assessment of the specific trees. There were differences too in the categorization of various components of the forms, such as the ratings of vigour, foliage condition and the species failure profile. It is clear to me that Mr Benton has been methodical and consistent in his work.

Most relevant to the matters at hand was the consideration of the target area of each tree. Mr Benton considered that the radius of the crown spread defined the target area when extrapolated right around the tree. This, in my opinion, portrays an unrealistic definition of the target area when trees are leaning or heavily weighted in a certain direction. Tree risk assessment requires a probabilistic approach, and it is improbable that trees fall against their direction of lean under normal circumstances. A probabilistic approach to tree risk and risk management must consider the most-likely scenarios that could result in tree failure causing harm.

One other area where I found disagreement with Mr Benton's assessments was in relation to prescribed mitigation measures. In some instances, I considered that the work prescribed to mitigate risk was disproportionate to the actual risk. This occurs where the target area has low occupancy and/or the likelihood of failure causing harm is already as low as reasonably practical. Risk mitigation should focus on the most likely causes of harm.

Following a review of the consent application documentation, including arborist reports, I am of the opinion that the Council's rationale for wholesale tree removal is flawed and misses the point on several factors that align with accepted principles of tree risk assessment and management. Most relevant to this is the consideration of the target rating, the broadly acceptable level of risk and the weighting applied to the benefits of trees.



From my assessment, I have formed an opinion that the vast majority of pine trees in the forest pose a low or very low risk of harm. This is primarily due to the absence of actual targets, or the very infrequent occupancy rates.

From my review of the arborist reports, there is a lack of detail relating to the actual probability of harm occurring as a result of tree failure and no understanding of the risk thresholds that are broadly acceptable to the community.

I agree that the pine trees are of an age that, given the inherent failure profile of the species, are likely to continue to topple and experience limb failure. The management of the trees should look at the actual probability of risk to people and property, aim to manage these risks and allow the remainder of the trees to continue to function as a significant asset to the amenity and ecology of Auckland.

Kind regards,



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