DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

Memorandum

TO:	Finn Campbell, Planner
FROM:	Luke McKinlay, Landscape Architect
DATE:	4-September-2025
SUBJECT	LUC-2025-151 – Proposed removal of a scheduled tree (TX010) – 81 Chain Hills Road.

Kia ora Finn,

The following is in response to your request for comment on the above application to remove the scheduled tree TX010 (Eucalyptus spp) from 81 Chain Hills Road.

As you have outlined, the applicants wish to remove the tree due to concerns related to:

- risk from falling branches to people and buildings;
- damage to buildings from the root system; and
- Limitations on the usability of the property under the canopy of the tree.

The subject site

As you note, 81 Chains Hill Road is zoned Rural Residential 1 and comprises an area of 0.531ha. It is subject to the following planning overlays:

- TX010 – the subject tree.
- T301 – not the subject tree.

The site comprises a primary dwelling located in the centre of the site and a garage to the west of this dwelling. To the south of the site, is an approximately 50m^2 sleepout building, which is the subject building of this application.

The site is accessed from the southern and southwestern road reserve by two unconnected driveways.

- The southwestern driveway accesses the primary dwelling and traverses past the other scheduled tree on site – Eucalyptus tree: T301.
- The southern driveway accesses the southern portion of the site which is predominantly used as a parking area. This parking area is adjacent to both schedules trees, T301 and TX010.
- Near this parking area is sleep out which is the subject building of this application.

Site Context

The site is located on the western side of Chain Hill Road, with an aspect towards the northern Taieri Plains. The site occupies flat to gently rolling land on the broad ridge of Chain Hills. The two scheduled trees are the most prominent natural features on the site; however, it is noted that there are smaller gums trees also present. Other vegetation on the site includes shelter and amenity planting on the boundary, adjacent to the driveway and surrounding the primary dwelling. The neighbouring property to the south has a rural appearance, consisting of paddocks in pasture, however, it is noted that this land has recently been rezoned rural residential. Currently, the subject site is on the edge of a small cluster of other rural residential properties that extend along Chain Hills Road to the north.

Comments

I undertook a site visit to the area surrounding the subject tree on 01 September 2025 to determine the likely effect of the removal of TX010 on existing visual amenity values and to reassess the existing STEM evaluation. Photographs taken at this time are appended to this memo as Attachment 1.

STEM Assessment and Visual Amenity Comments

There are three main assessment categories to a STEM report – condition (health), amenity (community benefit) and notability (distinction). The condition section is typically assessed by an arborist and the amenity section is typically assessed by a landscape architect. The notability section generally requires written and substantiated evidence to support additional "merit points".

This memo is restricted to considering amenity related matters only.

The 2001 council STEM assessment of TX010 resulted in a total "score" of 162. Assessment of the condition section of the STEM resulted in a subtotal of 75, the amenity section scored 87. There were no additional notable evaluation points for this tree.

My re-evaluation of the 2001 STEM assessment confirms that it remains valid, with no recommended changes to the scoring, which is as follows:

- Stature: 21-26m+ (21 points)
- Visibility: 2km (15 points)
- Proximity: 3+ (21 points)
- Role: Important (15 points)
- Climate: Important (15 points)

In general, it is considered that due to its stature and location, near the front boundary of the site, this tree forms a prominent natural feature from surrounding locations on Chains Hills Road. It is one of the largest trees in this part of Chain Hills and provides a natural counterpoint to nearby built environment. Further, because it is located on a ridgeline, at least parts of this tree are visible from distant locations, including residential parts of Mosgiel.

It is also noted, however, that the other scheduled Eucalyptus tree on this property (T301) will remain. In addition, there are other nearby tall shelter trees and shelterbelts, including Eucalyptus spp nearby. As such, the subject tree is not the only tall natural feature in this area. In this context, while TX010 currently makes a positive contribution to the visual amenity of surrounding parts of Chain Hills Road, its removal will likely have a *moderate* rather than *high* impact on existing surrounding amenity values. From more distant locations, such as residential parts of Mosgiel, the surrounding context of other tall shelter trees on Chain Hills and the remaining Eucalyptus trees on the subject site (both scheduled and not scheduled) will mean that the effects of the removal of TX010 will not be highly prominent.

Regards,

Luke McKinlay
Landscape Architect

Appendix 1: **Site Photographs**

Figure 1. View towards trees from south of the subject site on Chain Hills Road

Figure 2. View towards trees from the near the front boundary of 81 Chain Hills Road.

Figure 3. View towards trees from High Street, Mosgiel (more than 2km from the site).

Memorandum

TO: Finn Campbell – Planner, Resource Consents

FROM: Mark Roberts – Arborist, Roberts Consulting Ltd

DATE: May 28, 2025

SUBJECT: LUC-2025-151. 81 Chain Hill Road, Mosgiel

Dear Finn,

As per your May 23 email request, please find my arboricultural comments for application LUC-2025-151, and answers to the points raised.

Summary of the proposal

The application is to remove two (2) significant trees the Eucalyptus T301, and one tree from the Eucalyptus Group currently listed as G029 and proposed to be relisted as TX010. The trees are indicated in images one, two, and three.

Site Inspection

A site visit was undertaken on the morning of May 27, 2025. I previously assessed these trees in September 2024 at the request of the DCC, following concerns raised by Debra Gale about branches falling from her trees.

In general, at the time of the May 2025 inspection:

1. The Eucalyptus T301. Blue Gum (*Eucalyptus globulus*)

1.1. In general, at the time of the inspection the tree looked to be in good health and exhibited vitality within the normal range for the species and age.

1.2. The tree was roughly symmetrical and evenly foliated throughout its canopy

1.3. The tree was in close proximity to the powerlines but outside the Notice Zone[1] (2.6m for the 11kV line)

1.4. The root plate appeared stable and I saw no indication of any recent movement or disturbance.

1.5. I saw no obvious structural issues to suggest that whole or partial tree failure was imminent or likely in the near future. *NB: twigs and small branches can and do fall from trees, this is a natural process and not considered detrimental to normal tree health*

Details in relation to your May 23 email request

2 The Eucalyptus T301

Q: *What is the health of the tree?*

A: The tree is in good health.

[1] The Notice Zone is a distance from the powerlines where the electrical network owner or manager is required to 'notify' the tree owner if their tree enters that zone. The distance is determined by the voltage of the lines. Outside the Notice Zone the tree is normally considered to be safe, when inside the Notice Zone but outside the Growth Limit Zone, it is normally considered safe for a suitably qualified 'ordinary' person to undertake the pruning. Once inside the Growth Limit Zone only approved contractors using network approved tools and methodology can do the work.

Q: *Is it in terminal decline?*
A: No, the tree had good vitality.

Q: *Are there any health considerations?*
A: As far as tree health is concerned, I saw nothing to suggest that the tree was compromised or would likely be compromised. It was a very healthy tree.

Q: *Can any mitigation/maintenance works improve the health of the tree?*
A: No, as far as tree health is concerned it did not need pruning or maintenance work.
A: The tree did not need in-tree or ground-based corrective mitigation to improve its health

Q: What is the risk of limb failure of the tree (likelihood) and what are the possible consequences of limb failure?

i. What risk might the tree pose to people?
ii. What risk might the tree pose to buildings?
iii. What risk might the tree pose to infrastructure or network utilities?

A: When determining risk three separate factors need to be considered. The likelihood of failure, the likelihood of impact, and the consequences of failure and impact.

The risk rating for this tree is **Low**[2] because it is improbable that a whole or partial tree failure will occur within the next 5 years. In addition, even if the tree or a large tree part were to fail, due to the occupancy or locations of the target (person, building, vehicle, or powerlines), the tree or tree part is unlikely to impact the target.

To determine the likely consequences, the risk assessor must consider that failure and impact have occurred – no matter how likely or unlikely each of those events may be. In this instance, in the unlikely event that the tree or a large part landed on a person, building, or vehicle, the consequences would be severe (they would be crushed, killed, or destroyed). If the tree or a large part fell across the powerlines significant damage would occur.

Risk is determined based on likely outcomes and the probability that those outcomes will occur within a given time period (the timeframe). When all three factors (the likelihood of failure, the likelihood of impact, and the consequences of failure and impact) are considered the risk rating for this tree is Low.

Q: *Could mitigation or maintenance be undertaken to manage any risk to people, property, or infrastructure?*
A: Yes and no. Because the level of risk is currently Low, maintenance or mitigation that does not involve complete tree removal will not further reduce the level of risk, so no work is required. But to ensure that the risk level remains at an acceptable general ongoing maintenance is still recommended.

- In this instance, recommended maintenance would include the branch-end reduction pruning on branched near the powerlines and the removal of deadwood in the upper canopy that is greater than 30mm in diameter or 1m in length.

[2] The risk rating is based on the International Society of Arboriculture tree risk assessment methodology TRAQ looking at the likelihood of significant harm or damage within the next five (5) years.

3 The Eucalypt in G029/TX010

There are over 700 species of eucalypts which are now broken into three separate genera; Eucalyptus, Corymbia, and Angophora. I was unable to determine the species of this tree, but I suspect it is a type of Angophora.

3.1. In general, at the time of the inspection the tree looked to be in good health and exhibited vitality within the normal range for the species and age.

3.2. The tree was roughly symmetrical and evenly foliated throughout its canopy

3.3. The root-plate appeared stable and I saw no indication of any recent movement or disturbance.

3.4. I saw no obvious structural issues to suggest that whole or partial tree failure was imminent or likely in the near future. *NB: twigs and small branches can and do fall from trees, this is a natural process and not considered detrimental to normal tree health*

4 The Eucalypt in G029/TX010

Q: What is the health of the tree?

A: The tree is in good health.

Q: Is it in terminal decline?

A: No, the tree had good vitality.

Q: Are there any health considerations?

A: As far as tree health is concerned, I saw nothing to suggest that the tree was compromised or would likely to be compromised. It was a very healthy tree.

Q: Can any mitigation/maintenance works improve the health of the tree?

A: No, as far as tree health is concerned it did not need pruning or maintenance work.

A: The tree did not need in-tree or ground-based corrective mitigation to improve its health.

Q: What is the risk of limb failure of the tree (likelihood) and what are the possible consequences of limb failure?

iv. What risk might the tree pose to people?

v. What risk might the tree pose to buildings?

vi. What risk might the tree pose to infrastructure or network utilities?

A: When determining risk three separate factors need to be considered. The likelihood of failure, the likelihood of impact, and the consequences of failure and impact.

The risk rating for this tree is **Moderate**[3] because it is possible that whole or partial tree failure may occur within the next 5 years, and because there is a medium chance of the falling tree or tree part landing on the building or a vehicle due to the occupancy and location. There is a low chance of the tree or a tree part landing on a person and a very low chance of the tree or a tree part landing on the powerlines. According to the TRAQ methodology the highest risk rating is the overall risk rating. For this tree, the risk is Low for people, Low for powerlines, and Moderate for buildings and vehicles – the overall risk rating is Moderate.

[3] The risk rating is based on the International Society of Arboriculture tree risk assessment methodology TRAQ looking at the likelihood of significant harm or damage within the next five (5) years.

There is a higher chance of branch failure occurring on this tree compared to T301 because they are different species with different distributions of foliage (images two and three). The foliage is denser and concentrated towards the ends of the branches, which affects how the wind's energy is applied and distributed.

To determine the likely consequences, the risk assessor must consider that failure and impact have occurred – no matter how likely or unlikely each of those events that may be. In this instance, if the tree or a large part landed on a person, building, or vehicle, the consequences would be severe (they would be crushed, killed, or destroyed). If the tree or a large part fell across the powerlines significant damage would occur.

A Moderate risk is generally considered tolerable where imposed on others, if actions can be taken to maintain or reduce the risk to become As Low As Reasonably Practicable (ALARP).

Q: *Could mitigation or maintenance be undertaken to manage any risk to people, property, or infrastructure?*

A: Yes. Because the level of risk is Moderate, maintenance or mitigation can be undertaken to reduce the risk.

- In this instance recommended maintenance would be to crown reduce the entire tree (perhaps 10 to 15%) and to remove deadwood that is greater than 30mm in diameter or 1m in length. NB: to manage the ongoing risk, crown reduction work would need to be undertaken on a regular basis (say every three to four years).

Additional Notes

- It is not uncommon for eucalypts to drop small branches and old fruit (gum nuts). *E. globulus* is a species that sheds its bark. Under the tree was a large drum filled with material that had fallen from the tree.
- At the September 2024 site visit I was shown some larger branches (approx. 75 to 100mm in diameter) that had fallen form this tree. One of them had embedded itself into the garden.
- I measured the height of the trees at around 26m each. At that height even relatively small branches can generate considerable force when they land
- Bark has been known to blow from gum trees and land on powerlines. *Sometimes (but not always) the bark can create an electrical 'outage' (a power cut). In very rare cases fires have been caused because of bark landing on high voltage powerlines (the 2015 Saddle Hill fire is a probable example of this – although the offending trees were throught to be over 400m away).*

Yours sincerely,

Mark Roberts

Arborist
Roberts Consulting Ltd

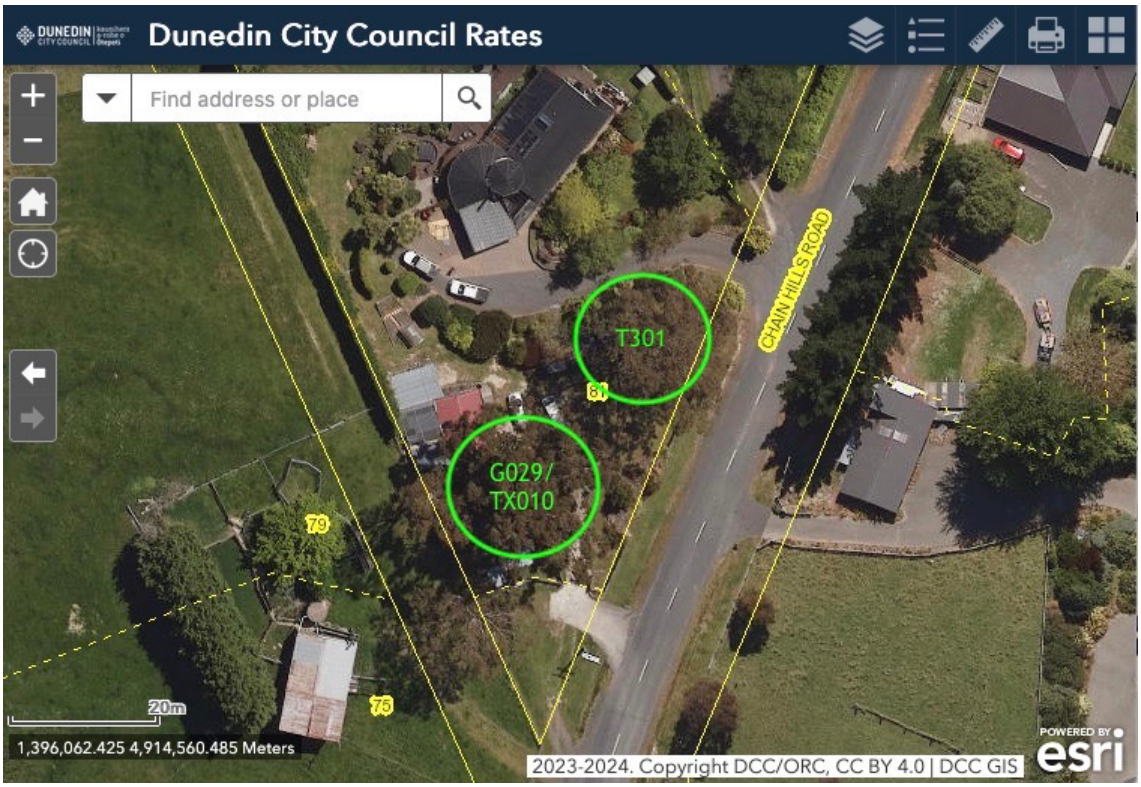

Image one: DCC Rates image of 81 Chain Hills Road with the two trees circled, T301 and the one tree in G029/TX010.

Image two: Image of T301

Image three: Image of one tree in G029/TX010

Jane O'Dea

From: Joe Fitzsimmons
Sent: Wednesday, 27 August 2025 11:11 a.m.
To: Finn Campbell
Subject: RE: LUC-2025-151
Attachments: IMG_8942.jpg; IMG_8942.jpg; IMG_8944.jpg; IMG_8945.jpg

Good morning Finn,

At 1pm 25 August 2025 I visited the 81 Chain Hills Road and met with Debra Gale on site.

I carried out a site investigation and found the following:

- The gum tree is very close to the side of the building
- A building consent ABA 2024-1091.was applied for and obtained in 2024 converting Garage to Bedroom with Bathroom .
- The gum tree has a large root that appears to run directly under the building that has cracked the slab in the past.
- The building walls are out of plumb.
- A membrane system was installed by Adhesion Sealing to existing concrete slab to prevent moisture ingress under building consent ABA 2024-1091.
- The flashing system round the sliding door is out of level due to the tree root inspect on the building. These flashings are still in good order and appear to have little movement at this time.
- The ceiling by the sliding door has fresh cracking on the ceiling joints due to most likely tree root movement.
- The tree branch over the building is of concern.

Final observations
From what I have seen and how close the tree is to the building and the tree roof system most likely compromising the concreate slab and building structure.
The tree and root system will continue to have a impact on the building on the building overtime further impacting the slab, building structure and elements.
I am in agreeance with the report from Pat Hamer Builders

Kind regards

Joe Fitzsimmons
Team Leader Inspections
Regulatory Services

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From: Finn Campbell <Finn.Campbell@dcc.govt.nz>
Sent: Wednesday, 20 August 2025 4:01 p.m.
To: Joe Fitzsimmons <Joe.Fitzsimmons@dcc.govt.nz>
Subject: LUC-2025-151

Kia ora Joe,

Debra’s contact details are:

debragale75@gmail.com

020 415 977547

Application attached, as requested. The attached photographs of cracking around the door frame are from 15 August 2025.

Cheers,

Finn Campbell
Graduate Planner
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