

Memorandum

TO: Variation 3 Team, City Development

FROM: Zoe Lunniss, DCC Biodiversity Advisor

DATE: 5 May 2023

SUBJECT: **BIODIVERSITY ADVISOR COMMENTS ON 2GP VARIATION 3 – MINOR IMPROVEMENTS**

Introduction

1. This memorandum contains my comments on change proposals included in Variation 3 that have potential biodiversity implications. The comments provided respond to the various requests sent to me by staff working on the Variation 3 project and are given under headings for each change proposal in alphanumeric order.

Change NE3: Exemptions to vegetation clearance rules for erection, maintenance or alteration of fences and construction or maintenance of tracks (Change NE3)

2. The purpose of Change NE3 is to review whether the exemptions from the vegetation clearance performance standards for the erection, maintenance or alteration of fences (including gates), and the construction or maintenance of tracks that apply in urban biodiversity mapped areas (Rule 10.3.2.4.b.ii and iv) and hazard overlay zones (Rule 11.3.2.2.a and c) are enabling the relevant objectives to be achieved.
3. I have been asked to provide input into the drafting of the exceptions that apply in UBMA's in terms of the potential effects on biodiversity values.
4. The proposed amendment introduces a 3-meter-wide vegetation clearance limit for fencing and track construction activities within UBMA's. This aligns with the clearance limit specified for vegetation clearance rules associated with similar activities in Section 10 of the 2GP Plan (see Rule 10.3.2.1.X.ii, Rule 10.3.2.2.d.X, Rule 10.3.2.1.a.iv, and 10.3.2.3.b.iii).
5. UBMA's encompass critical components of Dunedin's urban environment, recognising the importance of protecting biodiversity within the city. While some UBMA's may not have undergone formal assessment against significance criteria, such as that in Policy 2.2.3.2, it is noteworthy that many possess important ecological values, particularly in the context of a developed area.
6. UBMA's play a vital role in ecological connectivity by providing corridors and habitats for flora and fauna within urban environments. This facilitates the dispersal and movement of organisms between habitats, enabling them to exploit a variety of resources. Additionally, UBMA's support important ecosystem services such as water filtration, flood and erosion control, and air quality¹.
7. Restrictions on vegetation clearance within UBMA's currently serve as one of the few provisions in place to protect biodiversity within residential zones. However, the absence of

¹ Meurk, C.D., Blaschke, P.M., & Simcock, R.C. (2013). Ecosystem services in New Zealand cities. Dymond, J.R. (Ed.) Ecosystem services in New Zealand – conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand.

specified clearance limits for fencing and track construction activities significantly impedes the effectiveness of UBMA in safeguarding biodiversity where the status quo permits more vegetation clearance occurring than necessary for fences or tracks and the potential for the exemptions to be exploited by people wishing to undertake more substantive clearance, which can impact the ecological integrity, processes and diversity of UBMA, including through:

- a. **Habitat loss:** Diminishes the spatial extent of natural habitats for indigenous flora and fauna and results in the potential loss of important indigenous species, such as those listed in Appendix 10A of the 2GP.
 - b. **Habitat fragmentation:** Vegetation clearance is a significant contributor to habitat fragmentation. This fragmentation occurs when continuous habitat is divided into smaller, isolated patches, often altered in shape and disconnected from one another. Fragmentation adversely affects biodiversity by disrupting gene flow between species, reducing species diversity, and limiting species movements between patches. Additionally, fragmentation causes edge effects at vegetation boundaries. These include environmental changes to light levels, air and soil temperature, and exposure (e.g., to wind) which can impact species composition and interactions.
8. The proposed 3-meter vegetation clearance limit for fencing and track construction activities within UBMA advances the current protection of biodiversity within urban areas. These proposed amendments align with existing clearance limits for similar activities and effectively address the inadequacies of the current provisions which permit unrestricted vegetation clearance during fencing and track construction activities.
 9. The effectiveness of the proposed amendments will depend on their consistent implementation and adherence to additional measures, such as avoiding the clearance of protected plant species listed in 2GP Appendix 10A.

Recommendation

10. The inclusion of a specified clearance limit of 3 meters for vegetation for the erection, maintenance or alteration of fences within UBMA will help achieve the Plan's biodiversity objectives. Failure to adopt this clearance limit could lead to excessive removal of indigenous vegetation, directly contradicting the objectives of the 2GP.
11. Species listed in Appendix 10A are protected during the erection of fences and construction of tracks in the rural, rural residential, and recreation zones through rules requiring listed species are not damaged (Rule 10.3.2.3.b). It is recommended that a similar amendment to UBMA fence and track construction avoids the clearance of Appendix 10A species in addition to the proposed 3-meter clearance limit.

Change NE7: Additions to ASBV schedule on public land

12. The purpose of Change NE7 is to add land to the 2GP Appendix A1.2 Schedule of Areas of Significant Biodiversity Value (ASBVs), either as new ASBVs or via extensions to existing ASBVs, where that land:
 - is publicly owned, either by the Department of Conservation (DOC) or the Dunedin City Council (DCC); and
 - contains areas of significant indigenous vegetation and/or significant habitats of indigenous fauna that meet at least one of the ASBV criteria in Policy 2.2.3.2.

13. I have been asked to provide input into the drafting of the proposed additions to the ASBV schedule on public land in terms of the potential effects on biodiversity values.
14. Change NE7 proposes adding land owned by DOC or DCC that meets the ASBV criteria to the ASBV schedule, based on evidence and recommendations provided by Wildlands Consultants Ltd. The proposed land covers a total area of 24,120 hectares. If this land were added to the schedule, it would result in a 54% increase in the overall area of scheduled ASBVs in the district. The amended table for the 'Schedule of Areas of Significant Biodiversity Value' in Appendix A to the Section 32 report for Plan Change 1 indicates the proposed changes.
15. More than 93% of DCC-owned land proposed for inclusion in the ASBV schedule (around 5400 ha) is owned by DCC 3 Waters division. Some of this land contains existing infrastructure, and the DCC's 3 Waters team has expressed concerns that the inclusion of these areas could complicate potential upgrades or extensions to essential infrastructure. Under the current 2GP rules, large-scale indigenous vegetation clearance (IVC) within ASBVs is a non-complying activity.
16. To address these concerns and avoid the uncertainty associated with consenting non-complying activities, specific provisions are proposed for IVC activities related to 3 Waters infrastructure upgrades or extensions. This would establish a discretionary consenting pathway for these activities within proposed ASBVs.
17. The 2GP recognises the necessity of infrastructure development while safeguarding biodiversity values where it allows for infrastructure works within areas of significant biodiversity, provided that the activity follows the mitigation hierarchy. This means that any infrastructure-related activity must first avoid impacts on indigenous biodiversity, minimise those impacts if avoidance is not possible, remediate the effects on-site, and only then consider offsetting or compensatory measures for residual impacts.
18. The specific provisions proposed include creating a '3 Waters infrastructure mapped area' over the affected ASBVs on the Planning Map, generally extending 20 metres on either side of the affected 3 Waters infrastructure. In certain areas, such as open watercourses in the Port Chalmers Water Supply Catchment 1 and 2, a narrower buffer of 5 meters is proposed. Provided maps in Appendix B to the Section 32 Report indicate these mapped areas for proposed ASBVs (C023, C031, C172, C190, C191, C194, C195, C196, C197, C199 and C200). An amendment to Rule 10.3.2.1.e is also proposed to make IVC activities for the upgrade or extension of 3 Waters infrastructure within the proposed '3 Waters infrastructure mapped area' discretionary, rather than non-complying.

Recommendation

19. All areas proposed for addition to the ASBV schedule in this plan change should be included, as they meet the significance criteria outlined in 2GP Policy 2.2.3.2 and Appendix A1.2 as reviewed by Wildlands Consultants Ltd. Protecting Dunedin's significant indigenous biodiversity is a key strategic objective of the 2GP (Objective 2.2.3). Strategic Policy 2.2.3.1 requires the protection of areas of significant vegetation and/or significant habitats of indigenous fauna by identifying them in 2GP Appendix A1.2 where they meet one or more of the criteria in Policy 2.2.3.2.
20. The proposed '3 Waters infrastructure mapped areas' are also part of the larger proposed ASBVs on 3 Waters land and meet several criteria in Policy 2.2.3.2, including, ecological

context, rarity, representativeness and diversity as described in the Introduction to Areas of Significant Biodiversity Value in Schedule A1.2 of the 2GP.

21. Amending Rule 10.3.2.1.e to allow IVC within the designated '3 Waters infrastructure mapped area' as discretionary rather than non-complying is an appropriate approach. This change enables an evaluation of environmental effects, including effects on biodiversity, consistent with the mitigation hierarchy. The mitigation hierarchy is an internationally accepted framework for managing biodiversity from the impacts of development and is provided for by 2GP Policy 10.2.1.X. The effectiveness of this approach is contingent on the thorough initial assessment of environmental effects².
22. It is important to emphasise that biodiversity offsetting, and compensation should be considered as a last resort under the mitigation hierarchy. Achieving 'no net loss' or 'net gain' of biodiversity is difficult and often contentious³. Therefore, offsetting should only be considered once all other steps in the mitigation hierarchy have been fully explored and implemented. A thorough assessment of environmental effects and the mitigation hierarchy by experienced ecologists is essential to ensure no net loss, as required by both the 2GP and the National Policy Statement for Indigenous Biodiversity (NPSIB).
23. Offsetting must follow New Zealand's established standards for appropriate environmental compensation⁴⁵⁶. If offsetting is not rigorously applied, there is a significant risk that it will fail to compensate for the loss of biodiversity, particularly in areas of significant indigenous vegetation.
24. Several alternatives to the proposed 'infrastructure mapped area' were considered. One alternative involved removing identified areas from the proposed ASBV schedule, but this approach would undermine the core purpose of an ASBV, which is to recognise and protect significant indigenous biodiversity. Removing the areas completely may also allow for other activities to occur within or near the areas, which would not be permissible within or near an ASBV, such as forestry activities. Furthermore, allowing Council departments to remove areas of significant vegetation for planned works could set a problematic precedent. For these reasons, this option was not supported.
25. The proposed additions to the ASBV schedule and the discretionary pathway for IVC related to 3 Waters infrastructure align with the 2GP's Strategic Objective 2.2.3, which directs the protection of significant indigenous biodiversity. This approach also supports the NPS-IB by protecting biodiversity values while permitting essential infrastructure managed by applying the effects hierarchy as required by 2GP Policy 10.2.1.X. This proposal presents a balanced approach to protecting significant indigenous biodiversity and facilitating essential infrastructure development.

² Ministry for the Environment. 1999. A Guide to Preparing a Basic Assessment of Environmental Effects. Ministry of the Environment, Wellington.

³ Maron, M., Gordon, A., Mackey, B.G., Possingham, H.P. and Watson, J.E., 2016. Interactions between biodiversity offsets and protected area commitments: avoiding perverse outcomes. *Conservation letters*, 9(5), pp.384-389.

⁴ Maseyk, F., Ussher, G., Kessels, G., Christensen, M., Brown, M. 2018. Biodiversity offsetting under the Resource Management Act: A guidance document. Local Government New Zealand, Wellington.

⁵ Ministry for the Environment. 1999. A Guide to Preparing a Basic Assessment of Environmental Effects. Ministry of the Environment, Wellington.

⁶ New Zealand Government. 2014. Guidance on good practice biodiversity offsetting in New Zealand. New Zealand Government, Wellington.

Change NE13: Proposed boundary adjustment to the QEII ASBV on 606 Mount Cargill Road

26. The purpose of Change NE13 is to review the extent of the scheduled area of significant biodiversity value (ASBV) at 606 Mount Cargill Road to ensure that it only includes areas with significant indigenous vegetation or significant habitats of indigenous fauna in accordance with Objective 2.2.3, Policy 2.2.3.1 and Policy 2.2.3.2.
27. I have been asked to provide input into the drafting of the proposed boundary adjustment to the ASBV on 606 Mount Cargill Road in terms of the potential effects on biodiversity values.
28. The 2GP requires the protection of Dunedin's significant indigenous vegetation and significant habitats of indigenous fauna which are to be identified by meeting the criteria set out under Policy 2.2.3.2. Criterion 'a' of Policy 2.2.3.2 takes a blanket approach and recognises existing protected areas set aside by statute or covenant or listed in an operative Otago Regional Council Regional Plan as having significant indigenous biodiversity value.
29. This criterion led to the scheduling of 18 scheduled ASBVs that are located on QEII National Trust covenanted areas where in some cases—such as ASBV C097—the area of these ASBVs covers the whole area of the associated QEIs.
30. Where most of the QEII covenanted areas contain significant native biodiversity values, QEII covenants also protect historical and archaeological sites, as well as areas with high scenic and recreational values. Furthermore, QEII open space covenants sometimes include features that have no or low biodiversity values such as paddocks, access areas, dwellings or sheds located across subject properties. As a result, not all land that is subject to a QEII covenant will necessarily meet the Policy 2.2.3.2 criteria for protection via the ASBV schedule.
31. The property at 606 Mount Cargill Road is subject to QEII National Trust open space covenant and an ASBV overlay with similar area and delineation to the QEII covenant covers the whole site. However, following the owners' concern and request, it is noticed that Schedule Three and Schedule Four (the attached site plan to the covenant deed) show the site is divided into three management zones including indigenous biodiversity, forestry, and habitation zones (see Figure 1 below). The covenant deed only expects 'indigenous biodiversity' zone to have features and values similar to ASBVs which are to be protected. Forestry and habitation zones are designated to forestry, and residential or visitor accommodation activities respectively which are excluded from the conservation activities required for the indigenous biodiversity zone.
32. I attended 606 Mount Cargill Road on June 7 2024, specifically focusing on the forestry and habitation zones with the assistance of the landowner. These zones appear to be managed in accordance with the designations outlined in the covenant deed and based on the site visit, do not exhibit signs of supporting significant indigenous vegetation (as shown in figures 2, 3, 4 & 5).

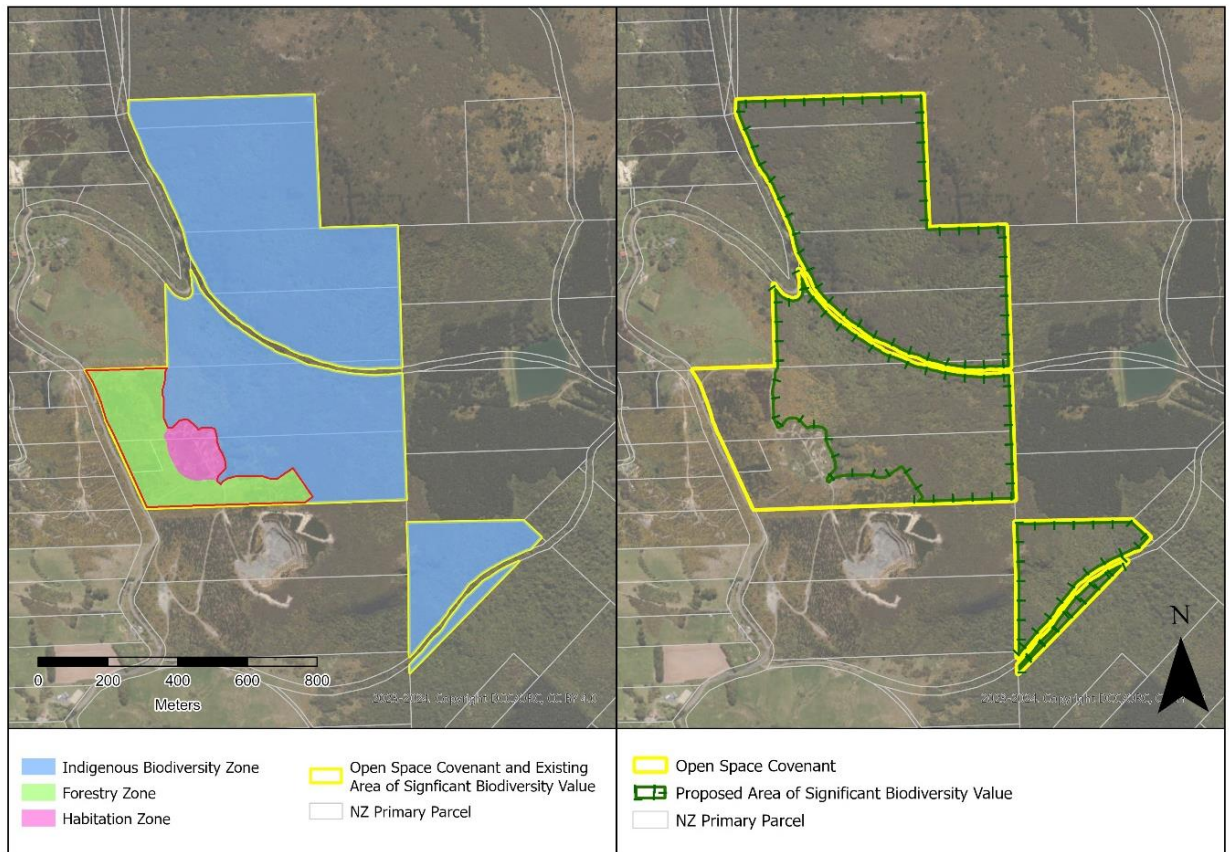


Figure 1: Site plan of zones across QEII covenant at 606 Mount Cargill Road (left) and proposed adjustment to the ASBV on the site (right)



Figure 2: QEII Covenant 'Habitation Zone'



Figure 3: QEII Covenant 'Habitation Zone'



Figure 4: QEII Covenant 'Forestry Zone'



Figure 5: QEII Covenant 'Forestry Zone'

Recommendation

33. To resolve the issue, I recommend making a boundary adjustment to remove the forestry and habitation zones of the QEII covenant from the existing ASBV and only retain the indigenous biodiversity zone as the target scheduled ASBV as indicated on the associated map to the fourth schedule of the covenant deed (Figure 1).

Change Z7: Zoning at 32 and 34 Manuka Street, 30 Rimu Street and part of 11A Matai Street, Ravensbourne

34. The purpose of Change Z7 is to review whether 32 and 34 Manuka Street, 30 Rimu Street and part of 11A Matai Street, Ravensbourne, or part thereof, should be rezoned from Hill Slopes Rural Zone to General Residential 1 Zone (GR1) and whether the SNL overlay zone should be removed from the same area.
35. As part of the 2GP Variation 3 process, I assessed the biodiversity values at 32-34 Mānuka Street on March 3rd, 2023. I have also reviewed aerial photographs dated 2018-19 from Google Earth and consulted the vegetation cover maps of the Dunedin City District prepared by Wildlands Consultants⁷. The purpose of this assessment was to evaluate the potential impact of rezoning the properties on indigenous biodiversity.
36. In addition to 32-34 Mānuka Street, 30 Rimu Street and 11A Matai Street are also being considered for rezoning. These properties were not assessed during the site visit, but due to the

⁷Wildland Consultants Ltd (2020). Mapping of indigenous and exotic vegetation cover across Dunedin City District. Contract Report No. 4934 prepared for Dunedin City Council.

contiguous vegetation, it is likely that the values observed at 32-34 Mānuka Street are present at these properties as well.

37. Currently, the Rural zoning provides some protection for indigenous biodiversity through vegetation clearance rules (Rule 10.3.2). However, a change to Residential zoning would result in the lifting of any vegetation clearance restrictions, and therefore potential losses of indigenous biodiversity.

Summary of biodiversity values

38. 34 Mānuka Street supports regenerating broadleaf-kānuka forest (0.14 ha) dominated by lemonwood (*Pittosporum eugenioides*), fuchsia (*Fuchsia excorticata*), and kānuka (*Kunzea ericoides*) (Figure 7). Kātote (*Cyathea smithii*), whēki (*Dicksonia squarrosa*), māhoe (*Melicytus ramiflorus*), and sycamore (*Acer pseudoplatanus*) are also present in the canopy. The understory contains regenerating natives, flowering currant (*Ribes sanguineum*), and *Coprosma rotundifolia* as well as the non-local species, *Coprosma robusta*. The ground cover is dominated with, native ferns including crown fern (*Blechnum discolor*), hen and chicken fern (*Asplenium bulbiferum*), and kiokio (*Parablechnum novae-zelandiae*).
39. The total area of indigenous vegetation over the three sites in question is approximately 0.24 ha.
40. *Ileostylus micranthus* was noted on a lemonwood which was separated from the main 'bush patch'.
41. The area, despite being small and degraded due to the presence of invasive weeds (e.g. sycamore), satisfies the ASBV criteria for Rarity under Policy 2.2.3.2.b.ii. Specifically, this site lies within an 'Acutely Threatened' land environment with less than 10% indigenous cover remaining nationally⁸.
42. This area is contiguous to Signal Hill Reserve and serves an important role in buffering and connecting the larger bush area, especially for fauna.
43. *Ileostylus micranthus* (Locally Uncommon) is present and listed as a 'Threatened' plant species in Appendix 10A.1 (Figure 8).

Recommended approach to protection

44. Based on the assessed biodiversity values, a split zoning approach is recommended for all three properties to safeguard the ecological and landscape values of the area. The Rural zoning should be retained in the designated areas shown in Figure 6 to protect the indigenous biodiversity through 2GP vegetation clearance rules. The remaining areas of the properties could be rezoned as Residential with minimal impact on biodiversity.
45. This approach would balance the need for development with the conservation of indigenous biodiversity and provide continuity for the landscape, especially given the site's location adjacent to the Signal Hill Reserve.

⁸ Walker S, Cieraad E, Barringer J. 2015. The Threatened Environment Classification for New Zealand 2012: a guide for users. Landcare Research Contract Report LC2184.

Maps and photographs of indigenous vegetation at the subject site



Figure 6: Map of the indigenous vegetation in question at 34 Mānuka Street, 30 Rimu Street, and 11A Matai Street. Highlighted area indicated the suggested zone that should remain as 'Rural' to protect the indigenous biodiversity.



Figure 7: Understory of vegetation at 34 Mānuka Street, tree fuchsia located in the centre of the image



Figure 8: *Ileostylus micranthus* parasitising lemonwood

Kā mihi nui,

Zoe Lunniss
Biodiversity Advisor, City Development