MEMO

To:	NZSki Limited	Ref:	24043
Cc:			
From:	[redacted]		
Date:	8th May 2026		
Subject:	Curvey trenching and carpark 3 expansion		

e3cientific (e3s) have undertaken extensive ecological surveys to characterise the ecological values and effects associated with the Remarkables Ski field proposed Doolans expansion project. This work is detailed within the Ecological Impact Assessment (EcIA; (e3Scientific, 2026c). Subsequent to the completion of the EcIA, two additional activity areas have been proposed including the services trenching in Curvey Basin and Carpark 3 expansion. Ecological survey of these areas has not been completed as they largely occur within previously disturbed areas of the ski field. The proposed additional activities are described below. Additionally, any surveys during this time of year are outside the standard field season for botanical surveys of alpine species.

To supply the proposed project with telecommunications, electricity and transport wastewater out of the Doolans catchment for treatment a services trench will be required within Curvey Basin (see Figure 1). The services trench works will be contained within an existing, permanent access road and as such the earthworks is only likely to occur within the disturbed vegetation community. The location of the proposed service trench is depicted in Figure 1. e3s understands that the trench is approximately 1530 metres in length and 2.5 m wide. The trenching will occur in a highly modified environment that is actively maintained by the ski field operation.

Additionally, earthworks are proposed within and directly adjacent carpark 3 (see Figure 2). The proposed earthwork is expected to intersect 2,526 m^2 of previously disturbed vegetation and 668 m^2 of snow tussock grassland. The area of previously disturbed vegetation located within the proposed carpark 3 footprint is modified and

supports tussock grassland but is highly unlikely to support Threatened or At Risk plant species.

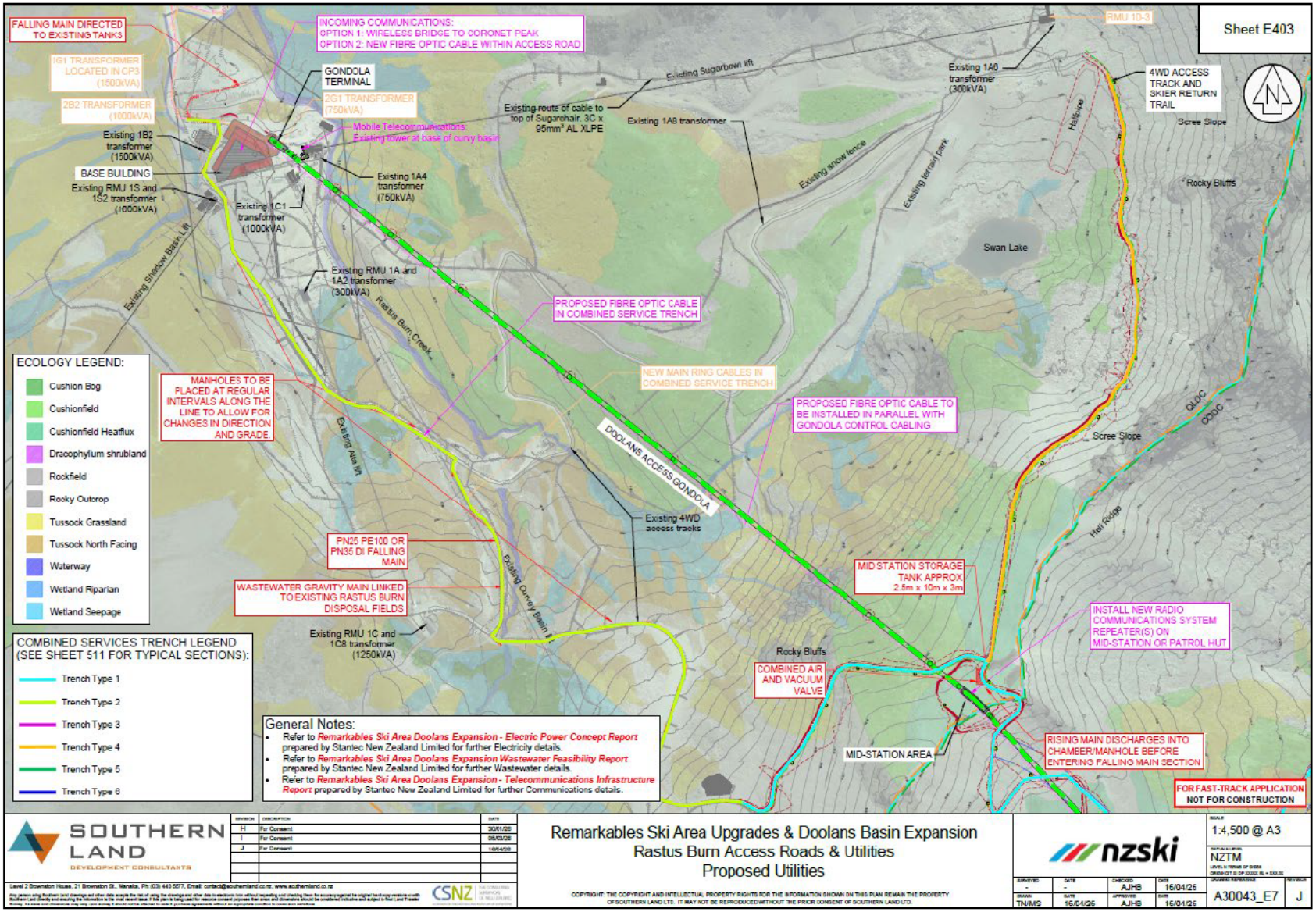

Figure 1: Proposed location of service trench.

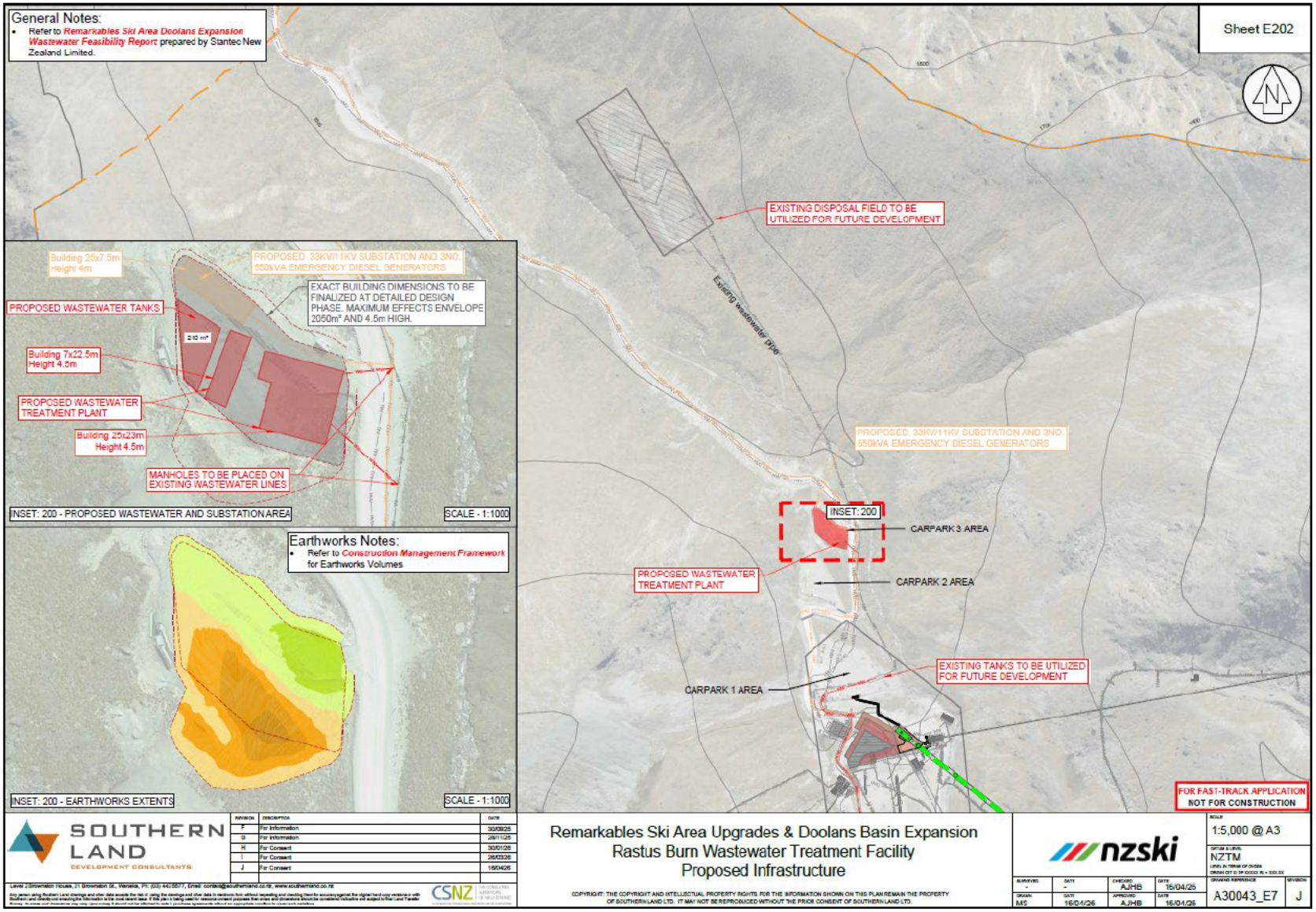

Figure 2: Proposed location of carpark 3 expansion earthworks.

The EcIA identified the disturbed area as having Moderate ecological value which was attributed to the presence of three At Risk Naturally Uncommon and two At Risk – Declining plant species. No Threatened, At Risk, or Data Deficient fauna species are known to occur within the disturbed vegetation community.

The EcIA identified snow tussock grassland as having a Very High ecological value. However, the area in of disturbance in carpark 3 is very small and highly fragmented. The magnitude of effect on such a small area is assessed as negligible within the context of the Ecological District and therefore the level of effect would be assessed as Low. Notwithstanding the above, although unlikely, a range of At Risk or Data Deficient plant, bird and invertebrate species could potentially be present.

In the absence of ecological survey of the Curvey service trench and Carpark 3 the same conditions are proposed to be implemented as those for all other areas containing Data Deficient, At Risk or Threatened plants, animals (as identified within the EcIA; e3Scientific, 2026c). The recommended mitigation measures are as follows:

Conditions relevant to both disturbed vegetation and snow tussock grassland communities.

1. A Vegetation, Weed, Invertebrate, and Wetland Management Plan will be prepared and implemented. The plan will ensure mitigatory actions are completed to achieve high plant survival rates, no weed introduction, retention of hydrological function, and preservation of invertebrate biodiversity. To accomplish this, the plan will clearly define the actions, methodology, and targets required to implement and achieve the actions set out in recommendations 2-22.
2. The alignment of the proposed disturbance footprint will be delineated and marked out prior to ecological surveys being undertaken.
3. All areas of disturbance will be surveyed by a suitably qualified ecologist to record and delineate the location of all species to be translocated. This includes any variation to the footprint that may occur during construction.
4. All At Risk – Declining and Threatened plant species must be translocated into suitable and comparable nearby habitat or remediated substrates as per recommendation 7 (see Table 5 for a list of species).
5. All clusters of At Risk - Naturally Uncommon and Data Deficient plant species must be translocated into suitable and comparable nearby habitat or remediated substrates as per recommendation 7, to a maximum of 500 clusters of each species (see Table 5 for a list of species).

6. All plants must be translocated in tracts of vegetation material as large as possible to ensure as much of the habitat and ground dwelling terrestrial invertebrates are preserved and are able to recolonise or disperse into comparable habitat post-movement.
7. All species-specific plant translocations are to achieve a minimum 60 % survival rate after 7 years.
8. All areas of vegetation translocation and remediation shall be monitored on an annual basis for 3 years and then biennially for a further 4 years. The monitoring shall be undertaken by a suitably qualified and experienced ecologist.
9. All plant translocations and remediation actions are to be implemented and overseen in consultation with suitably qualified and experienced project ecologist. The ecologist will provide contractors with training and regular briefing regarding expectations for remedial work and is responsible for evaluating and where required, enacting further mitigation measures.
10. All earthworks are to be managed to mitigate the risk of runoff and sedimentation into adjacent watercourses, wetlands and vegetation. A specific erosion and sediment control management plan to mitigate the risk of runoff into wetlands, watercourses, and onto neighbouring vegetation is to be prepared by suitably qualified and experienced expert and approved by a Hydrologist and Ecologist prior to works commencing. This management plan is to include a drainage plan, which will ensure that as the topography is altered, long term sediment runoff is also managed.
11. All stockpiled material is to be contained within the disturbance footprint and not to be deposited on to any indigenous vegetation.

Conditions relevant to only snow tussock grassland

12. All invertebrate host specific plant species (not otherwise specifically covered in recommendations 4 & 5 and where the residual effect on the invertebrate species is greater than Low) are to be translocated in accordance with the same methodology for At Risk – Declining and Threatened plant species. This relates to all species within the *Cardamine* genus, *Aciphylla aurea* and *Aciphylla 'lomond'*.
13. All batter slopes/exposed surfaces are to be revegetated as contiguous mats utilising all removed vegetation within the trail footprint (not otherwise subject to recommendations 4 & 5) in accordance with the approved DOC/NZSki revegetation protocols (see Appendix G). In addition, the following controls shall be adhered to:

i. Where practicable, excavated vegetation shall be placed within one movement onto a suitable rehabilitation surface.
ii. Where a single movement is not possible, vegetation should only be stored upright and for no longer than 1 day before being placed onto a suitable rehabilitation surface.
iii. Rehabilitation sites shall be designated and approved prior to receiving any excavated vegetation.
iv. All works are to be carried out by contractors experienced in vegetation translocation and rehabilitation, and work with the appointed ecologist.

14. All vegetation community remediation shall be undertaken as close as possible to the donor site to retain invertebrate biodiversity in remediated and adjacent habitat, and species genetic diversity across spatially differentiable locations.

15. All species-specific plant translocations are to achieve a minimum 60 % survival rate after 7 years. Community translocation/remediation is to meet a 60 % indigenous cover. All areas of vegetation translocation and remediation are to be monitored on an annual basis for 3 years and then biennially for a further 4 years. The monitoring shall be undertaken by a Suitably Qualified and Experienced Ecologist. Where monitoring identifies insufficient survival within 7 years, the following measures will be implemented on an experimental basis and continued where success is observed:

    i. Direct sowing or dispersal of indigenous locally sourced seed into disturbed substrate, in areas of low survival to supplement indigenous cover and encourage recolonisation.

16. Where works take place within the breeding season for pihoihoi/NZpipit (August-February), nesting habitat within the disturbance footprint is to be surveyed ahead of time (no longer than 8-days prior to disturbance) and any nests identified. Where construction activities could cause direct disturbance to a nesting individual the following actions will be undertaken:
    i. If possible, works will establish exclusion zones and avoid the area until chicks have fledged.
    ii. Where this is not possible, the nest is to be moved to a suitable alternative location and monitored to ensure nest is not abandoned.
    If the nest cannot be moved and if construction activities may cause harm to the adult birds, the nest (and eggs if present) is to be destroyed, and the area disturbed as early in the season as possible to disperse the adults and allow for renesting elsewhere (only to be undertaken as a last resort).
    iii. All associated work will be undertaken and managed by a suitably qualified and experienced Ecologist/Ornithologist and in accordance with

best practice capture, handling and release measures set out in the Department of Conservation's New Zealand National Bird Banding Scheme bird bander's manual.

iv. A Wildlife Act Authority (permit) is to be obtained for any direct disturbance of avifauna or their nests (see Appendix F for wildlife application).

v. Where concern for the safety of any indigenous avifauna or that of personnel becomes relevant, the project Ecologist/Ornithologist will be contacted immediately.

17. A Lizard Management Plan (LMP) must be prepared by a suitably qualified and experienced herpetologist and be approved and implemented prior to any land disturbance at the site. The LMP must:

    i. Include gee minnow trapping and manual habitat searching to inform the lizard values present at the site.

    ii. Meet the standards detailed in the Department of Conservations guidelines and model for producing management plans for New Zealand lizards (DOC, 2018).

    iii. Be submitted to, and approved by, the Department of Conservation (DOC).

    iv. Be submitted to, and certified by, the Queenstown Lakes District Council (QLDC) as meeting the requirements of items (i) to (iii) above.

References

e3Scientific. (2026c). *Remarkables Ski Area Upgrade and Doolans Expansion - Ecological Impact Assessment. May 2026.*

Department of Conservation. (2018). *Guidelines and model for producing management plans for New Zealand lizards.* Wellington, NZ: Lizard Technical Advisory Group Department of Conservation.