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Date: 2 February 2021

Our ref: 9801

Dabyne Planning Pty Ltd
PO Box 179
Jindabyne NSW 2627

Attention: Ivan Pasalich

Dear Ivan,

Response to Agency comments - Mount Perisher Chairlift Biodiversity Development Assessment Report (BDAR) – in relation to DA 10115

As requested, I have provided below:

- Ecological advice with regard to potential impacts from the proposed open-bottom box culvert bridge with regard to the adjoining banks and fish passage.
- A test of significance for the Snowy River Aquatic endangered ecological community (EEC).

Open-bottom box culvert

An open box culvert is proposed to upgrade the existing vehicle crossing of Perisher Creek (see Photo 1). The culvert is very similar to the existing open box culvert approximately 750 m further downstream (see Photo 2).

The proposed culvert is considered highly unlikely to result in any adverse impacts on Perisher Creek, its bed or banks, water quality, ecology or on fish passage. The proposed open box design retains the natural creek bed, being an inverted U shape, and is more accurately described as a type of bridge. The open box culvert installed downstream, see Photo 3, has not had any adverse impacts on Perisher Creek or its banks. An additional benefit of the culvert is that the proposed snowmaking pipes to the new lateral and fan gun adjacent to the Mt P Double Chair, will be hung on the side of the culvert thus avoiding any need to trench through the creek for the snowmaking.

The proposed culvert will upgrade the existing crossing which involves vehicles driving through the creek banks and bed with a subsequent adverse impact on the bed and banks and water quality with each vehicle movement. The proposed culvert will avoid this impact with the many vehicle movements that are expected with the construction of the proposed lift.

The proposed culvert construction will reinstate the creek banks where they have been removed for the existing vehicle crossing. The potential for adverse impacts is further mitigated by the existing infrastructure immediately upstream, where Perisher Creek flows beneath the existing deck for the existing chairlifts and the Powder Inn, and the existing creek banks have been modified and stabilised, as shown in Photo 2.

Photo 1: The existing creek crossing where the open box culvert is proposed.

Photo 2: The existing state of the creek and banks immediate upstream of the site.

Photo 3: The existing open box culvert 750 m downstream.

The potential for impacts on fish passage are negligible, given that the proposed works do not involve any construction in the stream bed or other works that may impede fish passage. The potential for adverse impacts on fish passage is further mitigated by the fact that the proposed works are approximately 850 m from the upper catchment of the Perisher Creek, and by the many other structures and crossings that occur downstream of the site along Perisher Creek, which include the Perisher Creek weir and aqueduct which diverts the entire flow of the creek to Guthega Dam.

Test of Significance (7-part test) - Snowy River Aquatic EEC

Part a) *In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.*

This factor does not apply to endangered ecological communities.

Part b) *In the case of an endangered population, whether the life cycle of the species that constitutes the endangered population is likely to be disrupted such that the viability of the population is likely to be significantly compromised*.

This factor does not apply to endangered ecological communities.

Part c) *In the case of an endangered ecological community, whether the action proposed:*

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

The extent of the local occurrence of the Snowy River Aquatic Ecological Community is not known however it is likely to be very extensive and includes as a minimum the full extent of Perisher Creek and its tributaries such as Rock Creek. Direct impacts on the Snowy River Aquatic Ecological Community will be limited to the culvert proposed to upgrade the existing vehicle crossing over Perisher Creek. The proposed bridges for skiers and grooming machines and the proposed drainage outlet for stormwater from the bottom station will not have any direct impacts on the community as the piles for the bridges and the drainage outlet will not be located within the creek channels. Minor indirect impacts will be associated with shading from the proposed bridges and discharge from the proposed drainage outlet. In addition, temporary minor impacts on water quality are likely during the construction phase of the proposal, particularly during installation of the proposed culvert.

Any impacts on the community associated with the proposal are likely to be minor and predominately temporary, being largely limited to minor disturbances during the construction phase. The existing crossing results in minor adverse impacts on the community each time a vehicle uses it. This would be exacerbated during construction of the proposed chairlift in the absence of the proposed culvert.

The proposed skier bridges will not involve any direct impacts on the creek bed or banks, with the piles being located beyond the creek channel and banks, as shown in Photo 4. Any shading of the creek associated with the proposed bridges will be minor, limited to a very small area, and has been further mitigated by the steel grating and removable conveyor matting.

The discharge from the drainage outlet from the bottom station will comprise minor flows in the context of the flows which area experienced regularly within Perisher Creek and its tributaries. The drainage pipe will discharge approximately 50 m downstream of the proposed culvert into a part of the creek that has already been modified by existing development (see Photo 5). The flows from the drain are not expected to result in any scouring or erosion of the bed or banks, and will be managed by an energy dissipater as per best practice. Erosion and scouring have not occurred as a result of the similar drain installed for the nearby Leichhardt Chairlift.

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

The composition of the Snowy River Aquatic Ecological Community was not surveyed as part of this assessment, however it is highly unlikely to be significantly different to the composition in similar habitats within Perisher Creek and its tributaries. That is, it is highly unlikely that those areas affected by the proposed works support a unique assemblage of the characteristic species of the Snowy River Aquatic Ecological Community that does not occur elsewhere within the local occurrence. Aquatic fauna species utilising foraging substrates within the study area would not be restricted to the areas affected by the action proposed and would be highly likely to continue to utilise habitats in the remainder of the local occurrence after the implementation of the action proposed.

The action proposed is not anticipated to result in adverse impacts on the Snowy River Aquatic Ecological Community within or beyond the study area. The proposal will include appropriate measures to avoid fuel or chemical spills or any substantial sediment input into watercourses during the construction period. In the context of the other impacts on the Perisher Creek, diversion downstream to Guthega Dam, in association with the existing ski resort, and natural events such as the 2003 wildfires, landslides or major flood events, the potential indirect impacts on water quality, and thus on the Snowy River Aquatic Ecological Community, associated with the action proposed are negligible.

Part d) In relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

The proposed works will not remove any habitat for the Snowy River Aquatic Ecological Community and will involve only very minor modifications to a very small extent of its occurrence comprising only a few square meters. By mitigating impacts associated with the existing vehicle crossing, the proposed works are likely to have a net benefit on the community.

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

The proposal will not fragment the Snowy River Aquatic Ecological Community or isolate any occurrences of it. The potential for impacts on fish passage or the passage of any other organisms are negligible, given that the proposed works do not involve any construction in the stream bed or other works that may impede the passage of fish or other animals.

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

The small area of habitat to be directly affected by the proposed works is not important to the long-term survival of the Snowy River Aquatic Ecological Community. Perisher Creek is an important part of the community, and as such, the proposal has been designed to minimise direct and indirect impacts on Perisher Creek such that significant adverse impacts are highly unlikely.

Should you require any further information please contact me on 4476 1151 or 0422 802 447.

Regards,

Ryan Smithers
Senior Ecologist

Photo 4: The proposed bridges will not have any direct impacts on creek bed or banks with the piles located beyond the creek bed and banks, predominately in already disturbed vegetation.

Photo 5: The drainage outlet for stormwater from the bottom station will discharge into an already modified part of Perisher Creek.