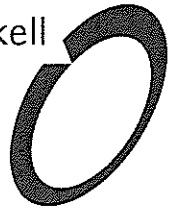


18 October 2011

Ryan Piddington
TrustPower Limited
Private Bag 1203
Truman Lane
Te Maunga
TAURANGA

Boffa Miskell



Dear Ryan,

Re: Kaniere/McKays HEPS Joint WCRC/WDC Section 92 Request

TrustPower Limited (TPL) has received a joint section 92 request for further information from the Westland District Council (WDC) and the West Coast Regional Council (WCRC). The purpose of this correspondence is to provide TPL with information on those aspects of the section 92 request that relate to terrestrial ecology and birds to enable it to provide a response.

Those aspects of the WCRC's further information request that relate to terrestrial ecology and/or birds are:

WCRC 8(a): Wetlands, and in particular:

- Assessment of the effects of lower lake levels on wetlands;
- How effects may be monitored for; and
- Any potential mitigation measures.

WCRC 6(b): Cumulative effects of the proposed enhancements and the Hokitika community water supply take.

Those aspects of the WDC's further information request that relate wholly to terrestrial ecology and/or birds are:

WDC 2(b): The adequacy of the flora and fauna surveys, and;

WDC 2(c): The practicalities of construction work being undertaken outside the bird nesting period.

Those aspects of the WDC's further information request that relate partly to terrestrial ecology and/or birds and have been answered in part, from an ecological perspective are:

WDC 1(c): Details of the degree of riparian vegetation removal along Kaniere River
Riparian vegetation removal along Kaniere River;

WDC 1(d): Details of the vegetation between the intake/landing and chainage 500m and
details, timing and plans of proposed rehabilitation and mitigation for this area;

WDC 1(h): Revegetation closure targets; and

WDC 1(i): Width of the construction corridor between chainage 500 and Ward's Road

The information required to address these section 92 requests is provided below.

WCRC Further Information Request

6) Hokitika Community Water Supply

6(b): Cumulative effects of proposed enhancements and the Hokitika community water supply take

Information request:

"Details of any cumulative effects from the 2 takes particularly given the recent increase in take for the Hokitika water supply."

Partial response from Terrestrial Ecologist:

The change in the mean and median lake levels (11 and 15 mm, respectively, as modelled over the 2002 to 2008 period) that are predicted as a result of the recent increase in the take for the Hokitika water supply are small. In my opinion, the cumulative effect of this on terrestrial ecological values, including the wetlands on the margin of Lake Kaniere and the lake's water birds will be negligible.

8) Wetlands

8(a): Wetlands

Information request:

"Assessment of the effects of lower lake levels on those wetlands, how effects may be monitored for and any potential mitigation measures."

Response:

The potential effects of lower lake levels on wetlands on the riparian margin of Lake Kaniere are described in detail in Section 8.1.3 (pages 54-59) of Boffa Miskell's Terrestrial Ecology and Avifauna Assessment Report (2010) (Terrestrial Ecology Report). This report includes an assessment of the predicted effects on each specific wetland as outlined in Table 8.1. The assessment concluded that the operation of the enhanced Scheme is not expected to have any significant adverse effects on the wetlands of Lake Kaniere and that the significance of the predicted effect does not warrant wetland monitoring or mitigation (refer to Section 9.1.2, page 90 of the Terrestrial Ecology Report).

WDC Further Information Request

1) Landscape/Natural Character/Amenity

1 (c): Details of the degree of riparian vegetation removal along Kaniere River Riparian vegetation removal along Kaniere River;

Information request:

“Details of the degree of riparian vegetation removal along Kaniere River, the resultant landscape effects and proposed mitigation between the intake and chainage 500m. Can riparian vegetation removal be avoided or what buffer margin is proposed.”

Partial response from Terrestrial Ecologist:

A 40 metre wide area of riparian forest on the true right bank of the Kaniere River will need to be removed to construct a 20 m wide tailrace for the Wards Road power station. The significance of the clearance of this vegetation is small in the context of the total vegetation clearance required for the Kaniere Forks enhancements. This vegetation removal cannot be avoided and a buffer margin is not applicable in this situation. Rehabilitation planting will be undertaken alongside the new tailrace and access track where riparian vegetation has been removed during construction.

1 (d): Details of the vegetation between the intake/landing and chainage 500m and details, timing and plans of proposed rehabilitation and mitigation for this area

Information request:

“Detail existing vegetation and amenities removed, and earthworks required including assessment of landscape effects of all works between the intake/landing and chainage 500m and provide details, timing and plans of the proposed landscape/amenities rehabilitation and mitigation for this area.”

Partial response from Terrestrial Ecologist:

The vegetation between the intake/landing area and chainage 500m is primary (rimu)-(miro)/kamahi-*Quintinia* forest. Detailed information on this vegetation type is provided in Section 5.6.1, pages 27 of 28 of the Terrestrial Ecology Report, with additional detail on the location, composition and structure of the vegetation communities provided in Map 8 and Appendix 4. The proposed landscape rehabilitation for this area is outlined in the Draft Landscape Rehabilitation Plan that is currently in preparation. From an ecological perspective only, the objective of rehabilitation for the areas currently in indigenous vegetation will be to return them to a state that resembles, as closely as possible, the cover prior to construction of the enhancements.

1 (h): Revegetation closure targets

Information request:

“Is it proposed over the whole construction site that, post construction, 40% may be left as gorse, with 10% being left as bare ground. Is the conclusion of the assessment effects that this mitigates landscape/character effects of the works particularly along the cycle/walkway.

Provide details and plans of the proposed landscaping/revegetation works following construction.”

Partial response from Terrestrial Ecologist:

The wording in the information request relates to draft condition 19 for both the Kaniere Forks and McKays HEPS:

“Rehabilitation planting/regeneration has been certified as being successful by a suitably qualified ecologist when the following targets have been met:

- (i). Canopy cover of indigenous species or gorse > 90% with at least 50% canopy cover of indigenous species in terrestrial ecosystems.*
- (ii). Canopy cover of indigenous species > 75% in wetland ecosystems.*
- (iii). percentage cover of bare ground is < 10%”*

Once these targets have been met, from an ecological perspective vegetation rehabilitation will be deemed to have been successful, to the extent that it will be self-sustaining and continued natural regeneration is likely to occur without further management or human intervention. The proposed cover of $\leq 40\%$ of gorse in the canopy and $< 10\%$ bare ground reflects the likely successional pathway this vegetation will take. Gorse is already present within the construction corridor (primarily as a result of the clearance and maintenance of the transmission line corridor). In this environment gorse is an early successional species that, in time (approx. 15 – 25 years), will be over-topped by indigenous forest tree species. Controlling gorse is likely to perpetuate an early successional vegetation stage by returning controlled areas to bare ground which will continue to be re-invaded by gorse.

1 (i): Width of the construction corridor between chainage 500 and Ward’s Road

Information request:

“From approximately chainage 500 through to Ward Road the race and access follows the transmission line corridor. Plans provided note the transmission line corridor is a 25 metre clearing but the proposed construction corridor is 30 metres please provide reasons for the need to widen the existing cleared transmission corridor.”

Response:

It is no longer necessary to widen the construction corridor from approximately chainage 500 through to Ward Road. Construction works can be contained within the existing transmission line corridor (R. Shelton pers. comm. 2011).

2) Vegetation Removal

2 (b): Adequacy of flora and fauna surveys

Information request:

“Provide an assessment of the adequacy of the flora and fauna surveys predicting and determining the potential effects of the proposals on flora and fauna.”

Response:

The flora and fauna surveys provide a sound understanding of the vegetation, habitats and fauna of the site in the context of the Ecological District. They are adequate for determining the potential effects of the proposal on terrestrial ecological values and the water birds of Lake Kaniere and the Kaniere River.

Comprehensive surveys have been undertaken of the riparian vegetation and wetlands surrounding Lake Kaniere and the terrestrial vegetation communities and habitats within and adjacent to the proposed Kaniere Forks and McKays HEPS enhancements. They are adequate to determine the potential effects on vegetation, communities and habitats, as outlined in the Terrestrial Ecology Report submitted in support of TrustPower's Assessment of Environmental Effects for the present applications.

The surveys and information available on the water birds of Lake Kaniere, the Kaniere River and the terrestrial habitats associated with the HEPS provide adequate information to determine the potential effects on birds.

DOC has undertaken surveys for bats in the Lake Kaniere area and this information was provided for this assessment. This survey data confirms that there are long-tailed bats present in the wider area. Additional bat surveys were not considered necessary for the assessment of effects because they would not have contributed to the assessment. Long-tailed bats frequently shift roosts, so what is important is whether there are bats roosting in trees within the construction envelope immediately prior to construction activities commencing. Pre-construction monitoring for bats within the construction envelope has been included as a draft condition of consent.

Specific surveys were not undertaken for lizards or invertebrates as these would not have contributed to the assessment of effects. The need for lizard and terrestrial invertebrate surveys was discussed with the Technical Support Officer: Terrestrial Fauna, West Coast Conservancy Office prior to the commencement of detailed field investigations. He concurred that this level of assessment was sufficient given the absence of rare or distinctive habitat types, the low levels of endemism in the West Coast's fauna, and the scale of the potential adverse effects in the context of the wider area. Because the construction corridor is relatively narrow in relation to the abundance of similar habitats surrounding the alignment, and in the wider area, the proposed HEPS enhancements will only directly affect a very small proportion of individuals in the local populations. Population level effects on lizards or invertebrates are considered to be extremely unlikely.

2 (c): Avoiding the bird nesting period

Information request:

"The assessment of effects advises that it is preferable to undertake construction works outside the nesting period (i.e. undertake works from February to September) although notes from a practical sense that it may not be achievable. Is it practical to achieve this through timing of activities or are there areas that are more sensitive than others that could be avoided during the nesting season."

Response:

A preliminary construction schedule is currently being prepared (R. Shelton pers. comm. 2011). The timing and staging of construction works will be dependent on several aspects such as peak visitor numbers, recreational usage of the walking track, weather, availability of contractor's and machinery, etc. If it is necessary for construction works to be undertaken during the breeding season, vegetation removal will result in the loss of a small number of nests, and indirect disturbance to nests near the construction corridor may result in nest desertion and egg and nestling loss. However, because the number of nests likely to be affected is very small there will not be any population level effects on any of the species that may nest within the construction corridor. Due to the likely magnitude of the effects, in my opinion, it is unnecessary to try and stage construction works around the bird nesting period.

If you require any further information in addition to what is provided above, or if you have any questions please do not hesitate to contact me on (03) 364 4761.

Yours sincerely
BOFFA MISKELL

A handwritten signature in black ink, appearing to read 'Scott Hooson', written in a cursive style.

Scott Hooson
Ecologist

cc: Matt Bonis and Jane Anderson, Planit Associates