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17 October 2011

TrustPower Limited McKays Creek Kaniere Forks Reconsenting Project

Joint s92 Response

WCRC Item			
1 (a – c)		Mr Robert Shelton	
2 (a)	Mr Lennie Palmer		
3 (c)		Mr Robert Shelton	
6 (b)	Mr Lennie Palmer		
10 (a)	Mr Lennie Palmer	Mr Robert Shelton	

WDC Item			
1 (b)		Mr Robert Shelton	
1 (c)		Mr Robert Shelton	
1 (e)			Mr Ryan Piddington
1 (f)		Mr Robert Shelton	
1 (i)		Mr Robert Shelton	
1 (j)		Mr Robert Shelton	
3 (a)			Mr Ryan Piddington
3 (c)			Mr Ryan Piddington
4 (c & d)		Mr Robert Shelton	
4 (e)			Mr Ryan Piddington
4 (f)			Mr Ryan Piddington
5 (a)		Mr Robert Shelton	
5(b)		Mr Robert Shelton	
6 (a)		Mr Robert Shelton	

West Coast Regional Council Item 1 (a-c)

1. *Gravel is to be extracted from the Kaniere River during the construction/enhancement works.*

   a) *Clearly indicate on an aerial photograph or map the location(s) for the gravel extraction.*

   b) *Give an indication of the amount of gravel to be extracted and if it is from the dry bed.*

   c) *Give an indication of the timing and duration of the gravel extraction.*

TrustPower Response

a) Section 2.2 of the Feasibility and Scoping Report for Scheme Reconsenting describes where gravel will need to be extracted. There is only one location and this is reproduced below for clarity.

"The lake junction with the existing channel, upstream of the gates, will need maintenance dredging with an excavator to remove the bank of sediment built-up between the lake and the channel."

The area where gravel is to be removed, to keep the intake clear, is shown in Figure 10KNF-114 contained in Appendix 1.

b) Consistent with current maintenance activities undertaken in respect of the Scheme a volume of approximately 50 cubic metres needs removing on average once every 10 years. The gravel is extracted from below lake level using an excavator.

c) The gravel removal will be done during construction works for the enhancement and approximately once every 10 years thereafter. The work will take approximately 3 days.

West Coast Regional Council Item 2 (a)

2(a) Please detail how quickly lake levels are likely to rise and fall and any potential effects as a result and mitigation proposed.

TrustPower Response

As stated in the AEE report "Kaniere Forks and McKays Creek Power Schemes Re-consenting: Hydrological Study (19 November 2010) section 6.2.2 page 32 and Figure 2.4, the distribution of the change between the daily 3-hourly maximum and 3-hourly minimum level is presented in Figure 1. As expected due to the relatively large volume of the lake (compared to outflows), that even with no inflows to the lake and a maximum outflow of 8 m^3/s, a maximum daily drawdown of less than 0.05m would be achieved. The rate of change that would result from the additional 2m^3/s abstraction would be proportionally less than 0.15m per day. The higher daily level changes are associated with level increases due to rainfall events. The systems used to measure the Lake Kaniere level have a 0.01m dead-band, hence the apparent 'steps' in the actual data in Figure 1.

Currently the maximum managed outflow from Lake Kaniere is around 6 m^3/s (1 m^3/s for Kaniere Forks station and up to 5 m^3/s for McKays Creek station). This maximum will increase up to 8 m^3/s for Wards plus the Kaniere River minimum flow requirement. All up a 2 m^3/s to 3 m^3/s increase in lake outflows is equivalent to an increase in the daily lake drawdown of less than 0.02m.

Median daily level change for actual and enhanced is 0.02m, with 95% of these daily level changes for both below 0.10m. The largest level changes measured or modelled was around 0.50m and occurred on 17 February 2005 due to a daily inflow flood to the lake of about 100 m^3/s.

Thus there will be a slight increase in maximum lake draw-down, but generally the range of level changes will remain within the limits as previously observed for the lake.

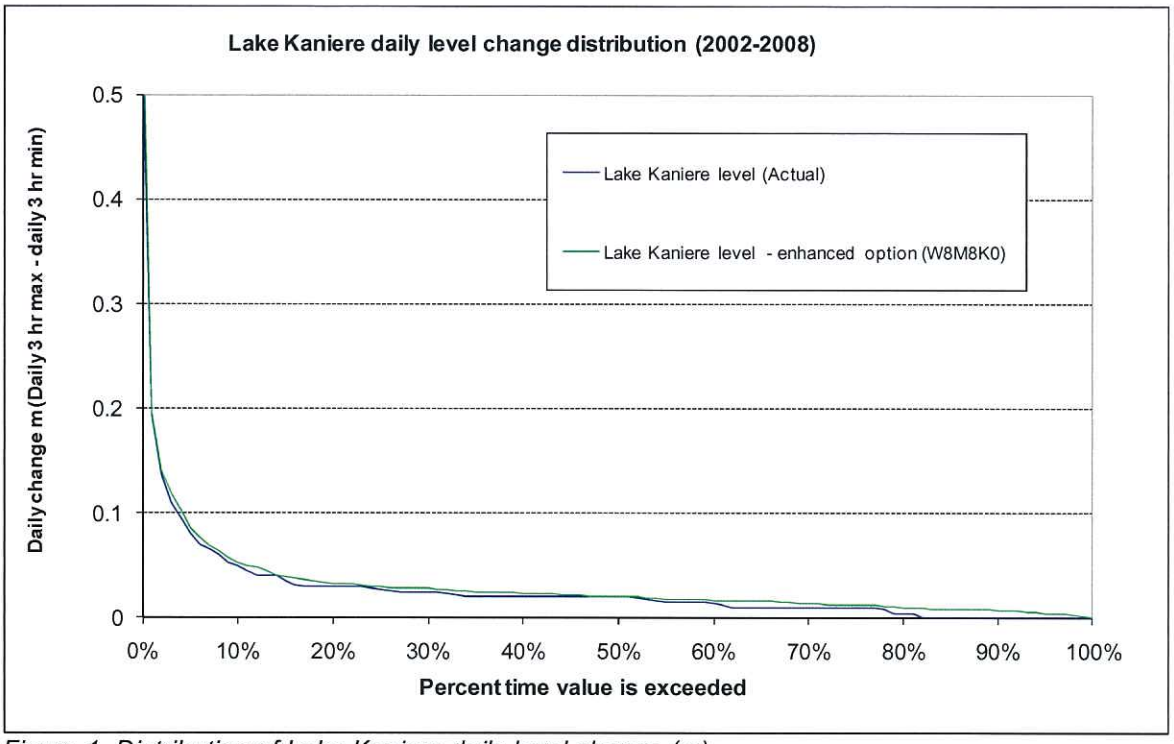

Figure 1. Distribution of Lake Kaniere daily level change (m).

West Coast Regional Council Item 3 (c)

3(c) Potential mitigation for infrastructure such as boat ramps and jetties becoming unusable due to lower lake levels.

TrustPower Response

The minimum consented lake level will not change and the problems with access at low lake levels have existed for many years. The boat ramps and jetties were installed to cater for the existing lake levels.

From TrustPower's own observations, it appears that access, from the existing boat ramps and jetties, begins to be a problem when the lake level is below about 0.2m Local Datum (0.4m above the minimum consented level).

Mr Palmer's hydrology report shows that, over the last 8 years, the lake level has been below 0.2m Local Datum 2% of the time (7 days per year on average) within the existing operating regime. During the summer period, the lake is below 0.2m for less than 1% of the time.

The proposed scheme does not alter the minimum consented lake level. Mr Palmer's figures (Appendix 2) for the amended seasonal lake operating regime shows that the lake level would be below 0.2m 16% of the time over the full year with the proposed seasonal operating regime. During the summer months the lake level will be below 0.2m for less than 1% of the time which is the same as what currently occurred for the same time period.

Notwithstanding the above, TrustPower has investigated how access to boat ramps and jetties can be enhanced. Figure 10KNF-131 and 10KNF-132 contained in Appendix 3 details the options to enhance boat the ramp access.

The proposed options are:

- to extend Sunny Bight Boat Ramp by 4m, enabling it to be used over an additional 0.4m of lake range;
- repair the scour hole at the end of the Hans Bay boat ramp and provide some armoring at the end of it to protect it. This will also provide some degree of comfort if a trailer were to go past the end of the ramp (currently it could fall in the scour hole); and
- provide an access ladder to the jetty at Hans Bay.

West Coast Regional Council Item 6 (b)

6(b) Detail cumulative effects from the 2 takes particularly given the recent increase in take for the Hokitika water supply

TrustPower Response

The previous Hokitika water supply take was not assessed in terms of the existing or proposed upgrade options (the take is not monitored by TrustPower nor was the take over time known- at the time of undertaking the studies).

The increase in water take by the District Council was assessed in terms of the increase in potential maximum take and the combined affect this may have to the proposed McKays and Kaniere enhancements. The cumulative effect on Lake Kaniere levels of increasing the WDC take from the lake by a constant 0.07 m^3/s over the year was assessed, and the net effect was to reduce mean lake levels by 11mm and median levels by 15mm over the 2002 to 2008 period.

The application to increase the Hokitika water supply was not opposed by TrustPower.

West Coast Regional Council Item 10 (a)

10(a) Provide a detailed discussion on what other alternatives to the enhancements were considered and reasons for their rejection. Are there any other viable alternatives or compromises that could be made? In particular, what consideration was given to increasing the height of the Lake Kaniere weir? If this was considered, then what are the reasons for this alternative being discarded?

TrustPower Response – Mr Lennie Palmer

Enhancement and Development Alternatives no longer considered

Several enhancement and development alternatives were investigated and these are covered in the Sections that follow. None of these options were preferred to the Wards Road / McKays upgrade option (as consents have been lodged for). Section 1 locations were rejected primarily due to the estimated engineering costs, and or environmental or land access issues. Section 2 and 3 enhancement options were not favoured due to estimated enhancement cost and benefits from the enhancement.

1) Lake Kaniere development options based on the Mandeno et al. 1974 report

This consulting engineers report to the West Coast EPB dated July 1978 identified several hydro-electric power schemes based on Lake Kaniere (Mandeno et al, 1974). A review of this study investigated the generation potential for each of the three schemes as identified in this consultants report. The scenarios that include out-of-catchment water diversions into Lake Kaniere from the Styx, Kokatahi and Arahura Rivers were not included in this study.

Various maximum flow capacities of the schemes were investigated, the schemes are described in Table 1, and the design capacity listed is as used in the original Mandeno report.

Table 1. Summary of Lake Kaniere development options based on the Mandeno 1974 report.

Description	1974 Scenario identifier	Scheme capacity (m^3/s)
Two stations the first just upstream of McKays weir. Water from Lake Kaniere would travel down the northern side of the Kaniere river and discharge at a location just upstream of the existing intake for the McKays scheme. The second power house would be located at the site of the existing McKays power station	*N1*	9.0
A single power station at McKays creek. The head between Lake Kaniere and the McKays creek power station would be utilised with a single powerhouse on the northern side of Kaniere River some 200m upstream of the existing McKays powerhouse. The race would go down the northern side of the Kaniere river catchment	*N2*	9.0
A single power station at Raft Creek (Hokitika River). This scheme proposed to utilise the total head available from Lake Kaniere by constructing a race from Lake Kaniere via Butchers and Blue Bottle Creeks to a powerhouse near Raft Creek on the Hokitika River plain.	*N3*	9.0

2) Kaniere Forks station discarded upgrade options

Options of increasing the capacity of the Kaniere Forks race and power station up to 2 m^3/s were also investigated (Table 2). Improving the existing station efficiency produces another 1.8 GWhs per annum. One option also included replacing the existing Kaniere Forks station at a location on the Kaniere River immediately upstream of the McKays weir. Such an option would reduce the head available to the new station, but the water discharged from the station would be available to the McKays Creek power scheme.

Table 2. Kaniere Forks station upgrade options.

Scenario Description	Scheme capacity (m^3/s)
Existing station - actual	1.0
Upgrade existing station [(1)]	1.0
Increase scheme capacity to 1.5 m^3/s	1.5
Increase scheme capacity to 2.0 m^3/s	2.0

Note 1 – Upgrading the existing station would improve the station efficiency to around 80%.

3) Kaniere Forks, McKays Creek, and Wards station discarded upgrade options

Other enhancement options covering Kaniere Forks, McKays Creek scheme and a new station in the vicinity of Wards Road were also investigated. These additional scenarios are given in Table 3, and include two scenarios with the existing Kaniere Forks power station upgraded to a maximum of 1.5 m^3/s. There are also an additional two Wards station scenarios, one with the station at 5 m^3/s and one at 6 m^3/s. These scenarios have the existing McKays Creek station either at 5 m^3/s or upgraded to 8 m^3/s. No Kaniere Forks station is included under the Wards station at 6 m^3/s scenario.

Table 3. Additional Modelling scenarios removed from Section 6 of this report.

Scenarios	Scenario identifier	Kaniere station (m^3/s)	New station at Wards road (m^3/s)	McKays station (m^3/s)
Description		KNF	WARDS	MKY
Existing Kaniere scheme upgraded to 1.5 m^3/s	*KNF1.5*	1.5	0	5
Kaniere upgraded to 1.5 m^3/s, McKays upgraded to 8 m^3/s	*KNF1.5_Mky 8*	1.5	0	8
New Station at Wards rd at 5 m3/s	*Wards5*	1	5	5
MKY at 8 m3/s	*Mky8*	1	0	8
Wards at 6 m3/s, MKY at 8 m3/s	*Ward6_Mky8*	0	6	8

4) Raising Lake Kaniere outlet weir

No investigation to raising the level of the Lake Kaniere outlet weir structure was undertaken.

TrustPower Response – Mr Robert Shelton

As outlined in Mr Palmer's response above, the lake is fed by natural streams and rainfall and the water leaving it must be equal to the water entering minus minor losses (groundwater and evaporation). The long-term hydrology records show that, on average, around 7 cumecs flows out through the Kaniere River. About 6 cumecs of this is passed by the existing gates, with 5 cumecs flowing down the river to the McKays intake and 1 cumec flowing down the existing Kaniere race. The remaining water flows represent the water spilt over the top of the weir when lake levels are high.

A range of canal sizes between 6 and 12 cumecs were conceptually considered for the Kaniere enhancement. The 6 cumec capacity would be approximately the same as the normal flow down the river and the overall outflow would be approximately that of the existing scheme (currently an average of about 5 cumecs flows from the control gates down the Kaniere river to the McKays intake, and 1 cumec flows down the Kaniere race). However, in times of high rainfall or lake levels the river flows can be much higher than 6 cumecs (flows greater than 10 cumecs are common) and all the excess flow is not able to be utilised in generation at either the McKays or Kaniere Forks Scheme.

Often a flow of about twice the mean flow is used in conceptual engineering as the point for providing optimum additional capacity. For the Kaniere Enhancement this would be about 12 cumecs, and this was set as the upper bound for the installed flow capacity.

The main reasons that an 8 cumec capacity was selected are:

- it lies between the mean flow and twice the mean flow available for generation;
- 6 cumec capacity would not utilise the available flow efficiently and more of the flow would be spilt;
- increasing the race capacity to 8 cumecs increases the generation capability and improves scheme economics;
- the existing control gates and approach pass this flow under the existing consents and the modifications required are therefore minimised;
- the channel hydraulics to the existing control gates currently cater for this flow and no significant modification is required;
- In a number of places (especially the first 600m of the race) the existing and proposed alignments traverse around the edge of the east bank of the Kaniere River. It would become significantly more difficult, expensive and disruptive if the capacity were to be increased above 8 cumecs;
- The downstream McKays scheme is currently designed for a take of 5 cumecs from the Kaniere River. However, this scheme can be enhanced to about 8 cumecs by debottlenecking the existing infrastructure. If the Kaniere scheme is sized to the same level it will enable the full flow of water to be utilised twice.

As a result of discussions with the Department of Conservation it was suggested by them that increasing the operating range of Lake Kaniere by reducing the minimum lake level could have facilitated an increase in the minimum flows in the Kaniere River as more water would be stored that could be released as residual flow.

However, feedback during the public consultation process came out very firmly against lowering the lake level. As a result of this TrustPower decided not to pursue this option. The consented minimum and maximum lake levels for the Kaniere Forks Enhancement scheme therefore remain at the same level that the lake has operated at for the last 30 years.

During design of the scheme a number of alignment options were considered for the enhanced Kaniere Forks race. The historic, ecological and recreational value of the race is fully appreciated and significant work was done to minimise the impact of the enhanced scheme on the existing race, walkway, streams and native bush,

After discussion with the Mr Scott Hooson a decision was made to align the new canal along the existing Westpower transmission line alignment as far as practicable. This was a key enhancement that minimises the impact on the existing race walkway, vegetation and valuable habitat.

The existing transmission line alignment has been cleared completely over a width of 25m for much of the canal route. TrustPower approached Westpower with the concept of sharing the transmission corridor and the response has been positive.

An additional enhancement in this area is relocating the Westpower transmission line underground along the canal route.

Westland District Council Item 1(b)

1(b) Detail of works required, and assessment of landscape effects, at the intake/tunnel section of the Kaniere Forks scheme to chainage 000m. Plans provide some detail from chainage 000m onward but not in the area before chainage 000m through the 10m construction corridor. Also provide typical cross sections for this area particularly where it enters the reserve and walkway.

TrustPower Response

Between the intake and chainage 500m the existing race was originally installed in a cleared corridor between 6 and 10m wide. This has since re-vegetated. As noted on drawing 10-KNF/RUG-114 (Appendix 1), approximately the first 70m of the route will replace the existing culvert and tunnel with a new, larger, cut and cover culvert. The construction corridor over this area is 10m wide and the new culvert will be installed by cut and cover.

To minimise the footprint of the scheme through the reserve the new access path for bicycles and recreational walkers will be placed on top of the culvert.

Westland District Council Item 1(c)

1(c) 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.

TrustPower Response

The scheme avoids removal of any primary growth riparian vegetation between the existing footprint and the river. The tightest possible construction and permanent corridor of 10m for the first 70m of works and 15m wide for the remaining corridor to chainage 480m has been nominated.

All work will be on the hill side of the existing clearing and the edge of the corridor will be fenced on the river side during construction to ensure that no work or debris extends on the riparian side of the existing embankment.

A Draft Environmental Management Plan is being developed and will describe the measures that will be taken to minimise the impact of vegetation removal. This plan will be presented at the hearing.

Westland District Council Item 1(e)

1(e) Both the landscape assessment provided and suggested conditions proposed amenity/picnic areas. Provide details of proposals including locations and descriptions.

TrustPower Response

TrustPower proposes to have amenity / picnic areas at two locations to be developed during construction and one additional area following the decommissioning of the existing Kaniere Forks Power Station.

The two areas to be developed during construction will be sited as below:

- At The Landing or intake to the Scheme. This area will be developed as a picnic area with tables and an interpretation area including information panels and a shelter feature for all weather viewing of the panels. The information panels here will be of high quality (stainless steel etching) and will incorporate information on heritage items and the proposed native fish pass system located there.
- The second amenity area is proposed at chainage 1000 - 1100m where a buffer storage area is proposed. The site would be developed to include picnic tables and will also include some heritage interpretation panels, again these would be of high quality stainless steel etchings. This would be completed within the proposed construction corridor.

Once the existing Kaniere Forks Power Station is decommissioned, the building and surrounding area will be used as another amenity area and a visitor / educational centre.

Artistic impressions of the amenity areas at the landing and along the canal will be produced for presentation at the hearing.

Westland District Council Item 1(f)

1(f) Areas of cut are proposed through the development of the works please provide details of proposed disposal of excess fill and landscape mitigation.

TrustPower Response

Cut volume for the project will be dependent on final geotechnical design and survey. However, a conservative estimate is that there will be approximately 120,000 cubic metres of cut material that will need to be placed as fill.

The main areas identified for placing this fill are:

- Along the canal right-of-way where it coincides with the existing clearing for the transmission line (approximately 10,000 cubic metres);
- Forming the temporary works area and permanent works platform at the Ward Road power station and penstock routes (approximately 48,000 cubic metres);
- Surfacing of the existing path down the true left of the Kaniere River so it is suitable for bicycles and walkers (approximately 2,000 cubic metres);
- Disposal off-site at an approved filling area (about 60,000 cubic metres). Two such areas have been identified, one on the farm that McKays canal goes through and identified on drawing 08MKY-KWU-150 as part of the AEE document. A second spoil disposal site has been identified at the end of Ward Road in existing cleared forestry land. Discussions with the landowner are currently being progressed and the details of this site will be provided at the hearing.

Westland District Council 1(i)

1(i) 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.

TrustPower Response

TrustPower has reviewed the required corridor width and no longer intends to extend the construction corridor beyond the existing 25m clearing. The drawings will be corrected to show a 25m wide construction corridor. These will be provided at the hearing.

Westland District Council 1(j)

1(j) Please confirm that all proposed new buildings and structures are to be painted in colours which mitigate visual effects.

TrustPower Response

TrustPower confirms that all buildings and structures will be painted in recessive colours that will blend into the surrounds. A condition confirming this will be developed and presented at the hearing.

Westland District Council Item 3(a)

3(a) Provide a summary/schedule of the sections of the race and walkway to be removed, retired/decommissioned, retained and modified/incorporated in to the enhanced scheme between the intake and the existing Kaniere Forks power station. Including how each section is to be managed and/or maintained during and post construction.

TrustPower Response

0 – 480m (Existing and New Canal Chainage): Existing canal to be removed and replaced with a new canal. Construction corridor within this section is 15m wide. The canal itself will be about 7m wide across the top. This includes removal and replacement of the existing walkway through this section.

480 – 930m (New Canal Chainage): The canal splits here with the new canal following the transmission line alignment. Along this alignment a new canal will be constructed in a 25m wide construction corridor (previously 30m) again the canal approximately 7m wide across the top and a 3.5m access track / walkway.

480 – 1150m (Existing Canal Chainage): Existing canal retained but decommissioned. This section of canal was intended to be in filled with spoil from construction in order to remove a potential safety hazard to users of the walkway / cycle way as the canal here is a deep cut. As this is likely to result in damage to the existing vegetation and walkway this option is no longer being considered and if a safety hazard remains it will need to be clearly marked or minimised through another means. Any walkway along this section of the canal will also be retained.

930 – 1100m (New Canal Chainage) 1150 – 1320m (Existing Canal Chainage): At this point the old and new canals reconverge and one new canal will be built. This will result in the removal of the existing canal / walkway along this chainage. In this chainage, the canal will be widened to approx 25m for a length of 60-80m to provide some buffer storage. The typical construction corridor will be 30m.

1100 – 1620m (New Canal Chainage): Canal splits again into new and existing canal along this chainage and the new canal follows the transmission route. The canal has a typical width across the top of 7m and construction corridor of 30m including an access track of 3.5m on the true right of the new canal.

1320 – 1965m (Existing Canal Chainage): Existing canal / walkway is to be retained but decommissioned. This section of canal will be maintained as is but without water flowing.

1620 – 1880m (New Canal Chainage) 1965 – 2245m (Existing Canal Chainage): New and existing canals reconverge again here and existing canal / walkway replaced with a new canal approximately 7m across the top and a 3.5m access / walking track. The existing canal is tunnelled here from approximate chainage 2150 to 2240m following the existing chainage. This tunnel will be day lighted and the overall construction corridor through this section will be approximately 20m.

1880 – 2350m (New Canal Chainage): The canal splits again with a new canal being constructed along the transmission line route.

2245 – 2710m (Existing Canal Chainage): Existing canal and walkway is to be retained but decommissioned. This section will be maintained as is without water flowing.

2350 – 2540m (New Canal Chainage) 2710 – 2900 (Existing Canal Chainage): New and existing canals reconverge here again and the existing canal is replaced by the new canal. This will result in loss of existing walkway and replacement with new access track.

The options from Ward Road are to continue on with the new canal along the alignment of the existing canal/walkway for another 250m. From there, one option is to pipe the water to the Ward Road Station down on the river terrace. This option will result in the replacement of the existing canal for this distance. The alternative option is to pipe the water from Ward Road (under the road) and then above ground to the same power station location on the river terrace.

The remaining section of canal / walkway down to Kennedy Creek will remain as is until the existing Kaniere Forks Power Station is decommissioned and then this remaining section of race (some 6km) will be retired. It should be noted though that much of this section of the race has been retired many years ago and the water currently is tunnelled for most of this. Of the final 4.5km's of the raceway 3.9km's of this is tunnel.

The sections of race that do not form part of the enhanced scheme will not be affected during the works so during construction their maintenance will be similar to post construction. This will involve ensuring the walkway and race itself is kept clear of any fallen trees and that the walkway is maintained to a standard fit for its usage requirements as it is currently.

The race and walkway outside of the enhancement area will continue to be maintained in its current state. At present the maintenance of the race walkway is shared between the Department of Conservation and TrustPower through an informal arrangement. This arrangement will be formalised as part of the reconsenting process with TrustPower's involvement in the maintenance of the walkway and race (once decommissioned) to be either in man hours or as a financial contribution to this.

In addition, management of the remaining sections of the existing walkway / canal are addressed in proposed consent conditions 38 and 39 of the General Conditions for the Westland District Council – Kaniere Forks HEPS.

Westland District Council Item 3(c)

3(c) Suggested conditions 38 and 39 provide conditions "if requested by the Department of Conservation". It is assumed that these are matters arising through approval processes with the landowner. However this does not provide any certainty as it is unknown what discussions are occurring through access/concession procedures and leaves the outcome to a 3rd party. Advise whether it is proposed to undertake the requirements of suggested conditions 38 and 39 in order that these outcomes can form part of consideration of the effects of the proposal.

TrustPower Response

TrustPower has further reviewed this condition and believes that it could provide better certainty to the consent authority of the actions to be taken while also allowing input into it from the Department of Conservation being the landowner. The condition would be drafted similar to the below;

38. With respect to that 900m section of the existing Kaniere Water Race between Lake Kaniere and Wards Road as identified in Condition 23(c), The Consent Holder, shall, *in consultation with* ~~if requested by~~ the Department of Conservation, *include objectives in the Heritage Management Plan that shall*:

39. With respect to remedial works and maintenance of the retired sections of the Kaniere Water Race and race man's track between Lake Kaniere and Kennedy Creek (including the original, dry, disused section of the water race), the Consent Holder shall, ~~should this be requested by~~ *in consultation with* the Department of Conservation

Westland District Council Item 4(c & d)

4(c) Provide details of the timing of closure of the cycle/walkway and its opening for public use. Describe any alternative options available for cyclists and pedestrians whilst sections of the cycle/walkway are unusable.

4(d) Suggested conditions 26 and 27 appear to indicate that the cycle/walkway may not be reinstated for up to 1 year after the cessation of construction activities. Describe why it is not possible to reinstate the cycle/walkway progressively in order that it is ready for use at the cessation of construction activities. Provide a timeline of how long it can be expected that the public cycle/walkway will not be available for use.

TrustPower Response

A Draft Construction Plan for the works will be provided at the hearing.

The works will be phased so that work from the intake to chainage 500m will be performed outside the peak summer season. Work will commence from Ward Road end and almost all the earthworks from there to chainage 000 will enter and leave site from Ward Road. The Preliminary Project Programme in Appendix 4 provides indicative timing for the work. This document makes up part of the Draft Construction Plan which will be provided at the hearing.

It is planned to start the work by upgrading the existing Westland District Council town supply line access track down the true left of the Kaniere River from about 200m from the lake down to Wards Road. This path will be re-surfaced and graded to provide pedestrian and bicycle access down to Wards Road during construction of the new canal and access way.

Work on the canal corridor will then progressively proceed from Wards Road toward Lake Kaniere as described in the Draft Construction Plan. The intention is to first build the construction access ways and prepare the right of way for canal construction where it does not impact on the existing race and walkway. During this period pedestrian and cycle access will be maintained along the existing walkway. Only when construction work has reached Chainage 550 will the existing walkway be closed while necessary constriction work is carried out along the existing canal easement.

From the time access to the current walkway cycle way from the landing to Ward Road is stopped it will remain so for 9 months.

Westland District Council Item 4(e)

4(e) Advise whether the cycle/walkway between Wards Road and the existing Kaniere power station is to be retained and maintained.

TrustPower Response

Please refer to TrustPower's (Mr. Ryan Piddington) response to Westland District Council Item 3(a) for the details on which sections of cycle / walkway are to be retained and maintained.

Westland District Council Item 4(f)

4(f) Advise of effects on the proposed Westland Wilderness Cycle Trail, whether it is proposed to incorporate that trail in to the cycle/walkway developed through this scheme, and potential alternative cycle trails during construction.

TrustPower Response

Please refer to TrustPower's response to Westland District Council Item 3(a) for the extent of the cycle trail that will be affected by the proposed enhancements. The effect will be temporary during construction.

Following completion of construction it is anticipated that the cycle trail and the existing and proposed walkway track will become part of the trail. The new sections of track will provide an easier level option for users of the track with those sections not being affected by the proposed enhancements retaining the current skill level requirements to be traversed.

As access will be temporarily interrupted during construction (details of timing are included in TrustPower's response to Westland District Council Item 4(c) in the Preliminary Project Programme) it is proposed to bring the Westland District Council water supply line access track up to a standard so that it will be able to be used for pedestrian and bicycle access from the Lake to Ward Road during this time. It is also proposed that this track be retained as such to allow a loop track from Lake Kaniere back to Lake Kaniere post construction.

Westland District Council Item 5(a)

5(a) Provide a project time line/schedule setting out anticipated construction works, rehabilitation, and commissioning. For the Kaniere HEPS this would include closure and opening of the cycle/walkway

TrustPower Response

A schedule of works is contained in Appendix 4 as part of the Preliminary Project Programme. This programme forms part of the Draft Construction Plan which will be provided at the hearing.

Westland District Council Item 5(b)

5(b) Provide an outline of proposed working hours for construction activities.

TrustPower Response

The intended normal working hours are between 7 am and 8 pm Monday to Saturday.

Westland District Council Item 6(a)

6(a) Whilst agreement to access land is outside the consent process. It is apparent that some parts of the Kaniere scheme cross private land for which access has not been agreed. Should agreement not be reached this will affect alignment and consequently details of the project such as vegetation clearance. Any change of alignment may result in the requirement for additional consents which would then be considered without the benefit of consideration of the project as a whole. Advise whether the project is to remain the in the proposed alignment and construction envelope or whether changes are required as a result of land tenure matters.

TrustPower Response

As Council has acknowledged, land access matters are a separate concern from the resource consent process. TrustPower is currently working to achieve appropriate access arrangements with all relevant landowners, and fully anticipates these negotiations will prove successful. Thus, no alternative alignments are being sought by way of the present applications.

However, should the proposal need to be modified in future (as a result of land access issues or any other reason), TrustPower will of course apply for any additional resource consents and other approvals which may be required.