

Rebuttal of the Evidence of the New Zealand Historic Places Trust (“the Trust”)

The New Zealand Historic Places Trust evidence attempts to establish that the section of loco line that will be affected by the construction of Weka reservoir is of such significance that the construction of the reservoir should not proceed, or should proceed in a way which includes a shoulder dam that will prevent flooding of the loco formation.

The evidence presented to the Commissioners fails to establish the unique significance of the section of the affected line (approximately 450 metre length inundated and affected by the construction of the Weka reservoir western abutment) with respect to the significance of the remaining portions of the line. No part of the evidence provided by the Trust provides a comparative assessment of value of the section of line that is to be affected, and the sections of line that remain.

The evidence provided by HDL establishes that a small percentage of the remaining accessible sections of formation will be affected by the construction of Weka reservoir. In making this assessment, HDL has generously assessed the percentage on the basis of formation that is readily accessible. As the Commissioners have noted, there are substantial lengths of formation which are underground.

The actual percentage of loco railway formation affected by the project is significantly less than that stated in HDL’s evidence when the underground sections are taken into account.

I will turn to the issue of avoidance of the inundation of the loco reservoir by the construction of a shoulder dam as has been proposed by the Trust.

The Trust’s evidence does not provide any detail of the assessment by Tonkin & Taylor on the viability or costs of construction of a shoulder dam. I will attempt to put this in context by asking the Commissioners to refer to the figures provided in John Easter’s evidence.

Firstly, I will refer the Commissioners to figure 7.3 which is the stage storage curve for Weka reservoir.

Secondly, I will refer the Commissioners to figure 7.2 in the first volume of evidence figures provided by Mr Easter.

Thirdly, I will refer the Commissioners to figure 19-5 Weka dam site geological map which is contained in the second volume of figures provided by Mr Easter in his evidence.

Looking at figure 19-5, I will clarify the contour levels within the figure .The contour line that runs immediately to the south of the haul road is contour 380 and the contours to the north of the haul road are between contour 370 and 380.

To build a shoulder dam to protect the loco formation would require the extension of the Weka dam western shoulder dam to follow around the north of the access road and to run out as it follows the access road south as it rises to the south.

The shoulder dam protecting the loco formation could be built on the road requiring the relocation of the haul road, or could be built on the land immediately to the north of the haul road, and hence would protect both the haul road and the loco line.

Putting aside issues of hydraulic inundation of the subgrade of the haul road, let us first consider the construction of the extended shoulder dam to the north of the haul road. In this case the haul road would be founded at approximately RL 370. 200,000 m³ of dam building materials would be required and using the costings that have been by HDL for the other dams, this would add \$33 million to the cost of building a reservoir at the Weka reservoir site. Current estimates for construction of the Weka reservoir dam and shoulders are in the order of \$17.5 million; hence building the shoulder dam would increase the estimate for the Weka reservoir to 300% of its existing estimate.

Furthermore, the height of the shoulder dam would be in the order of 20 metres high. This is the same height as the highest section of the Weka reservoir across the Weka reservoir gorge. This would substantially increase hazard and flood breach risk

Second comes the issue of how to prevent flooding of the loco formation from the pond that is would be created from Sandy Creek draining in to the depression that was previously drained under the haul road, and in HDL's current proposal, would continue to be drained in this direction into Weka Creek. Construction of the shoulder dam would end up closing this culvert and the depression would thence form a small lake which would need to be diverted to the south and west of the shoulder dam and down the side of the haul road. There is currently a drainage system down the side of the haul road towards the mine gate which eventually discharges back into Mine Creek, however this drainage ditch is designed to take the runoff from the surface of the haul road and adjoining natural runoff from the hillside above the haul road; it is not designed to take flows from Sandy Creek.

Hence the shoulder dam required to protect the haul road would also need to include a dam across Sandy Creek and a culvert underneath the existing haul road into the unnamed tributary of Weka Creek that currently runs to the east of the haul road. This would also involve additional cost over and above the \$33 million mentioned previously.

In addition to the costs aforementioned, there also remains the additional issue of the performance of the haul road as a road surface sitting some 15 metres below water reservoir. Substantial grouting all the way along the length of this shoulder dam may be required to ensure that the water pressure on the reservoir side of the shoulder dam did not track into the base of the haul road and lead to a seepage path beneath the haul road. While this may be manageable in terms of drainage relief from the reservoir, it is unlikely to be manageable in terms of water table within the haul road formation which would lead to breakdown of the haul road.

If we turn to the option of building the shoulder dam over the haul road itself, requiring the relocation of the haul road as proposed by HDL, not only would HDL incur the cost of the haul road relocation but we would also incur the cost of the shoulder dam construction.

All the above mentioned matters have been considered by HDL and were the reason behind our statement that we had looked at the feasibility of constructing a shoulder dam was not feasible.

We believe that the submission by the Trust that the inundation of the loco line can be reasonably avoided while continuing to build Weka reservoir cannot be supported in fact.

We turn to the question of avoidance of inundation by not building the Weka reservoir. We believe that this has been covered in evidence provided by John Easter. The largest portion of all future mining will take place within the catchments that report to the Weka reservoir and hence the substantial AMD control benefits that arise from the construction of the reservoir would not be achieved.

I now turn to the issue of the specific value of the loco formation within the Weka reservoir footprint.

HDL's evidence has suggested that the value of the loco formation, both above ground and within the tunnel sections underground, are significantly greater than the section that will be affected by the construction of the reservoir, both in terms of the current condition of these remaining sections, public accessibility to it, and the potential to provide real interest value for the public in the future.

In the Trust's evidence, and indeed in HDL's evidence, little mention is made of the section of the loco line that ran from station 3 (the old loading station immediately to the south of the Mangatini Stream and water treatment plant to Mount William. This formation has been affected by subsidence associated with the old historic New mine and Fly Creek mine, and is not clearly evidence on the surface, but indeed remains. There is substantial opportunity to preserve this section, as indeed has been proposed by HDL's undertaking. The land is not used by the landowner and restoration work does not need to wait for the closure of Stockton Mine.

During the questioning by Commissioners and to a lesser degree by evidence provided by the Trust, the question has been raised about the content and potential quality and value of the visitor displays that HDL has referred to in a condition of consent, and generally in the AEE whereby we state our intention to establish a visitor interpretation centre near the outlet of the Stockton tunnel and to create a walking track of public interest. I have attached to this evidence some photographs and display material that HDL has already researched. The relocation of artefacts found within Weka reservoir and the construction of the visitor displays and tracks around the reservoir will be on HDL land and will not required 2nd party approval. There can be no doubt that they will be built. Construction can be covered by the proposed performance bond.