September 20, 2024

Attn: Zoltan Schafer, RPF MaMook Natural Resources Zoltan.schafer@ufn.ca

Subject: Road Deactivation and Maintenance Assessment: Bedingfield Road Network

Onsite File #: 988-5-5 EGBC PERMIT TO PRACTICE: 1002678

At the request of MaMook Natural Resources (MaMook), Onsite Engineering Ltd. (OEL), including Jaime Eggers, P.Geo., Jon Kroon, P.Geo., Richard Norman, P.Geo., Tim Wickman, P.Geo., Luke Wagner, GIT, and Liam Giblin, GIT, carried out road deactivation and upgrade assessments in the Bedingfield Camp Area. The assessments were completed between September 3 and 6 2024. As outlined in the Blackwell review of the TFL54 Roads, all Short-Term roads (branch and spur roads and several mainlines) were assessed for permanent deactivation. Long-term roads including Millar Main, Atleo Main, Summit Main, and Bedingfield Main were assessed for reactivation and maintenance concerns.

The assessments were carried out to reduce the liabilities associated with the roads held within the TFL54 road permit during the transfer to conservancy. The assessments evaluated the existing stability conditions of the roads, and effective road deactivation and maintenance prescriptions were developed. Road deactivation recommendations for Short-Term Roads are provided in **Appendix A**. Road reactivation/maintenance prescriptions for Long-Term Roads are provided in **Appendix B**.

Roads not listed as active roads, i.e., not considered to be part of the road permit, were excluded from the assessment. The "inactive roads" are outside of the project scope and are not included in this report. Roads included in the assessment are listed in **Table 1**.

Deactivation works as prescribed in this report are provided in a manner consistent with the "Best Management Practices Handbook, Hillslope *Restoration in British Columbia*" (*BC Ministry of Forests, 2001*). Adherence to recommendations provided will reduce the hazard of landslides initiating due to road instabilities. Landslide hazard will be reduced where deactivation recommendations are completed. Expect the landslide hazard to become closer to the natural hazard levels for the area slopes.

Weather conditions at the time of the assessments were sunny and dry with foggy mornings. Streams were at low flow levels.

1.0 OBJECTIVES

The objectives are to permanently deactivate the Short-Term roads to restore natural hillslope drainage paths, reduce slope instability, and enhance site productivity (where practical and where access is no longer needed); and to reactivate or maintain the Long-Term roads by repairing any drainage or instability issues and ensuring all crossing structures are safe for vehicle use. As discussed below, the prescriptions to attain these objectives were marked directly in the field as well as documented in this report.



2.0 BACKGROUND

The roads are located in Ahousaht territory, between Herbert Inlet and Millar Channel, roughly 25 km northwest of the town of Tofino on the west coast of Vancouver Island. They are accessible from Bedingfield Bay where the old forestry camp, barge ramp, and dry land sort are located. The active roads are primarily located in the lower Atleo River watershed and wrap the north and south sides of the river, west of Barra Lake. The Summit Main road network extends east to northeast of Barra Lake and provides access along the eastern side of the Macgregor Range. Bedingfield Main and its associated spur and branch roads provide access to the slopes on the west side of Bedingfield Bay to its confluence with Herbert Inlet. Millar Main extends to Ross Passage in the south.

Road construction in the Bedingfield area began in the 1970's and by the early 1980's most of the roads included in this assessment had been constructed. Atleo Main and Millar Main had both been constructed to the edge of land at Ross Passage; Bedingfield Main and the 9601 road network had been constructed on the west side of Bedingfield Bay; and Summit Main and a number of its spur roads were in the process of construction on the west side of Herbert Inlet. Road construction in the Summit Main area was still underway by the mid 1990's and several of the Summit roads were recently reactivated for salvage harvesting. Roads in the A1500 area were also recently reactivated for salvage harvesting. Most roads within the study area were built using pre-Code methods but information of exact construction methods or year of construction was not available for this assessment.

A road deactivation program was completed in the area in the late 1990's through Forest Renewal BC (FRBC). Many roads were deactivated during this time and have since been removed from the active road permit. Several roads that were listed as short-term roads on the provided maps had already been deactivated at the time of OEL's field assessments. Roads deemed to be deactivated or not requiring any work are listed in Table 1.

Resources at risk across the study area include site productivity and fish resources. Fish bearing reaches are located throughout the study area and were determined based on identification points on HabitatWizard paired with existing LiDAR data. In general, fish reaches within the study area occur in the Atleo River, Barra Creek (its main tributary stream) and Barra Lake, the gentle gradient stream reaches in proximity to the western extent of Millar Main, and throughout an unnamed stream that extends to the junction of Summit Main and East Summit Main. Additionally, some of the roads, mainly Beddingfield Main, East-Summit Main, the Camp roads, and the M1900 area are situated above fish resources in tidal waters.

Impact to fish resources is most likely to occur at failed stream crossings, such as collapsed woodboxes or bridges, plugged culverts, or other sites of drainage disruption but may also occur through fill slope failures.





Figure 1 Beddingfield Location Map



3.0 WORK CARRIED OUT

A high-level helicopter fly over of the study area was completed by Marty Locker on March 22nd, 2024. The fly-over was completed to narrow down the "on-ground" assessment areas. Where it was clear that drainage structures (culverts, woodboxes, bridges) had been pulled, cross-ditches had been installed, and pullback or recontouring of the road surface had been carried out, the road was deemed to be deactivated and no further action was taken. If the level of deactivation was either unclear or not deactivated, the road was assessed in the field. Roads deemed to be deactivated in the field and during the fly-over assessment are noted in **Table 1** below.

During the field assessments, stability conditions were inferred from observed conditions of the road, such as existing landslides, tension cracks, road drainage conditions and existing drainage structures, the amount and composition of the road fill and the stability conditions downslope and in proximal terrain. In the field, pink flagging marks stations and prescriptions along the road. These field markings correspond directly to those in **Appendices A and B**.

The deactivation tables should be used to re-establish the field markings if necessary. **The site supervisor must verify, and where necessary replace, the field marks immediately before starting deactivation.**

4.0 SHORT TERM ROADS

It is understood the information contained in the *Best Management Practices Handbook: Hillslope Restoration in British Columbia* will be used as the standard when carrying out the work contained in the prescriptions. Failing to follow these standard operating procedures will result in inadequate pullback and potentially unsafe working situations for the excavator operator.

4.1 Existing Conditions

The existing stability hazard and resulting likelihood of spatial impact to fish resources for the Short-Term roads are outlined below in **Table 1**. Spatial impact to fish resources is rated based on the proximity and connectivity to fish habitat. If there are no stream crossings and no streams mapped in proximity, the spatial impact is rated as low; if there is a potential for slide debris to be transported along a non-fish bearing stream to a fish bearing stream, the likelihood of spatial impact is rated as moderate; if there is the potential for a landslide to directly impact fish habitat, the likelihood of spatial impact is rated as high. Roads are listed in rough order from south to north through the study area.



Road	Start	End Sta.	Stability Hazard	Likelihood of Spatial	Deactivation	
0001	501.		Madarata	Madarata	Level, Comments	
9601	-	-	Noderate	Moderate	Permanent	
9601-1	-	-	Moderate	Moderate	Permanent	
9601-1A	-	-	High	Moderate	Permanent	
B1000	-	-	Moderate	Moderate	Permanent	
B1700	-	-	Low	Moderate	Permanent	
B1510	-	-	Low	Moderate	Permanent	
B1520	-	-	Low	Low	Permanent	
B1530	-	-	Low	Moderate	Permanent	
B1500	-	-	Moderate	Low	Permanent	
B100	-	-	Low	Moderate	Permanent	
B50	-	-	Low	Low	Permanent	
CAMP2	1	Not included	d in assessment – to	be included with dry land s	ort clean up	
CAMP1	Not included in assessment – to be included with dry land sort clean up					
M100	-	-	Low	Moderate	Permanent	
M100A	-	-	Low	Moderate	Permanent	
M100B	-	-	Low	Moderate	Permanent	
M100B1	-	-	Low	Moderate	Permanent	
WF23	-	-	Low	High	Permanent	
WF23A	-	-	Low	High	Permanent	
M600	-	-	Low	High	Permanent	
M640	-	-	Moderate	High	Permanent	
M644	-	-	Moderate	High	Permanent	
Whitefern				NA sets sets	Permanent	
Main	-	-	LOW	Woderate		
WFM4			No w	ork required	·	
M650	-	-	Low	Moderate	Permanent	
M645	-	-	Low	Low	Permanent	
M615	-	-	Low	Low	Permanent	
M655	-	-	Low	Low	Permanent	
M655A		•	Deactiva	ation completed		
M1300			Deactiva	ation completed		
M1360			Deactiva	ation completed		
M1400	-	-	Low	Moderate	Permanent	
M1500	-	-	Low	Moderate	Permanent	
M1600	-	-	Low	High	Permanent	
M1700	1	I	Deactiva	ation completed	1	
M1800	-	-	Low	Moderate	Permanent	
M2200	-	-	Moderate	High	Permanent	
M2250	-	-	Low	Moderate	Permanent	
M1900	-	_	Low	High	Permanent	
\$105	No work required					

Table 1: Short Term Roads: Hazard and Likelihood of Spatial Impact



S100		No work required					
S110			No w	ork required			
S200			Road not assess	ed due to access issues			
Summit Main	-	-	High	Moderate	Permanent		
East Summit Main	-	-	High	High	Permanent		
West Summit Main	-	-	High	Moderate	Permanent		
S1200	-	-	Low	Low	Permanent		
S1210	-	-	Low	Low	Permanent		
S1300	-	-	Low	Low	Permanent		
\$1310			No w	ork required			
S1400	-	-	Low	Moderate	Permanent		
A620			Roa	d not found			
A600		Deactivation completed					
A1500	-	Moderate Moderate Permaner					
A1530		Deactivation completed					
A1535	Deactivation completed						
A1600		Deactivation completed					
A1350		No work required					
A1310	-	-	Low	Low	Permanent		
A1311			No w	ork required			
A1300	-	-	Low	Low	Permanent		
A1320	-	-	Moderate	Low	Permanent		
A1330		No work required					
A1340			No w	ork required			
A1360			No w	ork required			
A1370			No w	ork required			
A2000	-	-	Low	Low	Permanent		
2020	-	-	Low	Low	Permanent		
A2110		No work required					
A2030		Road not found					
A2020			Roa	d not found			
A2120	-	-	Low	Low	Permanent		
A2130	-	-	Low	Low	Permanent		
A2140	-	-	Low	Low	Permanent		
A2150			Roa	d not found			
A2160	No work required						



4.3 Deactivation

Culvert removal and cross ditching is required along many sections of the roads to reestablish the natural drainage patterns. All corrugated metal pipes (CMPs), wood box culverts (WBCs) and corrugated plastic pipes (CPPs) should be removed from the site and scheduled for recycling.

Road fill pullback is recommended along some sections to stabilize the roads for the long term. The length of pullback is indicated in the prescriptions (i.e. light (P3), moderate (P6), heavy (P9), and heavy+ (P12)) as an estimate of slope distance from the crest of the fill slope/edge of the road (Figure 1a). Additional pullback may be needed at some locations if more road fill is present than evident from the visual inspection during the work.

Pullback Prescriptions

<u>Light pullback</u> – Tension cracks and settling on outer 1-2 m of road, windrows or large berms present; likely only a thin wedge of fill material present. Remove side cast material built up on the outside shoulder. All side cast with the potential to start a landslide must be retrieved. (Figure 1b).

<u>Moderate pullback (discretionary)</u> – Failing fill slope, tension cracks and settling on outer +2m of road; likely a thicker wedge of fill. Comb fill slope material back to original ground surface or until coarse and rocky material remains. **The objective is to comb-back the fill, ensuring that there is no lip remaining at the toe of the pullback.** This may require all fill material to be pulled back. All side cast with the potential to start a landslide must be retrieved.

<u>Heavy pullback (full)</u> – In thick fills where entire fill slope is or may become unstable and large tension cracks or fill slope failures are present or starting to fail, pull back fill slope material to original ground. All side cast with the potential to start a landslide must be retrieved. Where full (heavy+) pullback is prescribed and where safety permits, benching downslope to retrieve all fill material may be required.

All fill should be placed along the inside edge of the road, removing the ditch line completely.





Figure 2: Typical pullback methods (1999 FRBC, Technical Standards and Guidelines for Road Deactivation/Restoration Activities)

4.3 Reconstruction (for access)

Branch S200 and the back end of East Summit Main were blocked by very large piles of salvage wood and were not accessible at the time of the assessment. As a result, neither of these road intervals were assessed for road deactivation.

Bridge inspections have been completed by OEL engineers across most of the study area, but are still required along Millar Main, Bedingfield Main, and Branches 9601-1 and 9601-1A. Bridge inspections are required along short-term roads prior to deactivation activities commence to ensure structures are safe for excavator, rock truck, and light vehicle access.





Figure 3: stacked timber on East Summit Main

5.0 LONG TERM ROADS

5.1 Reactivation

Bedingfield Main, Millar Main, Atleo Main, and the lower extent of Summit Main are slated as long-term roads that will be retained for future use. All these roads have been assessed for reactivation and/or maintenance concerns which are outlined in **Appendix B**.

It is recommended to include Camp 1, Camp 2, and Camp 3 as long-term roads as they provide access from the barge ramp and dryland sort to the mainline roads. Camp 3 which extends from the barge ramp to Millar Main was assessed, but Branches Camp 1 and Camp 2 have not been assessed. These roads should be included in the assessment and clean-up of the camp and dry land sort areas.

Bridge inspections have been completed by OEL engineers along Atleo Mainline, part of Bedingfield Main and part of Millar Main. Inspections will be completed prior to reactivation activities.



6.0 INSPECTIONS AND VERIFICATION

Senior personnel familiar with the deactivation techniques in the Best Management Practices Handbook should carry out inspections during the deactivation work and a **qualified registered professional should review the deactivation work prior to completion and sign off on the same** (Appendix 2 in Guidelines for Professional Services in the Forest Sector – Forest Roads, June 2012).

Wooden bridges along Short-Term Roads should be assessed by a qualified professional prior to use to ensure they are safe for use and to determine their load ratings.

In areas where road fill cannot be safely retrieved, and some residual hazard is expected to remain, an inspection by a qualified registered professional is prudent. The size and extent of such an area, as well as the downslope / downstream risks, are important considerations regarding the timing of the inspection. Smaller areas, or areas of lesser risk, can be inspected following completion of the work. For larger areas, or areas with high downslope / downstream risks, inspections concurrent with the work are recommended to address deficiencies in conjunction with full time supervision.

7.0 LIMITATIONS AND CLOSURE

These permanent deactivation prescriptions are made based on a visual inspection of the Kennedy Lake Road Network using the techniques described in the Best Management Practices Handbook. If site conditions change, or the prescriptions are not expected to meet the objectives discussed in this report, some on-site changes may be needed for the prescriptions. If any significant changes are required, contact a qualified registered professional with proven knowledge and experience in road deactivation and terrain stability assessment.

We trust this report outlines the requirements for deactivation along the assessed roads. If you have any questions regarding this report, please contact our office at your convenience.

Respectfully submitted, **Onsite Engineering Ltd.**

Prepared by: Jaime Eggers, P.Geo.



Reviewed by: Tim Wickman, P.Geo.



Attached:

Appendix A: Bedingfield Deactivation Recommendations Appendix B: Bedingfield Reactivation Recommendations

Road Deactivation and Reactivation Maps will be sent as separate packages due to file size.

1:5,000 TFL54 Road Deactivation Project Maps 1 through 11 1:5,000 TFL54 Road Reactivation Project Maps 1 through 9



Map #	Station	Road	Recommendation	Comments_Geo
Map 11	LG 2	A1300	Add XD	No obvious CMP
Map 11	LG 3	A1300	Add XD	
Map 11	LG 4	A1300	Add XD	
Map 11	LG 5	A1300	Add XD	
Map 11	LG 6	A1300	Add XD	
Map 11	LG 7	A1300	Add XD	
Map 11	LG 8	A1300	Add XD	Captures A1330s drainage
Map 11	LG 9	A1300	Add XD	
Map 11	LG 14	A1300	Add XD	
Map 11	LG 15	A1300	Pull CMP, add XD	
Map 11	LG 16	A1300	Add XD	
Map 11	LG 17	A1300	Pull CMP, add XD	
Map 11	LG 12	A1310	Add XD	
Map 11	LG 13	A1310	Add XD	
Map 11	LG 10	A1320	Start LPB	
Map 11	LG 11	A1320	End LPB	LPB spoil on road
Map 11	LG 21	A1350	Add XD	
Map 11	LG 18	A1500	Pull CMP, add XD	
Map 11	LG 19	A1500	Add waterbar	feeds south
Map 11	LG 20	A1500	Pull CMP, add XD	
Map 11	LG 22	A1500	Pull CMP, add XD	
Map 11	LG 23	A1500	Pull CMP, add XD	
Map 11	LG 24	A1500	Pull CMP, add XD	
Map 11	LG 25	A1500	Pull CMP, add XD	
Map 11	LG 26	A1500	Add XD	
Map 11	LG 27	A1500	Pull CMP, add XD	
Map 11	LG 28	A1500	Pull CMP, add XD	
Map 11	LG 29	A1500	Pull CMP, add XD	
Map 11	LG 30	A1500	Pull CMP, add XD	
Map 11	LG 31	A1500	Pull CMP, add XD	
Map 11	LG 32	A1500	Pull CMP, add XD	
Map 11	LG 33	A1500	Pull CMP, add XD	
Map 11	LG 34	A1500	Add waterbar	Feeds southwest
Map 11	LG 35	A1500	Pull CMP, add XD	
Map 11	LG 36	A1500	Pull CMP, add XD	
Map 11	LG 37	A1500	Pull CMP, add XD	
Map 11	LG 38	A1500	Pull CMP, add XD	
Map 11	LG 39	A1500	Pull CMP, add XD	
Map 11	LG 40	A1500	Pull CMP, add XD	
Map 11	LG 41	A1500	Pull CMP, add XD	
Map 11	LG 42	A1500	Pull CMP, add XD	
Map 11	LG 43	A1500	Pull CMP, add XD	
Map 11	LG 44	A1500	Add XD	
Map 11	LG 45	A1500	Pull CMP, add XD	
Map 11	LG 46	A1500	Pull CMP, add XD	
Map 11	LG 47	A1500	Pull CMP, add XD	
Map 11	LG 48	A1500	Pull CMP, add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 10, 11	LG 49	A1500	Pull CMP, add XD	Possible atleo east end
Map 10, 11	LG 50	A1500	Pull CMP, add XD	
Map 10, 11	LG 51	A1500	Add XD	
Map 10, 11	LG 52	A1500	Start HPB	
Map 10, 11	LG 53	A1500	End HPB	Mounded material on sidewall of creek
Map 10, 11	LG 54	A1500	Pull bridge	10m long
Map 10, 11	LG 55	A1500	Pull CMP, add XD	
Map 10, 11	LG 56	A1500	Pull CMP, add XD	
Map 10, 11	LG 57	A1500	Pull CMP, add XD	
Map 10, 11	LG 58	A1500	Pull CMP, add XD	
Map 10	LG 59	A1500	Add XD	
Map 10	LG 60	A1500	Add XD	
Map 9, 10	LG 61	A1500	Pull CMP, add XD	
Map 9, 10	LG 62	A1500	Start LPB	
Map 9, 10	LG 63	A1500	End LPB	
Map 9, 10	LG 64	A1500	Pull CMP, add XD	
Map 9, 10	LG 65	A1500	Pull CMP, add XD	
Map 9, 10	LG 66	A1500	Add reverse waterbar	Feeds southeast
Map 9, 10	LG 67	A1500	Add XD	
Map 9, 10	LG 68	A1500	Pull CMP, add XD	
Map 9, 10	LG 69	A1500	Add reverse waterbar	Feeds northeast
Map 9, 10	LG 70	A1500	Pull CMP, add XD	
Map 9, 10	LG 71	A1500	Add XD	
Map 9, 10	LG 72	A1500	Pull CMP, add XD	
Map 9, 10	LG 73	A1500	Add reverse waterbar	Feeds northeast
Map 9, 10	LG 74	A1500	Pull CMP, add XD	
Map 9, 10	LG 75	A1500	Pull CMP, add XD	
Map 9, 10	LG 76	A1500	Pull CMP, add XD	
Map 9, 10	LG 77	A1500	Pull CMP, add XD	
Map 9, 10	LG 78	A1500	Pull CMP, add XD	
Map 9, 10	LG 79	A1500	Pull CMP, add XD	
Map 9, 10	LG 80	A1500	Add XD	
Map 9, 10	LG 81	A1500	Pull CMP, add XD	
Map 9, 10	LG 82	A1500	Pull CMP, add XD	
Map 9, 10	LG 83	A1500	Pull CMP, add XD	
Map 9, 10	LG 84	A1500	Pull CMP, add XD	
Map 9, 10	LG 85	A1500	Pull CMP, add XD	
Map 9, 10	LG 86	A1500	Add reverse waterbar	Feeds northeast
Map 9, 10	TW 77	A1500	Add waterbar	Ditch flows into stream along recontoured spur
Map 9, 10	TW 78	A1500	Pull CMP, add XD	Existing 600 cmp
Map 9, 10	TW 79	A1500	Pull CMP, add XD	400 cmp
Map 9, 10	TW 80	A1500	Pull CMP, add XD	400 cmp
Map 9, 10	TW 81	A1500	Pull CMP, add XD	400 cmp
Map 9, 10	TW 82	A1500	Pull CMP, add XD	Existing 600 cmp

Map #	Station	Road	Recommendation	Comments_Geo
Map 9, 10	TW 83	A1500	Add waterbar	
Map 9, 10	TW 84	A1500	Start LPB	Small fills w rd maintenance spoil on steep
Map 9, 10	TW 85	A1500	End LPB	
Map 9, 10	TW 86	A1500	Add reverse waterbar	Large berm
Map 10	TW 87	A1500	Pull CMP, add XD	Existing 600 cmp
Map 10	TW 88	A1500	Add reverse waterbar	Berm / rock @ surface no XD possible
Map 10	TW 89	A1500	Pull CMP, add XD	400 cmp
Map 10	TW 90	A1500	Pull WBC	3x2m WBC with karst stream
Map 10	TW 91	A1500	Pull CMP, add XD	Existing 600 cmp
Map 10	TW 92	A1500	Add XD	
Map 10	TW 93	A1500	Add XD	
Map 10	TW 94	A1500	Pull CMP, add XD	Existing 600 cmp filled in old WBC
Map 10	TW 95	A1500	Add XD	
Map 10	TW 96	A1500	Pull CMP, add XD	Existing 600 cmp
Map 10	TW 97	A1500	Add XD	
Map 10	TW 98	A1500	Pull CMP, add XD	400 cmp
Map 10	TW 99	A1500	Pull CMP, add XD	Existing 800 CMP
Map 10	TW 100	A1500	Pull CMP, add XD	Existing plugged 600 CMP
Map 10	TW 101	A1500	Pull CMP, add XD	400 cmp
Map 10	TW 64	A1500	Pull CMP, add XD	400 cmp
Map 10	TW 65	A1500	Pull CMP, add XD	Existing 600 cmp
Map 10	TW 66	A1500	Add XD	
Map 10	TW 67	A1500	Add XD	
Map 10	TW 68	A1500	Pull WBC	4m WBC
Map 10	TW 69	A1500	Add XD	
Map 10	TW 70	A1500	Add XD	Steep grade
Map 10	TW 71	A1500	Add XD	
Map 10	TW 72	A1500	Pull bridge	8 m wood bridge
Map 10	TW 73	A1500	Pull CMP, add XD	Existing 600 cmp
Map 10	TW 74	A1500	Pull CMP, add XD	Existing 600 cmp
Map 11	TW 1	A1215	No	Existing functional XD
Map 11	TW 2	A1215	Remove logs from XD	Existing functional XD, if timber removed
Map 11	TW 3	A1215	Pull temp crossing, add XD	Existing temp crossing consisting of timber/ fill
Map 11	TW 4	A1215	Add XD	pullback fills @ outlet
Map 11	TW 5	A1215	Add XD	
Map 11	TW 6	A1215	Pull temp crossing, add XD	Existing temp crossing consisting of timber/ fill
Map 11	TW 7	A1215	Start MPB	7m long blocky fills on steep
Map 11	TW 8	A1215	End MPB	
Map 11	TW 9	A1215	Add XD	Pooling water in ditch, low draw
Map 11	TW 10	A1215	Pull temp crossing, add XD	Existing temp crossing consisting of timber/ fill
Map 11	TW 11	A1215	Add XD	Debris pile @ outlet

Map #	Station	Road	Recommendation	Comments_Geo
Map 11	TW 12	A1215	Pull CMP, add XD	Existing 600 cmp
Map 11	TW 18	A1215	Add XD	
Map 11	TW 19	A1215	Add XD	
Map 11	TW 20	A1215	Add XD	
Map 11	TW 21	A1215	Start LPB	Crack 1.5 m from shoulder, 3-4 m long fills
Map 11	TW 22	A1215	End LPB	
Map 11	TW 23	A1215	Add XD	
Map 11	TW 24	A1215	Add XD	
Map 11	TW 25	A1215	Pull CMP, add XD	800 CMP
Map 11	TW 26	A1215	Add waterbar	(nw)
Map 11	TW 27	A1215	Pull bridge	19 m steel portable
Map 11	TW 28	A1215	Add XD	
Map 11	TW 13	A1215A	Add waterbar	(n-ne)
Map 11	TW 14	A1215A	Add XD	
Map 11	TW 15	A1215A	Add waterbar	(nw)
Map 11	TW 16	A1215A	Add XD	
Map 11	TW 17	A1215A	Add reverse waterbar	(sw)
Map 11	TW 29	A1210	Pull CMP, add XD	400 cmp
Map 11	TW 30	A1210	Add XD	
Map 11	TW 31	A1210	Add XD	
Map 11	TW 34	A1210	Add XD	
Map 11	TW 35	A1210	Pull CMP, add XD	Existing 600 cmp
Map 11	TW 37	A1210	Add XD	
Map 11	TW 42	A1210	Add XD	
Map 11	TW 43	A1210	Add XD	
Map 11	TW 44	A1210	Add XD	
Map 11	TW 45	A1210	Pull CMP, add XD	400 cmp
Map 11	TW 46	A1210	Add XD	
Map 11	TW 47	A1210	Pull CMP, add XD	400 cmp
Map 11	TW 48	A1210	Add waterbar	(nw)
Map 11	TW 49	A1210	Add XD	
Map 11	TW 50	A1210	Add XD	
Map 11	TW 51	A1210	Pull CMP, add XD	400 cmp
Map 11	TW 52	A1210	Pull CMP, add XD	Existing 600 cmp
Map 11	TW 53	A1210	Add XD	
Map 11	TW 54	A1210	Add waterbar	(N)
Map 11	TW 36	A1212	No	On bench w no water issues
Map 11	TW 32	A1216	Deepen outlet	Existing XD too shallow @ outlet
Map 11	TW 33	A1216	Add XD	
Map 11	TW 41	A1211	No	Existing functioning XD
Map 11	TW 38	A1211A	Add XD	
Map 11	TW 40	A1211A	Add large XD	2m thick fills
Map 11	TW 39	A1211B	No	
Map 11	TW 55	A1200	No work required for end	Heavy mature 2G
Map 11	TW 56	A1200	Pull CMP, add XD	400 cmp
Map 11	TW 57	A1200	Pull CMP, add XD	400 cmp

Map #	Station	Road	Recommendation	Comments_Geo
	TW 58	A1200	Pull CMP, add XD	400 cmp
	TW 59	A1200	Pull bridge	15 m steel portable
	TW 60	A1200	Pull CMP, add XD	400 cmp
	TW 61	A1200	Add XD	
	TW 62	A1200	Pull CMP, add XD	Existing 600 cmp
	TW 63	A1200	Pull CMP, add XD	400 cmp
Map 10	TW 76	Spur A	No	15 m slide taken out crossing, rd is roughed up with some apparent PB. Deemed not worth disturbing mature alder & react required to deact
Map 10	LW 31	A1530	Add XD	
Map 10	LW 30	A1535	no	Road not built.
Map 10	LW 38	A2030	no	No signs of constructed road and OG forest downslope.
Map 10	LW 36	A2020	no	mature forest forward
Map 10	RN 29	2020	no	Existing XD
Map 10	RN 30	2020	PullWBC	Existing WBC
Map 10	RN 31	2020	Pull CMP, add XD	800 cmp
Map 10	RN 32	2020	Pull CMP, add XD	1000 cmp
Map 10	RN 2	A2100	no	End landing
Map 10	RN 3	A2100	Add XD	
Map 10	RN 4	A2100	Add XD	
Map 10	RN 5	A2100	Add XD	
Map 10	RN 6	A2100	Add XD	
Map 10	RN 7	A2100	Add XD	
Map 10	RN 8	A2100	Add XD	
Map 10	RN 9	A2100	Add XD	
Map 10	RN 11	A2100	Add XD	
Map 10	RN 13	A2100	Add XD	
Map 10	RN 14	A2100	Add XD	
Map 10	RN 16	A2100	Add XD	
Map 10	RN 17	A2100	Add XD	
Map 10	LW 33	A2160	Add XD	
Map 10	LW 34	A2160	no	Road is on hilltop and constructed with well to rapidly draining rubble; No CMPs or instability indicators
Map 10	RN 10	A2140	Add XD	
Map 10	RN 12	A2130	Add XD	
Map 10	RN 15	A2120	Add XD	
Map 10	LW 35	A2000	no	No sign of road behind point; walked through mature second growth and younger stands 20-30 years old;
Map 10	LW 39	A2000	Add XD	Road is established with forest no inst forward; don't deac past point
Map 10	LW 40	A2000	Pull CMP, add XD	800 mm

Map #	Station	Road	Recommendation	Comments_Geo
Map 10	LW 41	A2000	Pull CMP, add XD	800 mm
Map 10	LW 42	A2000	Pull CMP, add XD	400 mm
Map 10	LW 43	A2000	Add XD	
Map 10	LW 44	A2000	Add XD	
Map 10	LW 45	A2000	Pull CMP, add XD	600 mm
Map 10	LW 46	A2000	Pull CMP, add XD	400 mm
Map 10	LW 47	A2000	Add XD	
Map 10	LW 48	A2000	Add XD	
Map 10	LW 49	A2000	Pull CMP, add XD	400 mm
Map 10	LW 50	A2000	Add XD	
Map 10	LW 51	A2000	Add XD	
Map 10	RN 18	A2000	Pull WBC	Existing WBC
Map 10	RN 19	A2000	Add XD	
Map 10	RN 20	A2000	Add XD	
Map 10	RN 21	A2000	Add XD	
Map 10	RN 22	A2000	Pull WBC	Existing WBC
Map 10	RN 23	A2000	Pull CMP, add XD	800 cmp
Map 10	RN 24	A2000	Add XD	
Map 10	RN 25	A2000	Pull WBC	Existing WBC at stream
Map 10	RN 26	A2000	Pull CMP, add XD	600 cmp
Map 10	RN 27	A2000	Add XD	
Map 10	RN 28	A2000	Pull WBC	Existing WBC at stream
Map 10	RN 33	A2000	Pull CMP, add XD	2 x 1000 cmp
Map 10	RN 34	A2000	Add XD	
Map 10	RN 35	A2000	Pull WBC	Existing WBC/Bridge at stream
Map 10	RN 36	A2000	Pull WBC	Existing WBC
Map 9	TW 124	A620	No	
Map 8	LG 175	S1400	Add XD	
Map 8	LG 176	S1400	Add XD	
Map 8	LG 177	S1400	Pull CMP, add XD	
Map 8	LG 178	S1400	Start MPB	
Map 8	LG 179	S1400	End MPB	
Map 8	LG 180	S1400	Add XD	
Map 8	LG 181	S1400	Add XD	
Map 8	LG 182	S1400	Add XD	
Map 8	LG 186	S1400	Add XD	
Map 8	LG 185	S1300	Add XD	
Map 8	LG 184	S1300	Add XD	
Map 8	LG 183	S1300	Add XD	
Map 8	LG 187	S1200	Pull CMP, add XD	
Map 8	LG 188	S1200	Pull CMP, add XD	
Map 8	LG 189	S1200	Pull CMP, add XD	
Map 8	LG 191	S1200	Add XD	
Map 8	LG 192	S1200	Add waterbar	Feeds north
Map 8	LG 193	S1200	Add XD	
Map 8	LG 194	S1200	Add XD	
Map 8	LG 190	S1210	Pull CMP, add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 8	LG 195	West Summit Main	Add XD	
Map 8	LG 196	West Summit Main	Pull CMP, add XD	
Map 8	LG 197	West Summit Main	PullWBC	
Map 8	LG 198	West Summit Main	Add XD	
Map 8	LG 199	West Summit Main	Pull WBC	
Map 8	LG 200	West Summit Main	Start HPB	
Map 8	LG 201	West Summit Main	End HPB	
Map 8	LG 202	West Summit Main	PullWBC	
Map 8	LG 203	West Summit Main	Start HPB	
Map 8	LG 204	West Summit Main	End HPB	
Map 8	LG 205	West Summit Main	Pull CMP, add XD	
Map 8	LG 206	West Summit Main	Pull WBC	
Map 8	LG 207	West Summit Main	Pull CMP, add XD	
Map 8	LG 208	West Summit Main	Pull WBC	
Map 8	LG 209	West Summit Main	Pull WBC	
Map 8	LG 210	West Summit Main	Add waterbar	Feeds east-southeast
Map 8	LG 211	West Summit Main	Add reverse waterbar	Feeds north
Map 8	LG 212	West Summit Main	Add reverse waterbar	Feeds north
Map 8	LG 213	Summit Main	Pull WBC	
Map 8	LG 214	Summit Main	Pull CMP, add XD	
Map 8	LG 215	Summit Main	Pull CMP, add XD	
Map 8	LG 216	Summit Main	PullWBC	
Map 8	LG 217	Summit Main	Start LPB	
Map 8	LG 218	Summit Main	End LPB	
Map 8	LG 219	Summit Main	Start LPB	
Map 8	LG 220	Summit Main	End LPB	
Map 8	LG 221	Summit Main	Add XD	
Map 8	LG 222	Summit Main	Pull WBC	
Map 8	LG 223	Summit Main	Pull WBC	
Map 8	LG 224	Summit Main	Add XD	
Map 8	LG 225	Summit Main	Pull CMP, add XD	
Map 8	LG 226	Summit Main	Pull WBC	
Map 8	LG 227	Summit Main	Pull WBC	
Map 8	LG 228	Summit Main	Pull CMP, add XD	
Map 8	LG 229	Summit Main	Start MPB	
Map 8	LG 230	Summit Main	End MPB	
Map 8	LG 231	Summit Main	Pull CMP, add XD	
Map 8	LG 232	Summit Main	Add XD	
Map 8	LG 233	Summit Main	Pull WBC	
Map 7, 8	LG 234	Summit Main	Start HPB	
Map 7, 8	LG 235	Summit Main	End HPB	
Map 7, 8	TW 242	Summit Main	Add XD	
Map 7, 8	TW 243	Summit Main	Start LPB	3m spoil on steep, row of conifers w minimal fill beyond
Map 7, 8	TW 244	Summit Main	Add XD, continue LPB	400 cmp
Map 7, 8	TW 245	Summit Main	Add XD, continue LPB	

Map #	Station	Road	Recommendation	Comments_Geo
Map 7, 8	TW 246	Summit Main	End LPB	cannot do PB without cutting mature conifers. No instability but small fill
Map 7, 8	TW 247	Summit Main	Pull WBC, PB fills on stream banks	2-1m WBC, fills on banks
Map 7, 8	TW 248	Summit Main	Add XD	
Map 7, 8	TW 249	Summit Main	Pull WBC	2x1m WBC
Map 7, 8	TW 250	Summit Main	Pull WBC	2x1m WBC
Map 7, 8	TW 251	Summit Main	Add reverse waterbar	
Map 8	TW 252	East Summit Main	no	Over 100 m of dropped cedar logs on rd, major access blockage
Map 8	TW 253	East Summit Main	Start LPB	3m fills on steep into str
Map 8	TW 254	East Summit Main	End LPB	
Map 8	TW 255	East Summit Main	Pull WBC	3x1m WBC
Map 8	TW 256	East Summit Main	Start LPB	3m fills on steep
Map 8	TW 257	East Summit Main	End LPB	
Map 8	TW 258	East Summit Main	Pull WBC	2x1m WBC
Map 8	TW 259	East Summit Main	Pull WBC	3x1m WBC
Map 8	TW 260	East Summit Main	Add XD	
Map 8	TW 261	East Summit Main	Add XD	
Map 8	TW 262	East Summit Main	Pull CMP, add XD	Existing 600 cmp
Map 8	TW 263	East Summit Main	Start LPB	3-4m fill / react spoil on steep into stream
Map 8	TW 264	East Summit Main	End LPB	
Map 7, 8	TW 265	East Summit Main	Add XD	pullback all spoils @ outlet
Map 7, 8	TW 266	East Summit Main	Start LPB	3m fills on steep into str
Map 7, 8	TW 267	East Summit Main	End LPB	
Map 7, 8	TW 268	East Summit Main	Pull WBC, continue LPB	2x1m WBC
Map 7, 8	TW 269	East Summit Main	Pull CMP, add XD	400 cmp
Map 7, 8	TW 270	East Summit Main	Pull CMP, add XD	Existing 600 cmp
Map 7, 8	TW 271	East Summit Main	Start LPB	Spoil pushed out on steep above stream
Map 7, 8	TW 272	East Summit Main	End LPB	
Map 7, 8	TW 273	East Summit Main	Add XD	
Map 7, 8	TW 274	East Summit Main	Pull CMP, add XD	400 cmp
Map 7, 8	TW 275	East Summit Main	Add XD	
Map 7, 8	TW 276	East Summit Main	Pull CMP, add XD	400 cmp
Map 7, 8	TW 277	East Summit Main	Pull CMP, add XD	600 cmp
Map 7	TW 278	East Summit Main	Add XD	
Map 7	TW 279	S200	no	Big log pile blocking access
Map 7	TW 280	S100	No deact work required	Mature alder w start of conifer growth. No drainages & on benches
Map 6	RN 55	M2250	Add XD	
Map 6	RN 56	M2250	Add XD	Stream/Ncd crosses rd
Map 6	RN 57	M2250	Add XD	
Map 6	RN 58	M2250	Pull WBC	WBC 3x4. Stringer look ok no obvious breaks.

Map #	Station	Road	Recommendation	Comments_Geo
Map 6	RN 59	M2250	Add XD	No sign of small spur rd
Map 6	RN 60	M2200	Add XD	
Map 6	RN 61	M2200	Add XD	On landing above creek
Map 6	RN 62	M2200	Pull WBC	WBC still functioning, above S6 stream
Map 6	RN 63	M2200	Add XD	
Map 6	RN 64	M2200	Add XD	
Map 6	RN 65	M2200	Pull WBC	Existing WBC at stream, partially broken. Low height 1m high.
Map 6	RN 66	M2200	Pull CMP, add XD	600 cmp
Map 6	RN 67	M2200	Add XD	Base of old slide??
Map 6	RN 68	M2200	Start LPB	T cracks on outer 1m, main stream below
Map 6	RN 69	M2200	End LPB	Glaciofluvial / glaciofluvial marine stratified deposit in 4-5m high cut. Natural steep band here very dense, little to no ravel
Map 6	RN 70	M2200	Pull bridge	Large log bridge 8-10 m long, 3-5m high above S2 or S5 creek
Map 6	RN 125	M1900	Pull WBC	Existing WBC 4x6, 1-1.5m st stream, functioning
Map 6	RN 124	M1900	Add XD	
Map 6	RN 123	M1900	Add XD	
Map 6	RN 122	M1900	Pull WBC	Existing small WBC 2x4
Map 6	RN 121	M1900	Add XD	
Map 6	RN 120	M1900	Pull WBC	Existing WBC 2x6 at stream 1m high
Map 6	RN 119	M1900	Add XD	
Map 6	RN 118	M1900	Add XD	
Map 6	RN 117	M1900	Add XD	Pond in quarry upslope
Map 6	RN 116	M1900	Add XD	
Map 6	RN 115	M1900	Add XD	
Map 6	RN 114	M1800	Add XD	
Map 6	RN 113	M1800		Road obstructed by large cedar
Map 6	RN 112	M1800	Pull WBC, Add XD	600 cmp
Map 6	RN 111	M1800	Pull WBC, Add XD	
Map 5	RN 78	M1600	P.Eng inspection required	Existing xditch at junction, M1600 likely deactivated and rd stays on flat with no
Man 5	RN 90	M1500	Add XD	
Map 5	RN 89	M1500	Add XD	
Map 5	RN 88	M1500	Add XD	Surface scour
Map 5	RN 107	M1400	no	Existing XD
Map 5	RN 108	M1400	no	Existing XD
Map 5	RN 109	M1400	Add XD	At start of road
Map 5	RN 105	M1410	no	Existing XD
Map 5	RN 106	M1410	no	Existing XD
Map 5	LG 174	M1360	no	Existing XD

Map #	Station	Road	Recommendation	Comments_Geo
Map 5	LG 173	M1360	no	Existing XD
Man F	10 170	M1200	20	tension cracks, 0.5m, 4m to slope break,
мар э	LG 1/2	M1360	no	15m to bench below.
Map 5	LG 171	M1360	no	Existing XD
Map 5	LG 170	M1300	no	Existing XD
Map 5	LG 169	M1300	no	Existing XD
Map 5	LG 168	M1300	no	Existing XD
Map 5	LG 167	M1300	no	Existing XD
Map 5	LG 166	M1300	no	Existing XD
Map 5	LG 165	M1300	no	Existing XD
Map 5	LG 164	M1300	no	Existing XD
Map 5	LG 163	M1300	no	Existing XD
Map 5	LG 162	M1300	no	Existing XD
Map 5	LG 161	M1300	Add XD	
Map 4, 5, 6	LG 245	M655A	no	Existing XD
Map 4, 5, 6	LG 244	M655A	no	Existing XD
Map 4, 5, 6	LG 243	M655A	no	Existing XD
Map 4, 5, 6	LG 242	M655A	no	Existing XD
Map 4, 5, 6	LG 241	M655A	no	Existing XD
Map 4, 5	LG 270	M655 spur	no	Existing XD
Map 4, 5, 6	LG 237	M655	no	Existing XD
Map 4, 5, 6	LG 238	M655	no	Existing XD
Map 4, 5, 6	LG 239	M655	no	Existing XD
Map 4, 5, 6	LG 240	M655	no	Existing XD
Map 4, 5, 6	LG 246	M655	Add XD	
Map 4, 5, 6	LG 247	M655	Add XD	
Map 4, 5, 6	LG 248	M655	Pull WBC	
Map 4, 5, 6	LG 249	M655	Add XD	
Map 4, 5, 6	LG 250	M655	Start MPB	
Map 4, 5	LG 251	M655	End MPB	
Map 4, 5	LG 252	M655	Add XD	
Map 4, 5	LG 253	M655	Add XD	
Map 4, 5	LG 254	M655	Pull WBC	
Map 3, 4, 5	LG 255	M655	Enhance XD	
Map 3, 4, 5	LG 256	M655	Pull WBC	
Map 3, 4, 5	LG 257	M655	Pull WBC	
Map 3, 4, 5	LG 258	M655	Pull WBC	
Map 3, 4, 5	LG 259	M655	Pull CMP, add XD	
Map 3, 4, 5	LG 266	M655	Pull WBC	
Map 3, 4, 5	LG 267	M655	Pull WBC	
Map 3, 4, 5	LG 268	M655	Pull WBC	
Map 3, 4, 5	LG 269	M655	Pull WBC	
Map 3, 4, 5	LG 271	M655	Add XD	
Map 3, 4, 5	LG 275	M655	Add XD	
Map 3, 4, 5	LG 265	M615	Add XD	
Map 3, 4, 5	LG 264	M615	Add XD	
Map 3, 4, 5	LG 263	M615	Add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 3, 4, 5	LG 262	M615	Pull CMP, add XD	
Map 3, 4, 5	LG 261	M615	Pull CMP, add XD	
Map 3, 4, 5	LG 260	M615	Add XD	
Map 3, 4	LG 274	M645	Add XD	
Map 3, 4	LG 273	M645	Add XD	
Map 3, 4	LG 272	M645	Pull CMP, add XD	
Map 3, 4	LG 276	M650	Add XD	
Map 3, 4	LG 277	M650	Pull WBC	
Map 3, 4	LG 278	M650	Pull WBC	
Map 3, 4	LG 138	White Fern Main	no	Road in full bench, rock shoulder above steep. No instability
Map 3, 4	LG 137	White Fern Main	Pull CMP, add XD	
Map 3, 4	LG 136	White Fern Main	Add XD	
Map 3, 4	LG 135	White Fern Main	Add XD	
Map 3, 4	LG 133	White Fern Main	Add XD	
Map 3, 4	LG 132	White Fern Main	Pull CMP, add XD	
Map 3, 4	LG 131	White Fern Main	Add XD	
Map 3, 4	LG 130	White Fern Main	Pull bridge	8m w, wooden
Map 3, 4	LG 124	White Fern Main	Add XD	
Map 3, 4	LG 134	WFM4	Pull CMP, add XD	
Map 3, 5	LG 129	M644	Add XD	
Map 3, 5	LG 128	M644	Add XD	
Map 3, 5	LG 127	M644	Add XD	
Map 3, 5	LG 126	M644	Pull CMP, add XD	
Map 3, 5	LG 125	M644	Add XD	
Map 3, 5	LG 123	M640	Pull bridge	10m long
Map 3, 5	LG 122	M640	Add XD	
Map 3, 5	LG 121	M640	Add XD	
Map 3, 5	LG 120	M640	Pull CMP, add XD	
Map 3, 5	LG 287	M600	no	Existing XD
Map 3, 5	LG 286	M600	no	Existing XD
Map 3, 5	LG 285	M600	no	Existing XD
Map 3, 5	LG 284	M600	no	Existing XD
Map 3, 5	LG 283	M600	no	Existing XD
Map 3, 5	LG 282	M600	Start HPB	
Map 3, 5	LG 281	M600	End HPB	
Map 3, 5	LG 280	M600	Add XD	
Map 3, 5	LG 279	M600	no	Existing XD
Map 3, 5	LG 119	M600	Add XD	
Map 3, 5	LG 118	M600	Add reverse waterbar	Feeds southeast
Map 3, 5	LG 112	M600	Add XD	
Map 3, 5	LG 111	M600	Pull CMP, add XD	
Map 3, 5	LG 110	M600	Start MPB	
Map 3, 5	LG 109	M600	End MPB	10cm tension crack 0.5m from shoulder
Map 3, 5	LG 108	M600	Pull CMP, add XD	
Map 3, 5	LG 107	M600	Pull CMP, add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 3	LG 106	M600	Add reverse waterbar	Feeds east-southeast
Map 3	LG 105	M600	Pull WBC	
Map 3	LG 104	M600	Add XD	
Map 3	LG 103	M600	Start LPB	
Map 3	LG 102	M600	End LPB	
Map 1	LG 117	WF23	Add XD	
Map 1	LG 115	WF23	Pull CMP, add XD	
Map 1	LG 114	WF23	Add XD	
Map 1	LG 113	WF23	Pull CMP, add XD	
Map 1	LG 116	WF23A	Add XD	
Map 1	LG 139	M100B1	no	Existing XD
Map 1	LG 140	M100B1	no	Existing XD
Map 1	JK 1	M100A	Add XD	WBC, with CMP embedded
Map 1	LG 142	M100	no	Existing XD
Map 1	LG 141	M100	Pull CMP, add XD	
Map 1	LG 143	M100	Add XD	
 Map 1	LG 144	M100	Pull CMP, add XD	
Map 1	LG 145	M100	PullWBC	
 Map 1	LG 146	M100	Add XD	
Map 1	LG 147	M100	Add XD	
Map 1	LG 148	M100	Add XD	
 Map 1	LG 149	M100	Pull CMP, add XD	
Map 1, 2, 4	RN 126	B1500	Start MPB	End landing, steep slopes below
Map 1, 2, 4	RN 127	B1500	End MPB	
Map 1, 2, 4	RN 128	B1500	Add XD	
Map 1, 2, 4	RN 129	B1500	Add XD	
Map 1, 2, 4	RN 130	B1500	Start LPB	
Map 1, 2, 4	RN 131	B1500	End LPB	
Map 1, 2, 4	RN 131	B1500	Add XD	
Map 1, 2, 4	RN 132	B1500	Start MPB	T cracks on outer 1-2m, thick fill
Map 1, 2, 4	RN 133	B1500	End MPB	
Map 1, 2, 4	RN 134	B1500	Add XD	
Map 1, 2, 4	RN 135	B1500	Start LPB	
Map 1, 2, 4	RN 135	B1500	Add XD	
Map 1, 2, 4	RN 136	B1500	End LPB	
Map 1, 2, 4	RN 136	B1500	Add XD	
Map 1, 2, 4	RN 137	B1500	Add XD	Low point in ditch
Map 1, 2, 4	RN 138	B1500	Pull CMP, add XD	600 cmp
Map 1, 2, 4	RN 139	B1500	Add XD	
Map 1, 2, 4	RN 140	B1500	Add XD	
Map 1, 2, 4	RN 141	B1500	Start LPB	800 cmp, key in rock wall with t cracks
Map 1. 2. 4	RN 141	B1500	Pull CMP, add XD	
Map 1, 2, 4	RN 142	B1500	End LPB	
Map 1, 2, 4	RN 142	B1500	Add XD	
Map 1, 2, 4	RN 143	B1500	Add XD	
Map 1, 2, 4	RN 144	B1500	Add XD	Wet zone upslope

Map #	Station	Road	Recommendation	Comments_Geo
Map 1, 2	RN 145	B1500	Add XD	In small draw
Map 1, 2, 4	RN 146	B1500	Add XD	
Map 1, 2, 4	RN 147	B1500	Add XD	
Map 1, 2, 4	RN 148	B1500	Add XD	
Map 1, 2, 4	RN 149	B1500	Add XD	
Map 1, 4	RN 150	B1500	Add XD	
Map 1, 4	RN 151	B1500	Add XD	
Map 1, 4	RN 152	B1500	Add XD	
Map 1, 4	RN 153	B1500	Add XD	
Map 1, 4	RN 154	B1500	Pull CMP, add XD	600 cmp
Map 1, 4	RN 155	B1500	Pull CMP, add XD	600 cmp
Map 1, 4	RN 156	B1500	Add XD	
Map 1, 4	RN 157	B1500	Add XD	
Map 1, 4	RN 158	B1500	Add XD	
Map 1, 4	RN 159	B1500	Add XD	
Map 1, 4	RN 160	B1500	Add XD	
Map 2, 4	RN 161	B1500	Pull CMP, add XD	600 cmp
Map 2, 4	RN 162	B1500	Add XD	
Map 2, 4	RN 163	B1500	Add XD	
Map 2, 4	RN 164	B1500	Pull CMP, add XD	800 cmp
Map 2, 4	RN 165	B1500	Add XD	
Map 2, 4	RN 166	B1500	Pull WBC	Existing 2x4 WBC at stream
Map 2, 4	RN 167	B1500	Add XD	
Map 2, 4	RN 168	B1500	Pull WBC	Existing WBC 2x4 some damage, functioning
Map 3, 4	LW 57	B1530	Add XD	
Map 3, 4	LW 58	B1530	Pull CMP, add XD	600 mm
Map 1, 4	LW 59	B1520	Add XD	
Map 1, 4	LW 59	B1520	Start LPB	
Map 1, 4	LW 60	B1520	End LPB	TC up to 2 m into outer road and settling on outside edge;
Map 1, 4	LW 60	B1520	Add XD	
Map 1, 4	LW 61	B1520	Add XD	
Map 1, 4	LW 62	B1510	Add XD	
Map 1, 4	LW 63	B1510	Pull WBC	WBC is completely collapsed and area is passable by excavator
Map 1	LW 64	B1510	Start LPB, End Haul	
Map 1	LW 65	B1510	Add large XD	Deep fill through draw
Map 1	LW 66	B1510	End LPB, End Haul	
Map 1	LW 67	B1510	Add XD	
Map 2, 4	LW 69	B1700	Pull CMP, add XD	600 mm
Map 2, 4	LW 70	B1700	Start LPB, End Haul	
Map 2, 4	LW 71	B1700	End LPB, End Haul	
Map 2, 4	LW 71	B1700	Add XD	
Map 2, 4	LW 72	B1700	Pull CMP, add XD	1200 mm
Map 2, 4	LW 73	B1700	Add XD	
Map 2, 4	LW 74	B1700	Add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 2, 4	LW 75	B1700	Pull WBC	2x0.5 height and collapsed
Map 2, 4	LW 76	B1700	Add XD	
Map 2, 4	LW 78	B1700	Pull CMP, add XD	600 mm
Map 2, 4	LW 79	B1700	Pull CMP, add XD	800 mm
Map 2, 4	LW 80	B1700	Pull CMP, add XD	800 mm
Map 2, 4	LW 81	B1700	Start LPB	
Map 2, 4	LW 82	B1700	End LPB	
Map 2, 4	LW 83	B1700	Add XD	
Map 2, 4	LW 84	B1700	Pull CMP, add XD	Deep fill, 800 mm
Map 2, 4	LW 85	B1700	Add XD	
Map 2, 4	LW 86	B1700	Add XD	
Map 2, 4	LW 87	B1700	Add XD	
Map 2, 4	RN 169	B1000	Add XD	
Map 2	RN 170	B1000	Pull WBC	Existing 2x4 WBC at stream, functional
Map 2	RN 171	B1000	Pull CMP, add XD	800 cmp
Map 2	RN 172	B1000	Pull CMP, add XD	800 cmp
Map 2	RN 173	B1000	Add XD	
Map 2	RN 174	B1000	Add XD	
Map 2	RN 175	B1000	Pull CMP, add XD	600 cmp
Map 2	RN 176	B1000	Add XD	
Map 2	RN 177	B1000	Pull CMP, add XD	600 cmp
Map 2	RN 178	9601	no	Existing xditch at junction
Map 2	RN 181	9601	End LPB	
Map 2	RN 180	9601	Add XD	Continue LPB
Map 2	RN 179	9601	Start LPB	Gully crossing x ditched, on steep slopes back from here. Instability indicators along fillslope edge, rd mostly at fb but is still a sliver fill
Map 2	RN 182	9601	Add XD	
Map 2	RN 183	9601	Add XD	
Map 2	RN 184	9601	Add XD	
Map 2	RN 185	9601	Pull CMP, add XD	600 cmp, down from junction with unmapped spur
Map 2	RN 186	9601	Start LPB	Large windrow on edge of rd above slopes
Map 2	RN 187	9601	End LPB	
Map 2	RN 188	9601	Add XD	
Map 2	RN 189	9601	Pull CMP, add XD	800 cmp
Map 2	RN 190	9601	Add XD	
Map 2	RN 191	9601	Pull CMP, add XD	2 x 800 CMPs
Map 2	RN 192	9601	Start LPB, Add XD	Steep slopes below
Map 2	RN 193	9601	Pull CMP, add XD	600 cmp
Map 2	RN 194	9601	End LPB	
Map 2	RN 195	9601	PullWBC	Existing WBC 4x6, 1m high at stream, functioning
Map 2	RN 196	9601	Add XD	

Map #	Station	Road	Recommendation	Comments_Geo
Map 2	RN 197	9601	PullWBC	Existing 2x4 WBC at stream, functional
Map 2	RN 198	9601	PullWBC	Existing WBC 4x6, 1m high at stream, functioning
Map 2	RN 199	9601	Add XD	At junction
Map 2	TW 199	9601	Pull CMP, add XD	400 cmp
Map 2	TW 198	9601	Pull CMP, add XD	400 cmp
Map 2	TW 196	9601	Add reverse waterbar	
Map 2	TW 195	9601	Add reverse waterbar	
Map 2	TW 194	9601	Add XD	Connect ditches on main
Map 2	TW 241	9601-1A	no	Existing natural XD from str erosion
Map 2	TW 240	9601-1A	No	Existing natural XD from str erosion
Map 2	TW 239	9601-1A	Add XD	Ponding water
Map 2	TW 238	9601-1A	Add XD	
Map 2	TW 237	9601-1A	Start HPB	Frequent cracks 3-5 m from outer edge , prolific settling
Map 2	TW 236	9601-1A	Add XD, continue HPB	Ncd
Map 2	TW 235	9601-1A	no	Down to 2.5m stable rd prism, will need to use ditch
Map 2	TW 234	9601-1A	Add XD, continue HPB	Ncd
Map 2	TW 233	9601-1A	End HPB, start MPB	End cracks on rd 3-4m from outside edge, onto settling / cracks shoulder / fill
Map 2	TW 232	9601-1A	Add XD, continue MPB	Seep
Map 2	TW 231	9601-1A	End MPB	
Map 2	TW 230	9601-1A	Add XD	
Map 2	TW 229	9601-1A	No	Existing XD
Map 2	TW 228	9601-1A	Add XD	
Map 2	TW 227	9601-1A	Start MPB	5-6 m wad large cracks & 0.5m vert subsistence, ready to go
Map 2	TW 226	9601-1A	no	Cracks 4 m from outer edge, 3.5-4 m usable / stable
Map 2	TW 225	9601-1A	End MPB	
Map 2	TW 225	9601-1A	Preserve XD	Existing low natural XD flows onto HW
Map 2	TW 224	9601-1A	Start HPB	
Map 2	TW 223	9601-1A	no	10 m fill failure
Map 2	TW 222	9601-1A	End HPB	2 m shoulder dropped 0.2m fills extend minimum 7 m further on 80% or more 10 m fill failure
Map 2	TW 221	9601-1A	Add XD	
Map 2	TW 220	9601-1A	Pull bridge	8 m wood bridge
Map 2	TW 219	9601-1A	Add XD	
Map 2	TW 218	9601-1A	Add XD	
Map 2	TW 217	9601-1A	Pull WBC	2-1m WBC
Map 2	TW 216	9601-1A	Add XD	
Map 2	TW 215	9601-1A	No	Existing natural XD from str erosion

Map #	Station	Road	Recommendation	Comments_Geo
Map 2	TW 214	9601-1	No	End of rd
Map 2	TW 213	9601-1	Pull WBC	3x1m WBC
Map 2	TW 212	9601-1	No	Existing natural XD from str erosion
Map 2	TW 210	9601-1	Add XD	
Map 2	TW 209	9601-1	Pull WBC	Collapsing 2-1 m WBC
Map 2	TW 208	9601-1	Start MPB	
Map 2	TW 207	9601-1	End MPB	6-7m long fill adj. draw
Map 2	TW 206	9601-1	Add XD	Slide path along draw
Map 2	TW 205	9601-1	Infill ditch for access	3x1m WBC, collapsing low side
Map 2	TM 204	0601 1	WCA upstable outer 4 m of rd	Outer 4 m cracks & settled on 7m 45% to
Map 2	100 204	9601-1	WSA unstable outer 4 m of rd	large bench
Map 2	TW 203	9601-1	PullWBC	3x1m WBC
Map 2	TW 202	9601-1	Pull WBC	3x1m WBC
Map 2	TW 201	9601-1	Add XD	
Map 2	TW 200	9601-1	no	Existing XD, unsure natural or constructed
Map 2	TW 211	Spur C	No	Unmapped spur no work required
Map 2	TW 197	Spur B	No	Old spur no work required
				Could use for spoil, may need excavate
Map 2	TW 189	B100	No deact work required	start of spur as causing narrowing of
				mainline
				Existing 400 w high flows onto road,
Map 2	TW 169	B50	Pull CMP, add XD	source of washout. Best to remove &
				make ditch
Man 0	TW 100	DEO	No	No work required mid -end of spur, on
Map∠	100 108	820		benches w no streams

Map #	Station	Road	Recommendation	Comments_Geo
Depat Map 2	TW/ 161	Atlaa Main	Start aloan ditab	Functional 3x1m WBC hole outside edge.
React Map 3	101 101	Alleo Main		Engineers have seen
React Map 3	TW 160	Atleo Main	Continue clean ditch	
React Map 3	TW 159	Atleo Main	End clean ditch	
React Map 3	TW 158	Atleo Main	Start clean ditch	
React Map 3	TW 157	Atleo Main	End clean ditch	
React Map 3	TW 156	Atleo Main	No	Functional 3x1m WBC
React Map 3	TW 155	Atleo Main	No	Ditch fish
React Map 3	TW 154	Atleo Main	P.Eng inspection required	Partially infilled 3x1m WBC
React Map 3	TW 153	Atleo Main	Start clean ditch	
React Map 3	TW 152	Atleo Main	End clean ditch	
React Map 3	TW 151	Atleo Main	No	Functioning 600 cmp
React Map 3	TW 150	Atleo Main	No	Existing 600 cmp
React Map 3	TW 149	Atleo Main	No	Functioning 3x2mWBC
React Map 3	TW 148	Atleo Main	Start clean ditch	
React Map 3	TW 147	Atleo Main	Continue clean ditch	Existing 600 cmp
React Map 3	TW 146	Atleo Main	End clean ditch	
React Map 3	TW 145	Atleo Main	No	Functional 800 cmp
React Map 3	TW 144	Atleo Main	Start clean ditch	
React Map 3	TW 143	Atleo Main	End clean ditch	
React Map 3	TW 142	Atleo Main	No	Existing 600 cmp
React Map 3	TW 141	Atleo Main	Start clean ditch	
React Map 3	TW 140	Atleo Main	Continue clean ditch	Functional 800 cmp
React Map 3, 7	TW 139	Atleo Main	End clean ditch	
React Map 3, 7	TW 138	Atleo Main	No	Functional 800 cmp
React Map 3, 7	TW 137	Atleo Main	Start clean ditch	
React Map 3, 7	TW 136	Atleo Main	Add CMP, end clean ditch	Ditch flows unnaturally into quarry
React Map 3, 7	TW 135	Atleo Main	Start clean ditch	Partially infilled ditch
React Map 3, 7	TW 134	Atleo Main	End clean ditch	
React Map 3, 7	TW 133	Atleo Main	P.Eng inspection required	3x1m WBC infilled w sediment
React Map 3, 7	TW 132	Atleo Main	Start clean ditch	Infilled / poorly functioning ditch
React Map 3 7	TW 131	Atleo Main	Clean inlet	Existing 3x1m WBC, debris @
	101			intake, continue clean ditch
React Map 3, 7	TW 130	Atleo Main	End clean ditch	
React Map 3, 7	TW 129	Atleo Main	No	20 m steel portable bridge
React Map 7	TW 128	Atleo Main	Start clean ditch	4-5 m till cuts, infilled ditch
React Map 7	TW 127	Atleo Main	Continue clean ditch	Functional double 800 cmps
React Map 7	TW 126	Atleo Main	End clean ditch	
React Map 7	TW 125	Atleo Main	No	20 m w fillfailure thick tills, existing guard log
React Map 7	TW 123	Atleo Main	No	Functional 4x1m WBC
React Map 7	TW 122	Atleo Main	P.Eng inspection required	Functional 4x1.5 m WBC. 0.5m subsistence hole @ inside edge
React Map 7	TW 121	Atleo Main	No	Functional double 800 cmps
React Map 7	TW 120	Atleo Main	Start clean ditch	·
React Map 7	TW 119	Atleo Main	Continue clean ditch	Functioning 3x2mWBC
React Map 7	TW 118	Atleo Main	Clean inlet. End clean ditch	600 cmp with coarse infilled intake from slide

Map #	Station	Road	Recommendation	Comments_Geo
React Map 7	TW 117	Atleo Main	No	Functional 400 cmp
React Map 7	TW 116	Atleo Main	Start clean ditch	Ditch infilled
React Map 7	TW 115	Atleo Main	Continue clean ditch	Functional 600 cmp, with some coarse debris @ intake will block in time
React Map 7	TW 114	Atleo Main	no	20 m slide in thick tills ongoing coarse delivery. Berm here to keep flows to last wbc.
React Map 7	JE 11	Atleo main	no	Slide is down cutting and then ditched to wbc
React Map 7	TW 113	Atleo Main	Continue clean ditch	Ditch I filled here to last TW. Here is 4x1.5m WBC functional
React Map 7	TW 112	Atleo Main	End clean ditch	
React Map 7	TW 111	Atleo Main	Start clean ditch	Double functional 800 cmps, Ditch here to last TW partially infilled & not functioning
React Map 7	TW 110	Atleo Main	End clean ditch. Clean intake	Double 800 cmp with sec wede @ intake
React Map 7	TW 109	Atleo Main	Clean inlet	Existing 600 CMP woody debris @ intake
React Map 7	TW 108	Atleo Main	No	Functioning 600 cmp
React Map 7	TW 107	Atleo Main	No	Functioning 600 cmp
React Map 7	TW 106	Atleo Main	No	Existing functioning 3x1m WBC
React Map 7	TW 105	Atleo Main	Add guard log or put additional log & pack	Functioning 3x2mWBC with gap outside edge
React Map 7	TW 104	Atleo Main	No	Existing functioning 600 cmp
React Map 7	TW 103	Atleo Main	Clean inlet	Existing 600 CMP woody debris @ intake
React Map 7	TW 102	Atleo Main	Clean inlet	Existing 600 CMP woody debris @ intake
React Map 7, 8	JE 8	Atleo main	Ino	Existing WBC 1*3
React Map 7, 8	JE 7	Atleo main	Ino	Existing cmp 600
React Map 7, 8	JE 6	Atleo main	Ino	Existing cmp 600
React Map 7, 8	JE 5	Atleo main	Ino	Existing cmp 600
React Map 7, 8	JE 4	Atleo main	Ino	Existing WBC 1*3
React Map 7, 8	JE 3	Atleo main	Ino	Existing cmp 600
React Map 7, 8	JE 2	Atleo main	Ino	Existing cmp 600
React Map 7, 8	JE 1	Atleo main	no	Existing cmp
React Map 8	LW 2	Atleo Main	no	Existing CMP- 800 mm
React Map 8	LW 3	Atleo Main	P.Eng inspection required	Wood Bridge- 8 m length
React Map 8	LW 5	Atleo Main	no	Drivable to here; no truck access beyond
React Map 8	LW 6	Atleo Main	no	Existing CMP- 1200 mm
React Map 8	LW 7	Atleo Main	no	Existing CMP- 1000 mm
React Map 8	LW 8	Atleo Main	P.Eng inspection required	Wood Bridge- 5 m length
React Map 8	LW 9	Atleo Main	Start LPB, End Haul	TC extend 2-3 m into road after crossing;

React Map 8LW 10Atleo MainStop LPB, End HaulReact Map 8LW 11Atleo MainnoExisting CMP- 2 x 800 mmReact Map 8LW 12Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 13Atleo MainInstall CMPReact Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 20Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 600 mm	Map #	Station	Road	Recommendation	Comments_Geo
React Map 8LW 11Atleo MainnoExisting CMP- 2 x 800 mmReact Map 8LW 12Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 13Atleo MainInstall CMPReact Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 14Atleo MainnoExisting WBCReact Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 20Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 10	Atleo Main	Stop LPB, End Haul	
React Map 8LW 12Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 13Atleo MainInstall CMPReact Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge - 8 m lengthReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge - 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge - 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP - 800 mmReact Map 8LW 19Atleo MainnoExisting CMP - 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge - 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP - 800 mmReact Map 8LW 22Atleo MainnoExisting CMP - 800 mm	React Map 8	LW 11	Atleo Main	no	Existing CMP- 2 x 800 mm
React Map 8LW 13Atleo MainInstall CMPReact Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 12	Atleo Main	P.Eng inspection required	Wood Bridge- 8 m length
React Map 8LW 14Atleo MainP.Eng inspection requiredExisting WBC/ Bridge - 4- 5 m lengthReact Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 20Atleo MainnoExisting CMP- 800 mmReact Map 8LW 20Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 13	Atleo Main	Install CMP	
React Map 8LW 15Atleo MainnoExisting WBCReact Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 14	Atleo Main	P.Eng inspection required	Existing WBC/ Bridge - 4- 5 m length
React Map 8LW 16Atleo MainP.Eng inspection requiredWood Bridge- 8 m lengthReact Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 15	Atleo Main	no	Existing WBC
React Map 8LW 17Atleo MainReplace BridgeWood Bridge- 8 m lengthReact Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mm	React Map 8	LW 16	Atleo Main	P.Eng inspection required	Wood Bridge- 8 m length
React Map 8LW 18Atleo MainnoExisting CMP- 800 mmReact Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 600 mm	React Map 8	LW 17	Atleo Main	Replace Bridge	Wood Bridge- 8 m length
React Map 8LW 19Atleo MainnoExisting CMP- 2 x 1000 mmReact Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 600 mm	React Map 8	LW 18	Atleo Main	no	Existing CMP- 800 mm
React Map 8LW 20Atleo MainP.Eng inspection requiredWood Bridge- 5 m lengthReact Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 600 mm	React Map 8	LW 19	Atleo Main	no	Existing CMP- 2 x 1000 mm
React Map 8LW 21Atleo MainnoExisting CMP- 800 mmReact Map 8LW 22Atleo MainnoExisting CMP- 600 mm	React Map 8	LW 20	Atleo Main	P.Eng inspection required	Wood Bridge- 5 m length
React Map 8 LW 22 Atleo Main no Existing CMP- 600 mm	React Map 8	LW 21	Atleo Main	no	Existing CMP- 800 mm
	React Map 8	LW 22	Atleo Main	no	Existing CMP- 600 mm
React Map 8 LW 23 Atleo Main Install CMP Existing XD	React Map 8	LW 23	Atleo Main	Install CMP	Existing XD
React Map 8 LW 24 Atleo Main P.Eng inspection required Wood Bridge- 12 m length	React Map 8	LW 24	Atleo Main	P.Eng inspection required	Wood Bridge- 12 m length
React Map 8 LW 25 Atleo Main Install CMP Existing XD	React Map 8	LW 25	Atleo Main	Install CMP	Existing XD
React Map 8 LW 26 Atleo Main no Existing CMP- 800 mm	React Map 8	LW 26	Atleo Main	no	Existing CMP- 800 mm
React Map 6 RN 52 Summit Main Clean inlet Existing 600 cmp not draining, blocked in	React Map 6	RN 52	Summit Main	Clean inlet	Existing 600 cmp not draining, blocked inlet
React Map 6 RN 51 Summit Main no 600 cmp	React Map 6	RN 51	Summit Main	no	600 cmp
React Map 6 RN 50 Summit Main no 1000 CMP	React Map 6	RN 50	Summit Main	no	1000 CMP
React Map 6 RN 49 Summit Main no 1000 and 800 Cmps	React Map 6	RN 49	Summit Main	no	1000 and 800 Cmps
React Map 6 RN 48 Summit Main no Existing WBC	React Map 6	RN 48	Summit Main	no	Existing WBC
React Map 6 RN 47 Summit Main Clean ditches into cmp inlet 1000 CMP	React Map 6	RN 47	Summit Main	Clean ditches into cmp inlet	1000 CMP
React Map 6 RN 46 Summit Main Add CMP	React Map 6	RN 46	Summit Main	Add CMP	
React Map 6 RN 45 Summit Main Pull and Replace CMP Crushed on outlet / not functioning	React Map 6	RN 45	Summit Main	Pull and Replace CMP	Crushed on outlet / not functioning
React Map 6 RN 44 Summit Main Start LPB, End Haul	React Map 6	RN 44	Summit Main	Start LPB, End Haul	
React Map 6 RN 43 Summit Main End LPB, End Haul Fill on outer edge above steep	React Map 6	RN 43	Summit Main	End LPB, End Haul	Fill on outer edge above steep
React Map 6 RN 42 Summit Main no Existing WBC	React Map 6	RN 42	Summit Main	no	Existing WBC
React Map 6 RN 41 Summit Main Add CMP	React Map 6	RN 41	Summit Main	Add CMP	
React Map 6 RN 40 Summit Main Add CMP	React Map 6	RN 40	Summit Main	Add CMP	
React Map 6 RN 39 Summit Main Add CMP	React Map 6	RN 39	Summit Main	Add CMP	
React Map 6 RN 38 Summit Main Add CMP	React Map 6	RN 38	Summit Main	Add CMP	
React Map 6 RN 37 Summit Main no Existing WBC	React Map 6	RN 37	Summit Main	no	Existing WBC
React Map 3 TW 164 Camp 3 Clean ditch to ocean	React Map 3	TW 164	Camp 3	Clean ditch to ocean	
React Map 3 TW 165 Camp 3 Excavate remove fines & wood, reconstruct 3 m long subsistence w 0.5m hole on out edge	React Map 3	TW 165	Camp 3	Excavate remove fines & wood, reconstruct	3 m long subsistence w 0.5m hole on outer edge
React Map 3 TW 163 Millar Main No Functional 3x1m WBC	React Map 3	TW 163	Millar Main	No	Functional 3x1m WBC
React Map 3 TW 162 Millar Main No Functional 3x1m WBC	React Map 3	TW 162	Millar Main	No	Functional 3x1m WBC
React Map 3 LG 88 Millar Main P.Eng inspection required 10m w, 2m l. Undercutting at outlet	React Map 3	LG 88	Millar Main	P.Eng inspection required	10m w, 2m l. Undercutting at outlet
React Map 3 LG 89 Millar Main Excavate and reconstruct Holes in road	React Map 3	LG 89	Millar Main	Excavate and reconstruct	Holes in road

Map #	Station	Road	Recommendation	Comments_Geo
React Man 3	T\\/ 282	Miller Main	Start MDB, End Haul	5 m fill wedge -65%, 5m rd width usable, 3
	100 202	Miller Main		m cut +45%
React Map 3	TW 283	Miller Main	End MPB, End Haul	Fill wedge diminished
React Map 3	LG 90	Millar Main	no	Existing CMP
React Map 3	LG 91	Millar Main	Add CMP	Small stream entering ditch
React Map 3	LG 92	Millar Main	Add CMP	High water flow in ditchline
React Map 3	LG 93	Millar Main	P.Eng inspection required	10m w, 3m l.
React Map 3	LG 94	Millar Main	Start MPB	6m shoulder, outer 2m settling. Leaning mature alder, some slid off110%(12m to creek). Road wide out is solid but wet.
React Map 3	LG 95	Millar Main	End MPB	
React Map 3	LG 96	Millar Main	P.Eng inspection required	10m l crib wall, 10m l bridge. Wooden bridge
React Map 3	LG 97	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 3	LG 98	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 3	LG 99	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 3	LG 100	Millar Main	no	Existing CMP, shallow
React Map 3	LG 101	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 4	LG 150	Millar Main	P.Eng inspection required	10m l, 4m w
React Map 4	LG 151	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 4	LG 152	Millar Main	P.Eng inspection required	Collapsed WBC. 2m l.
React Map 4	LG 153	Millar Main	P.Eng inspection required	10m w, 3m l
React Map 4	LG 154	Millar Main	no	Mainline becomes very brushy and aldered in at the fork. Shallow ditchlines
React Map 4	LG 155	Millar Main	no	Existing CMP
React Map 4	LG 156	Millar Main	Clean inlet	Existing CMP
React Map 4	LG 157	Millar Main	no	Existing CMP
React Map 4	LG 158	Millar Main	P.Eng inspection required	10m l, 5m w
React Map 4	LG 159	Millar Main	no	Existing CMP
React Map 4	LG 160	Millar Main	Clean inlet	10m w, 3m l
React Map 4	RN 101	Millar Main	no	Existing 600 cmp
React Map 4	RN 100	Millar Main	P.Eng inspection required	Existing WBC 4x4, 1m high functioning
React Map 4	RN 99	Millar Main	no	Existing 600 cmp
React Map 4	RN 98	Millar Main	Add CMP	
React Map 4	RN 102	Millar Main	Start MPB, End Haul	Failing outer fillslope above mod steep
React Map 4	RN 103	Millar Main	End MPB, End Haul	

Map #	Station	Road	Recommendation	Comments_Geo
React Map 4	RN 97	Millar Main	no	Existing 600 cmp
React Map 4	RN 96	Millar Main	no	Existing 600 cmp
React Map 4	RN 95.5	Millar Main	no	Existing 600 cmp
React Map 4	RN 95	Millar Main	P.Eng inspection required	6m span log bridge
React Map 4	RN 94	Millar Main	no	Existing 600 cmp
React Map 4	RN 93	Millar Main	no	Existing 600 cmp
React Map 4, 5	RN 92	Millar Main	Replace WBC with CMP	Ponded water in upper ditch
React Map 4, 5	RN 91	Millar Main	P.Eng inspection required	Existing WBC 4-5x6/Bridge at stream, partially collapsed stringers
React Map 4, 5	RN 87	Millar Main	no	Existing 600 cmp
React Map 4, 5	RN 86	Millar Main	no	Existing 600 cmp
React Map 4, 5	RN 85	Millar Main	no	Existing 600 cmp
React Map 4, 5	RN 84	Millar Main	Replace WBC with CMP	Broken 3x4 WBC
React Map 5	RN 83	Millar Main	no	Existing 600 cmp
React Map 5	RN 82	Millar Main	no	Existing 600 cmp
React Map 5	RN 81	Millar Main	no	Existing 600 cmp
	+			Existing WBC at stream. Looks ok to use,
React Map 5	RN 80	Millar Main	no	4x6 about 1 m high
React Map 5	RN 79	Millar Main	no	2 x 1000 cmp
React Map 5	RN 77	Millar Main	no	Existing 600 cmp
React Map 5	RN 76	Millar Main	no	Existing 600 cmp
React Map 5	RN 75	Millar Main	ino	Existing small WBC 2x4
React Map 5	RN 74	Millar Main	Add CMP	No sign of M1700 road
React Map 5	RN 73	Millar Main	Add CMP	
React Map 5	RN 72	Millar Main	P.Eng inspection required	Existing WBC 2x4 some damage
React Map 5	RN 71	Millar Main	no	1
React Map 5	RN 110	Millar Main	Add CMP	Pond on upslope side
React Map 1	TW 166	Bedingfield main	no	Runoff eroded surface, heavy brush w 30 yr old alder, ditched infilled
React Map 1	TW 167	Bedingfield main	Clean inlet	800 cmp w partially obstructed intake
React Map 1	TW 170	Bedingfield main	Clean inlet	400 cmp small infill @ intake. Onto steep with keyed in fill
React Map 1	TW 171	Bedingfield main	No	Functional 400 cmp. Surface in decent condition now but will require some working after brushing
React Map 1	TW 172	Bedingfield main	Excavate fills & 1.5m of outside edge, remove fines / wood, rebuild	20 m w fill failure thick tills, existing guard log
React Map 1	TW 173	Bedingfield main	End excavate and reconstruct	
React Map 1	TW 174	Bedingfield main	Clean inlet	400 cmp partially blocked intake
React Map 1	TW 175	Bedingfield main	Start excavate outer 1.5 m of rd surface & fills, remove F&W, rebuild KIR	Fills settled, cracks 1-1.5 m outer rd surface on 65%, 6 m R cuts + 75-90%. Too steep for moving rd in
React Map 1	TW 176	Bedingfield main	End excavate and reconstruct, KIR	Road instability end. 400 cmp partially obstructed intake

Map #	Station	Road	Recommendation	Comments_Geo
React Map 1	TW 177	Bedingfield main	Start LPB, End Haul	Wad of spoil supported by conifers on 75. Surface intact
React Map 1	TW 178	Bedingfield main	End LPB, End Haul	wad of fill / spoil diminishes
React Map 1	TW 179	Bedingfield main	Start LPB, End Haul	2-4m fill / spoil on 70-80%. Rd surface stable
React Map 1	TW 180	Bedingfield main	End LPB, End Haul	
React Map 1	TW 181	Bedingfield main	Start MPB, End Haul	6-7m of spoil pushed out on 80% or higher, supported by trees / log on surface. Settled 0.5 m vert
React Map 1	TW 182	Bedingfield main	End MPB, End Haul. Clean intake here	Spoil on steep diminishes. 400 cmp partially obstructed intake
React Map 1	TW 183	Bedingfield main	No	Functional 800 cmp
React Map 1	TW 184	Bedingfield main	Clean inlet	Existing 600 CMP debris @ intake
React Map 1, 2	TW 185	Bedingfield main	Clean inlet	600 cmp w obstructed intake & slight crushed
React Map 1, 2	TW 186	Bedingfield main	Reposition CMP deeper	600 cmp 0.5m off bottom, large pool not flowing. Could reposition lower
React Map 1, 2	TW 187	Bedingfield main	Clean inlet	Existing 600 CMP debris @ intake
React Map 1, 2	TW 188	Bedingfield main	No	600 cmp 0.5m off bottom, large pool not flowing. Could reposition lower
React Map 1, 2	TW 190	Bedingfield main	Ditch back 50 m from cmp	Functional 600 cmp, ditch 50 m back not flowing w large stagnant pools
React Map 1, 2	TW 191	Bedingfield main	No	20 m wood bridge already checked by eng
React Map 1, 2	TW 192	Bedingfield main	Add CMP	
React Map 1, 2	TW 193	Bedingfield main	P.Eng inspection required	4x1m WBC w slight subsistence on downstream side. Very brushy
React Map 2	JE 14	Bedingfield main	P.Eng inspection required	Existing WBC 1*3
React Map 2	JE 15	Bedingfield main	Start excavate and reconstruct	Subsiding road suspect rotten lwd in prism
React Map 2	JE 16	Bedingfield main	Replace WBC with CMP	WBC has collapsed
React Map 2	JE 17	Bedingfield main	End excavate and reconstruct	Subsidence right through bowl
React Map 2	JE 18	Bedingfield main	Add CMP	600 CMP
React Map 2	JE 19	Bedingfield main	No	Road is over grown. Dr 10 cm dbh +
React Map 2	JE 20	Bedingfield main	Add CMP	Swale through road at possible old wbc location +-30% 600 CMP
React Map 2	JE 21	Bedingfield main	Start LPB, End Haul	Tension cracks with 4.5 m of road remaining. Approaching 5 m + cuts
React Map 2	JE 22	Bedingfield main	End LPB, End Haul	
React Map 2	JE 23	Bedingfield main	Start LPB, end haul	Settling 5.5 m of useable road around rock cut
React Map 2	JE 24	Bedingfield main	End LPB; start MPB End haul; move road into ditch	Rock cuts
React Map 2	JE 25	Bedingfield main	End MPB, End Haul	
React Map 2	JE 26	Bedingfield main	Replace WBC with CMP	Old collapsing 1*2 WBC
React Map 2	JE 27	Bedingfield main	Add CMP	600 CMP