

May 27, 2024

Attn: Zoltan Schafer, RPF, CEO
MaMook Natural Resources
Zoltan.schafer@ufn.ca; ceo@mamookresource.ca

Subject: Road Deactivation and Maintenance Assessment: Kennedy Lake Road Network

Onsite File #: 988-5-2
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 carried out road deactivation and upgrade assessments in the Kennedy Lake watershed. The assessments were completed on May 6-8 and May 16, 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. Except for Tofino Main beyond Virgin Falls, roads listed as Long Term (East Main, Millstream Main, West Main, Lost Lake Road, Deer Bay Main, and Tofino Main) were not included in the deactivation assessment. Any sections along these roads requiring immediate and/or significant works are included as maintenance items in Appendix C. Subsequent Road maintenance assessments should be carried out once deactivation works are underway. Tofino Main beyond Virgin Falls was assessed for permanent deactivation.

Clayoquot Main and all its branch and spur roads and Kenquot Main and its branch and spurs will be included in a separate assessment and report.

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.

Roads not listed as active roads, i.e., not considered to be part of the road permit were excluded from the assessment. Several exceptions to this were made where intact stream crossings (i.e. woodboxes or bridges) were observed along inactive roads proximal to active road sections that were slated for permanent deactivation. The remaining “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.

Conditions at the time of the assessments were sunny with warm temperatures on May 6-8 and low cloud with light rain shifting to sun on May 16. Surface runoff was at low levels.

1.0 OBJECTIVES

The objective is 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). 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 situated within the Kennedy Lake watershed, west of the Clayoquot Arm of Kennedy Lake. The network is accessible from several points along Highway 4 near the Tofino-Ucluelet Junction as well as from ‘the dump road’ (Alaska Pine) near Long Beach within the Pacific Rim National Park. The general work area is located roughly 14.5 km east of Tofino, B.C (Figure 1).

The roads near the southern end of Kennedy Lake are located in the “Kennedy Flats”, so named due to its low elevation terrain and subdued topography. The flats are transected by numerous streams, most of which are fish bearing. Road construction in the flats began in the 1950s and consisted largely of overland construction. Clearcut harvesting and road construction in the Flats continued through the 1980s within the TFL but was shifted to variable retention harvesting following the institution of the Forest Practices Code in 1995. A final round of harvesting in the flats was completed in the TFL around 2010. Since this time, industrial activity has been limited to private lands.

Harvesting and road construction north of the flats continued into the 1980’s and 90’s and was focused along the ridge separating Tofino Inlet from the Clayoquot Arm of Kennedy Lake and lower elevation terrain in Tofino Creek valley. By the Mid 1990s Lost Lake Main, Deer Bay Main, and Tofino Main had been constructed to the back end of Tofino Creek valley. Several middle slope branch roads and spurs were also constructed during this phase. Roads built during this period include both pre- and post-Code methods but information of exact construction methods i.e. full or partial bench construction is not available aside from direct field observations.

Resources at risk across the study area include site productivity and fish resources. Fish bearing reaches are located throughout the Kennedy Flats. Impact to fish reaches through the Flats is most likely to occur at failed stream crossings such as collapsed woodboxes or bridges, plugged culverts, or other sites of drainage disruption. Fish reaches could be impacted by a fill slope failure along Tofino Creek Main and its branch and spur roads, Deer Bay Main and its branch and spur roads, Kennedy River Road, and the GBR88 road network.

290000E

300000E

310000E

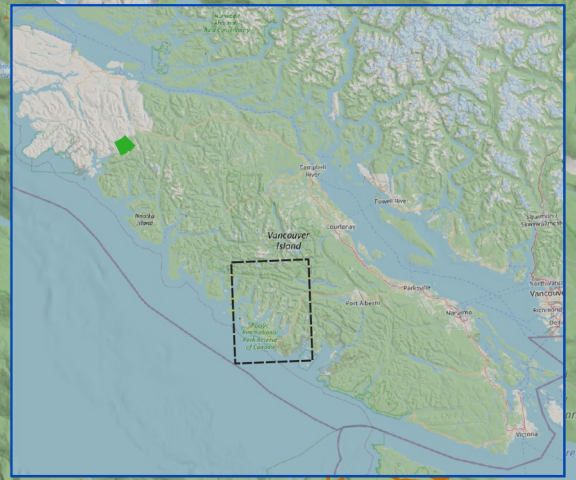
320000E

330000E

ONSITE
Engineering Ltd.

**Location Map:
Kennedy Lake
Road Deactivation
Study Area**

File: #988-5-2



5480000N

5480000N

5470000N

5470000N

5460000N

5460000N

5450000N

5450000N

5440000N

5440000N

5430000N

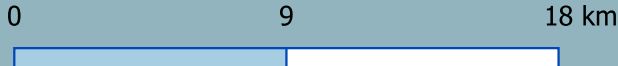
5430000N

5420000N

5420000N

- Project Area
- Assessment Area
- Other

1:250,000



Basemap:
OpenStreetMap
NAD83 / UTM zone 10N

290000E

300000E

310000E

320000E

330000E

3.0 WORK CARRIED OUT

A high-level helicopter fly over of the study area was completed by Marty Locker on March 21st 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 during the fly-over assessment are noted in Table 1 below.

Several roads were not field assessed due to the presence of active squatters blocking the roads and the potential for unsafe conditions for the field crews. Roads not assessed are marked in Table 1. These roads are located on gentle gradient terrain within the Flats and can be assessed for the placement of cross ditches concurrent with deactivation works.

During the field assessments, stability conditions were inferred from observed conditions of the road, such as existing landslides, tension cracks, road drainage conditions, 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 the deactivation tables.

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 through the Flats has been rated for the entire road length and is not separated into intervals. It is rated based on the occurrence of stream crossings along the roads. If there are no stream crossings and no streams mapped in proximity, the spatial impact is rated as low; if there are stream crossings through fish habitat, the likelihood of spatial impact is rated as high; if the road is located in close proximity to fish reaches but does not cross any streams, the likelihood of spatial impact is rated as moderate. Roads are listed in rough order from south to north through the study area.

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

Road	Start Stn.	End Sta.	Stability Hazard	Likelihood of Spatial Impact to Fish Reaches	Deactivation Level, Comments
LS1900	-	-	Low	Low	permanent
LS32-2	-	-	Low	Low	permanent
LS32-1	-	-	Low	Low	permanent
LS32-3	-	-	Low	Low	permanent
9903	-	-	Low	Moderate	permanent
9902	-	-	Low	Moderate	Permanent. Accesses Private Land consider removing from deactivation plan
9901	-	-	Low	High	Permanent. Accesses Private Land consider removing from deactivation plan
T-1	-	-	Low	High	permanent
T-1A	-	-	Low	Moderate	permanent
T-1B	-	-	Low	High	permanent
SB3-1F1	-	-	Low	High	permanent
SB3-F, -1	Deactivation completed, no works required				
LS30-2	Deactivation completed, no works required				
L151	-	-	Low	Moderate	permanent
L152	-	-	Low	Moderate	permanent
K350-1, -2	No works required, overland construction, no drainage concerns				
SB4-1	-	-	Low	High	permanent
L7	-	-	Low	High	permanent
Trestle Main	-	-	Low	High	permanent
KEN400-1, -2	Deactivation completed, no works required				
TR5-1	-	-	Low	High	Permanent
TR5-1-B	-	-	Low	High	permanent
TR5-1-A	-	-	Low	Low	permanent
TR5-1-C	-	-	Low	Low	permanent
TR9	-	-	Low	Low	permanent
GB12	-	-	Low	Low	permanent
TR4-1	-	-	Low	Moderate	permanent
TR3-1	No works required, overland construction, no drainage concerns				
TR2-1	No works required, overland construction, no drainage concerns				
TR1-1	No works required, overland construction, no drainage concerns				
TR1-2	No works required, overland construction, no drainage concerns				
WM92	-	-	Low	High	permanent
WM105	-	-	Low	Low	permanent

WM107	-	-	Low	Low	permanent
WM108	-	-	Low	Low	permanent
WM111	-	-	Low	High	Permanent
WM112, 112A	-	-	Low	High	Permanent
WM114	-	-	Low	Not assessed - squatters	Permanent
WM114A	-	-	Low	Not assessed - squatters	Permanent
WM115	No works required, overland construction, no drainage concerns				
WM117	-	-	Low	High	Permanent
WM116	-	-	Low	Moderate	Permanent
WM116A	-	-	Low	Moderate	Permanent
WM116B	-	-	Low	Moderate	Permanent
WM116C	-	-	Low	Moderate	Permanent
WM125	-	-	Low	Moderate	Permanent
WM130	-	-	Low	High	Permanent
E1	-	-	Low	Moderate	Permanent
WM132-A	No works required, overland construction, no drainage concerns				
WM132-A-1	No works required, overland construction, no drainage concerns				
WM141	-	-	Low	High	Permanent
G1	-	-	Low	Moderate	Permanent
G1-1	No works required, overland construction, no drainage concerns				
G1-2	No works required, overland construction, no drainage concerns				
G1-3	No works required, overland construction, no drainage concerns				
Alaska Pine Main	-	-	Low	High	Permanent. Accesses Private Land consider removing from deactivation plan
B2	Deactivation completed, no works required				
APR16A	LG191	LG204	Low	Moderate	Permanent
APR16A	LG204	LG205	Moderate	Moderate	Permanent
APR16A	LG205	Start	Low	Moderate	Permanent
GW1	-	-	Low	Moderate	Permanent
GW1-1	-	-	Low	Moderate	Permanent
GW1-2	-	-	Low	Moderate	Permanent
K395-1	No works required, overland construction, no drainage concerns				
L192	No works required, overland construction, no drainage concerns				
APR30	No works required, overland construction, no drainage concerns				
Grice Bay Road	-	-	Low	High	Permanent. North end accesses Private Land consider removing from deactivation plan
GBR10	-	-	Low	Low	Permanent

GBR11	-	-	Low	Low	Permanent
GBR12	-	-	Low	Low	Permanent
GBR12A	No works required, overland construction, no drainage concerns				
L105	-	-	Low	Low	Permanent
L105H	-	-	Low	Low	Permanent
GB15	-	-	Low	High	Permanent
GB15A, -C, -D, -E, -F	No works required, overland construction, no drainage concerns				
GB16	Deactivation completed, no works required				
GB18	No works required, overland construction, no drainage concerns				
GB17	No works required, overland construction, no drainage concerns				
GB19	No works required, overland construction, no drainage concerns				
GB30	-	-	Low	High	
GB30A	No works required, overland construction, no drainage concerns				
GB30B	No works required, overland construction, no drainage concerns				
GB31	No works required, overland construction, no drainage concerns				
GB36	Deactivation completed, no works required				
GB36A	Deactivation completed, no works required				
GB37	-	-	Low	Not assessed - squatters	Permanent
G3	-	-	Low	High	Permanent, back end of road deactivated
G4	-	-	Low	High	Permanent
G4A	Deactivation completed, no works required				
GB54	-	-	Low	High	Permanent
GB57	-	-	Low	High	Permanent
GB56	-	-	Low	High	Permanent, back end of road deactivated
GB56A	No works required, overland construction, no drainage concerns				
GB56B	No works required, overland construction, no drainage concerns				
H4	No works required, overland construction, no drainage concerns				
GB56-1, -2	No works required, overland construction, no drainage concerns				
Kootowis Creek Road	-	-	Low	High	Permanent
KRC14	No works required, overland construction, no drainage concerns				
KCR20	Deactivation completed, no works required				
KCR26, -A, -C	Deactivation completed, no works required				
K003A	-	-	Low	Low	Permanent
A1	-	-	Low	High	Permanent
A2	-	-	Low	High	Permanent
A3	No works required, overland construction, no drainage concerns				
A4	No works required, overland construction, no drainage concerns				
GBR-OEL-A	-	-	Low	Moderate	Permanent

Indian Bay Road	-	-	Low	High	Permanent
IBR 11B-G2	-	-	Low	Moderate	Permanent, back end already deactivated
IBR 11B-G2-1	Deactivation completed, no works required				
IBR11	-	-	Low	High	Permanent, most of road already deactivated
IBR11D, D1, -G, -F	Deactivation completed, no works required				
GBR88	-	-	Low	High	Permanent
GBR88A, A1	Deactivation completed, no works required				
GBR88B, B1, C1	Deactivation completed, no works required				
GBR88C2	-	-	Low	Moderate	Permanent
GBR88C3	E/L	LWa118	Low	Moderate	Permanent
GBR88C3	LWa118	LWa119	Moderate	Moderate	Permanent
GBR88C3	LWa119	LWa127	Low	Moderate	Permanent
GBR88C3A	-	-	Low	Moderate	Permanent
GBR88C4	E/L	LWa15	Low	Moderate	Permanent
GBR88C4	LWa15	LWa16	Moderate	Moderate	Permanent
GBR88C4	LWa16	LWa23	Low	Moderate	Permanent
GBR88C4	LWa23	LWa24	Moderate	Moderate	Permanent
GBR88C4	LWa24	LWa29	Low	Moderate	Permanent
GBR88C4	LWa29	LWa28	Moderate	Moderate	Permanent
GBR88C4	LWa28	LWa59	Low	Moderate	Permanent
GBR88C4	LWa59	LWa60	Moderate	Moderate	Permanent
GBR88C4	LWa60	LWa81	Low	Moderate	Permanent
GBR88C4	LWa81	LWa82	Moderate	Moderate	Permanent
GBR88C4	LWa82	LWa85	Low	High	Permanent
GBR88C4	LWa85	LW93a	Low	Moderate	Permanent
GBRC4D, C, B	-	-	Low	Moderate	Permanent
GBR88C4A, 4A1	-	-	Low	Moderate	Permanent
GRB88C4-OEL-A	-	-	Low	Moderate	Permanent
GBR88C3	E/L	LWa118	Low	Moderate	Permanent
GBR88C3	LWa118	LWa119	Moderate	Moderate	Permanent
GBR88C3	LWa119	LWa127	Low	Moderate	Permanent
GBR88C3A	Deactivation completed, no works required				
GBR88C2	-	-	Low	Low	Permanent
GBR100, 100A, 100B	Deactivation completed, no works required				

Kennedy River Road	LG142	LG140	Low	High	Permanent. Accesses Private Land consider removing from deactivation plan.
Kennedy River Road	LG140	LG138	Moderate	High	
Kennedy River Road	LG138	LG44	Low	Moderate	
KR51	-	-	Low	High	Moderate
KR52	-	-	Low	High	Moderate
KR53, 53-A, 53-B, 53-B1	No works required, overland construction, no drainage concerns				
KR54, -54B, -55, -56	Roads do not exist, no action required				
WC Main	-	-	Low	High	Permanent. Accesses the Muriel Lake Boat Launch, consider removing from deactivation plan
WC14	-	-	Low	High	Permanent
WC14D	E/L	LW271	Low	Moderate	Permanent
WC14D	LW271	LW270	Moderate	Moderate	Permanent
WC14D	LW270	LW266	Low	Moderate	Permanent
Muriel Ridge Road	Deactivation completed, no works required				
MRC	Deactivation completed, no works required				
LLR59	Deactivation completed, no works required				
LLR83	-	-	Low	Low	Permanent
LLR83A	No works required, overland construction, no drainage concerns				
DB84, DB84A	Deactivation completed, no works required				
DB97	-	-	Low	Moderate	Permanent, only XD at start
DB97A	Deactivation completed, no works required				
Marble Creek Main	E/L	LW179	Deactivation completed, no works required		
Marble Creek Main	LW179	LW209	Low	Moderate	Permanent
MC50, MC100	Deactivation completed, no works required				
DB127, -127A, -131, -135, -159, -RAH, -131	Deactivation completed, no works required				
Tofino Creek Main	TW1	TW70	Low	Moderate	Permanent (TW9-TW28 not included)

Tofino Creek Main	TW70	TW105	Low	High	Permanent
TOF216-1	TW9	TW10	Moderate	Moderate	Permanent
TOF216-1	TW10	TW15	Low	Moderate	Permanent
TOF216-1	TW15	TW16	Moderate	Moderate	Permanent
TOF216-1	TW16	TW28	Low	Moderate	Permanent
TOF60	E/L	~TW107	Deactivation completed, no works required		
TOF60	~TW107	TW93	Field confirmation required beyond washout		
TOF60	TW93	TW84	Moderate	High	Permanent
TOF60	TW84	TW75	Low	High	Permanent

4.2 Reconstruction (for access)

Several sites require reactivation to gain access to the back ends of work areas.

WM92: Several intact woodbox culverts were noted along this road. The road has been reforested with mature alder and is currently a narrow access trail. It is recommended to use a small excavator for deactivation works if possible to reduce the necessity to clear mature alder.

WM111, LW46 (accessed off West Main): A blown out stream crossing was identified at roughly 0+600 along WM111. The stream crossing will need to be repaired to gain access to the end of the road to install the prescribed drainage corrections. The road is located in proximity to a fish bearing stream and could deliver fine sediment if drainage is disrupted.

GBR88 (JE59) (accessed off Grice Bay Main): A steel bridge estimated to be 10-12 m in length has been pulled and deposited near the junction of GBR88 and Grice Bay Main. The stream at the deactivated crossing is fish bearing stream and will require replacement to access the GBR88 road network. A number of intervals of road fill pullback have been prescribed throughout the road network and it is recommended to re-install a bridge to complete the recommendations. Survey and design work is required for this crossing. An OEL crew has been lined up to complete these activities in June 2024.

Tofino Creek Main, Virgin Falls Bridges: 1x15 and 1x18 steel portable bridges have been removed and reappropriated. Bridges require reinstallation to provide access to the back end of the road system. OEL has completed surveys and designs for both bridges.

Tofino Creek Main, TW35: A fill slope failure from TOF216-1 has washed out the stream crossing. Provided this is not a fish crossing, should be ok to walk a machine across.

TOF60 (TW85-TW93): TOF60 has been washed out from the stream crossing at TW93 to just beyond the lower switch back (TW85). To remove the partially washed woodbox culvert at TW93, the road will need to be reconstructed. Reconstruction recommendations are provided in Appendix B.

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 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

Light pullback – 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).

Moderate pullback (discretionary) – 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.

Heavy pullback (full) – 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.

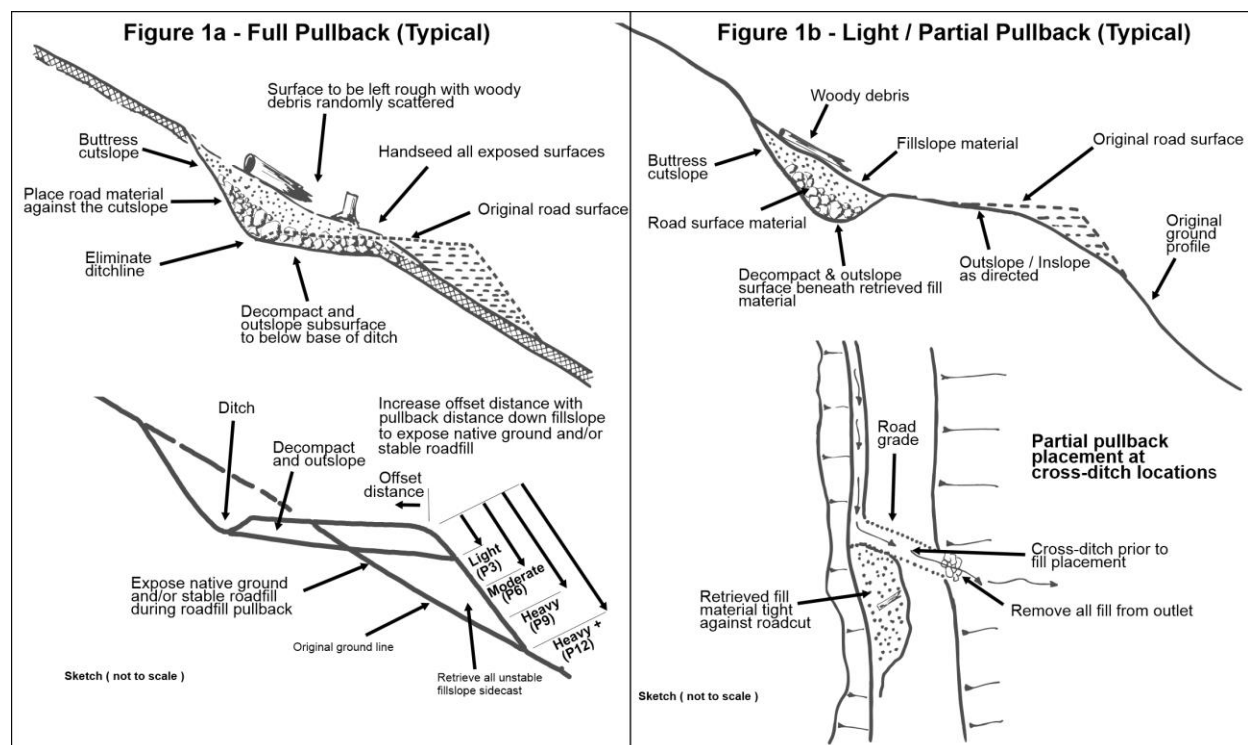


Figure 1: Typical pullback methods (1999 FRBC, Technical Standards and Guidelines for Road Deactivation/Restoration Activities)

6.0 LONG TERM ROADS

West Main, East Main, Millstream Main, Lost Lake Road, Deer Bay Main, and Tofino Creek Main are rated as Long-Term Roads that will remain open for public use following the shift to conservancy. These roads were inspected for maintenance concerns. Several sites along Deer Bay Main were flagged for stability and/or drainage problems. Recommendations have been provided to complete these repairs in Appendix C, attached. The remaining roads were deemed to be safe for their current intended uses.

Bridge inspections were complete in March 2024 along West Main, Kennedy River Road, and Grice Bay Main (branching off Kennedy River Road) and Alaska Pine Road to support industrial activities in Private Lands through the Kennedy Flats. Bridges along Deer Bay Main were inspected for MaMook to ensure they were safe for public use in 2023. The most recent bridge inspections along Lost Lake Main were in 2020 and bridges along Tofino Creek Main were last inspected between 2015-2020. **Bridges along Lost Lake Main and Tofino Creek Main should be assessed by a qualified professional prior to the onset of deactivation activities.**

Kennedy River Road, Grice Bay Road, Alaska Pine Road, 9901, 9902, Kootowis Creek Road and WC Main are listed as Short-Term roads. These roads currently provide access to private lands, the Gun Range (via Gun Road), and the Muriel Lake boat ramp. **These roads should be considered for future use prior to deactivating.**

7.0 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.

8.0 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.Geol.
Reviewed by:
Tim Wickman, P.Geol.

Attached:

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads
Appendix B: Road Reactivation Recommendations for TOF60
Appendix C: Deer Bay Main Road Maintenance Recommendations

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

1:5,000 Road Deactivation Maps 1-24 for Kennedy Lake
1:5,000 Road Maintenance Maps 1 & 2 for Deer Bay Main

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
LS1900			
Map 1	LG 007	Add XD	Low point, drainage between two landings
Map 1	LG 008	Pull CMP, add XD	Existing CMP with small stream channel
LS31-1			
Map 1	LW 020	Add XD	
Map 1	LW 019	Add XD	
Map 1	LW 018	Add XD	
Map 1	LW 017	Add XD	
Map 1	LW 012	Add XD	
LS31-2			
Map 1	LW 026	Add XD	
Map 1	LW 025	Add XD	
LS32-1			
Map 1	LG 002	Add XD	Shallow low point.
Map 1	LG 003	Add XD	Low point, follows contour from previous XD
Map 1	LG 004	Pull WBC	Existing WBC with small stream
Map 1	LG 005	Add XD	Shallow low point.
9901			
Map 3	LG 014	Pull bridge	Mosaic bridge 8 m length.
Map 3	LG 015	Add XD	Shallow low point
9902			
Map 3	LG 013	Add XD	Draw, no channel
Map 3	LG 012	Add XD	Water spilling onto road
Map 3	LG 011	Add XD	shallow point, ditch water pooling
Map 3	LG 010	XD, break berm	shallow point, ditch water pooling
T-1			
Map 3	LG 019	Add XD	Existing WB
Map 3	LG 028	Add XD	shallow point, ditch water pooling
Map 3	LG 030	Add XD	shallow point, ditch water pooling
T-1a			
Map 3	LG 026	Add XD	shallow point, ditch water pooling
T-1b			
Map 3	LG 023	Add XD	Shallow low point
SB3-1F1			
Map 3	LW 074	Add XD	
Map 3	LW 073	Add XD	
Map 3	LW 072	Pull CMP, add XD	
Map 3	LW 071	Pull WBC	
L151			
Map 2	LW 011	Add XD	
L152			
Map 2	LW 010	Add XD	
Map 2	LW 009	Add XD	
SB4			
Map 2	LW 002	Add XD	
SB4-1			
Map 2	LW 001	Pull WBC	
L7			
Map 2	LW 006	Pull CMP, add XD	
Map 2	LW 005	Add XD	
Map 2	LW 004	Pull CMP, add XD	
Map 2	LW 003	Add XD	
Trestle Main			
Map 5	JE 002	Pull CMP, add XD	All over land construction
Map 5	JE 003	Pull CMP, add XD	Existing CMP and ponding water
Map 5	JE 004	Pull CMP, add XD	
Map 5	JE 005	Pull CMP, add XD	
Map 5	JE 006	Pull CMP, add XD	
Map 5	JE 007	Pull CMP, add XD	
Map 5	JE 008	Pull CMP, add XD	Existing CMP

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 5	JE 009	Pull bridge	Concrete bridge 4 m long
Map 5	JE 010	Pull CMP, add XD	Plastic pipe
Map 5	JE 011	Pull bridge	Concrete bridge 5 m
Map 5	JE 012	Pull CMP, add XD	Plastic pipe
Map 5	JE 018	Pull CMP, add XD	Plastic pipe
Map 5	JE 019	Pull CMP, add XD	Plastic pipe
Map 5	JE 020	Pull CMP, add XD	Plastic pipe
Map 5	JE 025	Pull CMP, add XD	Existing CMP
Map 5	JE 026	Pull CMP, add XD	Plastic pipe
Map 5	JE 027	Pull bridge	Steel portable in place 12 m
Map 5	JE 028	Pull bridge	Concrete bridge 5 m
Map 5	JE 029	Add XD	Ditch full of water
Map 4	JE 030	Pull CMP, add XD	Plastic pipe
Map 4	JE 036	Pull CMP, add XD	Plastic pipe
Map 4	JE 037	Pull bridge	Wooden bridge 10 m
Map 4	JE 038	Pull CMP, add XD	
Map 4	JE 040	Pull CMP, add XD	
Map 4	JE 041	Pull bridge	Wooden bridge 7 m
Map 4	JE 042	Add large XD	Add large cross ditch to block access
TR5-1			
Map 5	JE 014	Pull CMP, add XD	Plastic pipe
Map 5	JE 013	Pull bridge	Concrete bridge 4 m concrete slabs uneven and settling
TR5-1B			
Map 5	JE 017	Pull bridge	Wooden bridge est 10 m
Map 5	JE 016	Pull CMP, add XD	Plastic pipe
Map 5	JE 015	Pull CMP, add XD	Plastic pipe
GB12			
Map 4	JE 022	Pull CMP, add XD	
Map 4	JE 023	Pull CMP, add XD	
TR4-1			
Map 5	JE 032	Pull CMP, add XD	Plastic pipe
Map 5	JE 031	Pull CMP, add XD	Plastic pipe
TR3-1			
Map 5	JE 034	Pull CMP, add XD	Existing CMP
TR1-1			
Map 4	JE 043	Remove car	Car on blocks
WM92			
Map 6	LG 033	Pull WBC	Existing stream channel
Map 6	LG 036	Pull WBC	Existing stream channel
Map 6	LG 037	Pull WBC	Existing stream channel. Draw 2m deep
Map 6	LG 038	Add XD	Stream running over road
Map 6	LG 039	Add XD	Shallow low point
Map 6	LG 040	Add XD	shallow point, ditch water pooling
Map 6	LG 041	Add XD	shallow point, ditch water pooling
Map 6	LG 042	Pull WBC	Existing stream channel
Map 6	LG 043	Pull WBC	Existing stream channel
WM105			
Map 6	LW 029	Add XD	
WM107			
Map 6	LW 034	Add XD	
Map 6	LW 033	Add XD	
Map 6	LW 031	Add XD	
Map 6	LW 030	Add XD	
Map 6	LW 035	Add large XD	squatters infilled ditch

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
WM109			
Map 6	RN 002	Add XD	
WM111			
Map 6	LW 050	Add XD	drainage diversion from forward stream; re establish flow
Map 6	LW 049	Add XD	
Map 6	LW 048	Add XD	
Map 6	LW 047	Add XD	
Map 6	LW 045	Add XD	
Map 6	LW 044	Pull WBC	small stream
Map 6	LW 043	Add XD	
Map 6	LW 042	Deepen XD	small stream
Map 6	LW 041	Add XD	
Map 6	LW 040	Add XD	flow along fav grade
Map 6	LW 039	Add XD	stream eroded road
Map 6	LW 038	Add XD	ponding on road
Map 6	LW 037	Pull WBC	collapsed WBC
Map 6	LW 036	Add XD	
WM112			
Map 6	LW 058	Add XD	no signs of spur; fav grade
Map 6	LW 059	Pull CMP, add XD	
Map 6	LW 060	Add XD	
Map 6	LW 061	Add XD	
Map 6	LW 062	Pull CMP, add XD	connects to lower creek
Map 6	LW 063	Add XD	
Map 6	LW 064	Add XD	road in good condition; wdr
Map 6	LW 065	Add XD	
WM112A			
Map 6	LW 053	Deepen X ditch	end of active deac
WM116			
Map 7	JE 055	Pull WBC	Collapsing wbc
Map 7	JE 056	Add XD	
Map 7	JE 057	Add XD	
Map 7	JE 058	Deepen XD	to block access
WM116A			
Map 7	JE 052	Add XD	
Map 7	JE 053	Add XD	
WM116B			
Map 7	JE 051	Add XD	
WM117			
Map 7	LW 068	Add XD	
Map 7	LW 067	Add XD	
Map 7	LW 066	Add XD	
WM125			
Map 7	LG 169	Pull Bridge	
Map 7	LG 170	Add XD	
Map 7	LG 168	Pull bridge	
WM130			
Maps 7,14	JE 199	Pull WBC	
Maps 7,14	JE 198	Pull WBC	
Maps 7,14	JE 197	Pull CMP, add XD	
Maps 7,14	JE 196	Pull WBC	
Maps 7,14	JE 201	Deepen XD	to block access
E1			
Map 7	JE 200	Add XD	Drainage from up chain but confined through draw

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
G1			
Map 14	LG 246	Add XD	
Map 14	LG 247	Add XD	
Map 14	LG 248	Add WB	
Map 14	LG 249	Add WB	
Map 14	LG 250	Add XD	
Map 14	LG 251	Add XD	
Map 14	LG 252	Add XD	
Map 14	LG 253	Deepen XD	
Map 14	LG 254	Add XD	
Map 14	LG 255	Add XD	
Map 14	LG 256	Pull CMP, add XD	
Map 14	LG 257	Add XD	
Map 14	JE 208	Add XD	
Map 14	JE 207	Pull WBC	
Map 14	JE 206	Pull CMP, add XD	
Map 14	JE 205	Add XD	
Map 14	JE 204	Add XD	
Map 14	JE 203	Pull WBC	
Map 14	JE 202	Pull CMP, add XD	
G1-2			
Map 14	LG 245	Add XD	
G3			
Map 15	JE 184	Add XD	
Map 15	JE 190	Pull WBC	
Map 15	JE 195	Install large XD	
G3A			
Map 15	JE 189	Add WB	Collapsing wbc outside scope
Alaska Pine			
Main			
Map 8	LG 244	Pull CMP, add XD	
Map 8	LG 243	Pull CMP, add XD	
Map 8	LG 242	Add XD	
Map 8	LG 241	Add XD	
Map 8	LG 240	Pull CMP, add XD	
Map 8	LG 239	Add XD	
Map 8	LG 238	Pull CMP, add XD	
Map 8	LG 237	Pull CMP, add XD	
Map 8	LG 236	Add XD	
Map 8	LG 235	Pull CMP, add XD	
Map 8	LG 234	Pull CMP, add XD	
Map 8	LG 233	Pull CMP, add XD	
Map 8	LG 231	Pull CMP, add XD	
Map 8	LG 230	Pull CMP, add XD	
Map 8	LG 229	Pull CMP, add XD	
Map 8	LG 228	Pull CMP, add XD	
Map 8	LG 227	Pull CMP, add XD	
Map 8	LG 226	Pull CMP, add XD	
Map 8	LG 225	Add XD	
Map 8	LG 224	Pull bridge	
Map 8	LG 223	Add XD	
Map 14	LG 222	Deepen XD	start old road
Map 14	LG 221	Deepen XD	
Map 14	LG 220	Add XD	
Map 14	LG 219	Add XD	
Map 14	LG 218	Add XD	
Map 14	LG 208	Add XD	
Map 14	LG 207	Add XD	
Map 14	LG 206	Add XD	
Map 14	LG 177	Add XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 14, 15	LG 176	Pull WBC	
Map 14, 15	LG 175	Add XD	
Map 15	LG 174	Add XD	
Map 15	LG 173	Add XD	
Map 15	LG 172	Add XD	Large cross ditch, possible WBC
Map 15	LG 171	Add XD	
APR-16A			
Map 14, 15	LG 190	Pull WBC	
Map 14, 15	LG 189	WB	
Map 14, 15	LG 188	WB	
Map 14, 15	LG 203	Add XD	
Map 14, 15	LG 204	Start MPB	
Map 14, 15	LG 205	End MPB	
Map 14, 15	LG 187	Pull CMP, add XD	
Map 14, 15	LG 186	Add XD	
Map 14, 15	LG 185	Pull CMP, add XD	
Map 14, 15	LG 184	Add XD	
Map 14, 15	LG 183	Add XD	
Map 14, 15	LG 181	Pull CMP, add XD	
Map 14, 15	LG 180	Add XD	
GW1			
Map 14, 15	LG 202	Add XD	
Map 14, 15	LG 201	Add XD	
Map 14, 15	LG 200	Enhance XD	
Map 14, 15	LG 199	Enhance XD	
Map 14, 15	LG 198	Enhance XD	
Map 14, 15	LG 197	Enhance XD	
Map 14, 15	LG 196	Add XD	
Map 14, 15	LG 194	Pull CMP, add XD	
Map 14, 15	LG 193	Pull CMP, add XD	
Map 14, 15	LG 191	Add XD	
Grice Bay			
Main			
Map 15	JE 174	Pull WBC	Outside of scope but close to work area
Map 15	JE 163	Pull bridge	Wooden bridge 8 m
Map 15	JE 159	Add XD	
Map 15	JE 158	Pull WBC	
Map 15	JE 156	Pull CMP, add XD	
Map 15,7	JE 155	Pull CMP, add XD	
Map 15,7	JE 154	Pull CMP, add XD	
Map 15,7	JE 149	Add XD	
Map 15,7	JE 148	Pull CMP, add XD	
Map 7	JE 147	Add XD	Wet on both sides, Add large xd
Map 7	JE 146	Pull bridge	Wooden bridge 14 m restoration site
Map 7	JE 145	Add XD	
Map 7	JE 144	Add XD	
Map 7	JE 143	Add XD	
Map 7	JE 142	Add XD	
Map 7	JE 139	Add XD	
Map 7	JE 138	Add XD	
Map 7	JE 137	Add Large XD	To stop traffic
Map 11	JE 113	Add XD	
Map 11	JE 112	Add XD	
Map 11	JE 111	Pull WBC	
Map 11	JE 110	Pull WBC	
Map 11	JE 109	Pull WBC	Collapsed
Map 11	JE 108	Add XD	
Map 11	JE 107	Add XD	
Map 11	JE 106	Add XD	
Map 11	JE 105	Pull WBC	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 11	JE 104	Add XD	
Map 11	JE 103	Add XD	
Map 11	JE 102	Pull bridge	Wooden bridge 10 m
Map 11	JE 101	Pull CMP, add XD	
Map 9	JE 100	Add XD	
Map 9	JE 099	Add XD	
Map 9	JE 098	Pull CMP, add XD	
Map 9	JE 097	Pull CMP, add XD	
Map 9	JE 096	Pull bridge	Wooden bridge 8 m
Map 9	JE 095	Pull CMP, add XD	2* cmp
Map 9	JE 094	Pull CMP, add XD	
Map 9	JE 093	Pull CMP, add XD	
Map 9	JE 091	Add XD	
Map 9	JE 088	Pull WBC	
Map 9, 18	JE 087	Add XD	
Map 9, 18	JE 086	Add XD	
Map 9, 18	JE 084	Pull bridge	Wooden bridge 11 m collapsing on upstream side
Map 9, 18	JE 083	Add XD	
Map 9, 18	JE 082	Pull CMP, add XD	
Map 9, 18	JE 081	Add XD	
Map 9, 18	JE 080	Add XD	
Map 9, 18	JE 079	Pull CMP, add XD	
Map 9, 18	JE 078	Pull CMP, add XD	
Map 18	JE 077	Add XD	
Map 18	JE 076	Pull CMP, add XD	
Map 18	JE 075	Add XD	
Map 18	JE 073	Add XD	
Map 18	JE 072	Add XD	
Map 18	JE 071	Pull WBC	
Map 18	JE 070	Add XD	
Map 18	JE 069	Pull CMP, add XD	
Map 18	JE 068	Pull CMP, add XD	
Map 18	JE 067	Pull CMP, add XD	
Map 18	JE 066	Add XD	
Map 18	JE 065	Add XD	
Map 18	JE 064	Add XD	
Map 18	JE 063	Add XD	
Map 18	JE 062	Add XD	
Map 18	JE 061	Pull CMP, add XD	
Map 18	JE 060	Add XD	Water in ditch
GBR44			
Map 11	JE 114	Pull bridge	Wooden bridge 8 m
GBR10			
Map 7	JE 141	Add XD	
GBR12			
Map 7	JE 153	Add Large XD	
GB31			
Map 9	JE 169	Pull CMP, add XD	
Map 9	JE 168	Add XD	
L105			
Map 15	JE 162	Add XD	
L105H			
Map 15	JE 161	Add XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
GB15			
Map 8	JE 176	Pull WBC	
Map 8	JE 177	Pull CMP, add XD	
Map 8	JE 178	Pull WBC	
Map 8	JE 179	Add XD	
Map 8	JE 180	Add XD	
GB16			
Map 8	JE 183	Add large XD	
GB30			
Map 9	JE 128	Pull bridge	Collapsed wooden bridge
Map 9	JE 129	Add WB	
Map 9	JE 130	Add WB	
Map 9	JE 131	Add XD	
Map 9	JE 132	Pull CMP, add XD	
Map 9	JE 133	Pull bridge	Wooden bridge 7 m
Map 9, 8	JE 134	Add XD	
Map 9, 8	JE 135	Pull bridge	Wooden bridge 6 m
Map 8	JE 136	Pull bridge	Wooden bridge 8 m
Map 8	JE 165	Add XD	
Map 8	JE 164	Pull bridge	Wooden bridge 6 m
Map 8	JE 166	Add XD	
Map 8	JE 167	Add XD	Could be old wbc
Map 8	JE 170	Add XD	
Map 8	JE 171	Add XD	
Map 8	JE 172	Pull bridge	5 m wbc high up
Map 8	JE 173	Add XD	
G4			
Map 15	JE 188	Add XD	
Map 15	JE 187	Add XD	
Map 15	JE 186	Add XD	
Map 15	JE 185	Pull WBC	
GB54			
Map 11	JE 115	Pull WBC	May be collapsed or just cord road but water flowing
GB57			
Map 11	JE 124	Pull WBC	Pull wbc & 10 m of coarse material on approach needs monitoring during deconstruction
Map 11	JE 123	Pull bridge	Wooden bridge 12 m some holes in road surface
GB56			
Map 11	JE 116	Add XD	
Map 11	JE 121	Add XD	
Map 11	JE 122	Pull CMP, add XD	
Kootowis Road			
Map 10	LW 140	Pull bridge	Access to fish and game needs road.
Map 10	LW 139	Pull CMP, add XD	
Map 10	LW 138	Pull CMP, add XD	
Map 10	LW 137	Pull CMP, add XD	double pipes
Map 10	LW 136	Add XD	
Map 10	LW 135	Add XD	
Map 10	LW 134	Add XD	
Map 10	LW 133	Add XD	
Map 10	LW 132	Add XD	
Map 10	LW 131	Pull CMP, add XD	
Map 10	LW 130	Add XD	
Map 10	LW 129	Add XD	
Map 10	LW 128	Pull CMP, add XD	
Map 10	LW 127	Add XD	
Map 10	LW 126	Add XD	
Map 10	LW 125	Pull WBC	
Map 10	LW 124	Pull CMP, add XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 10, 11	LW 123	Add XD	
Map 10, 11	LW 122	Pull bridge	
Map 10, 11	LW 121	Pull CMP, add XD	
Map 10, 11	LW 120	Pull CMP, add XD	
Map 11	LW 119	Pull CMP, add XD	
Map 11	LW 118	Add XD	
Map 11	LW 117	Pull CMP, add XD	
Map 11	LW 116	Pull CMP, add XD	
Map 11	LW 115	Pull CMP, add XD	
Map 11	LW 114	Pull CMP, add XD	
Map 11	LW 113	Pull CMP, add XD	
Map 11	LW 112	Pull CMP, add XD	
Map 11	LW 111	Add XD	
Map 11	LW 110	Pull CMP, add XD	
Map 11	LW 109	Pull WBC	
K003A			
Map 10	LWa 142	Add WB	
Map 10	LW 142	Add XD	
Map 10	LW 141	Add XD	
KCR20			
Map 10	LW 149	Add XD	
Map 10	LW 148	Add XD	
K0003A			
Map 10	LW 143	Add XD	
A1			
Map 10	LW 158	Pull bridge	bridge 8 m length
Map 10	LW 157	Add XD	
Map 10	LW 156	Add XD	
Map 10	LW 155	Add XD	
Map 10	LW 154	Add XD	
Map 10	LW 153	Add XD	
Map 10	LW 152	Pull WBC	
Map 10	LW 151	Pull WBC	
A2			
Map 10	LW 160	Pull bridge	remove log bridge- 10 m
GBR-OEL-A			
Map 12	JE 090	Pull CMP, add XD	
Indian Bay Road			
Map 12	LW 093	Add XD	
Map 12	LW 092	Pull WBC	
Map 12	LW 091	Add XD	
Map 12	LW 090	Add XD	
Map 12	LW 088	Pull CMP, add XD	
Map 12	LW 087	Pull CMP, add XD	
Map 12	LW 086	Add XD	
Map 12	LW 085	Pull CMP, add XD	
Map 12	LW 084	Add XD	
Map 12	LW 083	Add XD	
Map 12	LW 082	Pull CMP, add XD	
Map 12	LW 081	Pull CMP, add XD	
Map 12	LW 080	Add XD	
Map 12	LW 079	Pull CMP, add XD	
Map 12	LW 077	Pull CMP, add XD	
Map 12	LW 076	Pull CMP, add XD	
IBR 11B			
Map 12	LW 094	Pull CMP, add XD	
Map 12	LW 096	Add XD	
IBR 11B-G2			
Map 12	LW 099	Add XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 12	LW 098	Add XD	
Map 12	LW 097	Add XD	
IBR 11B-G2-1			
Map 12	LW 105	Add XD	upgrade waterbar to cross ditch; existing waterbar is shallow and should connect to ditch
GBR88			
Map 12	LWa 159	Add XD	
Map 12	LWa 160	Add XD	
Map 12	LWa 161	Add XD	
Map 12	LWa 162	Add XD	
Map 12	LWa 164	Pull CMP, add XD	
Map 12	LWa 166	Add XD	
Map 12	LWa 167	Pull CMP, add XD	
Map 12	LWa 168	Pull CMP, add XD	
Map 12	LWa 171	Pull CMP, add XD	
Map 12	LWa 172	Add XD	
Map 12	LWa 180	Pull CMP, add XD	
Map 12	LWa 182	Add XD	
Map 12	LWa 183	Pull bridge	8 m long bridge
Map 12	LWa 184	Pull WBC	5 m long 5 m wide
Map 12	LWa 185	Add XD	
Map 12	LWa 186	Add XD	
Map 12	Lwa 187	Requires Survey & Design	Bridge pulled over fish stream
GBR88B			
Map 13	LWa 173	Pull CMP, add XD	
GBR88C			
Map 13	LWa 093	Pull WBC	clean ditches of woody debris
Map 13	LWa 094	Add XD	existing waterbar
Map 13	LWa 095	Add XD	
Map 13	LWa 096	Add XD	existing waterbar
Map 13	LWa 097	Deepen XD	existing waterbar
Map 13	LWa 128	Add XD	
Map 13	LWa 129	Start LPB	
Map 13	LWa 131	End LPB	
Map 13	LWa 132	Add XD	
Map 13	LWa 133	Add XD	existing waterbar
Map 13	LWa 134	Add XD	
Map 13	LWa 139	Add XD	
Map 13	LWa 140	Add XD	
Map 13	LWa 141	Add XD	
Map 13	LWa 142	Add WB	
Map 13	LWa 143	Add XD	
Map 13	LWa 145	Pull CMP, add XD	
Map 13	LWa 146	Add XD	
Map 13	LWa 147	Add XD	
Map 13	LWa 148	Pull CMP, add XD	
Map 13	LWa 149	Add XD	
Map 13	LWa 150	Pull CMP, add XD	
Map 13	LWa 152	Add XD	
Map 13	LWa 154	Add XD	existing waterbar
Map 13	LWa 155	Add WB	
Map 13	LWa 156	Deepen WB	existing waterbar
Map 13	LWa 158	Add large XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
GBR88C4			
Map 13	LWa 005	Deepen XD	Existing XD
Map 13	LWa 006	Add XD	
Map 13	LWa 010	Add XD	
Map 13	LWa 011	Pull CMP, add XD	
Map 13	LWa 012	Pull CMP, add XD	
Map 13	LWa 013	Deepen XD	
Map 13	LWa 014	Pull WBC	
Map 13	LWa 015	Start MPB	
Map 13	LWa 016	End MPB	
Map 13	LWa 017	Add XD	
Map 13	LWa 018	Add XD	
Map 13	LWa 020	Deepen XD	
Map 13	LWa 022	Add XD	
Map 13	LWa 023	Start LPB	minor settling and tension cracks extending into road 1 m
Map 13	LWa 024	End LPB	35 m section
Map 13	LWa 025	Add XD	
Map 13	LWa 026	Add XD	
Map 13	LWa 027	Pull CMP, add XD	deep fill
Map 13	LWa 028	Start LPB	
Map 13	LWa 029	End LPB	15 m section
Map 13	LWa 030	Pull CMP, add XD	
Map 13	LWa 031	Add XD	
Map 13	LWa 032	Add XD	
Map 13	LWa 033	Add XD	
Map 13	LWa 034	Pull CMP, add XD	
Map 13	LWa 059	Start LPB	tension crack with settling is outsloped; will arrest on downslope bench
Map 13	LWa 060	End LPB	
Map 13	LWa 062	Add XD	
Map 13	LWa 063	Add XD	
Map 13	LWa 064	Pull CMP, add XD	
Map 13	LWa 065	Start LPB	
Map 13	LWa 066	End LPB	10 m section
Map 13	LWa 067	Add large XD	
Map 13	LWa 068	Pull CMP, add XD	
Map 13	LWa 069	Add XD	
Map 13	LWa 070	Add XD	
Map 13	LWa 071	Add WB	
Map 13	LWa 072	Add XD	
Map 13	LWa 073	Add XD	
Map 13	LWa 074	Pull CMP, add XD	
Map 13	LWa 075	Deepen XD	
Map 13	LWa 076	Add XD	
Map 13	LWa 077	Add XD	
Map 13	LWa 078	Pull CMP, add XD	
Map 13	LWa 080	Deepen WB	existing waterbar
Map 13	LWa 081	Start LPB	outside edge is settled 0.5-1 m into road; rubble overhangs mod to mod steep slopes
Map 13	LWa 082	End LPB	15 m section
Map 13	LWa 083	Deepen WB	existing waterbar
Map 13	LWa 084	Deepen WB	existing waterbar
Map 13	LWa 085	Add XD	
Map 13	LWa 086	Pull WBC	
Map 13	LWa 087	Pull WBC	
Map 13	LWa 088	Pull CMP, add XD	
Map 13	LWa 089	Add XD	
Map 13	LWa 090	Add XD	
Map 13	LWa 091	Add XD	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
GBR88C4D			
Map 13	LWa 007	Deepen XD	
Map 13	LWa 008	Deepen XD	
Map 13	LWa 009	Deepen XD	
GBR88C4A			
Map 13	LWa 036	Add XD	
Map 13	LWa 037	Add XD	
Map 13	LWa 038	Add XD	
Map 13	LWa 039	Add XD	
Map 13	LWa 040	Add XD	
Map 13	LWa 041	Add XD	
Map 13	LWa 042	Add XD	
Map 13	LWa 043	Deepen XD	Existing XD
Map 13	LWa 044	Add XD	
Map 13	LWa 045	Deepen XD	Existing XD
Map 13	LWa 046	Add XD	
Map 13	LWa 047	Add WB	
GBR88C4A1			
Map 13	LWa 048	Add XD	
Map 13	LWa 049	Add XD	
Map 13	LWa 050	Add XD	
Map 13	LWa 051	Add XD	
Map 13	LWa 052	Add XD	
GBR88C3			
Map 13	LWa 099	Add XD	
Map 13	LWa 100	Add XD	
Map 13	LWa 101	Start LPB	
Map 13	LWa 102	End LPB	outside edge settling above a steep slope break
Map 13	LWa 103	Add XD	
Map 13	LWa 104	Add XD	
Map 13	LWa 105	Deepen XD	
Map 13	LWa 106	Add XD	
Map 13	LWa 108	Add XD	
Map 13	LWa 113	Add XD	
Map 13	LWa 114	Add XD	
Map 13	LWa 115	Deepen WB	
Map 13	LWa 116	Pull CMP, add XD	
Map 13	LWa 117	Pull WBC	
Map 13	LWa 118	Start LPB	LPb from WBC; fill is settled and sloped out extending 0.5-1 m into road.
Map 13	LWa 119	End LPB	80 m section
Map 13	LWa 121	Add XD	
Map 13	LWa 122	Add XD	existing waterbar
Map 13	LWa 123	Add XD	existing waterbar
Map 13	LWa 124	Add XD	
Map 13	LWa 125	Add XD	existing waterbar
Map 13	LWa 126	Add XD	
Map 13	LWa 127	Add XD	
GBR88C3A			
Map 13	LWa 112	XD extending past both roads	road has been deactivated downgrade
GBR88C2			
Map 13	LWa 136	Add XD	
Map 13	LWa 137	Deepen WB	existing waterbar

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Kennedy River Road			
Map 19	LG 142	Add XD	
Map 19	LG 141	Add XD	
Map 19	LG 140	Pull CMP, add XD	
Map 19	LG 139	Start MPB	
Map 19	LG 138	End MPB	-70% or greater, 30m into Kennedy River. Salmon berry fill slopes with rock shoulder showing no signs of instability. MPB
Map 19	LG 137	Pull CMP, add XD	
Map 19	LG 136	Pull CMP, add XD	
Map 19	LG 135	Pull CMP, add XD	
Map 19	LG 134	Add XD	Ditch water pooling
Map 19	LG 133	Add XD	
Map 19	LG 132	Pull CMP, add XD	
Map 19	LG 131	Add XD	Existing stream channel
Map 19	LG 130	Pull bridge	
Map 19	LG 129	Pull CMP, add XD	
Map 19	LG 127	Add WB	
Map 19	LG 126	Add WB	
Map 19	LG 128	Add XD	Existing XD
Map 19, 18	LG 125	Pull CMP, add XD	Log crib down slope side
Map 19, 18	LG 144	Add XD	
Map 19, 18	LG 124	Pull CMP, add XD	
Map 19, 18	LG 123	Pull CMP, add XD	
Map 19, 18	LG 122	Pull CMP, add XD	
Map 19, 18	LG 121	Add XD	Shallow low point
Map 19, 18	LG 120	Pull WBC	
Map 19, 18	LG 119	Pull CMP, add XD	
Map 18	LG 118	Add XD	
Map 18	LG 116	Pull WBC	
Map 18	LG 115	Pull WBC	
Map 18	LG 114	Pull CMP, add XD	
Map 18	LG 113	Pull WBC	
Map 18	LG 112	Pull WBC	
Map 18	LG 111	Add XD	Ditch water pooling
Map 18	LG 110	Pull WBC	Existing WBC
Map 18	LG 109	Pull WBC	Existing WBC
Map 18	LG 108	Pull CMP, add XD	Existing CMP
Map 18	LG 107	Add XD	Natural seepage
Map 18	LG 106	Pull CMP, add XD	
Map 18, 17	LG 105	Pull CMP, add XD	
Map 18, 17	LG 104	Add XD	Water flowing across road, spilling ditch
Map 18, 17	LG 103	Add XD	
Map 18, 17	LG 102	Pull WBC	
Map 18, 17	LG 101	Add XD	Ditch water pooling
Map 18, 17	LG 100	Pull CMP, add XD	
Map 18, 17	LG 099	Pull WBC	
Map 18, 17	LG 098	Add XD	Existing stream channel
Map 18, 17	LG 097	Pull WBC	
Map 18, 17	LG 096	Pull CMP, add XD	
Map 18, 17	LG 095	Add XD	
Map 17	LG 094	Pull WBC	
Map 17	LG 093	Pull WBC	
Map 17	LG 092	Pull WBC	
Map 17	LG 091	Pull CMP, add XD	
Map 17	LG 090	Pull WBC	
Map 17	LG 089	Pull CMP, add XD	
Map 17	LG 088	Pull WBC	
Map 17, 16	LG 087	Pull WBC	

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 17, 16	LG 086	Pull CMP, add XD	
Map 17, 16	LG 085	Add XD	shallow point, ditch water pooling
Map 17, 16	LG 084	XD, possible WBC	
Map 17, 16	LG 083	Pull WBC	Existing stream channel
Map 17, 16	LG 082	Pull CMP, add XD	
Map 16	LG 081	Pull CMP, add XD	
Map 16	LG 080	Pull WBC	Existing stream channel
Map 16	LG 079	Add XD	shallow point, ditch water pooling
Map 16	LG 078	Add XD	shallow point, ditch water pooling
Map 16	LG 077	Pull CMP, add XD	
Map 16	LG 076	Pull WBC	Existing stream channel
Map 16	LG 075	Pull bridge	5-6m bridge
Map 16	LG 074	Pull WBC	Existing stream channel
Map 16	LG 073	Pull CMP, add XD	
Map 16	LG 072	Add XD	Ditch water pooling
Map 16	LG 071	Pull CMP, add XD	
Map 16	LG 070	Pull CMP, add XD	
Map 16	LG 069	Pull CMP, add XD	
Map 16	LG 068	Pull CMP, add XD	
Map 16	LG 067	Pull CMP, add XD	
Map 16	LG 066	Pull CMP, add XD	Existing stream channel
Map 16	LG 065	Pull WBC	Existing stream channel
Map 16	LG 064	Add XD	Ditch water pooling
Map 16	LG 063	Pull CMP, add XD	
Map 16	LG 062	Add XD	Existing stream channel
Map 16	LG 061	Pull WBC	Existing stream channel
Map 16	LG 060	Pull WBC	Existing stream channel
Map 16	LG 059	Add XD	shallow point, ditch water pooling
Map 16	LG 058	Pull WBC	Existing stream channel
Map 16	LG 057	Pull WBC	Existing stream channel
Map 16, 14	LG 056	Pull WBC	Existing stream channel
Map 16, 14	LG 055	Pull WBC	Existing stream channel
Map 16, 14	LG 054	Pull WBC	Existing stream channel. Ditch back to stream
Map 14	LG 053	Pull CMP, add XD	Existing stream channel
Map 14	LG 052	Pull WBC	Existing stream channel
Map 14	LG 051	Add XD, break berm	Shallow low point
Map 14	LG 050	Add XD	shallow point, ditch water pooling
Map 14	LG 049	Add XD	shallow point, ditch water pooling
Map 14	LG 048	Pull bridge	Existing stream channel
Map 14	LG 047	Pull CMP, add XD	small stream channel
Map 14	LG 046	Add XD	shallow point, ditch water pooling
Map 14	LG 045	Add XD	
Map 14	LG 044	Add XD	
KR51 spur 1			
Map 17	LG 151	Add XD	
KR51			
Map 17	LG 167	Add XD	
Map 17	LG 152	Add XD	
Map 17	LG 149	Pull CMP, add XD	
Map 17	LG 148	Pull WBC	Existing stream channel
Map 17	LG 147	Add XD	Ditch water pooling
Map 17	LG 146	Add XD	Ditch water pooling
Map 17	LG 145	Add XD	Existing stream channel

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
KR52			
Map 17	LG 165	Add XD	
Map 17	LG 164	Add WB	
Map 17	LG 163	Add WB	
Map 17	LG 162	Add WB	
Map 17	LG 160	Pull WBC	
Map 17	LG 158	Add XD	
Map 17	LG 159	Add XD	
Map 17	LG 155	Add XD	Draw, no channel
Map 17	LG 154	Add XD	Draw, no channel
Map 17	LG 153	Pull WBC	Existing stream channel
WCMain			
Map 20	LW 274	Add XD	
Map 20	LW 275	Pull WBC	
Map 20	LW 276	Add WB	
Map 20	LW 277	Pull CMP, add XD	
Map 20	LW 278	Add WB	
Map 20	LW 279	Add XD	
Map 20	LW 280	Add XD	
Map 20	LW 281	Add XD	
Map 20	LW 282	Add XD	
WC14			
Map 20	LW 264	Pull WBC	
Map 20	LW 263	Pull CMP, add XD	
Map 20	LW 262	Pull CMP, add XD	
Map 20	LW 261	Pull CMP, add XD	
Map 20	LW 260	Add XD	
Map 20	LW 259	Add WB	
Map 20	LW 258	Add WB	
Map 20	LW 257	Pull CMP, add XD	
Map 20	LW 256	Add XD	
Map 20	LW 255	Pull CMP, add XD	
Map 20	LW 254	Pull CMP, add XD	
Map 20	LW 253	Pull WBC	
Map 20	LW 252	Add XD	
Map 20	LW 251	Add XD	
Map 20	LW 250	Pull CMP, add XD	
Map 20	LW 249	Add XD	
Map 20	LW 248	Add XD	
Map 20	LW 247	Add XD	
WC14D			
Map 20	LW 272	Add XD	
Map 20	LW 269	Pull CMP, add XD	
Map 20	LW 270	Start LPB	Tension crack in outer fill extending into road prism by 1-1.5 m and overhang
Map 20	LW 271	End LPB	
Map 20	LW 268	Add WB	
Map 20	LW 267	Add XD	
Map 20	LW 266	Pull CMP, add XD	
Map 20	LW 265	Add XD	
LLR83			
Map 19	LW 226	Add XD	
Map 19	LW 225	Pull WBC	
Map 19	LW 224	Pull CMP, add XD	
DB97			
Map 21	LW 210	Add XD	water shedding onto mainline

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Marble Creek			
Main			
Map 22	LW 180	Pull CMP, add XD	
Map 22	LW 181	Pull CMP, add XD	
Map 22	LW 182	Add XD	
Map 22	LW 183	Add XD	
Map 22	LW 184	Pull CMP, add XD	
Map 22	LW 185	Add XD	
Map 22	LW 186	Pull CMP, add XD	
Map 22	LW 187	Pull CMP, add XD	
Map 22	LW 188	Add XD	
Map 22	LW 189	Pull CMP, add XD	
Map 22	LW 190	Add XD	
Map 22	LW 191	Add XD	
Map 22	LW 192	Pull CMP, add XD	
Map 22	LW 193	Pull CMP, add XD	
Map 22	LW 195	Add XD	
Map 22	LW 196	Pull CMP, add XD	
Map 22	LW 197	Add XD through windrow	
Map 22	LW 198	Add XD	
Map 22	LW 199	Pull CMP, add XD	
Map 22	LW 200	Pull CMP, add XD	
Map 22	LW 201	Add XD	
Map 22	LW 202	Add WB	
Map 22	LW 203	Add WB	
Map 22	LW 204	Pull bridge	pull bridge; 10 m
Map 22	LW 205	Pull bridge	pull bridge; 10 m
Map 22	LW 206	Add WB	
Map 22	LW 207	Pull CMP, add XD	
Map 22	LW 208	Pull CMP, add XD	
Map 22	LW 209	Add XD	
DB131			
Map 22	LW 170	Add XD	
Map 22	LW 171	Add XD	end of road
DB8A4			
Map 20	LW 212	Pull WBC	
Tofino Creek			
Main			
Map 24	TW 006	Deepen XD	Low XD
Map 24	TW 007	Pull WBC	Existing WBC with 3 m Str
Map 24	TW 008	Deepen XD	Low XD poorly functioning @outlet
Map 24	TW 029	Add XD	
Map 24	TW 030	Add XD	
Map 24	TW 033	Add WB	
Map 24	TW 034	Deepen XD	Poorly functioning XD
Map 24	TW 035	Add XD	Surface flow across rd
Map 24	TW 036	Pullback remaining road prism in draw	Partially blown out crossing, add ford if reacting for long term
Map 24	TW 037	Pull cmp / add XD	Existing cmp
Map 24	TW 038	Pull WBC	Existing WBC with 3m Str
Map 24	TW 039	Deepen XD	Poorly functioning XD
Map 24	TW 040	Add XD	
Map 24	TW 041	Add XD(add cmp for react)	Draw
Map 24	TW 043	Add XD	
Map 24	TW 044	(add CMP for react)	Existing XD
Map 24	TW 045	Deepen XD	Poorly functioning XD
Map 24	TW 046	Pull WBC	Existing WBC in ok condition w 4m. Str
Map 24	TW 047	Add XD	
Map 24	TW 048	Add XD, pullback fill wedge @ outlet	Existing RWB, wedge of fill needs to be pulled for XD
Map 24	TW 049	Start LPB	2-3m long fill on steep w settling

Appendix A: Road Deactivation Recommendations for Kennedy Lake Short-Term Roads

Road/Map#	Station	Recommendation	Comments
Map 24	TW 050	End LPB	Gains bench
Map 24	TW 051	Add XD	
Map 24	TW 052	Add XD	Existing Ncd
Map 24	TW 053	Add XD	Existing Ncd
Map 24	TW 054	Add WB	
Map 24	TW 056	No	Existing RWB
Map 24	TW 058	Enhance WB	Existing low WB
Map 24	TW 060	No	Existing WB
Map 24	TW 061	Add XD	
Map 24	TW 062	No	Existing XD
Map 24	TW 063	Deepen XD	Low XD
Map 24	TW 065	Add XD	
Map 24	TW 066	Enhance WB	Existing low WB
Map 24	TW 068	Add RWB	
Map 24	TW 069	No	Existing RWB
Map 24	TW 070	Enhance RWB	Existing low RWB
Map 24	TW 072	Add XD	
Map 24, 23	TW 073	No	Existing RWB
Map 24, 23	TW 074	Pull WBC	Existing WBC with 2m Str
Map 23	TW 095	Add XD	Existing RWB
Map 23	TW 096	Add XD	Poorly built RWB
Map 23	TW 097	No (add CMP for react)	Existing XD
Map 23	TW 098	Add XD	
Map 23	TW 099	Enhance RWB	Poorly built RWB
Map 23	TW 100	Enhance RWB	Poorly built RWB
Map 23	TW 101	Add XD	
Map 23	TW 102	Add XD	
Map 23	TW 103	Add XD	
Map 23	TW 104	Add XD	
TOF216-1			
Map 24	TW 009	Start LPB	Pull out with tension crack on steep
Map 24	TW 010	End LPB	
Map 24	TW 013	Add XD	Low point with flow across road
Map 24	TW 015	Start MPB	Tension crack 2m from outer edge
Map 24	TW 016	End MPB	
Map 24	TW 018	Add XD	Low point
Map 24	TW 021	Add XD	
Map 24	TW 022	Add XD	
Map 24	TW 023	Add WB	
Map 24	TW 024	Add XD	
Map 24	TW 025	Add XD	
Map 24	TW 026	Add XD	
Map 24	TW 027	Add XD	

Appendix B: Road Reactivation Recommendations for TOF60

Road/Map #	Station	Recommendation	Comments
TOF60			
Map 23	TW 087 to TW 093	Reconstruct road for excavator access during low flow months in summer to access drainage structures causing diversion.	Stream diversions have incised 1-3.5 m into old prism, few sections eroded down to bedrock with 1-2/5 m near vertical falls, also coarse filled sections, dense Mb cuts remain could ravel / add sed source, frequent coarse sediment remains.
Map 23	TW 093	Pull WBC, add large XD, likely will require pullback of fills around draw. Field Inspection before XD is complete to ensure no work required further upgrade	Partially washed out WBC, secondary source of flow, is old slide from natural draw. Assessed by helicopter beyond here
Map 23	TW 092	Remove drainage structure if present, add large XD. Field inspection prior to continuing deactivation work down grade	Main flow source, still partial road prism on fill edge, no visible structure, but visibility low, need to add large XD
Map 23	TW 112	Add XD	
Map 23	TW 090	Pull CMP, add XD, ensure extends beyond prism into natural draw	Disruption of existing non-functioning CMP with partially scoured fill
Map 23	TW 089	Add XD	
Map 23	TW 088	Add XD	
Map 23	TW 087	Add XD	Washout 10m long section, low slope, is main outflow from large washout
Map 23	TW 086	Add XD	Str just up from WBC washing rd
Map 23	TW 085	Pull WBC	Existing WBC with 3 m Str, large surface flow from up grade
Map 23	TW 084	Add XD	NCD draw
Map 23	TW 083	Pull wooden bridge	Existing 6 m wood bridge
Map 23	TW 082	Pull WBC	Existing WBC with 3m Str , minor collapsing surface
Map 23	TW 081	Add RWB	
Map 23	TW 080	Pull WBC	Existing WBC with 3 m Str
Map 23	TW 078	Add WB	
Map 23	TW 077	Pull bridge	Existing 18 steel span bridge
Map 23	TW 076	Add XD	
Map 23	TW 075	Add XD	

Appendix C: Deer Bay Main Road Maintenance Recommendations

Road/Map #	Station	Recommendation	Comments
Deer Bay			
Main			
Map 2	LW 162	Inspect bridge	bridge is sagging
Map 2	LW 163	start Rebuild road; install ditch	
Map 2	LW 164	end rebuild; add cmp	road edge eroded out
Map 2	LW 165	Inspect WBC	WBC sagging
Map 2	LW 166	clear road of spoil; regular maintainance	blanketed GF sediment are ravelling
Map 2	LW 167	Inspect WBC	wbc is sagging; high priority
Map 2	LW 173	end clean ditch line	wbc here
Map 2	LW 174	start clean ditch line	
Map 2	LW 175	start clean ditch line	rubble from rockfall built up
Map 2	LW 176	end clean ditch line	
Map 1	LW 214	start clean ditch; endhaul	built up rubble
Map 1	LW 215	install culvert recommended	Steep downslope; high rock cut upslope; blocks throughout fill; ok to discharge water
Map 1	LW 216	end clean ditch; endhaul	
Map 1	LW 217	start clean ditch; endhaul	
Map 1	LW 218	end clean ditch; endhaul; install CMP	
Map 1	LW 219	fill in outer edge	no inst indicators on outside fill; established with forest
Map 1	LW 220	start clean ditch	floods have washed out road
Map 1	LW 221	end clean ditch	