

S18UF Visual Assessment RDI Resource Design Inc September 25, 2019

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The landform that will contain cutblock S18UF is in focal view while travelling south-east along Highway 97C, the Okanagan Connector, approximately 50km west of Peachland. The cutblock comes into view from the brow of the hill just west of Viewpoint 1, and continues past Viewpoint 1 as the traveller descends down the hill until reaching Viewpoint 2 at Elkhart Road turn-off (Elkhart Lodge). This stretch of Highway 97C around Viewpoint 1 is considered to be of primary importance for ensuring that the established Visual Quality Objectives (VQOs) can be met in Landform 1. The cutblock is not seen from Viewpoint 2 or onwards. The cutblock will also be visible from Viewpoint 3 located on a hill west of the S18UF landform (Landform 1), on a road leading southwest from the Elkhart Road turnoff approximately 1km from the highway. Viewpoint 3 is considered to be of secondary importance.

The landform is identified in the Visual Landscape Inventory as VLI Number 1988 (VSU_No_397). It rises about 200m above the highway at its low point near Elkhart road. The VSU has an established VQO of Partial Retention (PR) under FRPA 181, per DM Letter of 30 December, 2003. The Partial Retention Visual Quality Class "means an alteration of a forest landscape resulting from the presence of cutblocks or roads, such that, when assessed from a viewpoint that is representative of significant public viewing opportunities, the alteration (a) is easy to see, (b) is small to moderate in scale, and (c) has a design that appears natural and is not angular or geometric".

Cutblock S18UF will be seen as a small, well-designed ridgetop opening with leave patches (WTRAs) assisting in breaking up the scale of the opening and strengthening visual lines of force through the cutblock. In itself, the cutblock can meet the upper range of Partial Retention VQO from Viewpoint 1 with 6.24% alteration of the landform in perspective (camera) view. From Viewpoint 3, the visual quality class will be in the Retention category of visual alteration for the block itself at 0.7% alteration in perspective view. The analysis page for each viewpoint provides the detailed percent alteration calculations and linework for both S18UF and existing alteration. Landform 1 is presently highly modified with recent alterations which have not yet achieved visually effective green-up (VEG), meaning the stage at which regeneration is seen by the public as newly established forest, with cover generally blocking views of tree stumps, logging debris, and bare ground, and though height distinctions will remain between a cutblock and adjacent forest, the cutblock will no longer be seen as recently cut-over ("A First Look at Visually Effective Green-up in British Columbia", 1994). The BCTS photos reveal some visual green-up, but VRI heights indicate the largest openings are probably nonVEG for their greatest extent. Snow cover in the photos prevented more detailed assessment by RDI. (see analysis sheets). Field verification is required to determine overall visual condition pertaining to green-up. There is an allowance for site-specific assessment of green-up from the viewpoints as well as actual height measurement. The percent alteration calculations for existing alteration the landform are 41.85% in total from Viewpoint 1 and 22.73% from Viewpoint 3. Given the scale of the proposed cutblock at over 6% alteration in perspective view, the existing openings would require nearly 100% visual green-up as seen from Viewpoint 1 which is unlikely.

RDI calculated the average slope in the landform to be 20%. Following Ministry guidelines shown on the opposite page, 20% slope requires regeneration heights of 4.5m to 5.0m approximately to achieve visually effective green-up (VEG). Where VEG has not been fully achieved a percentage VEG can be assessed and applied. As this can be subjective, tree heights, slope and photographs are used to determine if the block is 25%, 50% or 75% VEG. As S18UF would occupy 6.24% of the landform in Viewpoint 1, existing alteration would have to be almost fully VEG to meet the established VQO of Partial Retention which has an upper limit of 7% alteration.

Delay of further alteration at this time is recommended. RDI has not had the opportunity to conduct a site visit. Further analysis will rely on BCTS conducting tree height measurements and perhaps additional telephoto photography to demonstrate successful VEG achievement permitting the cutblock to advance.



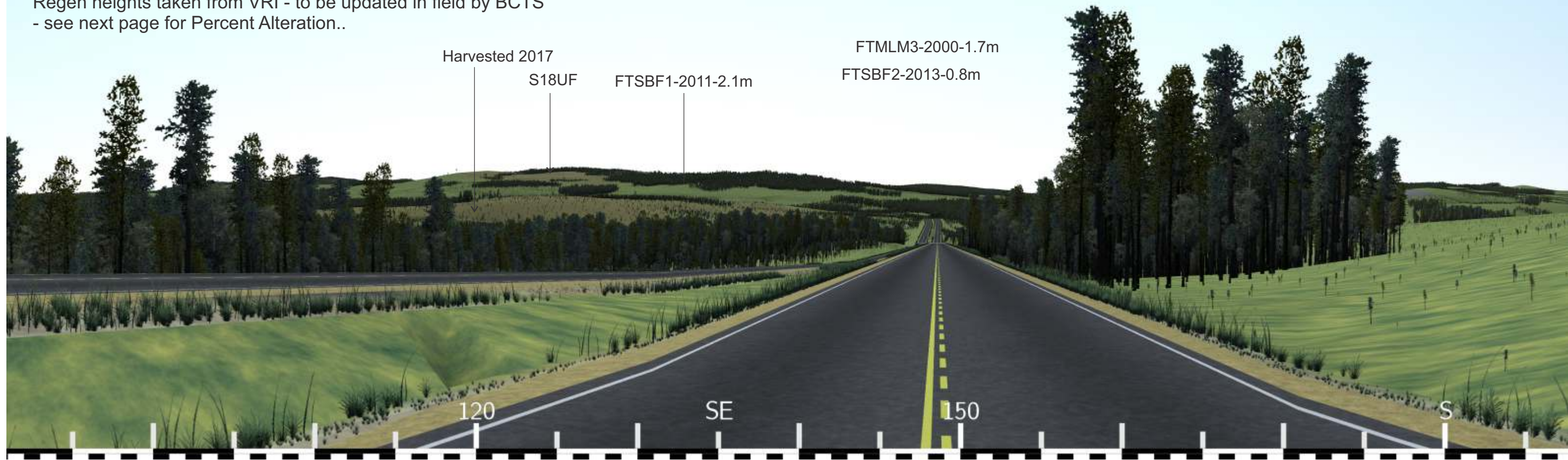
Dr. Kenneth Fairhurst, PhD, RPF
RDI Resource Design Inc
October 1, 2019

The probability of VEG can be estimated based on tree heights and slope classes as per the table below:

Slope class	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-45	46-50	51-55	56-60	60+
Height (m)	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5

From: Procedures for Factoring Visual Resources into Timber Supply Analyses, Ministry of Forests, March 1998.

Regen heights taken from VRI - to be updated in field by BCTS
- see next page for Percent Alteration..





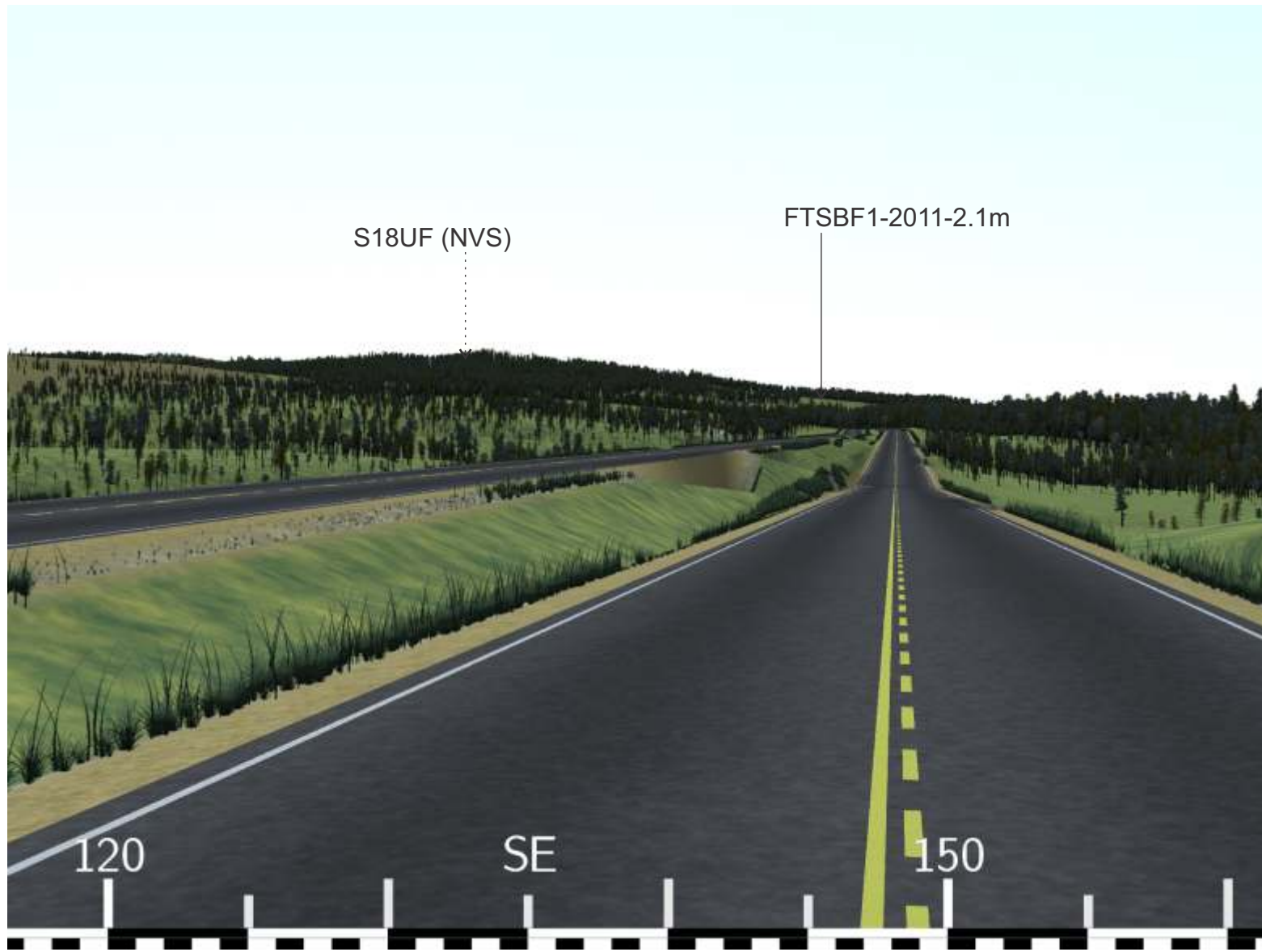
Percent Alteration Viewpoint 1		
NAME	AREA2	% Alt.
Landform 1	178057.87	
S18UF-1	2412.15	1.35%
S18UF-2	8488.12	4.77%
S18UF-3	205.91	0.12%
Sum Alt S18UF	11106.18	6.24%
nonVEG - to be field verified		
FTSBF1-2011-1 - VRI15404908 - 1m	36046.28	20.24%
FTSBF1-2011-2 - VRI15404908 - 1m	32733.11	18.38%
FTSBF1-2011-Leave	1486.20	-0.83%
FTSBF2-2013 - VRI05243 - 0.8m	2365.52	1.33%
FTML3-2000 - VRI15404929 - 1.7	1887.42	1.06%
Sum Alt Existing nonVEG	74518.53	41.85%

The 20% average slope requires regeneration heights of 4.5m to 5.0m approximately to achieve visually effective green-up (VEG). Where VEG has not been fully achieved a %VEG can be assessed and applied. As this can be subjective, tree heights, slope and photographs are used to determine if the block is 25%, 50% or 75% VEG. As S18UF would occupy 6.24% of the landform, existing alteration would have to be almost fully VEG to meet the established VQO of Partial Retention which has an upper limit of 7% alteration.



Viewpoint 1 Percent Alteration

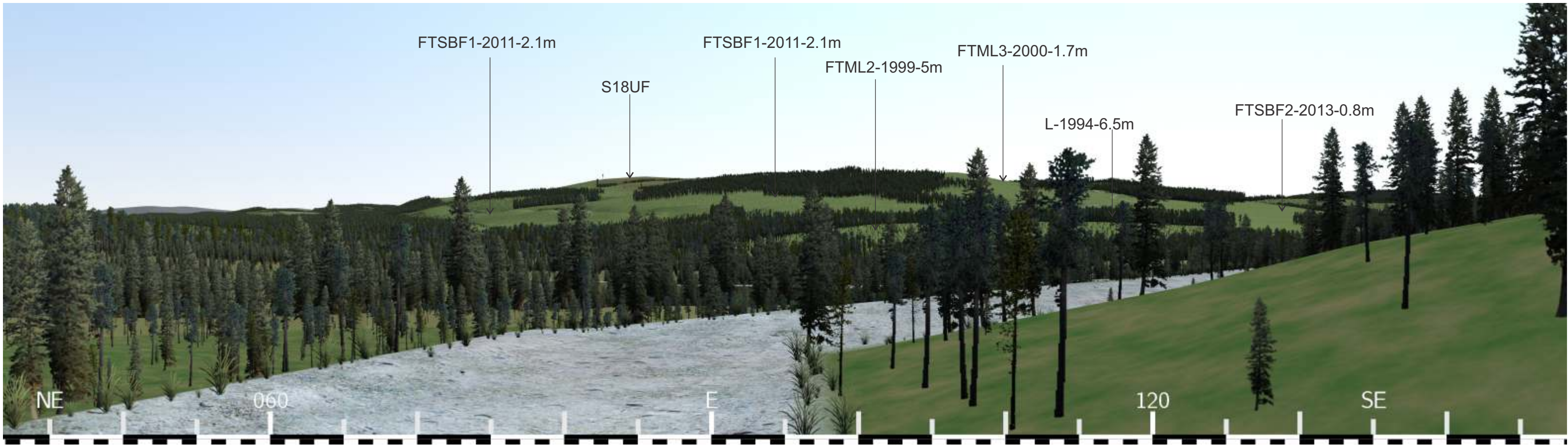
BCTS Photo 2019-05-05



BCTS Photo 2019-05-05

S18UF NVS (not seen) - no further analysis

Viewpoint 2



BCTS Photo 2019-05-05

Viewpoint 3



Percent Alteration Viewpoint 3		
Name	Area in Perspective	% Alt.
Landform 1	648707.21	
S18UF-1	1806.69	0.28%
S18UF-2	2651.89	0.41%
S18UF-3	66.72	0.01%
Sum Alt S18UF	4525.30	0.70%
Existing nonVEG - to be field verified		
FTSBF1-2011-1 - VRI15404908 - 2.1m	483.49	0.07%
FTSBF1-2011-1 - VRI15404908 - 2.1m	95180.16	14.67%
FTSBF2-2013 - VRI05243 - 0.8m	32534.67	5.02%
FTML3-2000 - VRI15404929 - 1.7m	19255.66	2.97%
Sum Alt. nonVEG	147453.98	22.73%

The 20% average slope requires regeneration heights of 4.5m to 5.0m approximately to achieve visually effective green-up (VEG). Where VEG has not been fully achieved a %VEG can be assessed and applied. As this can be subjective, tree heights, slope and photographs are used to determine if the block is 25%, 50% or 75% VEG. As S18UF would occupy less than 1% of the landform, existing alteration could occupy up to 6% to meet the established VQO of Partial Retention which has an upper limit of 7% alteration. The existing openings would have to be 75% VEG to meet the VQO.

Note: Viewpoint 1 is the limiting and most important viewpoint.



BCTS Photo 2019-05-05

Viewpoint 3