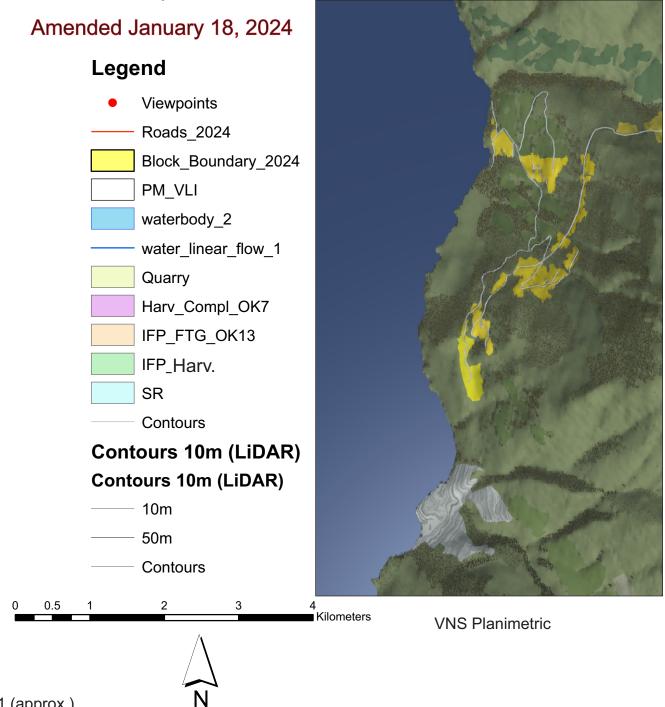


**Tsain-Ko Forestry** South Perketts Operation Visual Impact Assessment - 2024 Engineered Blocks **RDI** Resource Design Inc January 16, 2024







1	Кеу Мар
2	Contents
3	Report
4	Summary Forms VPs 4 and 5
5	Viewpoint 1 Simulation; Photo
6	Viewpoint 1 Percent Alteration
7	Viewpoint 2 Simulation
8	Viewpoint 2 Percent Alteration
9	Viewpoint 3 Simulation
10	Viewpoint 3 Percent Alteration
11	Viewpoint 4 Simulation
12	Viewpoint 4 Percent Alteration
13	Viewpoint 5 Simulation
14	Viewpoint 5 Percent Alteration
15	Existing Visual Conditions - Google Earth 2021



## Summary

The South Perketts Landform is a distinctive, isolated landform without significant breaks in the skyline, forming an easily perceived hill.4.2km in length along the east shore of Jervis Inlet between Perketts Creek at the north end Treat Creak at the south end.

Landform 1, as it is termed in this analysis, is comprised of 3 Visual Sensitivity Units, each with the same Visual Quality Objective - Partial Retention. For this reason, RDI has amalgamated the VSUs into a single landform - Landform 1 (Table 1). The distinct knoll and side valley at the south end was delineated as Landform 1A and was excluded from the assessment. Landform 1A is seen from Viewpoints 1 through 3 only.

The South Perketts Operating Area has 10 proposed cutblocks, 8 of which are visible to varying extents from the 5 viewpoints assessed along Jervis Inlet (key map, Page 1. The appearance from each of the viewpoints was rendered in Visual Nature Studio. The visual results are presented on each viewpoint page, and percent alteration calculation and delineations are presented on each subsequent page, with results tabulated in Table 2 (opposite).

Percent Alteration is fully within the Partial Retention category of visual alteration from each viewpoint with Viewpoints 4 (5.76%) and 5 (5.94%) in the upper range of the allowed limits (1.5% to 7.0%) while the other 3 viewpoints are in the lower end of the range.

The cutblocks are broadly distributed across the width and height of the landform and provide high variability in shapes, sizes and pattern. Cutblock design takes full advantage of visual forces and edge screening, breaking up the longer stretches such as in PER5 and creating non-geometric shapes such as in PER4. Existing patterns from prior timber harvesting contribute high Visual Absorption Capability (VAC), and are considered by RDI to exhibit Visually Effective Greenup (VEG), including Interfor 2005-2007 cutblocks P1, P2, TRE517, and TRE4, rendered in each viewpoint simulation and in the VNS planimetric on page 1. RDI's last visual inspection was in 2017 during a Jervis Inlet boat tour (photo, page 6). RDI acquired Google Earth images from 2021 to confirm VEG throughtout the landform (p. 15).

RDI has produced Visual Impact Assessment Summary Forms for both Viewpoint 4 and 5. The other 3 viewpoints were much lower in percent alteration and therefor summary forms were deemed unnecessary.

Good design qualities resulted in a reduction of percent alteration, with the Viewpoint 4 result of 4.15% Adjusted Visual Quality Class, down from 5.76%, and Viewpoint 5 of 4.26% Adjusted Visual Quality Class, down from 5.92%, ensuring the two viewpoints with the greatest percent alteration are well-within the Partial Retention limits when design was considered.

Per convention, the guarry operation at Treat Creek, while highly visible and grabbing attention away from the main landform, does not contribute to percent alteration as it is a non-forest land-use...

In conclusion, Tsain-Ko Forestry has provided an excellent cutblock array designed to well-meet the Partial

Retention VQO. Han Mun

Ken B. Fairhurst, PhD, RPF **RDI** Resource Design Inc January 18, 2024

### Table 1

Visual Sensitivity Components of				
Landform	Visual Sensitivity Unit			
Landform 1 - width	960-PR			
creek mouth-to-	953-PR			
creek mouth: 4.2km	917-PR			
NVS	NVS			
Rationale for comb	pining VSUs in Landform	ו י		

### Table 2

Percent Alteration Summary by Viewpoint		Percent Alteration Summary by Viewpoint and Cutblock							
Viewpoint	%Alt	PER106	PER107A	PER107	PER104A	PER104	PER105	PER109	PER103
Viewpoint 5	5.94%	0.06%	0.36%	1.38%	0.02%	1.97%	1.19%	0.36%	0.06%
Viewpoint 4	5.76%	NVS	0.53%	1.59%	0.01%	2.09%	1.17%	0.32%	0.06%
Viewpoint 3	3.25%	NVS	0.38%	0.98%	0.01%	0.55%	0.69%	0.50%	0.14%
Viewpoint 2	1.73%	NVS	0.13%	0.46%	NVS	NVS	0.29%	0.21%	0.59%
Viewpoint 1	1.71%	NVS	0.11%	0.44%	NVS	NVS	0.25%	0.16%	0.76%
Excludes Quarry and Landform 1a									
Collection of Visual Sensitivity Units in Landform 1 all have Partial Retention Visual Quality Objective. Design quality takes precedence over percent alteration. Overall target of 1.5% to 7.0% in perspective view is achieved									

Landform 1, with Cutblocks
Cutblocks
PER104A, PER109, PER103
PER104, PER105, PER107, PER107A
PER6, Lower Tip of PER11 (nvs)
PER11 (main-nvs), PER12 (nvs)
1 - Same VQOs; uniforn single hillform

precedence over percent alteration. Overall target of 1.5% to 7.0% in perspective view is achieved



### APPENDIX 1: VISUAL IMPACT ASSESSMENT SUMMARY FORM

(To be completed from each viewpoint analyzed)

Viewpoint Number VP4 of 5

3.1.1 Site Information (Office)		
Natural Resource District		Licensee
General Location South Perketts		Licence No CP No Block
3.1.3 FSP & Objective Information (Office)		
VLI Polygon No EVC VAC	vscevqo_PR	Date Est Source Document
3.2.1 Viewpoint (Field)		3.2.2 Photography (Field)
GPS Longitude		Camera Make & Model Lens Focal Length
GPS Latitude		Sensor Crop Factor Adjusted Focal Length
Elevation (m)		Digital Photo ID No's:
Viewing DirectionViewing Distance	3860m to PER104 (ctr)	Viewpoint Description 2.3km W of Perketts Creek on Jervis Inlet
Viewpoint Importance: 1 2 3 4 5		
3.4.1 Assess Basic VQC (Ocular) VLH P23		Category of Alteration Criteria
Alterations meet which VQC definition? Mark location o	n the scale:	1. not easily distinguishable, difficult to see, easy to see or very easy to see
		2. very small, small, medium, large, or very large in scale
Basic VQC: P R PR M	MM	3. natural in appearance angular in appearance, rectilinear or geometric.
	<b>→</b>	
3.4.2 Numerical Assessment Initial VQO (Simulation)	VLH P26-28	3.4.4 Partial Cut Alterations
a) % of landform altered by proposed openings	5.76%	Proposed Partial Cutting % removal
b) % of landform in access roads (outside openings)	n/a	Average tree height (m)
c) % non-VEG contribution of existing openings	n/a	Clearcut equivalent %
X = (a+b+c) 5.92% alteration Initia	I VQO: <u>PR</u>	Enter or add this value on line 3.4.2(a)
3.4.3 Assess Adjusted VQO (Simulation) VLH P26	-29	3.5.1 Determine VQO rating on landform (Note: The definition is the primary determining factor.) P37
Design Elements: G (-	1) M (0) P (+1)	🕅 Well met
Response to visual force lines		Definition achieved; % alteration well within VQO range
Borrows from natural character		Met
Edge treatments incorporated	0	Definition achieved; % alteration may be near boundary or in excess of
Distance from the viewpoint	0	VQO range
Position on the landform	0	□ In-conclusive
Number, Size and Spacing of Alterations		Definition on class boundary, % alt. may be in excess of VQO range.
a) Design	Adj. Factor <u>-3</u>	□ Not met
b) Impact of roads, sidecast, etc. (within openings)		Definition not achieved; % alteration may be near boundary or within
🗆 none 🕅 subordinate 🗆 significant 🗖 dominant	Adj. Factor+1	VQO range
c) Tree retention: Good Moderate Poor	Adj. Factor 0	Clearly not met
Edge Netted Out of %A Total adjustment: $Y = (a+b+c)$	.lt. Adj. Total <u>-2</u>	Definition not achieved; % alt. in excess of VQO range
Calculate Adjusted % alteration:	X*(1+0.14*Y) =4.15%	
Adjusted VQC: P R PR M	ММ	
X	→	3.5.2 Rationale
%alt: 0 1.5 4 7 12 18	24 30+	5.76%*(1+(0.14*(-2)=5.76%-0.28=4.15%)
Evaluated By:K. B. Fairhurst	Signature:Ka	D. January 16, 2024

# APPENDIX 1: VISUAL IMPACT ASSESSMENT SUMMARY FORM

(To be completed from each viewpoint analyzed)

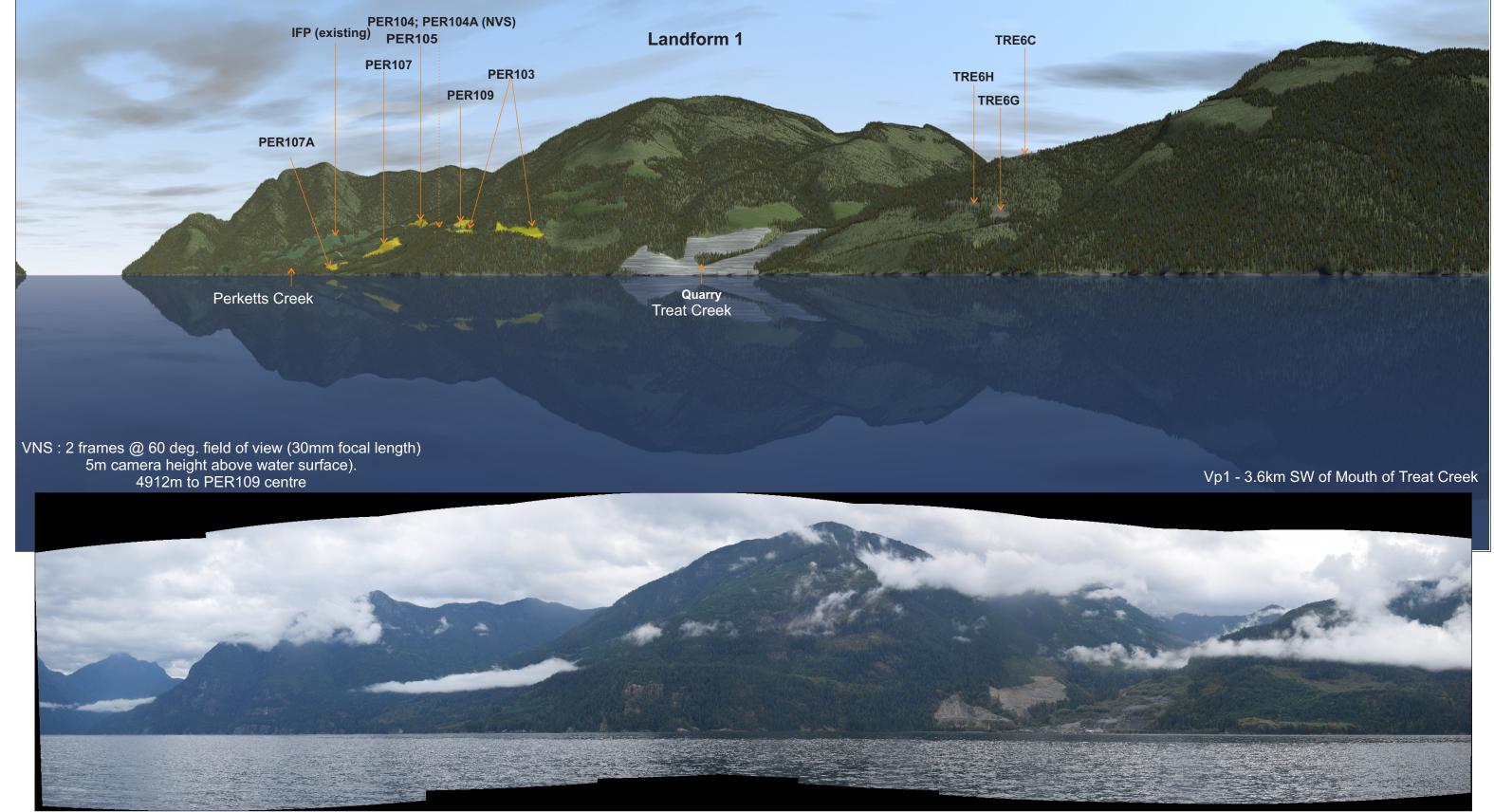
3.1.1 Site Information (Office)				
Natural Resource District			Licensee	
General Location South Perketts			Licence No CP No Block	
3.1.3 FSP & Objective Information (Office)				
VLI Polygon No. EVC VAC 917, 943, 960 comprising	VSC Landform 1	_evqo_PR	_ Date Est Source Document	
3.2.1 Viewpoint (Field)			3.2.2 Photography (Field)	
GPS Longitude			Camera Make & Model Lens Focal Length	
GPS Latitude		Sensor Crop Factor Adjusted Focal Length		
Elevation (m)			Digital Photo ID No's:	
Viewing DirectionViewing Dis	stance 5620r	n to PER104	(ctr) Viewpoint Description 3.5km NW of Perketts Creek on Jervis Inlet	
Viewpoint Importance: 1 2 3 4 5				
3.4.1 Assess Basic VQC (Ocular) VLH P23			Category of Alteration Criteria	
Alterations meet which VQC definition? Mark loca	ation on the scale		1. not easily distinguishable, difficult to see, easy to see or very easy to see	
Basic VOC: PR PR M	3		2. very small, small, medium, large, or very large in scale	
		MM	3. natural in appearance angular in appearance, rectilinear or geometric.	
<b> X</b>	<i>\</i>			
3.4.2 Numerical Assessment Initial VQO (Simulati	on) VLH P2	26-28	3.4.4 Partial Cut Alterations	
a) % of landform altered by proposed openings		5.9	Proposed Partial Cutting % removal         N/A	
b) % of landform in access roads (outside openings)		n/a	Average tree height (m)	
c) % non-VEG contribution of existing openings		n/a	Clearcut equivalent %	
$X = (a+b+c) _5.92\%$ alteration	Initial VQO:	PR	Enter or add this value on line 3.4.2(a)	
3.4.3 Assess Adjusted VQO (Simulation) VLH	H P26-29		3.5.1 Determine VQO rating on landform (Note: The definition is the primary determining factor.) P37	
Design Elements:	G (-1)	M (0) P (-	1) 🕅 Well met	
Response to visual force lines	-1		Definition achieved; % alteration well within VQO range	
Borrows from natural character	-1		□ Mct	
Edge treatments incorporated		0	Definition achieved; % alteration may be near boundary or in excess of	
Distance from the viewpoint		0	VQO range	
Position on the landform		0	□ In-conclusive	
Number, Size and Spacing of Alterations	1	(	Definition on class boundary, % alt. may be in excess of VQO range.	
a) Design	Ad	lj. Factor <u>-3</u>	□ Not met	
b) Impact of roads, sidecast, etc. (within openings)			Definition not achieved; % alteration may be near boundary or within	
🗆 none 🖾 subordinate 🗆 significant 🗖 dominant	t Ad	lj. Factor <u>+1</u>	VQO range	
c) Tree retention:  Good Moderate Poor Adj. Factor 0 Total adjustment: Y = (a+b+c) Edge Screening Netted Out Adj. Total			□ Clearly not met	
Total adjustment: Y = (a+b+c)	Ing Netted Of		Definition not achieved; % alt. in excess of VQO range	
Calculate Adjusted % alteration:	X*(1+0.	.14*Y) =4.2	5%	
Adjusted VQC: P R PR M	1	MM	3.5.2 Rationale	
<b>x</b>		>		
%alt: 0 1.5 4 7 12	18 24	÷ 30+	5.92%*(1+(0.14*(-2)=5.92%*0.72=4.26%	
Evaluated By:K. B. Fairhurst, RPF	Sign	ature: _ Ka	B. January 16, 2024	

1

VIA Summary Forms Viewpoints 4 and 5

Viewpoint Number \_\_\_\_\_ VP5 of 5





2017 Photo by K.B. Fairhurst

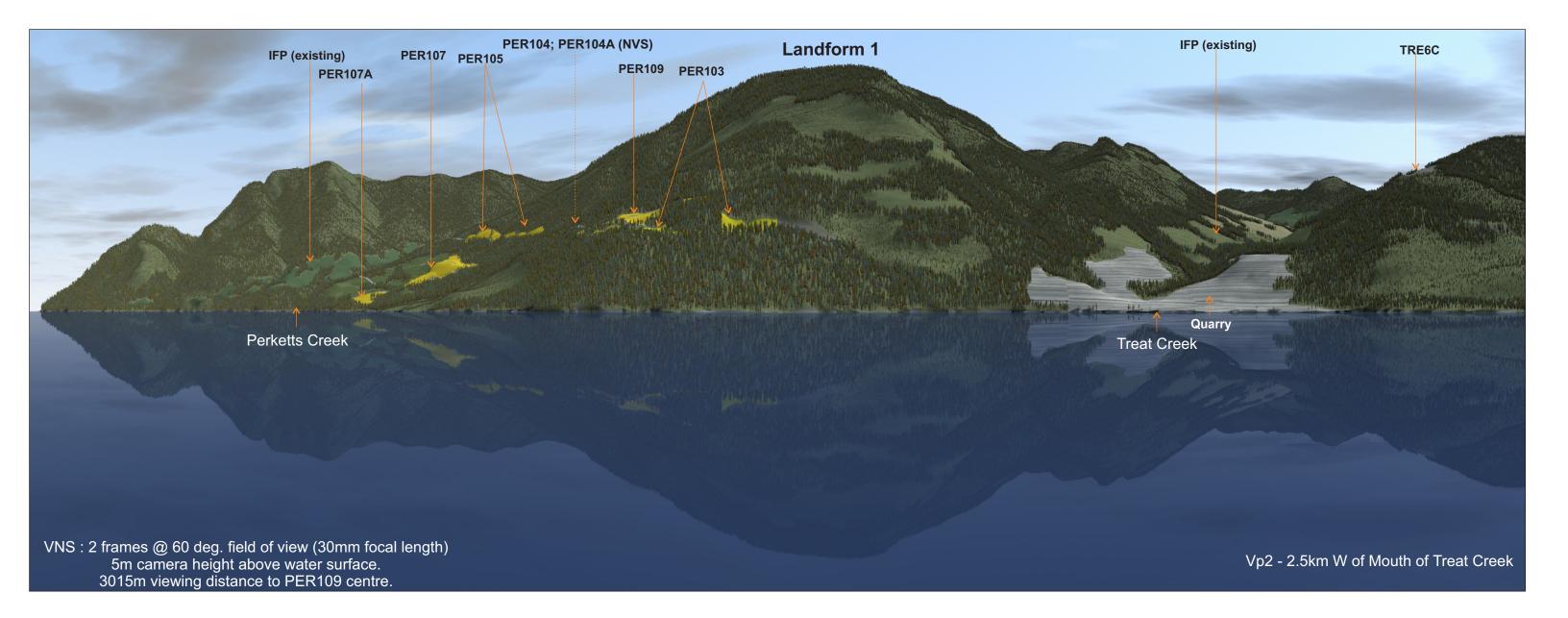




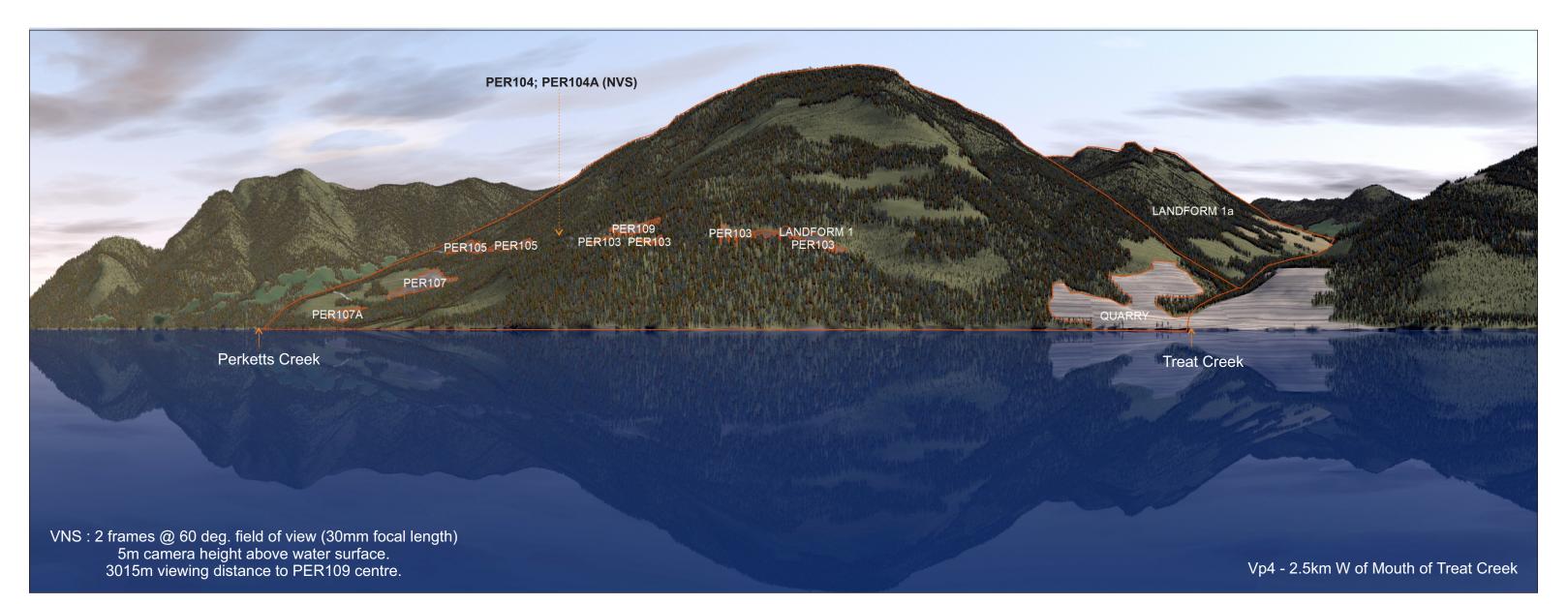
Percent Alteration South Perketts 2024 - Viewpoint 1					
Name	AREA2	%At			
LANDFORM 1	624044.57				
PER107A	659.55	0.11%			
PER107	2768.39	0.44%			
PER105	1235.22	0.20%			
PER105	338.72	0.05%			
PER109	1000.07	0.16%			
PER103	984.89	0.16%			
PER103	3714.44	0.60%			
Sum Alt Landform 1	10701.28	1.71%			
QUARRY not included in %Alt	33136.66	5.31%			
LANDFORM 1a not included in calcs.	117841.09				

**Viewpoint 1 Percent Alteration** 





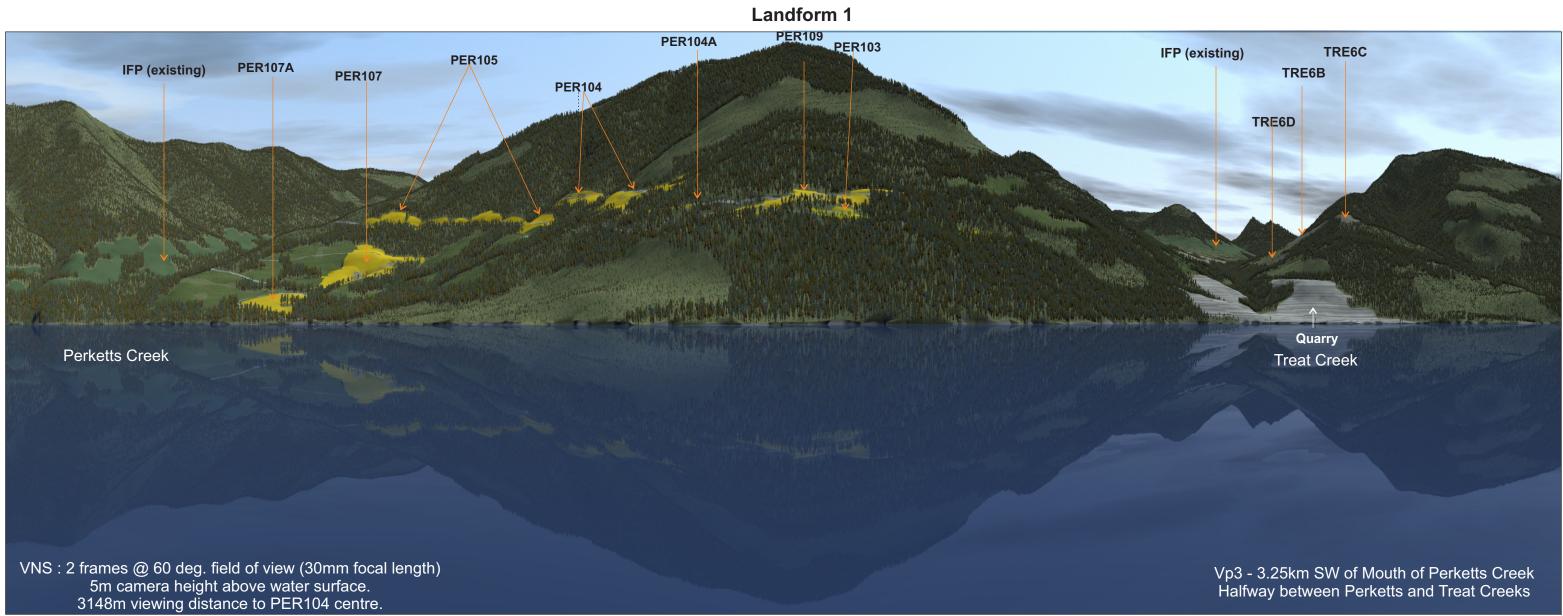




Percent Alteration South Perketts 2024 - Viewpoint 2					
Name	AREA2	%At			
LANDFORM 1	1372258.33				
PER107A	1819.11	0.13%			
PER107	6342.04	0.46%			
PER105	2261.28	0.16%			
PER105	1760.33	0.13%			
PER109	2826.10	0.21%			
PER103	819.57	0.06%			
PER103	1825.64	0.13%			
PER103	5518.66	0.40%			
PER103	500.30	0.04%			
Sum Alt	23673.03	1.73%			
QUARRY (not incl. in calcs.)	55440.73	4.04%			
Landform 1a (not included in calcs.)	149987.25				

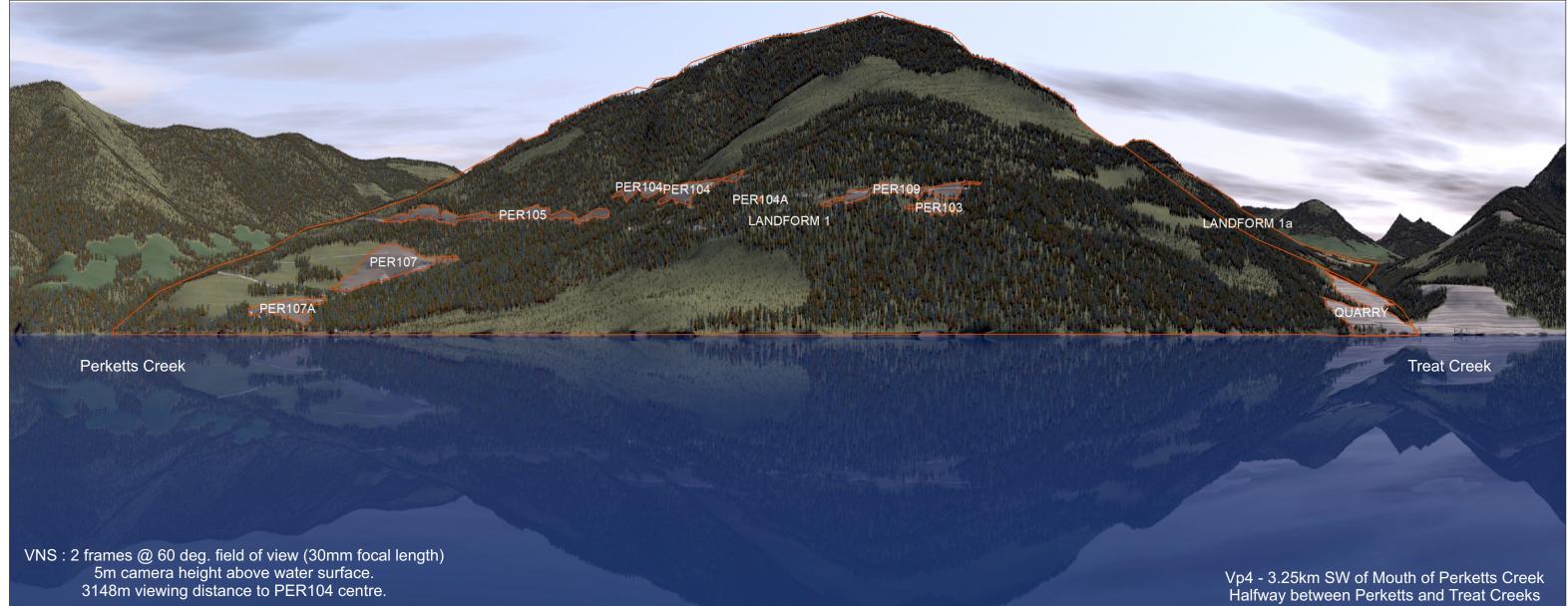
**Viewpoint 2 Percent Alteration** 









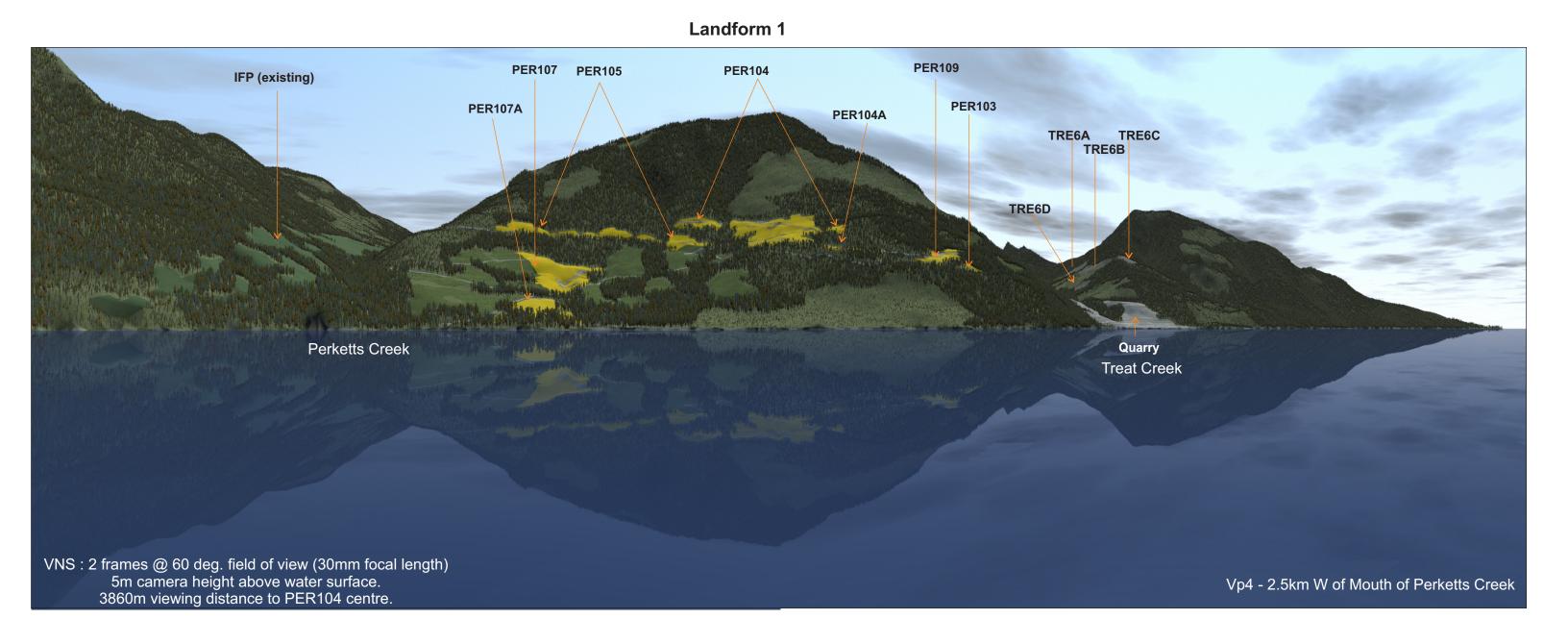


Percent Alteration South Perketts 2024 - Viewpoint 3					
Name	AREA2	%At			
LANDFORM 1	1751142.73				
PER107	17191.66	0.98%			
PER107A	6617.89	0.38%			
PER105	12154.01	0.69%			
PER104	3683.09	0.21%			
PER104	5872.42	0.34%			
PER104A	94.33	0.01%			
PER109	8821.28	0.50%			
PER103	2420.38	0.14%			
Sum Alt	56855.05	3.25%			
QUARRY (not included in %Alt calcs.)	19262.30	1.10%			
Landform 1a (not included in %Alt calcs.)	36634.62				

**Viewpoint 3 Percent Alteration** 

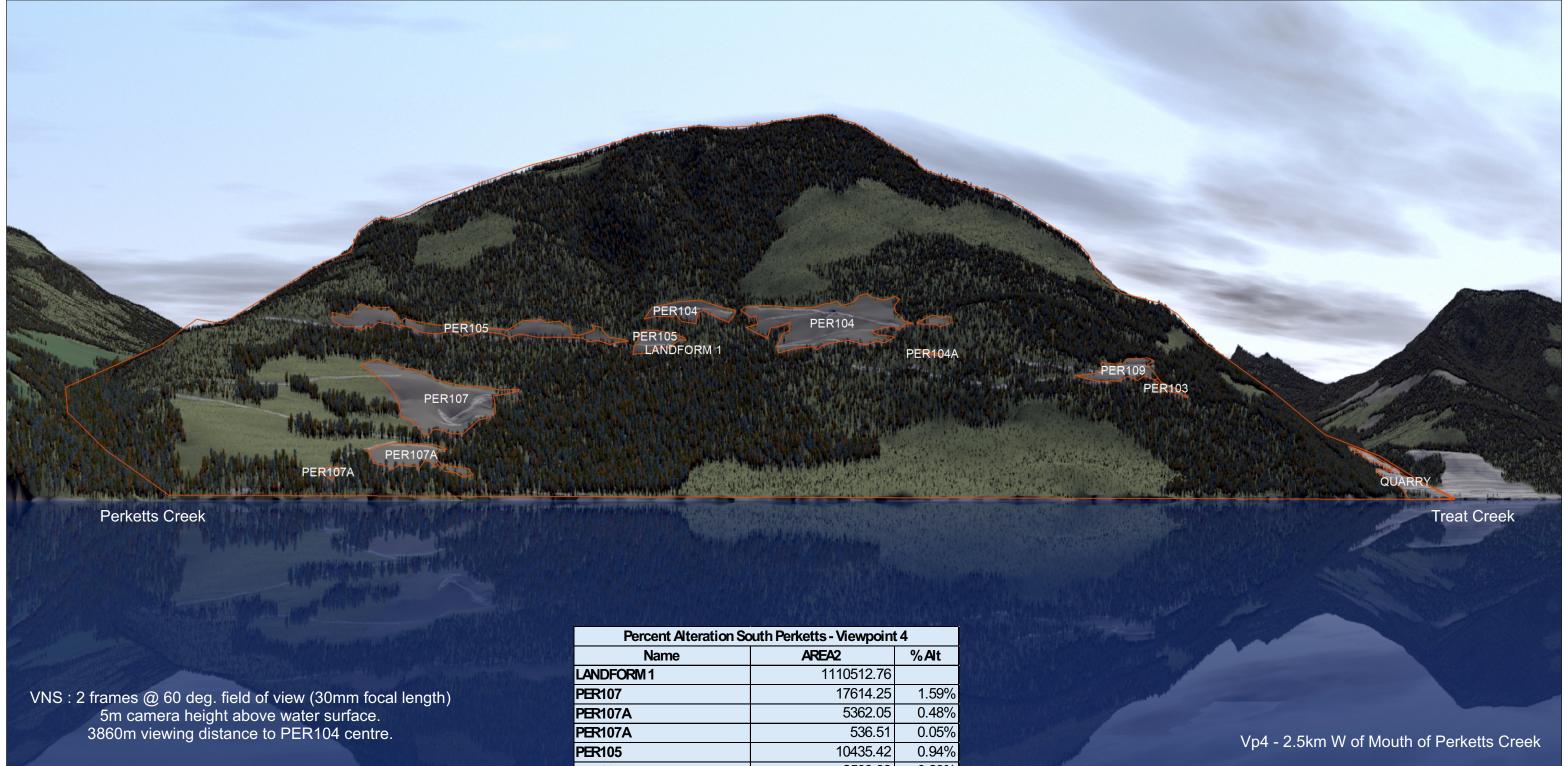








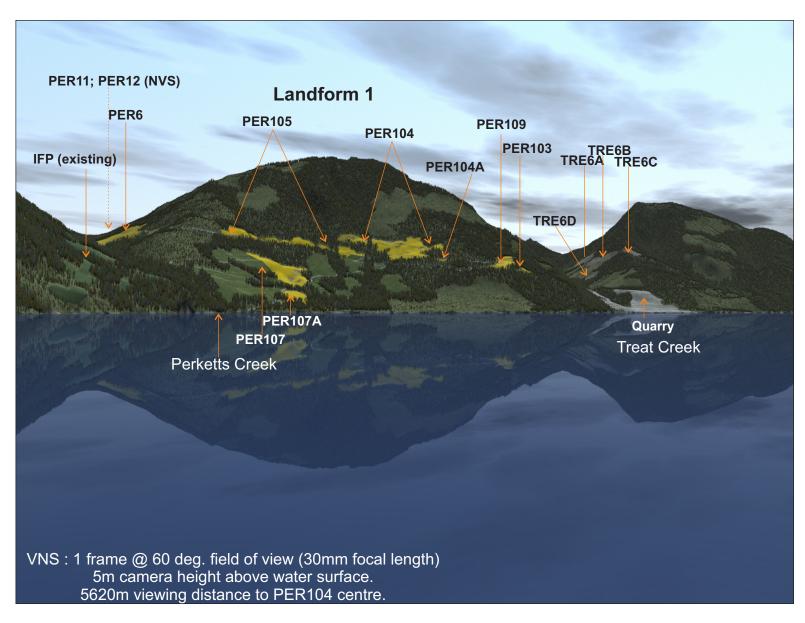
11



Percent Alteration South Perketts - Viewpoint 4				
Name	AREA2	%Alt		
LANDFORM 1	1110512.76			
PER107	17614.25	1.59%		
PER107A	5362.05	0.48%		
PER107A	536.51	0.05%		
PER105	10435.42	0.94%		
PER105	2503.88	0.23%		
PER104	3868.64	0.35%		
PER104	19302.20	1.74%		
PER104A	128.97	0.01%		
PER109	3597.64	0.32%		
PER103	610.90	0.06%		
Sum Alt	63960.46	5.76%		
QUARRY (not incl. in calcs.)	3692.80	0.33%		

**Viewpoint 4 Percent Alteration** 

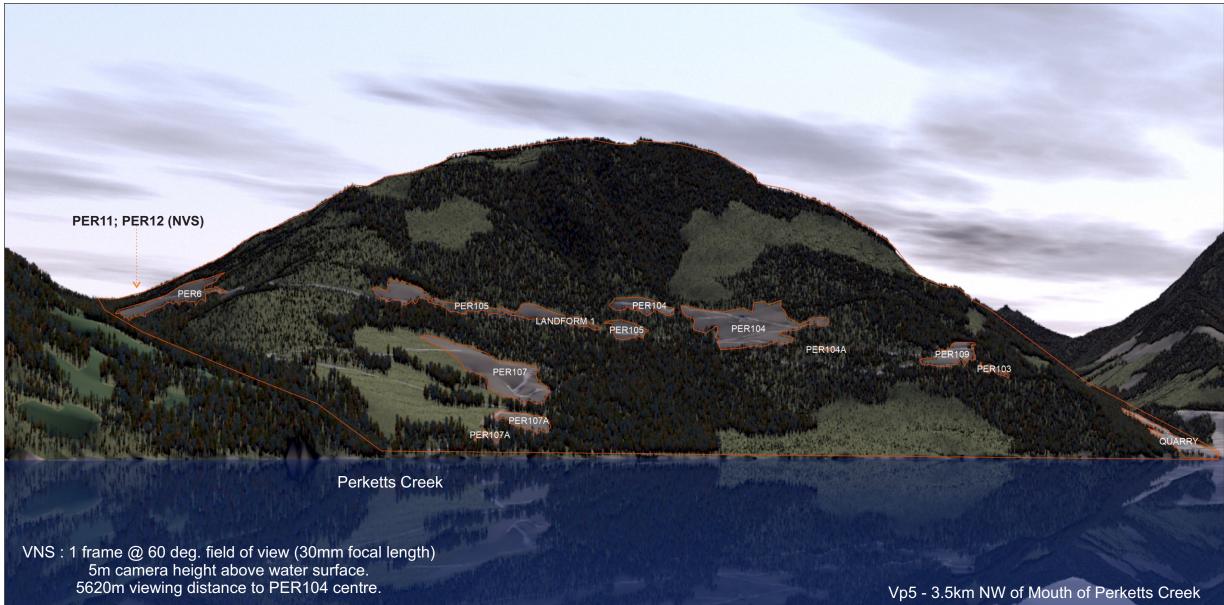




Vp5 - 3.5km NW of Mouth of Perketts Creek



13



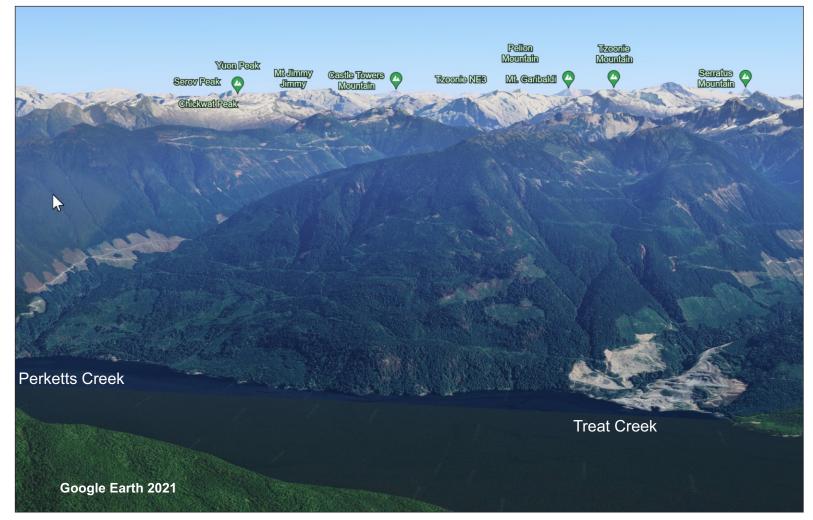
Vp5 - 3.5	km NW
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Percent Alteration South Perketts 2024 Viewpoint 5				
Name	AREA in Perspective	%At		
LANDFORM 1	503650.63			
PER6	3027.23	0.60%		
PER105	4822.86	0.96%		
PER105	1170.94	0.23%		
PER104	1571.65	0.31%		
PER104	8362.55	1.66%		
PER104A	86.08	0.02%		
PER109	1803.14	0.36%		
PER103	314.73	0.06%		
PER107	6943.01	1.38%		
PER107A	1530.49	0.30%		
PER107A	280.71	0.06%		
Sum Alt	29913.42	5.94%		
QUARRY (not incl. in calcs.)	2112.95	0.42%		

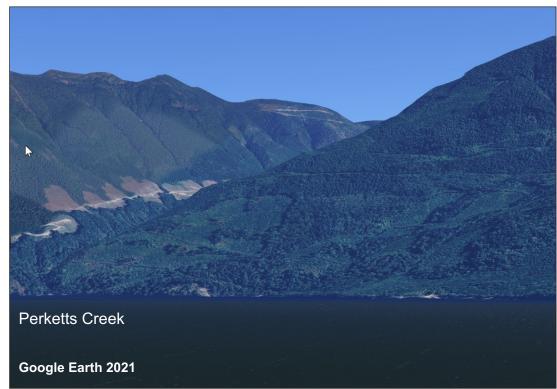
# **Viewpoint 5 Percent Alteration**











Existing Visual Conditions - Visually Effective Greenup - 2021



