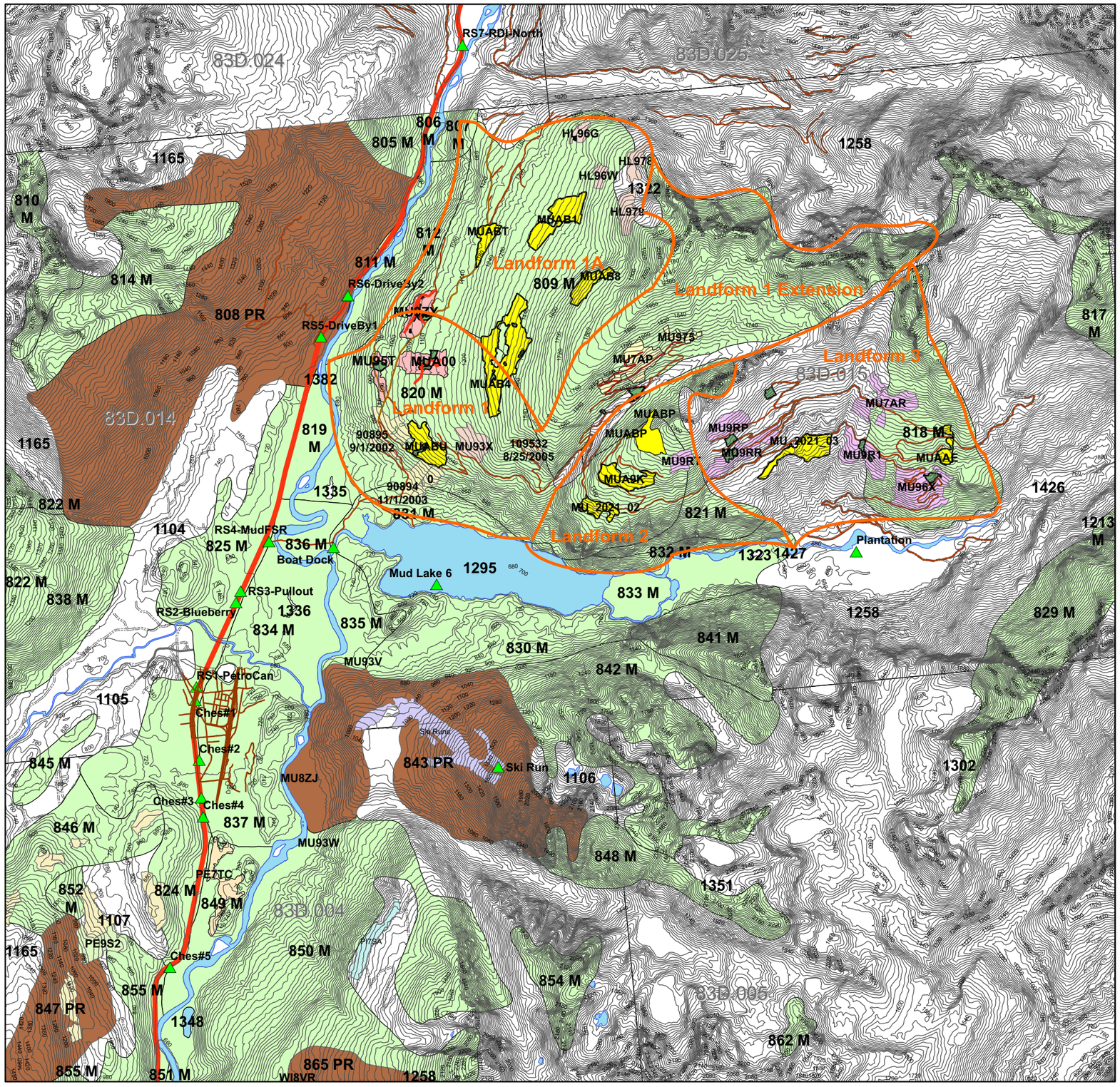
Mud Operating Area
Visual Impact Assessment
RDI Resource Design Inc
September, 2021



Legend

- Blue_River_Roads
- June_6,_2020_Proposed_Roads
- Mud_Lake_River
- Ken_MUABP
- PeddieCTR
- Aug_4,_2021_Mud_BCTS_WTRA
- Aug_4,_2021_New_BCTS_Mud_Blocks
- TA1445_MU7AP_MU975_Road_Shapes
- HWY5_OK
- 1208_Existing
- HWY5
- April_16,_2020_Existing_Roads
- TA1445_MU7AP_MU975_Block_Shapes
- WestMudRiver
- Adjacent_Existing
- MU95T,MU9ZY,MUA00_Block_Shapes
- MU93X,HL96G,HL978,HL96W,HL979_Block_Shapes
- North_Thompson_River-20
- Feb_18,_2020_TA0944,_TA0645,_TA0647_Block_Shapes
- Peddie_Existing_Blocks
- Peddie-1718

REC_EVQO_C

- M
- PR
- TA0643_PE9S2_WTRA
- PI7SA
- Mud-1718t
- Mud_Lake

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Contents

Introduction

RDI conducted this Mud Operating Area Visual Impact Assessment for BCTS Kamloops Business Area under contract PD18TEB007 in September, 2021. The project was requested by Ches Clem, RPF, Planning Forester, Clearwater Field Team, BCTS Kamloops Business Area on August 4, 2021. Two sets of cutblocks were provided for analysis. Set 1 contains cutblocks presently ready for auction up to 2025 or with harvesting already underway, and those not currently in the BCTS sales plan due to access issues and poor timber (marked TBA) and requested for separate accounting for percent alteration. The full array of 26 cutblocks along with their VIA report dates and estimated auction dates were provided in the spreadsheet derived by Ches and provided as Table 1 on page 4 of this report. The blocks highlighted in yellow in the table are the specific subject of this VIA although all cutblocks in the list were simulated from each viewpoint where they may appear. The data package was provided on August 4, including new cutblocks, existing cutblocks, WTRAs, and roads. A replacement configuration for MUABP was provided by Ches Clem on August 25, 2021.

Ches Clem identified 6 viewpoints for the Mud-Redsands Visual Assessment in 2020 covering his stopping points where photos were taken by him between January and April, 2020. RDI added the"RS" nomenclature for ease of tracking, increasing in number north from RS1 Blue River Petrocan:

RS1 52 06 34.6, 119 18 33.2 Blue River Petro Can: photos 9392 to 9395

RS2 52 07 22.5 119 17 47.4 Blueberry Road JCT with Hwy 5: Photos 9396 to 9401

RS3 52 07 28.9, 119 17 41.9 Pullout West Side of Hwy 5: photos 9402 to 9406

RS4 52 07 56.6, 119 17 10.0 Mud FSR near Railway Tracks, glimpse view: photos 9407 to 9409

RS5 52 09 54.8N 119 16 01.0 Drive by Hwy 5: photos 9251 to 9256

RS6 52 10'17.7N 119 15'31.1 W Hwy 5 North RDI: photos 9243 to 924.

Upon preliminary review by RDI of the coverage afforded from the viewpoints in ArcGIS and VNS, RDI added an additional tentative viewpoint: RS7 52 12' 41.68N 119 13' 17.69 W north on Hwy 5. Ches kindly followed-up with photography from that viewpoint (photos 9423 to 9437), confirming its relevance as a view from the north towards the cutblocks in TA1036.

A second set of viewpoints, also established by Ches Clem, commenced at Blue River Petrocan (Ches #1 / RS1) and continued southward (Ches #2-Ches #5) These viewpoints were initiated for the 2018 Peddie-Wilkins-Mud VIA by RDI and renumbered consecutively by RDI in the southerly direction by RDI for ease of recognition. Together, the two sets of viewpoints cover 18.4km of viewing potential towards the Mud 2021 proposed and existing alterations as might be seen when travelling along Highway 5.

RDI also has assessed views from the Boat Dock on Lower Mud River, a new location on Mud Lake's southwest end (Mud Lake 6) and resurrected the "Plantation" viewpoint from the Mud North VIA of February 2020 (also known as the TA0944/TA0645/TA0647 VIA of the same date), for the purpose of examining the cutblocks in Landform 3, including MUAAE and the adjacent MU_2021_03 TBD in the unrecorded VLI area between Landform 2 and Landform 3. These viewpoints provided visual access extending from the Mud FSR at Highway 5 eastwards for 10.7km reaching the Plantation Viewpoint located on the Upper Mud River. RDI also added a view from the Wiegele Ski runs for an elevated perspective. The coordinates of all 17 viewpoints in decimal degrees are presented as Table on page 4. The chart also shows the approximate highway distance away from the RS1 Petrocan viewpoint for each of the 11 other highway viewpoints tested by RDI.

Please note: RDI has provided links to each and every VIA produced for BCTS Kamloops Business Area over the past 11 years (67 in number). The reports are easily download at https://www.rdi3d.ca from the Visual Impact Assessments page under the "More" tab. The VIA reports are grouped by year. RDI will be updating the list with the 2021-2022 projects soon.

Procedures and Analysis

RDI placed new data into pre-existing ArcGIS and VNS models. Forest Cover VRI was added from the 2020 release with heights assigned from the "Proj_Heigh" attribute. All viewpoints were simulated in VNS, showing Sets 1 and 2 cutblocks together. Four landforms were differentiated based on Visual Sensitivity Unit boundaries, physical terrain breaks, and dominant visual forces. All VSUs had the same Visual Quality Objective of Modification, allowing merging of some units where appropriate. The "Modification" Category of Visual Alteration 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 is very easy to see and is either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics.

The landforms and cutblock visibility within them are shown on the key map on page 1, in Table 3 on page 4, and all are clearly labelled in each visual simulation sheet. Percent alteration calculations by landform were produced from three viewpoints: RS1 Petrocan, RS4 Mud FSR at Highway 5, and the Plantation viewpoint along the upper Mud River. Percent alteration contributions of Set 2 cutblocks marked TBD were kept separate in the tallies calculated from the three viewpoints. Findings are presented on each viewpoint Percent alteration sheet.

Some cutblocks are located in unclassified area according the VLI. Where simulations revealed greater visibility that the VLI, those unclassified areas were included in the landforms as detailed in the visibility chart (Table 3).

Several existing openings are present in the visible landforms. These openings have been depicted in purple in the simulations for ease of differentiation. According to Tyson Leutdke "these are not govt/BCTS blocks so detailed survey data is not available", but he provided updates from 2018 analysis and extended the findings to 2020:

- E1 - 1.5m (Existing Opening ID 109532): Gilbert Smith cutblock, 9.5ha IMM ART, last update 2015 – Sx (Cw) 1.7-2.1m height, est (conservative) 30cm/yr leader, projected 2020 height ~4m (add 30cm for 2021 growth),
- E2 - 2.2m (Existing Opening ID 90894): Gilbert Smith cutblock, 19.3m IMM ART, last update 2011 - Fd (CwHw) 2.0m height, est 40cm/yr leader, projected 2020 height ~6m (add 40cm for 2021 growth),
- E3 - 1.5m (Existing Opening ID 90895): Gilbert Smith cutblock, 30.8ha IMM ART, last update 2012 – SxCwFd 2+m height, est 40cm/yr, projected 2020 height ~5.5m (add 40cm for 2021 growth).

The 50% probability of achieving summer Visually Effective Green-up (VEG) is 5.5 m and approx. 5.7m for winter. E1 and E2. The lower E1 and E2 openings contain noticeable dispersed and clumped residuals which cover approximately 30% of the area by ocular estimate of the photos with snow on the ground. The height required to achieve VEG can be modified by slope class analysis. This was not carried out by RDI at this time given that the two viewpoints tested for percent alteration were well within the Modification Visual Quality Class limit of 7-18% with the TBD blocks held separately for consideration. RDI was unable to determine if the 2001 Plantation visible in the Plantation view is VEG.

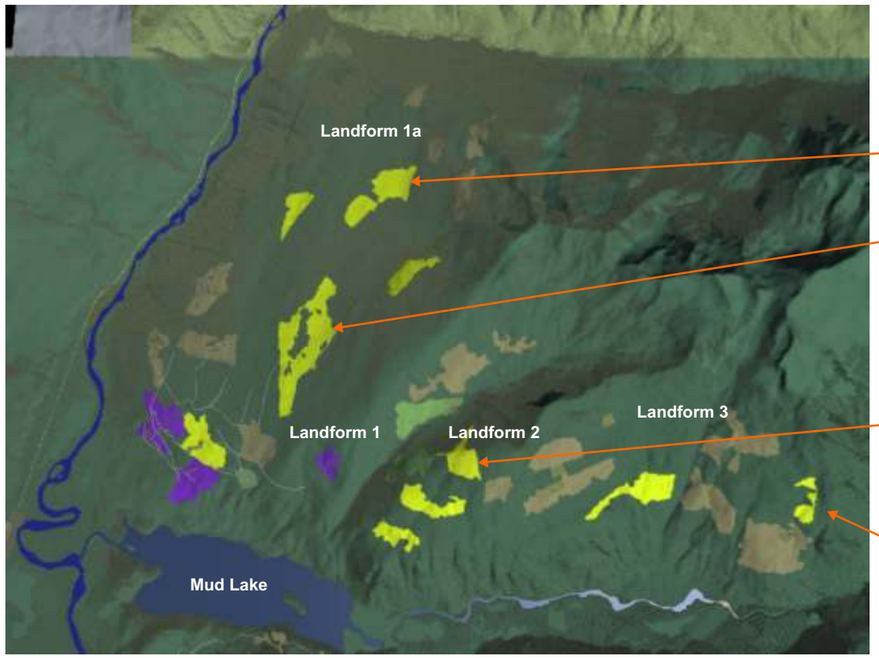
RDI employed its standard application of Visual Nature Studio to render each viewpoint coverage of the cutblocks. RDI adjusted roadside vegetation from VRI to better emulate that seen in the photos where available. The VNS planimetric camera inset on page 4 provides confirmation (proof) that all 26 cutblocks and the four existing nonVEG openings were present in the model when rendered from each viewpoint.

Findings

The Mud Operating Area array of 26 proposed, TBD, or underway cutblocks spread across 4 landforms comprising 7 Visual Sensitivity Units, all with the Modification Visual Quality Objective. Some cutblocks are also located in areas identified as unclassified/non-visually-sensitive (NVS) in the Visual Landscape Inventory, but were seen from selected viewpoints. These unclassified but visible areas were added to the appropriate landform. As well, RDI tracked existing nonVEG openings, for a total of 30 cutblocks requiring assessment. Of this 26 cutblock array, a total of 17 cutblocks have been found to have at least some visual apparency while 9 cutblocks were without any apparency (Table 3, page 4). The same table shows the 16 viewpoints applied for visual simulation and analysis, spanning over 18km of Highway 5 and nearly 11km inland along Mud River and Mud Lake. For good measure, RDI produced a visual simulation from on top of the Wiegele heli-ski runs overlooking Blue River.

The cutblock array as seen from Highway 5, Blue River and Mud River and Lake viewpoints form a richly diverse pattern of openings which coalesce with the existing history of forest management across the landforms, and reflect consideration of visual quality class definitions and conformance with visual forces. Percent alteration is safely within the limits of Modification Visual Quality Class (7.1-18%) for the blocks in Group 1 (see percent alteration sheets for viewpoints RS1, RS4 and Plantation. The separation of Group 2 TBD blocks from the main analyses allows the VQO to be presently met without them, but will exceed the limits of alteration perspective view when eventually added in for Landform 1 (20.25% from RS1, and 19.05% from RS4. The deduction for residual cover within the existing 2003 openings of 1.8% for RS1 and 2.5% for RS4 would bring RS1 down to 18.45% and 16.55% respectively (see Table 4, page 4 and full calculations on the RS1 and RS4 percent alteration sheets. The existing openings are on track to achieve VEG in a year or two. Further refinement based on careful measure of intervening screening effect and slope assessment within the openings can further moderate the percent alteration from these viewpoints. Snow-on-ground conditions lengthen the achievement of VEG with cutblocks standing out against the dark forest. This is why good design is particularly important in the Blue River-Mud landscape. While some openings are large, shapes are "natural-appearing" to the extent possible due to colour contrasts in the winter landscape. Consideration might be given to reducing or otherwise mitigating the scale with WTRAs of MUABU and MU93X from the viewpoints indicated in Table 3 on page 4, if and when the cutblocks are considered for auction. The 3 cutblocks in L2 will create highly contrasting parallel horizontal slices across the landform. Consider minimizing the visual effect of MU_2021_02 from viewpoints CHES #2 and RS1 when readied for auction.

KB Fairhurst, PhD, RPF
RDI Resource Design Inc
September 16, 2021



VNS Planimetric Camera - all 30 new and existing CB's verified as present in the model

Table 1

Mud Operating Area Visual Block Summary - by Ches Clem August 4, 2021

	TSL	Block	VIA previously completed	VIA Report Date	Estimated TSL Auction Date
*	TBD	HL96G	Yes	Jun-20	TBD
	TA0136	HL96W	Yes	Jun-20	August 1st, 2025
	TA0136	HL978	Yes	Jun-20	August 1st, 2025
	TA0136	HL979	Yes	Jun-20	August 1st, 2025
	TA0136	MUAB1	No	n/a	August 1st, 2025
	TA1876	MUABT	No	n/a	September 1st, 2024
	TA1876	MUAB8	No	n/a	September 1st, 2024
	TA1876	MUAB4	No	n/a	September 1st, 2024
	TA1208	MU95T	Yes	Jun-20	October 6th, 2021
**	TA1208	MUA00	Yes	Jun-20	October 6th, 2021
	TA1208	MU9ZY	Yes	Jun-20	October 6th, 2021
*	TBD	MUABU	No	n/a	TBD
*	TBD	MU93X	Yes	Jun-20	TBD
	TA1445	MU975	Yes	Jan-21	January 10th, 2023
	TA1445	MU7AP	Yes	Jan-21	January 10th, 2023
	TA0944	MUA9K	No	n/a	August 1st, 2022
	TA0944	MUABP	No	n/a	August 1st, 2022
	TA0944	MU9RT	Yes	Feb-20	August 1st, 2022
*	TBD	MU_2021_02	No	n/a	TBD
*	TBD	MU_2021_03	No	n/a	TBD
	TA0645	MU9RR	Yes	Feb-20	Auctioned, harvesting underway
	TA0645	MU9RP	Yes	Feb-20	Auctioned, harvesting underway
	TA0647	MU9R1	Yes	Feb-20	Auctioned
	TA0647	MU96X	Yes	Feb-20	Auctioned
	TA1871	MU7AR	Yes	Feb-20	August 1st, 2023
	TA1871	MUAAE	No	n/a	August 1st, 2023

* TBD - to be determined - "No auction date" - considered separately in Percent Alteration Calculations (HL96G, MUABU, MU93X, MU_2021_02, MU_2021_03)

** MUA00 to be auctioned October 6, 2021

Table 2

Mud 2021 Viewpoints		
Label	**Longitude**	**Latitude**
RS1-PetroCan	52.109611	-119.309222
RS2-Blueberry (RS1+1732m north)	52.122917	-119.296500
RS3-Pullout (RS1+1936m north)	52.124694	-119.294972
RS4-MudFSR (RS1+2992m north)	52.132389	-119.286111
RS5-DriveBy1 (RS1+6861m north)	52.165222	-119.266944
RS6-DriveBy2 (RS1+7765m north)	52.171583	-119.258639
RS7-RDI-North (RS1+12968m north)	52.210910	-119.221527
Ches #1-(RS1+266m south)	52.107419	-119.309864
Ches #2-(RS1+1381m south)	52.097546	-119.310362
Ches #3-(RS1+2066m south)	52.091402	-119.310768
Ches #4-(RS1+2412m south)	52.088232	-119.310714
Ches #5-(RS1+5342m south)	52.063967	-119.323418
Boat Dock	52.130420	-119.269000
Mud Lake 6	52.122670	-119.242321
River Plantation	52.121439	-119.129026
Ski Run	52.091768	-119.230468

Table 4

Summary of Percent Alteration, by Landform				
Viewpoint	**Landform**			
Cutblock Group	**L1**	**L1a**	**L2**	**L3**
RS1 G1	10.09%		6.53%	
RS1 G2 TBD	10.16%		4.27%	
RS1 Total	20.25%		10.80%	
RS4 G1	11.25%	7.90%	4.71%	
RS4 G2 TBD	7.80%		1.62%	
RS4 Total	19.05%	7.90%	6.33%	
Plantation G1				12.05
Plantation G2 TBD				0.03
see detailed report summary discussion and percent alteration sheets for deductions due to residuals in existing 2003 openings				

Table 3

Mud Visibility 2021

	Landform 1 (VLI_Polys 820M-West+831M combined) plus East portion of 809M								Landform 1a (VLI_Poly 809M West)							Landform 2 (VLI_Poly 820M-East), 821, 832				Landform 3 (VLI_Poly 818M) plus adjacent unclassified west to 821 edge						
	MUABU-TBD	**MUAB4**	**MU93X-TBD**	MU9ZY	MU95T	**MUA00**	**MU7AP**	**MU975**	**HL978**	**HL979**	HL96G-TBD	HL96W	MUABT	MUAB1	MUAB8	**MU_2021_02-TBD**	**MUA9K**	**MUABP**	**MU9RT**	**MU_2021_03-TBD**	MUAAE	**MU9RP**	**MU96X**	**MU9R1**	MU7AR	**MU9RR**
Southward ↓																										
Ches #1 Petrocan 1	V	V	V			V (minor)										V	V	V								V
Ches #2	V	V	V			V (minor)										V	V	V	V (minor)							
Ches #3	V	V	V			V (minor)	V (minor)	V (minor)											V (minor)							
Ches #4	V	V	V			V (minor)	V (minor)	V (minor)								V (minor)	V	V	V (minor)							
Ches #5																	V	V	V							
RS1 Petrocan 2	V	V	V			V										V	V	V								
RS2 Blueberry Jnx	V	V	V			V		V (minor)								V	V (minor)	V								
RS3 Pullout H5 #1	V	V	V			V										V	V (minor)	V								
RS4 Pullout H5 #2	V	V	V			V (minor)				V (minor)						V	v	V								
Northward ↓																										
RS5 Drive-by #1	No Cutblocks Visible - VLI_Polys 807M and 812 M																									
RS6 Drive-by #2	No Cutblocks Visible - VLI_Polys 807M and 812 M																									
RS7 H5 North RDI									V (minor)	V																
Mud Lake VP6	V		V													V (minor)										
Boat Dock	V	V (minor)	V																							
River Plantation																				V (minor)		V	V (large)	V (minor)		V
Ski Run	V	V	V				V	V (minor)								V (minor)	V	V								
Verified in VNS Model	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Cutblocks with bold text (17 of 26) have predicted visibility from at least 1 viewpoint as tested in simulations produced by RDI; cutblocks with plain text and no fill colour (9 of 26) have no predicted visibility from any viewpoint tested in simulations produced by RDI.

MUAB4 is split between VLI_Polys 820 and 809

MU_2021_03, MU9RR, and MU9RP are in unclassified NVS zone between VLI_Polys 820 and 818 but are considered as part of VLI_Poly 818 for accounting purposes

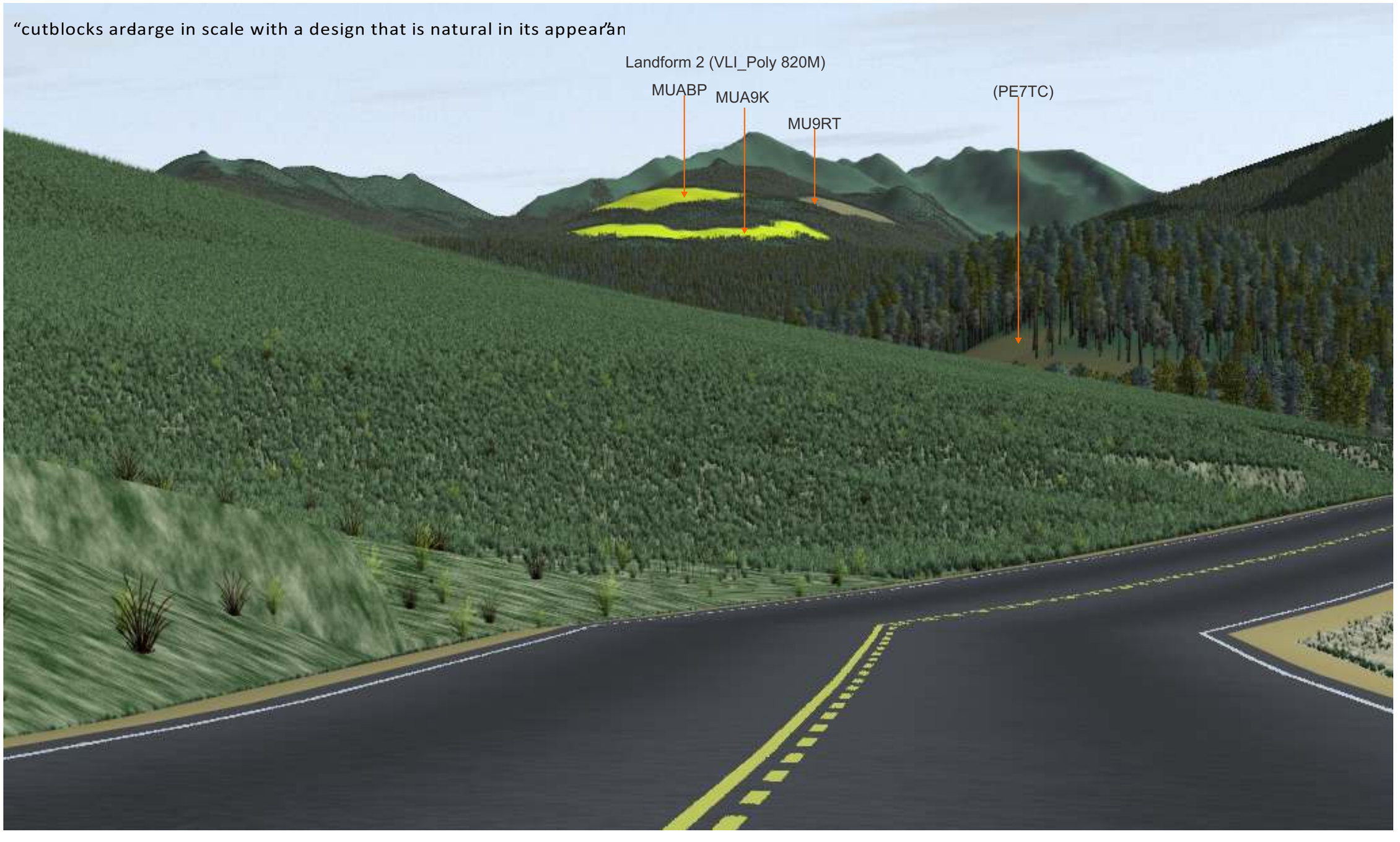
HL978 and HL 979 are in unclassified area in gap of VLI_Poly 809

L1 contains 3 existing openings - 90895 (2002), 90894 (2003) and 109532 (2005). All are nonVEG with the '02 and '03 openings containing grouped and individual residuals approximating 30% ocular cover. These show on the key map. L2 contains 1 opening from 2015 (near MUABP), not showing on key map.

Three of the above existing 4 openings are visible in the simulations, bringing the total visible to 16 of the grand total of 30 new and recent openings tracked and assessed for the Mud 2021 VIA.

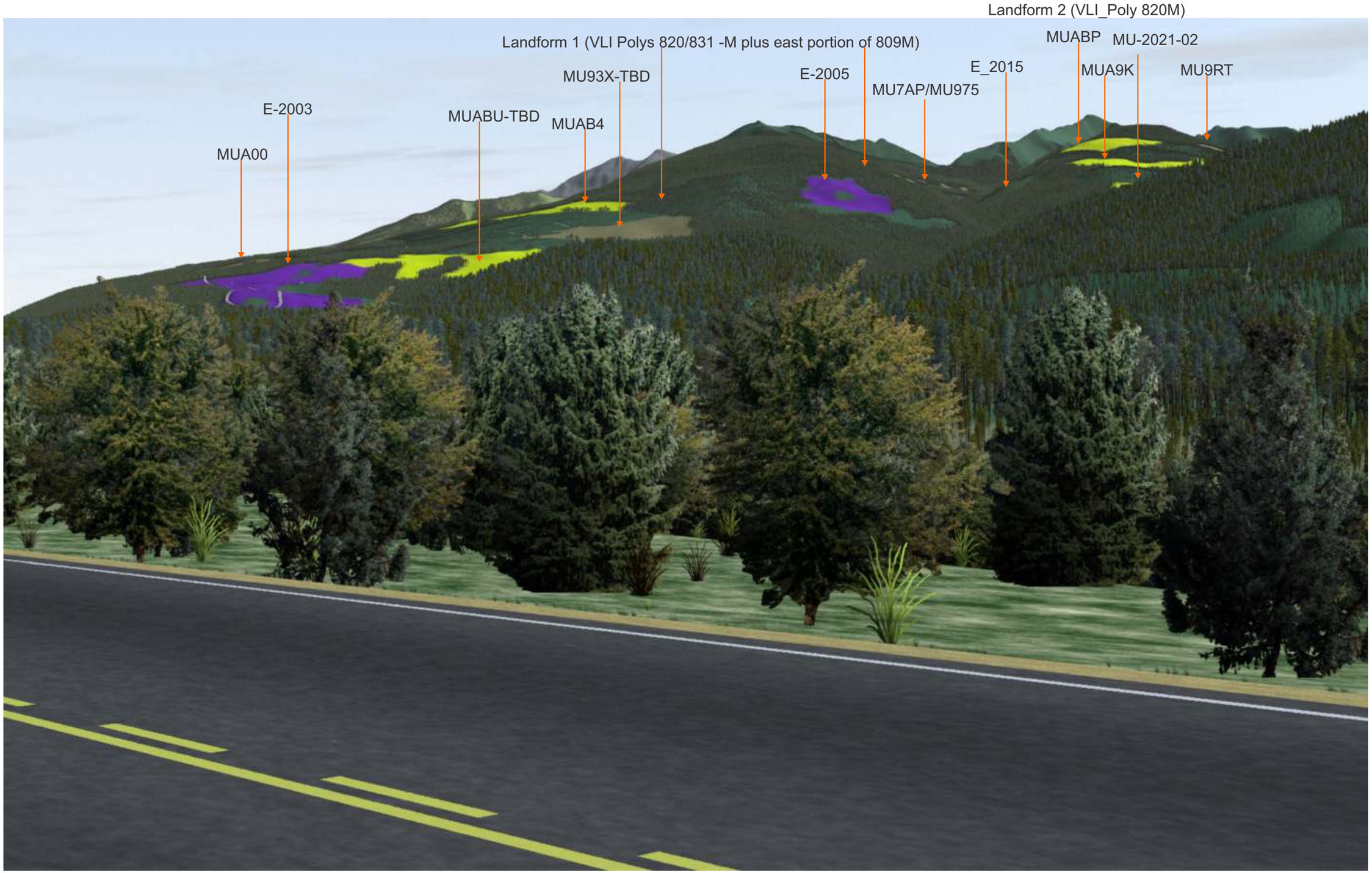
Ches #1 and RS1 are the same Petrocan viewpoint. Viewpoint numbering for Ches #2-Ches #5 increases southwards along the highway from Ches #1/RS1; viewpoint numbering for RS2 to RS7 increases northwards along the highway from Ches #1/RS1 - see key map for viewpoint orientation

“cutblocks are large in scale with a design that is natural in its appearan



40 degree field of view; 48mm lens; foreground cleared for potential visibility

Ches #5 Viewpoint

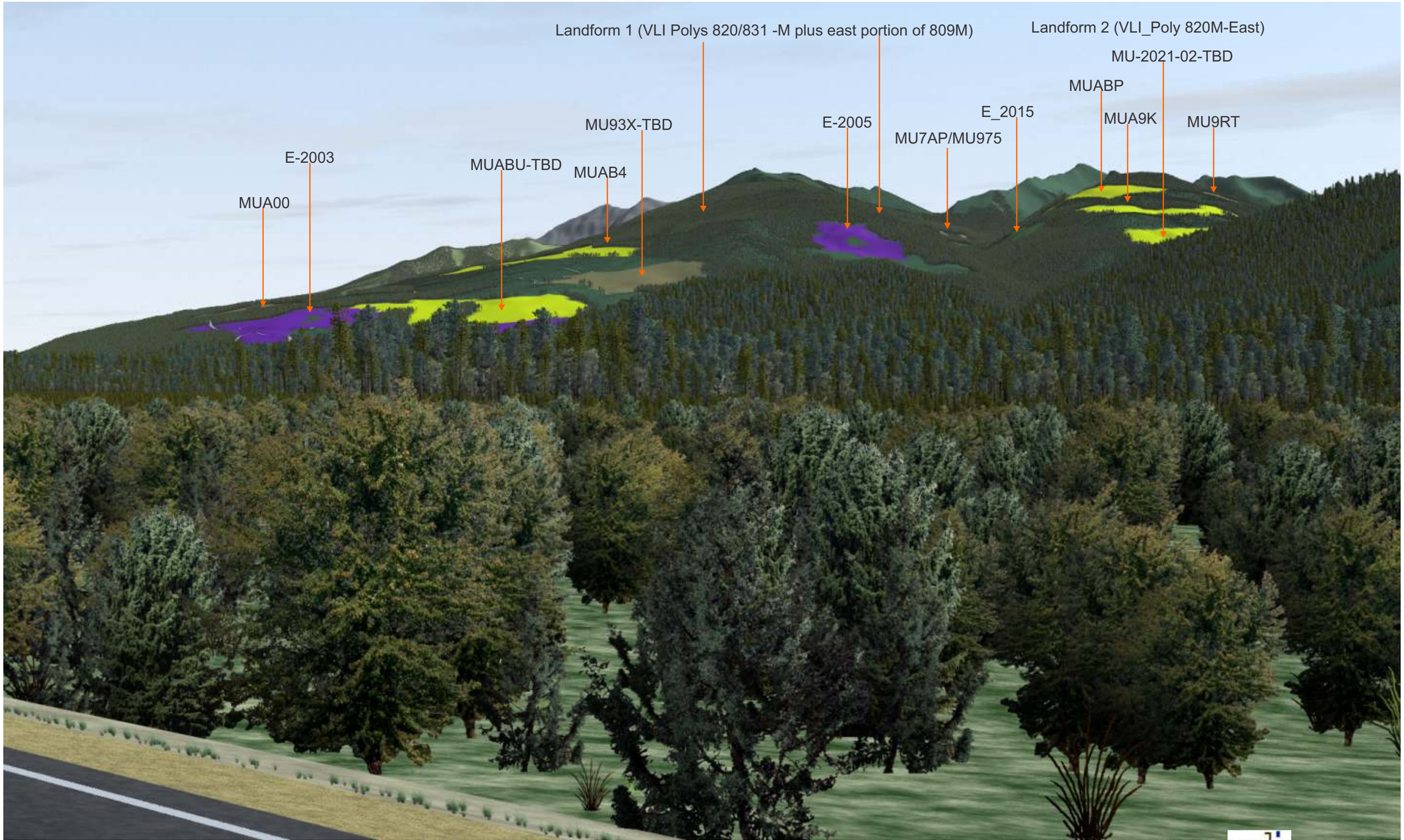


the alteration is very easy to see and is either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics.

40 degree field of view; 48mm lens

Ches #4 Viewpoint

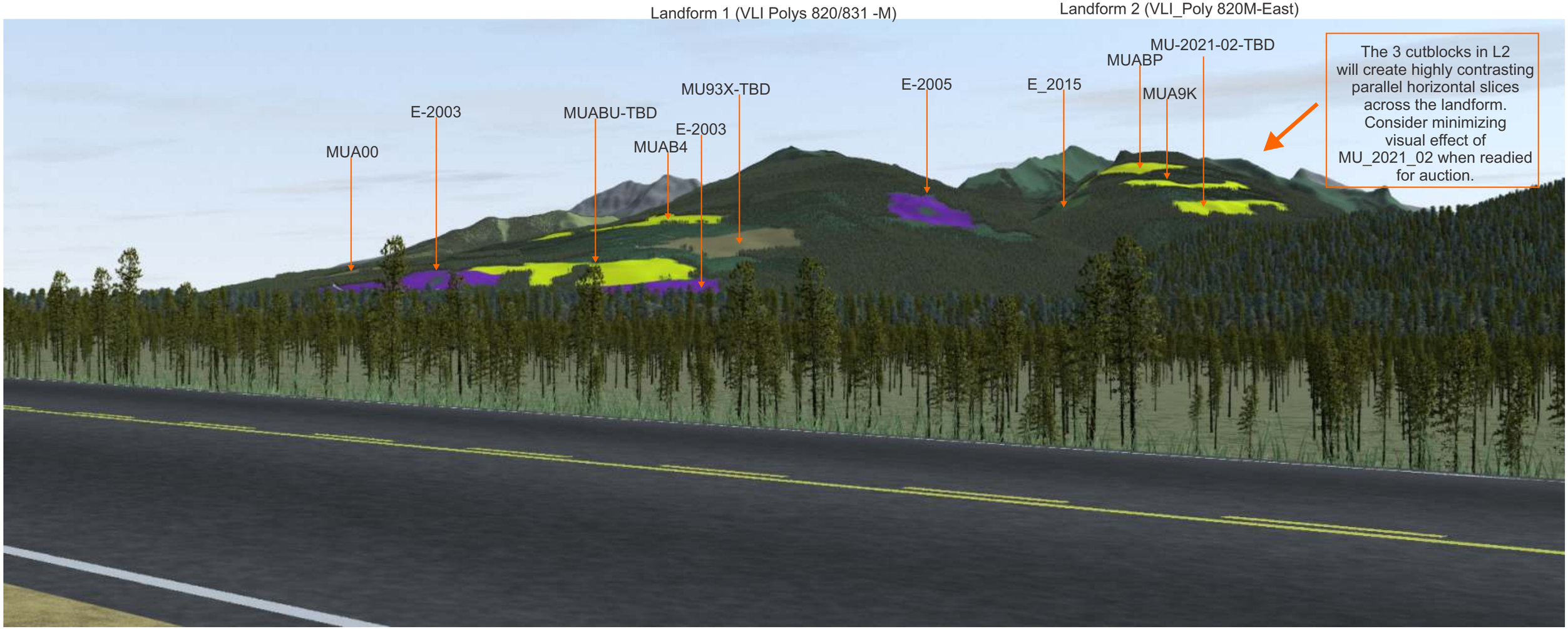
the alteration is very easy to see and is either: (a) large in scale with a design that is na tural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics .



40 degree field of view; 48mm lens

Ches #3 Viewpoint - 800m South of Ches #2

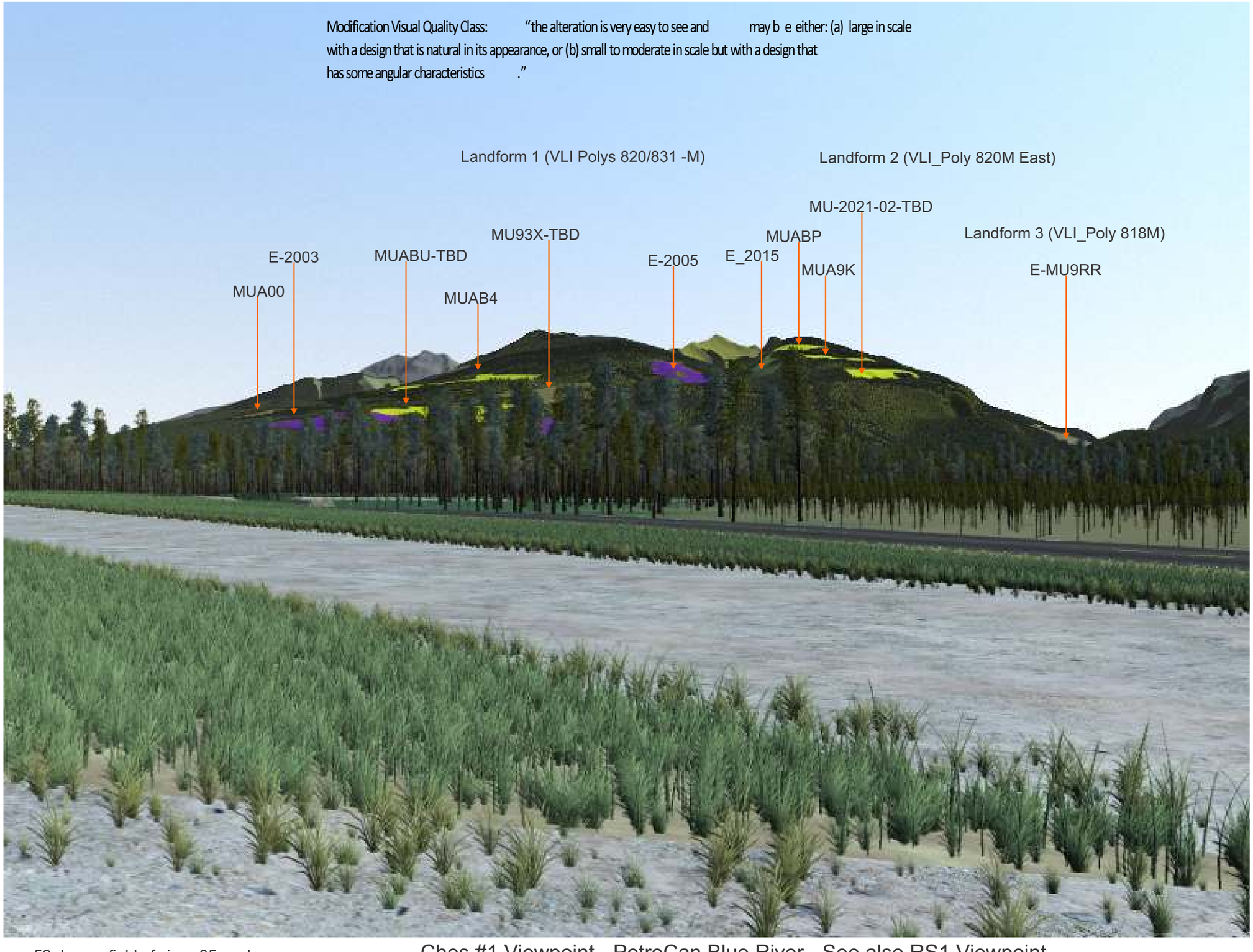
the alteration is very easy to see and is either: (a) large in scale with a design that is na tural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics .



50 degree field of view; 37mm lens

Ches #2 Viewpoint - 1200m South of Ches #1

Modification Visual Quality Class: "the alteration is very easy to see and may b e either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics ."

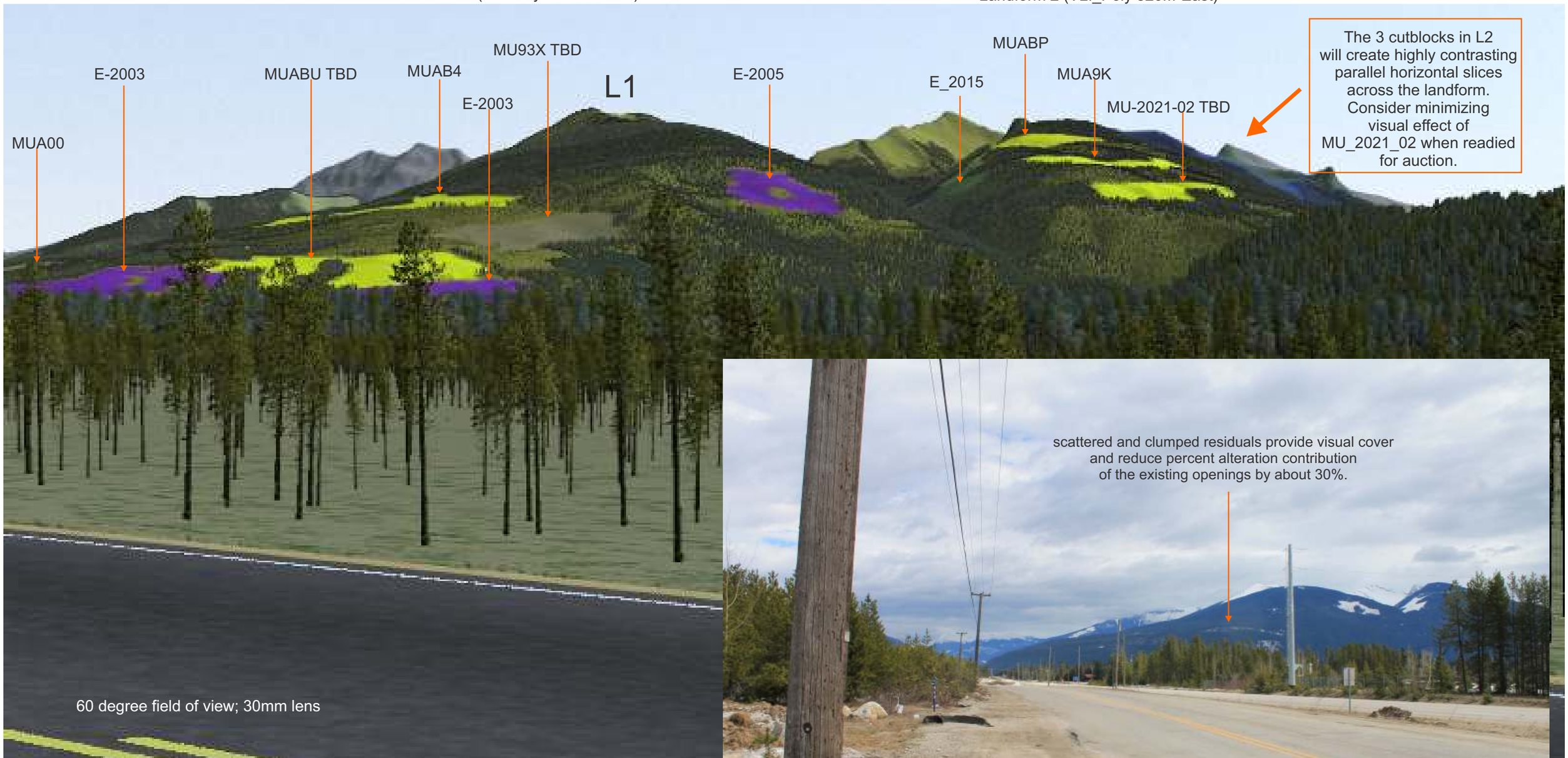


52 degree field of view; 35mm lens

Ches #1 Viewpoint - PetroCan Blue River - See also RS1 Viewpoint

Landform 1 (VLI Polys 820/831 -M)

Landform 2 (VLI_Poly 820M-East)



Landform 1 has a diverse pattern of existing alteration ranging in heights of 1.5m and 2.2m in 2020 and 3.9m to 4.1m in 2020 (adjacent to cutblock MU93X). The areas with the greater heights of revegetation are considered to have achieved Visually Effective Green-up (VEG) or soon will have. The shapes of proposed and exisitng alteration conform with the major visual forces, being the ridge lines, and fits the pattern of diverse alteration in the landform. Landforms 1 and 2 are in far middleground (7.5 km-10km).

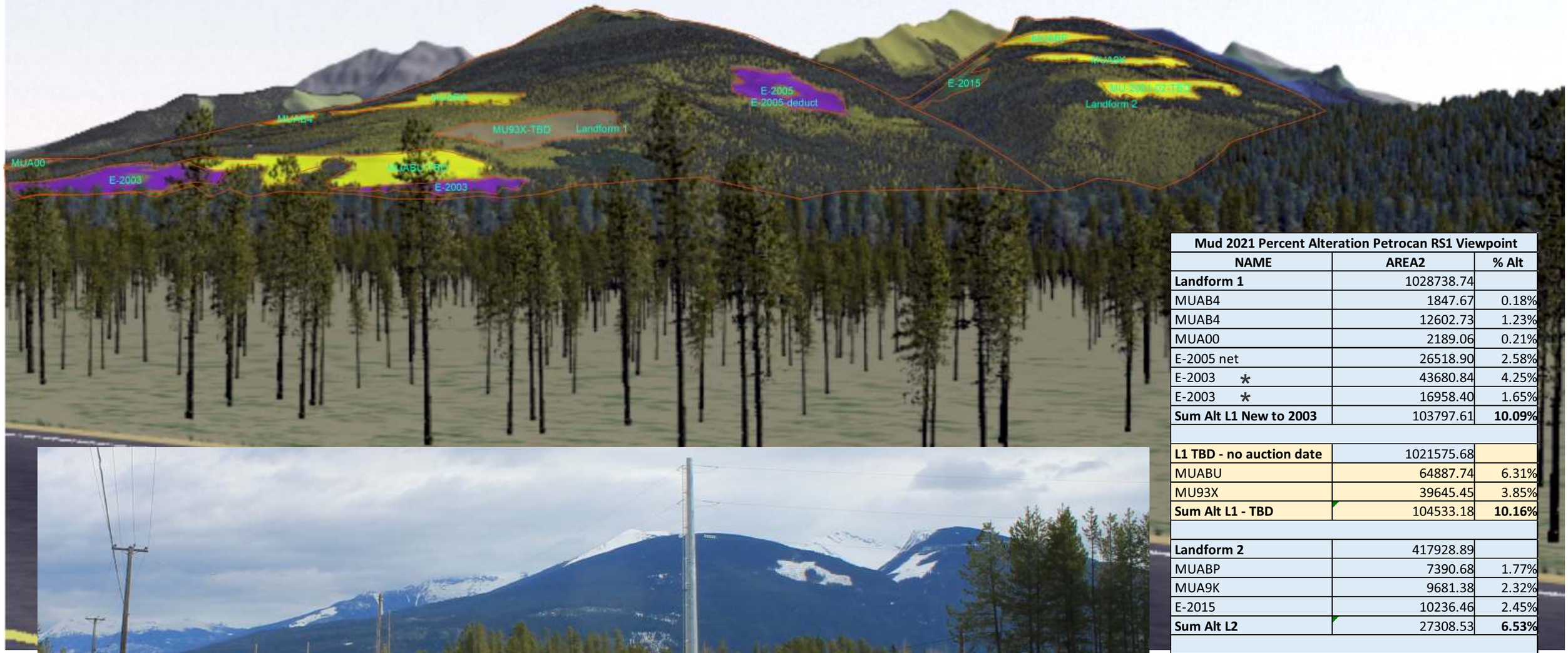
Mud 2021 openings will be seen openly from Blue River. Cutblocks in L1 are 7km to 9km distant, while cutblocks in L2 are 8.5km

RS1 Viewpoint - PetroCan Blue River - See also Ches #1 Viewpoint

MUABU-TBD is very large at 6% alteration of L1
MU93X-TBD is large at 4% alteration in L1

Landform 1 (VSU 820M West+831M)

Landform 2 (VSU 820M East)

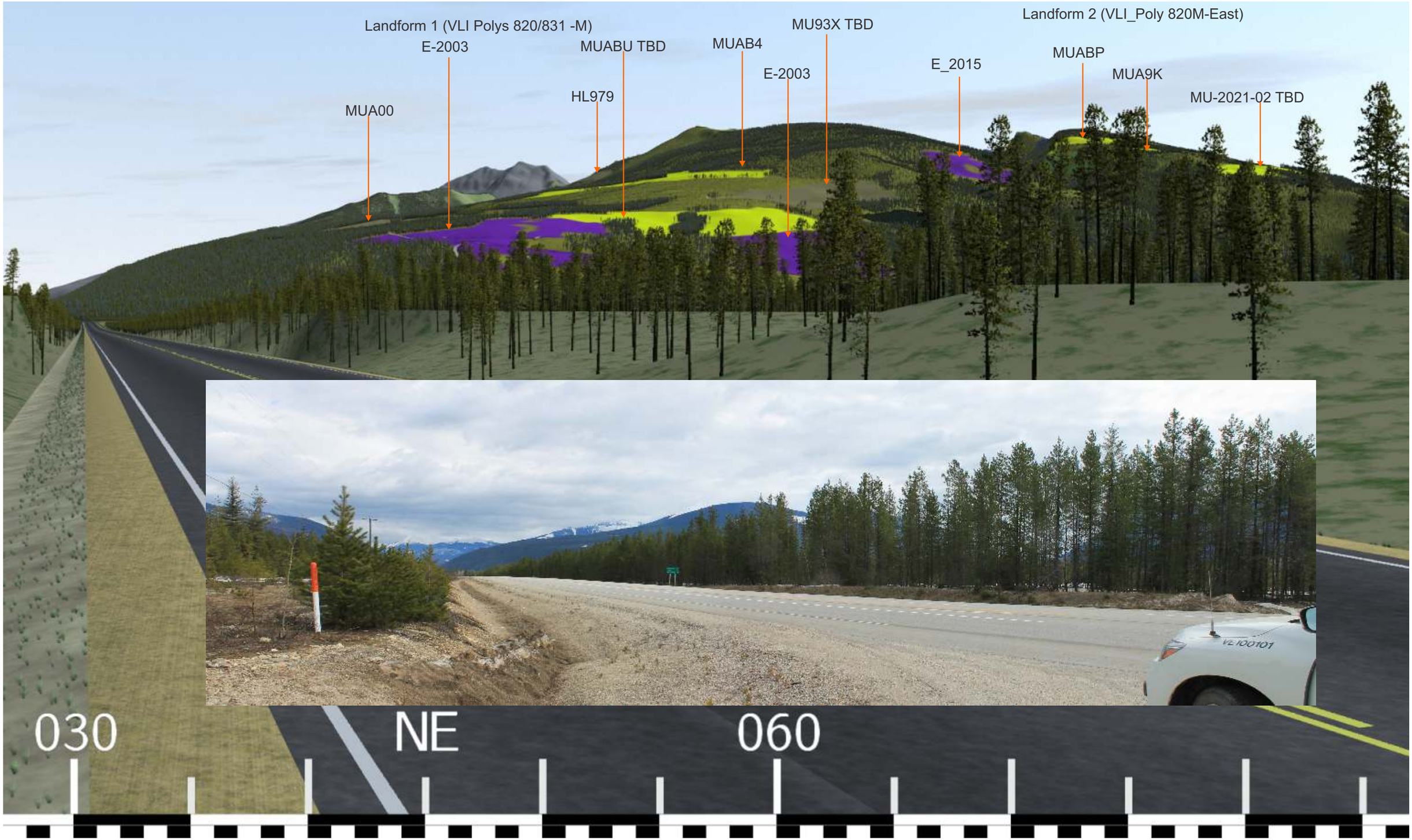


Mud 2021 Percent Alteration Petrocan RS1 Viewpoint		
NAME	**AREA2**	**% Alt**
Landform 1	1028738.74	
MUAB4	1847.67	0.18%
MUAB4	12602.73	1.23%
MUA00	2189.06	0.21%
E-2005 net	26518.90	2.58%
E-2003 *	43680.84	4.25%
E-2003 *	16958.40	1.65%
Sum Alt L1 New to 2003	103797.61	**10.09%**
L1 TBD - no auction date	1021575.68	
MUABU	64887.74	6.31%
MU93X	39645.45	3.85%
Sum Alt L1 - TBD	104533.18	**10.16%**
Landform 2	417928.89	
MUABP	7390.68	1.77%
MUA9K	9681.38	2.32%
E-2015	10236.46	2.45%
Sum Alt L2	27308.53	**6.53%**
L2 TBD - no auction date	417928.89	
MU-2021-02	17861.69	4.27%
Sum Alt L2 TBD	17861.69	**4.27%**

* Note: The existing alteration in both E-2003 openings has approximately 30% scattered and clumped residuals which afford visual cover. Percent alteration attributed to these openings should be reduced by up to 30% of their total contribution of 5.9% (-1.8%). Intervening screening is greater than shown in the VNS model.

E-2003 openings are currently nonVEG with grouped and scattered residuals

RS1 - Mud 2021 - Petrocan Viewpoint Percent Alteration



Photos by Ches Clem 20/04/21
Panorama Construction by RDI

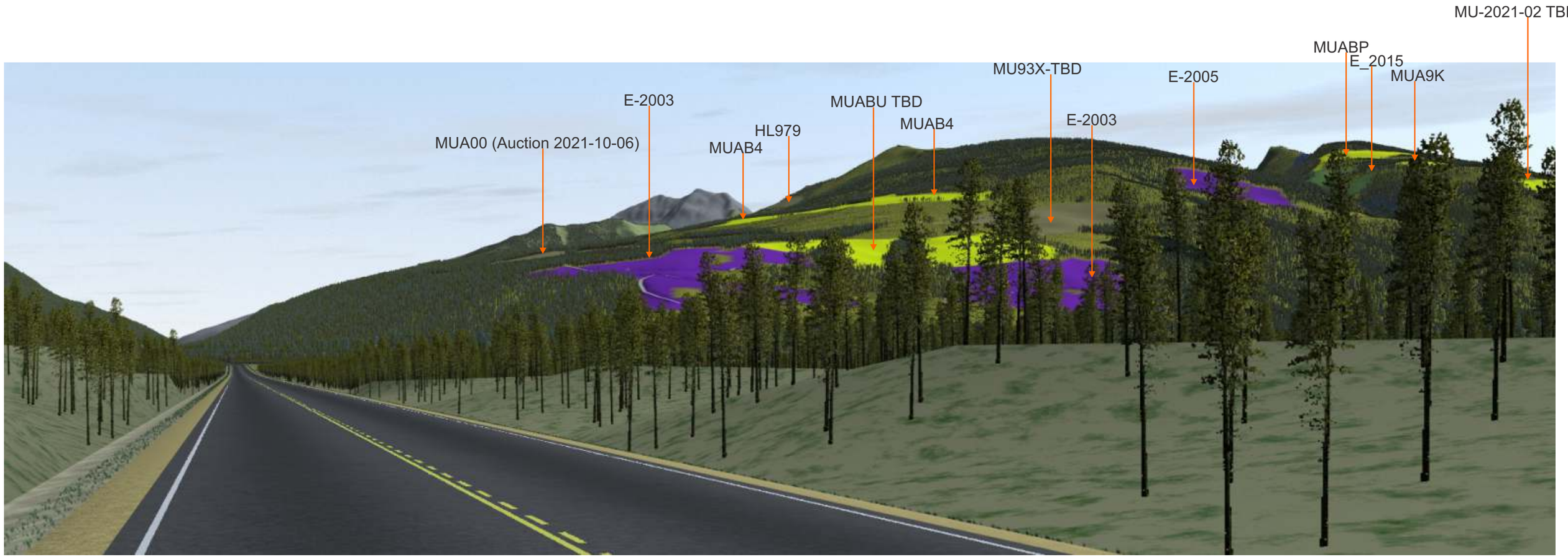
60 degree field of view; 30mm lens

52 07 22.5 119 17 47.4 Blueberry Road JCT with Hwy 5: Photos 9396 to 9401

RS2 Viewpoint - Blueberry Road Junction

Landform 1 (VLI Polys 820/831 -M)

Landform 2 (VLI_Poly 820M-East)



Photos by Ches Clem 20/04/21
Panorama Construction by RDI

60 degree field of view; 30mm lens

RS3 Viewpoint - Pullout #1

Landform 1 (VLI Polys 820/831 -M)

Landform 2 (VLI_Poly 820M-East)

MUA00 (Auction 2021-10-06)

E-2003

HL979

MUAB4

MUABU TBD

MU93X-TBD

E-2003

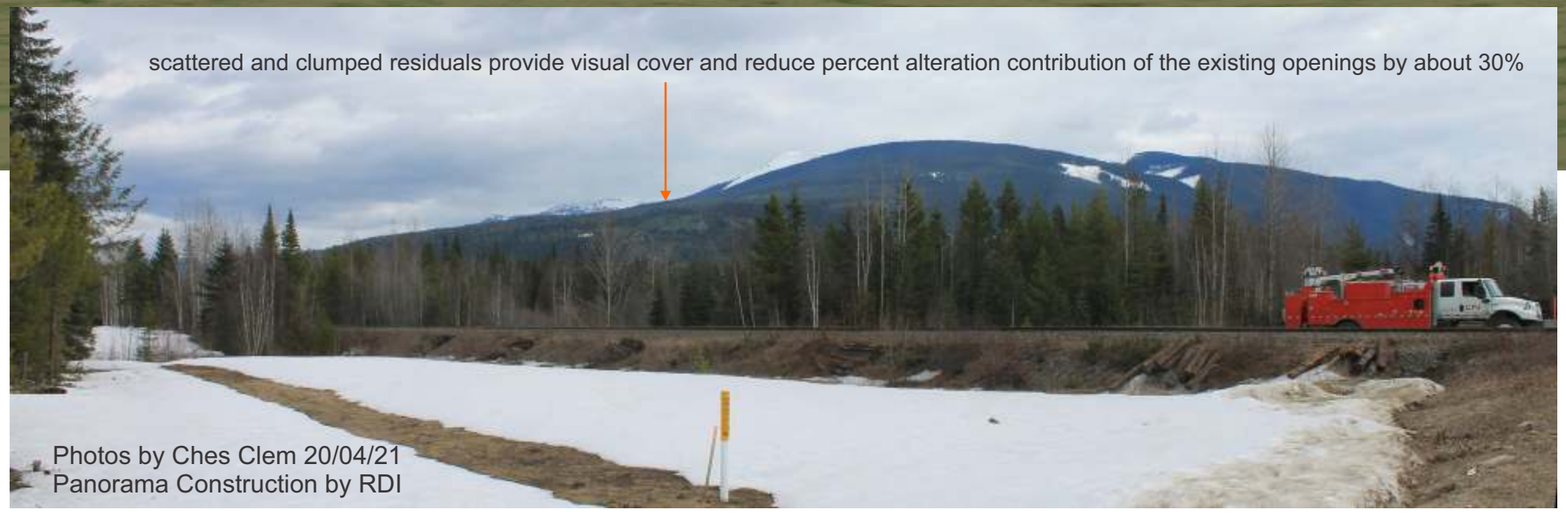
E-2005

MUABP

E_2015

MUA9K

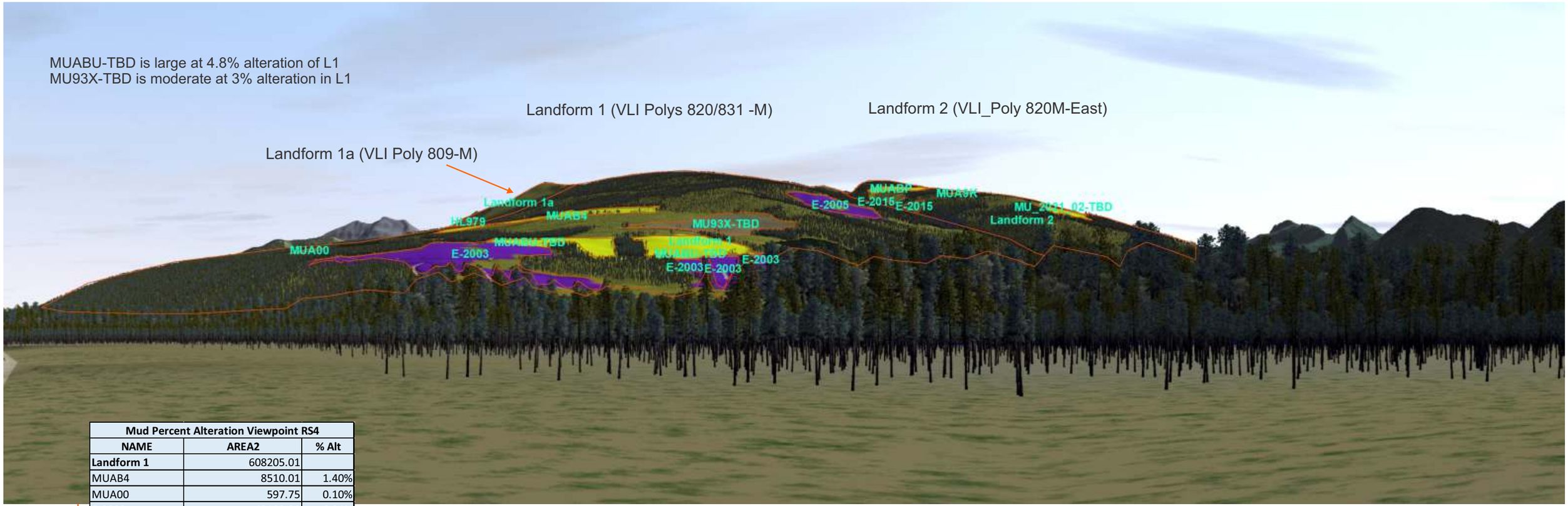
MU-2021-02 TBD



Photos 9407-9409

60 degree field of view; 30mm lens

RS4 Viewpoint Mud FSR at River Safari Turnoff

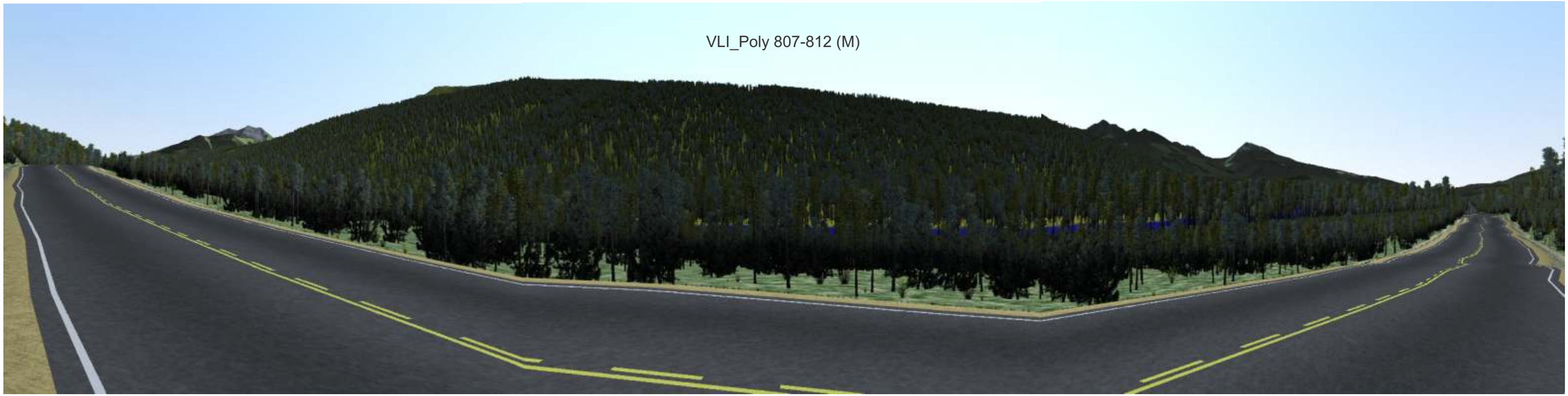


Mud Percent Alteration Viewpoint RS4		
NAME	**AREA2**	**% Alt**
Landform 1	608205.01	
MUAB4	8510.01	1.40%
MUA00	597.75	0.10%
E-2003	42182.30	6.94%
E-2003	2018.87	0.33%
E-2003	5948.67	0.98%
E-2003	560.06	0.09%
E-2005	9177.20	
E-2005 Deduct	564.47	
E-2005 Net	8612.73	1.42%
Sum Alt L1	68430.38	**11.25%**
Landform 1a	13636.95	
HL979	1077.45	7.90%
Sum Alt L1a	1077.45	**7.90%**
Landform 2	106505.52	
MUABP	2434.95	2.29%
MUA9K	357.50	0.34%
E-2015	880.16	0.83%
E-2015	1345.47	1.26%
Sum Alt L2	5018.07	**4.71%**
To Be Determined		
Landform 1	608205.01	
MUABU-TBD	10519.52	1.73%
MUABU-TBD	18751.79	3.08%
MU93X-TBD	18161.64	2.99%
Sum Alt TBD - L1	47432.95	**7.80%**
To Be Determined		
Landform 2	106505.52	
MU_2021_02-TBD	1723.23	**1.62%**

* Note: The existing alteration in the E-2003 openings has approximately 30% scattered and clumped residuals which afford visual cover. Percent alteration attributed to these openings should be reduced by up to 30% of their total contribution of 8.34% (-2.5%). Intervening screening is greater than shown in the VNS model.

RS4 Viewpoint Percent Alteration

No Cutblocks Visible



52 09 54.8N 119 16 01.0 Drive by Hwy 5: photos 9251 to 9256

60 degree field of view; 30mm lens

RS5 Viewpoint Drive-By #1

No Cutblocks Visible

Photos by Ches Clem 2020/01
Panorama Construction by RDI

52 10'17.7N 119 15'31.1 W Drive by Hwy 5: photos 9243 to 9249

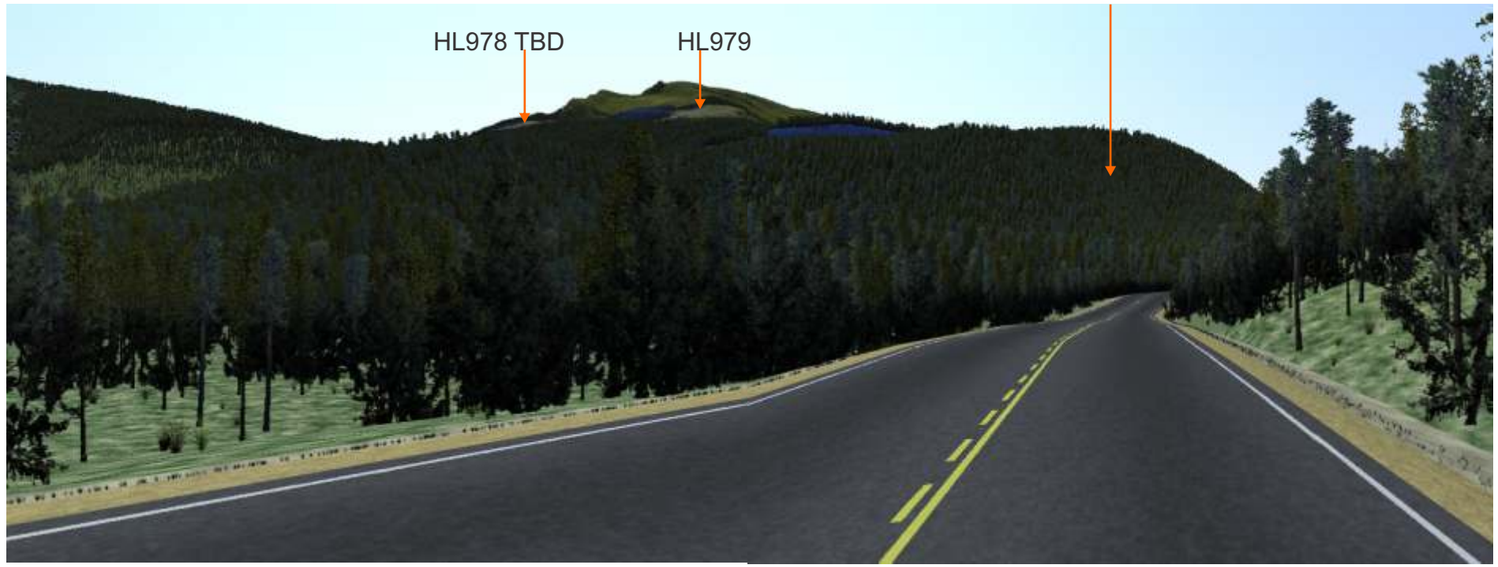
RS6 Viewpoint Drive-By #2

Landform 1A VSU 809M)

VLI_Poly 807-812 (M)

HL978 TBD

HL979



Landform 1a (VSU 809M)

Landform 1A VSU 809M)

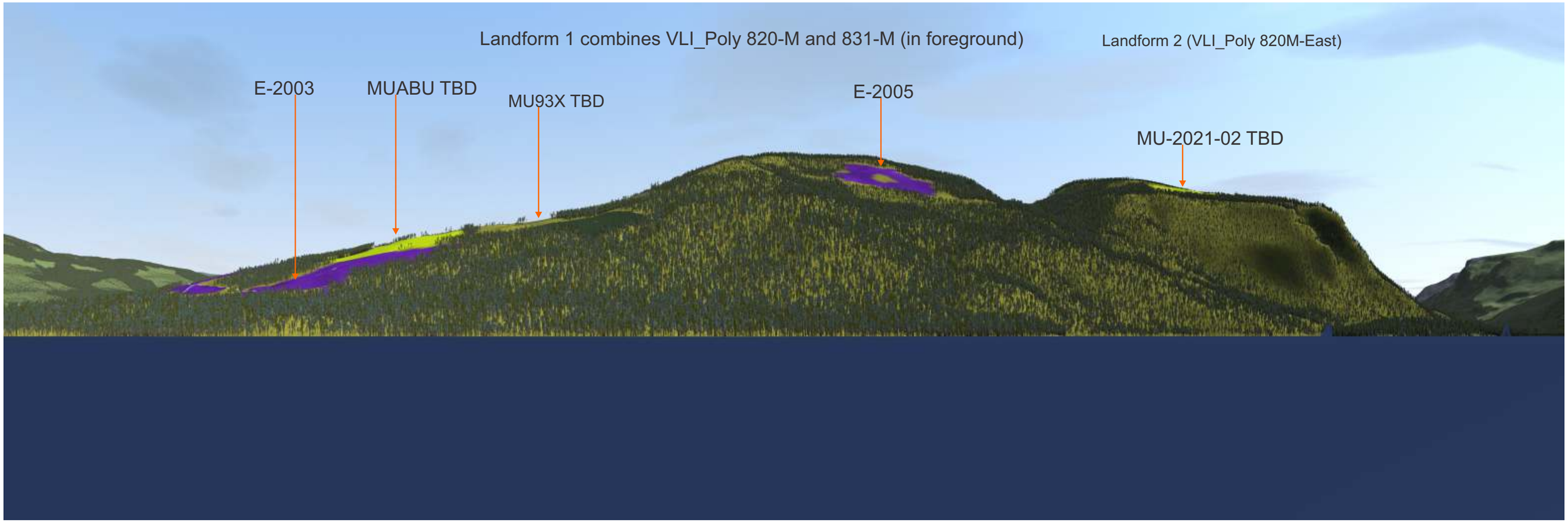
VLI_Poly 807-812 (M)

Area of Interest

Photos by Ches Clem 20/06/19
Panorama Construction by RDI

60 degree field of view; 30mm lens

RS7 Viewpoint determined by RDI

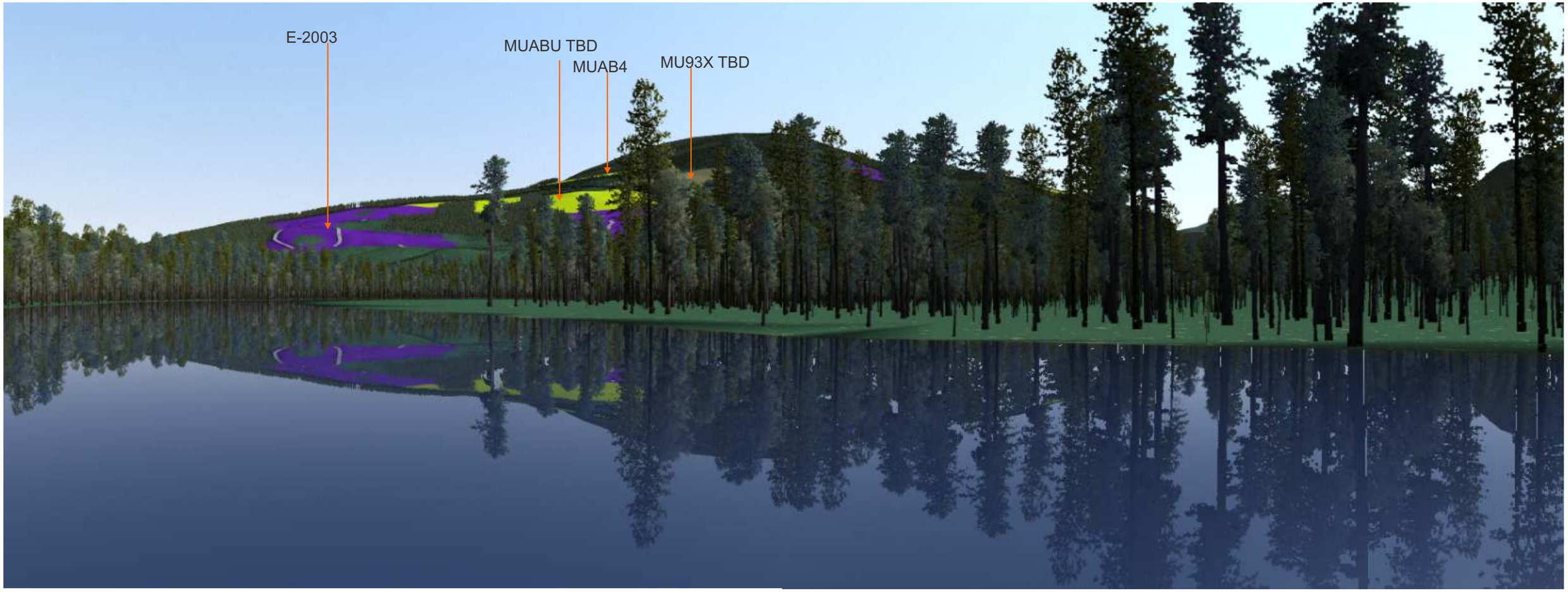


MUABU TBD and MU93X TBD are small and well-shaped, conforming with the major visual force line delineating Landform 1 - the skyline ridge. The new cutblocks fit in well with the existing alteration pattern, meeting Modification Category of Visual Alteration in the landform comprised of both VLI_Polys 820 and 831.Cutblocks are 2.5 km distant from the viewpoint (near middleground). MU2021_02 TDB is a narrow sliver along the ridgeline of Landform 2, 3.3km from the viewpoint.

60 degree field of view; 30mm lens

Mud Lake Viewpoint 6

Landform 1 (VLI Polys 820/831 -M)

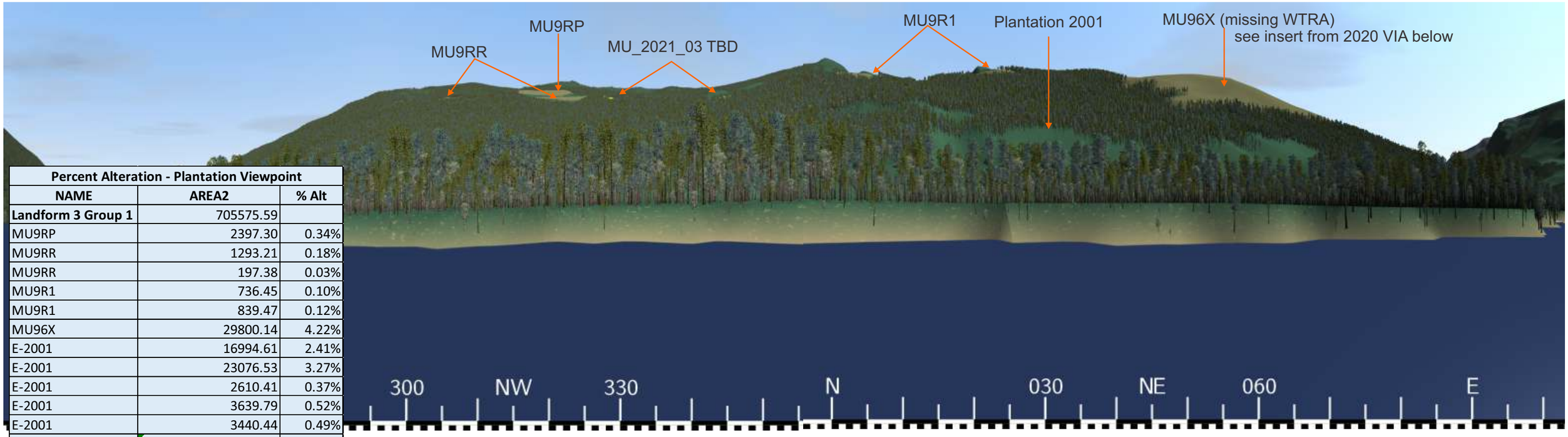


Modification Visual Quality Class: "the alteration is very easy to see and may be either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics."

60 degree field of view; 30mm lens

Boat Dock Viewpoint

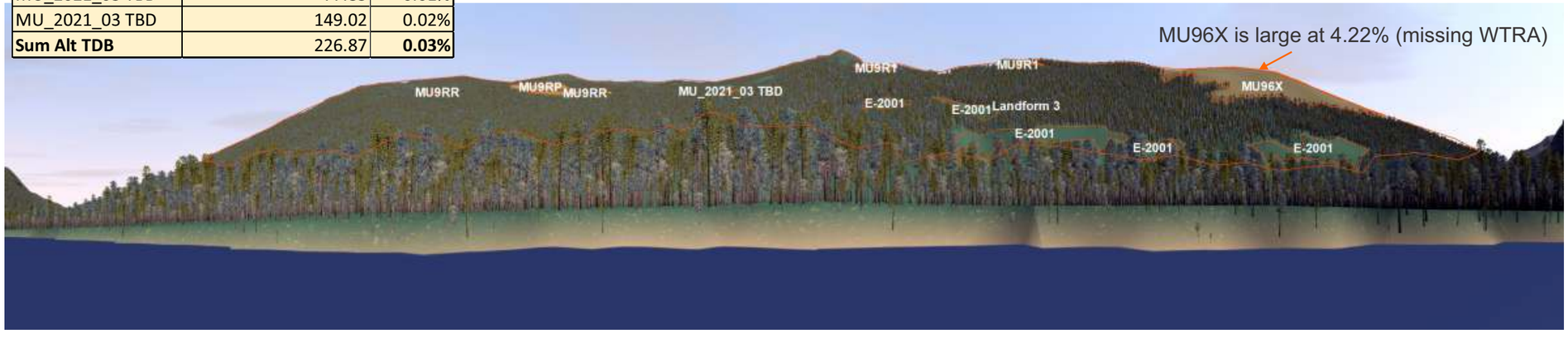
Landform 3 (VLI Poly 818 plus unrated NVS-M)



Percent Alteration - Plantation Viewpoint		
NAME	**AREA2**	**% Alt**
Landform 3 Group 1	705575.59	
MU9RP	2397.30	0.34%
MU9RR	1293.21	0.18%
MU9RR	197.38	0.03%
MU9R1	736.45	0.10%
MU9R1	839.47	0.12%
MU96X	29800.14	4.22%
E-2001	16994.61	2.41%
E-2001	23076.53	3.27%
E-2001	2610.41	0.37%
E-2001	3639.79	0.52%
E-2001	3440.44	0.49%
Sum E-2001	49761.78	7.05%
Sum Alt	85025.74	**12.05%**
Note: E-2001 may be VEG		
TBD Group 2		
MU_2021_03 TBD	77.85	0.01%
MU_2021_03 TBD	149.02	0.02%
Sum Alt TDB	226.87	**0.03%**

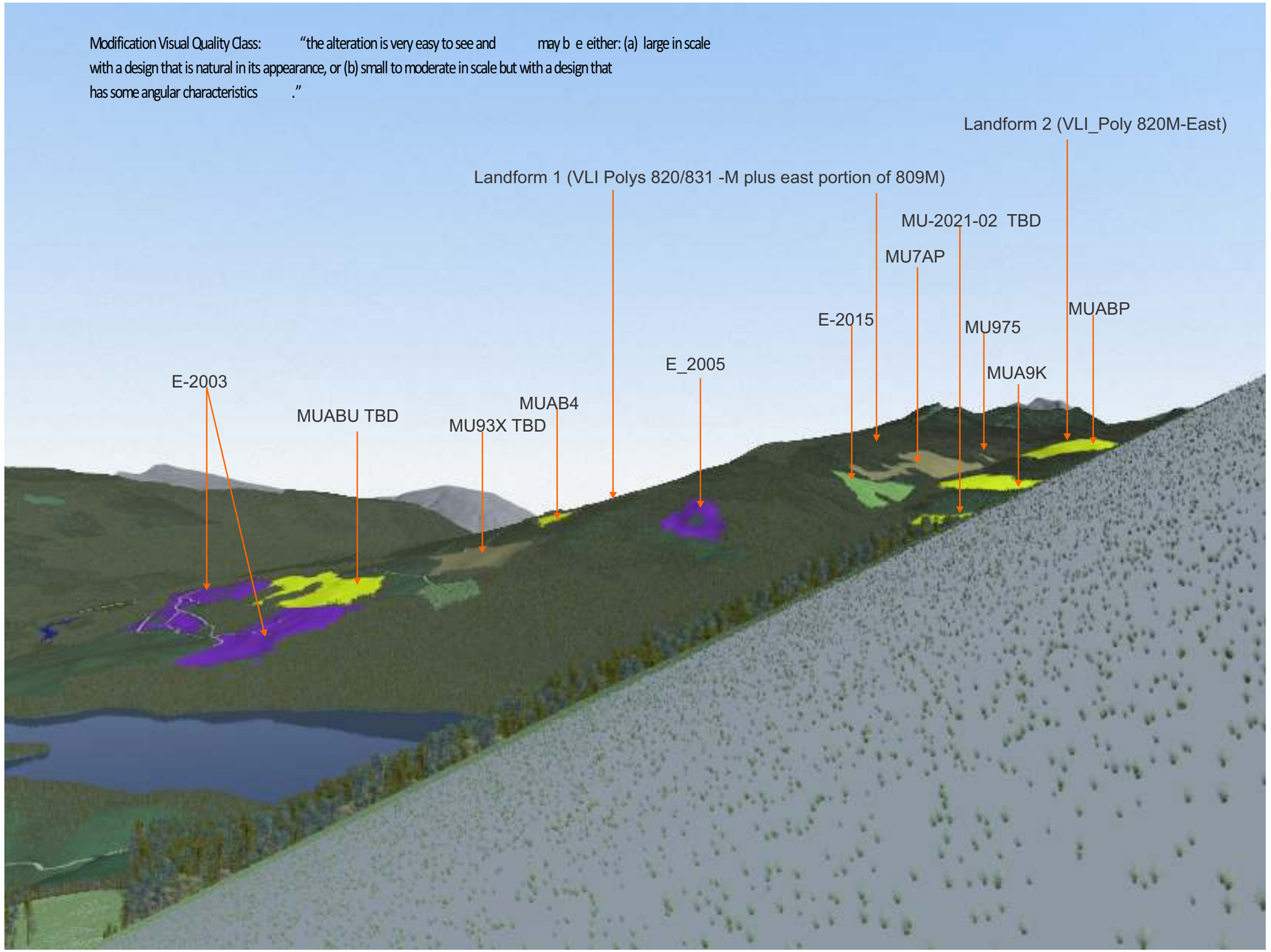
Modification Visual Quality Class: "the alteration is very easy to see and may b e either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics ."

MU96X is improved with WTRA as presented in the 2020 VIA)



Upper Mud River Plantation Viewpoint Simulation and Percent Alteration

Modification Visual Quality Class: "the alteration is very easy to see and may b e either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics ."



60 degree field of view; 30mm lens

Wiegele Ski Run Trial Viewpoint