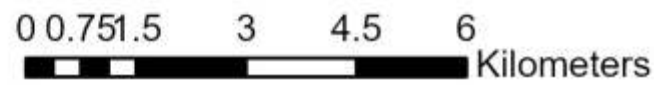


BCTS Mahood East Operating Area  
 Visual Impact Assessment  
 TA1873, TA1874, TA1875, TA1449  
 Produced by  
 RDI Resource Design Inc  
 January, 2023

- Roads
- Other\_Blocks
- Proposed\_Blocks
- Reserves
- 3rd\_Canyon\_Pulout
- White\_Horse\_1\_VP
- Mackenzie\_VPs
- April\_9\_2021\_MZAAC\_MZAAX\_Roads
- H2005\_road
- DL7UU\_2012
- Dec\_15\_Existing\_Cutblocks
- Dec\_6\_2021\_Mahood\_East\_Existing\_Cutblocks
- December\_6\_2021\_Mahood\_East\_Blocks
- DL7AX\_E
- April\_9\_2021\_MZAAC\_MZAAX\_WTRA's
- Dec\_15\_Existing\_WTRA
- Dec\_15\_Proposed\_Roads
- A95985\_Roads
- 14-DL7SM\_Roads
- A95985\_MZ9FA\_WTRA
- 14-DL7SM\_WTRA\_JIP
- 14-DL7SM\_Block

- New Blocks Visible from Viewpoint
- No New Blocks Visible from Viewpoint



# Contents

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5	White Horse Bluffs 1 Viewpoint Percent Alteration Analysis
6	Bluffs 1 Close-up, Visual Force Analysis
7	White Horse Bluffs 2 Viewpoint Simulations and Photos
8	Clearwater Valley Road Viewpoint 21 Simulation and Photo
9	Mahood Lake Viewpoint 13 Simulation

**Introduction**

RDI was requested on December 1, 2022 to conduct a Visual Impact Assessment (VIA) of the nine proposed Mahood East cutblocks in TA1873, TA1449, TA1875 and TA1874. The request, under contract PD23TEB097, was made by Brad White, RPF, Planning Forester and Contract Administrator, BC Timber Sales, Kamloops Business Area, Thompson Okanagan Region, Ministry of Forests. A data link was provided which included the proposed cutblocks, existing cutblocks, WTRA's and proposed roads. As Brad soon after went on leave, his responsibilities with regards to this project were assigned to Clayton Franz, BCTS Planning Forester, 250-378-0529. RDi has had involvement producing visibility studies and VIAs for the Mahood East and Mackenzie Operating Areas since 2020. All but TA1874 were previously assessed in 2021. The reports are linked on the RDI website under the "VIAs" tab (<https://rdi3d.ca/visual-impact-assessment>). Scroll down to the BCTS section, and find by set number and listing position:

- Set 5
- 5th listing: Mahood VIA October, 2020,
- 6th listing: Mackenzie VIA May, 2021.
- Set 6
- 1st listing: Mackenzie VIA May, 2021 (containing TA1873 and TA1449 blocks),
- 2nd listing: Mahood VIA June, 2021 (containing the original TA1874-1875 block assessment), and
- 7th listing: Mahood East VIA December Final 2021 (containing MZAAX and ME blocks).

The 2021 Mahood East "final" examined the area from two White Horse Trail viewpoints as indicated on the cover map. These were also assessed in this plan, but with emphasis on the trail start viewpoint 1. The 2021 analysis grappled with the intermixed VSUs 144 and 145 along the western ridge (far right from the Bluffs viewpoints) and opted to expand VSU 145 PR to cover the fragments of VSU 144 M. The present analysis leaves the VSUs unchanged, but with recommendations as to their treatment.

**Procedures**

RDI entered the new data into the existing ArcMap and Visual Nature Studio models for Mahood East. The ArcMap project was converted to ArcGIS Pro. Full panoramic simulations were produced from White Horse Bluffs 1, and single views were produced from Bluffs 2, Clearwater Valley Road (VP 21), and from Mahood Lake VP 13. Bare land simulations were also produced, coloured by Visual Sensitivity Unit. These assisted in determining the placement of the blocks and also enabled observations of the structure of the terrain to assist visual force analysis. The new cutblocks will sit partly within VLI\_POLYGO 913 / VSU 144 (M VQO), central in the view from the Bluffs 1 viewpoint, VLI\_POLYGO 914 / VSU 145 (PR VQO), at the western (right) edge of the landform, and in VLI\_POLYGO 931 / VSU 166 (M VQO) to the south-east (left) (see key map on page 1). VSUs 144 and 145 are inter-mixed, with VSU 145 only a minor element containing 2 of the cutblocks visible from the Bluffs viewpoint: MWA9A and MWA98. The remaining two cutblocks in that VSU are non-visually sensitive (NVS), i.e. not visible from the viewpoint (MWAA4, MWA8M). The photos from the Bluffs viewpoints were provided by Ches Clem, the prior contract administrator.

Percent Alteration calculations were produced from White Horse Bluffs 1 only. Bluffs 2 provided a narrowed view perspective and was foregone for such analysis, as was recommended in the 2021 analysis. No new alteration could be seen from the simulations produced from VP 21 on the valley road, and only a tiny glimpse of one of the new cutblocks is likely to be seen from Mahood Lake VP 13. The linework and calculations are presented on the White Horse Bluffs viewpoint Percent Alteration page (p. 5) of this report. The simulations for the other two viewpoints are presented on their respective analysis pages in this report (Pages 8 and 9). A summary of cutblock visibility is presented as Table 1 on this page.

**Findings and Conclusions**

The Clem photography from Bluffs 2 indicates open viewing opportunity towards TA1874 and TA1875 as to the effect of foreground screening. RDI chose to find the most open viewing opportunity for the analysis. Intervening trees may obscure some or all of the blocks in TA 1874 and 1875, depending on specific viewing location. Also seen are ME\_2021\_05, ME\_2021\_03 and a glimpse of ME\_2021\_04 on the ridgeline from this vantage point, as well as existing non-visually- effective greenup (nonVEG) alteration from the years 2015 to 2021. The ME blocks were assessed in the December 2021 VIA listed above (Set 6, listing 7). Viewing distance to TA1874 and TA1875 from the Bluffs is mid-ground (4.1km to nearest edge of MWAA2). Viewing distance to MZAAC is 7.1km (far midground). Viewing distance from the lake viewpoint to MWAAZ is 10.6km (background). Viewing distance from VP 21 on the road to MZAAX and MZAAC would be 5.4km (MG) if they were visible.

The TA1874 and TA1875 group of cutblocks on the right-hand side of the landform possesses shape and pattern respectful of visual forces with their undulating shapes along with leave areas providing connection through the blocks, and WTRAs within (see close-up, p. 6). The ME blocks along with existing alteration are more strongly geometric and could benefit by the addition of WTRAs and possible boundary re-shaping, if appropriate (see RDI's 2021 report. Those blocks are not scheduled for harvesting until 2026. With associated nonVEG existing alteration, total Percent Alteration of the VLI\_POLYGO 913 / VSU 144 is predicted to be 3.18%, well below the Modification Visual Quality Class (7.1% to 18.0%). See page 5 for the detailed Bluffs Percent Alteration Table. The Modification category of Visually Altered Forest allows for alteration that is very easy to see, and is a) large in scale and natural in appearance, or b) small in scale but with some angular characteristics.

As presented in Table 2 and in detail in the Percent Alteration Table on page 6, the blocks in VSU 145 together exceed the limit of PR at 12.78% within this 1.9km-wide portion (18.6% of the VSU which spans 10.2km in total width). RDI recommends a merging of this visible edge of VSU 145 with VSU 144, the result being 3.23% alteration within the low range of Partial Retention Visual Quality Class.

MZAAC will introduce 1.52% well-shaped alteration in VSU 166 in left distance, 6.8km from the Bluffs. MZAAC is a small pinpoint of visibility from Bluffs 1, and remains unseen from any other viewpoint. No new alteration was predicted to be seen from the simulations produced from VP 21 on the valley road, and only a tiny glimpse of MWAAZ is likely to be seen from Mahood Lake VP 13.

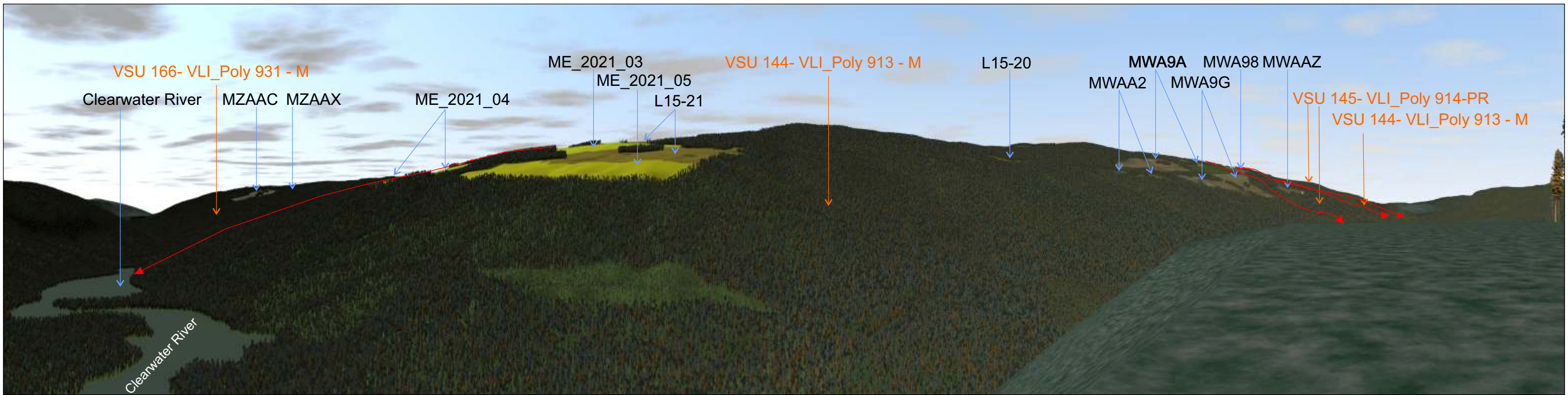
VLI	Licence	Block	White Horse Bluffs VP	Clearwater Valley VP21	Mahood Lake VP13
VLI 913 / VSU 144 M	TA1874	MWAAZ	V		V (minor)
		MWAA2	V		
		MWA9G	V		
VLI 914 / VSU 145 PR	TA1875	MWA9A	V		
		MWA98	V		
		MWAA4	NVS		
		MWA8M	NVS		
VLI 931 / VSU 166 M	TA1873	MZAAC	V	NVS	
	TA1449	MZAAX	V (pinpoint only)	NVS	

Best case (most open potential viewing opportunity) presented from Bluffs viewpoint. Visibility of TA 1874 and 1875 blocks may be obscured by intervening trees depending on specific viewing location.

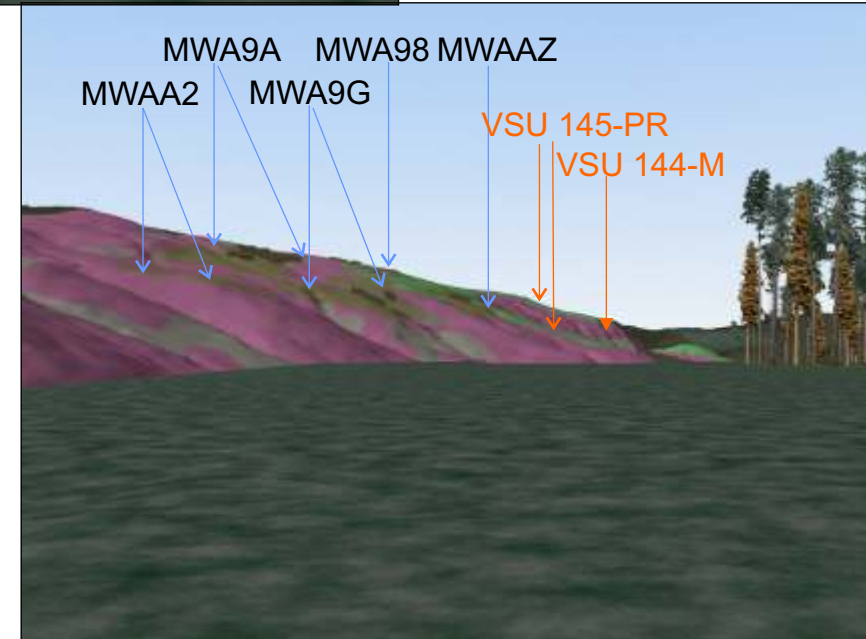
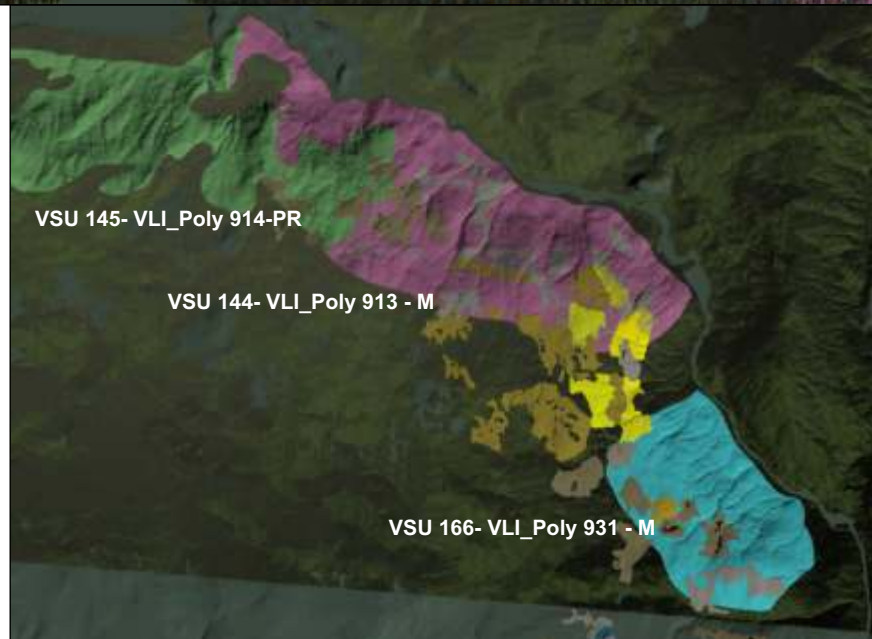
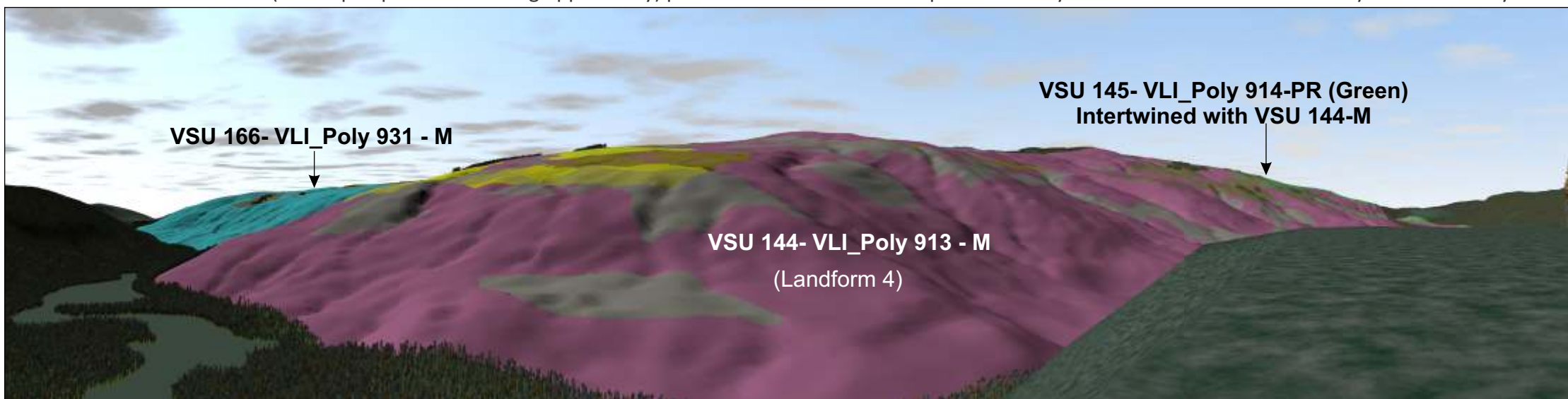


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January 15, 2023

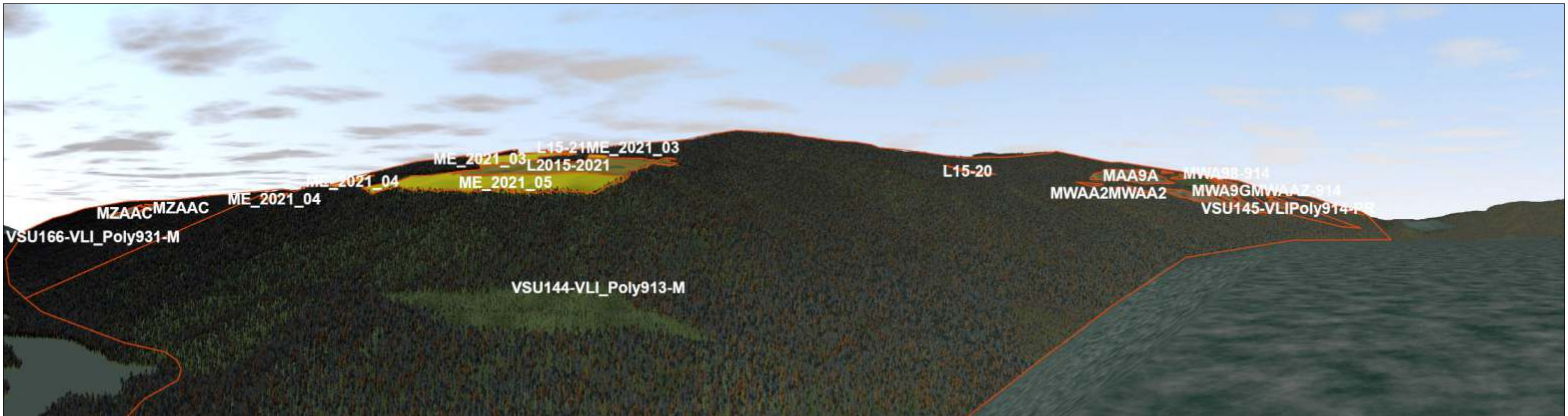
VSU	%Alt
166 M	1.52%
144M	3.18%
145PR	12.78%
144+145 merged*	3.23%
<b>*VSU merging recommended</b>	



Best case (most open potential viewing opportunity) presented from Bluffs 1 viewpoint. Visibility of TA 1874 and 1875 blocks may be obscured by intervening trees depending on specific viewing location.

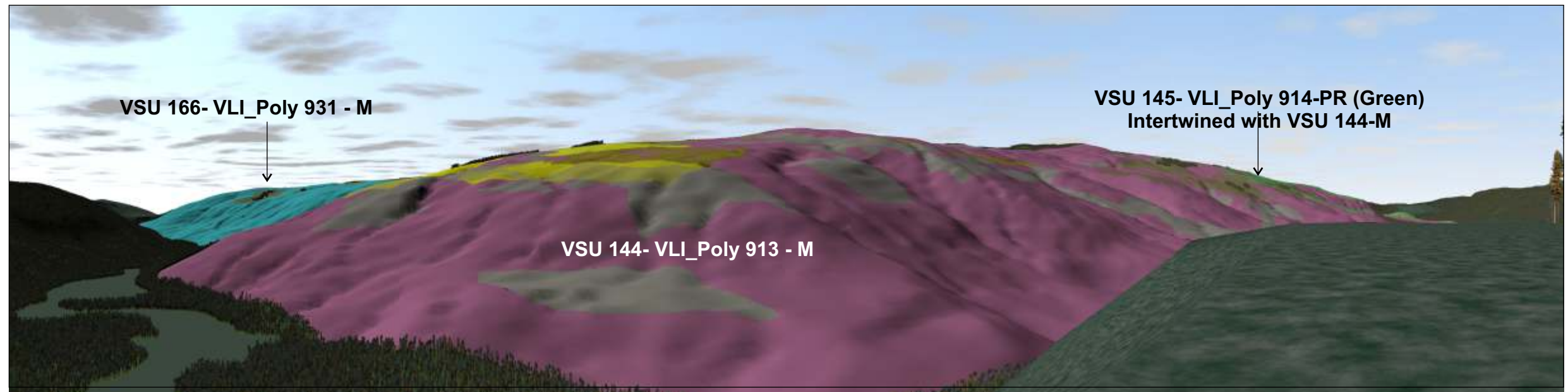


White Horse Bluffs 1 (Trail Start)



Best case (most open potential viewing opportunity) presented from Bluffs Viewpoint 1. Visibility of TA 1874 and 1875 blocks may be obscured by intervening trees depending on specific viewing location.

Percent Alteration Mahood East - Bluffs Viewpoint		
NAME	AREA2	%Alt
VSU166-VLI_Poly931-M	86458.14	
MZAAC	1314.869	1.52%
MZAAX (NVS)	2.964914	0.00%
<b>Sum Alt VSU166 M</b>	<b>1317.83</b>	<b>1.52%</b>
VSU144-VLI_Poly913-M	2171399	
L15-20	578.608	0.03%
MWAA2	387.7662	0.02%
MWAA2	99.98285	0.00%
MWAA2	486.0383	0.02%
MWA9A	5849.947	0.27%
MWA9A WTRA Deduct	428.6337	
MWA9G	6956.99	0.32%
MWA9A	103.9746	0.00%
MWA9A	337.901	0.02%
MWA9G WTRA Deduct	194.055	
ME_2021_04	649.8075	0.03%
ME_2021_04	314.1406	0.01%
ME_2021_05	28845.14	1.33%
ME_2021_03	424.9061	0.02%
ME_2021_03	4530.276	0.21%
L2015-2021	19184.04	0.88%
L15-21	290.3711	0.01%
<b>Sum Alt VSU144 M</b>	<b>69039.89</b>	<b>3.18%</b>
VSU145-VLIPoly914-PR	12303.59	
MWAAZ-914	1020.441	8.29%
MWA98-914	551.4637	4.48%
<b>Sum Alt VSU 145</b>	<b>1571.905</b>	<b>12.78%</b>
<b>Sliver of VSU 145 not valid for measurement - see combined results</b>		
VSU 144+145 Combined	2183703	
<b>Sum Alt Combined</b>	<b>70611.8</b>	<b>3.23%</b>

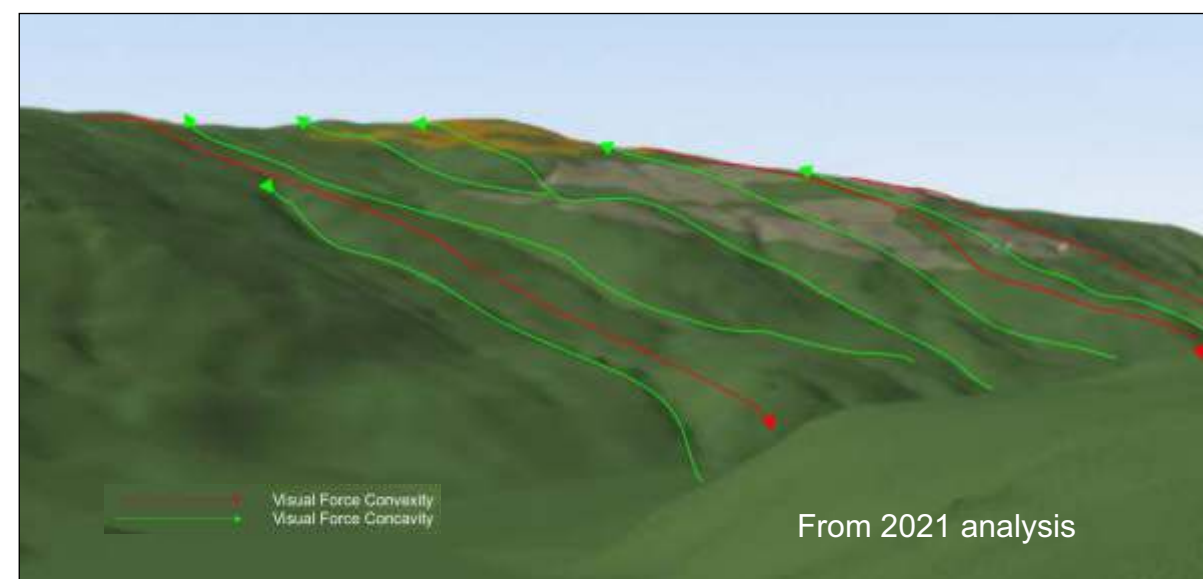


The proposed and existing cutblocks form cohesive patterns on the upper portion of the landforms, in scale with the existing greened-up openings lower down, and conform with the main visual forces of the landforms.

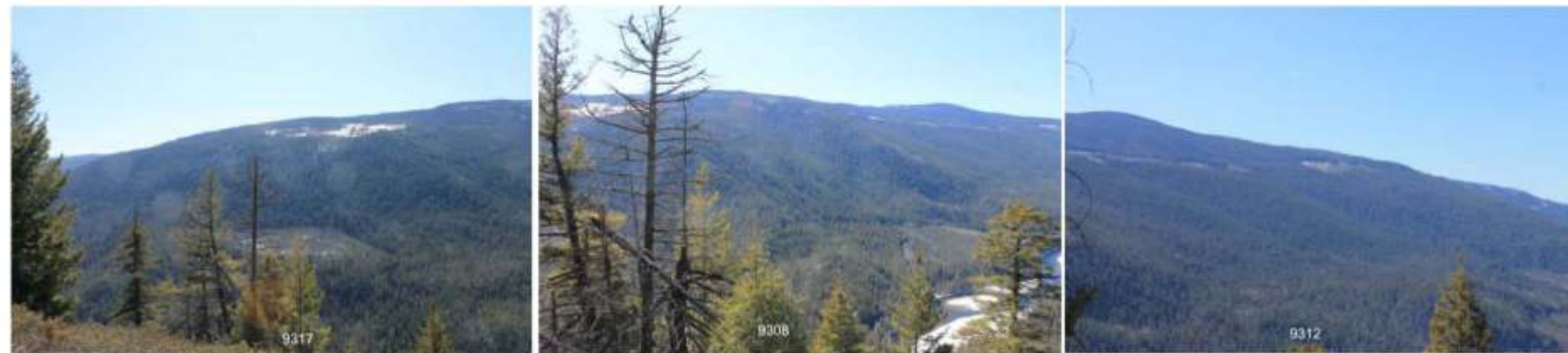
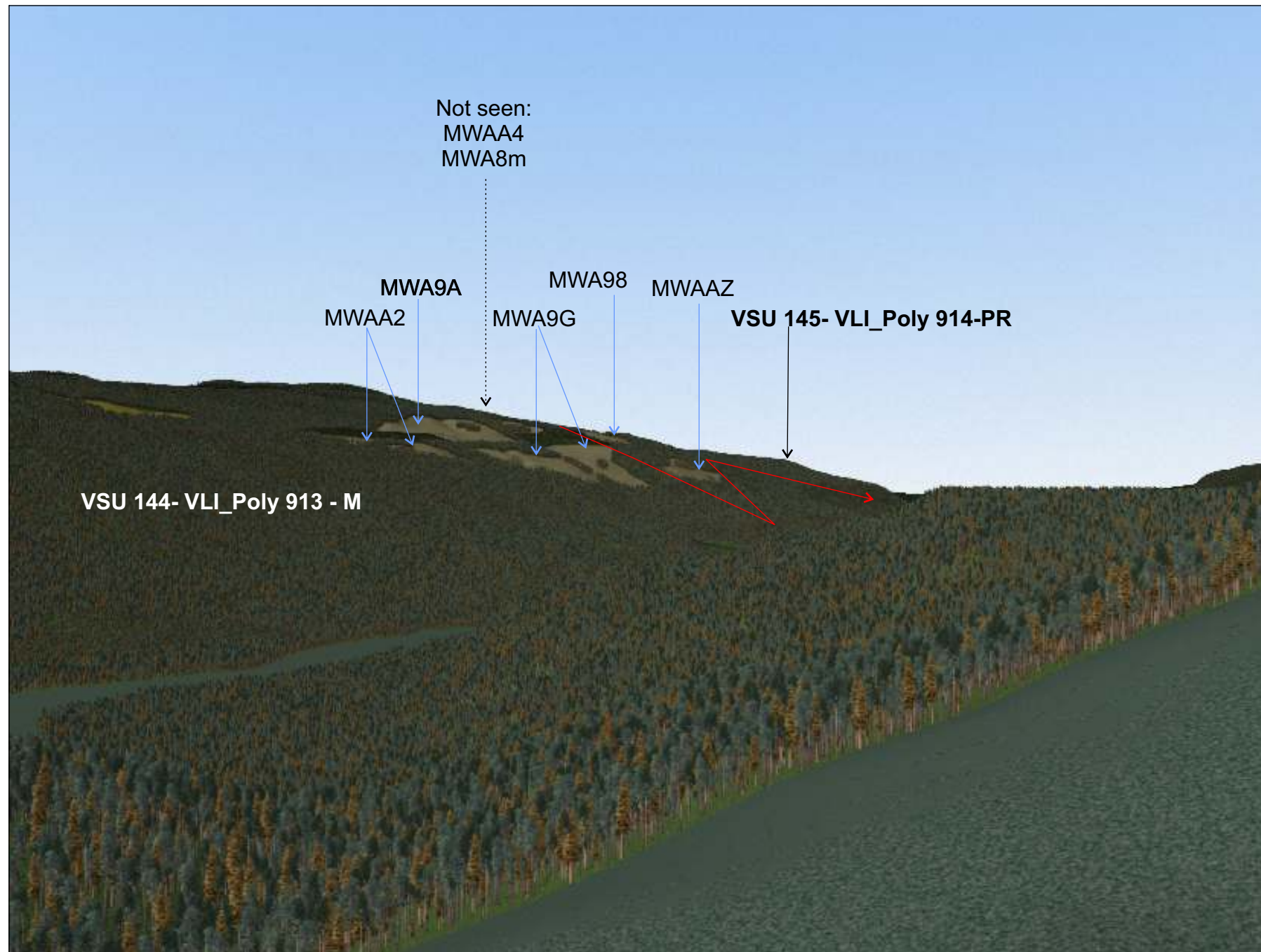
The PR Percent Alteration limit is exceeded within the small component of VSU 145 on the right side of the landform, due to the contribution of MWAAZ and MW898.

However, the much larger part of the VSU is obscured further around the ridgeline with only fingers of the unit interspersed with VSU 144 (M).

The VSU 145 measure should be discarded from this analysis point, or better, merged with VSU 144 as part of the single landform with the total being 3.23%, well within the range of Partial Retention (1.5% to 7.0%).



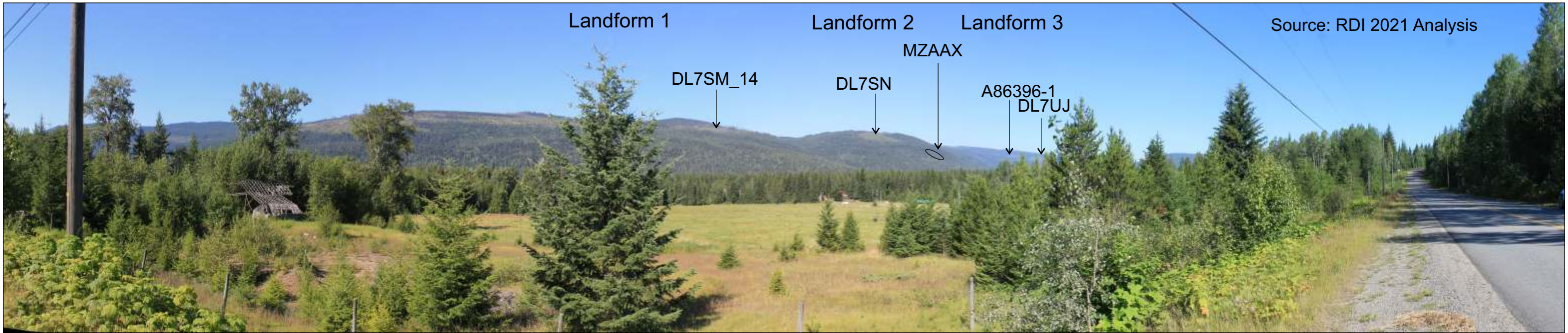
Bluffs 1 Close-up and Visual Force Analysis



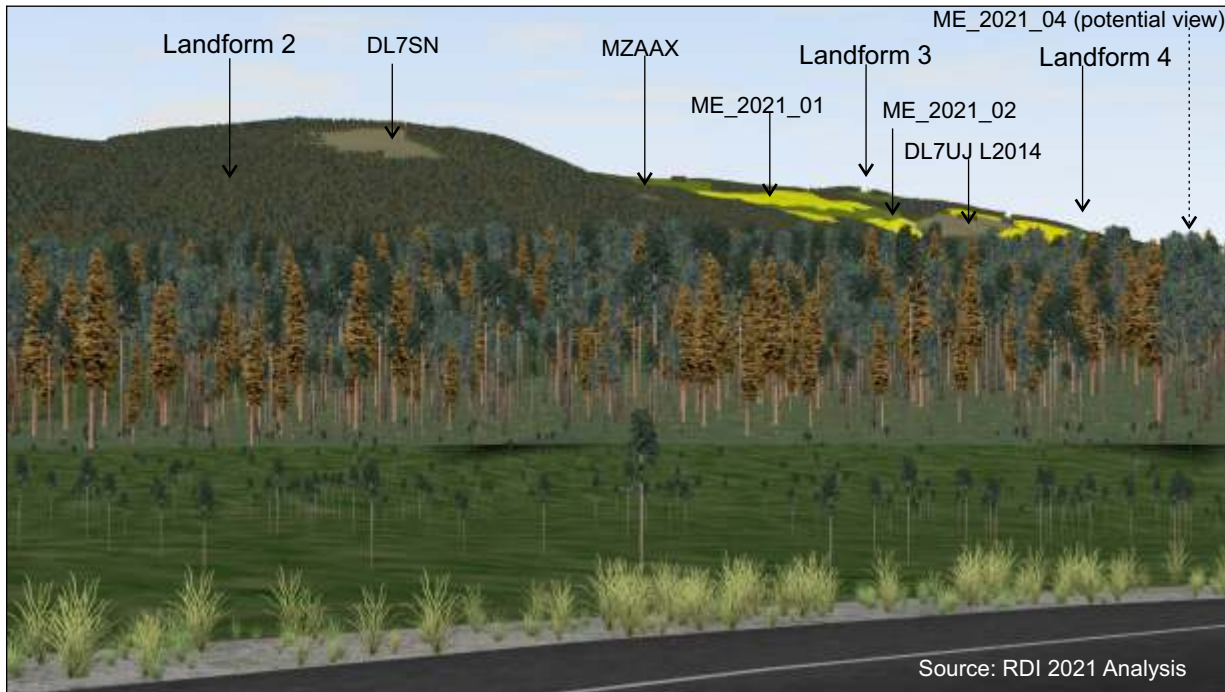
Ches Clem Photos 2020

The proposed cutblocks form cohesive patterns on the upper portion of the landform, and conform with the main visual forces of the landform, mainly in VSU 145 M. .

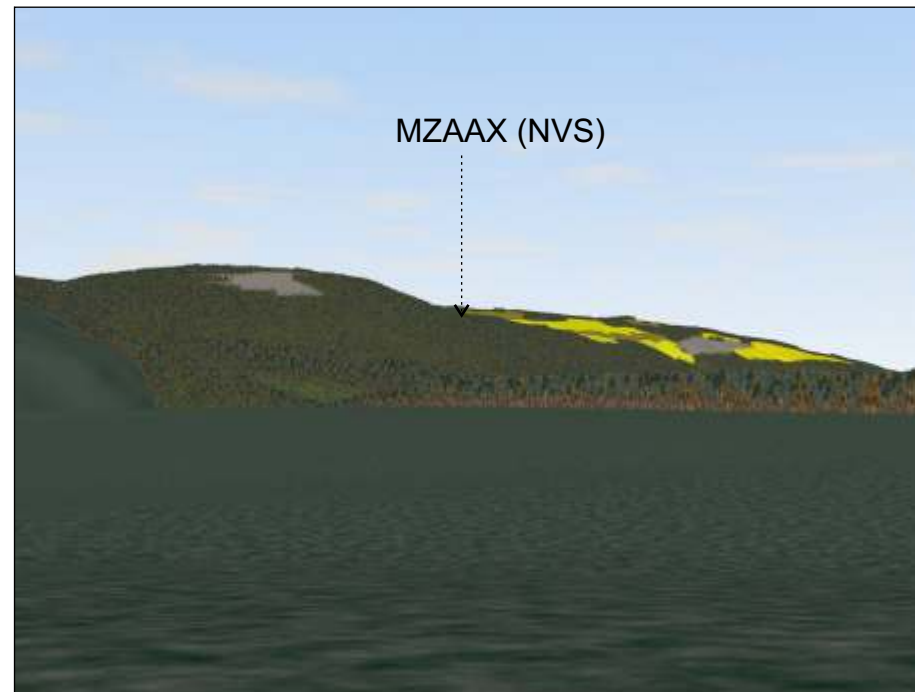
White Horse Bluffs 2(Trail End)



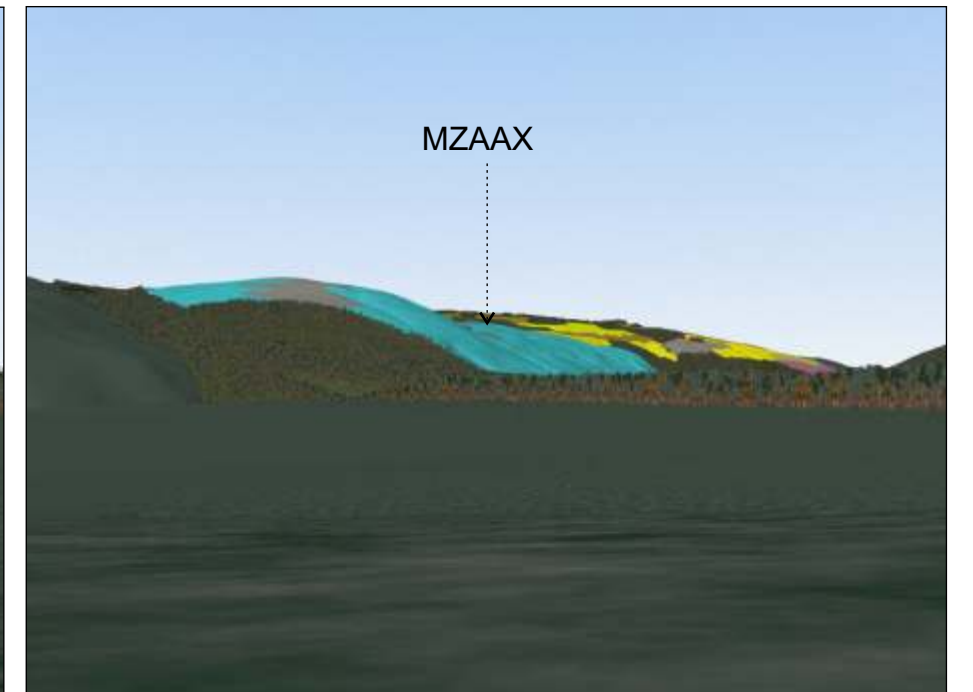
Viewpoint 21 Photo by Ches Clem, Clearwater Valley Road - roadside screen appears to obscure ME\_2021\_04 location - more open viewing opportunity from field



Viewpoint 21 Simulation with minor foreground clearing reveals ME\_2021\_04



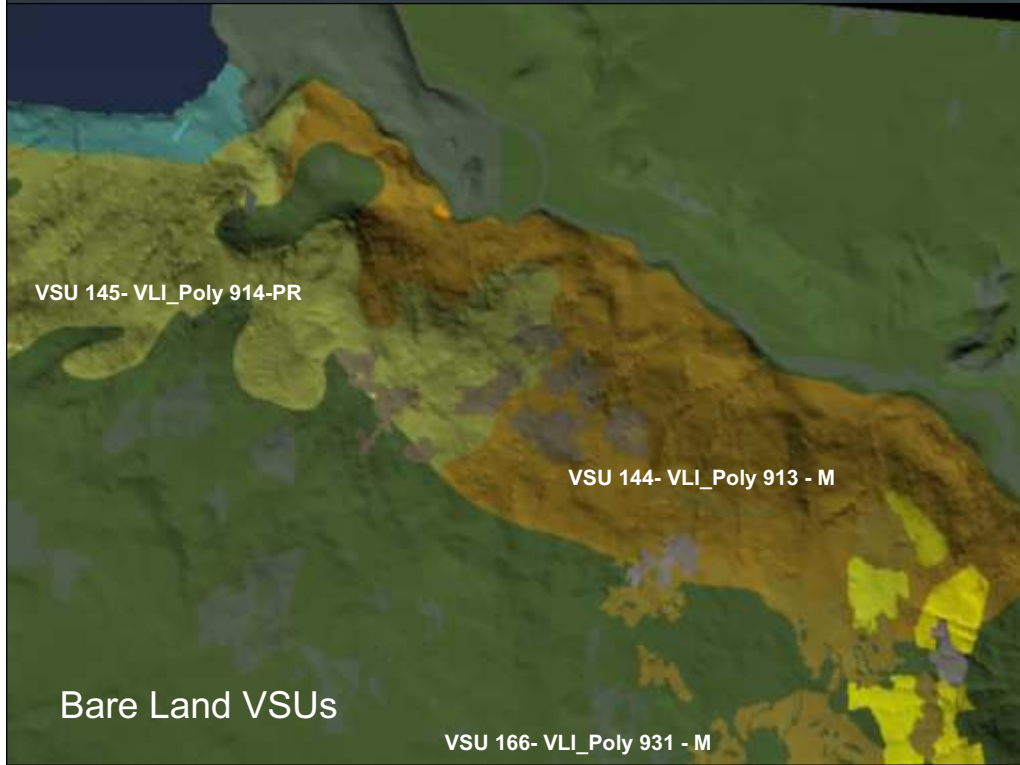
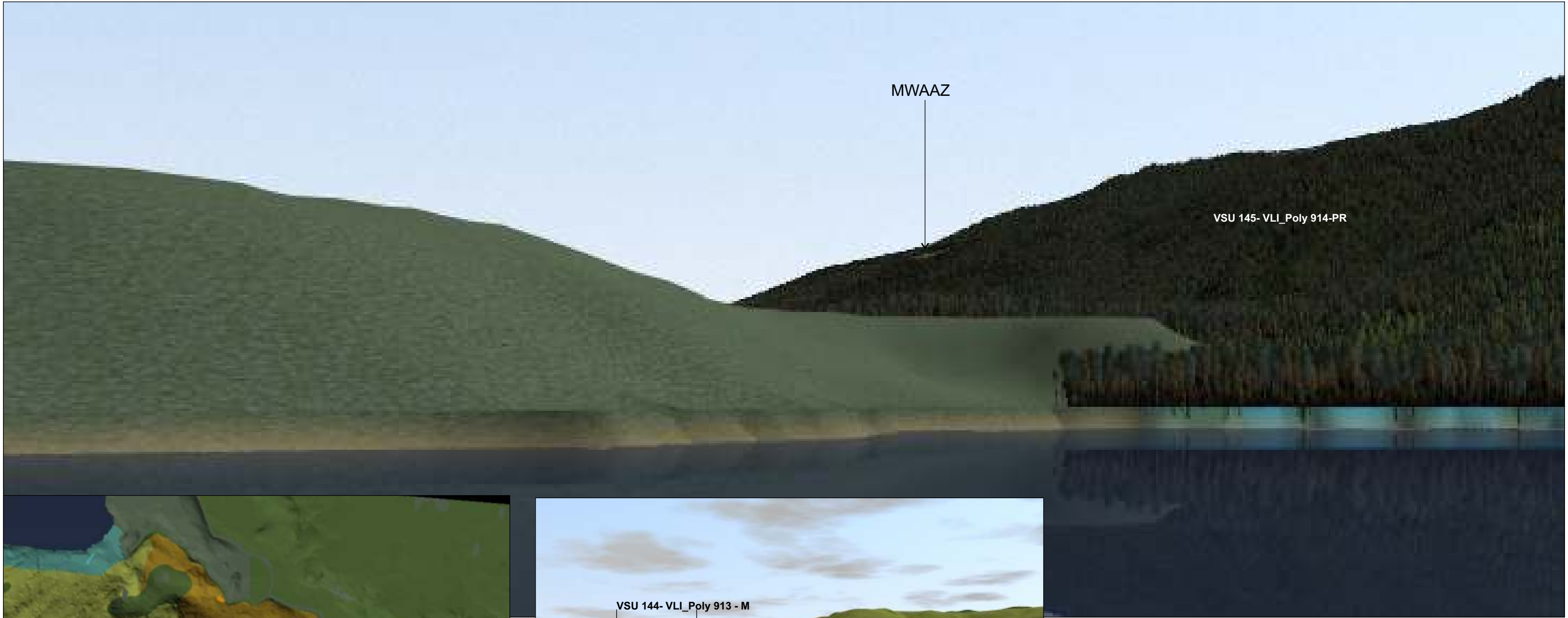
2023 Simulation



2023 Bare Land VSUs

Only MZAAX potentially visible but NVS in simulation.





Only MWAAZ will be potentially visible, very small in scale, and difficult to see.

Mahood Lake Viewpoint 13