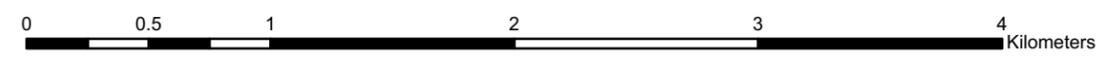


**Visual Assessment
TA0944/TA0645/TA0647
RDI Resource Design Inc
February, 2020**

Legend

- ◆ Mud_River_Plantation
- Genus_Stream
- Feb_18_2020_Roads
- TA0643_PE9S2_Roads
- TRIM_Transportation_2018
- Mud_River
- Feb_18_2020_WTRA's
- February_18_2020_Existing_Cut_Blocks
- Feb_18_2020_TA0944_TA0645_TA0647_Block_Shapes
- HydroLine
- Existing_2015CB_AdjacentPE9S2
- Eleanor_Lake
- BlueRiver-Mud_VPs
- PE9S2_Swamp
- PeddieCTR
- Peddie_Existing_Blocks
- TA0643_PE9S2_WTRA
- TA0643_PE9S2_Block
- Peddie-1718
- Mud-1718t
- RDI_trim_transportation2
- HWY5_OK
- HWY5
- RDI_TRIM_watercourse
- BCGS_grid20K
- TRIM_Transportation FCODE**
- Airfield
- TRIM - Gravel Road
- TRIM - Paved Road
- Overgrown Road
- Winter Road
- Tunnel
- Bridge
- Rail Line
- Pipeline
- <all other values>
- REC_EVQO_C**
- NVS
- M
- PR



1	Key Map
2	Contents
3	Summary
4	Mud River Plantation Viewpoint Simulations
5	Mud River Plantation Percent Alteration
6	Other Test View Simulations

Introduction

On February 19, 2020, RDI Resource Design Inc was requested by Ches Clem, RPF, Planning Forester, BC Timber Sales, Kamloops Business Area, to conduct a Visual Assessment of Mud Lake Northside Cutblocks TA0944 – MU9RT and MU7AR, TA0645 - MU9RP and MU9RR, and TA0647 - MU96X and MU9R1 under the on-going **Professional Forestry Services Related to Visual Resource Management Contract PD18TEB007**. Ches provided a data package which included shapefiles for the cutblocks, WTRAs, block roads, and adjacent previously harvested openings. Also included were viewpoint coordinates for 1 viewpoint along Mud river.

Procedures

The river viewpoint selected by Ches in Google Earth had the UTM coordinates 11U 354267.00mE and 5777051.00mN. RDI named the Viewpoint “Plantation Viewpoint” as it is directly opposite the 2001 harvesting. RDI moved the viewpoint to the south shore of the river to provide more open viewing. The viewpoint is considered to be an important vantage point for the River Safari (Blue River) jetboats.

To confirm additional opportunities for visibility of the three TSLs, RDI tested visibility from 2 points along the southeast shore of Mud Lake, and from Eleanor Lake.

RDI imported the new shapefiles into its pre-existing Peddie-Mud ArcMap and Visual Nature Studio (VNS) projects, and established the new viewpoints in both programs. All viewpoints were rendered in VNS with the “camera” set at 40 degree field of view (FOV) 48mm lens, or close to the standard 50mm lens where the landscape looks similar in scale through the camera view as it does to the naked human eye. The Plantation Viewpoint was rendered with multiple 40 degree FOV images stitched together automatically in VNS into a 180 degree panorama covering the full extent of the northside Landforms. An additional panorama was rendered from high above the Plantation viewpoint to provide a comprehensive understanding of the position of every cutblock in the Landforms, including those that can’t be seen from river level.

The four 2015 recent openings near the new cutblocks were shown by RDI as non Visually Greened-up (nonVEG) in its VNS model. Older openings, including the 2001 plantation near the river viewpoint were revealed by the visualization of stand heights provided by the Vegetation Resources Inventory (VRI) as adequately greened-up (VEG) and therefor not contributing to current visual alteration determination.

RDI placed the VNS renderings for each viewpoint into a CorelDRAW document, along with a key map produced by RDI in ArcMap.

The landforms containing the three TSLs were identified in plan and perspective views by RDI. The TSLs spread across three Visual Landscape Inventory polygons (818, 820, and 821), each with the established VQO of Modification, and also in a large non-Visually Sensitive (NVS) polygon between the others as identified on the Key Map on Page 1 of this document, and in the following table:

Mud North Cutblocks by Landform and Visibility from Mud River "Plantation" Viewpoint			
TSL	Landform 1	Landform 2	Visibility
TA0944	MU9RT		NVS
		MU7AR	NVS
TA0645	MU9RP		VIS
	MU9RR		VIS
TA0647		MU9R1	VIS
		MU96X	VIS
Landform 1 contains portions of VLI Polygons 820, 821, and 832 (all M VQO) plus large NVS (no VQO)			
Landform 2 contains portions of VLI Polygon 818 (M VQO) plus NVS (no VQO)			
Suggested VQO of Modification to be applied to both Landforms, including "NVS" areas			

Findings

The Plantation viewpoint, as initially identified by Ches Clem, and relocated by RDI to the south shore of the river at that location proved to be the singular and key observation point (KOP) towards the new TSLs. As summarized in the previous table, 3 cutblocks will be seen in Landform 1 and 2 in Landform 2. Only 2 cutblocks, both in TA0944, will be NVS (not seen). The high altitude panorama above the Plantation Viewpoint confirmed the presence of the NVS cutblocks in the model and provided enhanced understanding of the relationship of the cutblocks to their respective Landforms.

The Plantation Viewpoint on Mud River provides open panoramic views towards the 2 Landforms comprising the North Mud landscape. Percent Alteration calculations indicate that RDI’s suggested VQO of Modification that would incorporate areas previously identified NVS areas from the original Visual Landscape Inventory into Landforms 1 and 2 would be easily met from that key vantage point, as indicated in the following table, and on Page 5.

Percent Alteration - Mud River Plantation Viewpoint		
NAME	Shape_Area	% Alt.
Landform 1	779434.69	
MU9RR	384.46	0.05%
MU9RR	88.74	0.01%
MU9RR	1677.67	0.22%
MU9RP	2491.81	0.32%
Sum Alt. Landform 1	4642.68	0.60%
Landform 2	799053.63	
MU9R1	1044.13	0.13%
MU9R1	192.70	0.02%
MU9R1	1370.50	0.17%
MU96X	22502.08	2.82%
2015_nonVEG	1053.85	0.13%
Sum Alt. Landform 2	26163.25	3.27%

Meets Retention Visual Quality Class

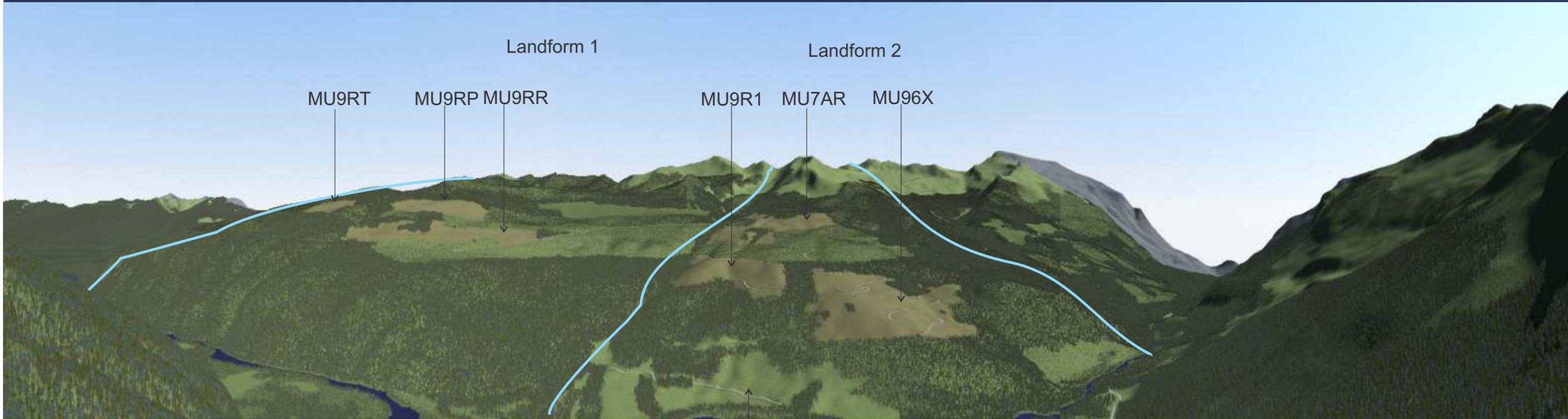
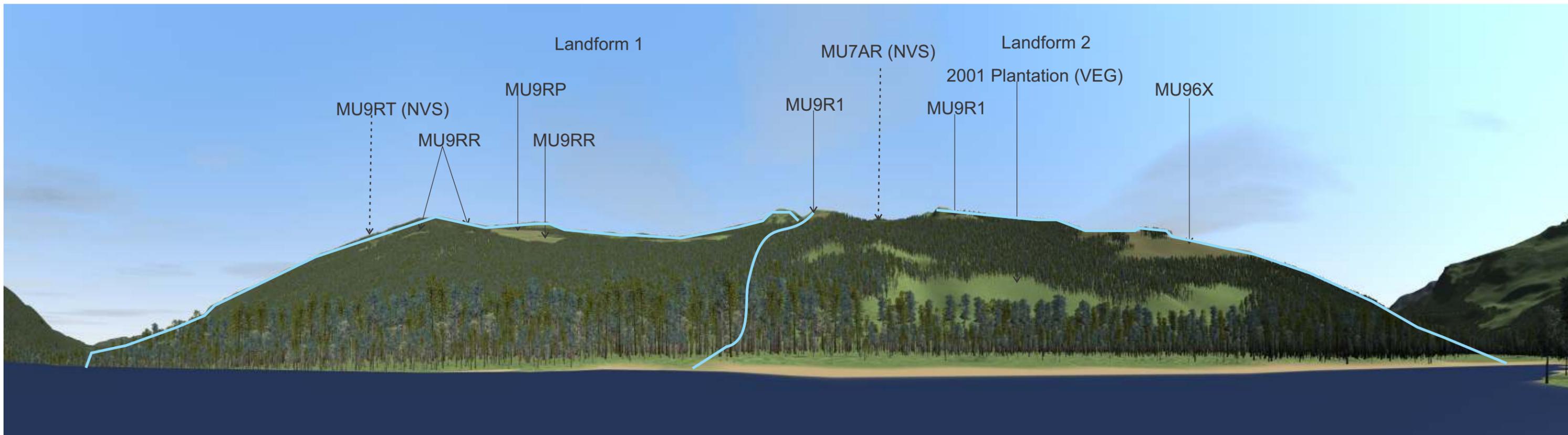
Meets Partial Retention Visual Quality Class

Each and all cutblocks are capable together of meeting the VQO in shape, form and visual force. The landform outlines are the primary visual forces as depicted in the Percent Alteration linework on Page5. The WTRAs within the cutblocks as indicated on the key map on Page 1 add minor but beneficial visual improvement to cutblock appearance.

The two trial views from the southeast corner of Mud Lake will likely only afford visibility of TA0647 - MU96X in the distance. The TSLs are not predicted to be seen from the Eleanor Lake viewpoint (C3) as determined in the RDI simulations from those viewpoints. RDI ran an aerial simulation 48m above the Eleanor Lake viewpoint as confirmation that the cutblocks would not be visible (see inset, Page 5). BCTS has shown good social diligence in having RDI consider the visual influence of the three TSLs in this plan on River Safari boating sightseers.

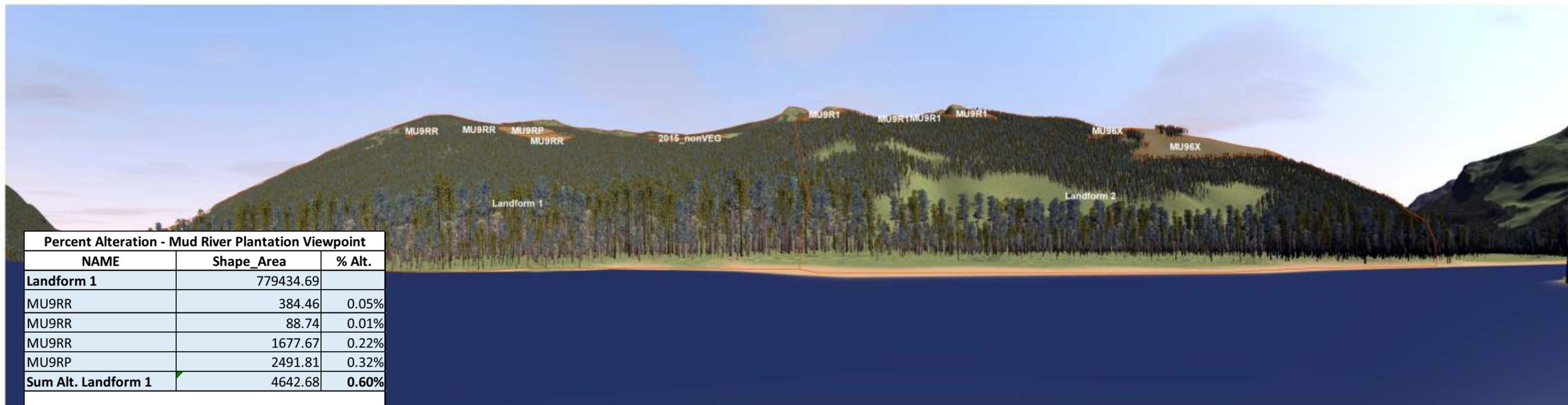
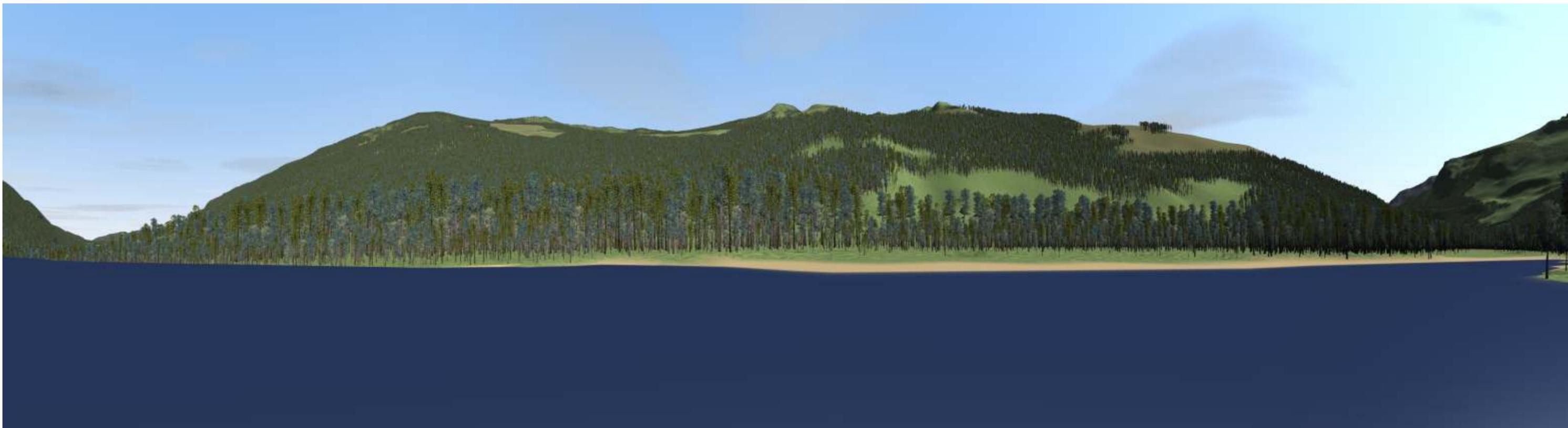


Dr. Ken B. Fairhurst, PhD, RPF
RDI Resource Design Inc
February 22, 2020



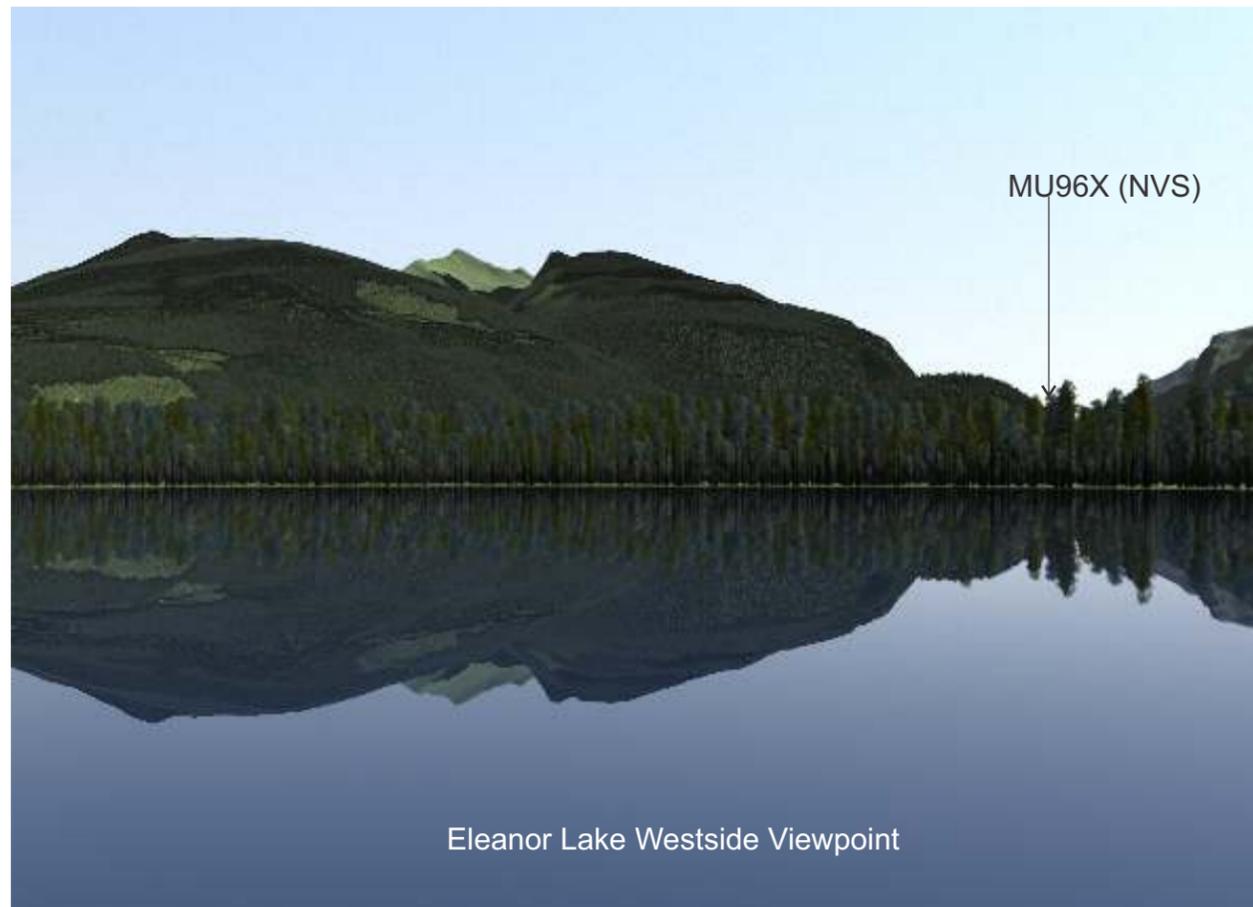
2001 Plantation (VEG)

Mud River Plantation Viewpoint

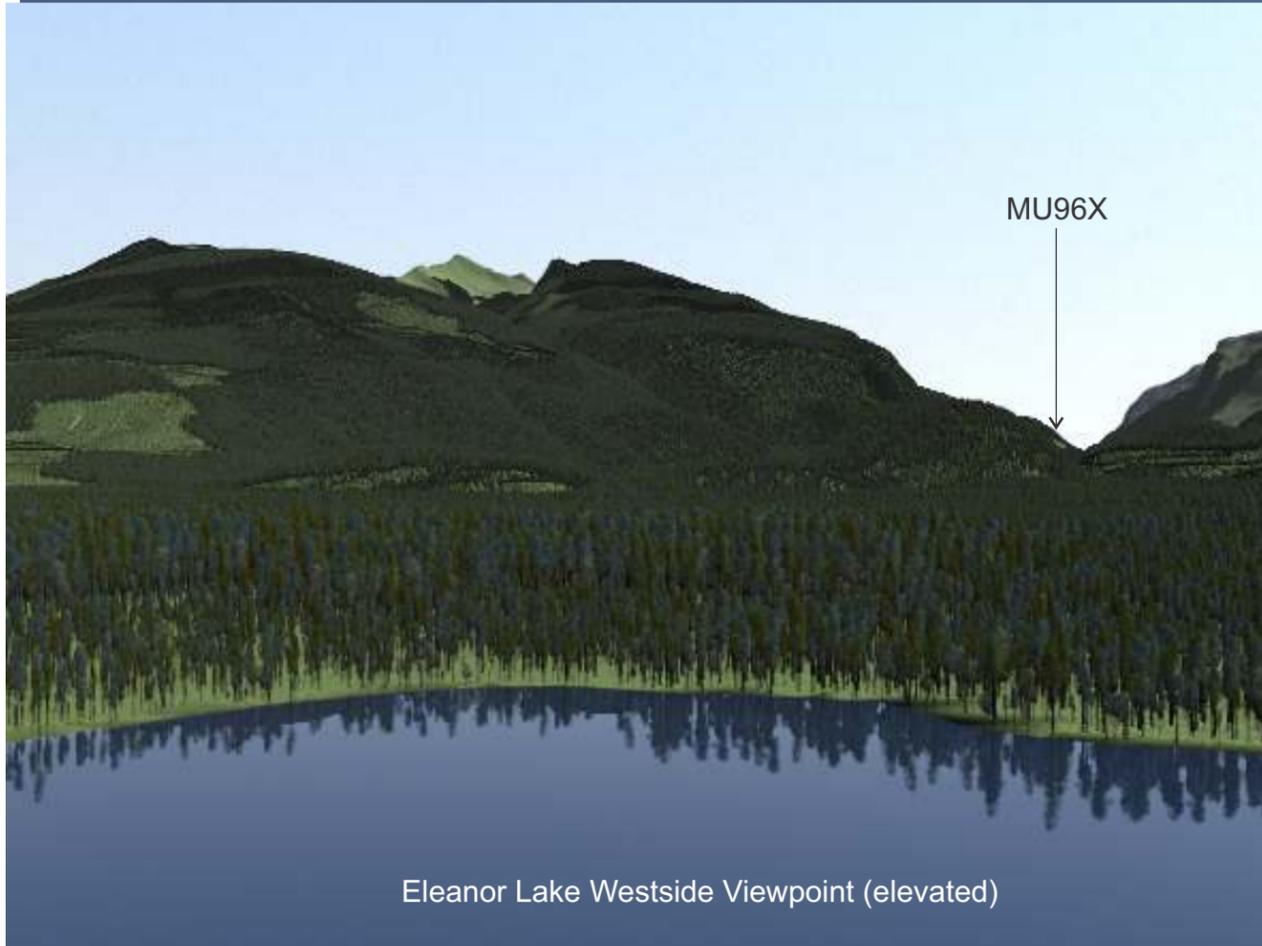


Percent Alteration - Mud River Plantation Viewpoint		
NAME	Shape_Area	% Alt.
Landform 1	779434.69	
MU9RR	384.46	0.05%
MU9RR	88.74	0.01%
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MU9R1	1044.13	0.13%
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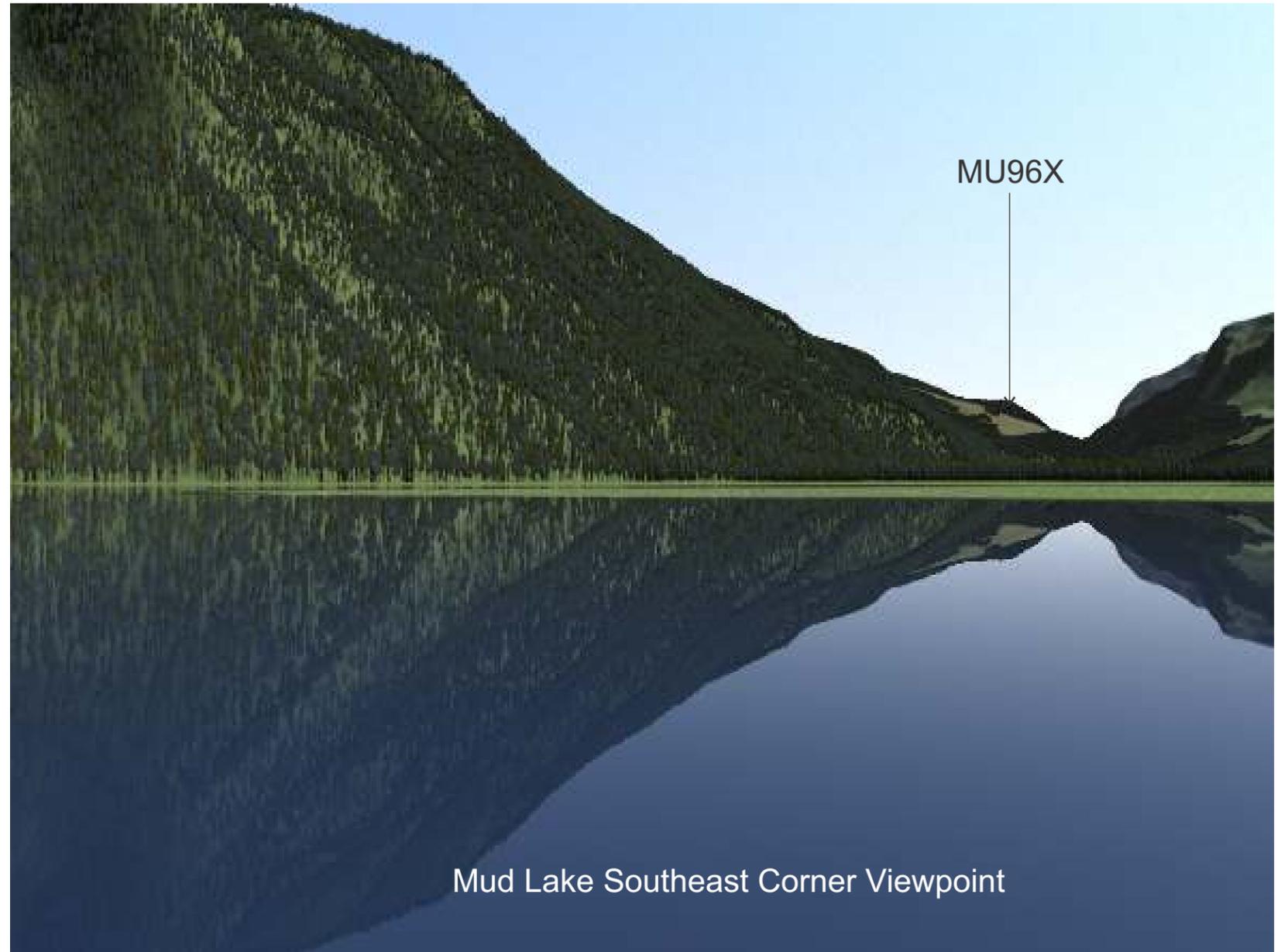
Plantation Viewpoint - Percent Alteration



Eleanor Lake Westside Viewpoint



Eleanor Lake Westside Viewpoint (elevated)



Mud Lake Southeast Corner Viewpoint

Mud Lake and Eleanor Lake Test Views