


















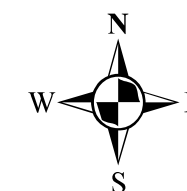


**Adams River (Harbour) Visual Assessment
Southwest Cutblocks
FL A94922: SB95C, SB95E; A95215: SB96U
September 22, 2017
RDI Resource Design Inc**

-  VQO-Harbour-2017-Use
-  RoadEvents2017
-  Roads-NorthAdams
-  TrimTrans1718
-  RoadsNorthAdams2
-  Harbour1718main
-  SB7VJ-15
-  WTRAs_20170911
-  FTEN-10-12
-  FTEN-13-15
-  FTEN-LC-16-17
-  MH_Ogma
-  TKAOgma
-  SB7SP-14-true
-  SB7SP-14
-  RDI_Clearwater_2014_WTRA
-  Adams River_VPs
-  Contours
-  AdamsRiverClip



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Findings and Conclusions

This report is the visual assessment for FL A94922: SB95C, SB95E, and FL A95215: SB96U. All data used for this assessment was received from BCTS (Main set from Derek Pue August 3, 2017 and per additional request by RDI, roads and WTRAs from Sarah Cooke September 11, 2017). RDI also obtained directly the forest VRI file from the BC Data Catalogue in August. The data was used by RDI to create an ArcGIS project for map production and orientation, and a Visual Nature Studio model for visualization. The Forest VRI file was updated by RDI with recent cutblocks found in the FTEN file.

The landform containing the first 2 cutblocks is primarily in VSU 298 (VLI-Poly-No 1013) on the east side of Adams River with a Modification rVQO. An upper landform directly behind VSU 298, VSU 293 (VLI-Poly-No 1009), also having a Modification rVQO, contains cutblock SB96U. All cutblocks and VSUs for the 2017 project are located within Mapsheet 082M054.

As there was no opportunity afforded by BCTS for on-site determination, RDI made clearings in the 3-d model to provide generally open views from the upper road (NT2 and NT3) and more filtered views from the riverside locations (NT2 river and NT3 river). All of the viewpoints are located on roads on the west side of the river. The clearings reveal most of the project area and cutblocks, and would be reasonable if such clearings were to occur, either man-made or natural. RDI seeks further information from BCTS as to potential viewpoint locations and related photography before committing to any design variations.

The 2 viewpoints on the upper main road were given full analysis with Visual Force and Percent Alteration, and simulations only from the river views. All are presented on subsequent pages of this report.

Findings

Viewpoint NT2 and NT2 River

The open view trial projection from Viewpoint NT2 could achieve the Modification VQO in percentage (under 14%) while the design of SB95C is overly lineal and angular to meet the definition of the Modification Category of Altered Forest (see pictorial examples on the back page of this report). If truly visible, the cutblock could benefit from the addition of some leave patches. The view from the NT2 River viewpoint is more treed and would easily meet the VQO.

Viewpoint NT3 and NT3 River

The NT3 viewpoint is close to SB95E as seen in the trial projection. If open visibility were to exist from NT3, the cutblock would greatly exceed the VQO (29%). A significant reduction in scale would be required unless no open viewing opportunities exist. The NT3 River viewpoint also exhibits excess scale.

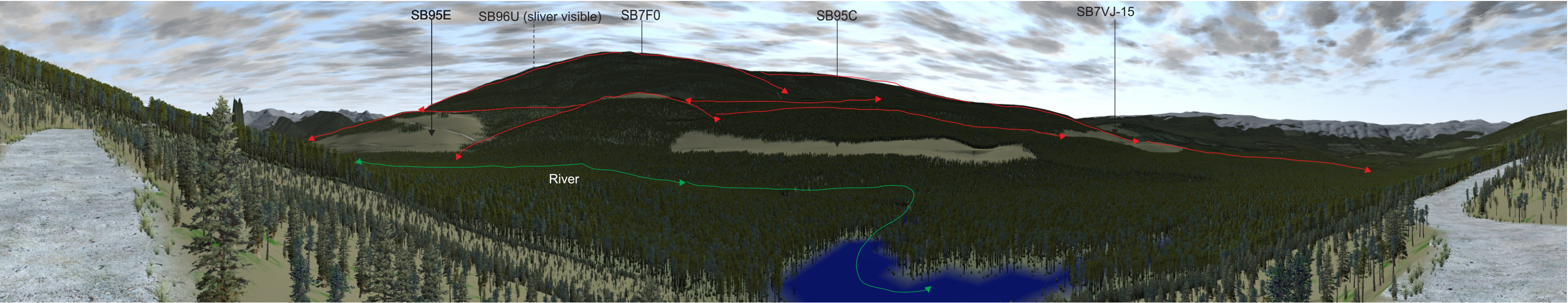
Conclusions

RDI requests that BCTS conduct a “best opportunity” search for viewpoints and document them with GPS and photography. The open views derived by RDI provide useful information and if not truly representative of present conditions, can be used to predict the visual results if clearing occurs by nature or human design.



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September 22, 2017

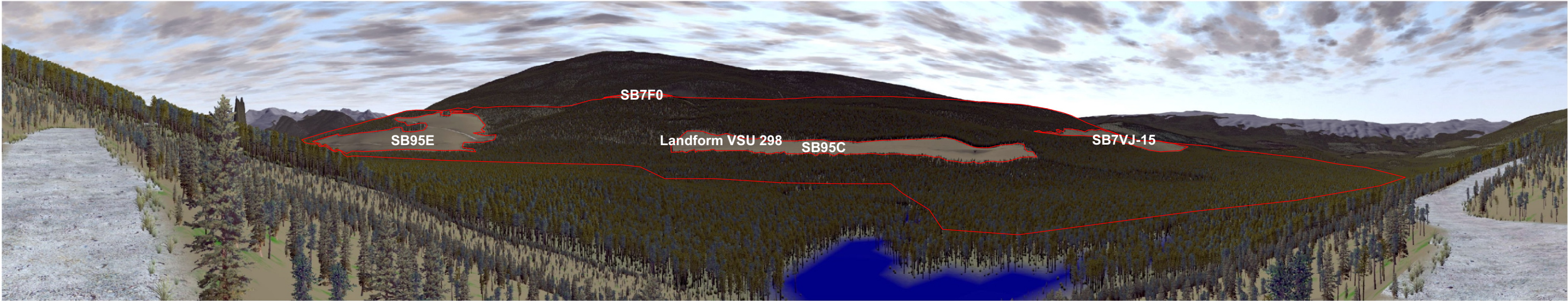
→ Visual Force Convexity
→ Visual Force Concavity



Composite (stitched) 48 mm camera lens (40 degree field of view). 4.5 images road to road (180 degrees).

Viewpoint NT2- VP with clearing - no on-site viewpoint determination

6676 pixels



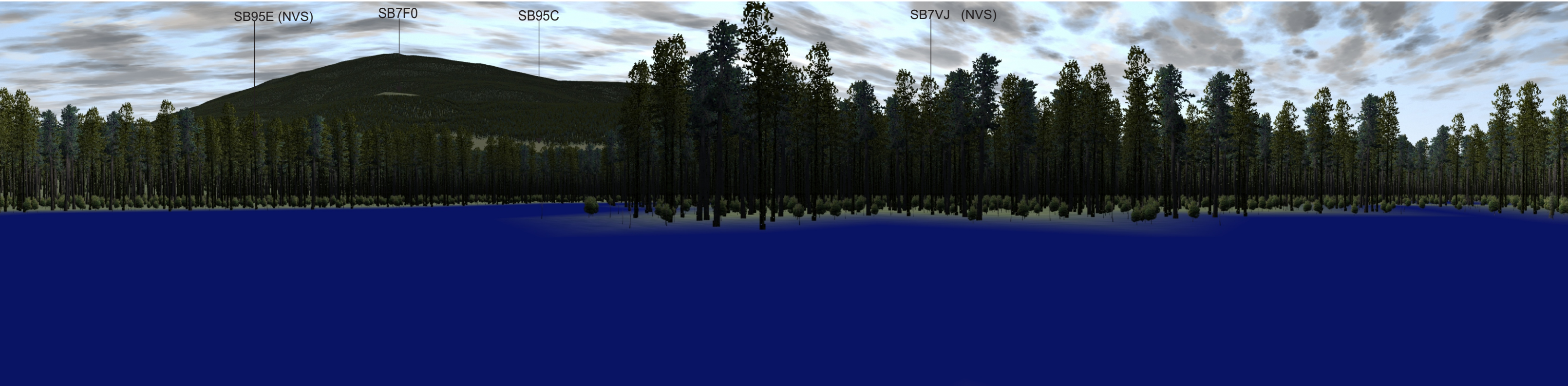
Viewpoint NT2- Percent Alteration

Percent Alteration Viewpoint N2 (cleared)		
Features	AREA2	% Alt.
Landform VSU 298	804022.47	
SB95E	42094.06	5.24%
SB7F0	2082.78	0.26%
SB95C	55499.66	6.90%
SB7VJ-15	9566.55	1.19%
Total % Alt.	109243.05	13.59%

The landform (VSU 298) has a Modification eVQO (M) east of the river. The Percent Alteration is 13.59%. The allowable VQO Percent Alteration range is 7.1% to 18%. The definition of the Modification Category of Altered Forest is very easy to see, and is:
A. large in scale and natural in appearance, or B. small to medium in scale but with some angular but with some angular characteristics.
SB95C is strongly lineal and angular in the cleared view, and would benefit from some leave patches. As the viewpoint simulation was produced with clearing in the model in front of the viewpoint, on-site determination of viewability is requested, with photographs and GPS. Until on-site verification is made, no adjustments are suggested at this time.
SB96U is seen as a minor sliver on the back landform (VSU 293) which also has a Modification eVQO.
SB95E, SB96U and existing SB7F0 cutblocks successfully follow the major lines of force, particularly the ridgeline delineating the landform VSU.

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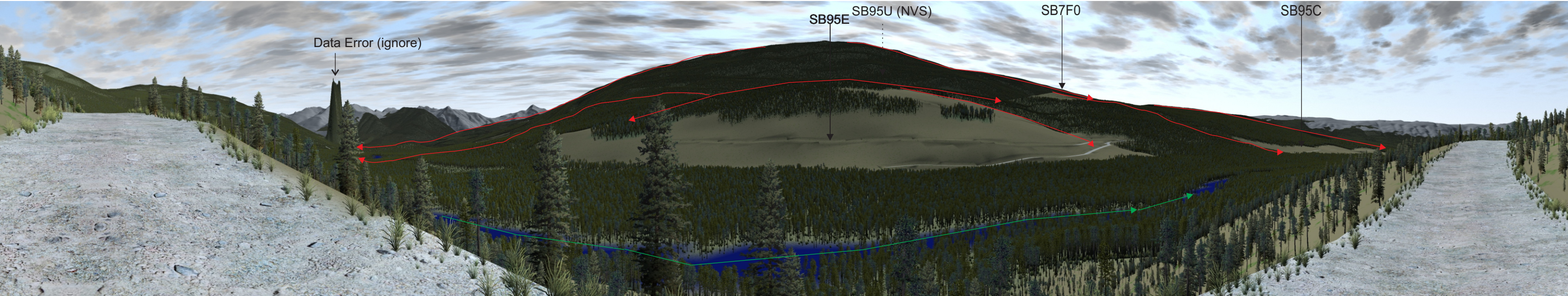
Viewpoint NT2



Viewpoint NT2-Riverbend- no VP clearing - no on-site viewpoint determination

5236 pixels

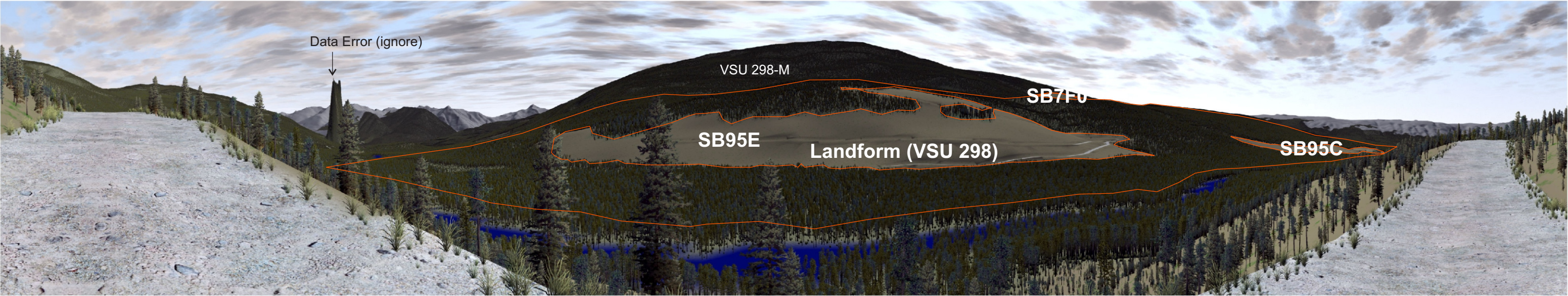
The landform (VSU 298) has a Modification eVQO (M) east of the river. The VQO may be very easy to see, and:
A. large in scale and natural in appearance, or B. small to medium in scale but with some angular but with some angular characteristics.
SB95C has minor linearity and angularity in this view. The other new blocks (SB95E, SB96U) are NVS and existing cutblock SB7F0 is a minor sliver.
Overall, the appearance easily meets the VQO. As the viewpoint simulation was produced with minor clearing in the model in front of the viewpoint, on-site determination of viewability is requested, with photographs and GPS.
Until on-site verification is made, no adjustments are suggested at this time.



Composite (stitched) 48 mm camera lens (40 degree field of view). 4.5 images road to road (180 degrees).

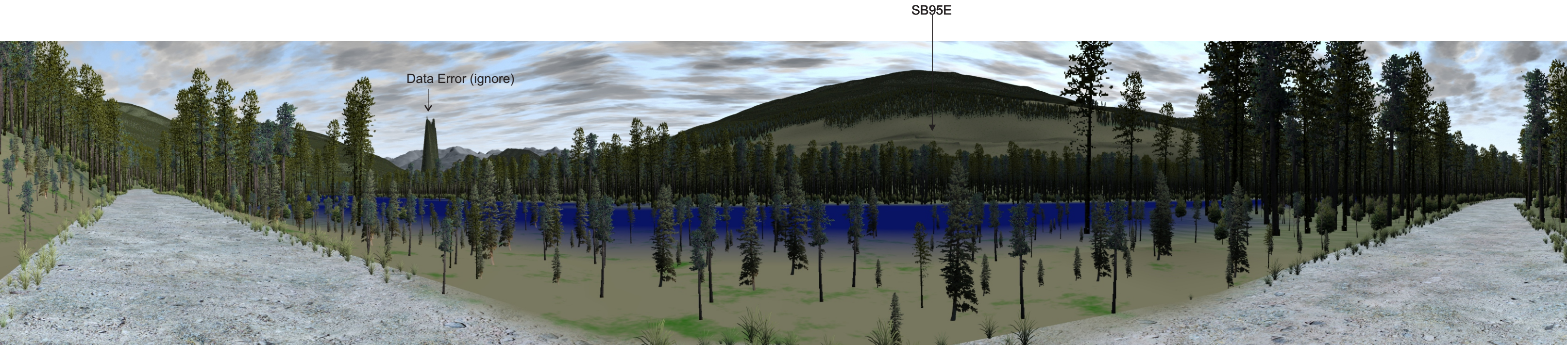
6807 pixels

Viewpoint NT3- with VP clearing- no on-site viewpoint determination



Percent Alteration Viewpoint NT3 (cleared)		
Features	AREA2	% Alt.
Landform (VSU 298)	939378.95	
SB95E	267449.90	28.47%
SB7F0	1622.73	0.17%
SB95C	7856.07	0.84%
Total Percent Alteration	276928.70	29.48%

The landform (VSU 298) has a Modification eVQO (M) east of the river. The Percent Alteration is 29.48% in the cleared view from the road. The allowable VQO Percent Alteration range is 7.1% to 18%. The definition of the Modification Category of Altered Forest is very easy to see, and is: A. large in scale and natural in appearance, or B. small to medium in scale but with some angular but with some angular characteristics. SB95E is very large (28.47% alteration) and would require a significant reduction in scale to meet the VQO if visibility is as open as the trial cleared view predicts. SB95C is small (0,84% alt.) and successfully follows visual force lines and requires no adjustment from this viewpoint. On-site determination of viewability from the best observation point is requested from BCTS with GPS locations and photography. Until on-site verification is made, no adjustments are suggested at this time. SB96U is not seen in the upper landform (VSU 293) as it is behind the leading ridge. The existing SB7F0 cutblock successfully follows the major lines of force, namely the ridgeline delineating the landform VSU.



Composite (stitched) 48 mm camera lens (40 degree field of view). 4.5 images road to road (180 degrees).
Viewpoint NT3 by River - with VP clearing- no on-site viewpoint determination 6589 pixels

The landform (VSU 298) has a Modification eVQO (M) east of the river. The VQO may be very easy to see, and:
A. large in scale and natural in appearance, or B. small to medium in scale but with some angular but with some angular characteristics.
SB95E is very large in this view. The other new blocks (SB95E, SB96U) are NVS and existing cutblock SB7F0 is NVS.
Overall, the appearance exceeds the VQO. Validation of visibility is requested from the best observation point.

Visual Quality - Categories of Alteration

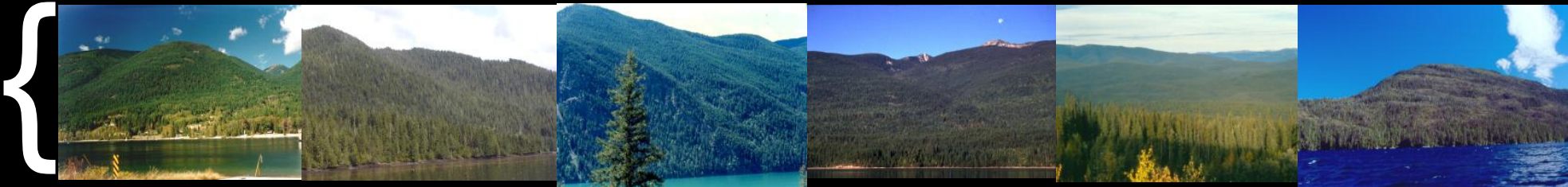
Visual Quality Objectives are defined in Section 1.1 of the Forest Planning and Practices Regulation. Visual Quality research shows that percent alteration for clear cuts and volume/stems per hectare for partial cuts are also good predictors of visual quality if applied correctly.

Clear Cuts

Retention Harvest

Partial Cuts

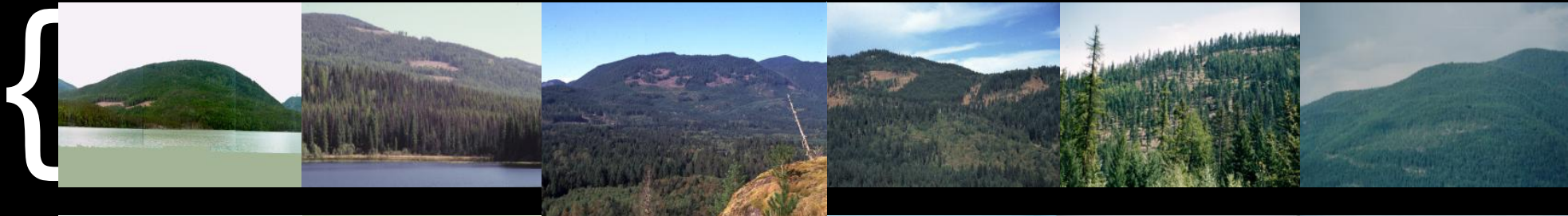
Preservation: very small in scale, and not easily distinguishable from the pre-harvest landscape.
0% ground may be visible.



Retention: is difficult to see, small in scale, and natural in appearance
0 -1.5% ground may be visible.



Partial Retention: easy to see, small to medium in scale, and natural and not rectilinear or geometric in shape.
1.6 – 7% ground may be visible.



Modification: is very easy to see, and is A) large in scale and natural in its appearance, or B) small to medium in scale but with some angular characteristics.
7.1-18% ground may be visible.



Maximum Modification: is very easy to see, and is (A) very large in scale, (B) rectilinear and geometric in shape, or (C) both
18.1-30% ground may be visible.



Percent Alteration	Per VQO
Preservation	0
Retention	0 - 1.5
Partial Retention	1.6 - 7.0
Modification	7.1 - 18.0
Max Modification	18.1 - 30.0

Note: % Alteration numbers must be applied to a readily distinguishable landform. They were not derived for application against entire landscapes.



		Tree Height (Metres)									
		5	10	15	20	25	30	35	40	45	50
Volume (Stems) Removed in %	10	R	R	R	R	R	R	R	R	PR	PR
	20	R	R	R	R	R	R	R	PR	PR	PR
	30	R	R	R	R	PR	PR	PR	PR	PR	PR
	40	R	R	PR	PR	PR	PR	PR	PR	PR	M
	50	PR	PR	PR	PR	PR	PR	PR	M	M	M
	60	PR	PR	PR	PR	PR	M	M	M	M	M
	70	PR	PR	PR	M	M	M	M	M	M	M
	80	PR	PR	M	M	M	M	M	M	M	M
	90	M	M	M	M	M	M	M	M	M	M

Note: The Partial Cutting table may be applied across the landscape as this measure is landform Independent.