



**BC Timber Sales  
Tracy Creek TK7ZR  
Visual Assessment  
RDI Resource Design Inc 2018**

- tk7zr\_road
- TrimRd-L1
- Tracy\_2016\_rds
- TK7ZR\_WTRA (1)
- TK7ZR\_Block
- Tracy\_2016\_blks
- Tracy\_2016\_WTRA
- LandformBreak
- TRIM\_WATER\_LINES
- Tracy Viewpoints
- VQO
- VQO\_2
- Tracy\_2016\_WTRA
- Adams\_Lake\_North
- Tracy\_Contours
- 20kbcgrid

**VALUE**

- 0
- 0 - 5
- TRIM\_TRANSPORTATION\_LINES



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Report of Dr. Kenneth B. Fairhurst, PhD, RPF, RDI Resource Design Inc

Introduction

The TK7ZR cutblock review is an extension and completion of a February 6, 2017 project conducted by RDI. TK7ZR is examined in the context of the single Landform 1 as defined by RDI which covers portions of VSUs 1084, 1093 and 1153. Each of these VSUs have an established VQO of Modification, meaning a Category of Altered Forest in which an alteration 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. Percent alteration in perspective view: 7.1% to 18% of ground may be visible. For further information and guidance, see reference poster [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/visual-resource-mgmt/vrm\\_a\\_guide\\_to\\_visual\\_quality\\_objectives.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/visual-resource-mgmt/vrm_a_guide_to_visual_quality_objectives.pdf).

As the 3 VSUs within the landform have the same VQO, I was permitted by newly developing FLNRO-RD visual resource training course content to merge all 3 sub-units into the single landform with a Modification VQO. If the landform had differing VQOs in the sub-units, I would have been compelled to meet the given VQO in each sub-unit, according procedures being implemented by Peter Williams, head of VRM in Victoria, so as to meet legal objectives. Prior to this change, I was applying the most restrictive VQO found in the landform to the landform overall. Peter has expressed interest in the “most restrictive” method that I have been applying in recent BCTS projects, and has asked me to provide the implications of both methods on BCTS projects. The next graphic from the training course illustrates the approach:

**Single Landform - Multiple VQOs**

On occasion you will encounter a situation where a landform has more than one VQO on it.

Because VQOs are legal objectives each portion of the landform will have to be mapped and assessed as its own unit.

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RDI's Tracy Creek VIA Procedure

ArcMap and Visual Nature Studio projects were prepared by RDI for the assessment. We produced panoramic photo-realistic simulations from 6 viewpoints covering the anticipated range of viewing opportunities towards the landform that I defined, containing TK7ZR and adjacent cutblocks TK95F, TK95G, K95H, TK95J, TK95K, TK95N, and TK948. The remaining adjacent cutblocks on the key map (page 1) are outside of the landform and viewshed (Non-Visually Sensitive or NVS) and are therefore not addressed in this report. These are TK95M, TL95L, and TK95P. I confirmed their lack of visibility in a composite viewshed that is shown in green on the key map on page 1. The number of cutblocks seen from each viewpoint ranges from 2 (Viewpoint 1) to 6 (Viewpoint 5). TK7ZR is seen from Viewpoint 1, 1A, 2, and 3 only. The visibility summary is presented in **Table 1**.

Table 1

Viewpoint	Distance (m) to TK7ZR Centre
1A	10600
1	7500
2	5000
3	5500
4	7350
5	9775

The Viewing Distance by Viewpoint Table (**Table 2**) reveals that except from Viewpoints 1A and 5, all viewpoints are in midground viewing distance to the centre of TK7ZR (1 km to 8 km). Viewpoints 1A (10.6 km) and 5 (9.8 km) are background views. TK7ZR is not visually sensitive (not seen) from Viewpoints 4 and 5.

Table 2

Cutblocks Assessed	Tracy Viewpoints					
	T1	T1A	T2	T3	T4	T5
TK7ZR	v	v	v	v		
TK95F	v	v	v			
TK95G			v	v	v	v
TK95N			v	v	v	v
TK948					v	v
TK95J						v
TK95H						v
TK95K						v

Percent alteration calculations from each viewpoint reveal the capacity of the overall development to meet the Modification VQO (**Table 3**). Overall percent alteration, and that of TK7ZR itself, by viewpoint, never exceeds the Partial Retention level of allowable alteration (1.5% to 7.0%) and is much below the limit for Modification allowed for in the Tracy Landform 1 (7.1% to 18%). TK7ZR is largest when viewed from Viewpoint 1 (5.04%). No calculation was made from Viewpoint 1A as it was produced for reference only (background view).

Table 3

Tracy Percent Alteration Summary		
Viewpoint	TK7ZR % Alt.	Total % Alt
1	5.04%	5.28%
2	2.47%	2.66%
3	0.21%	1.24%
4	nil	0.69%
5	nil	0.93%

The visual quality descriptor for the Modification Category of Altered Forest (very easy to see, and large in scale and natural in its appearance, or small to medium in scale but with some angular characteristics) is easily met by the design attributes, such as shape and scale, of the entire array of cutblocks, and by TK7ZR specifically. This cutblock has considerable young tree patches that serve to break up the overall scale and shape. These have been removed from the area and percentage alteration of TK7ZR.

I have some concern about the shape to TK7ZR as seen from Viewpoint 1. The southeast corner on the map and the upper right corner in the Viewpoint 1 simulation is seen as a hard right angle. Although the cutblock meets the “b” part of the definition (small to medium / some angular characteristics), I would encourage a second look at what might be done to reduce the angularity slightly by rounding the corner or by adding a small WTRA. The percent alteration of TK7ZR represents 96% of total alteration as seen from that viewpoint. The cutblock is similarly from Viewpoint 1A in the far distance.

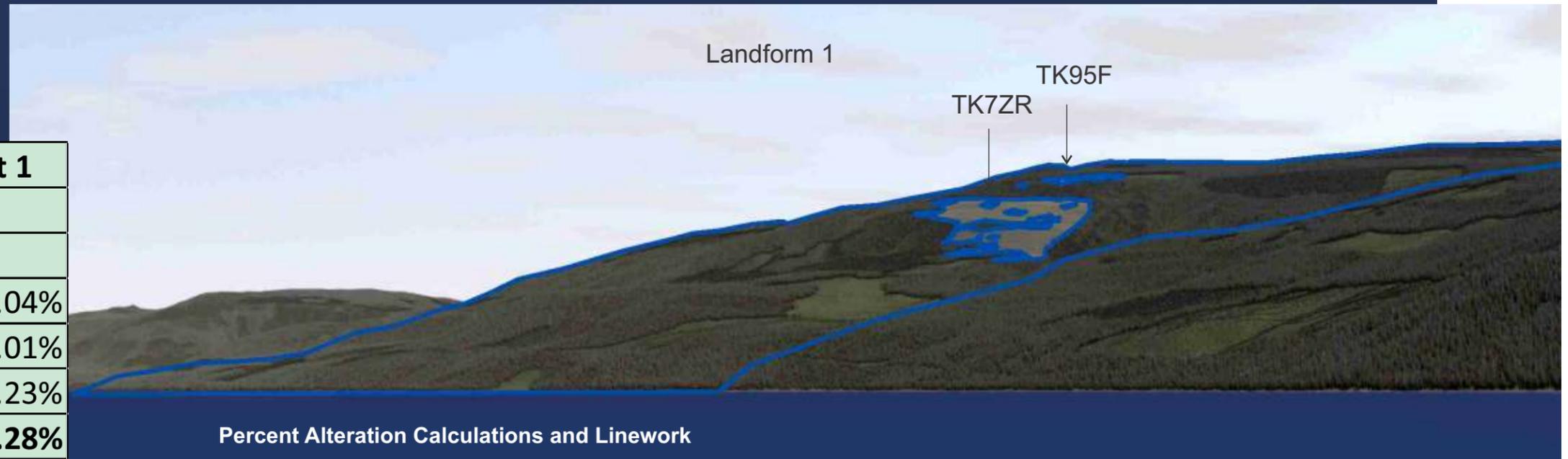
The reason I suggest that the corner of TK7ZR be reduced in angularity is also for future development considerations that might raise the percent alteration and cause the current configuration to needlessly constrain future VQO achievement. The request is not mandatory but would translate into greater compatibility in the landscape and therefore convey good forest management principles from that perspective. Overall, I am very satisfied with the visual results of the plan.

Kenneth B. Fairhurst, PhD, RPF  
 RDI Resource Design Inc  
 December 1, 2018



Viewing Distance 7.5 km / image width 9425 pixels

TK7ZR Corner Angularity should be Reduced



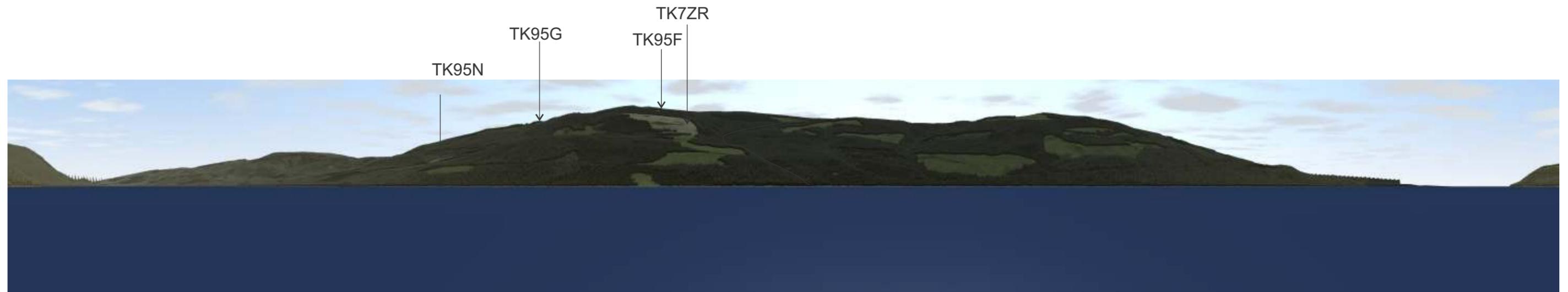
Percent Alteration Tracy Viewpoint 1		
Unit	AREA2	%Alt
Landform 1	85996.26	
TK7ZR	4332.13	5.04%
TK95F	10.34	0.01%
TK95F	195.35	0.23%
<b>Sum Alt</b>	<b>4537.81</b>	<b>5.28%</b>

Percent Alteration Calculations and Linework

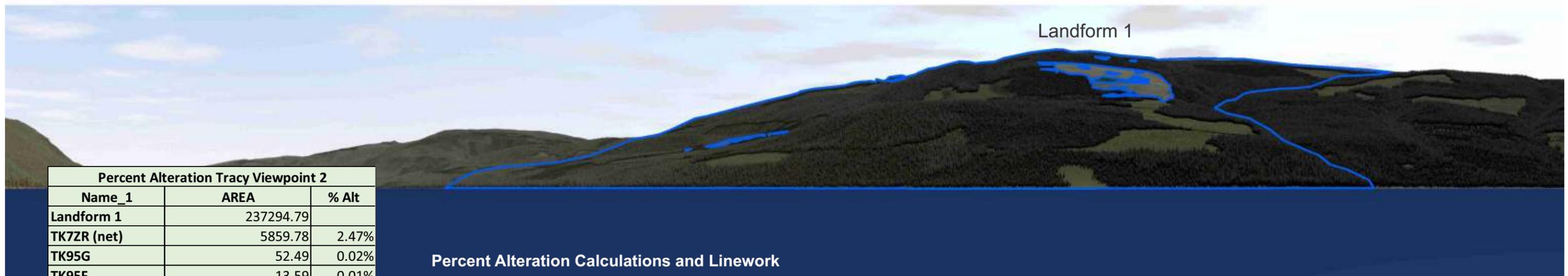
Viewpoint 1



Viewpoint 6 South of Viewpoint 1 Background View (for reference purposes only)

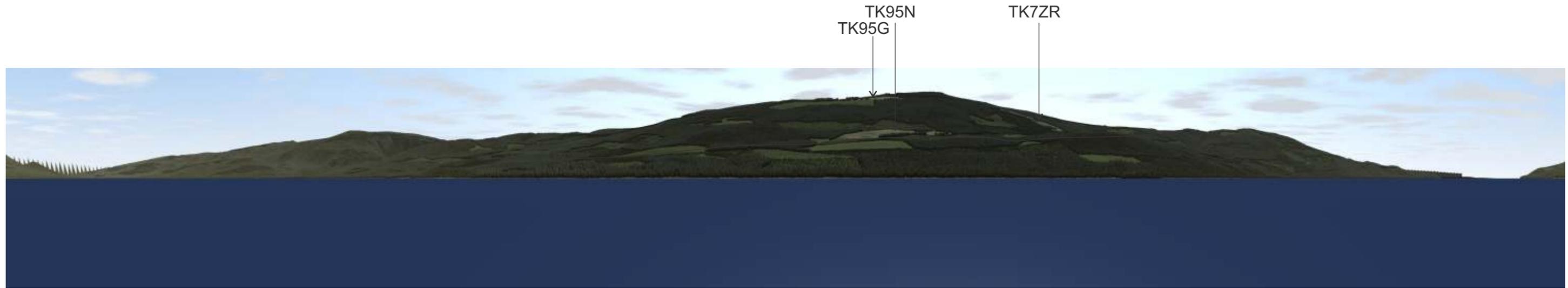


Viewing Distance 5.0 km / image width 10538 pixels

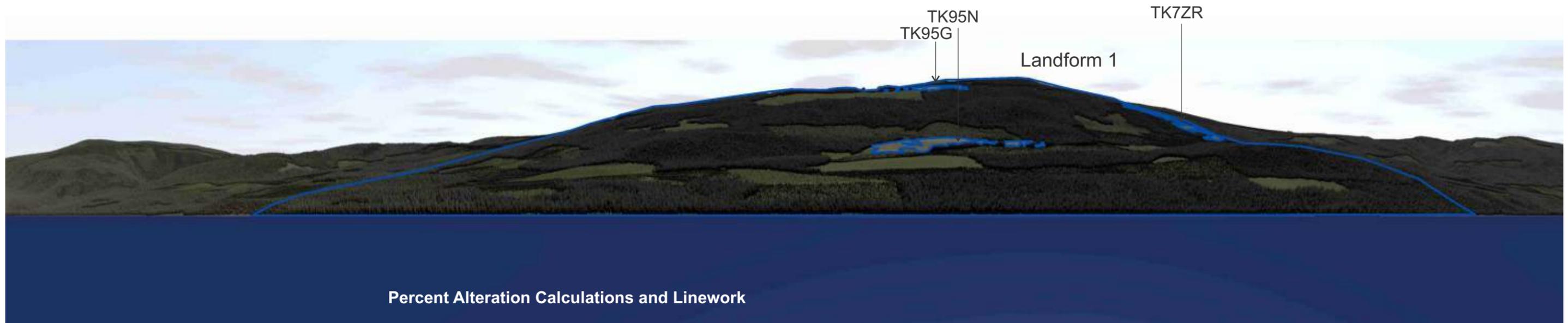


Percent Alteration Tracy Viewpoint 2		
Name_1	AREA	% Alt
Landform 1	237294.79	
TK7ZR (net)	5859.78	2.47%
TK95G	52.49	0.02%
TK95F	13.59	0.01%
TK95N	33.62	0.01%
TK95N	7.17	0.00%
TK95N	334.35	0.14%
TK95N	15.10	0.01%
Sum Alt	6316.11	2.66%

Percent Alteration Calculations and Linework

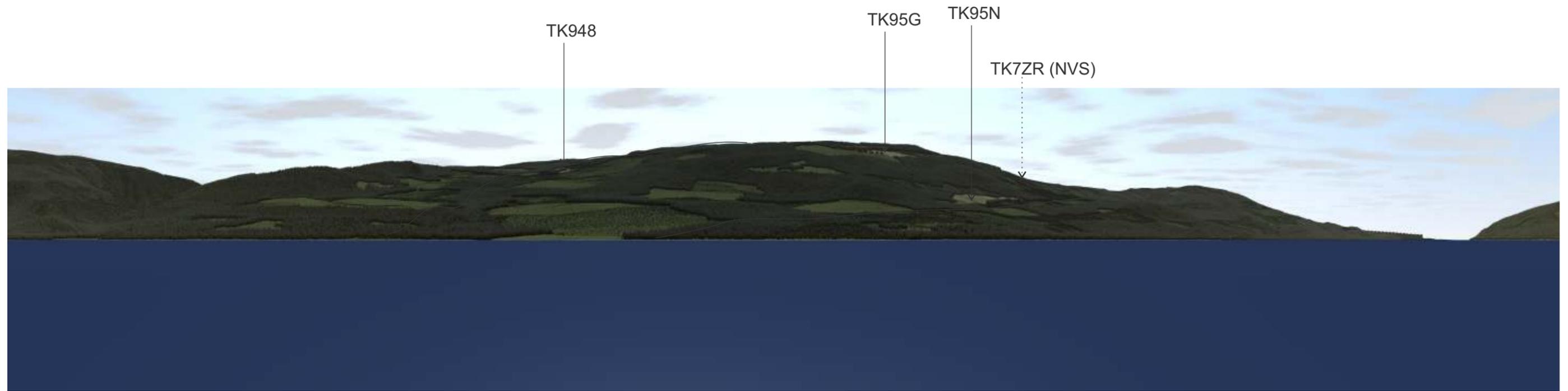


Viewing Distance 5.5 km / image width 10211 pixels

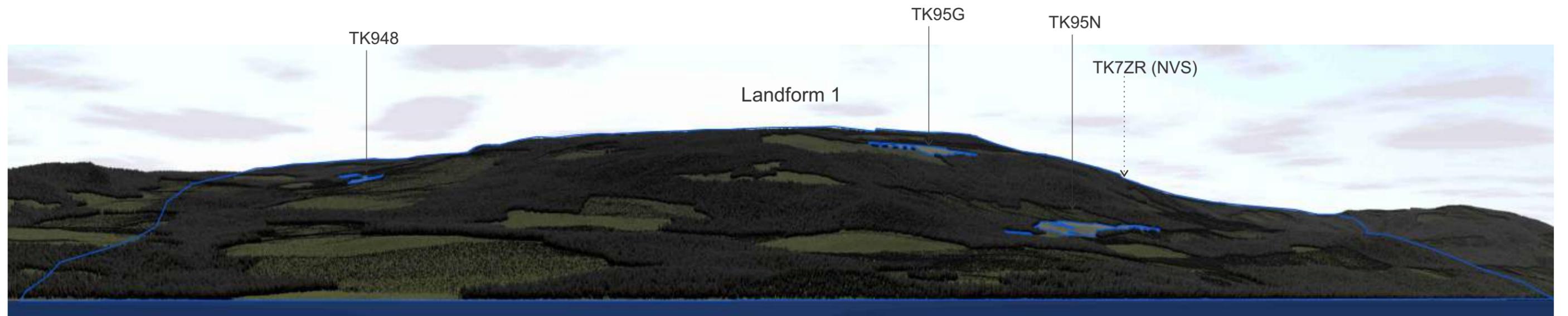


Percent Alteration Calculations and Linework

Percent Alteration Tracy Viewpoint 3		
Name_1	AREA	% Alt
Landform 11	378992.00	
TK95G	540.96	0.14%
TK95G	20.61	0.01%
TK95G	28.19	0.01%
TK95G	15.17	0.00%
TK95N	2900.02	0.77%
TK95N	323.29	0.09%
TK95N	71.70	0.02%
TK7ZR	811.08	0.21%
Sum Alt.	4711.03	1.24%



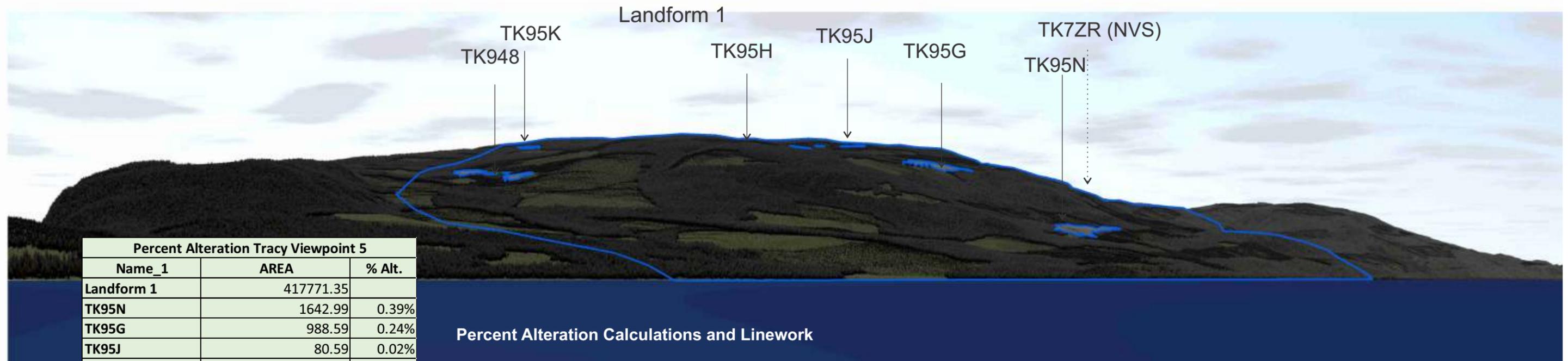
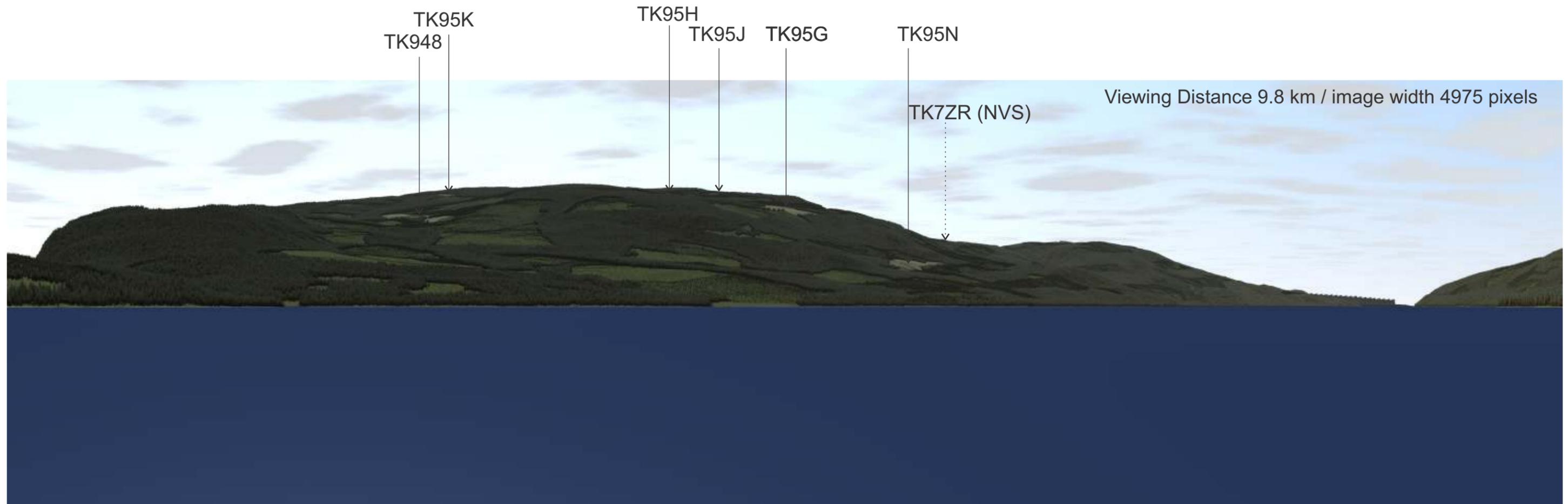
Viewing Distance 7.4 km / image width 7396 pixels



Percent Alteration Tracy Viewpoint 4		
Name_1	AREA	% Alt.
Landform 1	514961.65	
TK948	88.34	0.02%
TK948	209.20	0.04%
TK95G	1086.76	0.21%
TK95N	2082.98	0.40%
TK95N	78.37	0.02%
Sum Alt.	3545.64	<b>0.69%</b>

Percent Alteration Calculations and Linework

Viewpoint 4



Percent Alteration Tracy Viewpoint 5		
Name_1	AREA	% Alt.
Landform 1	417771.35	
TK95N	1642.99	0.39%
TK95G	988.59	0.24%
TK95J	80.59	0.02%
TK95J	16.15	0.00%
TK95H	41.13	0.01%
TK948	488.78	0.12%
TK948	485.27	0.12%
TK95K	152.41	0.04%
Sum Alt.	3895.90	0.93%

Viewpoint 5