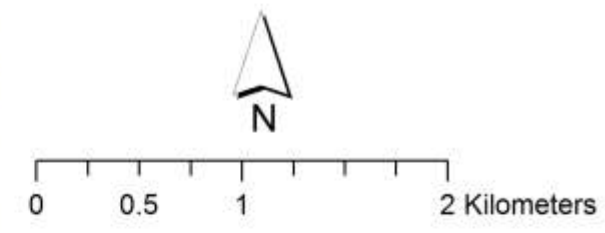


International Forest Products Ltd.
 Visual Assessment
 Malksope CHM Blocks
 prepared by
 RDI Resource Design Inc
 July, 2013

- Malksope_New_Blocks
- Malksope_Eng_Other
- Malksope_Completed
- Malksope_SR
- IFP_RDI_327A_leave
- Malksope_FTG
- Ocean
- VQO
- TRIM_streams
- TFM_Road_Construction
- Viewpoints



Malksope Inlet Visual Assessment and Design Recommendation
 RDI Resource Design Inc 2013
 Third Draft

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Introduction and Executive Summary

Malksope Inlet is located 12 km north of Kyuquot on Vancouver Island's northwest coast. Malksope IR7 is at the head of the inlet, and Upsowis IR 6 is at its mouth. Recreational activity is, reportedly, mainly at the entrance, and at Bunsby Islands Marine Provincial Park directly opposite to the inlet, which is south of Brooks Peninsula.

Malksope Inlet has steep-sided hilly-to-mountainous terrain reaching from 600m to 900m over its 6 km length. Blocks 327 and 327A are located along the southern sidehills of Malksope Inlet, within VSU 257. VSU 257, and the neighbouring, more prominent, VSU 2174 towards the mouth of the inlet, have been assigned a VQO of Partial Retention. At the outer end lays VSU 268 which has a Retention VQO. This unit includes Mt. Paxton made famous by the National Geographic cover back in 1992. Only the north-east side of that VSU with its distinct peak is seen from the inlet, along with a visible, but unclassified, area not captured in the Visual Landscape Inventory. VSU 2174 has one central peak and one half-shared with VSU 257. VSU 257 has one primary hill, a back hill, and the hill half-shared with VSU 2157. Low-laying unclassified area along the head of the inlet near the Malksope River was added to VSU 257 for analysis purposes. A VSU further up Malksope River - VSU 252 also forms part of the viewshed, along with VSU 2145 in the background.

Cutblocks CHM 327 and CHM 327A are located in VSU 268 along the inner part of the inlet's south side. The blocks are generally angled outwards down the inlet and will be variably visible while boating along the inlet. They will be seen in conjunction with several new (ENG) blocks in VSUs 2174 and 268 and intervening areas marked as not visually sensitive but seen from the viewpoints, recent harvesting not yet visually greened-up (nonVEG), satisfactorily restocked (SR) areas nearly or fully achieving VEG, and fully greened-up areas (VEG). For this analysis, all SR blocks were considered still to be nonVEG. Forthcoming photographic analysis will be used to determine the adequacy of VEG conditions.

The inlet provides a continuous array of viewing opportunities, with the landscape continually changing in the view. With no fixed viewpoints identified, ten transitory viewpoints were selected for analysis along middle of the inlet from the head to its mouth. Viewpoints 0, 1, 1A, 2 and 3, near the head of Malksope Inlet, offer the most direct views towards CHM 327 and CHM 327A. Viewpoint 0 and 1 at the extreme head offer less viewing opportunity as the blocks are partially obscured. Viewpoints 4, 5, 6, and 6A are closer to the mouth of the inlet offer less visible alteration from the 2 blocks, and less total alteration in view, when considered together with the adjacent VSU 2174. Viewpoint 7 and 8 provide no viewing opportunity towards CHM 327 and CHM 327A, though some glimpses of CHM 327 are afforded north of VP7 near the north shore, and further west towards the Bunsbys, where not obscured by the intervening small islets within the inlet. These outer viewpoints also bring some recent and engineered blocks into view in VSUs 2174 and 268 and the unclassified area between them.

The view from each transitory viewpoint (from 0 to 6 and 6A) was simulated using Visual Nature Studio built from data provided by Interfor (10m contours, forest heights, and roads). Percent alteration of alteration in each view was determined by digitizing each VSU and alteration in the perspective rendered viewpoint image and calculating the percent contributions within VSU 257 alone and within VSU 257 and VSU 2174 combined in order to consider the cumulative effects along the corridor as would be experienced by boaters. The results for each viewpoint are presented in the image sheets provided in this report. A summary of percent alteration in each of the transitional viewpoints for the single and combined VSUs is presented on the final page of the report. The results for VSU 257 alone, for both existing and new alteration, showed that the Partial Retention VQO of 7% maximum would be exceeded from 7 of the 9 viewpoints, reaching 15% from two viewpoints. The results for VSU are indicative of the 10% planimetric area for the 2 blocks when considered relative to the planimetric area of the VSU (635 ha). Steep slopes can cause the 1:1 plan-to-perspective relationship which is in evidence in the inlet landscapes. The percent alteration tends to increase when progressing down the inlet. This effect was predictable due to increasing perspective foreshortening, making the measured VSU appear smaller. The VSU appears largest and alteration least at VP 1. Viewing can occur for up to 500 m east of VP1 to the east shore at the head of the inlet near IR 7 and the Malksope River offering even broader views of the VSU and therefore relatively less visible alteration, well within the PR limits for VSU 257 (see VP 0 image sheet), and with CHM 327 (the upper block) now fully hidden.

If the percent alteration measure was restricted to the single VSU or landform, the new blocks would clearly exceed the VQO, exceeding the VQO from all but 2 viewpoints (VP 0 and VP 1) and no further harvesting would likely occur. When VSUs 257 and 2174 were combined (for a total width of 6 km), as they might be experienced while moving up the inlet without any fixed viewpoints, 6 of 9 transitory viewpoints will achieve Partial Retention, and from those exceeding the VQO, they exceed by 0.5%, 2.5% and 1.3% in perspective from viewpoints VP1a, VP2, and VP3 respectively. These viewpoints are in the upper end of the inlet where VSU 2174 makes less of a contribution. Although the landforms are segmented as 3 peaks within the 2 VSUs, divisions become less distinct towards the lower half of the inlet and at its mouth as viewing becomes more oblique, forming overall a fairly cohesive visual unit and viewing experience which continually change along the way. It is considered that the combined VSU approach is appropriate given the predominance of VSU 2174 relative to reported user concentrations keeping to the mouth of the inlet and further out at the Bunsby Islands. An averaging of the percent alteration for the combined approach across the viewpoints keeps the average within Partial Retention (5.75%). This figure will be less if/when some of SR blocks are deemed to meet VEG. Caution: FREP audit and C&E procedures could possibly base their determinations on the individual hills within the VSUs as the measurement "landforms", despite the viewer-based logic expressed in the combined approach.

The next levels of analysis are design quality (including visual force) and verbal definition. The steep, incised landscape provides very strong visual forces along the south side of Malksope Inlet. These invite a bolder pattern of alteration and appear to have been utilized by, and obviously guided, the layout of CHM 327 and 327A, as well as past and other engineered blocks. The two main blocks are oriented down the inlet. The original angularity at the base CHM 327A was reduced with a leave patch, suggested by RDI and refined by IFP, following a lower road. The before and after effect of this change is presented from each viewpoint in the report (VPs 1 to 6A). While dominant in the face-on views towards VS2174U 257, the blocks become subordinate when the full south-side landform is taken into consideration (VSUs 257 and 2174 combined), particularly from down-inlet viewpoints, using the following FREP description of Partial Retention:

*PR - "easy to see, natural appearing, not rectangular" . Range 1.5% to 7.0% in perspective view.
M - "very easy to see, large in scale, natural appearing, or small to medium in scale but with some angular characteristics". Range 7.1% to 18% in perspective view.*

Note: visible contribution of existing blocks subject to evaluation of photography (forthcoming).

Other existing nonVEG blocks exhibit good responses to the strong visual forces, and contain leave patches which contribute to good design and reduce scale.

The VIA Summary Table follows.



Visual Impact Assessment Summary Table

District: Campbell River Licensee: International Forest Products Ltd.

Licence Number: Chamis CP# & BLK #, or RP#: CHM 327 CHM 327A Map Reference #: 092L01 3 Proposed year of Harvest: 2013 Proposed Silv System: CC with leave

Type of Proposed Alteration (e.g. Cutblock, Road or Pipeline R/W, Oil lease, etc.): **Cutblocks, roads**

VISUAL LANDSCAPE INVENTORY LABEL (old): VLU#: VSR: VAC: EVC: EVQO: VSU#: 257 VSC: VAC: EVC: EVQO: PR

DOES EVC EXCEED THE ESTABLISHED VQO? PR Yes No X

VIEWPOINTS & VIEWING CONDITIONS

Number & Name of Viewpoints from which the proposal is visible?

9 viewpoints see below

Indicate Viewpoint Importance.

Secondary waterway transitory VPs 0-6A; Major waterway VPs 7-8 (mouth of Inlet). See Executive Summary for greater details.

Viewing Distance (Fg, Mg or Bg.)

MG (FG=0-1km; MG=1km-8km)

VP	Latitude	Longitude	Mapsheet	VQO Achievement - Total Alteration*	
				VSU 257	VSUs 257, 2174
0	50d 8' 9.846" N	127d 25' 19.330" W	92L013	Y	Y
1	50d 8' 1.241" N	127d 25' 34.491" W	92L013	Y	Y
1A	50d 7' 53.065" N	127d 25' 58.466" W	92L013	N	N
2	50d 7' 47.388" N	127d 26' 26.538" W	92L013	N	N
3	50d 7' 44.112" N	127d 27' 10.867" W	92L013	N	N
4	50d 7' 35.716" N	127d 27' 54.117" W	92L013	N	Y
5	50d 7' 25.800" N	127d 28' 19.332" W	92L013	N	Y
6A	50d 7' 22.407" N	127d 28' 56.985" W	92L013	N	Y
6	50d 7' 16.136" N	127d 28' 41.143" W	92L013	Y	Y
7	50d 6' 42.749" N	127d 29' 28.362" W	92L013	N/A	N/A
8	50d 6' 17.887" N	127d 29' 34.541" W	92L013	N/A	N/A

*based mainly on percent alteration due to complexity of existing and new blocks and deep shading - see report chart on final page for totals of percent alteration by viewpoint.

ASSESSING BASIC VQO DEFINITION

Does the proposed alteration, in combination with any existing Non-Veg alterations, achieve the basic VQO definition for the established VQO from each of the identified viewpoints? Yes and No (see FPPR definition below and table above (based on percent alteration). See Executive Summary for greater details.

The elements of design incorporated into block planning and engineering meet the definition of PR as per FPPR S 1.1. The principal blocks are within VSU 257, exposed by their position along the length of the inlet. The blocks have an undulating design conforming to the lines of force. A leave area was added in CHM 327A to break lower angularity and strengthen visual forces.

"Partial retention" 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 (a) is easy to see, (b) is small to moderate in scale, and (c) has a design that appears natural and is not angular or geometric (FPPR S 1.1).

If applicable state reasons why the proposal does not achieve the basic definition.

The blocks, together with nonVEG alteration tend exceed the VQO in VSU 257, but total alteration is more in line when considered together with VSU 2174. The north-facing aspect increases VAC, including a reduction in contrast

from the SR blocks. See Executive Summary for greater details.

If applicable, which basic VQO definition would the proposed alteration in combination with any existing Non-VEG alterations meet?

N/A or P R PR M MM EM
(see chart above)

ASSESSING VISUAL DESIGN

Does the proposed alteration(s) exhibit elements of good visual design? YES NO

Does the proposed alterations respond to the lines of force analysis? YES NO

If No why?

Describe the design principles and practices used to blend the proposed alteration(s) with the landscape (e.g. edge treatment & feathering, irregular boundaries, leave trees/patches, etc.) Irregular boundaries follow lines of force; leave patch added in CHM 327A to strengthen lines of force (see map and image sheets).

Are there existing human made alterations visible in the unit showing no or poor design? NO YES

Existing logging has good shape; now greening-up (exact state of VEG to be assessed when current photography received).

ASSESSING SCALE OF ALTERATION - Original Plan

(Use photographs or computer simulation output for calculations) (See Appendix 4 for example of calculation)

See individual image sheets for percent alteration calculation and summary chart on last page of the report. Also, See Executive Summary for greater details.

Scale of Alteration - Interfor Final Leave Patch Addenda - Conclusions

The leave patch, totalling 2.4 ha in area, resulted in a small reduction in percent alteration but a strong improvement in design.

FOREGROUND ALTERATIONS AND SCREEN DESIGN

Is the proposed alteration within 1 kilometre of the viewing locations? YES both

Does vegetative or landform screening exist? YES NO

If yes, what type: Deciduous Coniferous Mixed Forest Landform

Would the screen hide proposed operations? YES both

Is vegetative screen designed properly ie responds to lines of force, shape & scale and remains a viable unit for future removal? YES NO N/A

Is vegetative screen expected to be windfirm? YES NO N/A

If alteration would not be screened or only partially screened, describe the actions proposed to reduce the visual impact in the immediate foreground (e.g. landing location, roadside clean-up, etc.)

The screening is in place along the inlet - not as a direct part of block design

ADDITIONAL CONSIDERATIONS

Does the EVC in adjacent units exceed the established VQO for those units and how would this affect the management of the present unit proposed for alteration? YES NO

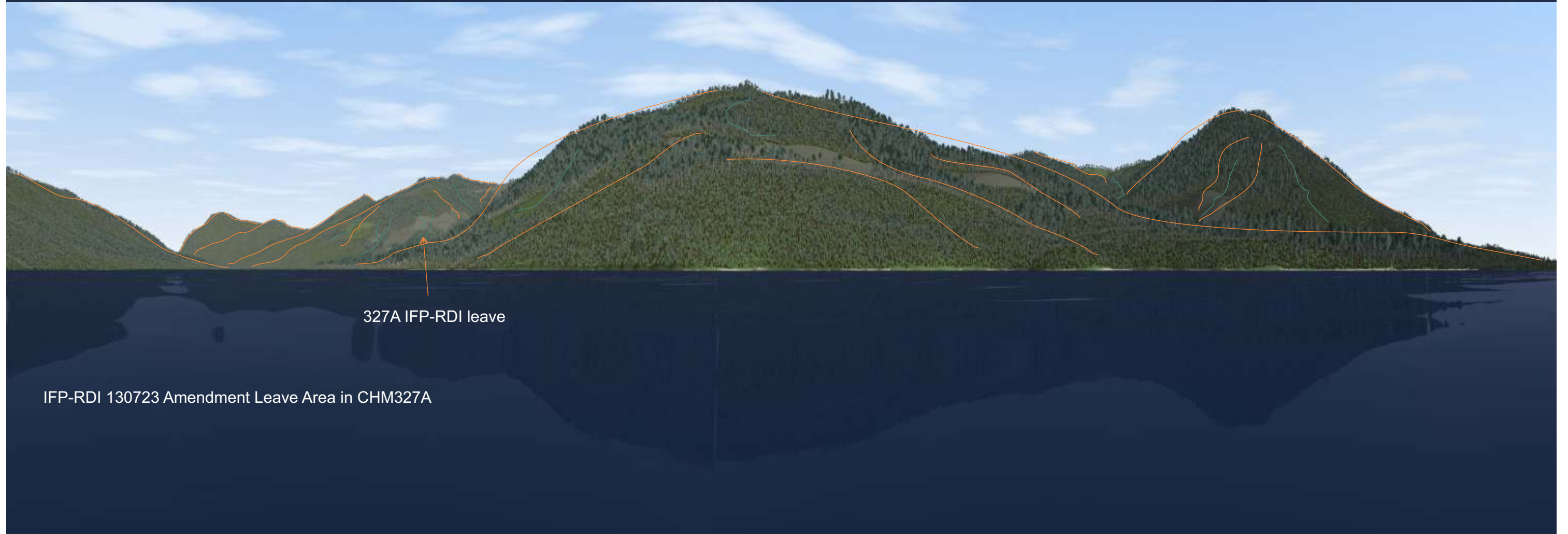
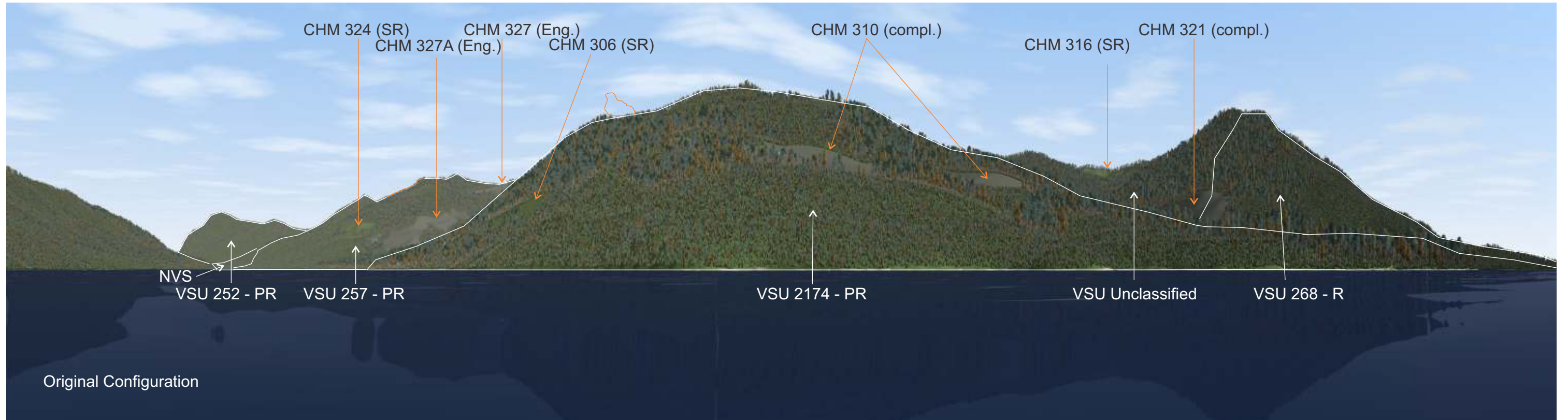
Comments:

Has this VIA submission incorporated all known alterations proposed within the Visual Sensitivity Unit for the next 5 years? (i.e. all blocks proposed by the same or different licensees) YES NO

Comments:

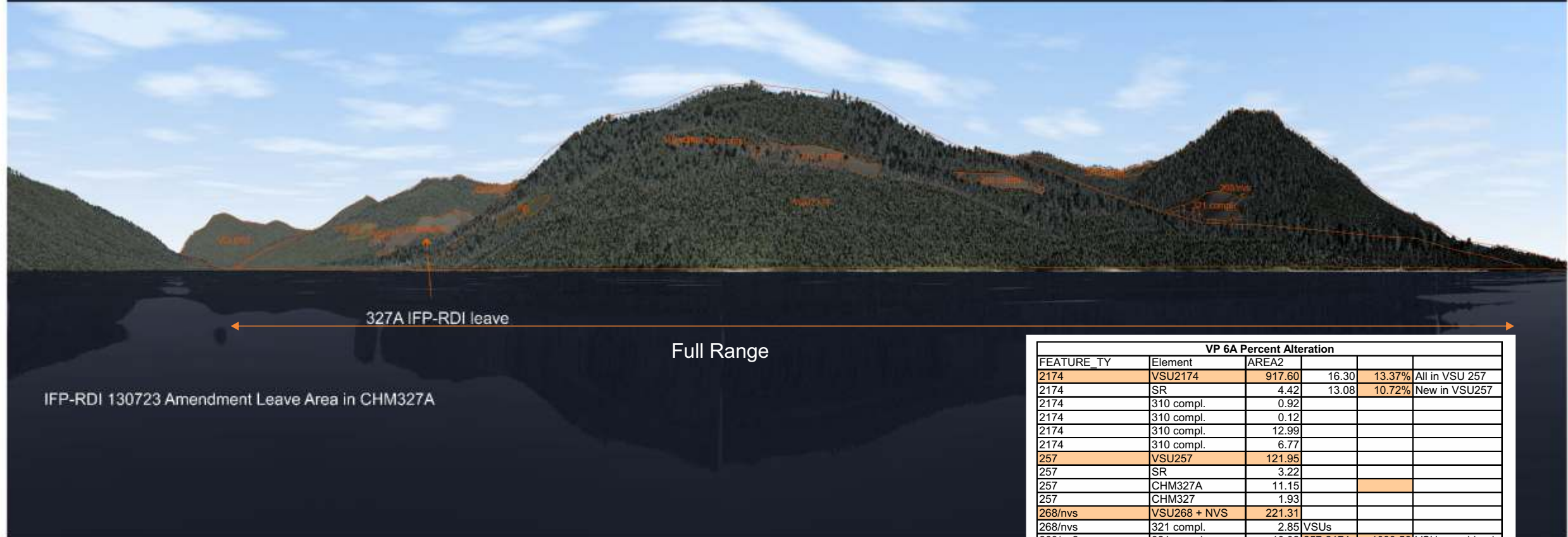
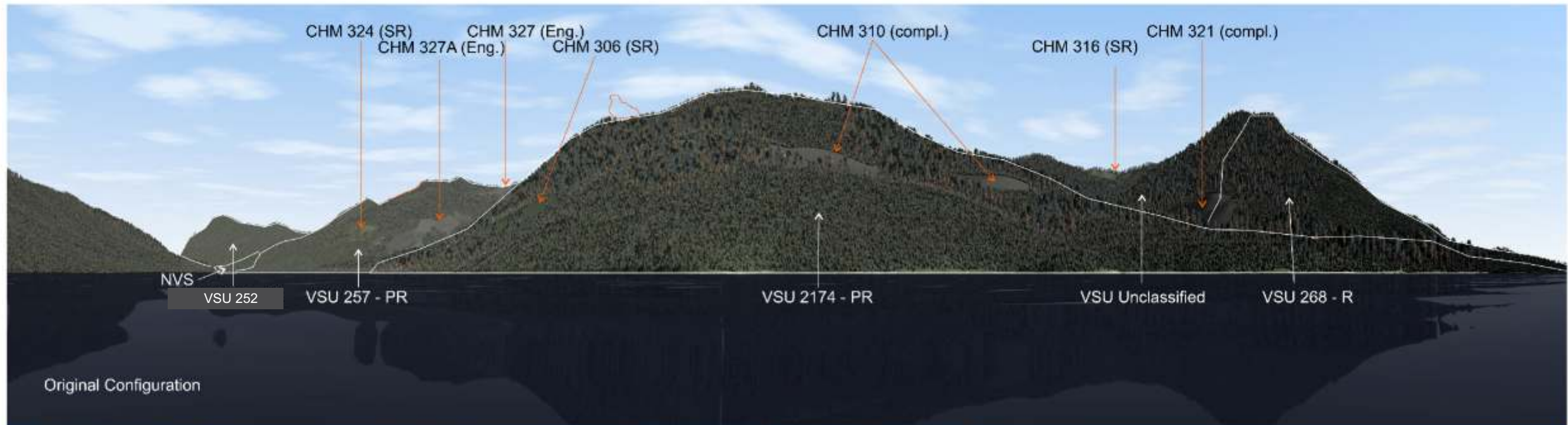
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Date Completed: August 11, 2013



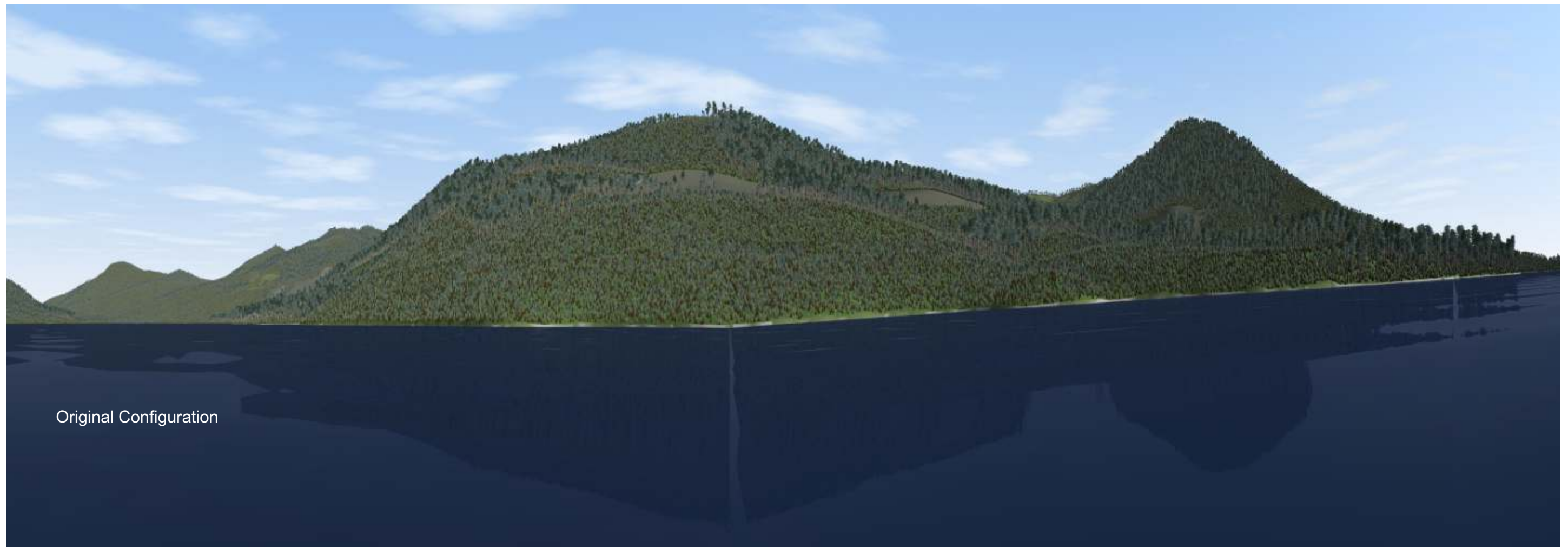
- Visual Force Convexity (to be completed)
- Visual Force Convexity (to be completed)

VP 6A

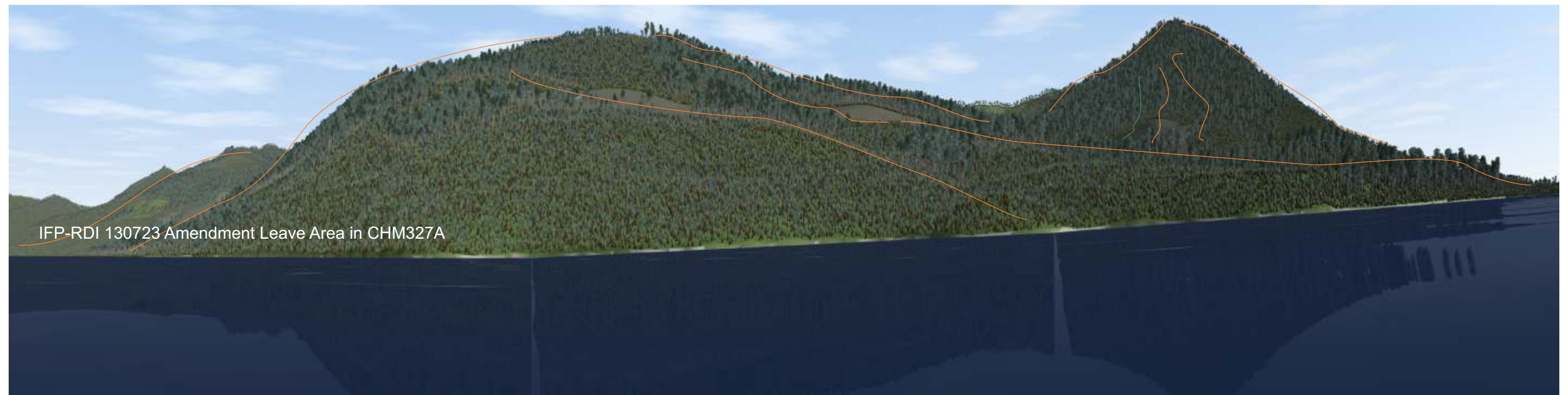


VP 6A

VP 6A Percent Alteration					
FEATURE_TY	Element	AREA2			
2174	VSU2174	917.60	16.30	13.37%	All in VSU 257
2174	SR	4.42	13.08	10.72%	New in VSU257
2174	310 compl.	0.92			
2174	310 compl.	0.12			
2174	310 compl.	12.99			
2174	310 compl.	6.77			
257	VSU257	121.95			
257	SR	3.22			
257	CHM327A	11.15			
257	CHM327	1.93			
268/nvs	VSU268 + NVS	221.31			
268/nvs	321 compl.	2.85	VSUs		
268/nv2	321 compl.	10.92	257-2174	1039.56	VSUs combined
252	VSU252	33.69	%Alt	3.99%	
VSU252-257-2174		1073.25			
Alt in Array		41.51			
%alt in Array		3.87%			
Full Range		1294.55	VSUs 252-257-2174-268 combined		
Alt in Full Range		55.29			
%alt Full Range		4.27%			

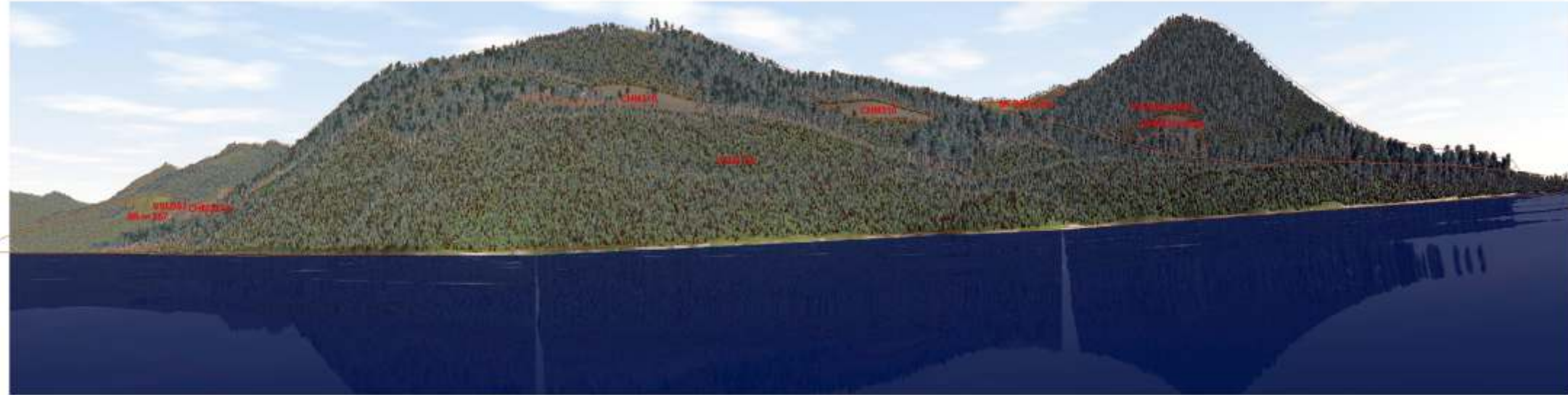


Original Configuration



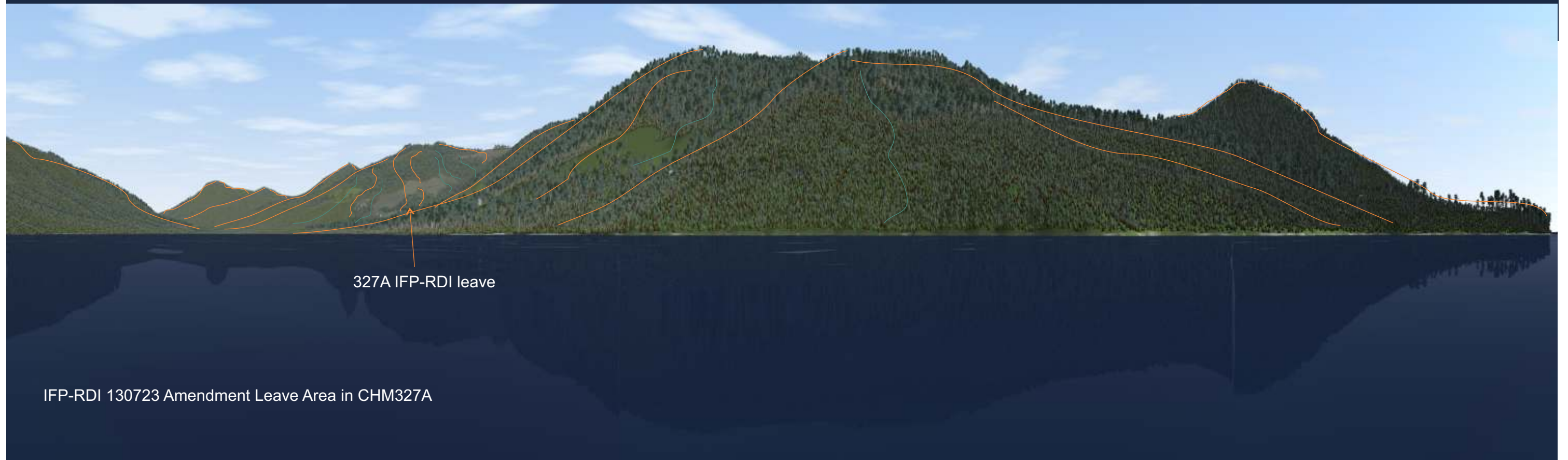
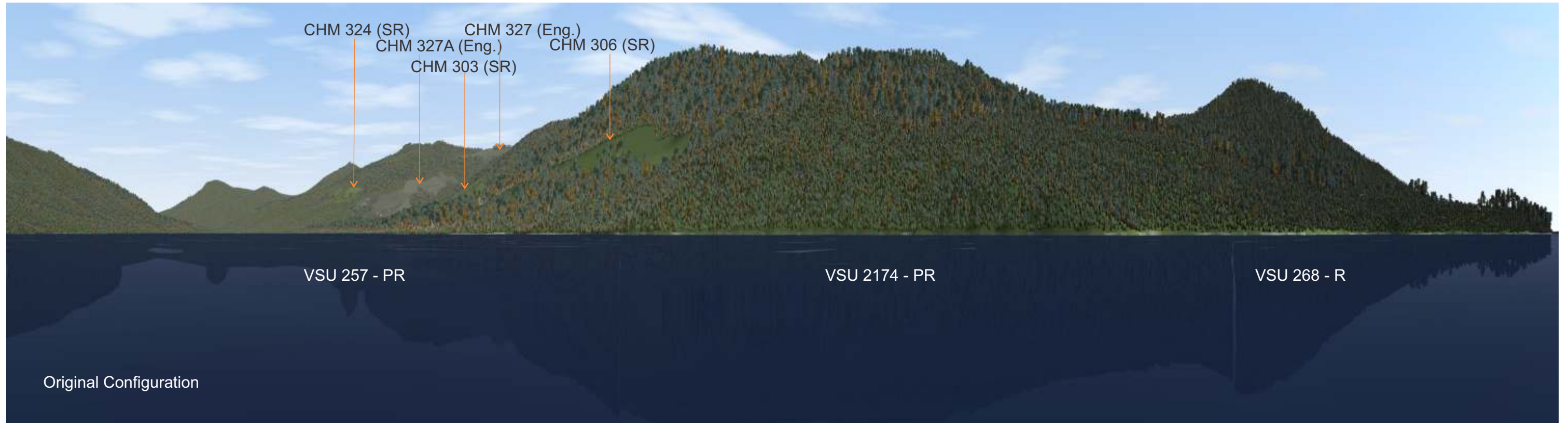
IFP-RDI 130723 Amendment Leave Area in CHM327A

VP 6

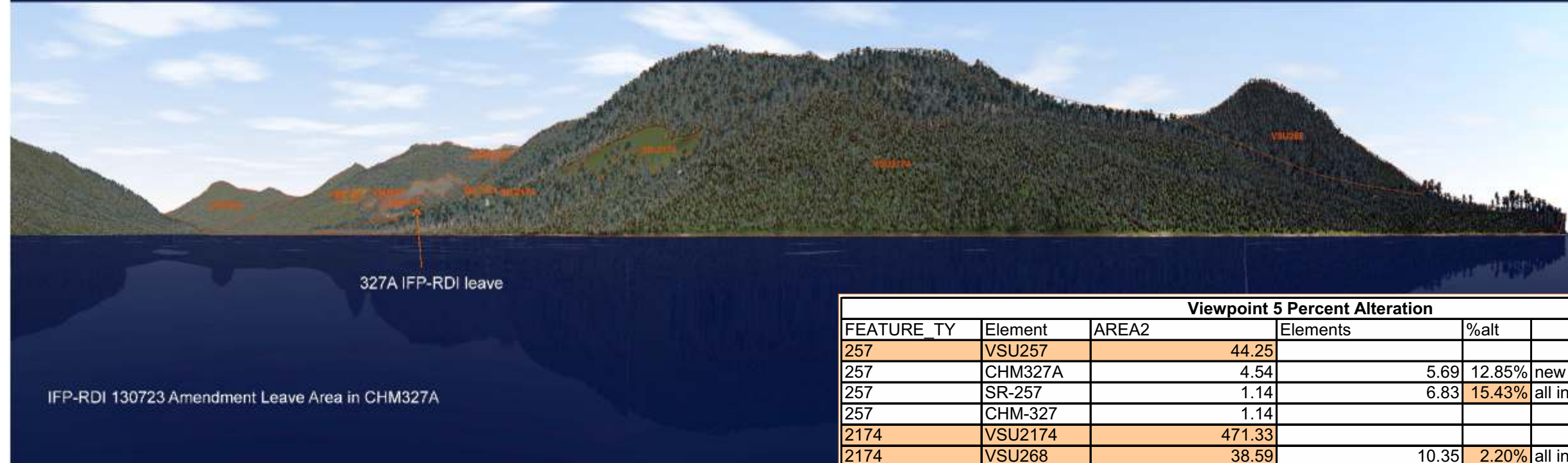
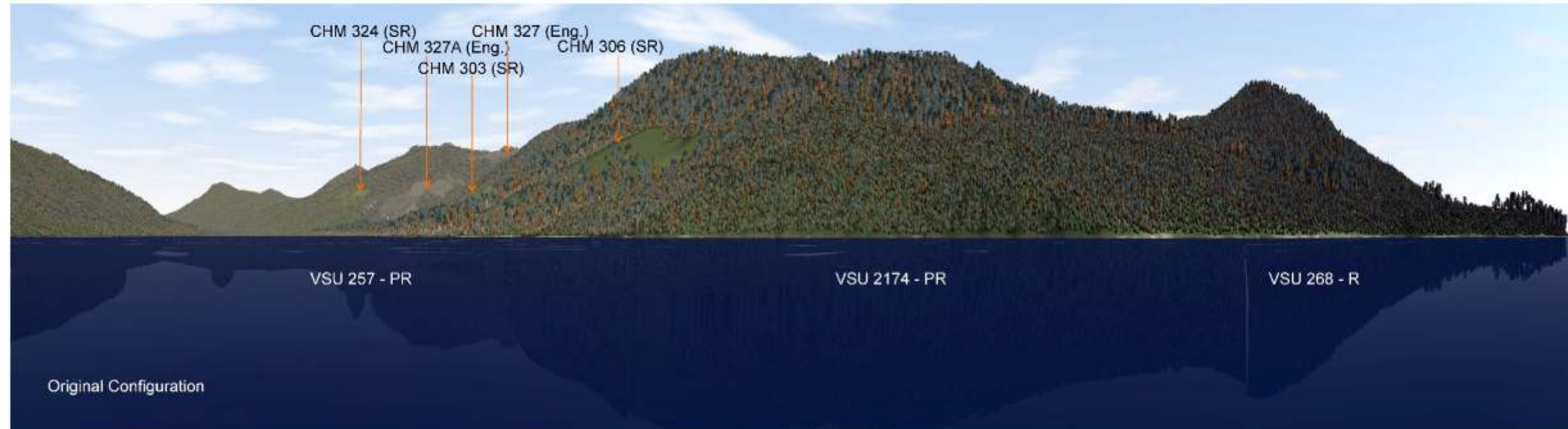


Full landform shown in upper image,previous page

Viewpoint 6 Percent Alteration						
FEATURE TY	Element	AREA2				
257	VSU257	47.34			4.93%	new in VSU257
257	CHM327A	2.33	3.88		8.20%	all in VSU257
257	SR in 257	1.55				
2174	VSU2174	542.91				
2174	CHM310	6.89	10.91		2.01%	all in VSU2174
2174	CHM310	4.02				
268	VSU268+UNCL.	103.65				
268	SR-268+uncl.	1.50	5.80		5.59%	all in VSU268+uncl.
268	CHM321compl.	4.30				
			590.25380996100			Sum VSUs 274-2174
					2.24%	new in VSUs257 and 2174comb.
			14.78939853515		2.51%	all in 257+2174
			693.90616885200			Sum combo 257-2174-268
			20.58770111733		2.97%	all in range 257-2174-268



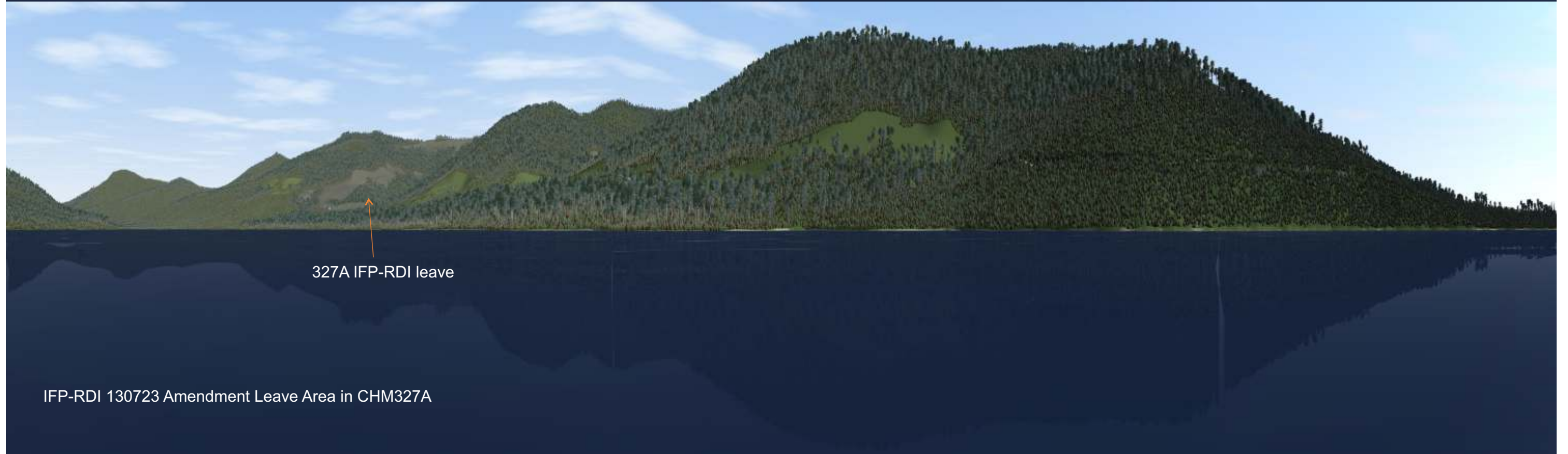
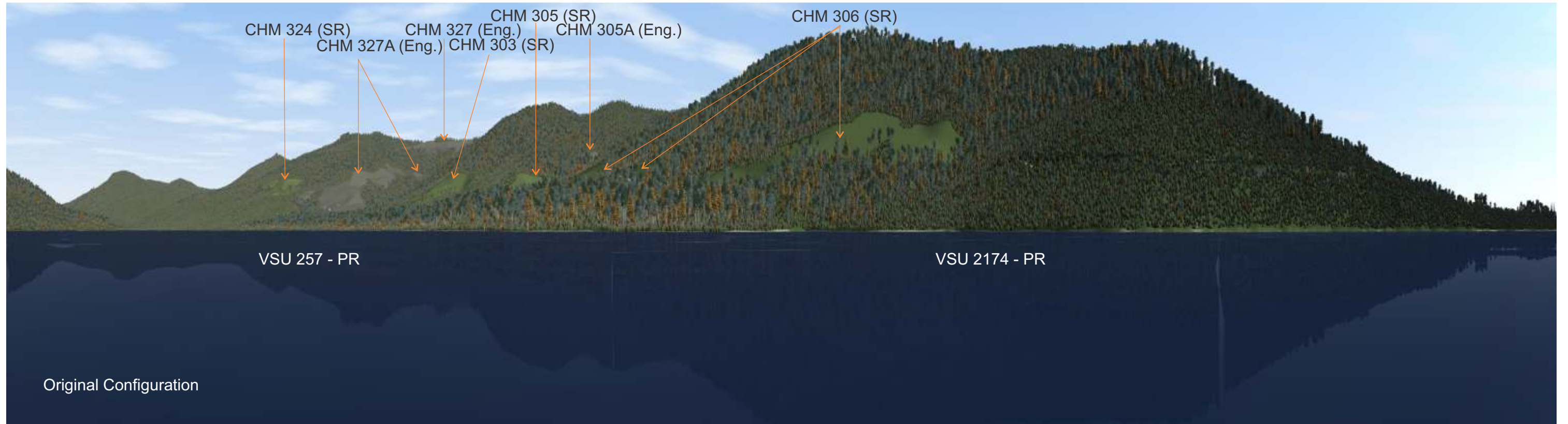
VP 5



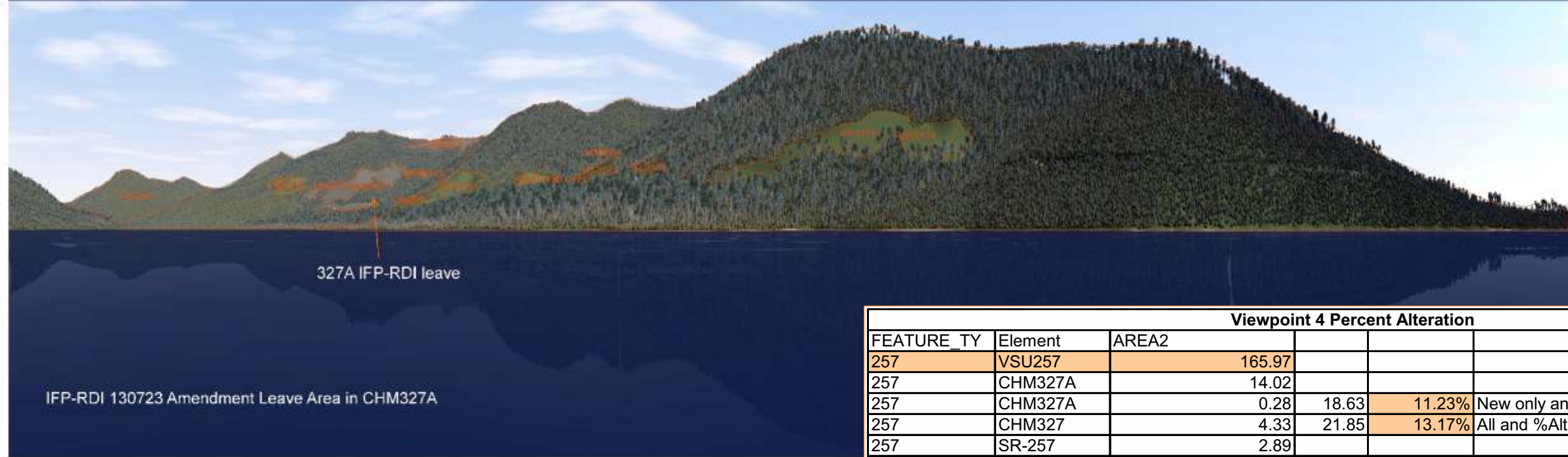
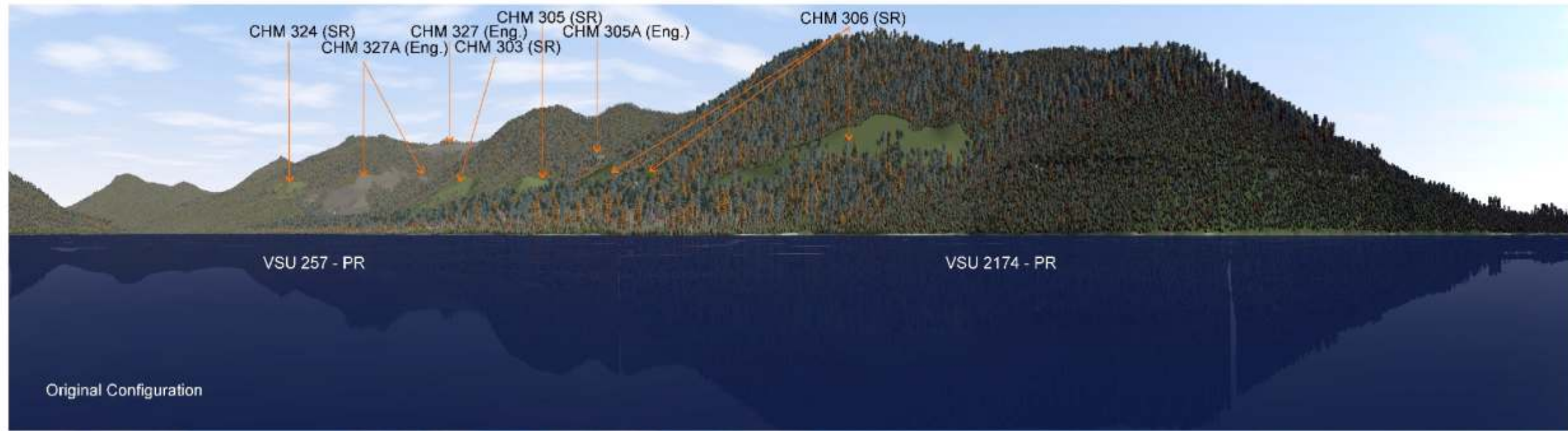
VP 5

Viewpoint 5 Percent Alteration					
FEATURE_TY	Element	AREA2	Elements	%alt	
257	VSU257	44.25			
257	CHM327A	4.54	5.69	12.85%	new in VSU257
257	SR-257	1.14	6.83	15.43%	all in VSU257
257	CHM-327	1.14			
2174	VSU2174	471.33			
2174	VSU268	38.59	10.35	2.20%	all in VSU2174
2174	SR-2174	0.49	17.18		
2174	SR-2174	0.17	515.58	3.33%	all in VSUs 257, 2174
2174	SR-2174	9.69			
252	VSU252	11.11	565.27	3.04%	all in VSUs 252-257-2174-268

AREA2 is digital measure in perspective view, not geographic map view

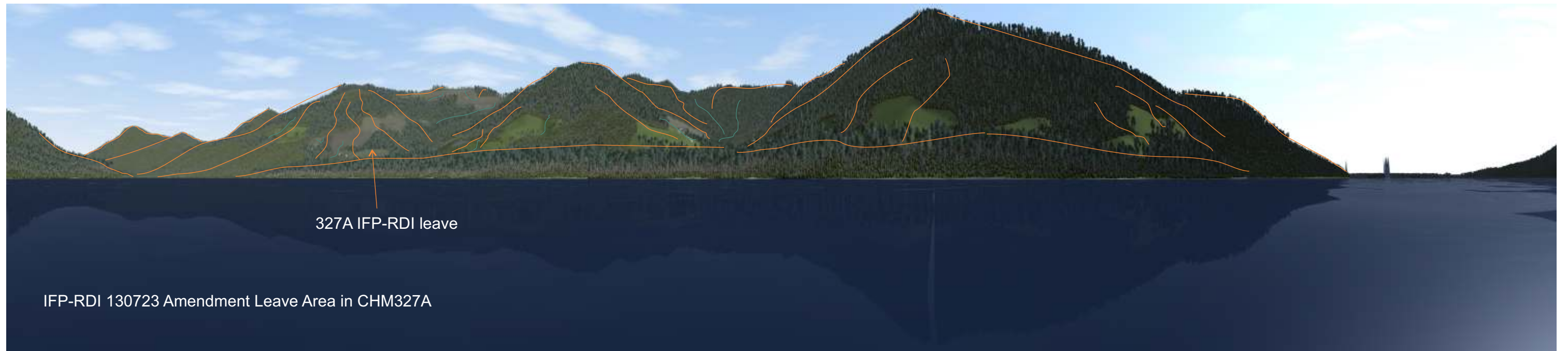
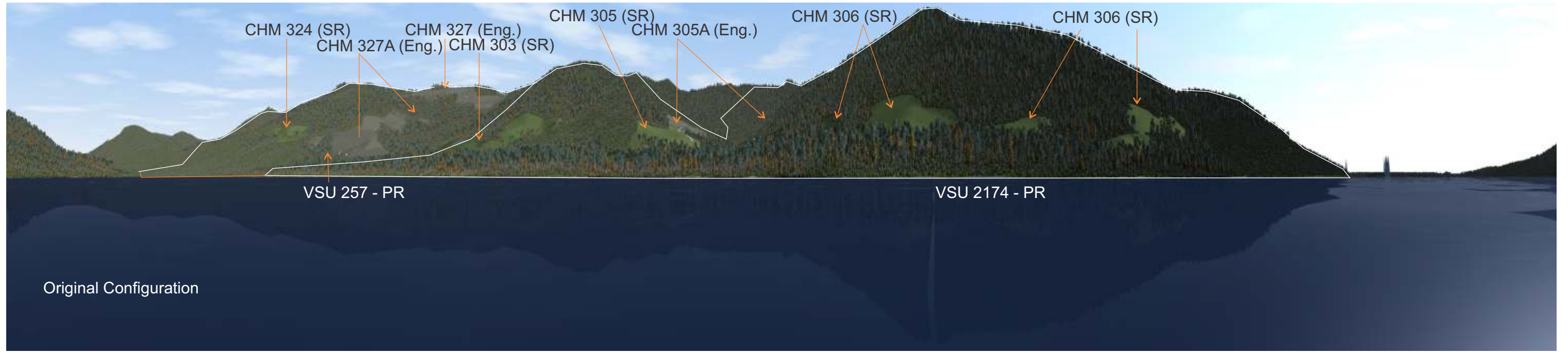


VP 4

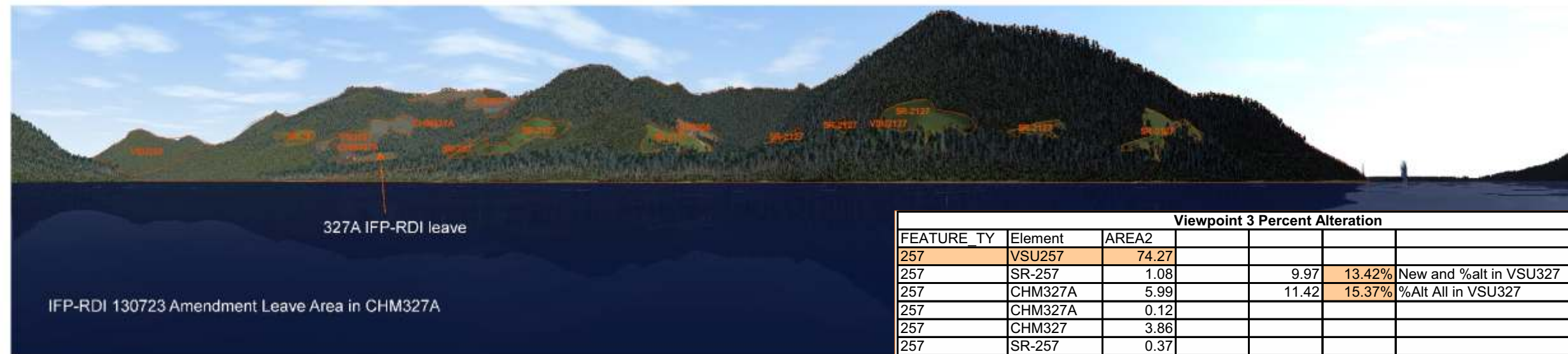
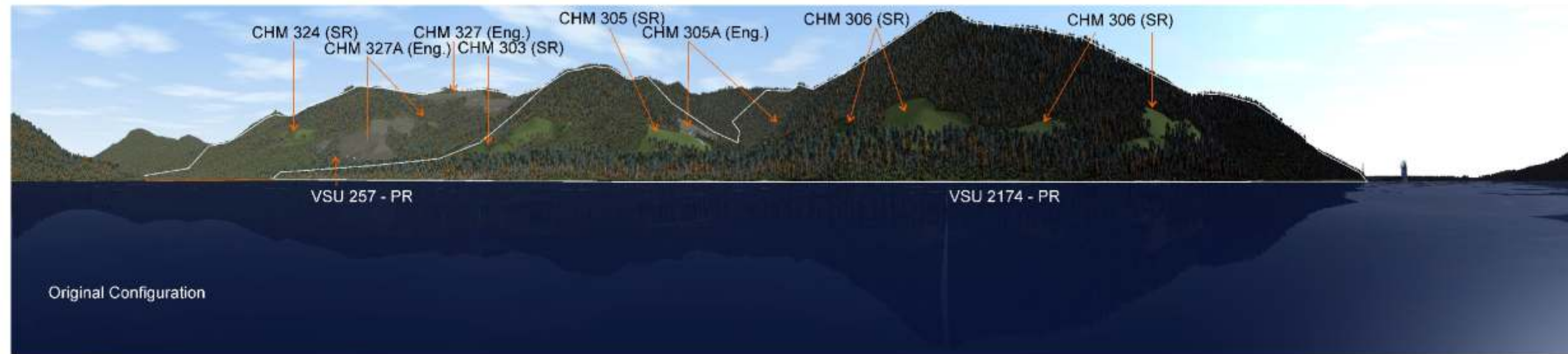


VP 4

Viewpoint 4 Percent Alteration					
FEATURE_TY	Element	AREA2			
257	VSU257	165.97			
257	CHM327A	14.02			
257	CHM327A	0.28	18.63	11.23%	New only and %Alt in VSU 257
257	CHM327	4.33	21.85	13.17%	All and %Alt in VSU 257
257	SR-257	2.89			
257	SR-257	0.32			
2174	VSU2174	1357.71			
2174	SR-2174	1.51			
2174	SR-2174	47.56			
2174	SR-2174	7.17	61.42	4.52%	Sum and %Alt All in VSU 2174
2174	SR-2174	1.89	1523.67		Sum VSUs257, 2174
2174	SR-2174	0.15	83.27	5.47%	Sum and %Alt in VSUs 257, 2174 combined
2174	SR-2174	2.83			
2174	CHM305A	0.31	0.31	0.02%	New and %Alt in VSU 2174
252	VSU252	35.42	1559.09	5.34%	Sum and %Alt VSUs 257, 2174, 252



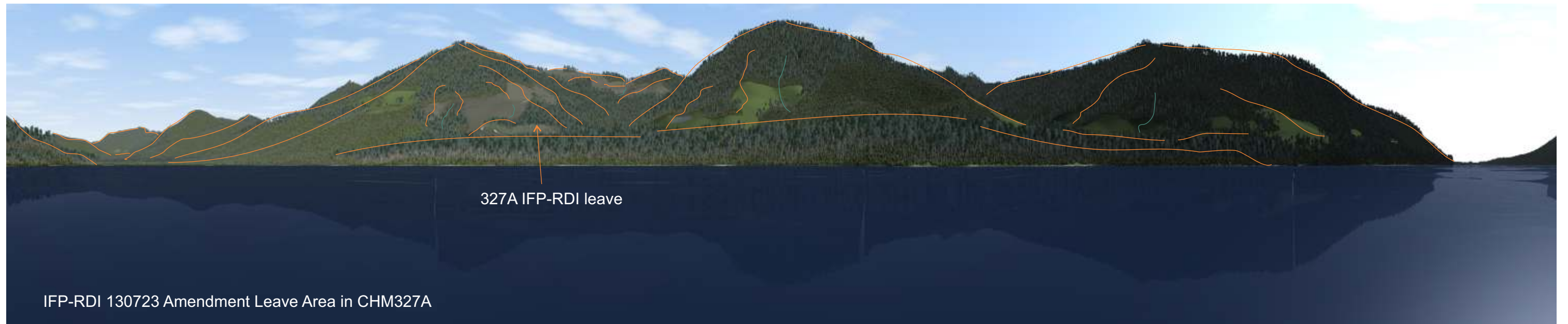
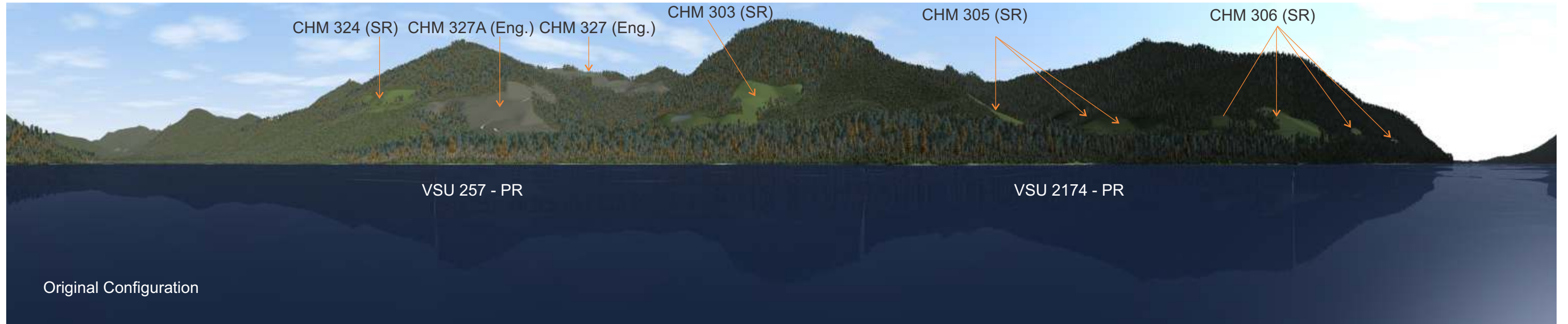
VP 3



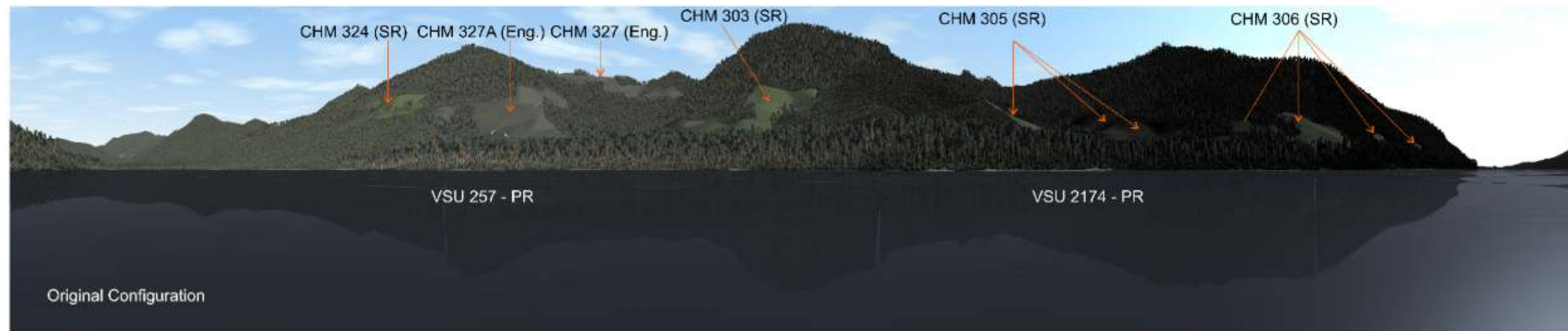
Viewpoint 3 Percent Alteration						
FEATURE TY	Element	AREA2				
257	VSU257	74.27				
257	SR-257	1.08	9.97	13.42%	New and %alt in VSU327	
257	CHM327A	5.99	11.42	15.37%	%Alt All in VSU327	
257	CHM327A	0.12				
257	CHM327	3.86				
257	SR-257	0.37				
2127	VSU2127	341.91				
2127	SR-2127	5.57				
2127	SR-2127	3.65				
2127	CHM305	1.05	1.05	0.31%	New in VSU 2127	
2127	SR-2127	0.51	24.18	7.07%	All in VSU 2127	
2127	SR-2127	7.56				
2127	SR-2127	0.42	416.18		Area2 of VSUs 257-2127 combined	
2127	SR-2127	1.56	35.60	8.55%	All in VSUs 257-2127 Combined	
2127	SR-2127	3.86				
252	VSU252	10.42	426.60	8.35%	All in VSUs 252, 257, 2127 combined	

VP 3

Area2 is digital measure of perspective area, not map units



VP 2



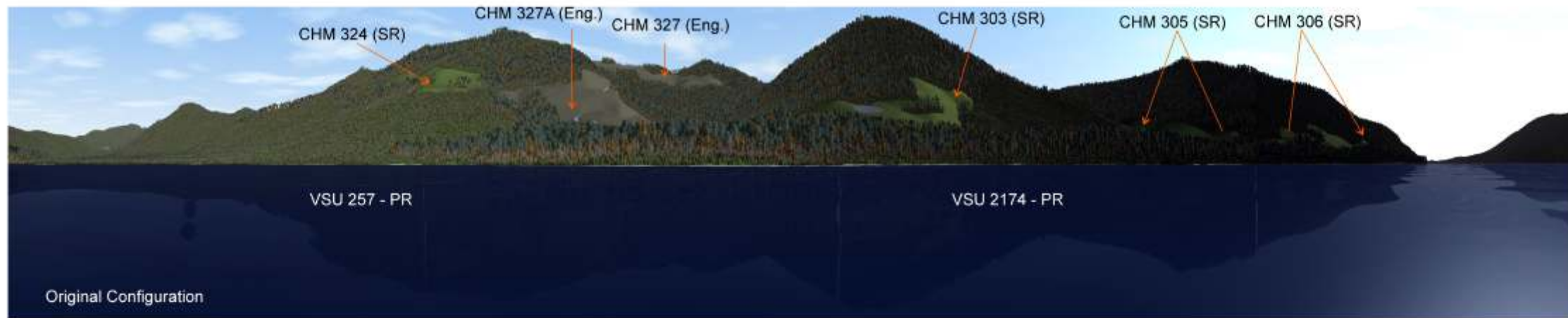
Viewpoint 2 Percent Alteration				
FEATURE_TY	Element	AREA2	%Alt	
VSU257	VSU257	668.70		
257	CHM327A	43.86		
257	CHM327A	0.13	62.11	9.29% New in VSU257
257	CHM327	18.12	86.31	12.91% All in VSU257
257	SR	11.96		
257	SR	12.24		
VSU2174	VSU2174	1050.57		
2174	SR	27.34	77.26	7.35% All in VSU2174
2174	SR	2.49		
2174	SR	3.25		
2174	SR	20.80	1719.27	VSUs 257 and 2174 combined
2174	SR	5.68	163.57	9.51% VSUs 257 and 2174 combined
2174	SR	16.91		
2174	SR	0.65		
2174	SR	0.14		
VSU252	VSU252	51.13	1770.40	9.24% VSUs 252, 257, and 2174 combined area

AREA2 is digital perspective area, not map units

VP 2



VP 1A

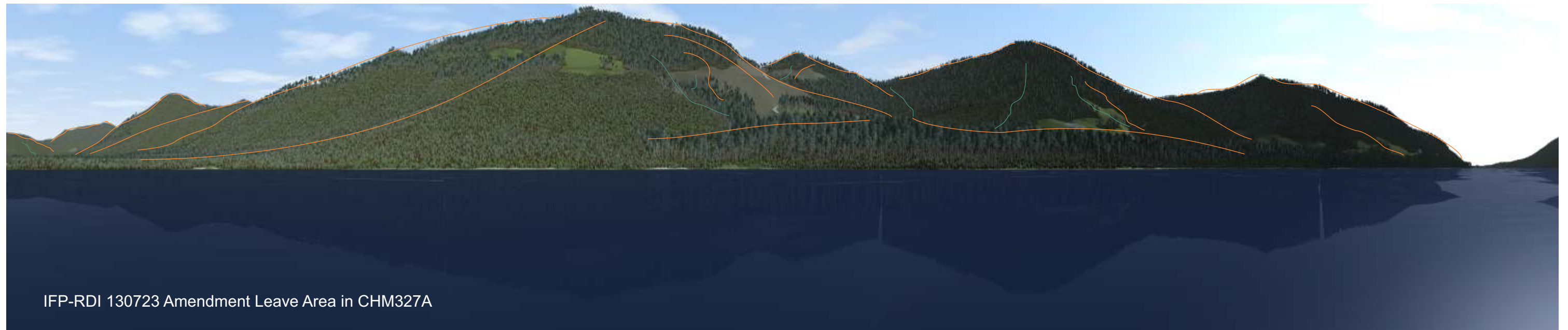
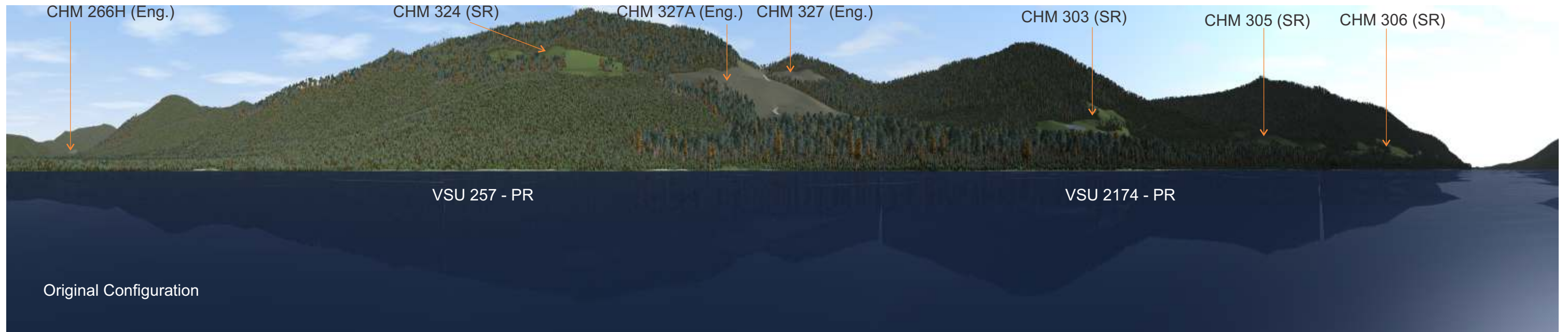


IFP-RDI 130723 Amendment Leave Area in CHM327A

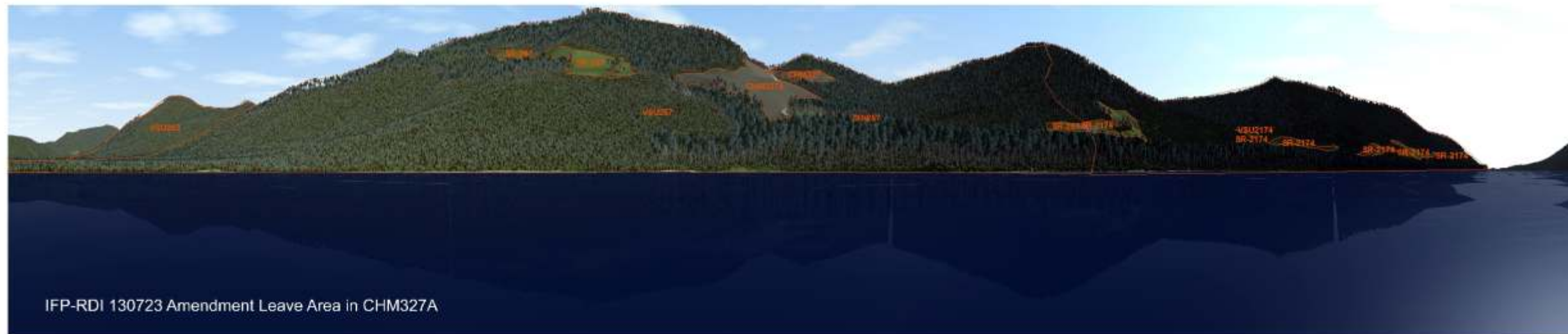
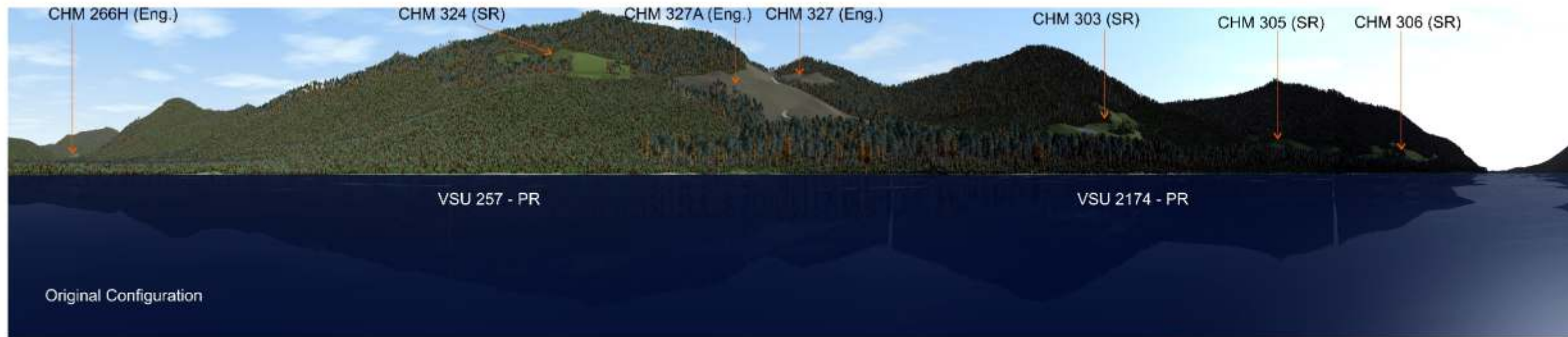
Viewpoint 1A Percent Alteration							
FEATURE_TY	Element	AREA2	Area2 Sum	%ALT PER vsu	Area2 Sum	VSU Area2	Combined %
257	VSU257	233.61		VSU257			
257	SR-257	5.08	22.04	9.43%			
257	CHM327A	0.20					
257	CHM327	3.43					
257	CHM327A	10.19			33.52	438.07	7.65% VSUs 257 & 2174
257	SR-257	3.13					
2174	VSU2174	182.42		VSU2174			
2174	SR-327	1.17	11.49	6.30%			
2174	SR-327	3.15					
2174	SR-327	0.12					
2174	SR-327	0.91					
2174	SR-327	6.14					
253	VSU253	11.97	0	0.00%	33.52	428.00	7.83% VSUs 257, 2174, 253

VP 1A

Area2 means area in perspective view, not geographic units



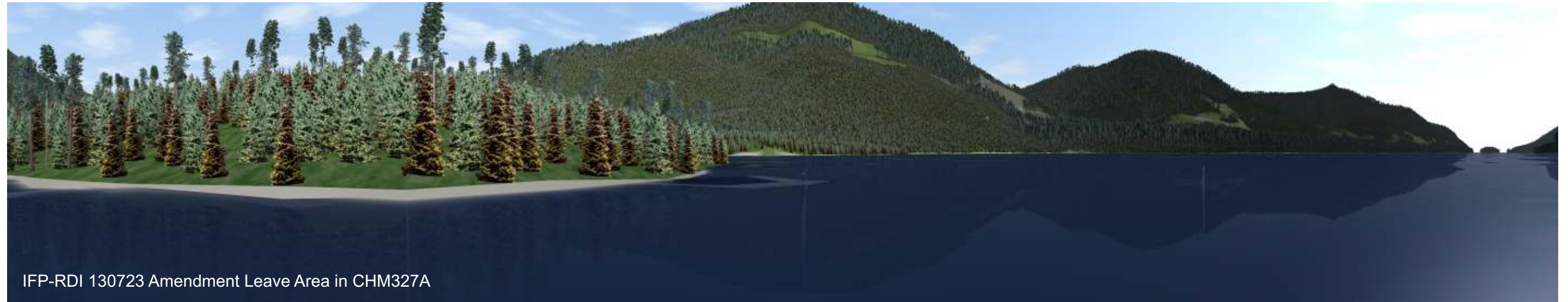
VP 1



Viewpoint 1 Percent Alteration					
FEATURE_TY	Element	AREA2	Area Sums	% Alt	%Alt Groups
257	VSU257	8053.329465			
257	CHM327A	226.0150293	261.028633	3.24%	New VSU257
257	SR-257	105.8416492	410.2862298	5.09%	New, SR VSU257
257	CHM327	35.01360363			
257	SR-257	1.137249943			
257	SR-257	21.60477183			
257	SR-257	20.67392583			
2174	VSU2174	2350.67218			
2174	SR-2174	58.80334908	112.635301	4.79%	VSU 2174
2174	SR-2174	4.510593151			
2174	SR-2174	21.8881261			
2174	SR-2174	13.15064293	522.9215308	10404	5.03% Sumalt VSUs 257, 2174
2174	SR-2174	14.08772295			
2174	SR-2174	0.194866794			
253	VSU253	364.4231693		10768.42	4.86% Sumalt VSUs 257, 2174, 253

Area is in digital unit, not map units

VP 1



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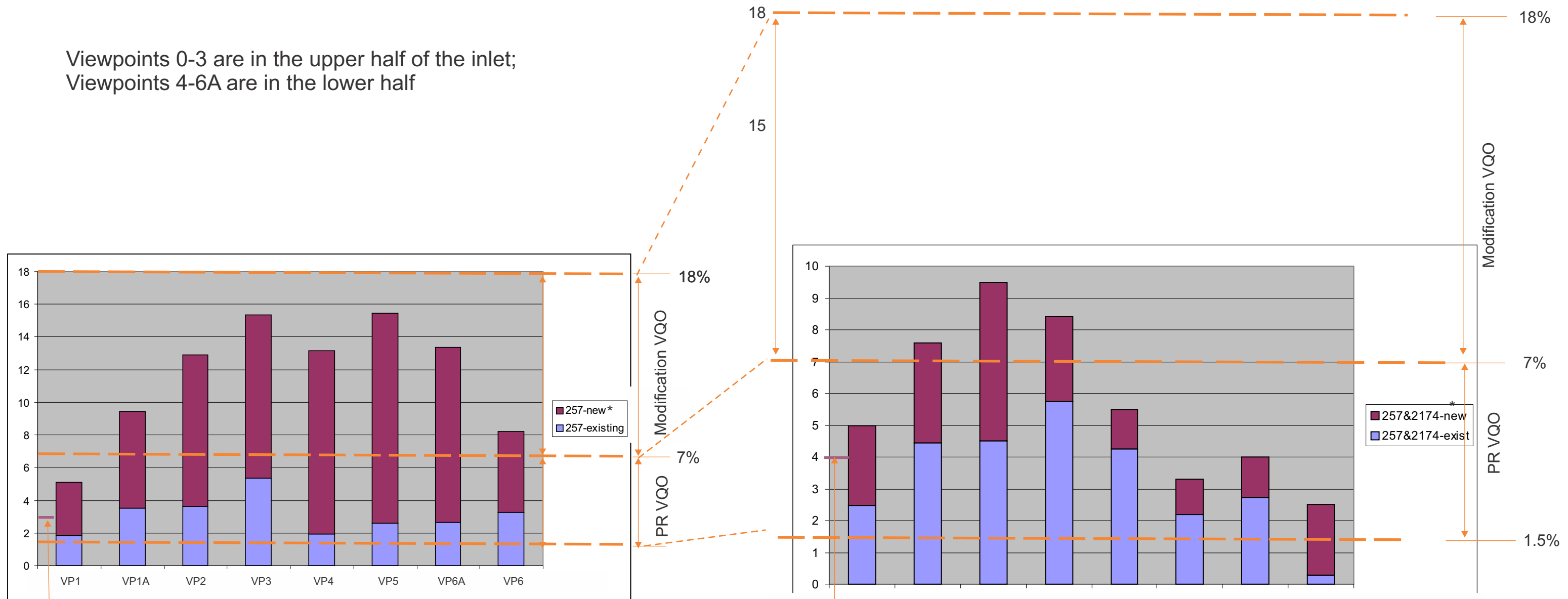
IFP-RDI 130723 Amendment Leave Area in CHM327A

Viewpoint 0 Percent Alteration							
Element	AREA2	SUM ALT per VSU	%Alt	SUM Alt. Comb.	Comb. VSU-Uncl.	%alt Comb.	
VSU 257	215.32						
CHM 327A-1	0.09						
CHM 327A-2	1.83	7	3.41%				VSU 257
SR-257a	4.99		0.89%				VSU 257 New
SR-257a	0.43		2.51%				VSU Existing
VSU 2174	55.59						
SR-2174	2.23	3.62	6.51%				VSU 2174
SR-2174	0.83						
SR-2174	0.21			11	270.90	4.05%	VSU 245 2174 comb.
SR-2174	0.34			0.71%			Comb. New
SR-2174	0.01			3.33%			Comb. Existing
VSU-Uncl	222.09						
VSU 257 + UNCL	437.41		1.68%				VSU 257+Uncl.
VSU 257+2174+Uncl.					708.31	1.55%	VSU 257+2174+Uncl.

VP 0

Percent Alteration in VSU 257 and VSUs 257 & 2174 Combined, by Viewpoint

Viewpoints 0-3 are in the upper half of the inlet;
Viewpoints 4-6A are in the lower half



Viewpoint 0 has 0.89% new, 2.5% existing - 3.4% total

VSU 257 only

* New includes blocks CHM327, 327A

Viewpoint 0 has 0.71% new, 3.3% existing - 4.0% total

VSU 257 & VSU 2174 combined

* New includes CHM327, CHM327A, CHM 305A, CHM311A, CHM321

PR - "easy to see, natural appearing, not rectangular". Range 1.5% to 7.0% in perspective view.
M - "very easy to see, large in scale, natural appearing, or small to medium in scale but with some angular characteristics". Range 7.1% to 18% in perspective view.

Note: visible contribution of existing blocks subject to evaluation of photography (forthcoming).