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**Introduction**

RDI received a request to conduct a follow-up Visual Impact Assessment of proposed fire-salvage cutblocks in the Copper Valley (Garrison) Operating Area on October 31, 2022 from Christian Shears, RPF, Practices Forester, Cascades Field Team. The salvage proposal included 10 cutblocks, WTRAs, and new roads, plus consideration of existing alteration. The project, covered under Contract PD23TEB097, constitutes the 7<sup>th</sup> round of planning and discussions first initiated in February, 2022 for Copper Salvage Visuals involving the Planning Team and K. B. Fairhurst, PhD, RPF, the Visual Resource Management Specialist. The request was accompanied by a draft Forest Stewardship Plan FSP #109 Amendment #4 for the Cascades District, Merritt Timber Supply Area (TSA). The FSP requires an amendment to section 5.9.1 for Visuals. The current FSP does not allow for variance in strategies beyond the described Visual Quality Objectives (VQOs) outlined in the Forest Planning and Practices Regulation (FPPR) Section 1.1. The draft wording is provided on page 4 of this VIA document. K. B. Fairhurst has examined the proposed salvage blocks within the landforms in which they are situated. The findings, presented in written, tabular and graphic form, by viewpoint, are presented in this document. The results are the culmination of the Cascades District diligently working with RDI to understand, design and implement burn salvage procedures in areas with Visual Quality Objectives.

RDI has a long-standing and on-going involvement in the Copper, commencing in February, 2015 with the “BCTS\_Garrison\_Visuals\_Preliminary\_Layout Report. Subsequent reports defined and expanded Visual Sensitivity Units to cover what could be seen from the elevated viewpoints along the Manning Provincial Park Trails and verified by cumulative viewshed production in ArcGIS. Each Stop was photographed by K. B. Fairhurst in 2018. Six VIA reports produced by RDI for the Garrison-Copper between 2015 and 2022 can be downloaded from the RDI website: <https://rdi3d.ca/visual-impact-assessment>. They are linked and named by year of production, and placed in chronological order in the listings presented on the website amongst over 90 BCTS reports produced by RDI. Viewpoint geo-locations are provided on page 23 in Tables 8a (Manning Park) and 8b (Garrison Trails and Campground).

**Procedures**

RDI used Visual Nature Studio to simulate the proposed salvage showing both “bare-land” VQOs and landforms, and forested sets of renderings from each viewpoint. VNS tree images were selected to emulate burned trees with some adherence to the burn intensity map provided by BCTS. The key map (page 1) and visibility tables were produced (P. 5).

Per guidance received from BCTS, additional trees were left in the blocks, both individually and clumped, ranging from 0 sph (COAMA) to 10 sph (CO7Z7 and CO8U0) and 3-5m stubs were placed at 20 sph density randomly in the blocks, and simulated for their effect on reducing visual conspicuousness. E-mails received with respect to the leave trees and stubs follow:

November 14, 2022 e-mail from Jasper Mackenzie, Drake Forestry re: Retention Strategy:

Here's our planned retention strategy for our Sunday Summit fire sales:  
A93300 Blk COAMP- 9.5 sph of live Fd and Bl >52.5cm dbh could be clumped;  
A94759 Blk CO8U3- 5.3 sph of live Fd >57.5cm dbh could be clumped;  
TA2198 Blk CO8U0- 10.1 sph of live Fd >52.5cm dbh could be clumped;  
We'll also have 20 stubs per hectare 3-5m tall in all three sales.

Email from Christian Shears, November 3, 2022:

The blocks in TA2184 (see below) will have 20 stubs per ha. I have also included the leave trees we are going to leave on the site for each block. These include:  
CO7Z7 - 8 stems per ha of Bl 35cm and greater could be clumped;  
COAJA - 10 stems per ha of Fd greater than 55 cm diameter could be clumped;  
COAJ9- 5 stems per ha of Bl greater than 20cm in diameter could be clumped;  
COAJC – 4 stems per ha of Fd between 45 and 65 cm in diameter and 3 stems per ha of Fd greater than 65 cm in diameter maybe clumped;  
COAM6 – - 5 stems per ha of Bl greater than 20cm in diameter could be clumped;  
COAMA – no retention besides stubs;  
COAMR – 9 - stems per ha of Fd greater than 40cm in diameter could be clumped.  
The guidance is summarized in Table 2 on page 5.

BCTS provided RDI with an internal draft copy of their proposed FSP as presented on page 4 of the document. In it, “some variance from established VQO limitations” would be sought, with the involvement of the VRM specialist, K. B. Fairhurst. The draft would change the degree of acuity (visibility) from mostly “easy to see” for landforms with the Partial Retention and Modification VQOs to “extremely easy to see”, a level above the terminology for Maximum Modification Visual Quality Classes (VQC) classification of “very easy to see” with the proviso that 34% alteration in perspective view would not be exceeded. The proposed BCTS salvage plan was directed by fire intensity and accessibility. Note: the FREP VQEE booklet applies the term “extremely easy to see” for Maximum Modification. See Table 7, page 21 for a comparative analysis. Page 22 has clips from source documents regarding scale and visibility.

**Findings**

Stop 6 was fully analyzed as being the most open, “best view” viewpoint at the head of the popular First Brother Trail in Manning Park. The total field of view encompassing the Copper Valley from Stop 6 was 130 degrees. Landform 1, between 5km and 10km in viewing distance, spans 37 degrees or 28% of the full width of view of the Copper Valley, Landform 2A, 2.5 km to 5km distant, spans 35 degrees or 27% of the full width of view, and Landform 3C, 3km to 5km distant, spans 90 degrees or 69% of the full width of the Copper Valley in view from Stop 6. A much broader, distant vista beyond the Copper as well as close in Park views encompassing a 360 degree panorama quickly grab much of the attention away from the Copper valley itself, perhaps with viewers seeking to look upon more natural landscapes in the park itself. Other viewpoints nearby provided variations of coverage but with similar results.

- Viewing distances from Stop 6 range from 4km (COAJC) and 4.5km (CO7Z7) to 6km (COAMP), 7km (CO8TZ and CO8U0), and 8km (CO8U3) all in the midground, and 10km (COAMR) in the background. Table 1, page 5 is a list of landforms. Table 3, page 5 shows viewing distance to the closest salvage block. Table 4 on page 5 tracks the cutblocks visible by viewpoint across 15 viewpoints. Although it is not a legislated requirement, the percent alteration within a landform is a useful indicator of achieved visual condition, namely the scale of alteration. As such, percent alteration was calculated in perspective view from Stop 6 identifying each landform, salvage blocks, and nonVEG opening in view. Percent alteration was calculated using each landform as the base measure (see Table 5 on pages 5 and 11, and the detailed Table 6 on page 11). An enlarged version of Table 6 is presented on p. 23.

**Landforms with Salvage Meeting the Established VQOs as seen from Stop 6:**

- L3A** will meet the established PR VQO at 6.23%, including nonVEG;
- L1C** will meet the established PR VQO at 5.83% - no nonVEG;
- L1D** will meet the established M VQO at 10.77%, including nonVEG.

**Landforms with Salvage Exceeding the Established VQOs as seen from Stop 6:**

- L1B** will exceed the established PR VQO at 10.98%, achieving Modification VQC and would require the proposed override of the FSP amendment; and
- L2A** would exceed the established PR VQO at 22.62%, achieving the Maximum Modification VQC and would require the proposed override of the FSP amendment.

Overall, the salvage plan exhibits conformity with visual forces mainly following RDI's landform boundaries, and has a cohesive design which emulates fire behaviour to some extent (broad base, narrowing uphill, and integrates with existing nonVEG to provide up to “very large in scale” and “very easy to see” visual conditions in the landforms per the draft FSP amendment on page 4. The salvage operation in the Copper will be able to achieve the established VQOs in three of the five relevant landforms. Landform L1B will achieve the “very easy to see, large in scale” Modification Visual Quality Class of alteration (VQC), one class less restrictive than the established VQO of Partial Retention (“easy to see”), and Landform L2A will achieve the Maximum Modification VQC (very easy to see, very large in scale). The proposed FSP amendment would allow for this adjustment. The draft would change the degree of acuity (visibility) from mostly “easy to see” for landforms with the Partial Retention and Modification VQOs to “extremely easy to see” (VQC) classification with the proviso that 34% alteration in perspective view would not be exceeded. Should additional areas within the named landforms be proposed for salvage harvesting, the FSP amendment could potentially accommodate those additions, depending on achievement of visually effective green-up (VEG) where it occurs.

The distributed and clumped leave trees, in addition to WTRAs, can provide a light but softening effect for the visual acuity of the cutblocks. The stubs, if visible are not likely to add significantly to the aesthetics except where there is knowledge of their purpose for wildlife. The could, however, conflict with achievement of visually effective green-up, where altered areas are required to exhibit a new forest with no bare soil or stumps visible. However, where VEG achievement is commonly 5m height of regrowth, the stubs will be covered by that time.

K.B. Fairhurst, PhD, RPF  
RDI Resource Design Inc  
January 20, 2023

**Summary**



## 5.9 Other Objectives Established or Continued under FRPA

### 5.9.1 Scenic Areas (Act ss. 180 and 181) with established VQO's

**Objective<sup>30</sup>:** Visual quality objectives and their applicable scenic areas are identified on the Forest Stewardship Plan maps and are also housed in the BC Geographic Warehouse.

**Applicable Area:**

Both TSAs.

**Definitions:**

**Established Visual Quality Objective (VQO)** means an area of land identified as a unique visual landscape unit. VQO spatial and attribute data is housed in the BC Geographic Warehouse.

**Extremely Easy to See:** Able to discern visually without any effort. Unobscured focal view, as seen from multiple stationary or continuous viewpoints of long duration (>1minutes). Although the term 'extremely' refers to a level of visibility beyond the Maximum Modification levels outlined on page 45 of the 2022 Visual Impacts Assessment Handbook<sup>31</sup>, 34% acuity will not be surpassed.

**Landform (LF):** A LF is defined by a topographic feature which is distinct and a sub-unit of the broader landscape. A Qualified Professional will delineate Landforms from a significant public viewpoint based on the drainages, ridges, skylines, shorelines, and valleys that comprise a viewing unit<sup>31</sup>.

**Scenic area** means an area of land established as a scenic area under the Forest Practices Code of British Columbia Act on or before October 24, 2002, and continued as a scenic area under section 180 (c) of the Act.

**Significant Viewpoint** means a location which is on the water or land that is accessible to the public that is representative of significant public viewing opportunity and has relevance to the landscape being assessed. The viewpoint is not necessarily the viewpoint identified in the visual landscape inventory completed by the Ministry of Forests.

**Visual Landscape Inventory (VLI)** means an inventory that identifies and delineates areas of visual sensitivity near communities and along travel corridors throughout the province. It includes information about the visual condition, characteristics, and sensitivity to alteration. It also contains scenic area and established VSC attributes. VLI spatial and attribute data is stored in the BC Geographic Warehouse.

**Visual Landscape Unit** is a component of the VLI and means a distinct topographical unit as viewed from one or more viewpoints.

**Visual Impact Assessment (VIA)** refers to a professional report developed by a Qualified Professional where pre and post-harvest visual scenarios are compared, percent visual alteration estimates are listed, and analyses are presented within.

**Result and Strategies for Visual Quality in Scenic Areas with a VQO classification:**

- Where the holder of this FSP harvests a cutblock or constructs a road within a Visual Landscape Unit, the resulting visual alteration (including established cutblocks and established roads) when assessed from a significant public viewpoint at completion of harvesting or road construction will be consistent with the applicable category described in FPPR Section 1.1 (Categories of Visually Altered Forest Landscape) based on the Established Visual Quality Objective.
- Despite section 1 and within the Landforms listed below in Table 9, where cutblock harvest and road construction is proposed to recover timber that was damaged, is threatened by beetle infestation, is significantly reduced in value, and/or lost or destroyed by the effects of the 2021 Garrison Lakes wildfire (K62088) the FSP holder will:
  - prior to harvesting cutblocks or constructing roads, ensure a QP conducts a VIA of the altered forest landscape resulting from the combination of both historical and newly proposed cutblock harvesting and road construction. The VIA will include proposed designs and demonstrate the resultant scale and acuity levels. The VIA will determine the percentages of visual landscape alterations resulting from any proposed fire salvage harvest blocks and roads (constructed & new) required in each Landform; and
  - where a QP deems that it is not practicable to harvest the fire damaged timber without being consistent with the design, scale, and level of visual acuity of established VQOs, the FSP holder will ensure to the extent practicable, within each landform, the altered forest landscape that results from that cutblock or road construction:
    - are small to medium in scale and are natural in appearance with non-rectilinear boundaries<sup>31</sup>; or
    - are Large in scale and natural in their appearance; or
    - they do not exceed the levels of acuity outlined in table 9 below.

**FPPR: Categories of visually altered forest landscape**

1.1 For the purposes of paragraph (c) of the definition of "altered forest landscape" in section 1, the following categories are prescribed, each according to the extent of alteration resulting from the size, shape and location of cutblocks and roads:

- preservation:** consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is
  - very small in scale, and
  - not easily distinguishable from the pre-harvest landscape;
- retention:** consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is
  - difficult to see,
  - small in scale, and
  - natural in appearance;
- partial retention:** consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is
  - easy to see,
  - small to medium in scale, and
  - natural and not rectilinear or geometric in shape;
- modification:** consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint,
  - is very easy to see, and
  - is
    - large in scale and natural in its appearance, or
    - small to medium in scale but with some angular characteristics;
- maximum modification:** consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint,
  - is very easy to see, and
  - is
    - very large in scale,
    - rectilinear and geometric in shape, or
    - both

<sup>30</sup> Source: FPPR Section 9.2 and FRPA 150.3

<sup>31</sup> Source: Visual Impacts Assessment – Handbook (FRPA, May, 2022)

FDU	Location	Wildfire I.D.#	VLI Polygon I.D.	Established VQO	Scale (allowable extent)	Acuity (allowable extent)	Landform (LF)
2	Copper Creek Chart	(K62088)	2760	Partial Retention	large in scale	very easy to see	LF3C
			2770	Partial Retention	very large in scale	extremely easy to see	LF2A
			2778	Partial Retention	very large in scale	extremely easy to see	
			2776	Retention	very large in scale	extremely easy to see	
			2765	Partial Retention	very large in scale	extremely easy to see	LF1B
			2768	Partial Retention	very large in scale	extremely easy to see	LF1C
Garrison Lakes vicinity	(K62088)	2751	Preservation	very large in scale	extremely easy to see	Garrison Lakes	
		2757	Preservation	very large in scale	extremely easy to see		

Table 9: Land-forms of Copper Creek and Garrison Lakes where fire salvage harvest is proposed in response to the Garrison Lakes fire.

**Scenic Areas (Act ss. 180) without established VQO's**

**Objective<sup>32</sup>:** Grandparented Scenic Areas: Know scenic areas without established VQOs. Every areas established or continued under the Code as a scenic area and applicable VSC's for scenic areas that were in effect immediately before the effective date are continued as VSC's under this Act.

The objective set by the government in relation to visual quality for a scenic area, that

- was established on or before October 24, 2002, and
- for which there is no visual quality objective is to ensure that the altered forest landscape for the scenic area
- in visual sensitivity class 1 is in either the preservation or retention category,
- in visual sensitivity class 2 is in either the retention or partial retention category,
- in visual sensitivity class 3 is in either the partial retention or modification category,
- in visual sensitivity class 4 is in either the partial retention or modification category, and
- in visual sensitivity class 5 is in either the modification or maximum modification category.

**Applicable Area:**

The Lillooet TSA.

**Definitions:**

**Established Visual Quality Objective (VQO)** means an area of land identified as a unique visual landscape unit. VQO spatial and attribute data is housed in the BC Geographic Warehouse.

**Scenic area** means an area of land established as a scenic area under the Forest Practices Code of British Columbia Act on or before October 24, 2002 and continued as a scenic area under section 180 (c) of the Act.

**Significant Viewpoint** means a location which is on the water or land that is accessible to the public that is representative of significant public viewing opportunity, and has relevance to the landscape being assessed. The viewpoint is not necessarily the viewpoint identified in the visual landscape inventory completed by the MFLNRORD.

**Visual Landscape Inventory (VLI)** means an inventory that identifies and delineates areas of visual sensitivity near communities and along travel corridors throughout the province. It includes information about the visual condition, characteristics and sensitivity to alteration. It also contains scenic area and established VSC attributes. VLI spatial and attribute data is housed in the BC Geographic Warehouse.

**Visual Landscape Unit** is a component of the VLI and means a distinct topographical unit as view from one or more viewpoints.

**Visual sensitivity class (VSC)** means a visual sensitivity class established on or before October 24, 2002, particulars of which are publicly available in the Land and Resource Data Warehouse maintained by the minister responsible for the Land Act.

**Result:**

Where the holder of this FSP harvests a cutblock or constructs a road within a Visual Landscape Unit, the resulting visual alteration (including established cutblocks and established roads) when assessed from a significant public viewpoint at completion of harvesting or road construction will be consistent with the applicable category described in FPPR Section 1.1 (Categories of Visually Altered Forest Landscape) base on the Established Visual Sensitivity Class.

Table 1

RDI List of Viewshed-Rectified Landforms - Updated May 2, 2022		
VLI_Polygon	Rectified Landforms List with VSU and VQO	Salvage Blocks 2022
2760	867-L3C-PR	CO7Z7
2761	868-L1D-M	COAMR (COAMA is to East of VSU)
2763	869-L1D-M	COAM6
2765	871-L1B-PR	CO8U0, COAMP
2768	874-L1C-PR	CO8U3
2776	880-L2A-R	COAJA
2778	882-L2A-PR	COAJC (COAJ9 is to North of VSU)

RDI Units are numbered sequentially from west to east in order of the VSU number; only those VSUs with Salvage blocks are presented in this table. VSU Numbers were RDI's rectified VSU's based on Cumulative Viewshed from Manning Park - Copper Valley Rim Viewpoints incorporating VLI VSUs and expanding or contracting where indicated by the viewshed. Not a replacement of "established" or "made known" VSUs, but need for updates/revisions is indicated..

Table 2

Copper Salvage Cutblocks - Tree and Stub Retention by Cutblock					
Licence	Block	Area (HA)	Tree Retention (SPH) may be clumped	Retained per Block	Stubs (SPH)
TA2184	CO7Z7	28.8	10	288	20
TA2184	COAJ9	11.7	5	59	20
TA2184	COAJC	29.6	4	118	20
TA2184	COAM6	4.2	5	21	20
TA2184	COAMA	10.9	0	0	20
TA2184	COAMR	18.8	9	169	20
TA2184	COAJA	14.6	10	146	20
A93300	COAMP	76.1	9	685	20
TA2198	CO8U3	46	6	276	20
TA2198	CO8U0	33.5	10	335	20

Table 3

Viewing Distance to Closest Cutblock by Stop		
Stop	Cutblock	Viewing Distance (m)
1	COAJC	3200
2	n/a	n/a
3	COAJA	3300
4	COAMP	5970
5	COAJC	5190
6	COAJC	4150
11	COAJC	5030
7	CO8U3	10,400
8	n/a	n/a
9	CO8U0	13,200
10	CO8U0	13,900
G1	CO8U3	1100
G2	COAJ9	1700
G3	CFS_2021_02A?	1500
G4	COAJ9	3000
G-Camp	CO8U3	3950

Table 5 Summary of Percent Alteration, Scale, Acuity (visibility) and VQC achieved

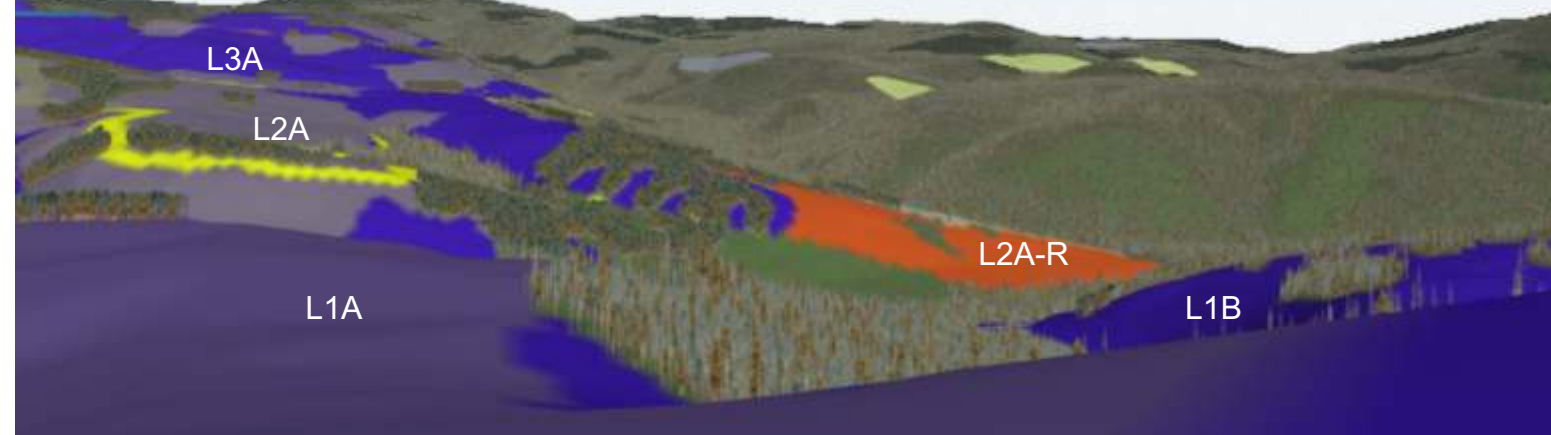
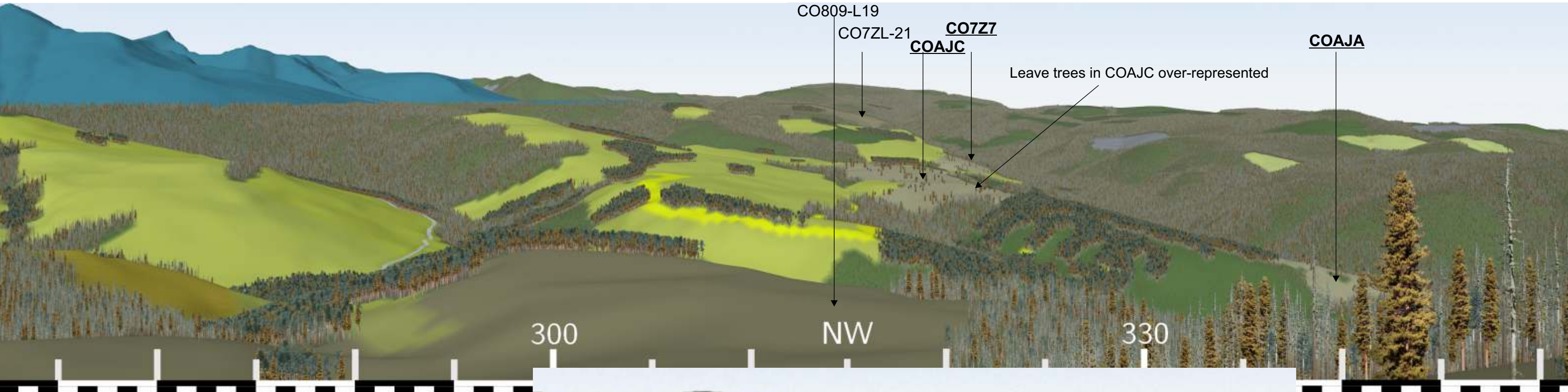
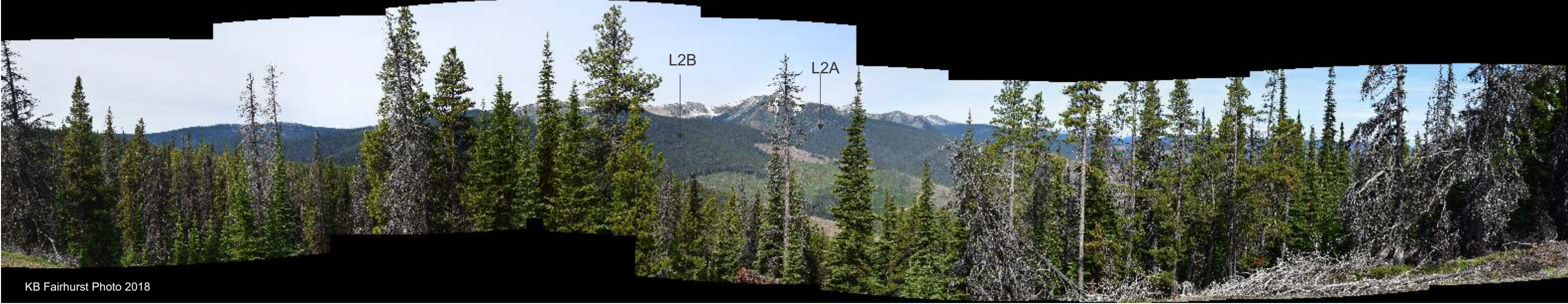
Landform	%Alt	Scale	Acuity	VQC
L1B-PR	11.20%	L	VE	M
L1C-PR	5.83%	S-M	E	PR
L1D-M	10.77%	L	VE	M
L2A-PR	22.62%	VL	VE	MM
L3A-PR	6.23%	S-M	E	PR
see Page 11 for definitions				

Table 4

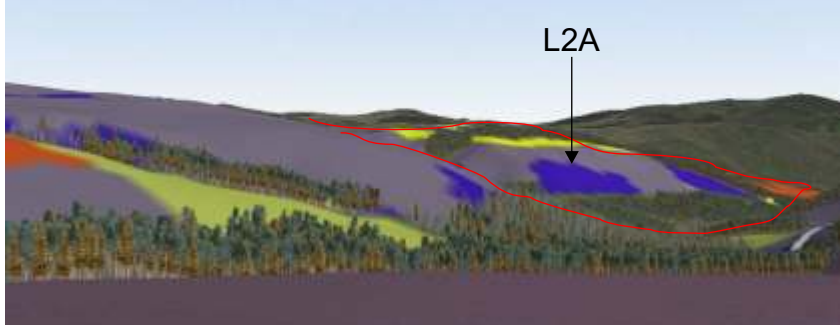
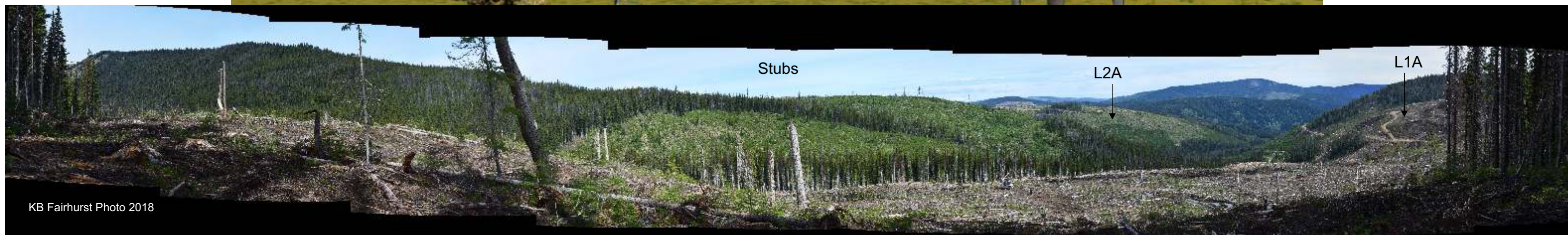
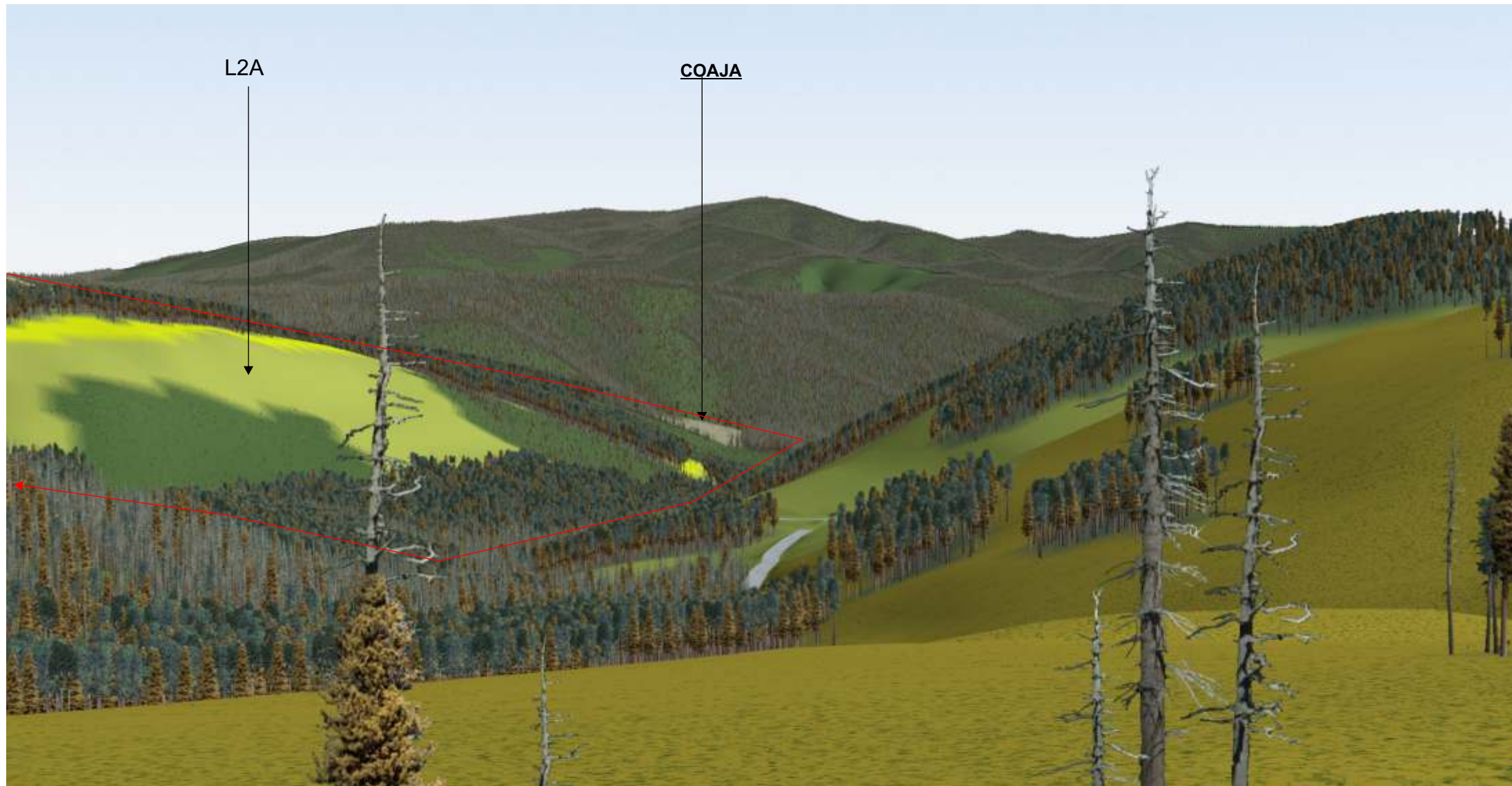
Copper Salvage Cutblocks by Landform and VQO - Updated December 7, 2022																				
Salvage Blocks 2022	Manning Park - Copper Valley Rim Viewpoints										G-Pin Viewpoints Cleared in Simulations*					Landform - VSU-VQO Comments				
	1	3	4	5	6	11	7	8	9	10	G1	G2	G3	G4	G-camp	Landform	VSU	VLI_Polygo	eVQO	Comments
CO7Z7	V				V	V										L3C	867	2760	PR	
COAJ9												V		V		L2A	nil	nil	nil	below 2770/876 PR
COAJC	V		V	V	V	V										L2A	882	2778	PR	L2A has R; PR
COAJA	V	V									V					L2A	880	2776	R	
COAMP			V	V	V	V					V					L1B	871	2765	PR	mainly in VSU; portion in NVS
CO8U0				V	V	V					vs	vs	V			L1B	871	2765	PR	mainly in VSU; portion in NVS
CO8U3			V	V	V		vs				vs	vs	V		V	L1C	874	2768	PR	mainly in VSU; portion in NVS; 871PR
COAM6											vs			vs		L1D	869	2763	M	
COAMR				vs	vs	vs					vs	vs			V	L1D	868	2761	M	mainly NVS; part in 2761/868 M
CFS_2021_02A (if still in plan)													V			out	0		0	in non-VLI area
CFS_2021_01A (if still in plan)													V			out	879		0	in non-VLI area
Closest Salvage Cutblock in view - see Distance Table by Viewpoint				=	V	*Foreground Vegetation in VRI file cleared in VNS simulations for visual portrayal - may be more obscured.														

See key map on page 1 for locations

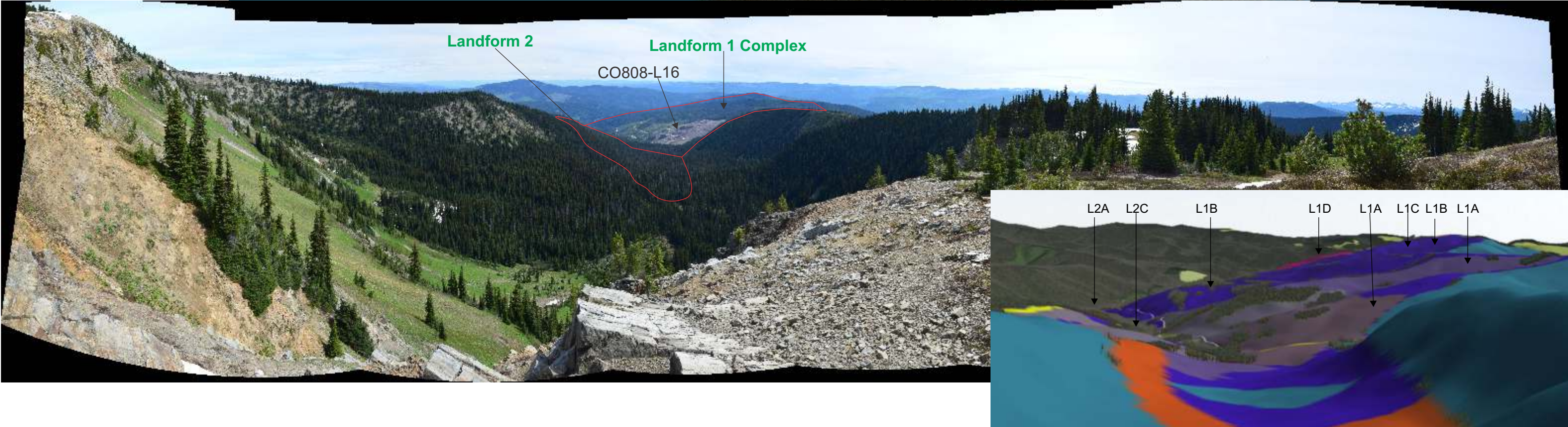
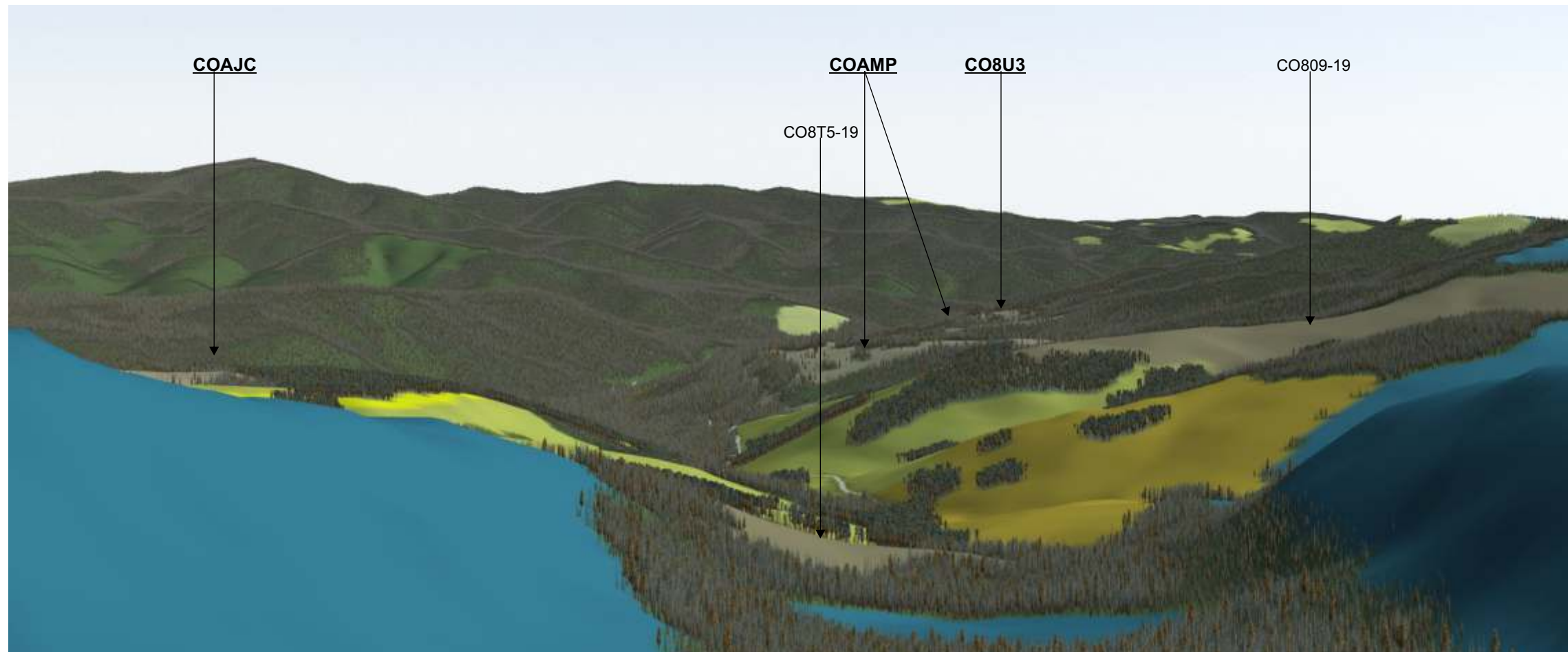
Visibility Tables, Viewing Distances, and Location in RDI Rectified VSUs, by Landform - updated December 7, 2022



Stop #1 Updated December 7, 2022



Salvage Block (underlined/bold type) and nonVEG openings are large in scale within respective landform, and very easy to see from this viewpoint. The addition of WTRAs, distributed / clumped leaf trees, and stubs tend to soften and partially obscure the blocks. Salvage Block and nonVEG meets Modification Visual Quality Class (VQC) by Scale, Visibility (acuity), Shape and Pattern within L2A landform.



Salvage Blocks (underlined/bold type) are small to large in scale within respective landforms, and easy- to very-easy to see from this viewpoint. The addition of WTRAs, distributed / clumped leave trees, and stubs tend to soften and partially obscure the blocks. All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Visibility, Shape and Pattern within the respective landforms. See Stop 6 Analysis for details.

Stop #4 Updated December 7, 2022



COAJC

CO8U3

COAMP

CO8U0

CO8U3

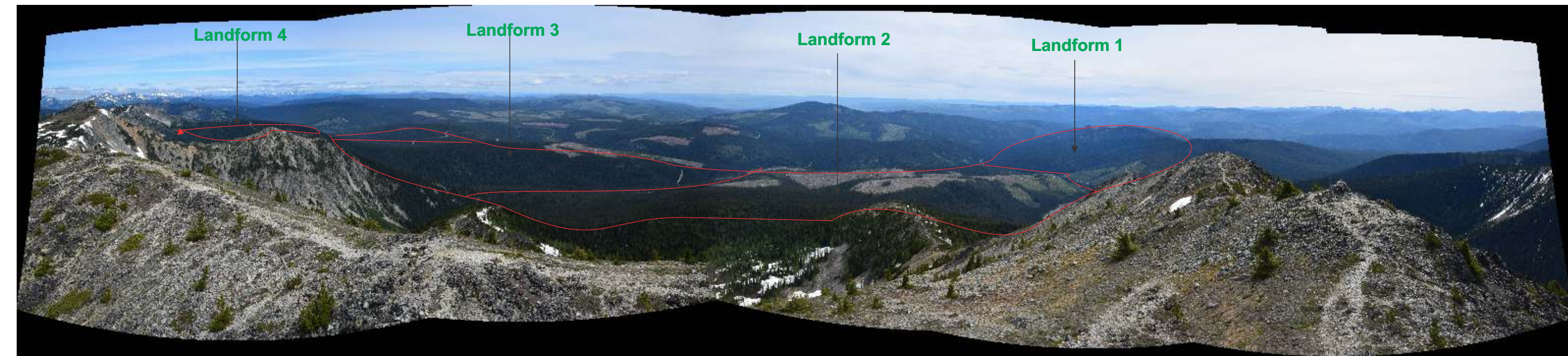
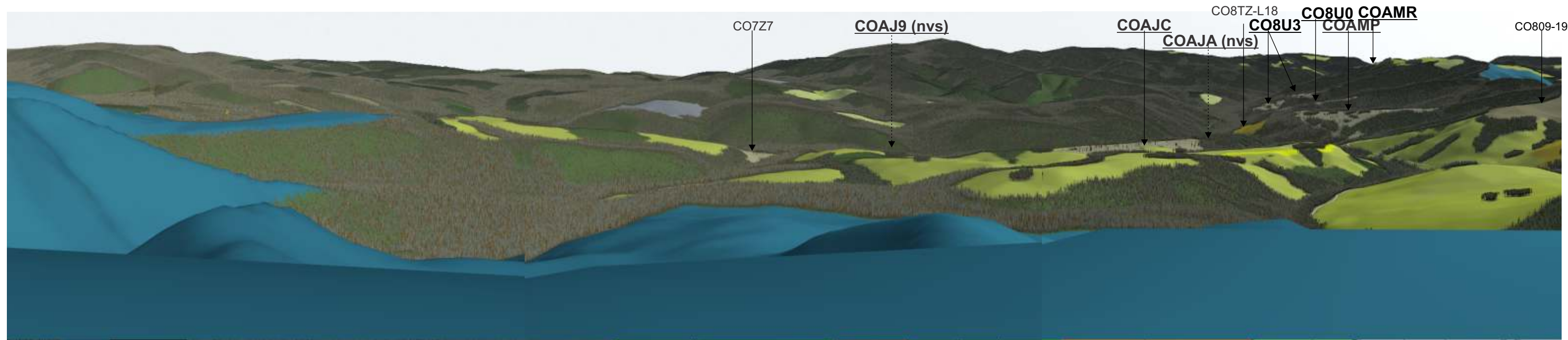
COAMR

CO809-19

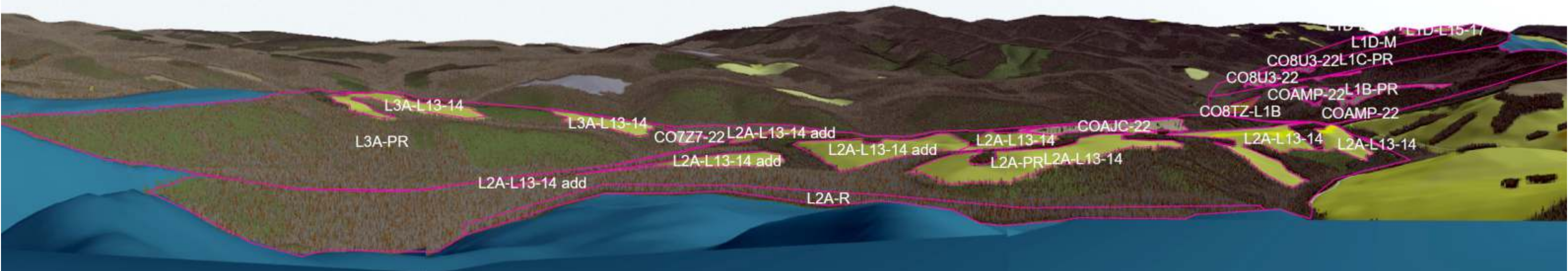
All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Visual Acuity (visibility), Shape and Pattern within the respective landforms. See Stop 6 Analysis for details.

Landform 2

Landform 1



All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Visibility (acuity), Shape and Pattern within the landforms. See next page for detailed appraisal.



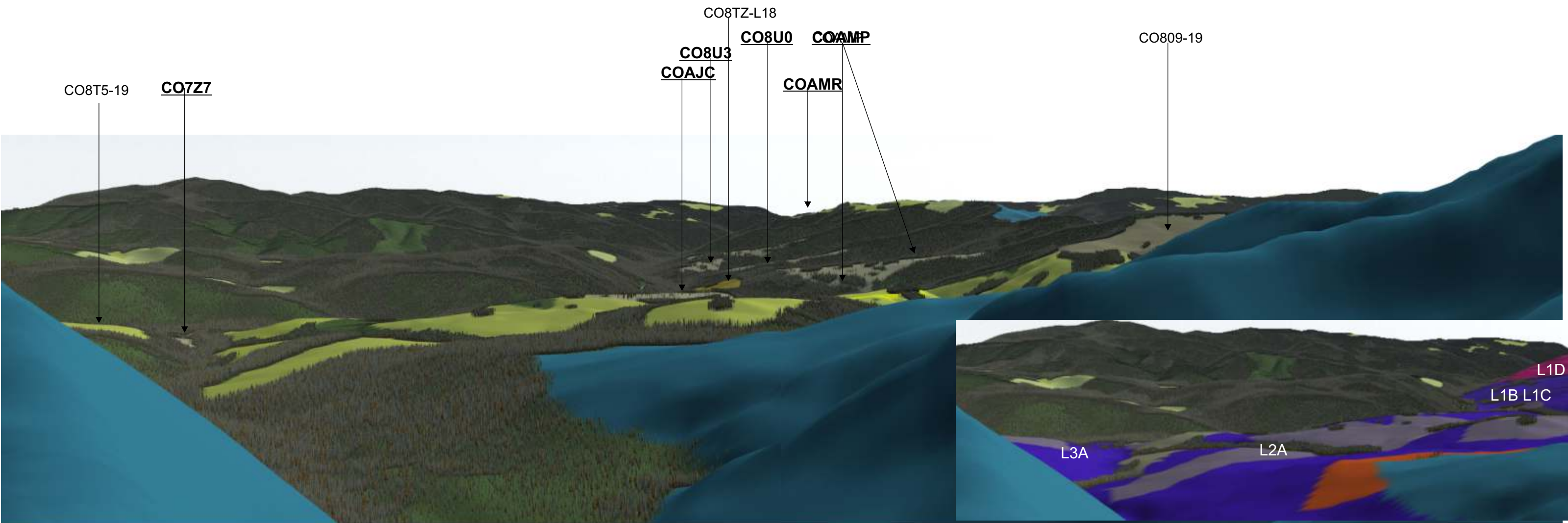
**Table 6**

Copper Salvage Percent Alteration Stop 6 January 13, 2023								
NAME	AREA2	%Alt	Predicted Scale of Alteration in Landform	FSP Amended Allowable Scale of Alteration in Landform	Predicted Acuity (Visibility)	FSP Amended Allowable Acuity (Visibility)	Achievable VQC	FSP Amended Allowable VQC
<b>L1B-PR</b>	108143.64		Large		Very easy to see		M	
COAMP-22	8807.55	8.14%						
COAMP-22	485.95	0.45%						
COAMP-22-Leave (deduct)	237.15	0.22%						
CO8TZ-L1B	2067.38	1.91%						
CO8UO-22	566.48	0.52%						
CO8UO-22	130.64	0.12%						
CO8UO-22	50.30	0.05%						
<b>Sum Alt L1B</b>	<b>12108.29</b>	<b>11.20%</b>						
<b>L1C-PR</b>	40767.51		Small to Med.		Easy to see		PR	
CO8U3-22	1362.01	3.34%						
CO8U3-22	98.99	0.24%						
CO8U3-22	856.79	2.10%						
CO8U3-22	59.50	0.15%						
<b>Sum Alt L1C</b>	<b>2377.30</b>	<b>5.83%</b>						
<b>L1D-M</b>	17182.98		Large		Very easy to see		M	
COAMR-22	149.60	0.87%						
L1D-L15-17	87.14	0.51%						
L1D-L15-17	721.64	4.20%						
L1D-L15-17	892.51	5.19%						
<b>Sum Alt L1D</b>	<b>1850.89</b>	<b>10.77%</b>						
<b>L2A-PR</b>	585152.57		Very Large		Very easy to see or extremely easy to see by FRPA VQEE nomenclature		MM	
COAJC-22	9769.08	1.67%						
L2A-L13-14	9070.23	1.55%						
L2A-L13-14	41972.32	7.17%						
L2A-L13-14	29907.18	5.11%						
L2A-L13-14	270.96	0.05%						
L2A-L13-14 add	3608.46	0.62%						
L2A-L13-14 add	25696.17	4.39%						
L2A-L13-14 add	874.28	0.15%						
L2A-L13-14 add	11183.23	1.91%						
<b>Sum Alt L2A</b>	<b>132351.91</b>	<b>22.62%</b>						
<b>L3A-PR</b>	368290.70		Small to Med.		Easy to see		PR	
CO7Z7-22	2109.03	0.57%						
L3A-L13-14	12740.00	3.46%						
L3A-L13-14	8082.24	2.19%						
<b>Sum Alt L3A</b>	<b>22931.27</b>	<b>6.23%</b>						
<b>L1A, L2A, L2B, L2C (no new alt.)</b>	n/a	n/a	n/a		n/a		n/a	
Note: L1A has excessive existing alteration, estimated at greater than 30% currently (EM), no new alteration planned.								
<b>L3B, L4A, L4B, L4C (no new alt.)</b>	n/a	n/a	n/a		n/a		n/a	
To help achieve the results presented above, the qualified professional reviewing the wildfire salvage proposal blocks (K. B. Fairhurst, PhD, RPF) has ensured a series of techniques have been incorporated, which include those presented in the Visual Landscape Design Training Manual and:								
do not exceed the Amended FSP's Allowable levels of visual acuity (visibility) outlined in the table above;								
have used irregular (non-geometric or non-rectilinear) boundaries, have presented various scenarios via visual analysis simulations, and have chosen the best visual options;								
have designed harvest boundaries so that they follow natural landscape boundaries;								
have retained green standing timber in clumps and windfirm single stems wherever possible;								
have retained clumps of dead trees where safety allows to do so and the clumps aid in the design of nonlinear boundaries;								
have incorporated the latest in fire salvage guidance principles which have also considered First Nations concerns, wildlife needs, terrain stability and minimization of sedimentation to list a few examples of other factors required for block design.								

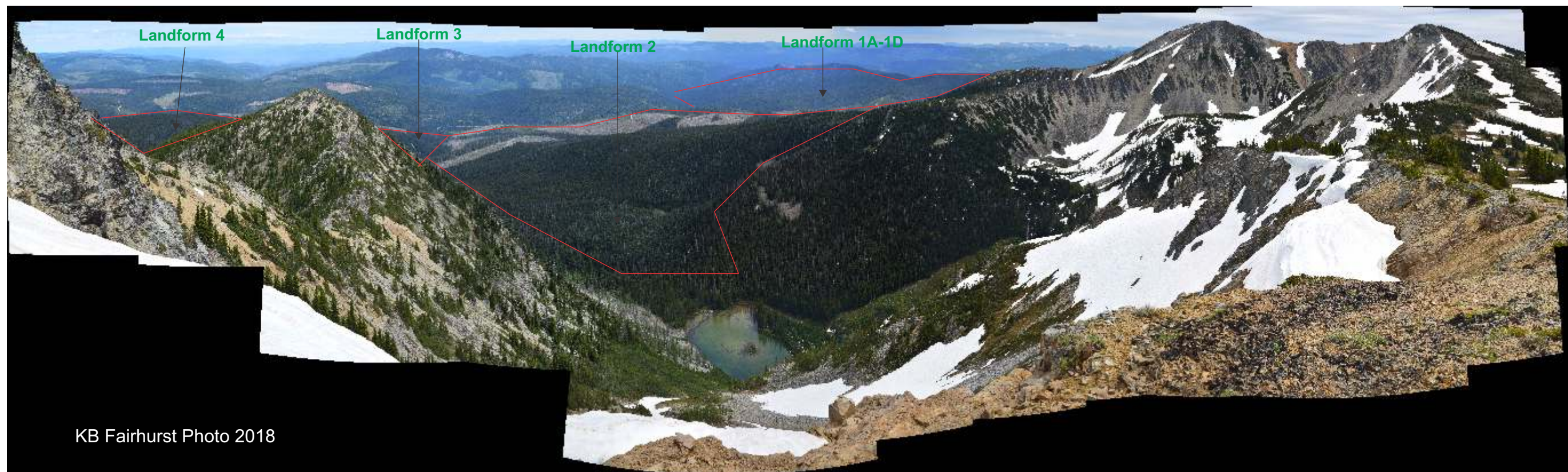
**Table 5 Summary of Percent Alteration, Scale, Acuity (visibility) and VQC achieved**

Landform	%Alt	Scale	Acuity	VQC
<b>L1B-PR</b>	11.20%	L	VE	M
<b>L1C-PR</b>	5.83%	S-M	E	PR
<b>L1D-M</b>	10.77%	L	VE	M
<b>L2A-PR</b>	22.62%	VL	VE	MM
<b>L3A-PR</b>	6.23%	S-M	E	PR

See page 23 for larger presentation



All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Acuity (Visibility), Shape and Pattern within the respective landforms. See Stop 6 Analysis for details.



KB Fairhurst Photo 2018

Stop #11 Updated December 7, 2022

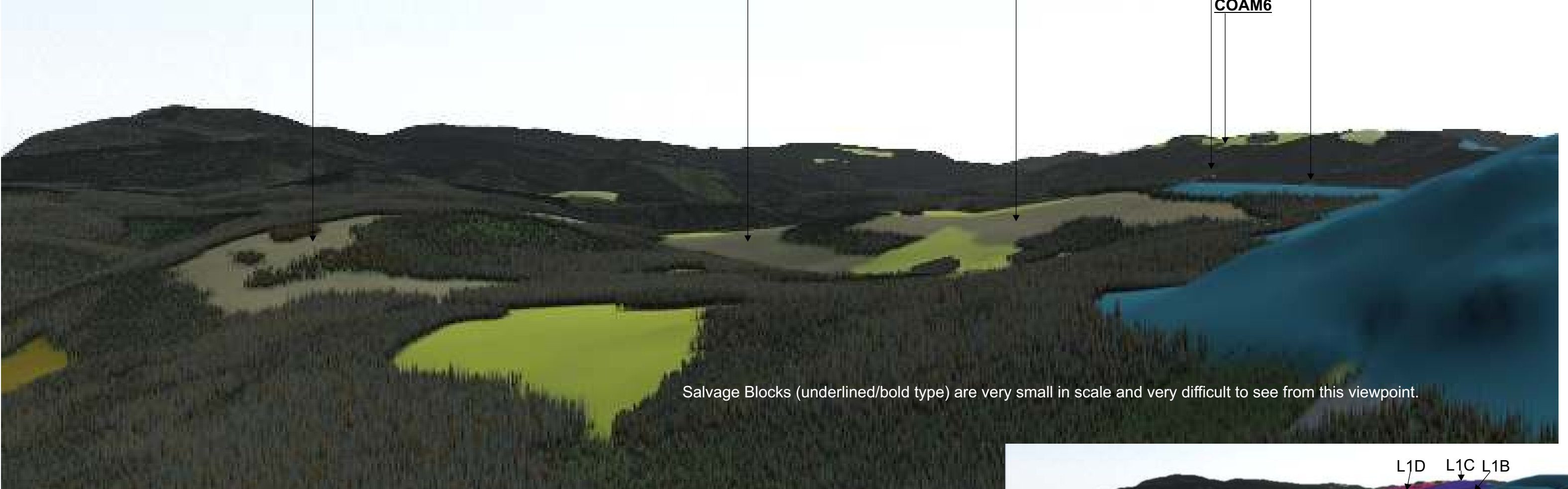
CO7ZV-20

CO7XR

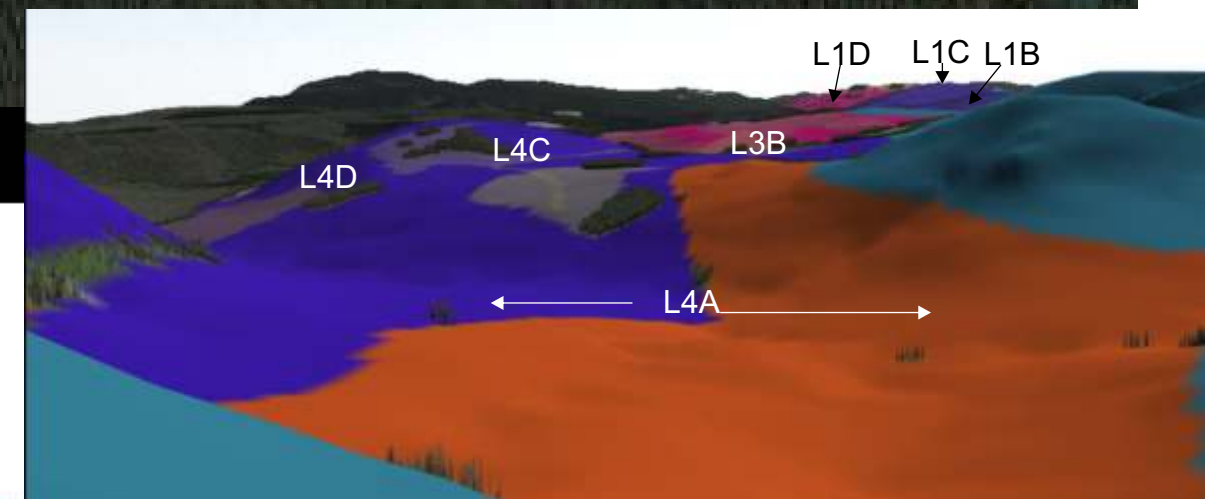
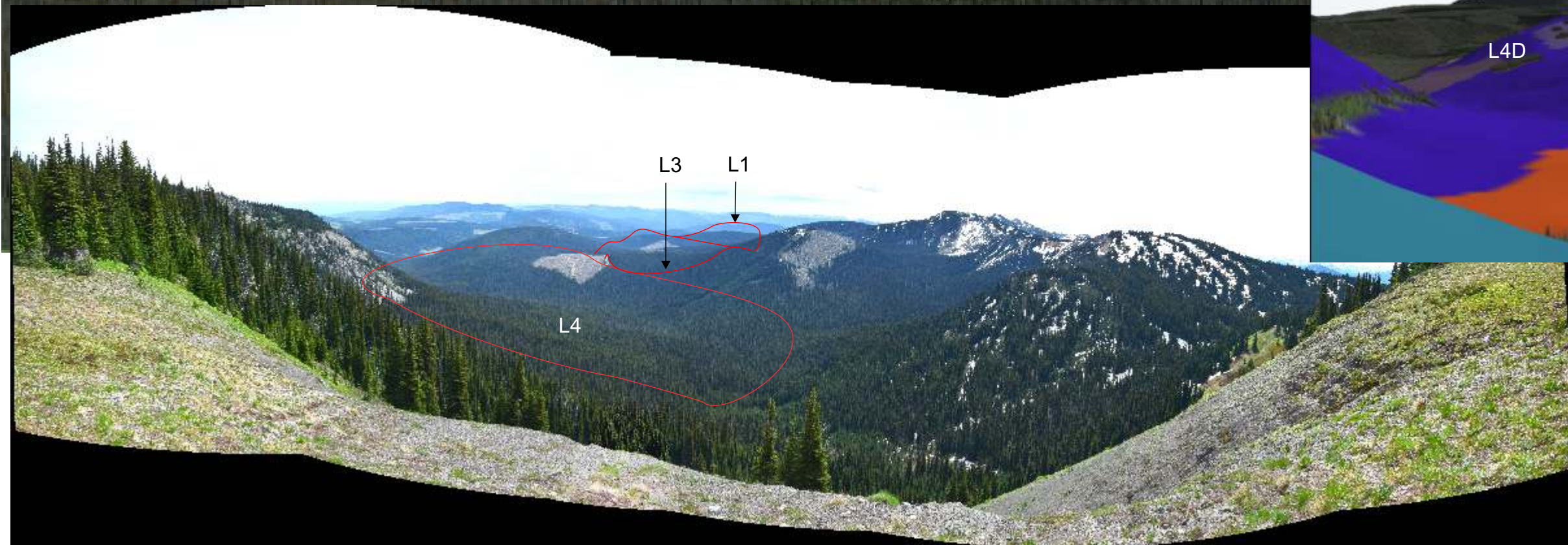
CO7XS

CO8U3  
COAM6

CO8U0



Salvage Blocks (underlined/bold type) are very small in scale and very difficult to see from this viewpoint.



CO87P-20

CO80C-19

CO7ZV-20

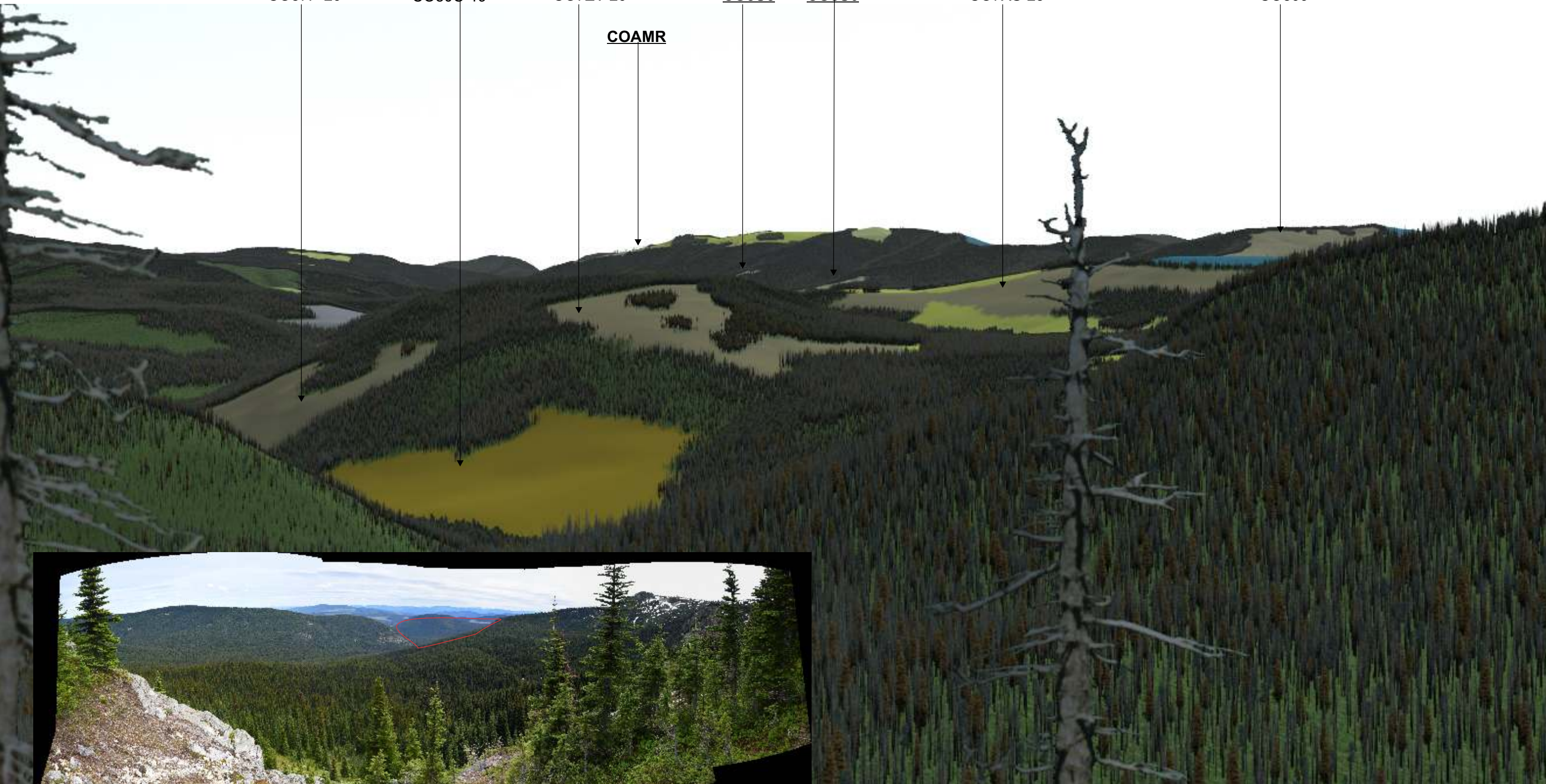
**CO8U3**

**CO8U0**

CO7XS-25

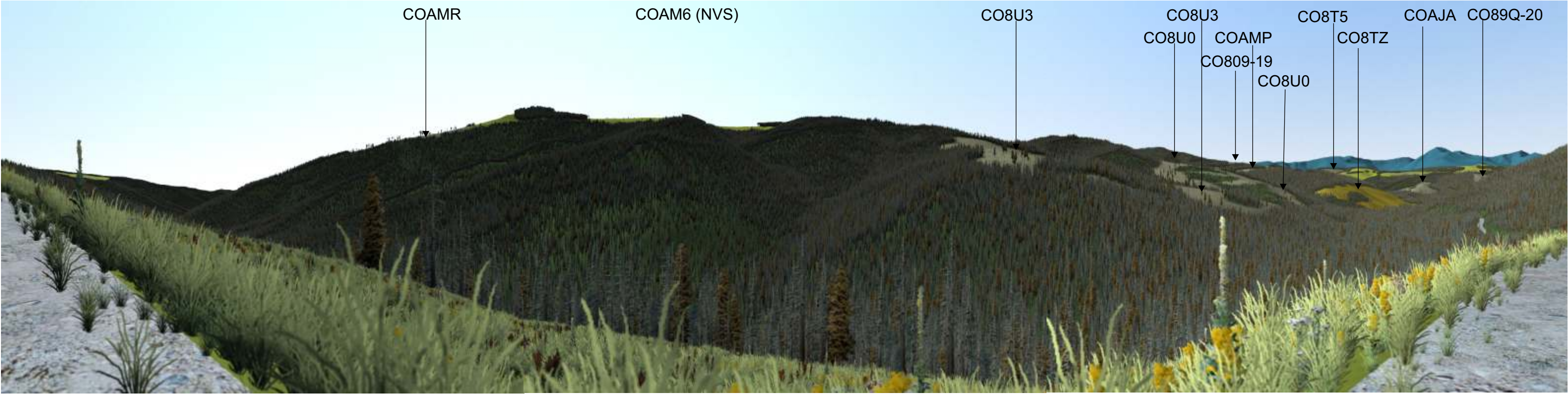
CO809

**COAMR**

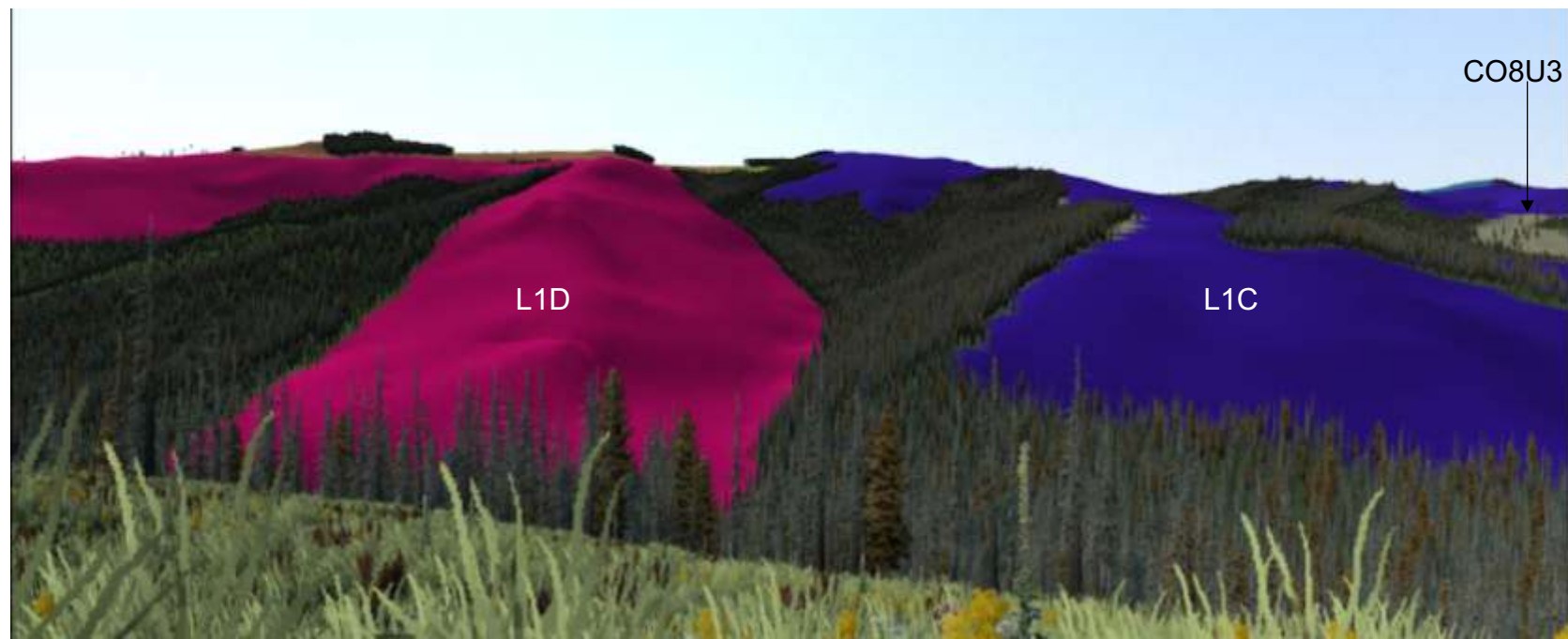


KB Fairhurst Photo 2018

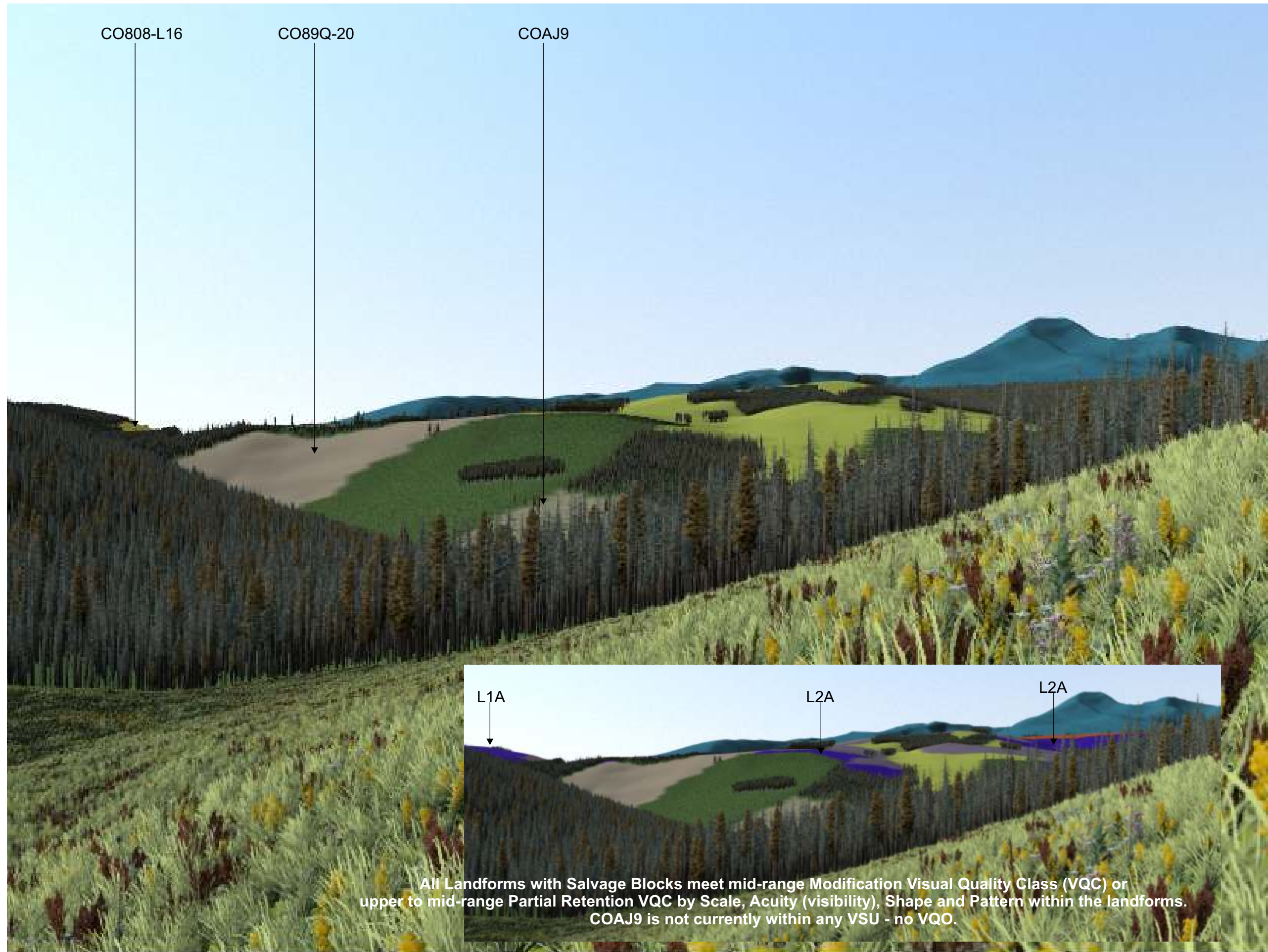
Salvage Blocks (**underlined/bold type**) are very small in scale and very difficult to see from this viewpoint. See also Stop 9.



3@60deg FOV



All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Visibility (acuity), Shape and Pattern within the landforms.

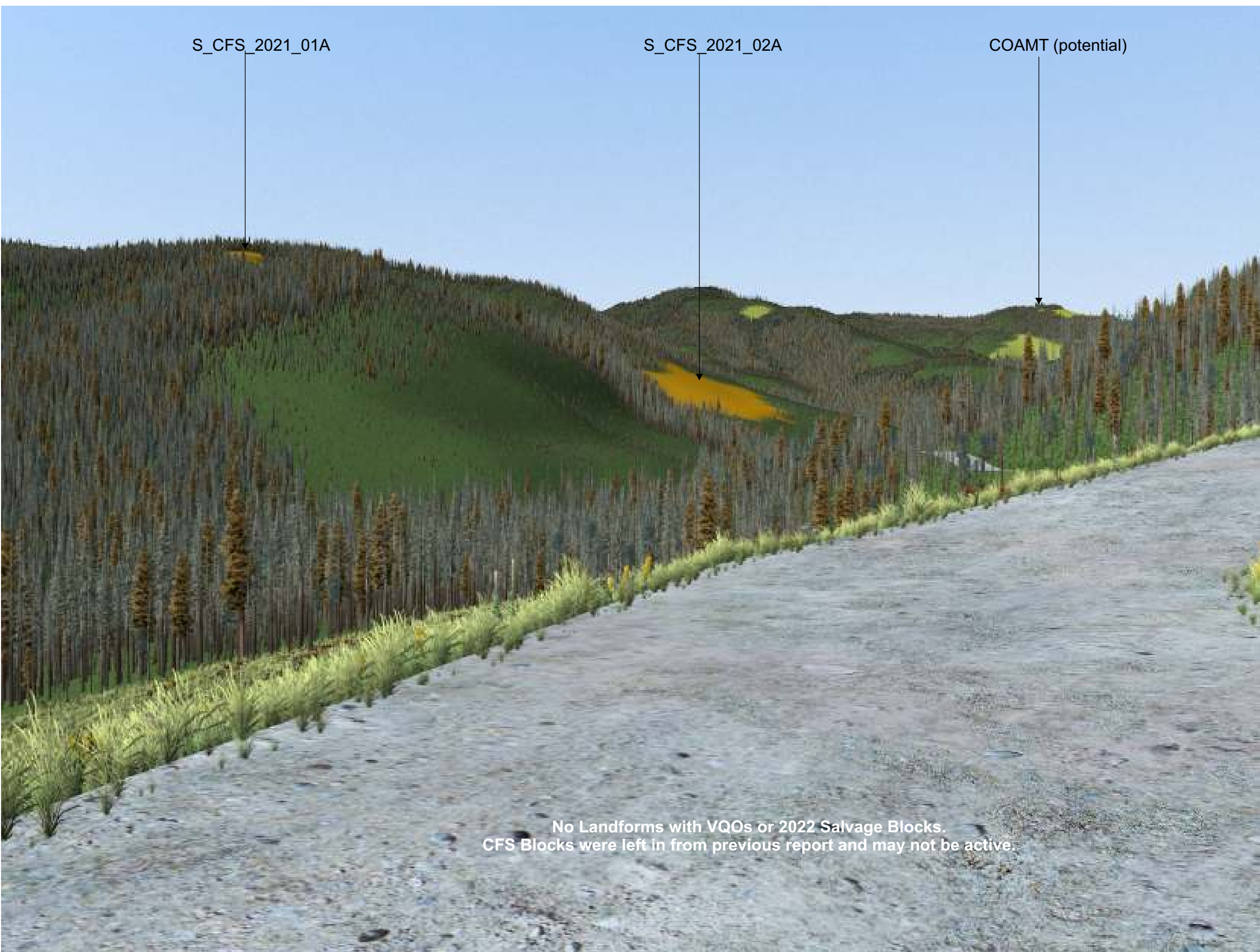




S\_CFS\_2021\_01A

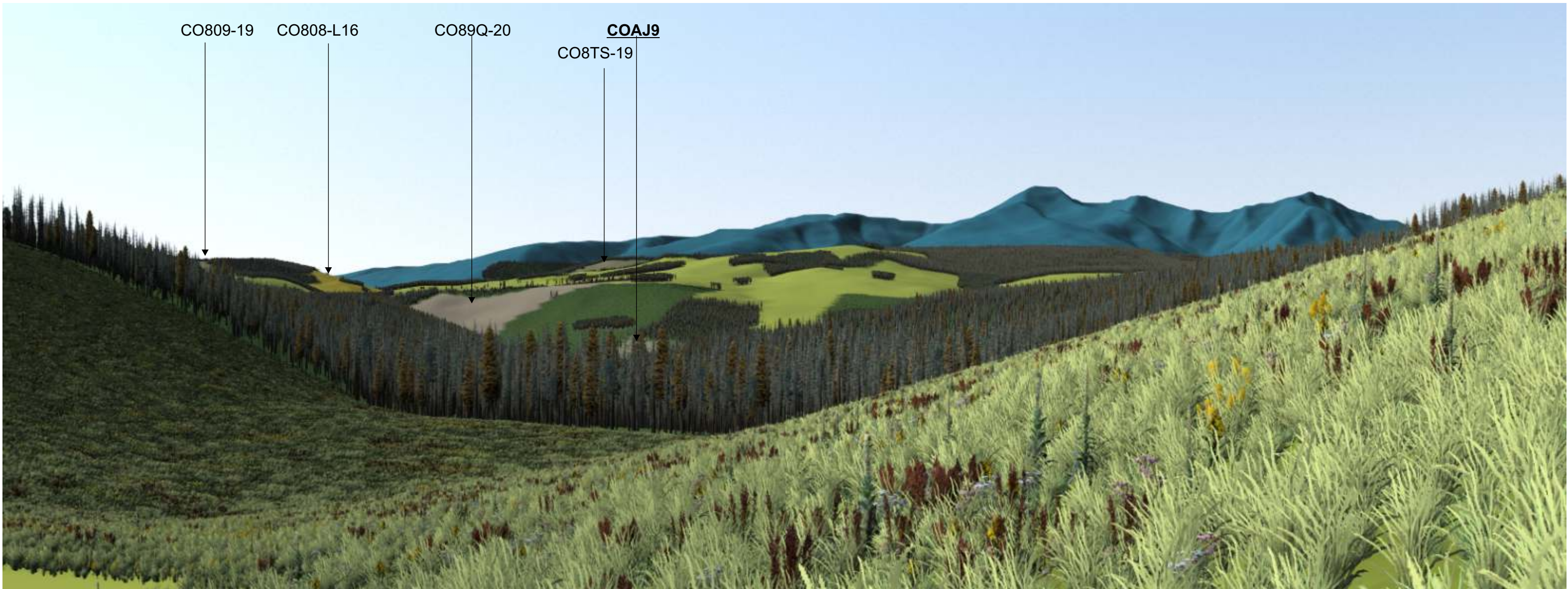
S\_CFS\_2021\_02A

COAMT (potential)

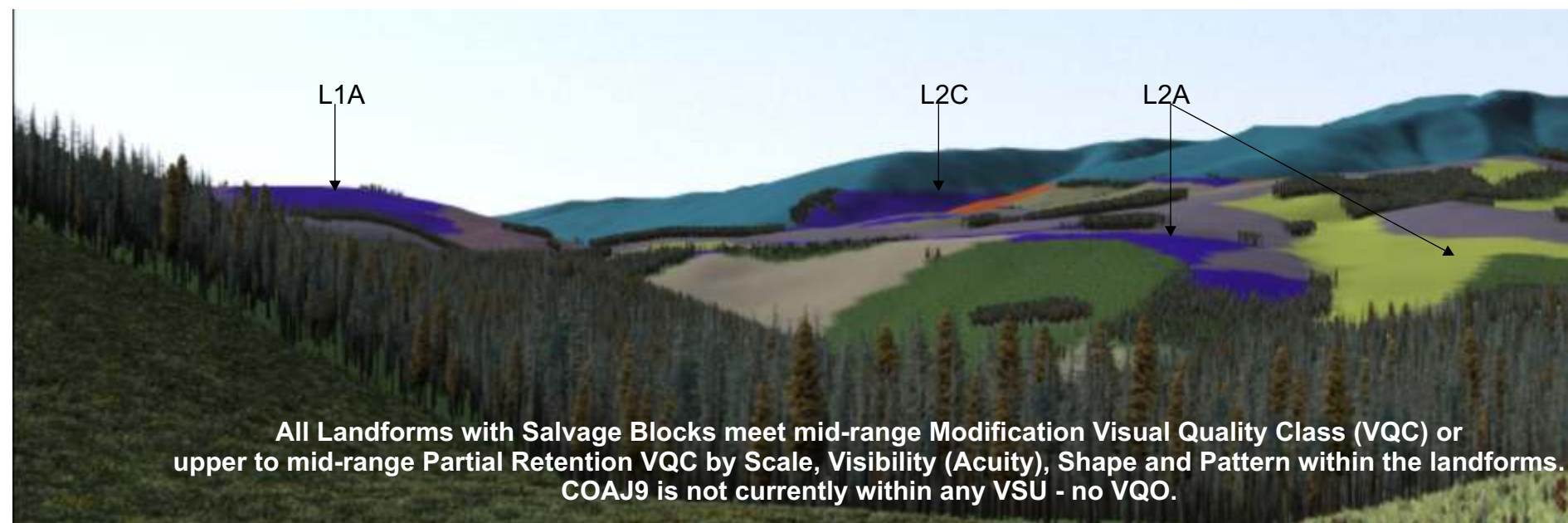


No Landforms with VQOs or 2022 Salvage Blocks.  
CFS Blocks were left in from previous report and may not be active.

60 deg FOV

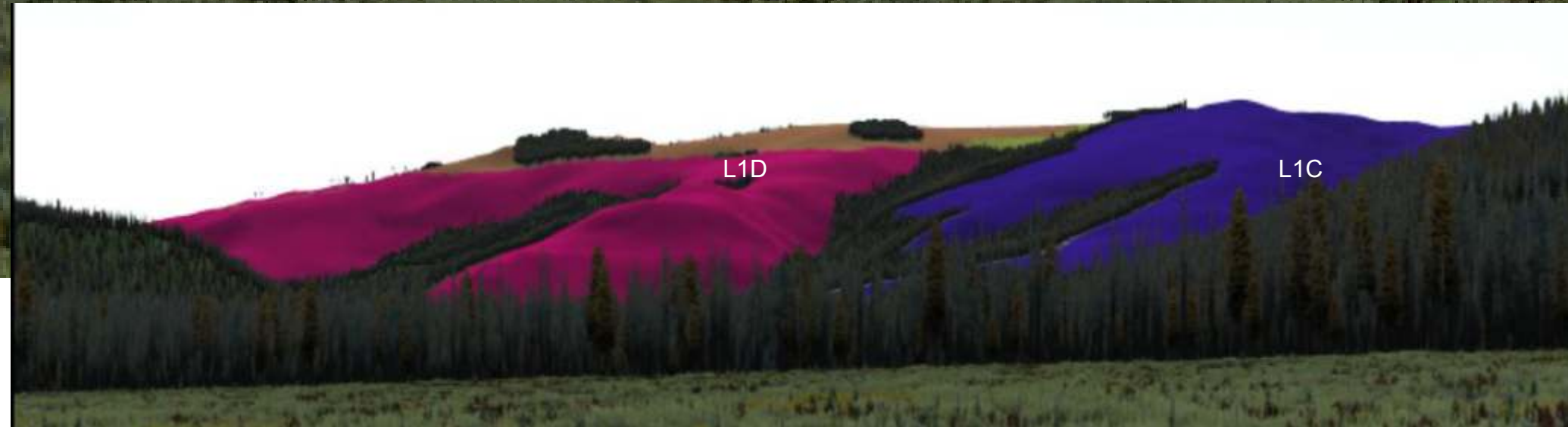
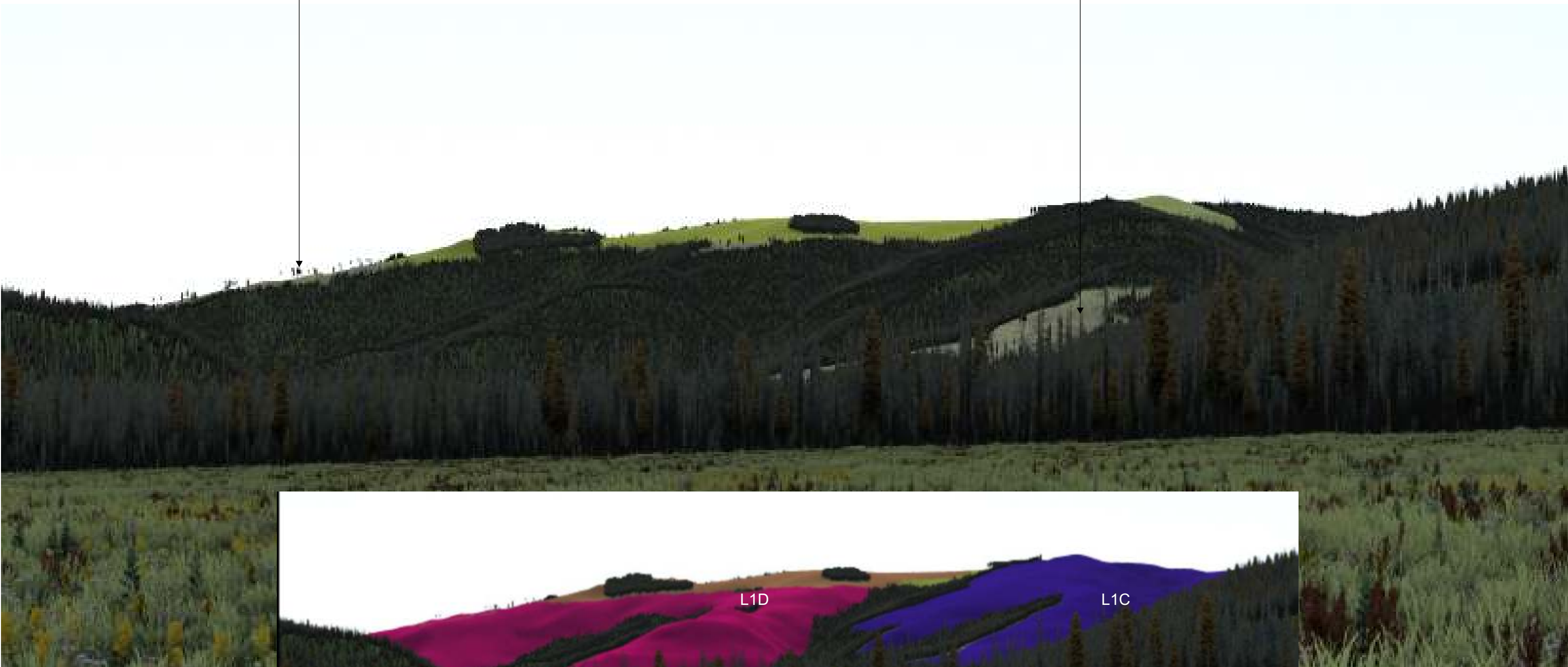


2x40 deg FOV

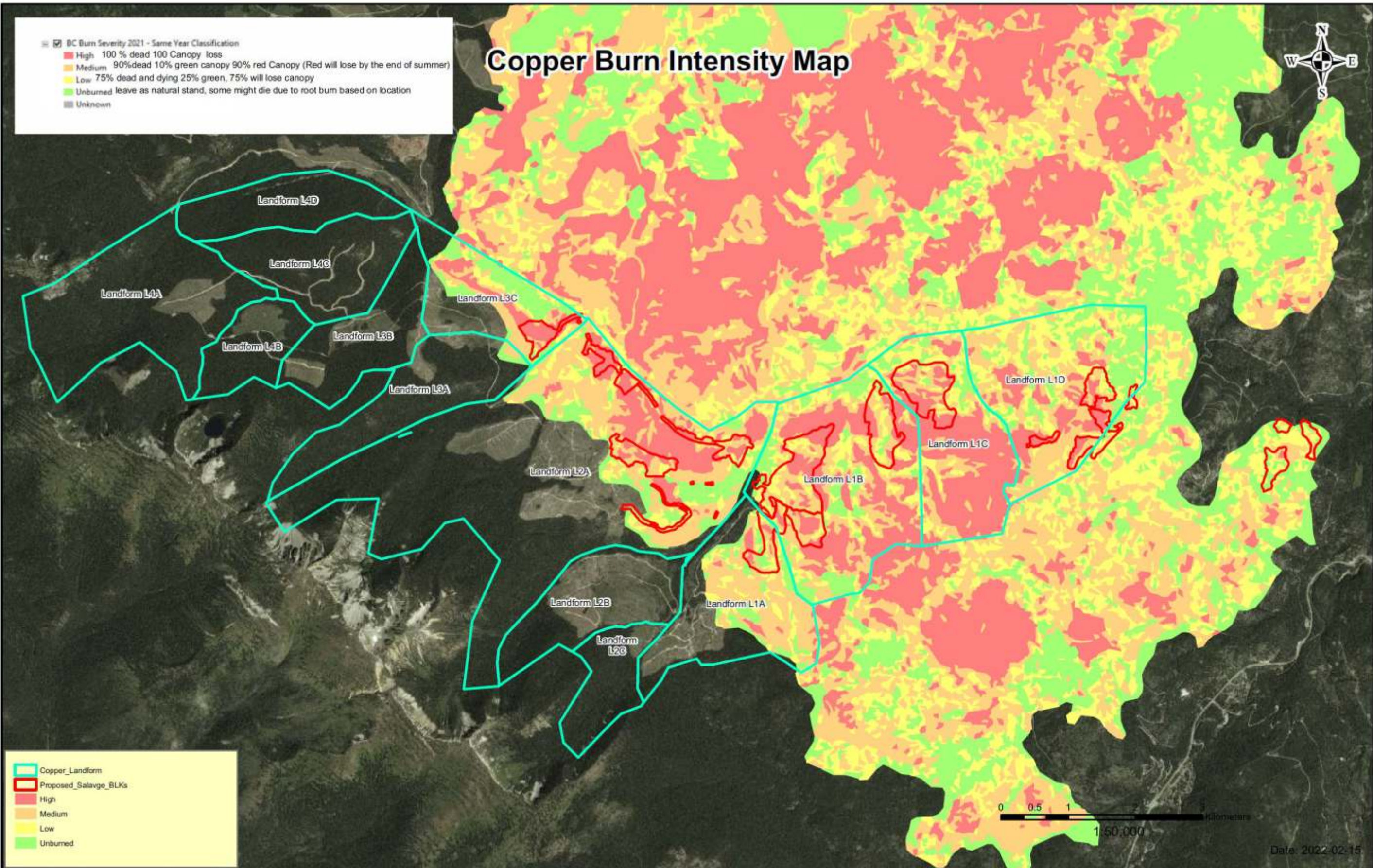


COAMR

CO8U3



**All Landforms with Salvage Blocks meet mid-range Modification Visual Quality Class (VQC) or upper to mid-range Partial Retention VQC by Scale, Visibility (acuity), Shape and Pattern within the landforms.**



BCTS Burn Intensity Map with Landforms 2021

Table 7

Comparison of Scale and Visibility (Acuity) Terminology					
FREP_VQEE P. 10 (October, 2008)	Guidebook P.25 Table 2		ABCFP Doc		VLI Manual 1997, p. 29
Modification Visual Quality Objective (and Class)	Scale	Visibility	Scale	Visibility	EVC EM
“modification” 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 is <b>very easy to see</b> and is either					
(a) <b>large in scale</b> with a design that is natural in its appearance, or	<b>Large</b>	<b>very easy to see</b>	<b>large</b>	<b>very easy to see</b>	
(b) small to moderate in scale but with a design that has some angular characteristics;					
<b>Maximum Modification Visual Quality Objective (and Class)</b>					
“maximum modification” 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 is <b>extremely easy to see</b> and one or both of the following apply:					
(a) the alteration is <b>very large in scale</b> ;	<b>Very Large</b>	<b>very easy to see</b>	<b>very large</b>	<b>very easy to see</b>	
(b) the alteration is angular and geometric.					
<b>The Guidebook and the ABCPF Document use the same terminology for MM Visibility; the FREP VQEE uses the "extremely".</b>					
<b>Excessive Modification (Existing Visual Condition, not a VQO)</b>					
<b>Excessive Modification: Alteration excessive and greatly out of scale (&gt;30%) (Existing Visual Condition, not a VQO)</b>					<b>excessive; greatly out of scale (&gt;30%)</b>

See page 22 for extracts from Source Documents

Table 1. DEFINITION OF VISUAL QUALITY CLASSES (CATEGORIES OF ALTERATION)

VISUAL QUALITY CLASS	SYMBOL	DEFINITION FROM FPPR SECTION 1.1
Preservation	P	consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is: (i) very small in scale, and (ii) not easily distinguishable from the pre-harvest landscape;
Retention	R	consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is: (i) difficult to see, (ii) small in scale, and (iii) natural in appearance;
Partial retention	PR	consisting of an altered forest landscape in which the alteration, when assessed from a significant viewpoint, is: (i) easy to see, (ii) small to medium in scale, and (iii) natural and not rectilinear or geometric in shape;
Modification	M	consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is: (i) very easy to see, and is (ii) (A) large in scale and natural in its appearance, or (B) small to medium in scale but with some angular characteristics;
Maximum modification	MM	consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is: (i) very easy to see, and is (ii) (A) very large in scale,

Table 3. VISUAL DESIGN ELEMENTS (FROM SIMULATION)

DESIGN ELEMENTS	GOOD (-1)	MODERATE (0)	POOR (+1)
1. Response to visual force lines	Strong	Force lines not apparent	Weak or no response
2. Borrows from natural character	Fully	Partially	Isolated or not at all
3. Incorporates edge treatments	Feathering <b>and</b> irregular boundaries present	Either feathering <b>or</b> irregular boundaries present	Neither aspect present
4. Distance from the viewpoint	>8 km	>1 and <8 km	<1 km
5. Position of opening on the landform	Lower down & to one side	Small opening near center	High on the landscape or large near center
6. Number, size and spacing of alterations	Three or more openings with variable size and spacing	One or two openings, or limited variability in size and spacing	Three or more openings with similar size and spacing

Table 2. RELATIONSHIP BETWEEN VQO, SCALE, AND PERCENT ALTERATION

VQO	SCALE (FPPR S. 1.1)	MOST PROBABLE % LANDFORM ALTERATION
Preservation	Very small	0%
Retention	Small	0-1.5%
Partial retention	Small to medium	1.6-7%
Modification	Large	7.1-18%
Maximum modification	Very large	18.1-30%

**FREP**  
FOREST AND RANGE EVALUATION PROGRAM  
Protocol for Visual Quality Effectiveness Evaluation Procedures and Standards

*Table 1. Basic definitions of Visual Quality Classes (VQCs)*

Visual Quality Class	Symbol	Basic Definition
Preservation	P	"preservation" 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 is: (a) very small in scale, and (b) designed to be indistinguishable from the pre-harvest landscape;
Retention	R	"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 difficult to see, (b) is small in scale, and (c) has a design that mimics natural occurrences;
Partial Retention	PR	"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;
Modification	M	"modification" 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 is very easy to see and is either: (a) large in scale with a design that is natural in its appearance, or (b) small to moderate in scale but with a design that has some angular characteristics;
Maximum Modification	MM	"maximum modification" 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 is extremely easy to see and one or both of the following apply: (a) the alteration is very large in scale, (b) the alteration is angular and geometric.

October 2008

Table 6

Copper Salvage Percent Alteration Stop 6 January 13, 2023								
NAME	AREA2	%Alt	Predicted Scale of Alteration in Landform	FSP Amended Allowable Scale of Alteration in Landform	Predicted Acuity (Visibility)	FSP Amended Allowable Acuity (Visibility)	Achievable VQC	FSP Amended Allowable VQC
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COAMP-22	8807.55	8.14%						
COAMP-22	485.95	0.45%						
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<b>Sum Alt L1C</b>	2377.30	<b>5.83%</b>						
<b>L1D-M</b>	17182.98		Large		Very easy to see		M	
COAMR-22	149.60	0.87%						
L1D-L15-17	87.14	0.51%						
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L1D-L15-17	892.51	5.19%						
<b>Sum Alt L1D</b>	1850.89	<b>10.77%</b>						
<b>L2A-PR</b>	585152.57		Very Large		Very easy to see or extremely easy to see by FRPA VQEE nomenclature		MM	
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L2A-L13-14	29907.18	5.11%						
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L2A-L13-14 add	3608.46	0.62%						
L2A-L13-14 add	25696.17	4.39%						
L2A-L13-14 add	874.28	0.15%						
L2A-L13-14 add	11183.23	1.91%						
<b>Sum Alt L2A</b>	132351.91	<b>22.62%</b>						
<b>L3A-PR</b>	368290.70		Small to Med.		Easy to see		PR	
CO7Z7-22	2109.03	0.57%						
L3A-L13-14	12740.00	3.46%						
L3A-L13-14	8082.24	2.19%						
<b>Sum Alt L3A</b>	22931.27	<b>6.23%</b>						
<b>L1A, L2A, L2B, L2C (no new alt.)</b>	n/a	n/a	n/a		n/a		n/a	
Note: L1A has excessive existing alteration, estimated at greater than 30% currently (EM), no new alteration planned.								
<b>L3B, L4A, L4B, L4C (no new alt.)</b>	n/a	n/a	n/a		n/a		n/a	
To help achieve the results presented above, the qualified professional reviewing the wildfire salvage proposal blocks (K. B. Fairhurst, PhD, RPF) has ensured a series of techniques have been incorporated, which include those presented in the Visual Landscape Design Training Manual and:								
do not exceed the Amended FSP's Allowable levels of visual acuity (visibility) outlined in the table above;								
have used irregular (non-geometric or non-rectilinear) boundaries, have presented various scenarios via visual analysis simulations, and have chosen the best visual options;								
have designed harvest boundaries so that they follow natural landscape boundaries;								
have retained green standing timber in clumps and windfirm single stems wherever possible;								
have retained clumps of dead trees where safety allows to do so and the clumps aid in the design of nonlinear boundaries;								
have incorporated the latest in fire salvage guidance principles which have also considered First Nations concerns, wildlife needs, terrain stability and minimization of sedimentation to list a few examples of other factors required for block design.								

Table 8a. Manning Park Stops and Photopoints		
Stop	Latitude Deg N	Longitude Deg W
1	49.16383303	-120.68488900
2	49.15711990	120.68730850
3	49.15844296	-120.71745600
4	49.14384898	-120.75025400
5	49.15729699	-120.77168200
6	49.16666997	-120.76833400
11	49.17461199	-120.78626800
7	49.18371901	-120.80111700
8	49.19032504	-120.80849400
9	49.20934500	-120.85003800
10	49.22997798	-120.84669600
Table 8b. Garrison Trails and Campground		
G1	49.20425460	-120.65189030
G2	49.21121720	-120.71477420
G3	49.18939730	-120.56756230
G4	49.22377210	-120.71052340
Gcamp	49.21668300	-120.68884980

Garrison viewpoints not verified in field.

Table 6 Percent Alteration, Scale and Visibility (Acuity), Table 8 Stops Geo-location