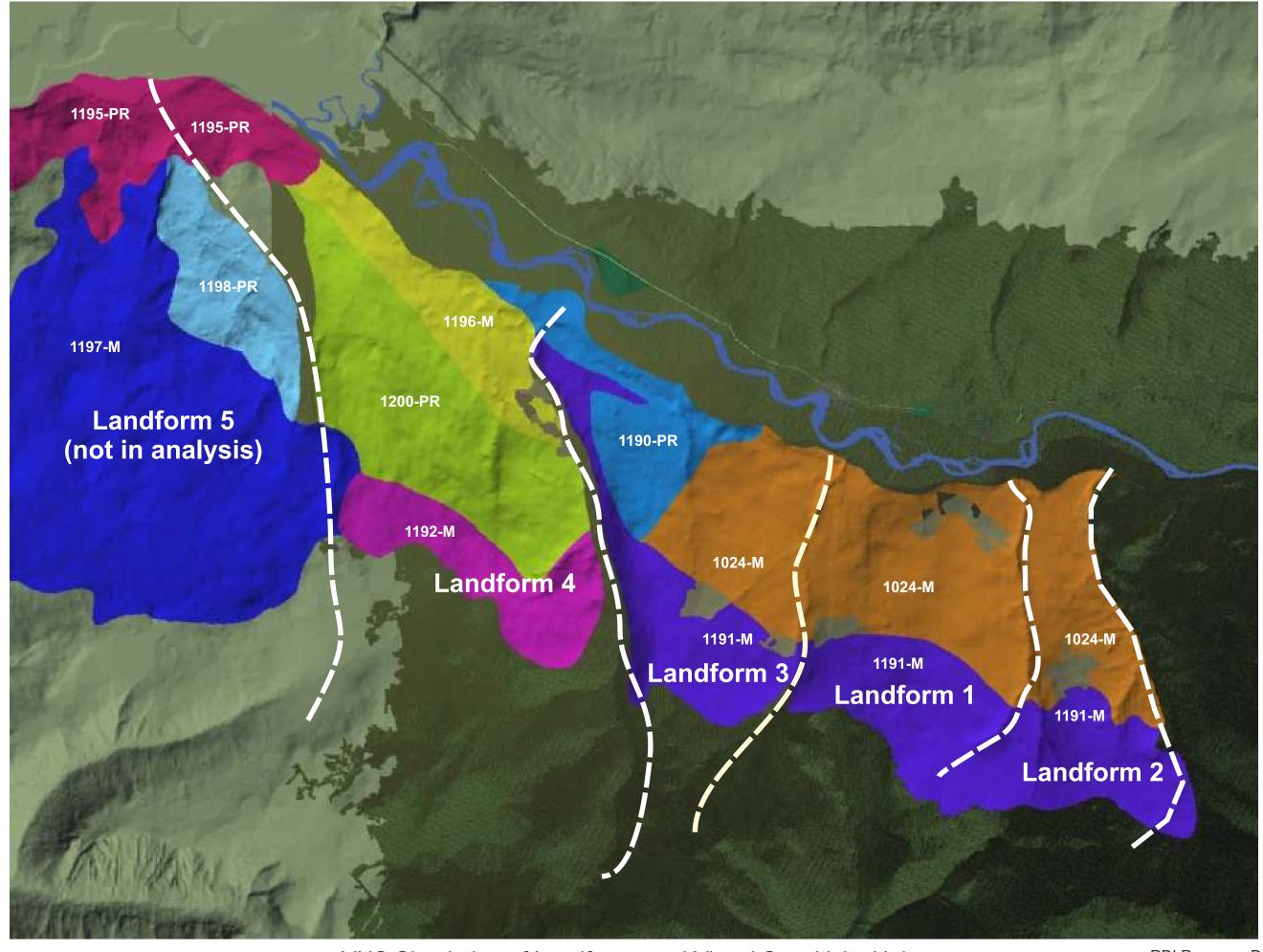


■ Kilometers



VNS Simulation of Landforms and Visual Sensitivity Units

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Visual Impact Assessment Summary Table

District: Clearwater Licensee: BCTS Kamloops Business Area

Licence	Block	Mapsheet	Landform	VSU/VQO	Most Restrictive VQO applied to Landform
Clearwater	Fo81J	82m051	1	1024-M, 1191-M	M
Clearwater	Fo81K	82m051	3	1190-PR, 1024-M, 1191-M	PR
Clearwater	Fo81S	82m051	3	1190-PR, 1024-M, 1191-M	PR
Clearwater	Fo8L9	82m051	4	1196-M, 1200-PR, 1192-M, 1195-M	PR
				Included from August VIA	
A92773	Fo81G	82m051	1	1024-M, 1191-M	M
A92773	Fo7PS	82m051	1	1024-M, 1191-M	M

of Harvest	2010-17	System	WTRAs							
Type of Proposed	Alteration	_		<u> </u>		Cutblock	(
(e.g. Cutblock, Roa	ad or Pipelin	e R/W, Oil lease, e	tc.)							
VISUAL LANDSCA	PE INVENTO	ORY LABEL (old)			_		_	_	_	
VISUAL LANDSCA	PE INVENTO	DRY LABEL	VSU#:		VSR:		VAC:	EVC:	EVQO:	
Kamloops LRMP									1	
VLU#s: See above	; Ratings in	VQO_Kamloops							1	
Shapefile										
DOES EVC EXCEE	D THE ESTA	ABLISHED VQO?		No – s	ee chart	below			EVQO:	PR;
									ł	M

Landforms/Cutblocks have been summarized in the following table:

Viewpoints, Viewing Conditions, and

Dunnand was 2040 47 Dunnand Cily CC with

<u>VIEWPOINTS & VIEWING CONDITIONS, CUTBLOCKS AND LANDFORMS SUMMARY</u>

		Sandbox	McCorvie	Birch	Miller	Raft
	Viewpoint Importance	Major - Hwy 5	Major - Hwy 5	Major - Hwy 5	Major - Hwy 5	Major - Hwy 5
	Viewing Distance - FO81J	MG - 5.5k	MG - 4.1k	far MG - 7.2k	BG - 9.7k	BG - 11.9k
Landform	Cutblocks					
L1 - M	Fo81J	ОК	angular-RDI-adjust-MG	angular-RDI-adjust-BG	angular-RDI-adjust-MG	angular-RDI-adjust-BG
L1 - M	Fo7PS	OK - RDI-leave-1508 VIA	OK - RDI-leave-1508 VIA	OK - RDI-leave-1508 VIA	NVS	NVS
L1 - M	Fo81G	OK - RDI-leave-1508 VIA	OK - RDI-leave-1508 VIA	OK - RDI-leave-1508 VIA	NVS	OK - RDI-leave-1508 VIA
L3 - PR	Fo81K	OK	ОК	NVS	NVS	NVS
L3 - PR	Fo81S	angular-RDI adjust-MG	ОК	NVS	NVS	NVS
L4 - PR	Fo8L9	NVS	NVS	ОК	OK - minor	OK - minor
L2 - M	A18688-CFP		Visib	le from all viewpoints; eas	st of L1	
			Adjustments recommende	d this VIA		
			Adjustments recommende	d in August VIA		

ASSESSING BASIC VQO DEFINITION

(confirmed with on-site visit)

Do the proposed alterations achieve the basic VQO definition for the established VQO from each of the identified viewpoints? If applicable state reasons why the proposal does not achieve the basic definition. Include any existing Non-Veg alterations.

Fo81J is seen in conjunction with Fo7PS and Fo81G also in Landform 1. RDI also made some design recommendations for those blocks.

See following table for summary of findings about VQO definition, Design, and Percent Alteration (if significant).

			Viewpoint		
Landform (VQO)	Sandbox	McCorvie	Birch	Miller	Raft
L1 (M)	M - 9.3	M - 8.9	Far MG - % not calc.	BG - % not calc.	Far BG - % not calc.
L2(M) (CFP only)	PR - 2.1	MM - 19.9 (sliver only)	BG - % not calc.	BG - % not calc.	BG -% not calc.
L3 (PR)	PR - 3.1	Minor - % not calc.	No new viz.	No new viz % not calc.	Distant - % not calc.
L4 (PR)	Distant - Nil	Distant - Nil	No new viz.	Minor viz % not calc.	Minor viz % not calc.
L5(PR)	NVS	Distant - Nil	Distant - Nil	Nil	Nil

ASSESSING VISUAL DESIGN

Do the proposed alterations exhibit elements of good visual design?
Do the proposed alterations respond to the lines of force analysis?
If No why?

YES X*□ NO □ YES X□ NO □

*The hard angle forming the northwest corner of Fo81J is obvious travelling east on Highway 5. Fo81S also has a hard angle, seen mainly from Sandbox. To achieve the VQO definitions of Modification (L1) and Partial Retention (L3), RDI considers it to be preferable to reduce the angularity by the addition of retention patches as designed by RDI. Field confirmation of operability considerations is necessary.

Fo81J is seen in conjunction with Fo7PS and Fo81G also in Landform 1. RDI also made some design recommendation for those blocks. These were addressed in the August VIA. There was no advance notice of further development in Landform 1 at that time. Though somewhat simplistic, being guided by existing regeneration, RDI did not look further into design changes for those blocks as they were in a completed VIA and field layout would have proceeded. The existing CFP block is somewhat dominant travelling east, seen in conjunction with the new blocks. It is located in a separate landform (Landform2), and not considered part of the BCTS assessment.

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. Acceptable Range for Partial Retention: 1.5-7%.

"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.

Acceptable Range for Modification VQO: 7%-18%.

Are there existing	humar	n made	alterations	visible in t	he unit	showing	no or p	oor	design
NO X		YES							

FOREGROUND ALTERATIONS AND SCREEN DESIGN

<u>(ES 🗆 NO X 🗅 </u>				
Does vegetative or landform screening exist?	YES	X	NO 🗆	
f yes, what type: Deciduous❑ Coniferous <mark>X</mark> ❑ Mixed For	est 🗆 Landform 🗅			
Vould the screen hide proposed operations?	YES			
Vould the screen hide proposed operations?	YES		□ XNO	
A substantial screen exists along the valley bottom.				
s vegetative screen designed properly ie responds to line	es of force,			
shape & scale and remains a viable unit for future remove	al? YES	X	NO □	N/A □ RIver
s vegetative screen expected to be windfirm?	YES X U NO	N/A	□X not	known

ADDITIONAL CONSIDERATIONS

Does the EVC in adjacent units exceed the established VQO for those units at the management of the present unit proposed for alteration? YES Comments: Perspective foreshortening causes CFP block to exceed M. Seer RDI design changes as specified above.	NO X*□
Has this VIA submission incorporated all known alterations proposed within the years? (i.e. all blocks proposed by the same or different licensees) Comments:	ne Visual Sensitivity Unit for the next 5 YES X□ NO□

Prepared by:

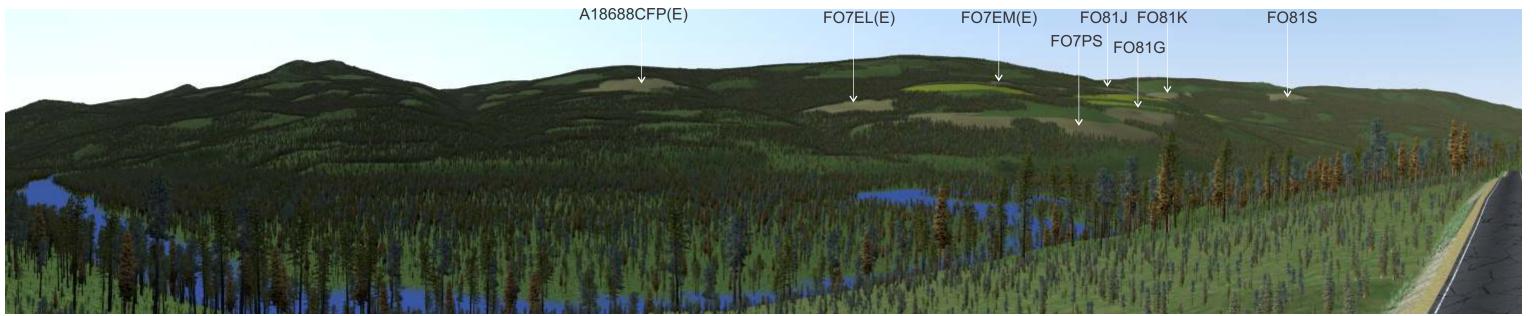
November 8, 2015

Ken B. Fairhurst, PhD, RPF
RDI Resource Design Inc

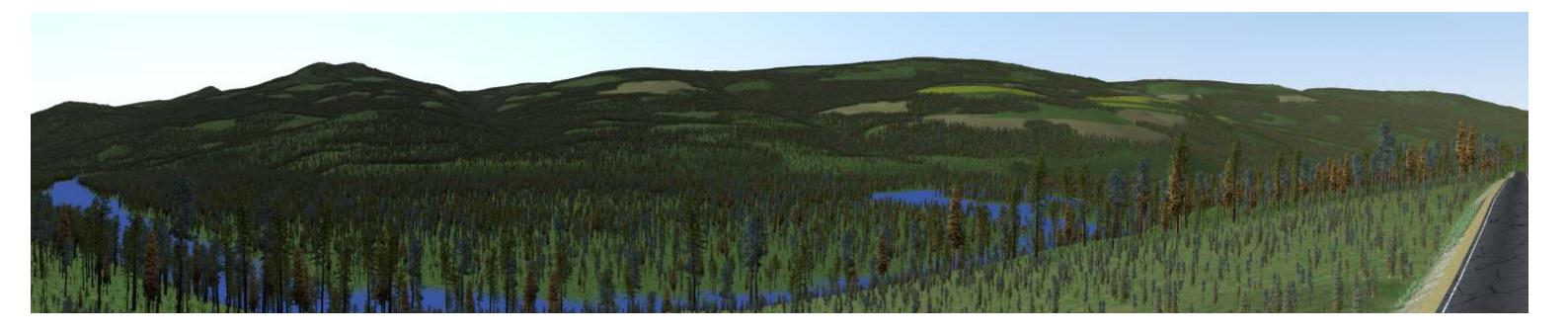
RDI Resource Design Inc November 7 2015



7167 Pixel VNS

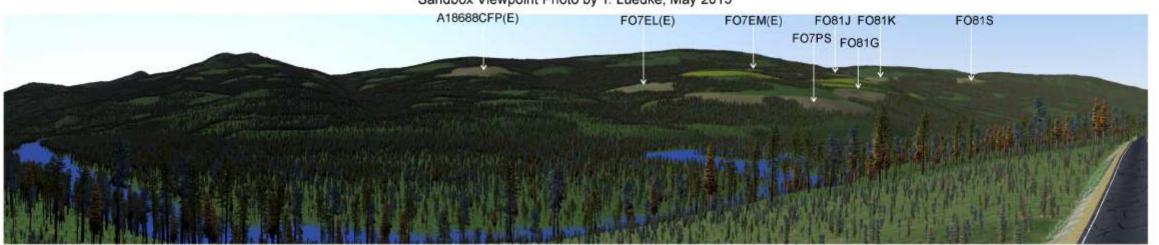


Sandbox Viewpoint VNS Simulation by RDI as of 151017

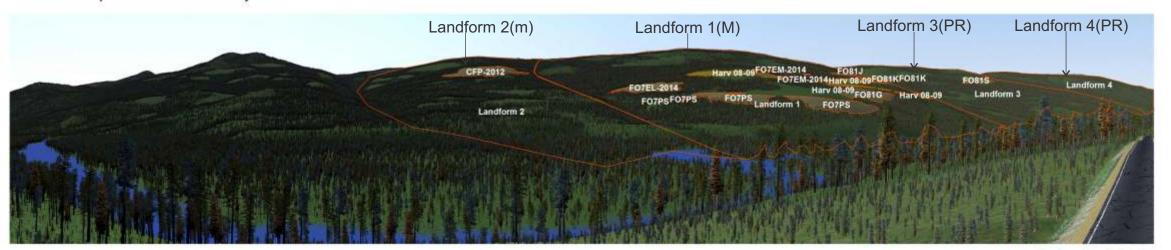




7167 Pixel VNS



Sandbox Viewpoint VNS Simulation by RDI as of 151017

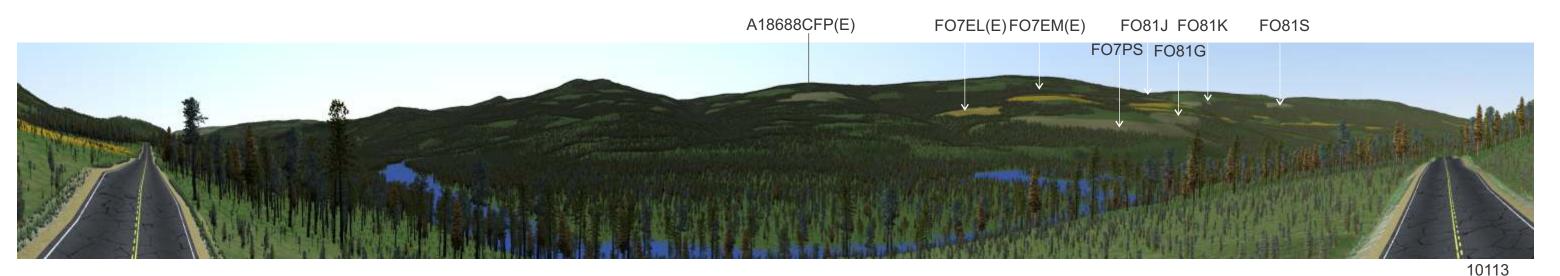


Sandbox Viewpoint VNS Simulations with RDI Leave Recommendations

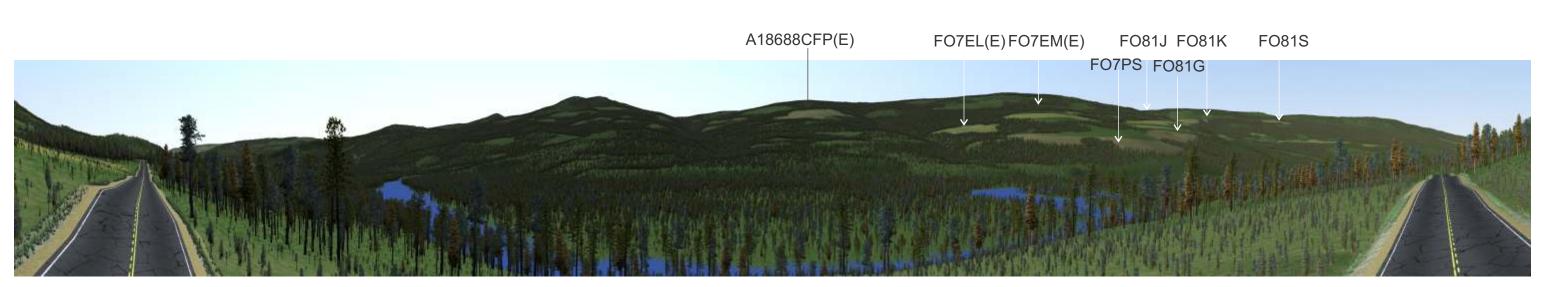
Updated to 151017

RDI Resource Design Inc
October, 2015

Item	Digital Area	Percent Alteration
Landform 2	346698.72	
CFP-2012	7436.91	2.1%
C11 2012	7430.31	2.170
Landform 1	496921.82	
FO7EL-2014	6518.28	1.3%
FO7PS	8860.15	1.8%
FO7PS	115.90	0.0%
FO7PS	24.53	0.0%
FO7PS	169.82	0.0%
FO7PS	16.62	0.0%
FO7PS	14.51	0.0%
FO7PS	13492.61	2.7%
FO81G	6616.76	1.3%
FO7EM-2014	417.08	0.1%
FO7EM-2014	36.14	0.0%
FO7EM-2014	8.35	0.0%
FO7EM-2014	102.40	0.0%
FO7EM-2014	16.62	0.0%
Harv 08-09	2835.28	0.6%
Harv 08-09	1166.83	0.2%
Harv 08-09	189.49	0.0%
Harv 08-09	143.11	0.0%
Harv 08-09	344.36	0.1%
Harv 08-09	5296.44	1.1%
Sum Landform 1	46385.27	9.3%
Landform 3	127788.68	
FO81J	621.35	0.5%
FO81K	1279.77	1.0%
FO81K	140.97	0.1%
FO81S	1881.96	1.5%
Sum Landform 3	3924.05	3.1%
Landform 4	46342.46	
No visible alteration	0.00	0.0%



Sandbox original without RDI Leave. Existing nonVEG in orange.



Sandbox with RDI Leave. Existing nonVEG in pale green. Only Fo81K and Fo81S in L3. See also McCorvie.

Fo7PS - reduced angularity, break in centre to strengthen visual force through block.

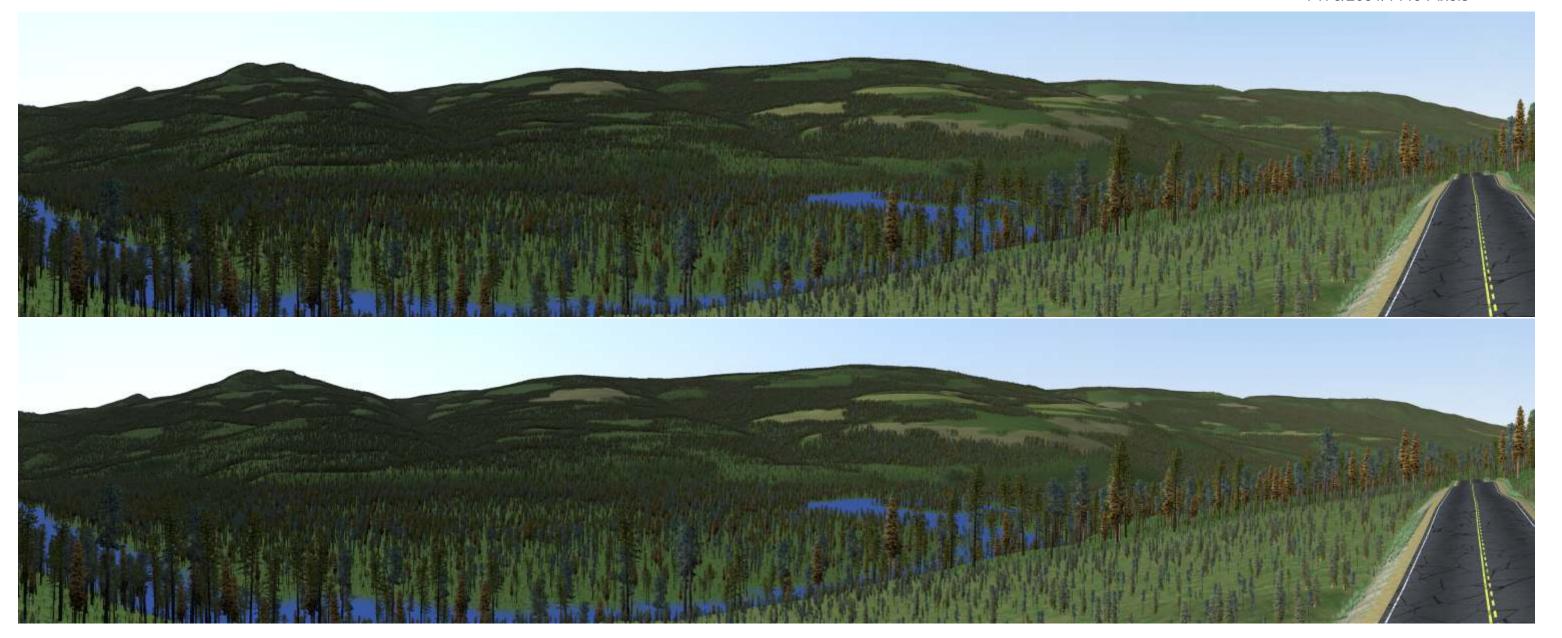
Fo81G - reduced angularity

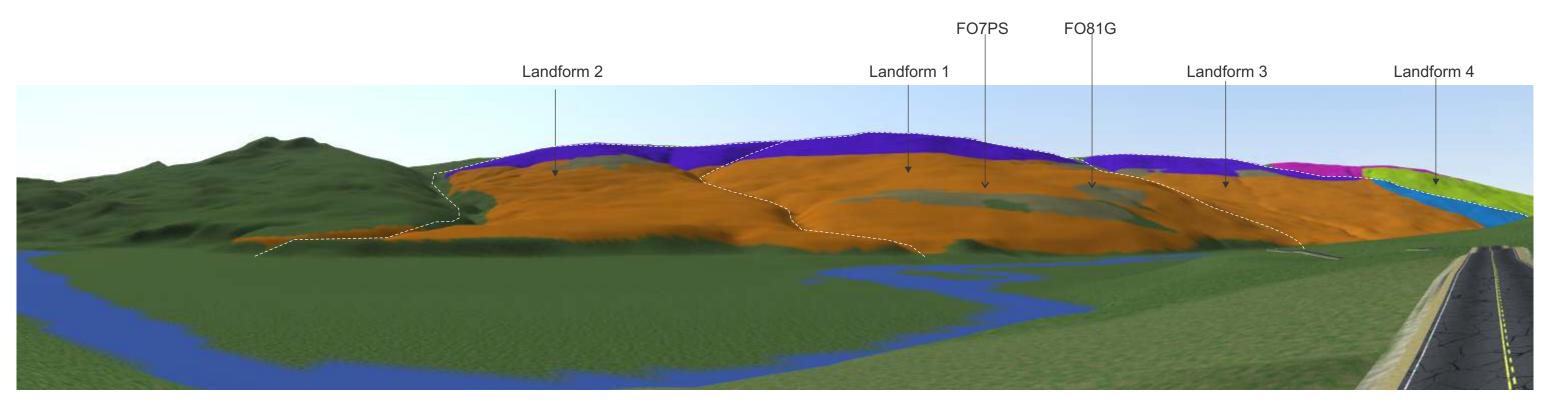
Fo81S - reduced angularity

Note: Fo7PS and Fo81G considered in August VIA. Though simplistic, no further changes were made in this VIA for consistency.

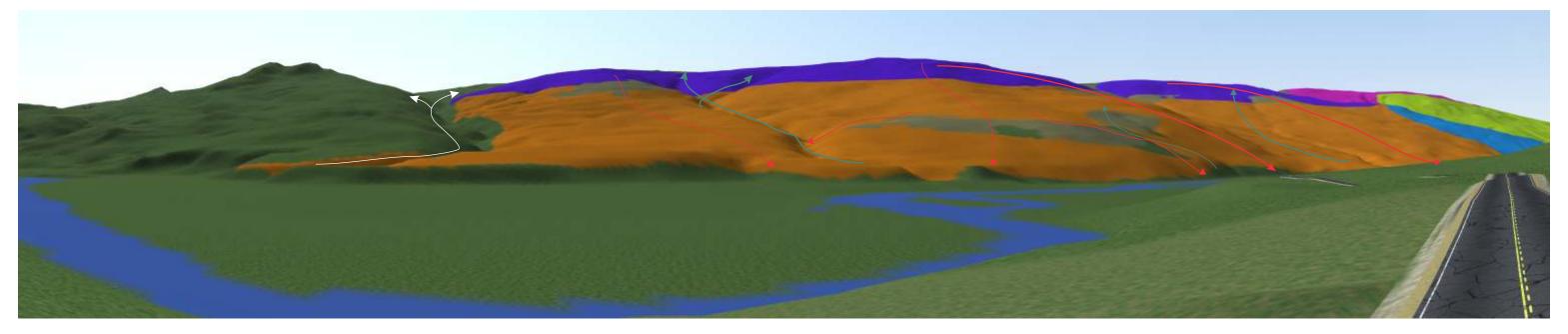
New blocks were not anticipated by RDI at that time.

Window in to view the distinctions between the two scenarios for Fo7PS, Fo81G, Fo81J, and Fo81S.





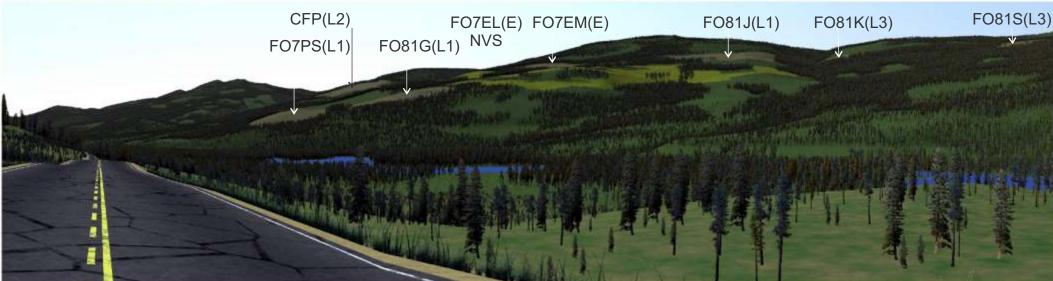
VSU 1024 - Modification
VSU 1191 - Modification



Visual Force Convexity

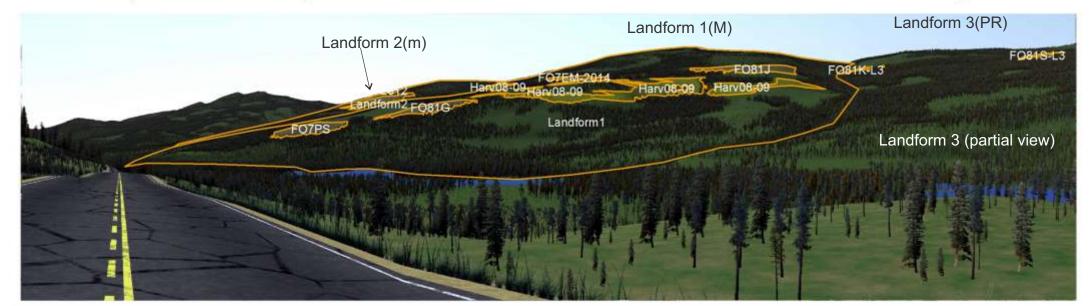
Visual Force Concavity

McCorvie Viewpoint Photo by T. Luedke, May 2015



McCorvie Viewpoint VNS Simulation by RDI- 151017

5302 pixel width VNS



Updated to 151017

Landforms L1 and L1+L2 within VSU

with RDI Recommended Changes to BCTS Plan

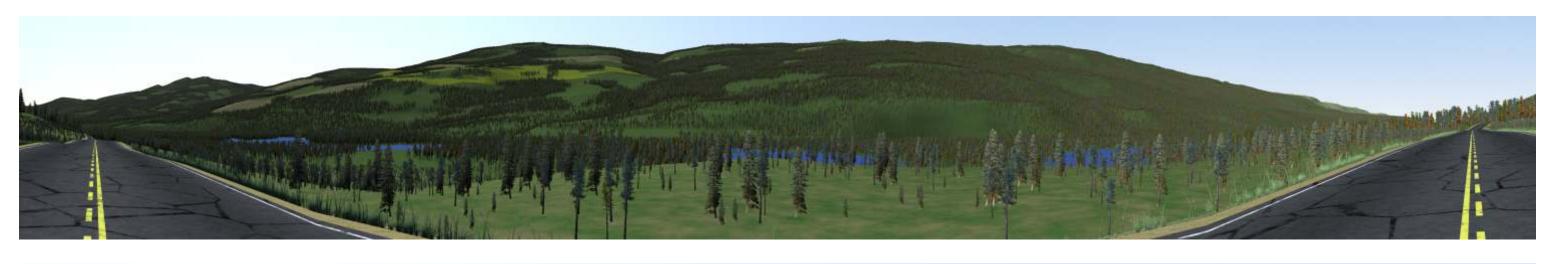
McCorvie I			
Item	Area2	%Alt L1	
Landform1	634671.5		
FO7PS	7400.8	1.2%	
FO81G	5933.9	0.9%	
FO7EM-2014	1852.0	0.3%	
Harv08-09	23632.0	3.7%	
Harv08-09	300.9	0.0%	
Harv08-09	752.6	0.1%	
Harv08-09	8414.1	1.3%	
Retained	1161.7	-0.2%	
Harv08-09	1383.9	0.2%	
FO81J	6735.2	1.1%	
Sum Alt L1	56405.4	8.9%	

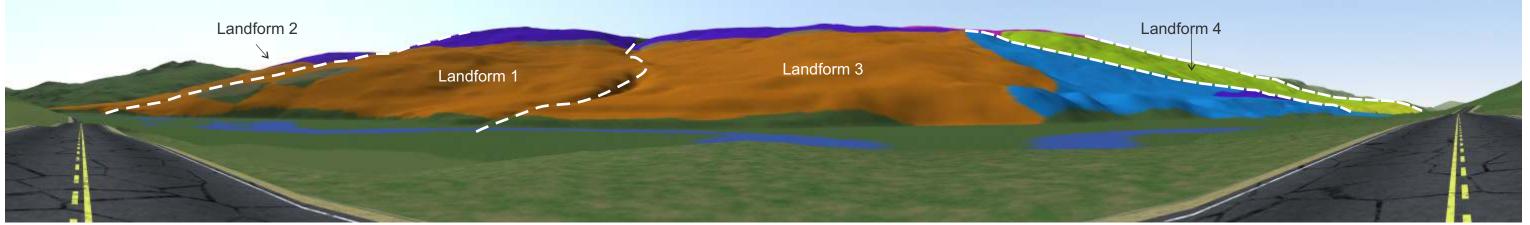
McCorvie Total Percent Alteration Landform 1+2						
		%Alt L2	%Alt L1+L2			
Landform2	26607.0					
CFP-2012	3969.2	14.9%	0.6%			
Sum L1+L2	661278.5					
Sum Alt L1+L2	60374.6		9.1%			

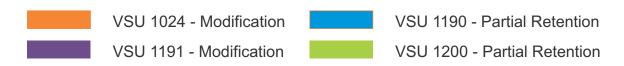
Landform 2 with existing CFP block presented for information only

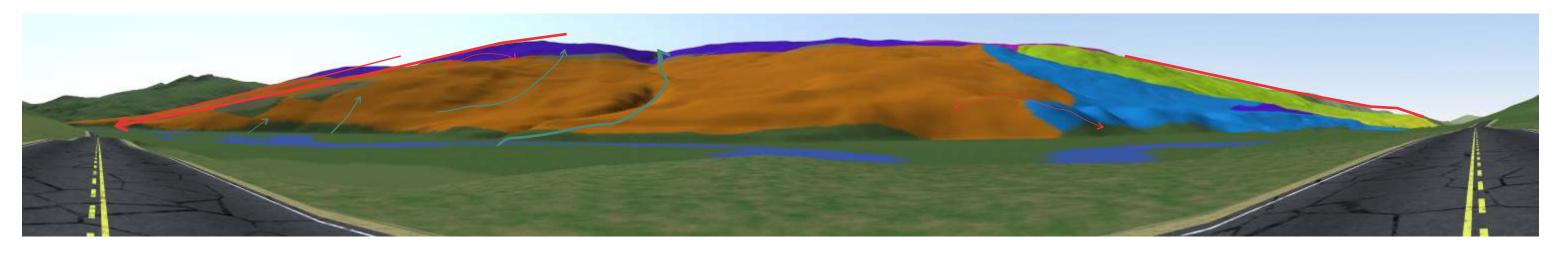
Percent Alteration for Landform 3 not calculated Partial representation only of landform in this rendering. See Sandbox, p.6.

RDI Resource Design Inc October, 2015

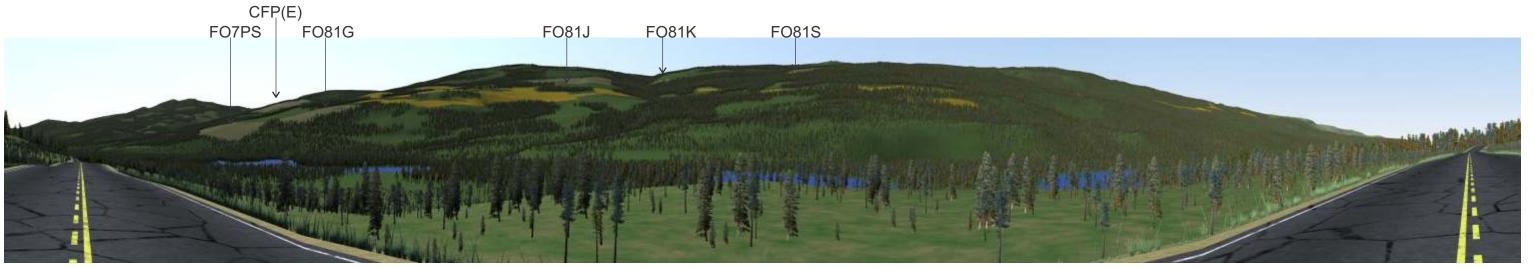






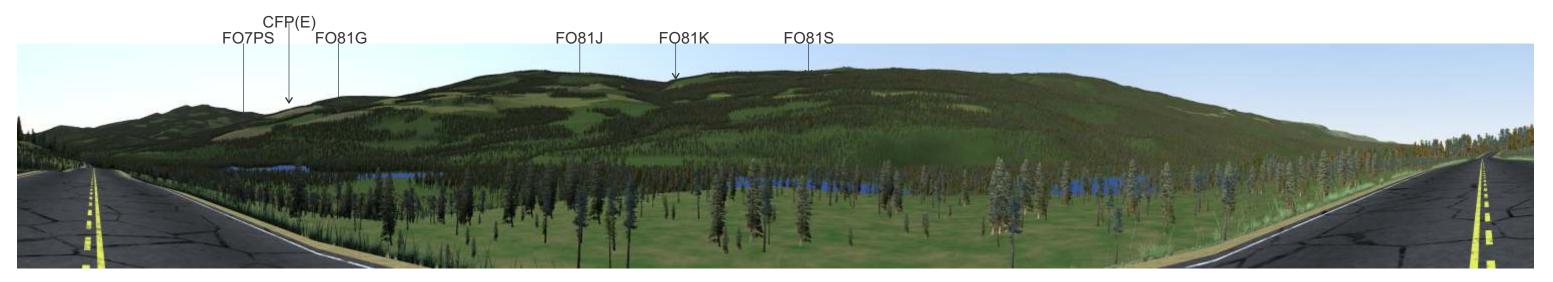


No Percent Alteration prepared for Landform 3 due small size of Fo8L9.



McCorvie original without RDI Leave. Existing nonVEG in orange.

9720



McCorvie with RDI Leave. Existing nonVEG in pale green. Only Fo81K and Fo81S in L3. See also Sandbox.

No Percent Alteration prepared for Landform 3 due small size of Fo8L9.

Fo7PS - reduced angularity.

Fo81G - reduced angularity

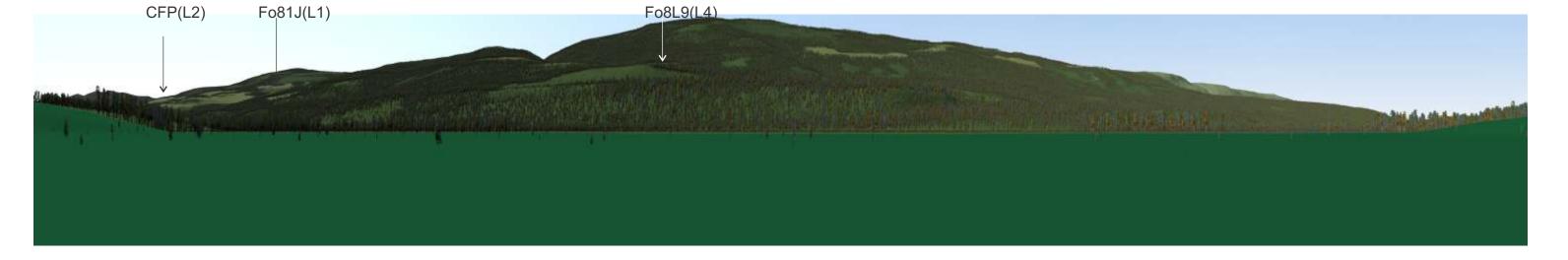
Fo81J- reduced angularity

Fo81S - reduced visibility

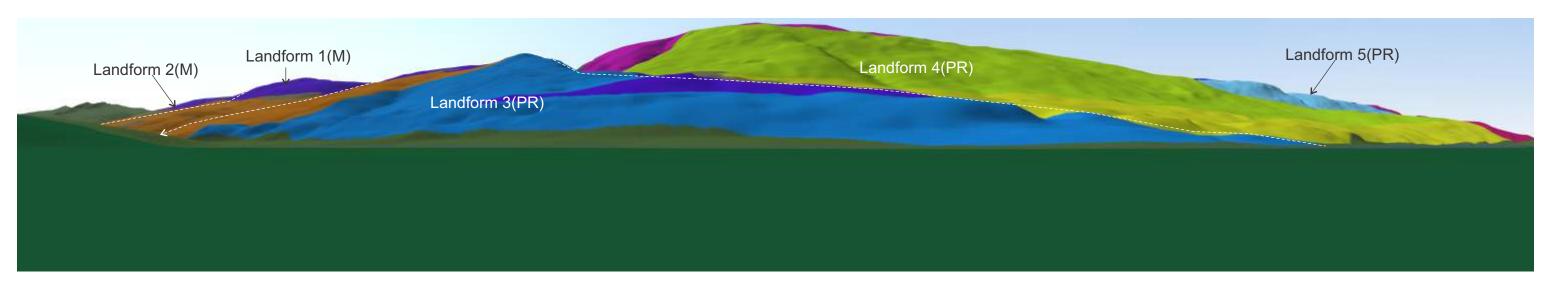
Note: Fo7PS and Fo81G considered in August VIA. For consistency, no further changes were made in this VIA.

New blocks were not anticipated by RDI at that time.

Window in to view the distinctions between the two scenarios for Fo7PS, Fo81G, Fo81J, and Fo81S.



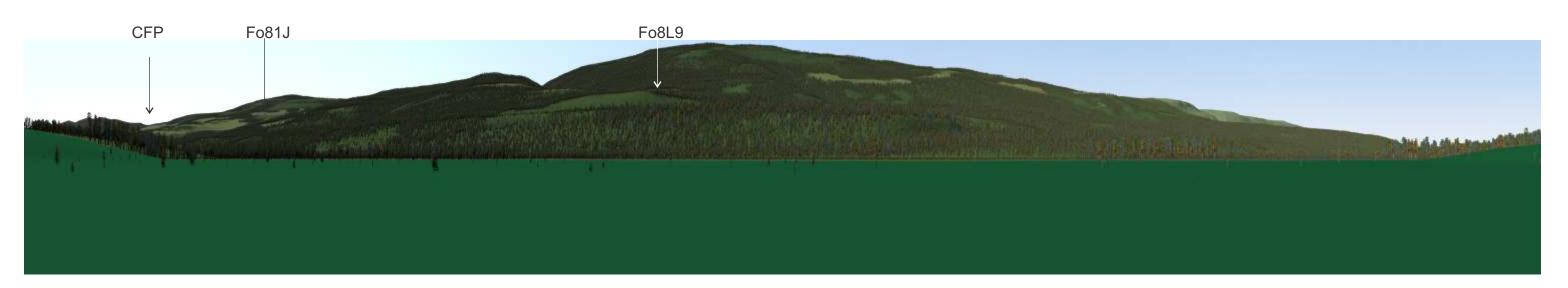




Fo8L9 only in L4. See McCorvie and Sandbox for L1 blocks.

No Percent Alteration prepared for Landform 3 due small size of Fo8L9. See Sandbox, pp.5 - 7 for Fo81K and Fo81S Percent Alteration.



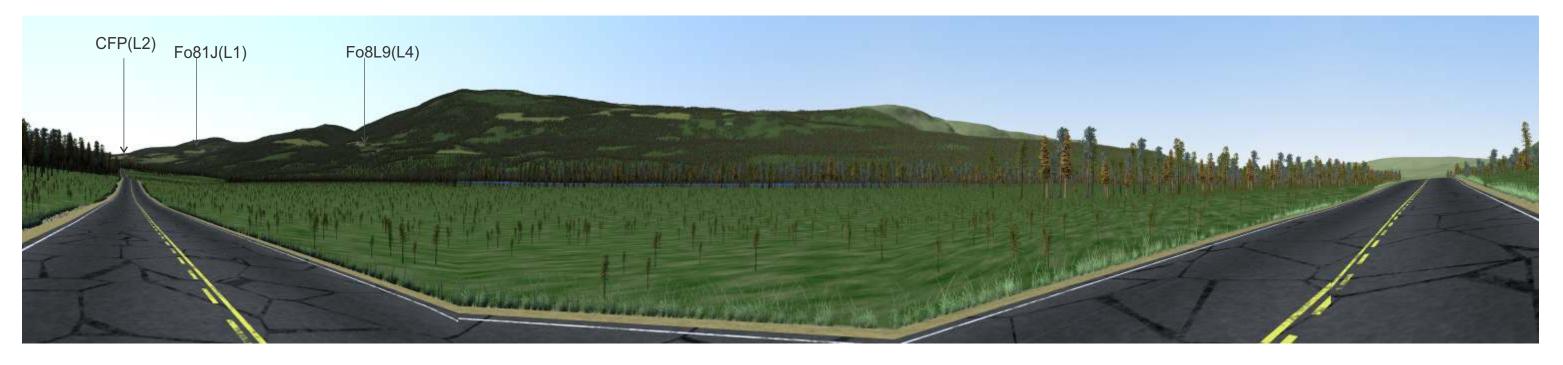


Birch with RDI Leave. Existing nonVEG in pale green.

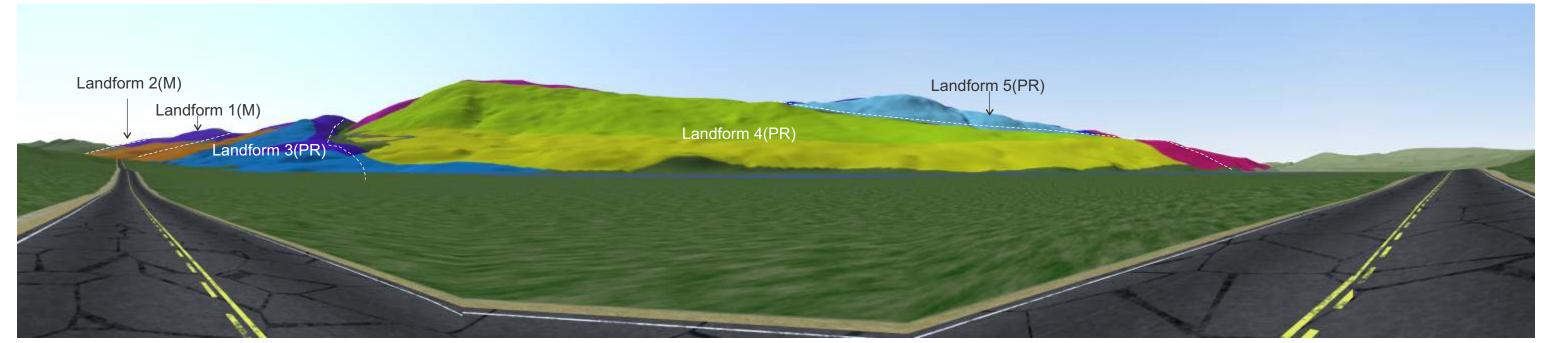
No Percent Alteration prepared for Landform 3 due small size of Fo8L9.

Fo81J- reduced angularity

Window in to view the distinctions between the two scenarios for Fo81J.

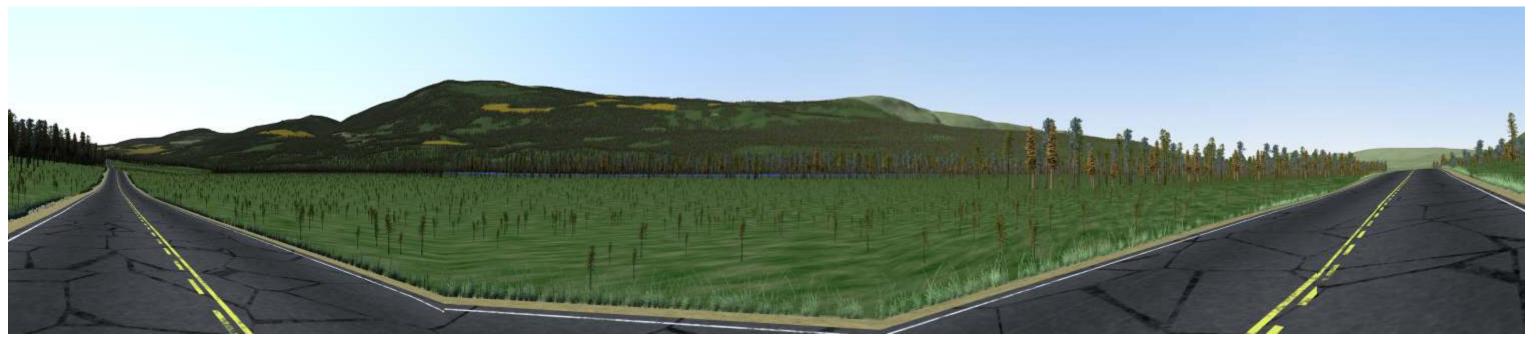






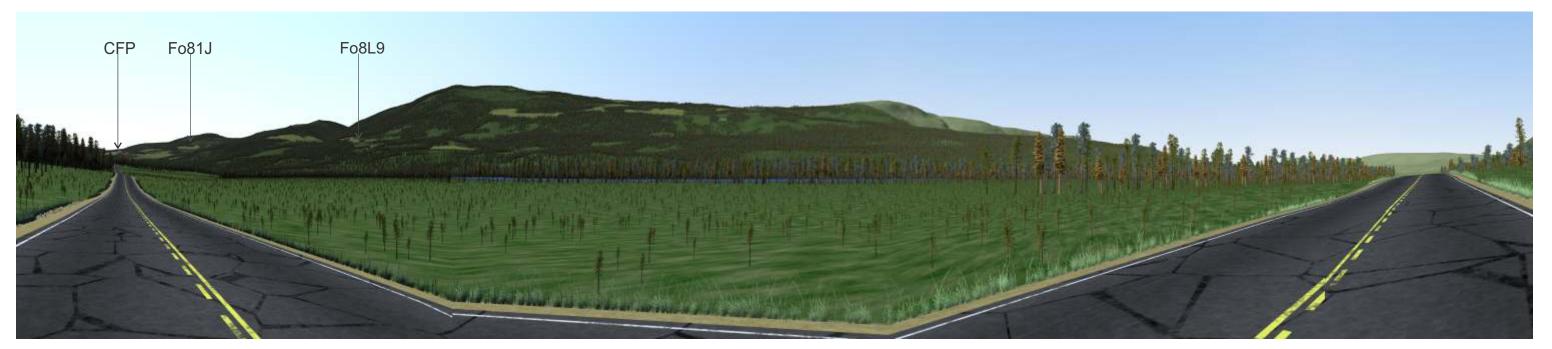
Fo8L9 only in L4. See McCorvie and Sandbox for L1 and L3 blocks.

No Percent Alteration prepared for Landform 4 due small size of Fo8L9.



Miller original without RDI Leave. Existing nonVEG in orange.

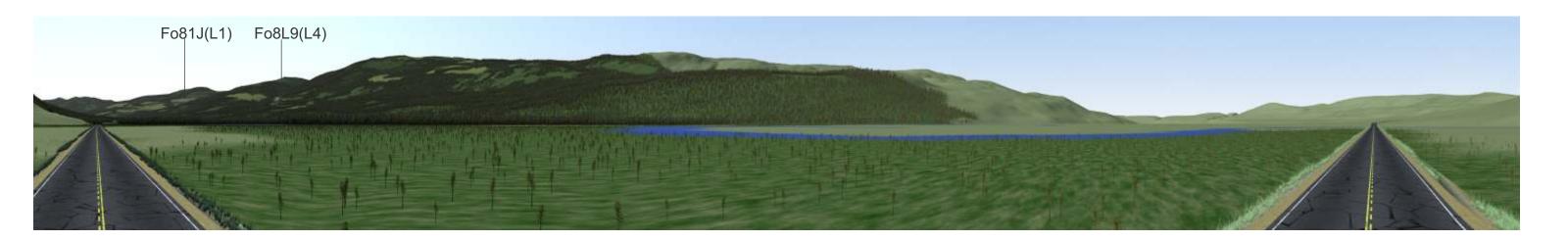
6676



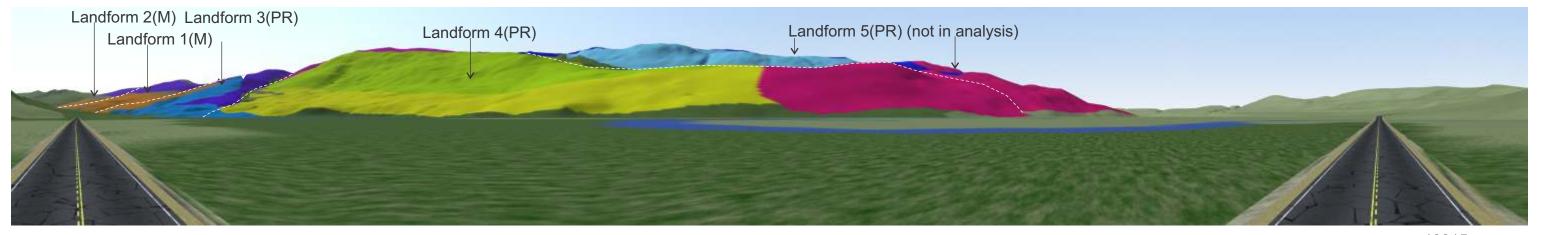
Miller with RDI Leave. Existing nonVEG in pale green.

No Percent Alteration prepared for Landform 4 due small size of Fo8L9.

Fo81J- reduced angularity Window in to view the distinctions between the two scenarios for Fo81J.



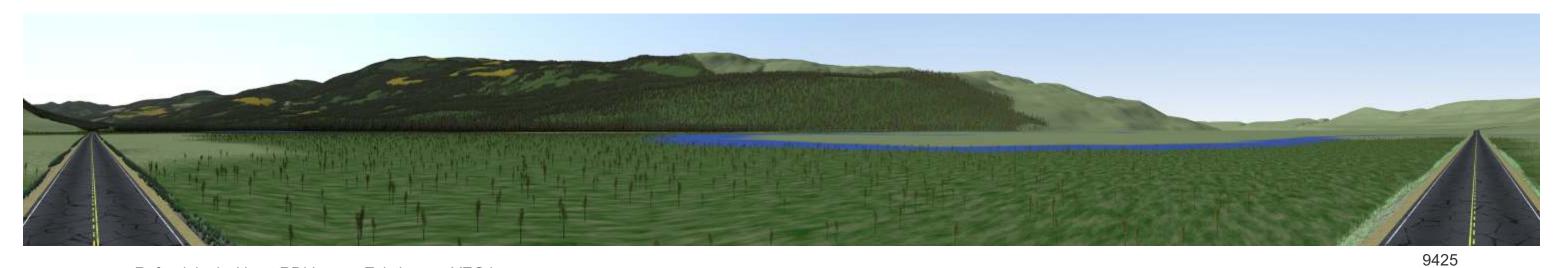




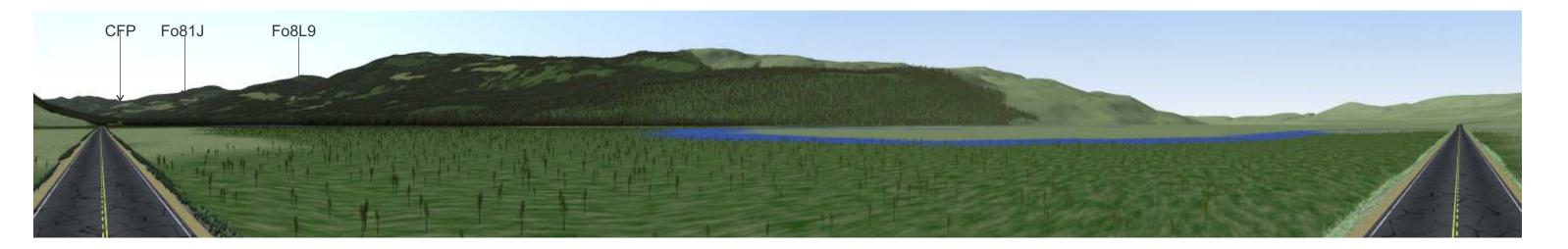
Fo8L9 only in L4. See McCorvie and Sandbox for L1 and L3 blocks.

10015

No Percent Alteration prepared for Landform 4 due small size of Fo8L9.



Raft original without RDI Leave. Existing nonVEG in orange.



Raft with RDI Leave. Existing nonVEG in pale green.

Fo81J- reduced angularity
Window in to view the distinctions between the two scenarios for Fo81J.
No Percent Alteration prepared for Landform 4 due small size of Fo8L9.

