

## **Appendix D**

### **Large Format Data Tables**

These tables compare the Proposed and Alternative Routes across many resources, regardless of the need for plan amendments or the likelihood that they would be approved. In two cases, the BLM has indicated that an amendment is infeasible and that the portion of the route in the area of the infeasible plan amendment could therefore not be approved. For the Draft EIS, this applies to Alternatives 9D and 9G where they pass through the Cove non-motorized area in the C.J. Strike SRMA, and to Proposed Route 9 where it crosses the eligible WSR portion of Salmon Falls Creek.

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**Table D.6-1. Miles of Vegetation Types Crossed by the Proposed Routes and Alternatives**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Natural Vegetation											Disturbed & Semi-natural Vegetation				Other Cover Types	Total Natural Vegetation	Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total
			Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Juniper	Deciduous Forest	Conifer Forest	Wetland & Riparian	Misc.	Disturbed Sagebrush	Disturbed Grassland	Agriculture	Disturbed/Developed	Water				
1E	Proposed – Total Length	100.6	46.7	t <sup>1/</sup>	1.5	23.2	0.5	0.1	10.2	2.5	4.0	2.0	0.8	2.6	5.7	0.5	0.1	91.6	8.8	0.1	100.6	
	Proposed – Comparison portion for Alternative 1E-A	17.6	10.1			t <sup>1/</sup>					0.3			1.2	5.6	0.3	0.1	10.4	7.1	0.1	17.6	
	Alternative 1E-A	16.1	4.5						t <sup>1/</sup>			0.4	t <sup>1/</sup>	2.1	6.8	2.1	0.1	t <sup>1/</sup>	4.9	11.1	t <sup>1/</sup>	16.1
	Proposed – Comparison portion for Alternative 1E-B	37.9	17.3	t <sup>1/</sup>	0.7	17.1			0.1	0.1	0.5	0.7	0.2	0.8	t <sup>1/</sup>		t <sup>1/</sup>		36.9	1.0		37.9
	Alternative 1E-B	59.3	19.7		3.5	21.6	6.2	0.2	4.1			0.8	0.1	0.4	2.6		0.2		56.1	3.3		59.3
	Proposed – Comparison portion for Alternative 1E-C	75.4	31.4	t <sup>1/</sup>	1.5	23.2		0.1	10.1	1.4	3.8	1.7	0.8	1.0	0.1		0.2		74.1	1.3		75.4
1W	Alternative 1E-C	48.7	41.7		1.6				1.1	0.6	0.5	0.4	1.8			0.3	t <sup>1/</sup>	46.5	2.1	t <sup>1/</sup>	48.6	
	1W(a) Proposed – Total Length	76.5	56.6		1.5		t <sup>1/</sup>	5.0	1.5	2.4	0.3	1.1	t <sup>1/</sup>	4.7	2.8	t <sup>1/</sup>	0.4	t <sup>1/</sup>	68.4	7.9	t <sup>1/</sup>	76.5
	Proposed – Comparison portion for Alternative 1W-A	20.3	10.5					5.0		0.1		0.2		1.4	2.8	t <sup>1/</sup>	0.2		15.8	4.5		20.3
	Alternative 1W-A	16.2	4.2						t <sup>1/</sup>			0.5		0.9	8.7	1.6	0.2	t <sup>1/</sup>	4.7	11.4	t <sup>1/</sup>	16.2
2	1W(c) Proposed – Total Length	70.6	49.7		1.3		0.1	0.5	1.6	3.3	1.7	0.4	5.4	5.5	t <sup>1/</sup>	0.9	0.2	58.6	11.8	0.2	70.6	
	Proposed – Total Length	96.7	44.4	6.9	16.2	15.0		0.2			0.9	0.6	8.2	2.2		1.3	0.8	84.2	11.7	0.8	96.7	
	Proposed – Comparison portion for Alternative 2A	28.8	12.2	1.0	9.4	0.4						0.6		4.8			0.3	23.6	5.1	0.1	28.8	
	Alternative 2A	28.4	16.3	1.9	4.9	0.9						0.6		3.6			0.2	t <sup>1/</sup>	24.5	3.8	t <sup>1/</sup>	28.4
	Proposed – Comparison portion for Alternative 2B	7.0	4.6	0.5	0.6	0.4						t <sup>1/</sup>		0.6			t <sup>1/</sup>	t <sup>1/</sup>	6.3	0.7	t <sup>1/</sup>	7.0
	Alternative 2B	6.2	2.7	0.6	2.3							0.3		0.2			t <sup>1/</sup>	t <sup>1/</sup>	5.8	0.3	t <sup>1/</sup>	6.2
	Proposed – Comparison portion for Alternative 2C	28.4	10.2	0.4	8.5	0.8						0.2	0.4	5.5	2.1		0.2	t <sup>1/</sup>	20.5	7.8	t <sup>1/</sup>	28.4
3	Alternative 2C	24.4	15.3		1.8	2.2					0.2	0.3	4.4	t <sup>1/</sup>		0.1		19.8	4.6		24.4	
	Proposed – Total Length	56.5	16.3	5.2	15.5	11.7					0.9		5.4	t <sup>1/</sup>		1.3	0.1	49.6	6.7	0.1	56.5	
4	Proposed – Total Length	203.0	112.0	0.1	8.8	10.2	0.9	t <sup>1/</sup>	3.5	13.6	7.1	6.4	1.5	15.5	7.2	12.8	2.6	0.7	164.2	38.1	0.7	203.0
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	50.6		3.3	6.1			1.0	4.1	4.7	2.3	0.3	12.7	4.0	0.4	0.5	0.2	72.4	17.6	0.2	90.2
	Alternative 4A	85.2	65.6		0.4	6.9	0.3		t <sup>1/</sup>	1.2		2.9	0.5	3.2	1.5	1.6	0.5	0.4	77.9	6.8	0.4	85.2
	Alternative 4B	100.2	78.5	t <sup>1/</sup>	0.6	8.1			t <sup>1/</sup>	t <sup>1/</sup>		1.8	0.3	3.8	1.2	4.7	0.8	0.3	89.5	10.4	0.3	100.2
	Alternative 4C	101.6	76.3	t <sup>1/</sup>	0.9	7.9			t <sup>1/</sup>			1.3	0.3	6.0	1.0	6.6	1.1	0.2	86.7	14.7	0.2	101.6
	Alternative 4D	100.8	78.8	t <sup>1/</sup>	0.6	8.4			0.1	t <sup>1/</sup>		1.8	0.3	3.8	1.2	4.7	0.7	0.3	90.2	10.4	0.3	100.8
	Alternative 4E	102.2	76.6	t <sup>1/</sup>	0.9	8.2			0.1	t <sup>1/</sup>		1.3	0.3	6.0	1.0	6.6	1.0	0.2	87.4	14.6	0.2	102.2
5	Alternative 4F	87.5	68.1		0.4	6.6	0.1		t <sup>1/</sup>	1.2	1.1	2.6	0.5	3.1	1.6	1.4	0.4	0.2	80.8	6.5	0.2	87.5
	Proposed – Total Length	54.6	22.6				t <sup>1/</sup>	5.4	4.2	3.7	0.4	t <sup>1/</sup>		2.1	3.8	11.5	0.6	0.2	36.4	18.1	0.2	54.6
	Proposed – Comparison portion for Alternatives 5A,B	25.3	10.6				t <sup>1/</sup>	3.1	2.4	3.7	0.1	t <sup>1/</sup>			0.7	4.5	t <sup>1/</sup>		20.0	5.3		25.3
	Alternative 5A	33.7	13.9				0.2	3.6	2.9	2.1	t <sup>1/</sup>				3.9	7.1	t <sup>1/</sup>		22.6	11.0		33.7
	Alternative 5B	44.4	18.0				0.6	4.0	1.8	1.1	t <sup>1/</sup>			3.7	2.2	12.7	0.2		25.7	18.7		44.4
	Proposed – Comparison portion for Alternative 5C	33.2	14.6				t <sup>1/</sup>	2.4	4.1	3.7	0.2	t <sup>1/</sup>		1.9	1.4	4.5	0.1		25.2	8.0		33.2
	Alternative 5C	26.1	5.8				0.6	2.5	1.8	t <sup>1/</sup>	0.2			9.1	0.7	5.2	0.1		11.0	15.1		26.1
	Proposed – Comparison portion for Alternative 5D	19.4	8.2						1.9	1.8		0.2		2.1	1.0	3.6	0.4	0.2	12.1	7.1	0.2	19.4
Alternative 5D	17.5	2.0							3.7	t <sup>1/</sup>	0.5		4.8	0.9	5.1	0.3	t <sup>1/</sup>	6.2	11.1	t <sup>1/</sup>	17.5	
6	Proposed – Comparison portion for Alternative 5E	5.8	1.6					0.2			t <sup>1/</sup>			0.2	0.3	3.0	0.3	0.2	1.9	3.7	0.2	5.8
	Alternative 5E	5.3	0.7								t <sup>1/</sup>			0.1	0.4	2.3	1.5	0.2	0.7	4.4	0.2	5.3
6	Proposed – Total Length	0.5	0.2											0.3		t <sup>1/</sup>	t <sup>1/</sup>	0.2	0.3	t <sup>1/</sup>	0.5	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup>"t" indicates only a trace amount (<0.1 mile) crossed

**Table D.6-1. Miles of Vegetation Types Crossed by the Proposed Routes and Alternatives cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Natural Vegetation											Disturbed & Semi-natural Vegetation				Other Cover Types	Total Natural Vegetation	Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total
			Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Juniper	Deciduous Forest	Conifer Forest	Wetland & Riparian	Misc.	Disturbed Sagebrush	Disturbed Grassland	Agriculture	Disturbed/Developed	Water				
7	Proposed – Total Length	118.1	32.8		1.7		0.5	0.1	7.6	2.2	2.4	0.3		9.4	13.4	46.7	0.9	t <sup>1/</sup>	47.6	70.4	t <sup>1/</sup>	118.1
	Proposed – Comparison portion for Alternatives 7A,B	35.2	10.8				0.5		2.1	2.2	2.4	0.1		1.1	3.5	12.5	t <sup>1/</sup>		18.1	17.1		35.2
	Alternative 7A	38.0	16.8						1.1	2.8	3.1	0.6		3.8	2.0	7.6	0.2		24.3	13.6		38.0
	Alternative 7B	46.4	22.9				0.5		1.0	1.1	1.5	t <sup>1/</sup>		5.4	0.3	13.5	0.3		27.0	19.4		46.4
	Proposed – Comparison portion for Alternative 7C	20.1	4.0		1.7									4.6	1.6	8.1	t <sup>1/</sup>	t <sup>1/</sup>	5.7	14.4	t <sup>1/</sup>	20.1
	Alternative 7C	20.3	0.8											7.8	6.5	4.8	0.2	t <sup>1/</sup>	0.8	19.4	t <sup>1/</sup>	20.3
	Proposed – Comparison portion for Alternative 7D	6.2	1.4					0.1	0.3				t <sup>1/</sup>	1.0	2.3	1.0	0.1	t <sup>1/</sup>	1.8	4.4	t <sup>1/</sup>	6.2
	Alternative 7D	6.8	1.7						0.3				t <sup>1/</sup>	1.3	2.1	1.3	0.1	t <sup>1/</sup>	2.0	4.8	t <sup>1/</sup>	6.8
	Proposed – Comparison portion for Alternative 7E	3.8	2.0						0.5						1.1	0.2	t <sup>1/</sup>		2.5	1.3		3.8
	Alternative 7E	4.5	2.3						0.7					0.5	1.0	t <sup>1/</sup>	t <sup>1/</sup>		3.0	1.5		4.5
	Proposed – Comparison portion for Alternative 7F	10.5	3.6						2.8						1.9	2.2	t <sup>1/</sup>		6.4	4.1		10.5
	Alternative 7F	10.8	2.4						2.9					1.5	1.9	2.0	t <sup>1/</sup>		5.3	5.4		10.8
	Proposed – Comparison portion for Alternative 7G	3.1	2.0											0.6	t <sup>1/</sup>	0.4			2.0	1.1		3.1
	Alternative 7G	3.2	0.8											1.5	t <sup>1/</sup>	0.9			0.8	2.4		3.2
	Proposed – Comparison portion for Alternatives 7H,I	118.1	32.8		1.7		0.5	0.1	7.6	2.2	2.4	0.3		9.4	13.4	46.7	0.9	t <sup>1/</sup>	47.6	70.4	t <sup>1/</sup>	118.1
	Alternative 7H	127.5	51.0	5.3	t <sup>1/</sup>		4.9		9.6	4.4	5.3	1.1	t <sup>1/</sup>	22.7	6.4	15.4	1.4	t <sup>1/</sup>	81.6	45.9	t <sup>1/</sup>	127.5
Alternative 7I	173.4	70.9	0.7	6.1		4.4		9.5	6.9	4.7	1.5	t <sup>1/</sup>	34.4	18.9	14.5	0.7		104.8	68.6		173.4	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9	36.9		1.7		0.5	0.1	7.6	2.2	2.4	0.4		18.8	22.4	49.2	1.5	t <sup>1/</sup>	51.8	92.0	t <sup>1/</sup>	143.9	
Alternative 7J <sup>2/</sup>	202.1	78.2	0.7	6.1		3.8		9.5	4.7	4.6	1.3	t <sup>1/</sup>	56.2	21.7	14.5	0.7	t <sup>1/</sup>	108.9	93.2	t <sup>1/</sup>	202.1	
8	Proposed – Total Length	131.0	37.5	2.8	0.8		0.4				0.7	0.3	28.8	45.5	13.0	0.8	0.2	42.6	88.2	0.2	131.0	
	Proposed – Comparison portion for Alternative 8A	51.4	21.3								0.1		5.1	12.1	12.2	0.4	0.2	21.4	29.8	0.2	51.4	
	Alternative 8A	53.6	3.2	0.1							0.3		19.8	13.2	15.7	1.0	0.3	3.6	49.7	0.3	53.6	
	Proposed – Comparison portion for Alternative 8B	45.3	5.4	2.8	0.8						0.2	0.2	16.6	18.5	0.4	0.3	t <sup>1/</sup>	9.3	35.9	t <sup>1/</sup>	45.3	
	Alternative 8B	45.8	7.1	0.5							0.3		9.2	12.0	12.8	3.8	0.1	7.9	37.8	0.1	45.8	
	Proposed – Comparison portion for Alternative 8C	6.5	0.8								t <sup>1/</sup>			2.7	2.9		t <sup>1/</sup>	0.9	5.7		6.5	
	Alternative 8C	6.4	2.2	t <sup>1/</sup>										0.2	3.9		t <sup>1/</sup>	2.2	4.2		6.4	
	Proposed – Comparison portion for Alternative 8D	6.9												0.6	6.3		t <sup>1/</sup>		6.9		6.9	
	Alternative 8D	8.1												0.5	6.1	1.4	t <sup>1/</sup>		8.1		8.1	
	Proposed – Compare to Alternative 8E	7.0	0.5									0.1		3.7	2.1	0.4	0.1	t <sup>1/</sup>	0.6	6.3	t <sup>1/</sup>	7.0
Alternative 8E	18.5	1.7											9.6	6.9		t <sup>1/</sup>	0.1	1.7	16.6	0.1	18.5	
9	Proposed – Total Length	161.7	33.3	19.5	3.5	t <sup>1/</sup>		3.2	t <sup>1/</sup>		0.5	0.5	27.8	57.6	13.9	1.8	0.2	60.5	101.1	0.2	161.7	
	Proposed – Comparison portion for Alternative 9A	7.8	1.5								t <sup>1/</sup>			2.1	4.0		0.2	t <sup>1/</sup>	1.5	6.3	t <sup>1/</sup>	7.8
	Alternative 9A	7.7	1.4								t <sup>1/</sup>			4.0	1.7	t <sup>1/</sup>	0.5	t <sup>1/</sup>	1.4	6.2	t <sup>1/</sup>	7.7
	Proposed – Comparison portion for Alternative 9B	49.5	10.6		t <sup>1/</sup>		1.7	t <sup>1/</sup>			t <sup>1/</sup>	0.1		10.5	25.8	t <sup>1/</sup>	0.6		12.5	36.9		49.5
	Alternative 9B	53.2	2.8	3.4			1.1	t <sup>1/</sup>			t <sup>1/</sup>			10.6	24.5	10.6	0.2	t <sup>1/</sup>	7.3	45.8	t <sup>1/</sup>	53.2
	Proposed – Comparison portion for Alternative 9C	14.7	6.0				1.7	t <sup>1/</sup>			t <sup>1/</sup>	0.1		1.0	5.6		0.3		7.8	6.9		14.7
	Alternative 9C	15.3					1.1				t <sup>1/</sup>			5.6	8.0	0.4	t <sup>1/</sup>	t <sup>1/</sup>	1.1	14.2	t <sup>1/</sup>	15.3
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	12.7	17.7	3.3	t <sup>1/</sup>					0.4	0.4		3.7	7.8	10.3	0.5	0.2	34.6	22.4	0.2	57.2
	Alternative 9D	58.4	8.5	1.1					t <sup>1/</sup>		0.1			17.5	28.4	1.5	0.8	0.4	9.7	48.3	0.4	58.4
	Alternative 9E	68.7	31.9	2.3	0.9						0.2	0.4		21.1	11.3	0.1	0.4		35.8	32.9		68.7
	Alternative 9F	62.9	10.8	3.5	1.0						0.4			14.4	24.7	6.8	1.0	0.3	15.7	46.9	0.3	62.9
Alternative 9G	56.4	6.7	2.2	t <sup>1/</sup>				t <sup>1/</sup>		0.1			19.7	24.9	1.5	0.9	0.3	9.1	47.0	0.3	56.4	
Alternative 9H	61.0	9.1	4.6	1.0						0.4			16.5	21.2	6.8	1.0	0.3	15.1	45.6	0.3	61.0	
10	Proposed – Total Length	33.6	2.5								t <sup>1/</sup>	t <sup>1/</sup>	5.9	8.4	15.2	1.1	0.4	2.5	30.7	0.4	33.6	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>454.6</b>	<b>34.6</b>	<b>50.8</b>	<b>60.1</b>	<b>2.2</b>	<b>9.0</b>	<b>28.9</b>	<b>26.5</b>	<b>20.7</b>	<b>14.8</b>	<b>4.2</b>	<b>115.8</b>	<b>152.5</b>	<b>113.1</b>	<b>12.3</b>	<b>3.1</b>	<b>706.4</b>	<b>393.8</b>	<b>3.1</b>	<b>1103.3</b>

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.6-2. Impacts (acres) to Vegetation from Construction**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Misc.	Conifer Forest			Deciduous Forest			Juniper			Wetland/Riparian		
										Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts
1E	Proposed – Total Length	100.6	514	2	22	286	3	<1	3	35	46	81	20	28	48	69	120	189	9	2	11
	Proposed – Comparison portion for Alternative 1E-A	17.6	116	<1			t <sup>2/</sup>	<1											<1	1	1
	Alternative 1E-A	16.1	38		t <sup>2/</sup>			1	t <sup>2/</sup>							<1	<1	1	2	3	4
	Proposed – Comparison portion for Alternative 1E-B	37.9	183	1	5	177			<1	3	6	9	<1	2	3	1	2	3	3		3
	Alternative 1E-B	59.3	245		36	296	44	1	<1				<1		<1	36	48	84	4		4
	Proposed – Comparison portion for Alternative 1E-C	75.4	365	1	22	286			<1	3	32	44	76	12	16	28	68	118	186	9	<1
Alternative 1E-C	48.7	256		17					3	2	6	8	3	7	10	8	12	21	3	<1	3
1W	1W(a) Proposed – Total Length	76.5	419		22		<1	47	<1	3	3	5	14	28	42	10	17	27	7	<1	7
	Proposed – Comparison portion for Alternative 1W-A	20.3	105					47					<1	2	2				<1		<1
	Alternative 1W-A	16.2	39					1								<1	<1	<1	2	3	5
	1W(c) Proposed – Total Length	70.6	555		26		<1		2	19	38	57	16	18	35	3	5	8	9	3	12
2	Proposed – Total Length	96.7	782	104	233	214			5							2	6	7	9	<1	10
	Proposed – Comparison portion for Alternative 2A	28.8	174	15	126	12													3	<1	3
	Alternative 2A	28.4	246	27	76	15													6	5	10
	Proposed – Comparison portion for Alternative 2B	7.0	54	9	20	12													<1		<1
	Alternative 2B	6.2	35	6	29														2	3	6
	Proposed – Comparison portion for Alternative 2C	28.4	138	6	96	13			2										2	<1	2
Alternative 2C	24.4	213		17	23			2										<1		<1	
3	Proposed – Total Length	56.5	308	64	194	156													13		13
4	Proposed – Total Length	203.0	1657	<1	148	147	15	<1	16	76	191	267	160	378	538	34	102	136	62	3	65
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	754		43	91			4	48	129	177	54	106	160	7	29	35	16	1	17
	Alternative 4A	85.2	941	20	13	78	4		6				13	35	48	<1	3	3	53	2	55
	Alternative 4B	100.2	1088	20	15	138			4				<1	<1	1	1	3	4	42	<1	43
	Alternative 4C	101.6	1046	20	21	139			4				<1		<1	1	3	4	36	<1	36
	Alternative 4D	100.8	1094	20	21	144			4	<1		<1	1	3	4	1	3	4	39	<1	40
	Alternative 4E	102.2	1056	20	23	145			4	<1		<1	<1	2	3	1	3	4	36	<1	36
Alternative 4F	87.5	978	20	15	66	1		6	15	29	44	17	32	49	<1	3	3	40	3	43	
5	Proposed – Total Length	54.6	399				3	<1	65	88	153	59	98	157	77	114	191	10	<1	10	
	Proposed – Comparison portion for Alternatives 5A,B	25.3	161				3	<1	65	88	153	34	53	88	55	66	121	5	<1	5	
	Alternative 5A	33.7	224				1		30	45	74	53	66	119	35	87	123	<1	t <sup>2/</sup>	1	
	Alternative 5B	44.4	290				11		14	23	37	25	41	66	47	94	141	<1	<1	1	
	Proposed – Comparison portion for Alternative 5C	33.2	226				3	<1	65	88	153	58	96	154	40	49	90	4		4	
	Alternative 5C	26.1	85				10		2	3	5	23	41	64	27	60	87	5	<1	6	
	Proposed – Comparison portion for Alternative 5D	19.4	162						t <sup>2/</sup>	3		3	25	45	69	30	41	70	5		5
	Alternative 5D	17.5	68				<1		t <sup>2/</sup>	2	<1	2	70	83	153	t <sup>2/</sup>		t <sup>2/</sup>	4	6	10
Proposed – Comparison portion for Alternative 5E	5.8	52													2	3	6	1		1	
Alternative 5E	5.3	37													t <sup>2/</sup>		t <sup>2/</sup>	<1		<1	
6	Proposed – Total Length	0.5	16																		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.6-2. Impacts (acres) to Vegetation from Construction cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Misc.	Conifer Forest			Deciduous Forest			Juniper			Wetland/Riparian			
										Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	
7	Proposed – Total Length	118.1	441		15		5	1		36	59	96	26	50	76	77	170	247	8		8	
	Proposed – Comparison portion for Alternatives 7A,B	35.2	158				5			36	59	96	25	50	75	18	49	67	4		4	
	Alternative 7A	38.0	240				t <sup>2/</sup>			45	66	111	45	69	113	17	24	42	4	<1	5	
	Alternative 7B	46.4	334				10			17	36	52	17	23	40	17	22	40	1		1	
	Proposed – Comparison portion for Alternative 7C	20.1	53		15														t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 7C	20.3	7																			
	Proposed – Comparison portion for Alternative 7D	6.2	12						1							3	6	8	3			3
	Alternative 7D	6.8	14						<1							3	5	8	3			3
	Proposed – Comparison portion for Alternative 7E	3.8	33													4	10	14				
	Alternative 7E	4.5	31													7	17	25				
	Proposed – Comparison portion for Alternative 7F	10.5	53													38	59	98	<1			<1
	Alternative 7F	10.8	37													43	64	106	t <sup>2/</sup>			t <sup>2/</sup>
	Proposed – Comparison portion for Alternative 7G	3.1	23																t <sup>2/</sup>			t <sup>2/</sup>
	Alternative 7G	3.2	14																	<1		<1
	Proposed – Comparison portion for Alternatives 7H,I	118.1	441			15		5	1		36	59	96	26	50	76	77	170	247	8		8
	Alternative 7H	127.5	846	80	<1			55		<1	74	127	201	57	91	147	142	215	357	9	1	10
Alternative 7I	173.4	989	6	54			60		t <sup>2/</sup>	71	116	186	83	149	232	264	213	477	20	5	25	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	504		15			5	1		36	59	96	26	50	76	77	170	247	8		8	
Alternative 7J <sup>3/</sup>	202.1	1094	6	54			48		t <sup>2/</sup>	73	114	186	61	99	161	238	213	451	19	1	21	
8	Proposed – Total Length	131.0	669	53	18			3	2										5	<1	5	
	Proposed – Comparison portion for Alternative 8A	51.4	333																2	<1	2	
	Alternative 8A	53.6	78	2															2	5	6	
	Proposed – Comparison portion for Alternative 8B	45.3	88	53	18				2										<1		<1	
	Alternative 8B	45.8	120	6	<1														7	<1	7	
	Proposed – Comparison portion for Alternative 8C	6.5	27																<1		<1	
	Alternative 8C	6.4	33	t <sup>2/</sup>	<1														t <sup>2/</sup>			t <sup>2/</sup>
	Proposed – Comparison portion for Alternative 8D	6.9																				
	Alternative 8D	8.1																				
9	Proposed – Total Length	161.7	500	273	57	<1		53	2						<1	<1	1	3	t <sup>2/</sup>		3	
	Proposed – Comparison portion for Alternative 9A	7.8	14																<1		<1	
	Alternative 9A	7.7	21																<1		<1	
	Proposed – Comparison portion for Alternative 9B	49.5	154		<1			41							<1	<1	1	<1	<1		<1	
	Alternative 9B	53.2	60	47				19											<1	<1	<1	
	Proposed – Comparison portion for Alternative 9C	14.7	83					41							<1	<1	1	<1	<1		<1	
	Alternative 9C	15.3						25														
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	198	244	54	<1			2										3			3
	Alternative 9D	58.4	139	14											<1	<1	1	3			3	
	Alternative 9E	68.7	494	28	12				3										2			2
Alternative 9F	62.9	173	43	15														6			6	
Alternative 9G	56.4	92	43	t <sup>2/</sup>										<1	<1	1	4				4	
Alternative 9H	61.0	126	72	15														6			6	
10	Proposed – Total Length	33.6	24																<1		<1	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>6285</b>	<b>497</b>	<b>734</b>	<b>804</b>	<b>27</b>	<b>106</b>	<b>31</b>	<b>234</b>	<b>425</b>	<b>660</b>	<b>295</b>	<b>601</b>	<b>896</b>	<b>273</b>	<b>534</b>	<b>807</b>	<b>134</b>	<b>10</b>	<b>144</b>	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.6-2** Impacts (acres) to Vegetation from Construction cont.

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Disturbed Sagebrush	Disturbed Grassland	Disturbed/Developed	Agriculture	Water	No Vegetation Data	Total Natural Vegetation			Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total		
									Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts			Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts
1E	Proposed - Total Length	100.6	19	71	32	1	<1	10	963	197	1160	122	10	1096	197	1292
	Proposed - Comparison portion for Alternative 1E-A	17.6	10	70	12		<1	5	116	1	118	92	5	213	1	215
	Alternative 1E-A	16.1	15	51	4	13		t <sup>2/</sup>	41	3	44	84	t <sup>2/</sup>	125	3	128
	Proposed - Comparison portion for Alternative 1E-B	37.9	5	t <sup>2/</sup>	9	<1		4	375	10	384	14	4	393	10	402
	Alternative 1E-B	59.3	12	40	12	<1	<1	<1	663	48	711	65	<1	729	48	777
	Proposed - Comparison portion for Alternative 1E-C	75.4	6	<1	20	1		5	799	179	978	28	5	832	179	1011
Alternative 1E-C	48.7	11	t <sup>2/</sup>	6			t <sup>2/</sup>	1	292	25	317	17	1	311	25	336
1W	1W(a) Proposed - Total Length	76.5	38	42	20	t <sup>2/</sup>	<1	<1	522	49	571	100	<1	623	49	672
	Proposed - Comparison portion for Alternative 1W-A	20.3	11	35	11	t <sup>2/</sup>	t <sup>2/</sup>	<1	153	2	154	57	<1	210	2	212
	Alternative 1W-A	16.2	7	72	6	9	t <sup>2/</sup>	t <sup>2/</sup>	42	4	46	94	t <sup>2/</sup>	136	4	140
	1W(c) Proposed - Total Length	70.6	60	100	15	1	3	5	632	65	696	177	8	817	65	882
2	Proposed - Total Length	96.7	105	34	42		12	2	1349	6	1355	181	13	1544	6	1550
	Proposed - Comparison portion for Alternative 2A	28.8	62	t <sup>2/</sup>	6		t <sup>2/</sup>	<1	329	<1	329	68	<1	398	<1	398
	Alternative 2A	28.4	62		14		<1	t <sup>2/</sup>	370	5	374	76	<1	446	5	450
	Proposed - Comparison portion for Alternative 2B	7.0	7	t <sup>2/</sup>	3		t <sup>2/</sup>	t <sup>2/</sup>	94		94	10	t <sup>2/</sup>	104		104
	Alternative 2B	6.2	4		1		2	t <sup>2/</sup>	72	3	75	5	2	80	3	83
	Proposed - Comparison portion for Alternative 2C	28.4	74	33	5		t <sup>2/</sup>	<1	257	<1	257	112	<1	369	<1	369
Alternative 2C	24.4	54	<1	6			6	255		255	61	6	322		322	
3	Proposed - Total Length	56.5	90	<1	30		3	5	735		735	120	8	863		863
4	Proposed - Total Length	203.0	179	86	57	197	4	7	2317	675	2992	519	11	2846	675	3521
	Proposed - Comparison portion for Alternatives 4A-4F	90.2	147	46	16	6	<1	3	1016	265	1281	214	4	1234	265	1499
	Alternative 4A	85.2	45	26	19	24	6	<1	1129	40	1169	114	6	1250	40	1289
	Alternative 4B	100.2	61	17	28	62	6	1	1309	4	1313	168	7	1484	4	1488
	Alternative 4C	101.6	85	15	29	76	4	1	1267	3	1271	205	5	1478	3	1481
	Alternative 4D	100.8	68	17	27	63	5	1	1324	6	1330	175	6	1505	6	1511
	Alternative 4E	102.2	85	15	28	77	4	1	1285	6	1291	204	5	1495	6	1500
Alternative 4F	87.5	34	26	19	20	3	<1	1158	67	1225	99	3	1260	67	1327	
5	Proposed - Total Length	54.6	48	47	37	234	2	2	613	299	912	366	4	982	299	1282
	Proposed - Comparison portion for Alternatives 5A,B	25.3	2	6	2	106		t <sup>2/</sup>	323	207	531	116	t <sup>2/</sup>	439	207	646
	Alternative 5A	33.7	15	59	10	124		<1	345	198	543	208	<1	554	198	751
	Alternative 5B	44.4	60	27	7	200		<1	388	159	548	294	<1	683	159	842
	Proposed - Comparison portion for Alternative 5C	33.2	45	15	11	123		<1	396	233	629	194	<1	590	233	823
	Alternative 5C	26.1	198	10	4	68	t <sup>2/</sup>	<1	152	105	258	280	<1	433	105	538
	Proposed - Comparison portion for Alternative 5D	19.4	46	14	30	93	2	2	224	85	309	183	3	411	85	496
	Alternative 5D	17.5	69	8	16	125	2	2	144	89	233	218	3	365	89	455
Proposed - Comparison portion for Alternative 5E	5.8	5	9	21	44	2	1	55	3	58	79	3	138	3	141	
Alternative 5E	5.3	4	9	23	27	2	2	37		37	63	4	104		104	
6	Proposed - Total Length	0.5		26	12		2	8	16		16	38	10	65		65

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.6-2 Impacts (acres) to Vegetation from Construction cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Disturbed Sagebrush	Disturbed Grassland	Disturbed/Developed	Agriculture	Water	No Vegetation Data	Total Natural Vegetation			Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total		
									Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts			Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts
7	Proposed - Total Length	118.1	158	209	25	799	t <sup>2/</sup>	2	610	279	889	1191	3	1804	279	2083
	Proposed – Comparison portion for Alternative 7A,B	35.2	12	51	5	184		<1	246	158	405	252	<1	499	158	657
	Alternative 7A	38.0	55	60	13	138		<1	352	159	511	266	<1	618	159	777
	Alternative 7B	46.4	67	28	10	246		<1	395	81	476	351	<1	746	81	828
	Proposed – Comparison portion for Alternative 7C	20.1	83	16	1	119		t <sup>2/</sup>	68		68	220	t <sup>2/</sup>	288		288
	Alternative 7C	20.3	109	100	3	71	<1	t <sup>2/</sup>	7		7	282	<1	289		289
	Proposed – Comparison portion for Alternative 7D	6.2	26	23	2	43	t <sup>2/</sup>	t <sup>2/</sup>	19	6	24	94	<1	112	6	118
	Alternative 7D	6.8	24	35	2	44	t <sup>2/</sup>	t <sup>2/</sup>	20	5	25	105	<1	126	5	131
	Proposed – Comparison portion for Alternative 7E	3.8		15	<1	14		t <sup>2/</sup>	37	10	47	30	t <sup>2/</sup>	67	10	76
	Alternative 7E	4.5	10	16	<1	13		t <sup>2/</sup>	38	17	56	39	t <sup>2/</sup>	78	17	95
	Proposed – Comparison portion for Alternative 7F	10.5	1	38	3	67		<1	92	59	151	109	<1	201	59	261
	Alternative 7F	10.8	16	42	2	29		t <sup>2/</sup>	80	64	143	90	t <sup>2/</sup>	169	64	233
	Proposed – Comparison portion for Alternative 7G	3.1	17	1		7			23		23	26		48		48
	Alternative 7G	3.2	30	6		21			15		15	57		72		72
	Proposed – Comparison portion for Alternative 7H,I	118.1	158	209	25	798	t <sup>2/</sup>	2	610	279	889	1191	3	1804	279	2083
	Alternative 7H	127.5	392	139	42	277	<1	3	1263	433	1696	851	3	2118	433	2551
Alternative 7I	173.4	504	374	22	283	<1	4	1548	483	2030	1183	4	2735	483	3218	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	263	356	47	886	<1	4	674	279	953	1552	4	2231	279	2510	
Alternative 7J <sup>3/</sup>	202.1	853	406	25	283	<1	18	1594	427	2021	1567	18	3180	427	3606	
8	Proposed - Total Length	131.0	435	677	33	228	1	<1	751	<1	751	1372	2	2125	<1	2125
	Proposed – Comparison portion for Alternative 8A	51.4	106	167	9	196	1	<1	335	<1	335	478	1	815	<1	815
	Alternative 8A	53.6	299	164	13	267	<1	<1	81	5	86	742	<1	824	5	829
	Proposed – Comparison portion for Alternative 8B	45.3	229	318	16	29	<1	t <sup>2/</sup>	162		162	591	<1	754		754
	Alternative 8B	45.8	174	190	41	239	1	<1	134	<1	134	644	2	779	<1	779
	Proposed – Comparison portion for Alternative 8C	6.5	43	66	3			t <sup>2/</sup>	27		27	112	t <sup>2/</sup>	139		139
	Alternative 8C	6.4	10	55	16	23		t <sup>2/</sup>	34		34	104	<1	138		138
	Proposed – Comparison portion for Alternative 8D	6.9	7	111	5			t <sup>2/</sup>				123	t <sup>2/</sup>	123		123
	Alternative 8D	8.1	7	119	5	12		t <sup>2/</sup>				143	t <sup>2/</sup>	143		143
Proposed – Comparison portion for Alternative 8E	7.0	34	42	2	9		t <sup>2/</sup>	11		11	87	t <sup>2/</sup>	98		98	
Alternative 8E	18.5	157	81	3	<1		<1	42		42	241	<1	283		283	
9	Proposed - Total Length	161.7	371	982	61	363	2	2	889	<1	889	1777	4	2670	<1	2671
	Proposed – Comparison portion for Alternative 9A	7.8	34	52	17		<1	t <sup>2/</sup>	15		15	102	<1	117		117
	Alternative 9A	7.7	63	33	13	3	<1	t <sup>2/</sup>	21		21	111	<1	133		133
	Proposed – Comparison portion for Alternative 9B	49.5	151	414	19	45	t <sup>2/</sup>	<1	196	<1	196	629	<1	825	<1	825
	Alternative 9B	53.2	126	336	6	217	4	<1	127	<1	127	685	4	816	<1	816
	Proposed – Comparison portion for Alternative 9C	14.7	10	91	12			t <sup>2/</sup>	125	<1	126	114	t <sup>2/</sup>	239	<1	239
	Alternative 9C	15.3	64	111	10	62	t <sup>2/</sup>	7	25		25	247	7	279		279
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	47	184	16	206	1	<1	501		501	453	1	955		955
	Alternative 9D	58.4	248	369	19	19	<1	3	157	<1	158	655	3	815	<1	816
	Alternative 9E	68.7	238	218	5	3	t <sup>2/</sup>	2	539		539	463	2	1004		1004
Alternative 9F	62.9	230	363	23	115	3	<1	236		236	731	4	971		971	
Alternative 9G	56.4	291	368	19	26	2	2	140	<1	141	704	4	848	<1	849	
Alternative 9H	61.0	274	342	24	118	3	<1	218		218	757	4	979		979	
10	Proposed - Total Length	33.6	72	157	24	267	3	<1	24		24	521	4	549		549
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>1577</b>	<b>2431</b>	<b>388</b>	<b>2090</b>	<b>32</b>	<b>45</b>	<b>9421</b>	<b>1570</b>	<b>10990</b>	<b>6486</b>	<b>77</b>	<b>15984</b>	<b>1570</b>	<b>17554</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.6-3. Impacts (acres) to Vegetation from Operation**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Misc.	Conifer Forest			Deciduous Forest			Juniper			Wetland / Riparian			
										Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	
1E	Proposed – Total Length	100.6	121	<1	12	68	<1	<1	<1	11	59	70	6	35	41	21	148	169	2	2	5	
	Proposed – Comparison portion for Alternative 1E-A	17.6	23	<1				<1											t <sup>2/</sup>	1	1	
	Alternative 1E-A	16.1	10		t <sup>2/</sup>				<1	t <sup>2/</sup>						t <sup>2/</sup>	<1	<1	<1	3	3	
	Proposed – Comparison portion for Alternative 1E-B	37.9	41	<1	1	39			<1	<1	7	8	<1	2	2	<1	2	3	<1		<1	
	Alternative 1E-B	59.3	57		7	58	13		<1	t <sup>2/</sup>						t <sup>2/</sup>	12	59	72	<1		<1
	Proposed – Comparison portion for Alternative 1E-C	75.4	89	<1	12	68			t <sup>2/</sup>	<1	10	55	65	4	20	24	21	145	167	2	<1	3
Alternative 1E-C	48.7	72		10				<1	<1	7	8	<1	8	9	2	16	18	<1	<1	<1		
1W	1W(a) Proposed – Total Length	76.5	115		14		<1	10	t <sup>2/</sup>	<1	4	4	3	35	38	3	21	24	2	<1	2	
	Proposed – Comparison portion for Alternative 1W-A	20.3	22					9					t <sup>2/</sup>	2	2				<1		<1	
	Alternative 1W-A	16.2	10					<1								t <sup>2/</sup>	<1	<1	<1	4	4	
	1W(c) Proposed – Total Length	70.6	97		7		<1		<1	5	47	53	3	23	26	<1	7	8	2	4	6	
2	Proposed – Total Length	96.7	210	17	63	53			1							<1	7	7	3	<1	3	
	Proposed – Comparison portion for Alternative 2A	28.8	31	3	21	2													<1	<1	<1	
	Alternative 2A	28.4	49	5	14	3													1	5	6	
	Proposed – Comparison portion for Alternative 2B	7.0	11	1	2	2													t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 2B	6.2	9	1	6														<1	3	4	
	Proposed – Comparison portion for Alternative 2C	28.4	26	2	19	2			<1										<1	<1	<1	
Alternative 2C	24.4	32		3	4			<1										t <sup>2/</sup>		t <sup>2/</sup>		
3	Proposed – Total Length	56.5	96	15	40	36													2		2	
4	Proposed – Total Length	203.0	391	<1	50	32	2	t <sup>2/</sup>	3	17	240	257	33	477	510	6	125	131	13	3	16	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	166		9	20			<1	10	162	172	9	141	149	1	34	35	3	1	4	
	Alternative 4A	85.2	214		2	16	<1		1				4	42	45	t <sup>2/</sup>	3	3	7	3	9	
	Alternative 4B	100.2	259	t <sup>2/</sup>	2	35			1				<1	<1	1	<1	3	4	4	<1	4	
	Alternative 4C	101.6	247	t <sup>2/</sup>	3	36			1				t <sup>2/</sup>		t <sup>2/</sup>	<1	3	4	3	<1	4	
	Alternative 4D	100.8	264	t <sup>2/</sup>	3	36			1	<1		<1	<1	3	4	<1	4	4	4	<1	5	
	Alternative 4E	102.2	248	t <sup>2/</sup>	3	38			1	<1		<1	<1	3	3	<1	4	4	3	<1	4	
Alternative 4F	87.5	222		2	15	<1		1	3	38	41	4	42	45	t <sup>2/</sup>	3	3	4	3	8		
5	Proposed – Total Length	54.6	95				1	t <sup>2/</sup>	13	111	124	13	126	140	12	160	172	<1	<1	<1		
	Proposed – Comparison portion for Alternatives 5A,B	25.3	29				1	t <sup>2/</sup>	13	111	124	7	72	79	9	92	101	<1	<1	<1		
	Alternative 5A	33.7	37				<1		6	59	65	12	87	99	6	107	113	<1	<1	<1		
	Alternative 5B	44.4	45				2		3	31	34	4	56	60	7	119	126	<1	<1	1		
	Proposed – Comparison portion for Alternative 5C	33.2	40				1	t <sup>2/</sup>	13	111	124	13	124	137	6	73	78	<1		<1		
	Alternative 5C	26.1	12				2		<1	3	4	4	53	57	5	78	83	<1	1	1		
	Proposed – Comparison portion for Alternative 5D	19.4	34						t <sup>2/</sup>	<1	<1	<1	7	54	61	3	57	60	<1		<1	
	Alternative 5D	17.5	19				<1	t <sup>2/</sup>	<1	1	1	6	109	115	t <sup>2/</sup>		t <sup>2/</sup>	<1	8	8		
Proposed – Comparison portion for Alternative 5E	5.8	16												t <sup>2/</sup>	4	4	t <sup>2/</sup>		t <sup>2/</sup>			
Alternative 5E	5.3	16															t <sup>2/</sup>		t <sup>2/</sup>			
6	Proposed – Total Length	0.5	15																			

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

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<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.6-3. Impacts (acres) to Vegetation from Operation cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Misc.	Conifer Forest			Deciduous Forest			Juniper			Wetland / Riparian			
										Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts	
7	Proposed – Total Length	118.1	76		2		t <sup>2/</sup>	<1		4	74	78	4	64	69	10	218	228	<1		<1	
	Proposed – Comparison portion for Alternatives 7A,B	35.2	15				t <sup>2/</sup>			4	74	78	4	64	68	2	62	64	<1		<1	
	Alternative 7A	38.0	38				t <sup>2/</sup>			8	90	98	13	85	99	2	33	35	<1	<1	<1	
	Alternative 7B	46.4	47				2			3	44	47	4	32	36	3	30	33	<1		<1	
	Proposed – Comparison portion for Alternative 7C	20.1	7		2														t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 7C	20.3	<1																			
	Proposed – Comparison portion for Alternative 7D	6.2	2					<1								<1	8	8	t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 7D	6.8	2					<1								<1	7	7	t <sup>2/</sup>		t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 7E	3.8	3													<1	13	13				
	Alternative 7E	4.5	4													<1	22	22				
	Proposed – Comparison portion for Alternative 7F	10.5	6													5	81	85	t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 7F	10.8	5													5	86	91	t <sup>2/</sup>		t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 7G	3.1	3																t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 7G	3.2	<1																t <sup>2/</sup>		t <sup>2/</sup>	
	Proposed – Comparison portion for Alternatives 7H,I	118.1	76			2		t <sup>2/</sup>	<1		4	74	78	4	64	69	10	218	228	<1		<1
Alternative 7H	127.5	139	8		t <sup>2/</sup>		13			18	156	173	9	126	135	20	283	303	1	1	3	
Alternative 7I	173.4	213	<1		9		12		t <sup>2/</sup>	19	140	159	15	200	215	19	276	295	3	7	10	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	81			2		t <sup>2/</sup>	<1		4	74	78	4	64	69	10	218	228	<1		<1	
Alternative 7J <sup>3/</sup>	202.1	222	<1		9		10		t <sup>2/</sup>	19	138	157	11	137	147	18	276	294	3	1	5	
8	Proposed – Total Length	131.0	70	6	1			<1	<1										<1	<1	<1	
	Proposed – Comparison portion for Alternative 8A	51.4	38																<1	<1	<1	
	Alternative 8A	53.6	5	<1															<1	6	6	
	Proposed – Comparison portion for Alternative 8B	45.3	9	6	1				<1										<1		<1	
	Alternative 8B	45.8	12	1															<1	<1	<1	
	Proposed – Comparison portion for Alternative 8C	6.5	2																t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 8C	6.4	3	t <sup>2/</sup>															t <sup>2/</sup>		t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 8D	6.9																				
	Alternative 8D	8.1																				
Proposed – Comparison portion for Alternative 8E	7.0	<1																				
Alternative 8E	18.5	6																				
9	Proposed – Total Length	161.7	59	33	9		t <sup>2/</sup>	8	<1							t <sup>2/</sup>	1	1	<1	t <sup>2/</sup>	<1	
	Proposed – Comparison portion for Alternative 9A	7.8	1																t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 9A	7.7	2																t <sup>2/</sup>		t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 9B	49.5	23					6								t <sup>2/</sup>	1	1	t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 9B	53.2	3	9				2											t <sup>2/</sup>	<1	<1	
	Proposed – Comparison portion for Alternative 9C	14.7	10					6								t <sup>2/</sup>	1	1	t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 9C	15.3						2														
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	22	31	8		t <sup>2/</sup>		<1										<1		<1	
	Alternative 9D	58.4	16	1												t <sup>2/</sup>	1	1	t <sup>2/</sup>		t <sup>2/</sup>	
	Alternative 9E	68.7	66	6	1				<1										<1		<1	
Alternative 9F	62.9	20	5	1														<1		<1		
Alternative 9G	56.4	7	4	t <sup>2/</sup>											t <sup>2/</sup>	1	1	<1		<1		
Alternative 9H	61.0	11	8	1														<1		<1		
10	Proposed – Total Length	33.6	5																			
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>1350</b>	<b>72</b>	<b>199</b>	<b>188</b>	<b>5</b>	<b>19</b>	<b>7</b>	<b>51</b>	<b>534</b>	<b>586</b>	<b>63</b>	<b>761</b>	<b>824</b>	<b>54</b>	<b>686</b>	<b>740</b>	<b>27</b>	<b>11</b>	<b>38</b>	

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<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.6-3 Impacts (acres) to Vegetation from Operation cont.**

Segment Number	Proposed or Alternative Name	Disturbed Sagebrush	Disturbed Grassland	Disturbed / Developed	Agriculture	Water	No Vegetation Data	Total Natural Vegetation			Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total		
								Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts			Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts
1E	Proposed – Total Length	5	20	12	<1	t <sup>2/</sup>	2	243	244	487	37	2	283	244	527
	Proposed – Comparison portion for Alternative 1E-A	3	20	5		t <sup>2/</sup>		23	1	25	28	t <sup>2/</sup>	51	1	52
	Alternative 1E-A	5	18	2	4		t <sup>2/</sup>	11	4	15	28	t <sup>2/</sup>	39	4	42
	Proposed – Comparison portion for Alternative 1E-B	1	t <sup>2/</sup>	2	<1		2	85	12	96	4	2	91	12	102
	Alternative 1E-B	<1	11	3	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	149	59	209	15	t <sup>2/</sup>	164	59	223
	Proposed – Comparison portion for Alternative 1E-C	1	t <sup>2/</sup>	7	<1		2	207	222	428	9	2	218	222	439
	Alternative 1E-C	3		3		t <sup>2/</sup>	<1	87	32	119	6	<1	92	32	125
1W	1W(a) Proposed – Total Length	11	13	10		<1	<1	148	60	208	34	<1	182	60	242
	Proposed – Comparison portion for Alternative 1W-A	2	8	5			t <sup>2/</sup>	32	2	34	15	t <sup>2/</sup>	47	2	49
	Alternative 1W-A	1	22	3	3		t <sup>2/</sup>	11	4	16	28	t <sup>2/</sup>	40	4	44
	1W(c) Proposed – Total Length	11	12	5	<1	<1	t <sup>2/</sup>	116	81	197	28	<1	144	81	225
2	Proposed – Total Length	27	7	16		2	<1	348	7	355	50	3	401	7	408
	Proposed – Comparison portion for Alternative 2A	15	t <sup>2/</sup>	1				57	<1	58	16		74	<1	74
	Alternative 2A	13		5		t <sup>2/</sup>		72	5	77	18	t <sup>2/</sup>	90	5	95
	Proposed – Comparison portion for Alternative 2B	1	t <sup>2/</sup>	<1				15		15	1		16		16
	Alternative 2B	<1		<1		t <sup>2/</sup>		16	3	20	1	t <sup>2/</sup>	18	3	21
	Proposed – Comparison portion for Alternative 2C	19	6	2				50	<1	50	27		77	<1	77
	Alternative 2C	10	t <sup>2/</sup>	2			<1	39		39	12	<1	52		52
3	Proposed – Total Length	17	<1	9		<1	3	189		189	27	3	219		219
4	Proposed – Total Length	34	16	19	31	<1	<1	549	845	1394	101	2	651	845	1496
	Proposed – Comparison portion for Alternatives 4A-4F	28	10	5	2	<1		218	337	555	44	<1	262	337	599
	Alternative 4A	11	9	8	4	<1		245	47	292	31	<1	277	47	324
	Alternative 4B	18	4	12	12	<1	t <sup>2/</sup>	302	5	307	45	<1	348	5	353
	Alternative 4C	21	3	12	14	<1	t <sup>2/</sup>	290	4	294	50	<1	341	4	345
	Alternative 4D	18	4	12	12	<1	t <sup>2/</sup>	309	8	317	46	<1	355	8	363
	Alternative 4E	21	3	12	15	<1	t <sup>2/</sup>	294	7	301	50	<1	345	7	351
	Alternative 4F	7	8	8	4	<1		252	86	338	28	<1	280	86	366
5	Proposed – Total Length	6	5	5	22	1	t <sup>2/</sup>	135	397	533	38	1	175	397	572
	Proposed – Comparison portion for Alternatives 5A,B	<1	<1	<1	10		t <sup>2/</sup>	60	275	335	13	t <sup>2/</sup>	73	275	347
	Alternative 5A	1	5	5	14			61	254	315	26		87	254	340
	Alternative 5B	8	2	3	24			60	207	268	38		99	207	306
	Proposed – Comparison portion for Alternative 5C	5	2	3	11		t <sup>2/</sup>	74	307	380	21	t <sup>2/</sup>	94	307	401
	Alternative 5C	21	1	2	7		<1	25	135	160	31	<1	56	135	191
	Proposed – Comparison portion for Alternative 5D	5	1	4	8	1		44	112	156	18	1	63	112	175
	Alternative 5D	8	2	4	11	1		26	118	144	25	1	53	118	171
	Proposed – Comparison portion for Alternative 5E	<1	<1	2	4	1		16	4	20	7	1	24	4	28
Alternative 5E	<1	<1	4	2	1	t <sup>2/</sup>	16		16	7	1	24		24	
6	Proposed – Total Length		25	11		2	7	15		15	37	9	61		61

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.6-3 Impacts (acres) to Vegetation from Operation cont.**

Segment Number	Proposed or Alternative Name	Disturbed Sagebrush	Disturbed Grassland	Disturbed / Developed	Agriculture	Water	No Vegetation Data	Total Natural Vegetation			Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total		
								Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts			Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Impacts
7	Proposed – Total Length	19	22	7	85	t <sup>2/</sup>	t <sup>2/</sup>	97	356	453	133	t <sup>2/</sup>	231	356	587
	Proposed – Comparison portion for Alternatives 7A,B	1	4	1	15		t <sup>2/</sup>	25	200	225	21	t <sup>2/</sup>	47	200	246
	Alternative 7A	8	4	4	17			62	209	271	33		96	209	304
	Alternative 7B	11	<1	3	26		t <sup>2/</sup>	59	106	165	40	t <sup>2/</sup>	99	106	205
	Proposed – Comparison portion for Alternative 7C	13	3	<1	11			9		9	27		36		36
	Alternative 7C	12	8	<1	6	t <sup>2/</sup>		<1		<1	27	t <sup>2/</sup>	28		28
	Proposed – Comparison portion for Alternative 7D	2	4	<1	2	t <sup>2/</sup>		3	8	10	9	t <sup>2/</sup>	11	8	19
	Alternative 7D	2	5	<1	2	t <sup>2/</sup>		3	7	10	10	t <sup>2/</sup>	13	7	20
	Proposed – Comparison portion for Alternative 7E		1	<1	<1			4	13	16	2		6	13	19
	Alternative 7E	1	2	t <sup>2/</sup>	<1			5	22	27	3		8	22	30
	Proposed – Comparison portion for Alternative 7F	<1	5	1	9			11	81	92	16		27	81	108
	Alternative 7F	3	6	<1	5			9	86	95	14		24	86	110
	Proposed – Comparison portion for Alternative 7G	<1	<1		2			3		3	3		6		6
	Alternative 7G	2	<1		3			<1		<1	5		6		6
	Proposed – Comparison portion for Alternatives 7H,I	19	22	7	85	t <sup>2/</sup>	t <sup>2/</sup>	97	356	453	133	t <sup>2/</sup>	231	356	587
	Alternative 7H	62	14	11	45	t <sup>2/</sup>	t <sup>2/</sup>	208	566	774	132	t <sup>2/</sup>	340	566	906
Alternative 7I	77	38	5	40	<1	t <sup>2/</sup>	290	623	913	161	<1	451	623	1074	
Proposed – Comparison portion for Alternative 7J	36	42	10	103	<1	t <sup>2/</sup>	103	356	459	190	<1	294	356	650	
Alternative 7J	130	42	5	40	<1	t <sup>2/</sup>	294	552	846	218	<1	512	552	1064	
8	Proposed – Total Length	62	79	10	17	<1	t <sup>2/</sup>	78	<1	79	167	<1	246	<1	246
	Proposed – Comparison portion for Alternative 8A	16	25	3	16	<1		39	<1	39	60	<1	99	<1	99
	Alternative 8A	42	28	4	23	t <sup>2/</sup>		5	6	11	97	t <sup>2/</sup>	102	6	108
	Proposed – Comparison portion for Alternative 8B	32	31	6	<1	t <sup>2/</sup>		17		17	70	t <sup>2/</sup>	87		87
	Alternative 8B	22	19	4	11	t <sup>2/</sup>	t <sup>2/</sup>	13	<1	14	56	t <sup>2/</sup>	69	<1	69
	Proposed – Comparison portion for Alternative 8C	7	6	<1				2		2	13		15		15
	Alternative 8C	4	9	<1				3		3	13		16		16
	Proposed – Comparison portion for Alternative 8D	<1	16	2		t <sup>2/</sup>					19	t <sup>2/</sup>	19		19
	Alternative 8D	<1	11	2	2	t <sup>2/</sup>					15	t <sup>2/</sup>	15		15
	Proposed – Comparison portion for Alternative 8E	5	3	<1	<1			<1		<1	9		10		10
Alternative 8E	13	7	<1			t <sup>2/</sup>	6		6	21	t <sup>2/</sup>	27		27	
9	Proposed – Total Length	71	131	12	35	<1	t <sup>2/</sup>	111	1	112	248	<1	359	1	360
	Proposed – Comparison portion for Alternative 9A	4	8	2		t <sup>2/</sup>		1		1	13	t <sup>2/</sup>	15		15
	Alternative 9A	10	4	<1	<1	<1	t <sup>2/</sup>	2		2	16	<1	18		18
	Proposed – Comparison portion for Alternative 9B	29	60	3	<1	t <sup>2/</sup>	t <sup>2/</sup>	29	1	30	93	t <sup>2/</sup>	121	1	122
	Alternative 9B	19	36	1	14	<1		14	<1	14	71	<1	85	<1	85
	Proposed – Comparison portion for Alternative 9C	2	6	2			t <sup>2/</sup>	16	1	17	10	t <sup>2/</sup>	26	1	27
	Alternative 9C	12	10	2	1	t <sup>2/</sup>	3	2		2	26	3	31		31
	Proposed – Comparison portion for Alternatives 9D-9H	9	16	5	14	<1		62		62	44	<1	106		106
	Alternative 9D	24	34	3	2		t <sup>2/</sup>	17	1	18	63	t <sup>2/</sup>	80	1	82
	Alternative 9E	36	23	<1	1	t <sup>2/</sup>	t <sup>2/</sup>	74		74	61	t <sup>2/</sup>	135		135
Alternative 9F	21	33	4	8	t <sup>2/</sup>	t <sup>2/</sup>	27		27	66	<1	93		93	
Alternative 9G	31	34	4	3	t <sup>2/</sup>	t <sup>2/</sup>	11	1	13	72	t <sup>2/</sup>	83	1	85	
Alternative 9H	29	33	5	9	t <sup>2/</sup>	t <sup>2/</sup>	21		21	75	<1	96		96	
10	Proposed – Total Length	9	24	11	33	<1	t <sup>2/</sup>	5		5	76	<1	81		81
<b>Total of All Proposed Segments (grey shaded areas)</b>		<b>272</b>	<b>353</b>	<b>128</b>	<b>224</b>	<b>8</b>	<b>14</b>	<b>2034</b>	<b>1992</b>	<b>4026</b>	<b>977</b>	<b>22</b>	<b>3033</b>	<b>1992</b>	<b>5025</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.6-4. Impacts (acres) to Vegetation from Two Single-Circuit Construction**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Sagebrush	Saltbush	Greasewood	Dwarf Shrub	Other Shrub	Native Grass	Misc.	Conifer Forest			Deciduous Forest			Juniper			Wetland/Riparian		
										Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts
2	Proposed – Total Length	96.7	1012	142	287	284			5							2	7	9	10	< 1	11
	Proposed – Comparison portion for Alternative 2A	28.8	252	16	155	14													4	< 1	4
	Alternative 2A	28.4	319	30	90	20													15	5	20
	Proposed – Comparison portion for Alternative 2B	7.0	85	9	23	13													< 1		< 1
	Alternative 2B	6.2	53	7	34														12	4	16
	Proposed – Comparison portion for Alternative 2C	28.4	194	7	121	36			3										2	< 1	2
	Alternative 2C	24.4	269		19	29			2										< 1		< 1
3	Proposed – Total Length	56.5	401	75	259	187													16		16
4	Proposed – Total Length	203.0	2118	8	190	199	17	< 1	20	90	223	313	203	440	643	39	118	157	86	4	90
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	966		73	114			4	59	151	210	68	123	191	8	33	41	31	1	32
	Alternative 4A	85.2	1250	20	28	89	4		6				14	40	55	< 1	3	4	70	3	73
	Alternative 4B	100.2	1416	20	30	178			4				< 1	< 1	2	2	3	5	58	< 1	59
	Alternative 4C	101.6	1358	20	37	179			4				< 1		< 1	2	3	5	52	< 1	53
	Alternative 4D	100.8	1409	20	36	185			4	< 1		< 1	1	4	5	2	3	5	55	< 1	55
	Alternative 4E	102.2	1356	20	38	186			4	< 1		< 1	< 1	3	4	2	3	5	52	< 1	53
Alternative 4F	87.5	1264	20	29	76	2		6	19	35	54	20	37	57	< 1	3	4	56	3	59	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>3531</b>	<b>225</b>	<b>737</b>	<b>671</b>	<b>17</b>	<b>&lt; 1</b>	<b>25</b>	<b>90</b>	<b>223</b>	<b>313</b>	<b>203</b>	<b>440</b>	<b>643</b>	<b>41</b>	<b>125</b>	<b>165</b>	<b>112</b>	<b>4</b>	<b>116</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

**Table D.6-4** Impacts (acres) to Vegetation from Two Single Circuit Construction cont.

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Disturbed Sagebrush	Disturbed Grassland	Disturbed/Developed	Agriculture	Water	No Vegetation Data	Total Natural Vegetation			Total Disturbed and Semi-natural Vegetation	Total Other Cover Types	Grand Total		
									Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts			Construction Facilities	ROW Clearing <sup>1/</sup>	Total Impacts
	Proposed – Total Length	96.7	132	38	45		13	3	1742	7	1749	214	16	1972	7	<b>1979</b>
2	Proposed – Comparison portion for Alternative 2A	28.8	71	t <sup>2/</sup>	7		< 1	1	441	< 1	441	78	1	520	< 1	<b>520</b>
	Alternative 2A	28.4	80		15		< 1	< 1	474	5	479	95	< 1	570	5	<b>575</b>
	Proposed – Comparison portion for Alternative 2B	7.0	8	t <sup>2/</sup>	3		t <sup>2/</sup>	< 1	131		131	11	< 1	144		<b>144</b>
	Alternative 2B	6.2	4		2		3	t <sup>2/</sup>	105	4	109	6	3	114	4	<b>118</b>
	Proposed – Comparison portion for Alternative 2C	28.4	84	37	6		< 1	< 1	362	< 1	362	126	< 1	489	< 1	<b>489</b>
	Alternative 2C	24.4	81	< 1	7			10	319		319	88	10	417		<b>417</b>
3	Proposed – Total Length	56.5	101	< 1	33		3	5	938		938	134	9	1081		<b>1081</b>
4	Proposed – Total Length	203.0	221	136	61	300	5	12	2971	785	3756	718	17	3706	785	<b>4490</b>
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	182	51	17	19	< 1	8	1323	308	1631	269	9	1601	308	<b>1909</b>
	Alternative 4A	85.2	49	35	19	40	7	< 1	1483	46	1529	143	7	1634	46	<b>1679</b>
	Alternative 4B	100.2	73	19	36	91	6	2	1709	5	1713	219	8	1936	5	<b>1940</b>
	Alternative 4C	101.6	113	17	35	108	5	1	1652	4	1656	273	6	1931	4	<b>1935</b>
	Alternative 4D	100.8	81	19	35	93	5	2	1711	7	1719	227	7	1946	7	<b>1953</b>
	Alternative 4E	102.2	113	17	34	109	5	1	1659	7	1666	272	6	1937	7	<b>1944</b>
Alternative 4F	87.5	50	34	20	45	3	< 1	1493	78	1571	149	4	1646	78	<b>1724</b>	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>454</b>	<b>175</b>	<b>139</b>	<b>300</b>	<b>21</b>	<b>20</b>	<b>5651</b>	<b>792</b>	<b>6443</b>	<b>1067</b>	<b>41</b>	<b>6759</b>	<b>792</b>	<b>7550</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<.1 acre) of impact

**Table D.6-5. Construction Impacts to Vegetation (in acres) on Federal Lands**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Construction Facilities	ROW Clearing	Construction Facilities	ROW Clearing			
1E	Proposed – Total Length	Casper	14	12	20	t <sup>1/</sup>	t <sup>1/</sup>		1	47
		Rawlins	86	18	25	t <sup>1/</sup>			3	131
	Alternative 1E-B	Rawlins	102	6	11	<1		2	2	123
	Alternative 1E-C	Casper	25	<1	1	<1			<1	28
Rawlins		111	<1	<1	<1			3	116	
1W	1W(a) Proposed – Total Length	Casper	36	<1	<1	<1			t <sup>1/</sup>	37
		Rawlins	139			<1		t <sup>1/</sup>	3	142
	Alternative 1W-A	No BLM Land Crossed								
	1W(c) Proposed – Total Length	Casper	26	6	13	<1			<1	45
Rawlins		211			1		9	4	225	
2	Proposed – Total Length	Rawlins	548	<1	5	4	<1	4	15	576
		Rawlins	138			3			4	145
		Rawlins	27						<1	28
		Rawlins	129						5	134
3	Proposed – Total Length	Rawlins	141			<1			3	145
		Rock Springs	255			5			11	271
4	Proposed – Total Length	Kemmerer	575	85	193	5		22	11	890
		Pocatello	79	6	15	2	<1	1	3	105
		Rock Springs	330			1			15	346
	Alternative 4A	Kemmerer	551	10	25	8	1	6	10	612
		Pocatello	26			<1			<1	26
		Rock Springs	17						3	20
	Alternative 4B	Kemmerer	616	2	3	1		<1	10	633
		Pocatello	37			<1		2	<1	40
		Rock Springs	56			<1		t <sup>1/</sup>	<1	57
	Alternative 4C	Kemmerer	576	1	3	1		<1	10	592
		Pocatello	36			<1		2	<1	39
		Rock Springs	56			<1		t <sup>1/</sup>	<1	57
	Alternative 4D	Kemmerer	636	3	6	<1		<1	9	656
		Pocatello	37			<1		2	<1	40
		Rock Springs	57			<1		t <sup>1/</sup>	<1	58
	Alternative 4E	Kemmerer	605	2	5	<1		<1	9	623
Pocatello		34			<1		2	<1	38	
Rock Springs		57			<1		t <sup>1/</sup>	<1	58	
Alternative 4F	Kemmerer	564	32	61	8	2	6	12	685	
	Pocatello	26			<1			<1	27	
	Rock Springs	18						3	21	
5	Proposed – Total Length	Burley	18						2	20
		Pocatello	60	78	145	t <sup>1/</sup>		4	4	292
	Alternative 5A	Pocatello	54	82	148	t <sup>1/</sup>			2	286
	Alternative 5B	Pocatello	79	49	108	<1			2	239
	Alternative 5C	Pocatello	<1	2						3
	Alternative 5E	Burley	5				t <sup>1/</sup>		<1	7
6	Proposed – Total Length	No BLM Land Crossed								

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

**Table D.6-5. Construction Impacts to Vegetation (in acres) on Federal Lands cont.**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts	
				Construction Facilities	ROW Clearing	Construction Facilities	ROW Clearing				
7	Proposed – Total Length	Burley	205	27	37	t <sup>1/</sup>		27	8	305	
		Pocatello	47	36	92				<1	175	
	Alternative 7A	Pocatello	29	69	107	<1		<1	1	208	
	Alternative 7B	Pocatello	75	23	41	<1			2	142	
	Alternative 7C	Burley	84					13	<1	97	
	Alternative 7D	Burley						7		7	
	Alternative 7E	Burley	20	1	7			1	<1	30	
	Alternative 7F	Burley	14	29	42			24	<1	111	
	Alternative 7G	Burley	38						<1	38	
	Alternative 7H	Burley	482	83	109	t <sup>1/</sup>		8	12	695	
		Pocatello	69	21	32	<1	<1			125	
		Burley	495	91	112	1		186	6	890	
	Alternative 7I	Pocatello	69	21	32	<1	<1			124	
		Wells	88	21	36	<1		<1	<1	146	
		Burley	712	91	112	1		202	7	1124	
Alternative 7J	Pocatello	69	22	32	1	<1		t <sup>1/</sup>	125		
	Wells	88	21	36	<1		<1	<1	146		
	Four Rivers	527			<1		403	21	951		
8	Proposed – Total Length	Jarbidge	20						t <sup>1/</sup>	20	
		Owyhee	63			t <sup>1/</sup>		6	<1	69	
		Shoshone	235			t <sup>1/</sup>		101	6	342	
		Four Rivers	66			<1		5	<1	72	
	Alternative 8A	Jarbidge	143				<1	55	4	202	
		Shoshone	55					46	3	104	
		Four Rivers	179			<1		99	10	289	
	Alternative 8B	Owyhee	1							1	
		Four Rivers	29					10	1	40	
	Alternative 8C	Four Rivers	4					85	4	93	
	Alternative 8D	Four Rivers	192			<1		80	3	276	
	Alternative 8E	Four Rivers	169					72	13	254	
	9	Proposed – Total Length	Burley	163					227	8	398
			Four Rivers	83			<1		137	2	223
			Jarbidge	291	<1	<1	<1		485	18	795
Owyhee			302			t <sup>1/</sup>		3	3	308	
Burley			63					26	4	93	
Alternative 9A		Burley	33					20	<1	54	
		Jarbidge	171			<1	<1	232	11	414	
Alternative 9B		Burley	33					27	<1	60	
		Jarbidge	t <sup>1/</sup>					45	6	51	
Alternative 9C		Bruneau	3						t <sup>1/</sup>	3	
		Four Rivers	353	<1	<1	1		312	24	692	
		Owyhee	7							7	
Alternative 9D		Bruneau	324			<1		128	5	457	
		Four Rivers	14			1		48	<1	63	
		Jarbidge	22					18	t <sup>1/</sup>	40	
	Owyhee	367			<1		14	1	383		
Alternative 9E	Bruneau	79					58	8	144		
	Four Rivers	305			2		216	17	540		
	Jarbidge	<1					12		13		
	Owyhee	7							7		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

**Table D.6-5. Construction Impacts to Vegetation (in acres) on Federal Lands cont.**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Construction Facilities	ROW Clearing	Construction Facilities	ROW Clearing			
9 (cont.)	Alternative 9G	Bruneau	3						t <sup>1/</sup>	3
		Four Rivers	375	<1	<1	1		294	24	695
		Owyhee	9					14	t <sup>1/</sup>	23
	Alternative 9H	Bruneau	78					58	8	144
		Four Rivers	327			2		178	17	523
		Jarbidge	<1					12		13
	Owyhee	9					14	t <sup>1/</sup>	23	
10	Proposed – Total Length	Shoshone	67					144	6	217
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>4689</b>	<b>268</b>	<b>547</b>	<b>20</b>	<b>&lt;1</b>	<b>1645</b>	<b>162</b>	<b>7332</b>

Segment Number	Proposed or Alternative Name	National Forest	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Construction Facilities	ROW Clearing	Construction Facilities	ROW Clearing			
1E	Proposed – Total Length	Medicine Bow-Routt	8	16	22	<1	<1		<1	47
	Alternative 1E-C	Medicine Bow-Routt	11	<1	3	t <sup>1/</sup>	<1			15
1W	Wa Proposed – Total Length	Medicine Bow-Routt	15	<1	<1	<1				16
	Wc Proposed – Total Length	Medicine Bow-Routt	17	10	17				t <sup>1/</sup>	44
4	Proposed – Total Length	Caribou-Targhee	22	90	221	1	1		4	339
7	Proposed – Total Length	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
	Alternative 7H	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
		Sawtooth	75	84	171	2		<1	6	338
	Alternative 7I	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
		Sawtooth	289	154	175	2	2	<1	3	625
	Alternative 7J	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
	Sawtooth	134	113	131	<1		<1	3	383	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>61</b>	<b>117</b>	<b>261</b>	<b>2</b>	<b>2</b>		<b>4</b>	<b>447</b>

Segment Number	Proposed or Alternative Name	Other Federal Lands	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Construction Facilities	ROW Clearing	Construction Facilities	ROW Clearing			
4	Proposed – Total Length	Bureau of Reclamation	36			<1			<1	37
	Alternative 4A	Bureau of Reclamation	38			<1			<1	38
	Alternative 4B	Bureau of Reclamation	4						<1	5
		Fish and Wildlife Service	<1						t <sup>1/</sup>	<1
	Alternative 4C	Bureau of Reclamation	4						<1	5
		Fish and Wildlife Service	<1			<1			6	7
	Alternative 4D	Bureau of Reclamation	4						<1	5
		Fish and Wildlife Service	<1						t <sup>1/</sup>	<1
	Alternative 4E	Bureau of Reclamation	4						<1	5
		Fish and Wildlife Service	<1			<1			6	7
Alternative 4F	Bureau of Reclamation	38			<1			<1	38	
5	Alternative 5C	Indian Reservation	195	15	36	5		2	2	255
8	Proposed – Total Length	Bureau of Reclamation	14					3	t <sup>1/</sup>	17
	Alternative 8B	Bureau of Reclamation	8			t <sup>1/</sup>		14	<1	22
	Alternative 8C	Bureau of Reclamation	<1					<1		<1
9	Proposed – Total Length	Military Reservations/Corps of Engineer	2					2		4
10	Proposed – Total Length	National Park Service						<1		<1
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>52</b>			<b>&lt;1</b>		<b>5</b>	<b>&lt;1</b>	<b>58</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy



**Table D.6-6. Operations Impacts to Vegetation (in acres) on Federal Lands**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Operations Facilities	ROW Maintenance	Operations Facilities	ROW Maintenance			
1E	Proposed – Total Length	Casper	4	3	25	t <sup>1/</sup>	t <sup>1/</sup>		<1	33
		Rawlins	17	5	32	t <sup>1/</sup>			1	55
	Alternative 1E-B	Rawlins	24	2	14	t <sup>1/</sup>		<1	<1	41
		Casper	6	<1	2	t <sup>1/</sup>			<1	9
Alternative 1E-C	Rawlins	29	t <sup>1/</sup>	<1	<1			<1	30	
	Casper	11	t <sup>1/</sup>	1	t <sup>1/</sup>			t <sup>1/</sup>	12	
1W	1W(a) Proposed – Total Length	Rawlins	40			t <sup>1/</sup>		t <sup>1/</sup>	1	42
		No BLM Land Crossed								
	Alternative 1W(a)	Casper	7	2	16	t <sup>1/</sup>			<1	24
		Rawlins	33			<1		4	<1	38
1W(c) Proposed – Total Length	Rawlins	136	t <sup>1/</sup>	6	1	<1	<1	4	147	
2	Proposed – Total Length	Rawlins	26			<1			2	28
		Rawlins	6						<1	6
		Rawlins	21						<1	22
		Rawlins	34			<1			1	35
3	Proposed – Total Length	Rock Springs	52			1			2	55
		Kemmerer	123	15	247	<1		5	2	393
4	Proposed – Total Length	Pocatello	14	1	19	<1	<1	<1	1	36
		Rock Springs	62			<1			3	65
		Kemmerer	125	3	30	1	2	2	4	166
	Alternative 4A	Pocatello	5			t <sup>1/</sup>			<1	5
		Rock Springs	4						<1	5
		Kemmerer	146	<1	4	<1		<1	4	156
	Alternative 4B	Pocatello	8			<1		<1	<1	9
		Rock Springs	12			t <sup>1/</sup>		t <sup>1/</sup>	<1	13
		Kemmerer	135	<1	3	<1		<1	4	144
	Alternative 4C	Pocatello	8			<1		<1	<1	8
		Rock Springs	12			t <sup>1/</sup>		t <sup>1/</sup>	<1	13
		Kemmerer	155	<1	7	<1		<1	4	167
	Alternative 4D	Pocatello	8			<1		<1	<1	9
		Rock Springs	13			t <sup>1/</sup>		t <sup>1/</sup>	<1	13
		Kemmerer	142	<1	6	<1		<1	4	154
	Alternative 4E	Pocatello	7			<1		<1	<1	8
Rock Springs		13			t <sup>1/</sup>		t <sup>1/</sup>	<1	13	
Kemmerer		126	7	80	1	3	2	4	222	
Alternative 4F	Pocatello	5			t <sup>1/</sup>			<1	5	
	Rock Springs	5						<1	5	
	Burley	<1						t <sup>1/</sup>	<1	
5	Proposed – Total Length	Pocatello	13	15	191	t <sup>1/</sup>		<1	<1	220
		Pocatello	10	17	191	t <sup>1/</sup>			<1	219
	Alternative 5B	Pocatello	15	8	139	t <sup>1/</sup>			<1	163
	Alternative 5C	Pocatello	t <sup>1/</sup>	1						1
	Alternative 5D	Burley	<1						t <sup>1/</sup>	<1
	Alternative 5E	Burley	<1			t <sup>1/</sup>			<1	1
6	Proposed – Total Length	No BLM Land Crossed								

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

**Table D.6-6. Operations Impacts to Vegetation (in acres) on Federal Lands cont.**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Operations Facilities	ROW Maintenance	Operations Facilities	ROW Maintenance			
7	Proposed – Total Length	Burley	26	2	52	t <sup>1/</sup>		4	2	86
		Pocatello	5	7	115				t <sup>1/</sup>	126
	Alternative 7A	Pocatello	8	16	138	t <sup>1/</sup>		t <sup>1/</sup>	<1	163
	Alternative 7B	Pocatello	15	5	53	t <sup>1/</sup>			<1	75
	Alternative 7C	Burley	10					<1	t <sup>1/</sup>	11
	Alternative 7D	Burley						<1		<1
	Alternative 7E	Burley	3	<1	8			<1	t <sup>1/</sup>	12
	Alternative 7F	Burley	3	3	57			2	<1	65
	Alternative 7G	Burley	2						t <sup>1/</sup>	2
	Alternative 7H	Burley	67	13	147	t <sup>1/</sup>		1	5	233
		Pocatello	13	5	44	<1	1			63
	Alternative 7I	Burley	80	9	145	<1		21	2	258
		Pocatello	13	5	44	<1	1			63
		Wells	18	5	45	t <sup>1/</sup>		<1	t <sup>1/</sup>	68
	Alternative 7J	Burley	97	9	145	<1		23	2	276
Pocatello		13	5	44	<1	1			63	
Wells		18	5	45	t <sup>1/</sup>		<1	t <sup>1/</sup>	68	
8	Proposed – Total Length	Four Rivers	56			t <sup>1/</sup>		40	6	102
		Owyhee	5			t <sup>1/</sup>		<1	t <sup>1/</sup>	6
		Shoshone	29			t <sup>1/</sup>		11	1	42
	Alternative 8A	Four Rivers	7			<1		<1	t <sup>1/</sup>	8
		Jarbidge	15				<1	9	<1	24
		Shoshone	6					6	<1	13
	Alternative 8B	Four Rivers	19			t <sup>1/</sup>		9	2	31
		Owyhee	t <sup>1/</sup>							t <sup>1/</sup>
	Alternative 8C	Four Rivers	4					3	<1	8
	Alternative 8D	Four Rivers	t <sup>1/</sup>					7	2	9
Alternative 8E	Four Rivers	19					7	<1	26	
9	Proposed – Total Length	Bruneau	27					8	2	37
		Burley	22					31	2	55
		Four Rivers	11			<1		17	<1	29
		Jarbidge	50	t <sup>1/</sup>	1	t <sup>1/</sup>		71	3	125
	Alternative 9A	Burley	7					4	1	12
	Alternative 9B	Burley	6					3	<1	9
		Jarbidge	21			t <sup>1/</sup>	<1	26	2	49
	Alternative 9C	Burley	9					3	<1	12
		Jarbidge	t <sup>1/</sup>					4	<1	5
	Alternative 9D	Bruneau	<1							<1
		Four Rivers	37	t <sup>1/</sup>	1	t <sup>1/</sup>		28	3	70
	Alternative 9E	Owyhee	<1							<1
		Bruneau	41			t <sup>1/</sup>		13	<1	54
Four Rivers		2			t <sup>1/</sup>		4	t <sup>1/</sup>	6	
Jarbidge		2					2	t <sup>1/</sup>	4	
	Owyhee	51			t <sup>1/</sup>		2	<1	53	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

**Table D.6-6. Operations Impacts to Vegetation (in acres) on Federal Lands cont.**

Segment Number	Proposed or Alternative Name	Bureau of Land Management Field Office	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Operations Facilities	ROW Maintenance	Operations Facilities	ROW Maintenance			
9 (cont.)	Alternative 9F	Bruneau	8					6	<1	15
		Four Rivers	32			<1		19	3	55
		Jarbidge	<1					<1		1
		Owyhee	<1							<1
	Alternative 9G	Bruneau	<1							<1
		Four Rivers	37	t <sup>1/</sup>	1	t <sup>1/</sup>		26	4	68
		Owyhee	<1					2		3
	Alternative 9H	Bruneau	8					6	<1	15
		Four Rivers	32			<1		17	3	53
Jarbidge		<1					<1		1	
Owyhee		<1					2		3	
10	Proposed – Total Length	Shoshone	10					17	1	28
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>825</b>	<b>50</b>	<b>704</b>	<b>4</b>	<b>&lt;1</b>	<b>212</b>	<b>38</b>	<b>1833</b>

Segment Number	Proposed or Alternative Name	National Forest	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Operations Facilities	ROW Maintenance	Operations Facilities	ROW Maintenance			
1E	Proposed – Total Length	Medicine Bow-Routt	2	5	27	t <sup>1/</sup>	<1		t <sup>1/</sup>	35
	Alternative 1E-C	Medicine Bow-Routt	3	<1	3	t <sup>1/</sup>	<1			7
1W	Wa Proposed – Total Length	Medicine Bow-Routt	4	<1	1	<1				6
	Wc Proposed – Total Length	Medicine Bow-Routt	1	3	22					26
4	Proposed – Total Length	Caribou-Targhee	4	21	278	<1	1		2	307
7	Proposed – Total Length	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
	Alternative 7H	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
		Sawtooth	8	17	218	t <sup>1/</sup>		t <sup>1/</sup>	1	244
	Alternative 7I	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
		Sawtooth	70	22	225	1	2	t <sup>1/</sup>	1	321
	Alternative 7J	Caribou-Targhee	t <sup>1/</sup>							t <sup>1/</sup>
	Sawtooth	34	18	169	<1		t <sup>1/</sup>	1	223	
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>12</b>	<b>29</b>	<b>328</b>	<b>&lt;1</b>	<b>2</b>		<b>2</b>	<b>373</b>

Segment Number	Proposed or Alternative Name	Other Federal Lands	Shrubland	Forest/Woodland		Wetland/Riparian		Grassland	Other Cover Types	Total Impacts
				Operations Facilities	ROW Maintenance	Operations Facilities	ROW Maintenance			
4	Proposed – Total Length	Bureau of Reclamation	10			t <sup>1/</sup>			t <sup>1/</sup>	10
	Alternative 4A	Bureau of Reclamation	11			t <sup>1/</sup>			<1	11
	Alternative 4B	Bureau of Reclamation	<1						t <sup>1/</sup>	1
		Fish and Wildlife Service	<1							<1
	Alternative 4C	Bureau of Reclamation	<1						t <sup>1/</sup>	1
		Fish and Wildlife Service	t <sup>1/</sup>				t <sup>1/</sup>		1	1
	Alternative 4D	Bureau of Reclamation	<1						t <sup>1/</sup>	1
		Fish and Wildlife Service	<1							<1
	Alternative 4E	Bureau of Reclamation	<1						t <sup>1/</sup>	1
Fish and Wildlife Service		t <sup>1/</sup>				t <sup>1/</sup>		1	1	
Alternative 4F	Bureau of Reclamation	11				t <sup>1/</sup>		<1	11	
5	Alternative 5C	Indian Reservation	26	3	46	<1		<1	<1	76
8	Proposed – Total Length	Bureau of Reclamation	2					1	t <sup>1/</sup>	4
	Alternative 8B	Bureau of Reclamation	<1					1	t <sup>1/</sup>	2
	Alternative 8C	Bureau of Reclamation	t <sup>1/</sup>					<1		<1
9	Proposed – Total Length	Military Reservations/Corps of Engineers	1					<1		2
10	Proposed – Total Length	National Park Service						<1		<1
<b>Total of All Proposed Segments (grey shaded areas)</b>			<b>14</b>			<b>t<sup>1/</sup></b>		<b>2</b>	<b>&lt;1</b>	<b>16</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy



**Table D.8-1. Invasive and Noxious Plant Species Potentially Present in the Gateway West Project Analysis Area**

Common Name	Scientific Name	Invasive Exotic Species <sup>2/</sup>	Listed as Noxious <sup>3/4/</sup>				Segments in Which Known or Likely to Occur <sup>4/5/</sup>		
			State of Wyoming (Designated)	Wyoming Counties (Declared)	State of Idaho <sup>6/</sup>	State of Nevada	Wyoming	Idaho	Nevada
<b>Species on State Noxious Weed List</b>									
Black henbane	<i>Hyoscyamus niger</i> <sup>1/</sup>	Yes	--	Albany, Converse, Lincoln, Natrona, Sweetwater	Control	Category A	<u>All</u>	<u>All</u>	<u>7</u>
Buffalobur	<i>Solanum rostratum</i>	Yes	--	Converse, Natrona	Control	--	<u>1E, 1W, 2, 3, 4</u>	<u>8, 9</u>	--
Canada thistle	<i>Cirsium arvense</i> <sup>1/</sup>	Yes	X	--	Containment	Category C	<u>All</u>	<u>All</u>	<u>7</u>
Common burdock	<i>Arctium minus</i> <sup>1/</sup>	Yes	X	--	--	--	<u>1E, 1W, 2, 4</u>	<u>All</u>	<u>7</u>
Common crupina	<i>Crupina vulgaris</i> <sup>1/</sup>	Yes	--	Converse	Control	Category A	--	<u>7</u>	--
Common St. Johnswort	<i>Hypericum perforatum</i> <sup>1/</sup>	Yes	X	--	--	Category A	<u>4</u>	<u>8</u>	--
Common Tansy	<i>Tanacetum vulgare</i> <sup>1/</sup>	Yes	X	--	--	--	<u>All</u>	<u>5, 7, 8</u>	<u>7</u>
Dalmatian toadflax	<i>Linaria dalmatica</i> <sup>1/</sup>	Yes	X	--	Containment	Category A	<u>All</u>	<u>All</u>	--
Diffuse knapweed	<i>Centaurea diffusa</i> <sup>1/</sup>	Yes	X	--	Containment	Category B	<u>All</u>	<u>All</u>	--
Dyer's woad	<i>Isatis tinctoria</i> <sup>1/</sup>	Yes	X	--	Control	Category A	<u>All</u>	<u>All</u>	<u>7</u>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i> <sup>1/</sup>	Yes	--	--	Control	Category A	--	<u>8</u>	--
Field bindweed	<i>Convolvulus arvensis</i> <sup>1/</sup>	Yes	X	--	Containment	--	<u>All</u>	<u>All</u>	<u>7</u>
Giant Knotweed	<i>Polygonum sachalinense</i>		--	--	Control	--	--	<u>7, 8</u>	--
Hairy whitetop, Hoary cress	<i>Cardaria pubescens</i> <sup>1/</sup>	Yes	X <sup>7/</sup>	--	--	--	<u>All</u>	<u>All</u>	<u>7</u>
Hoary Alyssum	<i>Berteroa incana</i>	Yes	--	--	Containment	--	<u>2, 3</u>	<u>7, 8</u>	<u>7</u>
Houndstongue	<i>Cynoglossum officinale</i> <sup>1/</sup>	Yes	X	--	Containment	Category A	<u>1E, 1W, 2, 4</u>	<u>4, 5, 7</u>	<u>7</u>
Iberian starthistle	<i>Centaurea iberica</i> <sup>1/</sup>	Yes	--	Converse	--	Category A	<u>1E, 1W</u>	--	--
Japanese Knotweed	<i>Polygonum cuspidatum</i>	Yes	--	--	Control	--	<u>All</u>	--	--
Johnsongrass	<i>Sorghum halepense</i>	Yes	--	--	Control	Category C	--	<u>4, 5, 7, 8</u>	--
Jointed goatgrass	<i>Aegilops cylindrica</i> <sup>1/</sup>	Yes	--	Converse	Containment	--	<u>1E, 1W</u>	<u>All</u>	--
Leafy spurge	<i>Euphorbia esula</i> <sup>1/</sup>	Yes	X	--	Containment	Category B	<u>All</u>	<u>All</u>	<u>7</u>
Matgrass	<i>Nardus stricta</i> <sup>1/</sup>	Yes	--	--	Control	--	--	<u>5</u>	--
Mayweed chamomile	<i>Anthemis cotula</i> <sup>1/</sup>	Yes	--	--	--	Category A	<u>1E</u>	<u>8, 9</u>	<u>7</u>
Milium	<i>Milium vernale</i>	Yes	--	--	Containment	--	--	<u>10</u>	--
Musk thistle	<i>Carduus nutans</i> <sup>1/</sup>	Yes	X	--	Control	Category B	<u>All</u>	<u>All</u>	--
Orange hawkweed	<i>Hieracium aurantiacum</i> <sup>1/</sup>	Yes	--	Converse	Control	--	--	<u>5, 7, 8</u>	--
Oxeye daisy	<i>Leucanthemum vulgare</i> (formerly <i>Chrysanthemum leucanthemum</i> ) <sup>1/</sup>	Yes	X	--	Containment	--	<u>1E, 1W, 2, 4</u>	<u>4, 7</u>	--
Parrotfeather Milfoil	<i>Myriophyllum aquaticum</i>	Yes	--	--	Control	--	--	<u>10</u>	--
Perennial pepperweed, tall whitetop	<i>Lepidium latifolium</i> <sup>1/</sup>	Yes	X	--	Containment	Category C	<u>All</u>	<u>All</u>	<u>7</u>
Perennial sowthistle	<i>Sonchus arvensis</i> <sup>1/</sup>	Yes	X	--	Control	Category A	<u>All</u>	<u>All</u>	<u>7</u>
Plumeless thistle	<i>Carduus acanthoides</i> <sup>1/</sup>	Yes	X	--	Control	--	<u>1E, 1W</u>	--	--
Poison hemlock	<i>Conium maculatum</i> <sup>1/</sup>	Yes	--	--	Containment	Category C	<u>1E, 1W, 2, 3</u>	<u>All</u>	<u>7</u>
Puncture vine	<i>Tribulus terrestris</i>	Yes	--	Natrona	Containment	Category C	<u>1E, 1W, 2</u>	<u>All</u>	<u>7</u>
Purple loosestrife	<i>Lythrum salicaria</i> <sup>1/</sup>	Yes	X	--	Containment	Category A	--	<u>All</u>	--
Quackgrass	<i>Agropyron repens</i> <sup>1/</sup>	Yes	X	--	--	--	<u>All</u>	<u>All</u>	--
Rush skeletonweed	<i>Chondrilla juncea</i> <sup>1/</sup>	Yes	--	Converse	Containment	Category A	--	<u>5, 7, 8, 9, 10</u>	--

<sup>1/</sup> Species on the BLM national invasive species list.

<sup>2/</sup> Included in Invaders database (University of Montana-Missoula 2009).

<sup>3/</sup> Designated noxious weeds are plants that are legally designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property; whereas, "declared noxious weeds" are those that have been declared on a county-by-county basis.

<sup>4/</sup> Source for status: ISDA 2008; Wyoming Weed and Pest 2008a,b; NDA 2009. "--" indicates not listed.

<sup>5/</sup> Distribution based on Invaders database (University of Montana-Missoula 2009), Plants database (NRCS 2009), and ISDA (2008).

Distribution of native species is only shown for Wyoming counties where listed as noxious. Underlined segments indicate that species is likely to occur where regulated, non-underlined means it is likely to occur in additional areas where it is currently not regulated.

<sup>6/</sup> Idaho listing categories are explained in text.

<sup>7/</sup> Hairy whitetop (*Cardaria pubescens*) and whitetop (*Cardaria draba*) are listed as the same species as designated as one noxious weed by the state of Wyoming.

**Table D.8-1. Invasive and Noxious Plant Species Potentially Present in the Gateway West Project Analysis Area cont.**

Common Name	Scientific Name	Invasive Exotic Species <sup>2/</sup>	Listed as Noxious <sup>3/4/</sup>				Segments in Which Known or Likely to Occur <sup>4/5/</sup>		
			State of Wyoming (Designated)	Wyoming Counties (Declared)	State of Idaho <sup>6/</sup>	State of Nevada	Wyoming	Idaho	Nevada
<b>Species on State Noxious Weed List cont.</b>									
Russian knapweed	<i>Acroptilon repens</i> <sup>1/</sup>	Yes	X	--	Control	Category B	All	All	--
Russian olive	<i>Elaeagnus angustifolia</i> <sup>1/</sup>	Yes	X	--	--	--	1E, 1W	All	7
Salt cedar, tamarisk	<i>Tamarix spp.</i> <sup>1/</sup>	Yes	X	--	Containment	Category C	All	All	7
Scotch broom	<i>Cytisus scoparius</i> <sup>1/</sup>	Yes	--	Converse	Control	--	--	5, 7, 9	--
Scotch thistle	<i>Onopordum acanthium</i> <sup>1/</sup>	Yes	X	--	Containment	Category B	1E, 1W, 4	All	--
Silverleaf nightshade	<i>Solanum elaeagnifolium</i>	Yes	--	--	Control	Category B	--	8, 10	--
Skeletonleaf bursage	<i>Ambrosia tomentosa</i>	Yes	X	--	Control	--	All	5, 7, 8, 10	--
Spotted knapweed	<i>Centaurea maculosa</i> <sup>1/</sup>	Yes	X	--	Containment	Category A	All	All	7
Syrian beancaper	<i>Zygophyllum fabago</i> <sup>1/</sup>	Yes	--	Converse	EDRR	Category A	--	5, 7	--
Tansy ragwort	<i>Senecio jacobaea</i> <sup>1/</sup>	Yes	--	Converse	Containment	--	--	5, 7	--
Vipers bugloss	<i>Echium vulgare</i> <sup>1/</sup>	Yes	--	--	Control	--	--	8	--
Water hemlock	<i>Cicuta maculata</i>	Yes	--	--	--	Category C	--	--	7
White Bryony	<i>Bryonia alba</i>	Yes	--	--	Containment	--	--	4, 5, 8	--
Whitetop, hoary cress	<i>Cardaria draba</i> <sup>1/</sup>	Yes	X <sup>7/</sup>	--	Containment	Category C	1E, 1W, 2, 4	All	7
Yellow hawkweed	<i>Hieracium caespitosum, H. pratense</i> <sup>1/</sup>	Yes	--	Converse	Control	--	--	7, 8	--
Yellow starthistle	<i>Centaurea solstitialis</i> <sup>1/</sup>	Yes	--	--	Containment	Category A	--	All	--
Yellow toadflax	<i>Linaria vulgaris</i> <sup>1/</sup>	Yes	X	--	Containment	Category A	All	All	--
<b>Other Species Not on State Weed Lists, or Not Likely to Occur Where Regulated by State</b>									
Absinth wormwood	<i>Artemisia absinthium</i>	Yes	--	Converse	--	--	1E, 1W	8	--
Austrian peaweed/ Swainsonpea	<i>Sphaerophysa salsula</i> <sup>1/</sup>	Yes	--	--	--	Category A	--	5, 7	--
Baby's breath	<i>Gypsophila paniculata</i> <sup>1/</sup>	Yes	--	Converse	--	--	1W	4, 8	--
Bermuda grass	<i>Cynodon dactylon</i> <sup>1/</sup>	Yes	--	--	--	--	--	8, 9	--
Bull thistle	<i>Cirsium vulgare</i> <sup>1/</sup>	Yes	--	Converse, Lincoln	--	--	1E, 1W, 2, 3, 4	All	7
Bur buttercup	<i>Ranunculus testiculatus</i>	Yes	--	Converse	--	--	1E, 1W, 2, 3, 4	All	7
Camelthorn	<i>Alhagi camelorum</i> <sup>1/</sup>	Yes	--	--	--	Category A	--	8	--
Carolina horse-nettle	<i>Solanum carolinense</i>	Yes	--	--	--	Category B	--	8	--
Cheatgrass/downy brome	<i>Bromus tectorum</i> <sup>1/</sup>	Yes	--	Albany, Converse, Natrona	--	--	1E, 1W, 2, 3, 4	All	7
Chicory	<i>Cichorium intybus</i> <sup>1/</sup>	Yes	--	Converse	--	--	1E, 1W	All	--
Common cocklebur	<i>Xanthium strumarium</i>	Yes	--	Converse	--	--	1E, 1W, 2, 3, 4	All	7
Common mullein	<i>Verbascum thapsus</i>	Yes	--	Converse	--	--	1E, 1W, 2, 3, 4	All	7
Common sunflower	<i>Helianthus annuus</i>	Native	--	Converse	--	--	1E, 1W	--	--
Curly dock	<i>Rumex crispus</i>	Yes	--	Converse, Natrona	--	--	1E, 1W, 2, 3, 4	All	7
Curlycup gumweed	<i>Grindelia squarrosa</i>	Native	--	Converse, Natrona	--	--	1W	--	--
Dames rocket	<i>Hesperis matronalis</i> <sup>1/</sup>	Yes	--	Converse	--	--	1E, 1W, 2, 4	4, 5, 7, 9	--
Foxtail barley	<i>Hordium jubatum</i>	Native	--	Sweetwater	--	--	3, 4	--	--
Geyer larkspur	<i>Delphinium geyeri</i>	Native	--	Albany, Carbon	--	--	1E, 1W, 2, 3	--	--

<sup>1/</sup> Species on the BLM national invasive species list.

<sup>2/</sup> Included in Invaders database (University of Montana-Missoula 2009).

<sup>3/</sup> Designated noxious weeds are plants that are legally designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property; whereas, "declared noxious weeds" are those that have been declared on a county-by-county basis.

<sup>4/</sup> Source for status: ISDA 2008; Wyoming Weed and Pest 2008a,b; NDA 2009. "--" indicates not listed.

<sup>5/</sup> Distribution based on Invaders database (University of Montana-Missoula 2009), Plants database (NRCS 2009), and ISDA (2008).

Distribution of native species is only shown for Wyoming counties where listed as noxious. Underlined segments indicate that species is likely to occur where regulated, non-underlined means it is likely to occur in additional areas where it is currently not regulated.

<sup>6/</sup> Idaho listing categories are explained in text.

<sup>7/</sup> Hairy whitetop (*Cardaria pubescens*) and whitetop (*Cardaria draba*) are listed as the same species as designated as one noxious weed by the state of Wyoming.

**Table D.8-1. Invasive and Noxious Plant Species Potentially Present in the Gateway West Project Analysis Area cont.**

Common Name	Scientific Name	Invasive Exotic Species <sup>2/</sup>	Listed as Noxious <sup>3/4/</sup>				Segments in Which Known or Likely to Occur <sup>4/5/</sup>		
			State of Wyoming (Designated)	Wyoming Counties (Declared)	State of Idaho <sup>6/</sup>	State of Nevada	Wyoming	Idaho	Nevada
<b>Other Species Not on State Weed Lists, or Not Likely to Occur Where Regulated by State</b>									
Halogeton	<i>Halogeton glomeratus</i> <sup>1/</sup>	Yes	--	Carbon, Converse, Natrona,	--	--	<u>1E, 1W, 2</u> , 3, 4	5, 7, 8, 9	7
Italian thistle	<i>Carduus pycnocephalus</i> <sup>1/</sup>	Yes	--	Converse	--	--	--	--	--
Japanese brome	<i>Bromus japonicus</i> <sup>1/</sup>	Yes	--	--	--	--	All	All	7
Lady's bedstraw	<i>Galium verum</i>	Yes	--	Sweetwater	--	--	<u>2, 3, 4</u>	7	--
Locoweed	<i>Oxytropis spp.</i>	Native	--	Albany	--	--	<u>1E</u>	--	--
Meadow knapweed	<i>Centaurea nigrescens</i> <sup>1/</sup>	Yes	--	Converse	--	--	--	--	--
Medusahead	<i>Taeniatherum caput-medusae</i>	Yes	--	Converse	--	Category B	--	8	--
Mountain thermopsis	<i>Thermopsis montana</i>	Native	--	Sweetwater	--	--	<u>2, 3, 4</u>	--	--
Musk mustard, blue mustard	<i>Chorispora tenella</i>	Yes	--	Converse	--	--	<u>1E, 1W, 2</u> , 3, 4	All	--
Plains pricklypear	<i>Opuntia polyacantha</i>	Native	--	Carbon	--	--	<u>1E, 1W, 2</u>	--	--
Redstem filaree	<i>Erodium cicutarium</i>	Yes	--	Converse	--	--	1E	All	<u>7</u>
Russian thistle	<i>Salsola iberica</i>	Yes	--	--	--	--	All	All	7
Scentless chamomile	<i>Tripleurospermum inodorum</i> <sup>1/</sup>	Yes	--	Converse	--	--	1E, 1W, 2, 4	8, 9	7
Showy milkweed	<i>Asclepias speciosa</i>	Native	--	Converse, Natrona	--	--	<u>1E, 1W</u>	--	--
Sulfur cinquefoil	<i>Potentilla recta</i> <sup>1/</sup>	Yes	--	Converse	--	Category A	--	4, 5, 7	--
Teasel	<i>Dipsacus fullonum</i> <sup>1/</sup>	Yes	--	Converse	--	--	--	All	7
Water hemlock	<i>Cicuta maculata</i>	Native	--	--	--	Category C	--	--	7
Wavyleaf thistle	<i>Cirsium undulatum</i>	Native	--	Converse	--	--	<u>1E, 1W</u>	--	--
Western sticktight	<i>Lappula occidentalis</i>	Native	--	Converse	--	--	<u>1E, 1W</u>	--	--
Wild licorice	<i>Glycyrrhiza lepidota</i>	Native	--	Converse, Natrona	--	--	<u>1E, 1W</u>	--	--
Wild oats	<i>Avena fatua</i>	Yes	--	Lincoln	--	--	1E, 1W, 2, <u>4</u>	All	--
Wyeth's lupine	<i>Lupinus wyethii</i>	Native	--	Carbon, Converse	--	--	<u>1E, 1W, 2</u>	--	--

<sup>1/</sup> Species on the BLM national invasive species list.

<sup>2/</sup> Included in Invaders database (University of Montana-Missoula 2009).

<sup>3/</sup> Designated noxious weeds are plants that are legally designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife, or property; whereas, "declared noxious weeds" are those that have been declared on a county-by-county basis.

<sup>4/</sup> Source for status: ISDA 2008; Wyoming Weed and Pest 2008a,b; NDA 2009. "--" indicates not listed.

<sup>5/</sup> Distribution based on Invaders database (University of Montana-Missoula 2009), Plants database (NRCS 2009), and ISDA (2008).

Distribution of native species is only shown for Wyoming counties where listed as noxious. Underlined segments indicate that species is likely to occur where regulated, non-underlined means it is likely to occur in additional areas where it is currently not regulated.

<sup>6/</sup> Idaho listing categories are explained in text.

<sup>7/</sup> Hairy whitetop (*Cardaria pubescens*) and whitetop (*Cardaria draba*) are listed as the same species as designated as one noxious weed by the state of Wyoming.



**Table D.9-1 Impacts to Wetlands and Riparian Areas during Construction (acres)**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Herbaceous Wetlands	Shrub Wetlands	Forested Wetlands			Mixed Wetlands	Total Wetlands				Herbaceous Riparian	Shrub Riparian	Forested Riparian			Mixed Riparian	Total Riparian				Total Wetlands and Riparian		
			Construction Facilities	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>
1E	Proposed – Total Length	100.6	2.5	0.2		0.4	<b>0.4</b>	0.1	2.9	0.4	<b>3.3</b>	3.5	1.9	0.6	1.8	<b>2.5</b>		6.0	1.8	<b>7.9</b>	8.9	2.2	<b>11.2</b>		
	Proposed – Comparison portion for Alternative 1E-A	17.6	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.3	<b>1.3</b>		0.1	1.3	<b>1.5</b>	0.1	1.3	<b>1.5</b>		
	Alternative 1E-A	16.1		0.3	0.2	1.7	<b>1.9</b>		0.5	1.7	<b>2.2</b>	t <sup>2/</sup>	0.4	0.4	0.8	<b>1.3</b>		0.4	1.3	0.8	<b>2.1</b>	1.8	2.5	<b>4.3</b>	
	Proposed – Comparison portion for Alternative 1E-B	37.9	0.1	t <sup>2/</sup>					0.2		<b>0.2</b>	2.0	0.6	t <sup>2/</sup>		<b>t<sup>2/</sup></b>		t <sup>2/</sup>	2.7		<b>2.7</b>	2.9		<b>2.9</b>	
	Alternative 1E-B	59.3	1.8						1.8		<b>1.8</b>	0.3	2.3					t <sup>2/</sup>	2.5		<b>2.5</b>	4.3		<b>4.3</b>	
	Proposed – Comparison portion for Alternative 1E-C	75.4	2.5	0.2		0.4	<b>0.4</b>	0.1	2.9	0.4	<b>3.3</b>	3.4	1.9	0.6	0.5	<b>1.1</b>			5.9	0.5	<b>6.4</b>	8.8	0.9	<b>9.7</b>	
1W	Alternative 1E-C	48.7	1.5	t <sup>2/</sup>	t <sup>2/</sup>	0.2	<b>0.3</b>		1.6	0.2	<b>1.8</b>	1.2						1.2		<b>1.2</b>	2.7	0.2	<b>2.9</b>		
	1W(a) Proposed – Total Length	76.5	2.1	1.0				t <sup>2/</sup>	3.1		<b>3.1</b>	1.2	1.5	t <sup>2/</sup>	0.4	<b>0.4</b>		0.7	3.5	0.4	<b>3.8</b>	6.5	0.4	<b>6.9</b>	
	Proposed – Comparison portion for Alternative 1W-A	20.3	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	0.6					0.7		<b>0.7</b>	0.7			<b>0.7</b>	
	Alternative 1W-A	16.2		0.5	0.7	2.4	<b>3.1</b>		1.2	2.4	<b>3.6</b>	0.1	0.2	0.1	1.0	<b>1.2</b>		0.4	1.0	<b>1.5</b>	1.6	3.4	<b>5.0</b>		
2	1W(c) Proposed – Total Length	70.6	1.8	0.3	0.6	1.8	<b>2.4</b>	1.0	3.7	1.8	<b>5.5</b>	1.8	2.9	0.6	1.4	<b>2.0</b>		t <sup>2/</sup>	5.4	1.4	<b>6.8</b>	9.1	3.2	<b>12.4</b>	
	Proposed – Total Length	96.7	2.2	0.3					2.5		<b>2.5</b>	0.6	6.3	t <sup>2/</sup>	0.2	<b>0.3</b>			7.0	0.2	<b>7.2</b>	9.5	0.2	<b>9.7</b>	
	Proposed – Comparison portion for Alternative 2A	28.8	2.0	0.1					2.1		<b>2.1</b>	t <sup>2/</sup>	0.9	t <sup>2/</sup>	0.2	<b>0.3</b>			1.0	0.2	<b>1.3</b>	3.1	0.2	<b>3.3</b>	
	Alternative 2A	28.4	0.4	1.9				t <sup>2/</sup>	2.3		<b>2.3</b>	1.8	1.6		4.6	<b>4.6</b>			3.4	4.6	<b>8.0</b>	5.7	4.6	<b>10.3</b>	
	Proposed – Comparison portion for Alternative 2B	7.0	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>		0.1						0.1		<b>0.1</b>	0.1			<b>0.1</b>
	Alternative 2B	6.2	t <sup>2/</sup>					0.1	0.2		<b>0.2</b>		0.5	t <sup>2/</sup>	3.4	<b>3.5</b>	1.8	2.3	3.4	<b>5.7</b>	2.5	3.4	<b>5.9</b>		
3	Proposed – Comparison portion for Alternative 2C	28.4	0.1	t <sup>2/</sup>					0.2		<b>0.2</b>	0.5	0.8	t <sup>2/</sup>	0.2	<b>0.3</b>			1.3	0.2	<b>1.6</b>	1.5	0.2	<b>1.8</b>	
	Alternative 2C	24.4										0.1						0.1		<b>0.1</b>	0.1			<b>0.1</b>	
4	Proposed – Total Length	56.5	3.9	0.7				t <sup>2/</sup>	4.7		<b>4.7</b>	t <sup>2/</sup>	7.9					8.0		<b>8.0</b>	12.6			<b>12.6</b>	
	Proposed – Total Length	203.0	35.7	4.2	t <sup>2/</sup>	1.8	<b>1.9</b>	3.4	43.4	1.8	<b>45.2</b>	3.5	12.0	0.3	1.5	<b>1.9</b>	2.7	18.5	1.5	<b>20.1</b>	61.9	3.3	<b>65.3</b>		
	Proposed – Comparison Portion for Alternatives 4A-4F	90.2	8.2	0.7	t <sup>2/</sup>	0.8	<b>0.8</b>	0.4	9.3	0.8	<b>10.1</b>	1.2	4.3	t <sup>2/</sup>	0.3	<b>0.3</b>	0.7	6.2	0.3	<b>6.5</b>	15.5	1.1	<b>16.6</b>		
	Alternative 4A	85.2	18.7	7.8	0.5	t <sup>2/</sup>	<b>0.6</b>	0.9	27.9	t <sup>2/</sup>	<b>28.0</b>	18.2	5.9	0.6	2.3	<b>2.8</b>	0.6	25.3	2.3	<b>27.5</b>	53.1	2.3	<b>55.5</b>		
	Alternative 4B	100.2	15.0	1.0	0.3		<b>0.3</b>	5.2	21.6		<b>21.6</b>	15.2	3.6		0.6	<b>0.6</b>	2.1	20.9	0.6	<b>21.5</b>	42.5	0.6	<b>43.1</b>		
	Alternative 4C	101.6	12.8	1.6	0.3		<b>0.3</b>	0.2	14.9		<b>14.9</b>	14.9	3.4		0.6	<b>0.6</b>	2.5	20.8	0.6	<b>21.4</b>	35.7	0.6	<b>36.3</b>		
	Alternative 4D	100.8	15.2	1.1	0.3		<b>0.3</b>	2.3	18.9		<b>18.9</b>	15.1	3.5		0.6	<b>0.6</b>	1.7	20.3	0.6	<b>21.0</b>	39.2	0.6	<b>39.9</b>		
	Alternative 4E	102.2	13.0	1.6	0.3		<b>0.3</b>	0.4	15.3		<b>15.3</b>	14.9	3.3		0.6	<b>0.6</b>	2.1	20.2	0.6	<b>20.8</b>	35.6	0.6	<b>36.2</b>		
5	Alternative 4F	87.5	13.3	1.3	0.4	0.8	<b>1.2</b>	0.9	15.9	0.8	<b>16.7</b>	17.1	6.5	0.4	2.2	<b>2.6</b>	0.1	24.1	2.2	<b>26.3</b>	39.9	3.0	<b>42.9</b>		
	Proposed – Total Length	54.6	1.0	1.2				1.5	3.8		<b>3.8</b>	0.8	3.5	t <sup>2/</sup>	0.1	<b>0.2</b>	1.4	5.7	0.1	<b>5.9</b>	9.5	0.1	<b>9.6</b>		
	Proposed – Comparison portion for Alternatives 5A,B	25.3	t <sup>2/</sup>	1.2				1.5	2.8		<b>2.8</b>	0.4	t <sup>2/</sup>	t <sup>2/</sup>	0.1	<b>0.2</b>	1.2	1.7	0.1	<b>1.8</b>	4.5	0.1	<b>4.6</b>		
	Alternative 5A	33.7	0.2					0.2	0.2		<b>0.2</b>	t <sup>2/</sup>	0.5	0.2	t <sup>2/</sup>	<b>0.2</b>		0.7	t <sup>2/</sup>	<b>0.8</b>	1.0	t <sup>2/</sup>	<b>1.0</b>		
	Alternative 5B	44.4	t <sup>2/</sup>	t <sup>2/</sup>				0.1	0.1		<b>0.1</b>	t <sup>2/</sup>	0.4	0.2	0.7	<b>0.9</b>		0.7	0.7	<b>1.4</b>	0.8	0.7	<b>1.5</b>		
	Proposed – Comparison portion for Alternative 5C	33.2	t <sup>2/</sup>	1.2				1.3	1.3		<b>1.3</b>	0.4	1.9					2.3		<b>2.3</b>	3.7			<b>3.7</b>	
	Alternative 5C	26.1	2.9					0.6	3.5		<b>3.5</b>	t <sup>2/</sup>	t <sup>2/</sup>	0.3	1.0	<b>1.3</b>		1.3	1.7	1.0	<b>2.7</b>	5.2	1.0	<b>6.2</b>	
	Proposed – Comparison portion for Alternative 5D	19.4		1.1					1.1		<b>1.1</b>	0.4	2.8					0.2	3.4		<b>3.4</b>	4.5		<b>4.5</b>	
	Alternative 5D	17.5			0.7	1.9	<b>2.6</b>		0.7	1.9	<b>2.6</b>	0.7	0.8	2.1	3.8	<b>5.9</b>		3.7	3.8	<b>7.5</b>	4.4	5.7	<b>10.1</b>		
Proposed – Comparison portion for Alternative 5E	5.8											0.9					0.2	1.1		<b>1.1</b>	1.1		<b>1.1</b>		
6	Alternative 5E	5.3										0.1					0.1		<b>0.1</b>	0.1			<b>0.1</b>		
	Proposed – Total Length	0.5																							

Note: Due to permit criteria, acreages reported here are rounded to tenths of an acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.9-1 Impacts to Wetlands and Riparian Areas during Construction (acres) cont.**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Herbaceous Wetlands	Shrub Wetlands	Forested Wetlands			Mixed Wetlands	Total Wetlands			Herbaceous Riparian	Shrub Riparian	Forested Riparian			Mixed Riparian	Total Riparian			Total Wetlands and Riparian				
			Construction Facilities	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>
7	Proposed – Total Length	118.1	1.4	0.6				1.4	3.4	3.4	2.6	0.7	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.2	4.6	4.6	7.9	7.9					
	Proposed – Comparison portion for Alternatives 7A,B	35.2						1.3	1.3	1.3	0.7	0.3	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.2	2.2	2.2	3.6	3.6					
	Alternative 7A	38.0	t <sup>2/</sup>	0.3				1.7	2.2	2.2	0.2	1.5	t <sup>2/</sup>	0.3	0.4	0.3	2.2	0.3	2.5	4.3	0.3	4.7			
	Alternative 7B	46.4									0.1	1.0	t <sup>2/</sup>		t <sup>2/</sup>		1.2		1.2	1.2		1.2			
	Proposed – Comparison portion for Alternative 7C	20.1		t <sup>2/</sup>				t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>						t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>			
	Alternative 7C	20.3																							
	Proposed – Comparison portion for Alternative 7D	6.2	1.1						1.1		1.1	1.7	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>		1.9		1.9	2.9		2.9			
	Alternative 7D	6.8	1.1						1.1		1.1	1.7	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>		1.8		1.8	2.9		2.9			
	Proposed – Comparison portion for Alternative 7E	3.8																							
	Alternative 7E	4.5																							
	Proposed – Comparison portion for Alternative 7F	10.5	0.4						0.4		0.4	t <sup>2/</sup>					t <sup>2/</sup>		t <sup>2/</sup>	0.4		0.4			
	Alternative 7F	10.8										t <sup>2/</sup>	t <sup>2/</sup>				t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>			
	Proposed – Comparison portion for Alternative 7G	3.1						t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>							t <sup>2/</sup>	0.8	0.8	0.8		0.8			
	Alternative 7G	3.2						t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>			0.7				t <sup>2/</sup>	0.8	0.8	0.8		0.8			
	Proposed – Comparison portion for Alternatives 7H,I	118.1	1.4	0.6				1.4	3.4	3.4	2.6	0.7	t <sup>2/</sup>		t <sup>2/</sup>	1.2	4.6		4.6	7.9		7.9			
	Alternative 7H	127.5	2.2	3.1	t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>	5.4	5.4	0.6	1.6	0.6	1.2	1.8	0.6	3.3	1.2	4.5	8.6	1.2	9.9			
Alternative 7I	173.4	5.0	2.8	0.7	2.5	3.2	1.3	9.8	2.5	12.3	3.8	2.6	1.4	2.7	4.1	2.7	10.5	2.7	13.2	20.2	5.3	25.5			
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	1.7	0.6				1.4	3.6	3.6	2.6	0.8	t <sup>2/</sup>		t <sup>2/</sup>	1.2	4.6		4.6	8.2		8.2				
Alternative 7J <sup>3/</sup>	202.1	5.3	3.0	t <sup>2/</sup>		t <sup>2/</sup>	1.3	9.5	9.5	3.2	2.9	1.0	1.2	2.2	2.7	9.8	1.2	11.0	19.3	1.2	20.6				
8	Proposed – Total Length	131.0	3.2	t <sup>2/</sup>				3.3	3.3	0.5	0.3	0.2	0.1	0.4	0.2	1.3	0.1	1.4	4.6	0.1	4.7				
	Proposed – Comparison portion for Alternative 8A	51.4	1.5	t <sup>2/</sup>				1.6	1.6	t <sup>2/</sup>	t <sup>2/</sup>	0.2	0.1	0.4	t <sup>2/</sup>	0.4	0.1	0.5	2.0	0.1	2.1				
	Alternative 8A	53.6	0.1	0.2				t <sup>2/</sup>	0.4	0.4	t <sup>2/</sup>	t <sup>2/</sup>	1.1	4.8	5.9	1.2	4.8	6.0	1.6	4.8		6.4			
	Proposed – Comparison portion for Alternative 8B	45.3									0.4	0.3					0.7		0.7	0.7		0.7			
	Alternative 8B	45.8	4.0	1.7					5.8	5.8	0.9	0.3	t <sup>2/</sup>	0.4	0.4	t <sup>2/</sup>	1.2	0.4	1.6	7.0	0.4	7.4			
	Proposed – Comparison portion for Alternative 8C	6.5									t <sup>2/</sup>	t <sup>2/</sup>					0.1		0.1	0.1		0.1			
	Alternative 8C	6.4									t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>			
	Proposed – Comparison portion for Alternative 8D	6.9																							
	Alternative 8D	8.1																							
	Proposed – Comparison portion for Alternative 8E	7.0																							
Alternative 8E	18.5									0.2						0.2		0.2	0.2		0.2				
9	Proposed – Total Length	161.7	0.4	0.3			t <sup>2/</sup>	0.8	0.8	0.2	1.4	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	0.8	2.4	t <sup>2/</sup>	2.4	3.2	t <sup>2/</sup>	3.2				
	Proposed – Comparison portion for Alternative 9A	7.8	0.3					0.3	0.3	t <sup>2/</sup>						t <sup>2/</sup>		t <sup>2/</sup>	0.3		0.3				
	Alternative 9A	7.7									0.3					0.3		0.3	0.3		0.3				
	Proposed – Comparison portion for Alternative 9B	49.5								0.2	0.1					0.3		0.3	0.3		0.3				
	Alternative 9B	53.2									0.2		0.3	0.3		0.2	0.3	0.5	0.2	0.3	0.5				
	Proposed – Comparison portion for Alternative 9C	14.7								0.2	t <sup>2/</sup>					0.2		0.2	0.2		0.2				
	Alternative 9C	15.3																							
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	0.2	0.3				t <sup>2/</sup>	0.6	0.6	t <sup>2/</sup>	1.2				0.8	2.1		2.1	2.6		2.6			
	Alternative 9D	58.4	0.3	0.4					0.7	0.7	0.3	0.4	t <sup>2/</sup>		t <sup>2/</sup>	1.2	1.8		1.8	2.5		2.5			
	Alternative 9E	68.7	0.2	0.6					0.8	0.8		1.1				0.3	1.4		1.4	2.2		2.2			
Alternative 9F	62.9	0.5	0.7				t <sup>2/</sup>	1.3	1.3	0.3	2.4	t <sup>2/</sup>		t <sup>2/</sup>	2.0	4.7		4.7	6.0		6.0				
Alternative 9G	56.4	0.7	0.4				t <sup>2/</sup>	1.1	1.1	0.1	1.1	t <sup>2/</sup>		t <sup>2/</sup>	1.2	2.4		2.4	3.6		3.6				
Alternative 9H	61.0	0.9	0.7				t <sup>2/</sup>	1.8	1.8	0.1	2.4	t <sup>2/</sup>		t <sup>2/</sup>	2.0	4.5		4.5	6.3		6.3				
10	Proposed – Total Length	33.6									0.1					0.1		0.1	0.1		0.1				
<b>Total of Proposed Segments (grey shading)</b>			<b>54.3</b>	<b>8.8</b>	<b>0.7</b>	<b>4.0</b>	<b>4.7</b>	<b>7.7</b>	<b>71.5</b>	<b>4.0</b>	<b>75.5</b>	<b>14.8</b>	<b>38.5</b>	<b>2.0</b>	<b>5.6</b>	<b>7.7</b>	<b>7.1</b>	<b>62.5</b>	<b>5.6</b>	<b>68.1</b>	<b>134.0</b>	<b>9.6</b>	<b>143.6</b>		

Note: Due to permit criteria, acreages reported here are rounded to tenths of an acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.9-2. Impacts to Wetlands and Riparian Areas during Operations (acres)**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Herbaceous Wetlands	Shrub Wetlands	Forested Wetlands		Mixed Wetlands	Total Wetlands			Herbaceous Riparian	Shrub Riparian	Forested Riparian			Mixed Riparian	Total Riparian			Total Wetlands and Riparian				
			Operations Facilities	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts (acres)	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	
1E	Proposed – Total Length	100.6	0.8	t <sup>2/</sup>		0.4	<b>0.4</b>	t <sup>2/</sup>	0.9	0.4	<b>1.3</b>	0.7	0.3	0.3	1.9	<b>2.2</b>		1.4	1.9	<b>3.3</b>	2.2	2.3	<b>4.5</b>	
	Proposed – Comparison portion for Alternative 1E-A	17.6										t <sup>2/</sup>	t <sup>2/</sup>		1.3	<b>1.3</b>		t <sup>2/</sup>	1.3	<b>1.4</b>	t <sup>2/</sup>	1.3	<b>1.4</b>	
	Alternative 1E-A	16.1		t <sup>2/</sup>	t <sup>2/</sup>	1.8	<b>1.9</b>		0.1	1.8	<b>2.0</b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.2	<b>1.3</b>		t <sup>2/</sup>	0.3	1.2	<b>1.4</b>	0.4	3.0	<b>3.4</b>
	Proposed – Comparison portion for Alternative 1E-B	37.9	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	0.5	0.2	t <sup>2/</sup>		<b>t<sup>2/</sup></b>		t <sup>2/</sup>	0.7		<b>0.7</b>	0.8		<b>0.8</b>
	Alternative 1E-B	59.3	0.3						0.3		<b>0.3</b>	0.1	0.3					t <sup>2/</sup>	0.4		<b>0.4</b>	0.6		<b>0.6</b>
	Proposed – Comparison portion for Alternative 1E-C	75.4	0.8	t <sup>2/</sup>		0.4	<b>0.4</b>	t <sup>2/</sup>	0.9	0.4	<b>1.3</b>	0.7	0.3	0.3	0.6	<b>0.9</b>			1.3	0.6	<b>1.9</b>	2.2	1.0	<b>3.1</b>
1W	Alternative 1E-C	48.7	0.5	t <sup>2/</sup>	t <sup>2/</sup>	0	<b>0</b>		0.5	0	<b>0.7</b>	0.3						0.3		<b>0.3</b>	0.8	0.2	<b>1.0</b>	
	1W(a) Proposed – Total Length	76.5	0.4	0.2				t <sup>2/</sup>	0.6		<b>0.6</b>	0.6	0.7	t <sup>2/</sup>	0.4	<b>0.4</b>	0.2	1.4	0.4	<b>1.8</b>	2.1	0.4	<b>2.5</b>	
	Proposed – Comparison portion for Alternative 1W-A	20.3	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	0.2					0.3		<b>0.3</b>	0.3		<b>0.3</b>	
	Alternative 1W-A	16.2		0.2	0.2	2.9	<b>3.0</b>		0.3	2.9	<b>3.2</b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.2	<b>1.2</b>		t <sup>2/</sup>	1.2	<b>1.3</b>	0.4	4.0	<b>4.5</b>	
2	1W(c) Proposed – Total Length	70.6	0.4	t <sup>2/</sup>	0.2	2.2	<b>2.3</b>	0.1	0.7	2.2	<b>2.9</b>	0.5	0.5	t <sup>2/</sup>	1.7	<b>1.7</b>	t <sup>2/</sup>	1.0	1.7	<b>2.7</b>	1.8	3.9	<b>5.7</b>	
	Proposed – Total Length	96.7	0.4	0.1					0.5		<b>0.5</b>	0.2	2.6	t <sup>2/</sup>	0.2	<b>0.3</b>		2.8	0.2	<b>3.0</b>	3.2	0.2	<b>3.5</b>	
	Proposed – Comparison portion for Alternative 2A	28.8	0.3	t <sup>2/</sup>					0.3		<b>0.3</b>	t <sup>2/</sup>	0.3	t <sup>2/</sup>	0.2	<b>0.3</b>		0.3	0.2	<b>0.6</b>	0.6	0.2	<b>0.9</b>	
	Alternative 2A	28.4	0.1	0.4				t <sup>2/</sup>	0.5		<b>0.5</b>	0.3	0.4		4.6	<b>4.6</b>		0.7	4.6	<b>5.3</b>	1.2	4.6	<b>5.8</b>	
	Proposed – Comparison portion for Alternative 2B	7.0		t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>		t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>	
	Alternative 2B	6.2	t <sup>2/</sup>					t <sup>2/</sup>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>		t <sup>2/</sup>		3.4	<b>3.4</b>	0.3	0.3	3.4	<b>3.7</b>	0.4	3.4	<b>3.8</b>	
3	Proposed – Comparison portion for Alternative 2C	28.4	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	0.1	0.3	t <sup>2/</sup>	0.2	<b>0.3</b>		0.5	0.2	<b>0.7</b>	0.5	0.2	<b>0.7</b>	
	Alternative 2C	24.4											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>	
	Proposed – Total Length	56.5	0.8	0.1				t <sup>2/</sup>	0.9		<b>0.9</b>	t <sup>2/</sup>	1.3					1.3		<b>1.3</b>	2.3		<b>2.3</b>	
4	Proposed – Total Length	203.0	7.3	1.0	t <sup>2/</sup>	1.8	<b>1.8</b>	0.7	9.1	1.8	<b>10.8</b>	0.8	2.5	0.2	1.6	<b>1.7</b>	0.5	3.9	1.6	<b>5.5</b>	13.0	3.3	<b>16.3</b>	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	1.7	0.2	t <sup>2/</sup>	0.8	<b>0.8</b>	t <sup>2/</sup>	2.0	0.8	<b>2.8</b>	0.3	0.6	t <sup>2/</sup>	0.3	<b>0.3</b>	t <sup>2/</sup>	0.9	0.3	<b>1.2</b>	2.9	1.1	<b>4.0</b>	
	Alternative 4A	85.2	3.4	0.7	t <sup>2/</sup>	0.2	<b>0.2</b>	0.2	4.2	0.2	<b>4.4</b>	1.0	0.9	0.2	2.5	<b>2.7</b>	0.3	2.4	2.5	<b>4.8</b>	6.6	2.7	<b>9.3</b>	
	Alternative 4B	100.2	1.7	t <sup>2/</sup>	t <sup>2/</sup>			0.5	2.3		<b>2.3</b>	0.4	0.7		0.6	<b>0.6</b>	0.4	1.6	0.6	<b>2.2</b>	3.8	0.6	<b>4.5</b>	
	Alternative 4C	101.6	1.2	0.2	t <sup>2/</sup>			0.1	1.6		<b>1.6</b>	0.3	0.7		0.6	<b>0.6</b>	0.4	1.4	0.6	<b>2.0</b>	2.9	0.6	<b>3.6</b>	
	Alternative 4D	100.8	1.8	0.1	t <sup>2/</sup>			0.5	2.5		<b>2.5</b>	0.4	0.8		0.6	<b>0.6</b>	0.4	1.6	0.6	<b>2.2</b>	4.0	0.6	<b>4.7</b>	
	Alternative 4E	102.2	1.3	0.3	t <sup>2/</sup>			0.2	1.8		<b>1.8</b>	0.3	0.7		0.6	<b>0.6</b>	0.4	1.4	0.6	<b>2.0</b>	3.1	0.6	<b>3.8</b>	
Alternative 4F	87.5	2.1	0.2	t <sup>2/</sup>	0.8	<b>0.8</b>	t <sup>2/</sup>	2.5	0.8	<b>3.3</b>	0.6	1.1		2.6	<b>2.6</b>	t <sup>2/</sup>	1.7	2.6	<b>4.3</b>	4.2	3.4	<b>7.5</b>		
5	Proposed – Total Length	54.6	t <sup>2/</sup>	t <sup>2/</sup>				0.1	0.3		<b>0.3</b>	0.2	0.3	t <sup>2/</sup>	0.1	<b>0.1</b>		0.6	0.1	<b>0.7</b>	0.8	0.1	<b>1.0</b>	
	Proposed – Comparison portion for Alternatives 5A,B	25.3	t <sup>2/</sup>	t <sup>2/</sup>				0.1	0.2		<b>0.2</b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	0.1	<b>0.1</b>		t <sup>2/</sup>	0.1	<b>0.2</b>	0.3	0.1	<b>0.4</b>	
	Alternative 5A	33.7	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	0.2	t <sup>2/</sup>	0.4	<b>0.4</b>		0.2	0.4	<b>0.6</b>	0.3	0.4	<b>0.7</b>	
	Alternative 5B	44.4	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	0.2	t <sup>2/</sup>	1.0	<b>1.0</b>		0.2	1.0	<b>1.2</b>	0.3	1.0	<b>1.3</b>	
	Proposed – Comparison portion for Alternative 5C	33.2	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	0.2	0.3					0.5		<b>0.5</b>	0.6		<b>0.6</b>	
	Alternative 5C	26.1	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	1.3	<b>1.3</b>	t <sup>2/</sup>	0.1	1.3	<b>1.4</b>	0.1	1.3	<b>1.4</b>	
	Proposed – Comparison portion for Alternative 5D	19.4		t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	0.2	0.3					0.5		<b>0.5</b>	0.6		<b>0.6</b>	
	Alternative 5D	17.5			t <sup>2/</sup>	2.5	<b>2.5</b>		t <sup>2/</sup>	2.5	<b>2.5</b>	t <sup>2/</sup>	t <sup>2/</sup>	0.1	5.5	<b>5.7</b>		0.2	5.5	<b>5.8</b>	0.2	8.1	<b>8.3</b>	
Proposed – Comparison portion for Alternative 5E	5.8											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>		
Alternative 5E	5.3											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>		
6	Proposed – Total Length	0.5																						

Note: Due to permit criteria, acreages reported here are rounded to tenths of an acre; therefore, numbers are inexact and columns/rows may not sum exactly.

<sup>1/</sup> ROW maintenance limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.9-2. Impacts to Wetlands and Riparian Areas during Operations (acres) cont.**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Herbaceous Wetlands	Shrub Wetlands	Forested Wetlands			Mixed Wetlands	Total Wetlands			Herbaceous Riparian	Shrub Riparian	Forested Riparian			Mixed Riparian	Total Riparian			Total Wetlands and Riparian			
			Operations Facilities	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts (acres)	Operations Facilities	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	Operations Facilities	ROW Maintenance <sup>1/</sup>	Total Operation Impacts	
7	Proposed – Total Length	118.1	t <sup>2/</sup>	t <sup>2/</sup>				t <sup>2/</sup>	0.1		<b>0.1</b>	0.2	0.1	t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>	0.4		<b>0.4</b>	0.5	<b>0.5</b>		
	Proposed – Comparison portion for Alternatives 7A,B	35.2										0.1	t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>		0.1		<b>0.1</b>	0.1	<b>0.1</b>		
	Alternative 7A	38.0	t <sup>2/</sup>	t <sup>2/</sup>				0.3	0.3		<b>0.3</b>	t <sup>2/</sup>	0.2	t <sup>2/</sup>	0.4	<b>0.4</b>	t <sup>2/</sup>	0.3	0.4	<b>0.7</b>	0.6	0.4	<b>1.0</b>	
	Alternative 7B	46.4										t <sup>2/</sup>	0.1	t <sup>2/</sup>		t <sup>2/</sup>		0.2		<b>0.2</b>	0.2	<b>0.2</b>		
	Proposed – Comparison portion for Alternative 7C	20.1		t <sup>2/</sup>								t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Alternative 7C	20.3																						
	Proposed – Comparison portion for Alternative 7D	6.2	t <sup>2/</sup>									t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>		t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Alternative 7D	6.8	t <sup>2/</sup>									t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>		t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 7E	3.8																						
	Alternative 7E	4.5																						
	Proposed – Comparison portion for Alternative 7F	10.5	t <sup>2/</sup>									t <sup>2/</sup>	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Alternative 7F	10.8										t <sup>2/</sup>	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Proposed – Comparison portion for Alternative 7G	3.1							t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>									<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Alternative 7G	3.2							t <sup>2/</sup>	t <sup>2/</sup>		t <sup>2/</sup>									<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>	
	Proposed – Comparison portion for Alternatives 7H,I	118.1	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>	0.1		<b>0.1</b>	0.2	0.1	t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>	0.4		<b>0.4</b>	0.5	<b>0.5</b>	
Alternative 7H	127.5	0.2	0.2					t <sup>2/</sup>	0.4		<b>0.4</b>	0.2	0.3	0.3	1.4	<b>1.7</b>	t <sup>2/</sup>	0.8	1.4	<b>2.2</b>	1.1	1.4	<b>2.5</b>	
Alternative 7I	173.4	0.3	0.2	t <sup>2/</sup>	3.2	<b>3.2</b>		0.5	1.0	3.2	<b>4.2</b>	1.2	0.5	0.3	3.5	<b>3.9</b>	0.4	2.4	3.5	<b>6.0</b>	3.5	6.7	<b>10.2</b>	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>	0.1		<b>0.1</b>	0.2	0.1	t <sup>2/</sup>		t <sup>2/</sup>	t <sup>2/</sup>	0.4	3.5	<b>6.0</b>	3.5	6.7	<b>10.2</b>	
Alternative 7J <sup>3/</sup>	202.1	0.4	0.2					0.5	1.1		<b>1.1</b>	0.8	0.8	0.3	1.4	<b>1.7</b>	0.3	2.3	1.4	<b>3.6</b>	3.4	1.4	<b>4.8</b>	
8	Proposed – Total Length	131.0	0.3	t <sup>2/</sup>					0.3		<b>0.3</b>	0.2	t <sup>2/</sup>	t <sup>2/</sup>	0.3	<b>0.3</b>	t <sup>2/</sup>	0.4	0.3	<b>0.6</b>	0.7	0.3	<b>1.0</b>	
	Proposed – Comparison portion for Alternative 8A	51.4	0.1						0.1		<b>0.1</b>	t <sup>2/</sup>	t <sup>2/</sup>	t <sup>2/</sup>	0.3	<b>0.3</b>		t <sup>2/</sup>	0.3	<b>0.4</b>	0.2	0.3	<b>0.5</b>	
	Alternative 8A	53.6	t <sup>2/</sup>	t <sup>2/</sup>					0.2		<b>0.2</b>	t <sup>2/</sup>	t <sup>2/</sup>	0.2	5.5	<b>5.7</b>		0.2	5.5	<b>5.8</b>	0.4	5.5	<b>5.9</b>	
	Proposed – Comparison portion for Alternative 8B	45.3										0.2	t <sup>2/</sup>					0.2		<b>0.2</b>	0.2		<b>0.2</b>	
	Alternative 8B	45.8	t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		0.4	<b>0.4</b>	t <sup>2/</sup>	0.2	0.4	<b>0.6</b>	0.2	0.4	<b>0.6</b>	
	Proposed – Comparison portion for Alternative 8C	6.5											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>	
	Alternative 8C	6.4											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>		<b>t<sup>2/</sup></b>	
	Proposed – Comparison portion for Alternative 8D	6.9																						
	Alternative 8D	8.1																						
	Proposed – Comparison portion for Alternative 8E	7.0																						
Alternative 8E	18.5																							
9	Proposed – Total Length	161.7	t <sup>2/</sup>	0.1				t <sup>2/</sup>	0.3		<b>0.3</b>	t <sup>2/</sup>	0.5	t <sup>2/</sup>	t <sup>2/</sup>	0.1	0.6	t <sup>2/</sup>	<b>0.6</b>	0.9	t <sup>2/</sup>	<b>0.9</b>		
	Proposed – Comparison portion for Alternative 9A	7.8										t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Alternative 9A	7.7										t <sup>2/</sup>						t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Proposed – Comparison portion for Alternative 9B	49.5										t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Alternative 9B	53.2										t <sup>2/</sup>	t <sup>2/</sup>	0.3	<b>0.3</b>			t <sup>2/</sup>	0.3	<b>0.4</b>	t <sup>2/</sup>	0.3	<b>0.4</b>	
	Proposed – Comparison portion for Alternative 9C	14.7											t <sup>2/</sup>					t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Alternative 9C	15.3																						
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	t <sup>2/</sup>	0.1					t <sup>2/</sup>	0.3		<b>0.3</b>	t <sup>2/</sup>	0.5	t <sup>2/</sup>			0.1	0.6	<b>0.6</b>	0.9	t <sup>2/</sup>	<b>0.9</b>	
	Alternative 9D	58.4	t <sup>2/</sup>						t <sup>2/</sup>			<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>				t <sup>2/</sup>		<b>t<sup>2/</sup></b>	t <sup>2/</sup>	t <sup>2/</sup>		
	Alternative 9E	68.7	t <sup>2/</sup>	t <sup>2/</sup>					0.1			<b>0.1</b>	t <sup>2/</sup>					t <sup>2/</sup>	0.1	<b>0.1</b>	0.2		<b>0.2</b>	
Alternative 9F	62.9	0.1	0.1					t <sup>2/</sup>	0.3		<b>0.3</b>	0.2	t <sup>2/</sup>				t <sup>2/</sup>	0.1	0.3	<b>0.3</b>	0.6	<b>0.6</b>		
Alternative 9G	56.4	0.2							0.2		<b>0.2</b>	t <sup>2/</sup>	t <sup>2/</sup>				t <sup>2/</sup>	t <sup>2/</sup>	<b>t<sup>2/</sup></b>	0.2		<b>0.2</b>		
Alternative 9H	61.0	0.3	0.1					t <sup>2/</sup>	0.5		<b>0.5</b>	0.2	t <sup>2/</sup>				t <sup>2/</sup>	0.3	<b>0.3</b>	0.8		<b>0.8</b>		
10	Proposed – Total Length	33.6																						
<b>Total of Proposed Segments (grey shading)</b>			<b>10.5</b>	<b>1.9</b>	<b>0.2</b>	<b>4.4</b>	<b>4.6</b>	<b>1.0</b>	<b>13.7</b>	<b>4.4</b>	<b>18.0</b>	<b>3.4</b>	<b>8.9</b>	<b>0.6</b>	<b>6.2</b>	<b>6.8</b>	<b>0.9</b>	<b>13.8</b>	<b>6.2</b>	<b>20.0</b>	<b>27.4</b>	<b>10.6</b>	<b>38.0</b>	

Note: Due to permit criteria, acreages reported here are rounded to tenths of an acre; therefore, numbers are inexact and columns/rows may not sum exactly.

<sup>1/</sup> ROW maintenance limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.9-3** Impacts to Wetlands and Riparian Areas during Two Single-Circuit Construction (acres)

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Herbaceous Wetlands	Shrub Wetlands	Forested Wetlands			Mixed Wetlands	Total Wetlands			Herbaceous Riparian	Shrub Riparian	Forested Riparian			Mixed Riparian	Total Riparian			Total Wetlands and Riparian		
			Construction Facilities	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts	Construction Facilities	ROW Clearing <sup>1/</sup>	Total Construction Impacts
2	Proposed – Total Length	96.7	2.6	0.4					3.0		3.0	0.7	6.7	t <sup>2/</sup>	0.3	0.3		7.4	0.3	7.7	10.3	0.3	10.6
	Proposed – Comparison portion for Alternative 2A	28.8	2.3	0.2					2.5		2.5	t <sup>2/</sup>	1.0	t <sup>2/</sup>	0.3	0.3		1.1	0.3	1.4	3.6	0.3	3.9
	Alternative 2A	28.4	0.4	2.1				6.0	8.4		8.4	2.1	1.7	t <sup>2/</sup>	5.3	5.3	2.8	6.6	5.3	11.9	15.1	5.3	20.4
	Proposed – Comparison portion for Alternative 2B	7.0	t <sup>2/</sup>	t <sup>2/</sup>					t <sup>2/</sup>		t <sup>2/</sup>		0.1					0.1		0.1	0.1		0.1
	Alternative 2B	6.2	t <sup>2/</sup>					6.1	6.1		6.1		0.5	0.2	3.9	4.1	4.9	5.6	3.9	9.5	11.7	3.9	15.6
	Proposed – Comparison portion for Alternative 2C	28.4	0.2	0.1					0.3		0.3	0.5	0.9	t <sup>2/</sup>	0.3	0.3		1.5	0.3	1.7	1.7	0.3	2.0
Alternative 2C	24.4											0.2					0.2		0.2	0.2		0.2	
3	Proposed – Total Length	56.5	4.3	0.8			0.8	5.9		5.9	t <sup>2/</sup>	9.7					9.8		9.8	15.7		15.7	
4	Proposed – Total Length	203.0	55.6	4.9	t <sup>2/</sup>	2.0	2.1	3.9	64.4	2.0	66.4	3.9	13.9	0.3	1.8	2.1	3.3	21.4	1.8	23.2	85.9	3.8	89.7
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	21.8	0.8	t <sup>2/</sup>	0.8	0.8	0.5	23.0	0.8	23.9	1.3	5.4	t <sup>2/</sup>	0.3	0.4	0.9	7.6	0.3	7.9	30.6	1.2	31.8
	Alternative 4A	85.2	33.4	8.7	0.6	0.2	0.7	1.0	43.6	0.2	43.8	18.7	6.5	0.7	2.5	3.2	0.6	26.5	2.5	29.0	70.0	2.7	72.7
	Alternative 4B	100.2	29.2	1.1	0.3		0.3	5.8	36.4		36.4	15.2	4.2		0.7	0.7	2.4	21.9	0.7	22.6	58.2	0.7	59.0
	Alternative 4C	101.6	27.9	1.6	0.3		0.3	0.3	30.1		30.1	15.1	4.0		0.7	0.7	2.9	22.0	0.7	22.8	52.1	0.7	52.9
	Alternative 4D	100.8	29.3	1.1	0.3		0.3	2.5	33.3		33.3	15.1	4.1		0.7	0.7	2.0	21.2	0.7	22.0	54.5	0.7	55.3
	Alternative 4E	102.2	28.1	1.7	0.3		0.3	0.4	30.5		30.5	15.1	3.9		0.7	0.7	2.4	21.4	0.7	22.1	51.9	0.7	52.7
Alternative 4F	87.5	27.2	1.4	0.4	0.8	1.3	1.0	30.1	0.8	30.9	17.9	7.2	0.5	2.4	2.8	0.2	25.8	2.4	28.2	55.9	3.2	59.1	
<b>Total of Proposed Segments (grey shading)</b>			<b>62.5</b>	<b>6.1</b>	<b>t<sup>2/</sup></b>	<b>2.0</b>	<b>2.1</b>	<b>4.7</b>	<b>73.3</b>	<b>2.0</b>	<b>75.3</b>	<b>4.7</b>	<b>30.4</b>	<b>0.3</b>	<b>2.1</b>	<b>2.4</b>	<b>3.3</b>	<b>38.6</b>	<b>2.1</b>	<b>40.7</b>	<b>111.9</b>	<b>4.1</b>	<b>116.0</b>

Note: Due to permit criteria, acreages reported here are rounded to tenths of an acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> ROW Clearing limited to tall vegetation that may impact transmission line safety

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-1. Miles of Big Game Crossed by the Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Bighorn Sheep Winter Range	Elk Calving Areas <sup>1/</sup>	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range
1E	Proposed – Total Length	100.6	3.3			8.1		36.8	37.0
	Proposed – Compare to Alternative 1E-A	17.6						15.5	12.5
	Alternative 1E-A	16.1						16.2	14.6
	Proposed – Compare to Alternative 1E-B	37.9				3.0		5.8	16.5
	Alternative 1E-B	59.3				17.3		22.5	18.9
	Proposed – Compare to Alternative 1E-C	75.4	3.3			8.1		15.7	21.9
	Alternative 1E-C	48.7				5.4		17.2	9.6
1W	1W(a) Proposed – Total Length	76.5				5.4		40.4	30.8
	Proposed – Comparison portion for Alternative 1W-A	20.3						17.5	17.8
	Alternative 1W-A	16.2						16.3	14.4
	1W(c) Proposed – Total Length	70.6				5.4		36.7	26.0
2	Proposed – Total Length	96.7				18.4	14.0	77.4	80.4
	Proposed – Compare to Alternative 2A	28.8				14.9	10.5	16.3	21.1
	Alternative 2A	28.4				0.2	0.2	10.4	28.5
	Proposed – Compare to Alternative 2B	7.0					2.8	7.0	7.0
	Alternative 2B	6.2						4.2	6.2
	Proposed – Compare to Alternative 2C	28.4				18.4	11.2	11.0	14.4
	Alternative 2C	24.4						10.1	21.5
3	Proposed – Total Length	56.5						38.8	56.6
4	Proposed – Total Length	203.0		6.4 <sup>2/</sup>		57.9	24.2	95.9	76.7
	Proposed – Compare to Alternatives 4A-4F	90.2		6.4		41.8	24.2	36.4	24.5
	Alternative 4A	85.2		8.2		17.4	22.1	17.1	23.4
	Alternative 4B	100.2				34.1	4.1	41.5	23.1
	Alternative 4C	101.6				35.5	16.4	43.6	22.3
	Alternative 4D	100.8				33.6	4.1	41.6	23.1
	Alternative 4E	102.2				35.0	16.4	43.7	22.3
	Alternative 4F	87.5		8.2		12.5	21.5	17.8	18.3
5	Proposed – Total Length	54.6						32.9	
	Proposed – Compare to Alternatives 5A,B	25.3						9.6	
	Alternative 5A	33.7						14.3	
	Alternative 5B	44.4						22.2	
	Proposed – Compare to Alternative 5C	33.2						21.6	
	Alternative 5C	26.1				8.6		7.8	
	Proposed – Compare to Alternative 5D	19.4						16.9	
	Alternative 5D	17.5						14.4	
	Proposed – Compare to Alternative 5E	5.8						3.5	
Alternative 5E	5.3						3.6		
6	Proposed – Total Length	0.5						0.2	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Data have been received only for Wyoming portions of the route. Blank cells do not indicate that no parturition range will be crossed

<sup>2/</sup> These numbers only represent the Wyoming portion of Segment 4

**Table D.10-1. Miles of Big Game Crossed by the Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Bighorn Sheep Winter Range	Elk Calving Areas <sup>1/</sup>	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range
7	Proposed – Total Length	118.1						50.1	
	Proposed – Compare to Alternatives 7A,B	35.2						16.9	
	Alternative 7A	38.0						6.9	
	Alternative 7B	46.4						10.3	
	Proposed – Compare to Alternative 7C	20.1						4.8	
	Alternative 7C	20.3						7.3	
	Proposed – Compare to Alternative 7D	6.2						2.0	
	Alternative 7D	6.8						2.0	
	Proposed – Compare to Alternative 7E	3.8						3.0	
	Alternative 7E	4.5						4.5	
	Proposed – Compare to Alternative 7F	10.5						9.3	
	Alternative 7F	10.8						10.7	
	Proposed – Compare to Alternative 7G	3.1						3.1	
	Alternative 7G	3.2						3.2	
	Proposed – Compare to Alternatives 7H,I	118.1						50.1	
	Alternative 7H	127.5	2.3					34.9	
Alternative 7I	173.4				8.3		45.4		
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9						60.0		
Alternative 7J <sup>3/</sup>	202.1				8.3		47.9		
8	Proposed – Total Length	131.0				15.6		44.6	7.4
	Proposed – Compare to Alternative 8A	51.4						39.5	
	Alternative 8A	53.6						20.4	
	Proposed – Compare to Alternative 8B	45.3				4.1			
	Alternative 8B	45.8				4.1			
	Alternative 8B – Compare to Alternative 8C	6.5				4.1			
	Alternative 8C	6.4				5.6			
	Proposed – Compare to Alternative 8D	6.9							
	Alternative 8D	8.1							
	Proposed – Comparison portion for Alternative 8E	7.0							
Alternative 8E	18.5	1.5							
9	Proposed – Total Length	161.7						9.9	20.0
	Proposed – Compare to Alternative 9A	7.8						1.9	
	Alternative 9A	7.7						2.1	
	Proposed – Compare to Alternative 9B	49.5							
	Alternative 9B	53.2							
	Proposed – Compare to Alternative 9C	14.7							
	Alternative 9C	15.3							
	Proposed – Comparison portion for Alternatives 9D-9H	57.2							13.4
	Alternative 9D	58.4	1.5						0.4
	Alternative 9E	68.7	13.8						24.7
	Alternative 9F	62.9	1.5						0.4
Alternative 9G	56.4	1.7						0.4	
Alternative 9H	61.0	1.7						0.4	
10	Proposed – Total Length	33.6						9.7	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Data have been received only for Wyoming portions of the route. Blank cells do not indicate that no parturition range will be crossed

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-2. Known Active Nests of Raptors and Birds of Prey within 1 mile of Project Centerline**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Nests										Total	
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Northern Harrier	Prairie Falcon	Red-tailed Hawk		Swainsons Hawk
1E	Proposed – Total Length	100.6					4	7	2		1			14
	Proposed – Comparison portion for Alternative 1E-A	17.6												0
	Alternative 1E-A	16.1		1										1
	Proposed – Comparison portion for Alternative 1E-B	37.9					4	6			1			11
	Alternative 1E-B	59.3					4	6			2			12
	Proposed – Comparison portion for Alternative 1E-C	75.4					4	7	2		1			14
1W	Alternative 1E-C	48.7					4		1		1			6
	1W(a) Proposed – Total Length	76.5					4		1		1			6
	Proposed – Comparison portion for Alternative 1W-A	20.3												0
	Alternative 1W-A	16.2		1										1
2	1W(c) Proposed – Total Length	70.6		1			4		1		1			7
	Proposed – Total Length	96.7	2		3		79	19		2	3	8	4	120
	Proposed – Comparison portion for Alternative 2A	28.8					10	6				2	2	20
	Alternative 2A	28.4	1	2			6	4				2		15
	Proposed – Comparison portion for Alternative 2B	7.0					5					2		7
	Alternative 2B	6.2		2			1					2		5
	Proposed – Comparison portion for Alternative 2C	28.4					19	7		1		2	4	33
3	Alternative 2C	24.4	2				19	10		2	4	8	2	47
	Proposed – Total Length	56.5	1		2		9	8		1	12	3		36
4	Proposed – Total Length	203.0	1	1		5	13	4	4	2	9	11	1	51
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	1				4					3	1	9
	Alternative 4A	85.2	1				2	4			1	3	1	12
	Alternative 4B	100.2	1		1	2		6			2	6	1	19
	Alternative 4C	101.6	1		1	2		6			2	6	1	19
	Alternative 4D	100.8	1		1	2		6			2	6	1	19
	Alternative 4E	102.2	1		1	2		6			2	6	1	19
5	Alternative 4F	87.5	1				2	4			1	2	1	11
	Proposed – Total Length	54.6		2	1									3
	Proposed – Comparison portion for Alternatives 5A,B	25.3												0
	Alternative 5A	33.7												0
	Alternative 5B	44.4												0
	Proposed – Comparison portion for Alternative 5C	33.2												0
	Alternative 5C	26.1												0
	Proposed – Comparison portion for Alternative 5D	19.4												2
Alternative 5D	17.5		2										2	
6	Proposed – Comparison portion for Alternative 5E	5.8		2										2
	Alternative 5E	5.3												0
6	Proposed – Total Length	0.5												

**Table D.10-2. Known Active Nests of Raptors and Birds of Prey within 1 mile of Project Centerline cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Nests										Total	
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Northern Harrier	Prairie Falcon	Red-tailed Hawk		Swainsons Hawk
7	Proposed – Total Length	118.1			3		9							12
	Proposed – Comparison portion for Alternatives 7A,B	35.2												0
	Alternative 7A	38.0												0
	Alternative 7B	46.4												0
	Proposed – Comparison portion for Alternative 7C	20.1			2		2							4
	Alternative 7C	20.3			2									2
	Proposed – Comparison portion for Alternative 7D	6.2			1									1
	Alternative 7D	6.8			1									1
	Proposed – Comparison portion for Alternative 7E	3.8					7							7
	Alternative 7E	4.5					7							7
	Proposed – Comparison portion for Alternative 7F	10.5					7							7
	Alternative 7F	10.8					7							7
	Proposed – Comparison portion for Alternative 7G	3.1												0
	Alternative 7G	3.2												0
	8	Proposed – Comparison portion for Alternatives 7H,I	118.1			3		9						
Alternative 7H		127.5			1		48					5		54
Alternative 7I		173.4			1		58	3			2	2		66
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>		143.9			3	2	27							32
Alternative 7J <sup>1/</sup>		202.1			1	2	75	3			2	2		85
Proposed – Total Length		131.0			43		86				172			301
Proposed – Comparison portion for Alternative 8A		51.4			1									1
9	Alternative 8A	53.6												0
	Proposed – Comparison portion for Alternative 8B	45.3			42		69			172				283
	Alternative 8B	45.8			33		19							52
	Proposed – Comparison portion for Alternative 8C	6.5					12							12
	Alternative 8C	6.4					17							17
	Proposed – Comparison portion for Alternative 8D	6.9			14		36							50
	Alternative 8D	8.1			17		40							57
	Proposed – Comparison portion for Alternative 8E	7.0			19		3			162				184
Alternative 8E	18.5			16		42			452				510	
10	Proposed – Total Length	161.7			9	3	43			17		6		78
	Proposed – Comparison portion for Alternative 9A	7.8					2							2
	Alternative 9A	7.7						2						2
	Proposed – Comparison portion for Alternative 9B	49.5			3		10			13		6		32
	Alternative 9B	53.2			1		4			7				12
	Proposed – Comparison portion for Alternative 9C	14.7			1		10					6		17
	Alternative 9C	15.3			1		4							5
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			4	1	7							12
	Alternative 9D	58.4			99		52			431				582
	Alternative 9E	68.7			3		10							13
	Alternative 9F	62.9			96		57			386				539
Alternative 9G	56.4			93		37			476				606	
Alternative 9H	61.0			90		42			431				563	
10	Proposed – Total Length	33.6			2								2	

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-3a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	803	137	353	501	394	579	130	134	120	51
	Proposed – Comparison portion for Alternative 1E-A	17.6	691	6	238	141	267	245	93	115	136	42
	Alternative 1E-A	16.1	456	11	274	108	273	240	123	52	131	50
	Proposed – Comparison portion for Alternative 1E-B	37.9	951	25	393	187	545	224	784	6		
	Alternative 1E-B	59.3	888	69	328	279	449	368	289	11	173	31
	Proposed – Comparison portion for Alternative 1E-C	75.4	821	128	391	367	497	317	350	19		
	Alternative 1E-C	48.7	693	65	278	247	500	322	242	8		
1W	1W(a) Proposed – Total Length	76.5	671	75	259	395	399	606	104	124	126	52
	Proposed – Comparison portion for Alternative 1W-A	20.3	769	5	230	144	293	267	95	115	135	41
	Alternative 1W-A	16.2	465	10	283	109	261	249	117	57	124	52
	1W(c) Proposed – Total Length	70.6	633	84	274	363	394	552	135	69	133	50
2	Proposed – Total Length	96.7	456	1011	456	1011	332	35	111	64	130	46
	Proposed – Comparison portion for Alternative 2A	28.8	329	457	329	457	260	3	81	38	146	35
	Alternative 2A	28.4	309	486	309	486	260	3	84	44	77	8
	Proposed – Comparison portion for Alternative 2B	7.0	443	119	443	119	260	3	80	29		
	Alternative 2B	6.2	414	115	414	115	260	3	85	30		
	Proposed – Comparison portion for Alternative 2C	28.4	315	490	315	490	102	6	109	15	130	46
	Alternative 2C	24.4	345	408	345	408	102	6	90	4	111	33
3	Proposed – Total Length	56.5	166	12	733	498						
4	Proposed – Total Length	203.0	121	912	360	2122	18	815	61	649	245	494
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	807	67	586	655	26	97	154	112	188	144
	Alternative 4A	85.2	293	43	627	638	25	98	204	93	203	136
	Alternative 4B	100.2	7	10	617	763	13	170	207	170	234	110
	Alternative 4C	101.6	7	10	635	739	12	155	213	170	261	118
	Alternative 4D	100.8	7	10	616	766	13	170	207	170	234	110
	Alternative 4E	102.2	7	10	634	742	12	155	213	170	261	118
	Alternative 4F	87.5	433	58	589	678	26	97	196	101	181	142
5	Proposed – Total Length	54.6	52	626	117	1006	21	1018	11	181	272	467
	Proposed – Comparison portion for Alternatives 5A,B	25.3	62	430	147	489	18	357	8	93	367	151
	Alternative 5A	33.7	58	567	153	594	24	389	8	100	390	175
	Alternative 5B	44.4	39	715	184	699	22	513	9	132	374	233
	Proposed – Comparison portion for Alternative 5C	33.2	57	543	143	590	19	538	11	109	353	203
	Alternative 5C	26.1	20	561	146	627	24	645	12	146	238	179
	Proposed – Comparison portion for Alternative 5D	19.4	67	252	117	381	18	405	11	88	358	148
	Alternative 5D	17.5	66	224	102	375	18	411	10	84	382	145
	Proposed – Comparison portion for Alternative 5E	5.8	13	72	117	161	16	279	13	57	281	110
Alternative 5E	5.3	13	72	119	158	16	278	15	58	285	104	
6	Proposed – Total Length	0.5										

**Table D.10-3a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	118.1	37	1089	103	1962	45	2052	11	193	292	995
	Proposed – Comparison portion for Alternatives 7A,B	35.2	46	627	144	687	23	672	8	103	351	191
	Alternative 7A	38.0	36	820	165	710	24	664	7	91	344	182
	Alternative 7B	46.4	22	929	201	751	22	747	8	131	352	226
	Proposed – Comparison portion for Alternative 7C	20.1	16	170	66	592	85	612	9	29	300	130
	Alternative 7C	20.3	15	184	81	439	82	536	3	3	356	150
	Proposed – Comparison portion for Alternative 7D	6.2	31	102	83	276	58	284	5	10	159	129
	Alternative 7D	6.8	31	102	81	285	58	287	5	10	162	135
	Proposed – Comparison portion for Alternative 7E	3.8	22	89	170	100	20	166	5	12	191	148
	Alternative 7E	4.5	23	93	150	119	22	179	5	13	193	151
	Proposed – Comparison portion for Alternative 7F	10.5	32	137	146	175	25	237	19	30	243	196
	Alternative 7F	10.8	33	148	147	190	25	262	18	42	239	191
	Proposed – Comparison portion for Alternative 7G	3.1	20	138	247	79	13	122	7	3	320	76
	Alternative 7G	3.2	20	134	254	76	14	121	7	3	325	76
	Proposed – Comparison portion for Alternatives 7H,I	118.1	37	1089	103	1962	45	2052	11	193	292	995
	Alternative 7H	127.5	35	1921	154	2175	38	1640	10	410	242	849
Alternative 7I	173.4	23	2194	205	2734	42	2430	12	485	206	928	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	33	1215	79	3181	38	3377	10	209	202	1667	
Alternative 7J <sup>1/</sup>	202.1	22	2229	180	3634	37	3433	11	492	188	1113	
8	Proposed – Total Length	131.0			61	5022	38	6500	11	206	172	805
	Proposed – Comparison portion for Alternative 8A	51.4			61	1685	47	1999	16	48	209	454
	Alternative 8A	53.6			41	1966	50	2052	10	47	175	675
	Proposed – Comparison portion for Alternative 8B	45.3			54	2360	33	2951	9	119	134	246
	Alternative 8B	45.8			51	1754	39	2187	12	77	158	501
	Proposed – Comparison portion for Alternative 8C	6.5			70	461	41	625	14	14	227	32
	Alternative 8C	6.4			68	474	42	631	12	16	201	29
	Proposed – Comparison portion for Alternative 8D	6.9			37	857	37	860			60	55
	Alternative 8D	8.1			37	880	40	872			58	84
Proposed – Comparison portion for Alternative 8E	7.0			40	704	36	792	6	40	139	71	
Alternative 8E	18.5			41	1209	37	1351	8	65	119	89	
9	Proposed – Total Length	161.7	15	101	57	5993	42	6816	24	357	139	1461
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	71	282	43	409	4	3	230	149
	Alternative 9A	7.7	9	13	74	293	43	421	4	3	220	141
	Proposed – Comparison portion for Alternative 9B	49.5			71	1715	51	1992	16	40	119	487
	Alternative 9B	53.2			51	2042	43	2219	12	102	144	688
	Proposed – Comparison portion for Alternative 9C	14.7			167	375	20	683	9	11	193	156
	Alternative 9C	15.3			160	367	15	675	6	13	220	181
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			43	2793	41	2901	29	242	96	656
	Alternative 9D	58.4			35	3614	33	3972	25	285	80	617
	Alternative 9E	68.7	25	81	94	2340	39	3437	34	109	88	188
Alternative 9F	62.9			36	3615	35	3919	24	288	82	715	
Alternative 9G	56.4			36	3389	34	3736	26	266	75	651	
Alternative 9H	61.0			36	3487	36	3743	26	264	84	695	
10	Proposed – Total Length	33.6	16	66	38	722	99	589	8	32	338	335

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-3a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads cont.**

Segment Number	Segment/Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	706	156	321	551	364	627	124	140	112	55
	Proposed – Comparison portion for Alternative 1E-A	17.6	691	6	225	149	242	271	91	118	124	46
	Alternative 1E-A	16.1	456	11	255	116	246	266	116	55	121	54
	Proposed – Comparison portion for Alternative 1E-B	37.9	820	29	350	210	526	232	672	7		
	Alternative 1E-B	59.3	786	78	310	295	419	394	289	11	168	32
	Proposed – Comparison portion for Alternative 1E-C	75.4	715	147	351	409	464	339	302	22		
	Alternative 1E-C	48.7	601	75	244	282	442	364	194	10		
1W	1W(a) Proposed – Total Length	76.5	592	85	233	438	360	673	100	129	117	56
	Proposed – Comparison portion for Alternative 1W-A	20.3	769	5	218	152	268	292	92	118	123	45
	Alternative 1W-A	16.2	465	10	264	117	236	275	111	60	116	56
	1W(c) Proposed – Total Length	70.6	565	94	245	405	352	619	126	74	123	54
2	Proposed – Total Length	96.7			438	1052	298	39	105	68	130	46
	Proposed – Comparison portion for Alternative 2A	28.8			314	480	260	3	77	40	146	35
	Alternative 2A	28.4			295	509	260	3	81	46	77	8
	Proposed – Comparison portion for Alternative 2B	7.0			393	134	260	3	78	30		
	Alternative 2B	6.2			366	130	260	3	83	31		
	Proposed – Comparison portion for Alternative 2C	28.4			306	505	102	6	96	17	130	46
	Alternative 2C	24.4			336	419	102	6	72	5	111	33
3	Proposed – Total Length	56.5	166	12	677	529						
4	Proposed – Total Length	203.0	116	949	342	2234	17	827	60	660	238	509
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	795	68	544	705	26	98	154	112	179	151
	Alternative 4A	85.2	273	46	597	670	25	99	204	93	189	146
	Alternative 4B	100.2	7	10	580	811	12	171	204	173	220	117
	Alternative 4C	101.6	7	10	593	792	12	156	209	173	233	132
	Alternative 4D	100.8	7	10	580	814	12	171	204	173	220	117
	Alternative 4E	102.2	7	10	592	795	12	156	209	173	233	132
	Alternative 4F	87.5	419	60	562	710	26	98	196	101	171	150
5	Proposed – Total Length	54.6	48	675	107	1104	20	1058	11	187	252	505
	Proposed – Comparison portion for Alternatives 5A,B	25.3	56	474	129	555	17	374	8	96	313	177
	Alternative 5A	33.7	51	645	131	695	22	426	8	107	336	203
	Alternative 5B	44.4	35	797	159	809	20	559	8	139	318	274
	Proposed – Comparison portion for Alternative 5C	33.2	52	587	126	671	18	571	11	112	310	231
	Alternative 5C	26.1	20	576	133	688	23	681	12	148	215	198
	Proposed – Comparison portion for Alternative 5D	19.4	62	272	104	427	17	426	11	90	333	159
	Alternative 5D	17.5	61	244	92	419	17	433	9	86	355	156
	Proposed – Comparison portion for Alternative 5E	5.8	13	73	106	178	15	295	13	58	271	114
Alternative 5E	5.3	13	73	108	174	15	294	14	59	275	108	
6	Proposed – Total Length	0.5										

**Table D.10-3a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads cont.**

Segment Number	Segment/Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	118.1	34	1162	95	2131	43	2146	11	198	273	1066
	Proposed – Comparison portion for Alternatives 7A,B	35.2	42	680	127	779	22	705	8	106	305	220
	Alternative 7A	38.0	33	895	144	815	22	715	7	97	294	213
	Alternative 7B	46.4	20	990	178	845	21	797	7	137	302	264
	Proposed – Comparison portion for Alternative 7C	20.1	15	175	63	622	83	629	9	29	285	137
	Alternative 7C	20.3	15	189	76	469	79	553	3	3	340	157
	Proposed – Comparison portion for Alternative 7D	6.2	30	105	74	310	53	312	5	10	155	133
	Alternative 7D	6.8	30	105	72	319	53	315	5	10	157	139
	Proposed – Comparison portion for Alternative 7E	3.8	20	99	129	131	17	195	5	12	175	161
	Alternative 7E	4.5	20	103	119	150	19	208	5	13	178	164
	Proposed – Comparison portion for Alternative 7F	10.5	30	147	124	207	22	268	19	30	222	214
	Alternative 7F	10.8	31	158	126	222	23	293	18	42	218	209
	Proposed – Comparison portion for Alternative 7G	3.1	19	141	229	85	13	129	7	3	293	83
	Alternative 7G	3.2	20	137	235	82	13	128	7	3	298	83
	Proposed – Comparison portion for Alternatives 7H,I	118.1	34	1162	95	2131	43	2146	11	198	273	1066
	Alternative 7H	127.5	34	2000	144	2337	36	1748	10	420	228	900
	Alternative 7I	173.4	22	2283	192	2930	39	2571	11	495	197	973
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	32	1244	77	3297	37	3462	10	210	197	1714	
Alternative 7J <sup>1/</sup>	202.1	22	2319	168	3900	35	3630	11	503	179	1168	
8	Proposed – Total Length	131.0			58	5254	36	6785	11	209	165	838
	Proposed – Comparison portion for Alternative 8A	51.4			58	1760	45	2096	16	48	197	481
	Alternative 8A	53.6			39	2072	47	2177	10	47	166	714
	Proposed – Comparison portion for Alternative 8B	45.3			51	2479	31	3091	9	121	132	249
	Alternative 8B	45.8			49	1827	37	2269	12	77	156	509
	Proposed – Comparison portion for Alternative 8C	6.5			64	499	39	658	14	14	227	32
	Alternative 8C	6.4			63	512	40	664	12	16	201	29
	Proposed – Comparison portion for Alternative 8D	6.9			36	887	35	902			58	57
	Alternative 8D	8.1			35	912	38	918			56	86
	Proposed – Comparison portion for Alternative 8E	7.0			38	736	34	840	6	41	134	74
Alternative 8E	18.5			39	1264	35	1436	8	66	115	92	
9	Proposed – Total Length	161.7	15	101	54	6307	40	7119	23	361	134	1507
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	67	297	41	426	4	3	225	152
	Alternative 9A	7.7	9	13	71	308	42	440	4	3	215	144
	Proposed – Comparison portion for Alternative 9B	49.5			67	1816	49	2068	16	40	114	508
	Alternative 9B	53.2			48	2177	41	2334	12	102	136	729
	Proposed – Comparison portion for Alternative 9C	14.7			155	404	20	697	9	11	184	163
	Alternative 9C	15.3			148	397	15	689	6	13	208	192
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			41	2913	39	3043	29	245	94	669
	Alternative 9D	58.4			34	3734	32	4104	25	289	79	627
	Alternative 9E	68.7	25	81	88	2498	37	3616	33	112	87	190
	Alternative 9F	62.9			34	3732	34	4079	24	291	80	731
Alternative 9G	56.4			35	3502	32	3885	26	269	74	663	
Alternative 9H	61.0			35	3601	34	3893	26	267	82	708	
10	Proposed – Total Length	33.6	16	66	37	742	94	623	8	32	322	352

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-3b. Change in Fragmentation Levels as a Result of Roads Between Pre- and Post-Construction**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
1E	Proposed – Total Length	100.6	-98	19	-32	50	-30	48	-6	6	-9	4
	Proposed – Comparison portion for Alternative 1E-A	17.6	t <sup>1/</sup>		-13	8	-26	26	-2	3	-12	4
	Alternative 1E-A	16.1	t <sup>1/</sup>		-19	8	-27	26	-7	3	-10	4
	Proposed – Comparison portion for Alternative 1E-B	37.9	-131	4	-43	23	-19	8	-112	1		
	Alternative 1E-B	59.3	-102	9	-18	16	-30	26			-5	1
	Proposed – Comparison portion for Alternative 1E-C	75.4	-106	19	-40	42	-32	22	-48	3		
	Alternative 1E-C	48.7	-92	10	-35	35	-58	42	-48	2		
1W	1W(a) Proposed – Total Length	76.5	-79	10	-25	43	-40	67	-4	5	-9	4
	Proposed – Comparison portion for Alternative 1W-A	20.3	t <sup>1/</sup>		-12	8	-25	25	-2	3	-12	4
	Alternative 1W-A	16.2	t <sup>1/</sup>		-19	8	-25	26	-6	3	-9	4
	1W(c) Proposed – Total Length	70.6	-67	10	-28	42	-43	67	-9	5	-10	4
2	Proposed – Total Length	96.7			-18	41	-34	4	-7	4		
	Proposed – Comparison portion for Alternative 2A	28.8			-16	23			-4	2		
	Alternative 2A	28.4			-14	23			-4	2		
	Proposed – Comparison portion for Alternative 2B	7.0			-50	15			-3	1		
	Alternative 2B	6.2			-48	15			-3	1		
	Proposed – Comparison portion for Alternative 2C	28.4			-9	15			-13	2		
	Alternative 2C	24.4			-9	11			-18	1		
3	Proposed – Total Length	56.5			-56	31						
4	Proposed – Total Length	203.0	-5	37	-18	112	< -1	12	-1	11	-7	15
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	-12	1	-42	50	< -1	1			-9	7
	Alternative 4A	85.2	-19	3	-30	32	< -1	1			-14	10
	Alternative 4B	100.2			-37	48	t <sup>1/</sup>	1	-4	3	-14	7
	Alternative 4C	101.6			-43	53	t <sup>1/</sup>	1	-4	3	-28	14
	Alternative 4D	100.8			-36	48	t <sup>1/</sup>	1	-4	3	-14	7
	Alternative 4E	102.2			-42	53	t <sup>1/</sup>	1	-4	3	-28	14
5	Alternative 4F	87.5	-14	2	-27	32	< -1	1			-10	8
	Proposed – Total Length	54.6	-4	49	-10	98	-1	40	< -1	6	-20	38
	Proposed – Comparison portion for Alternatives 5A,B	25.3	-6	44	-17	66	-1	17	< -1	3	-54	26
	Alternative 5A	33.7	-7	78	-22	101	-2	37	-1	7	-54	28
	Alternative 5B	44.4	-4	82	-25	110	-2	46	< -1	7	-56	41
	Proposed – Comparison portion for Alternative 5C	33.2	-4	44	-17	81	-1	33	< -1	3	-43	28
	Alternative 5C	26.1	-1	15	-13	61	-1	36	< -1	2	-23	19
	Proposed – Comparison portion for Alternative 5D	19.4	-5	20	-13	46	-1	21	< -1	2	-25	11
	Alternative 5D	17.5	-5	20	-11	44	-1	22	< -1	2	-27	11
6	Proposed – Comparison portion for Alternative 5E	5.8	< -1	1	-11	17	-1	16	< -1	1	-10	4
	Alternative 5E	5.3	< -1	1	-11	16	-1	16	< -1	1	-11	4
	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-3b. Change in Fragmentation Levels as a Result of Roads Between Pre- and Post-Construction cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
7	Proposed –Total Length	118.1	-2	73	-8	169	-2	94	< -1	5	-19	71
	Proposed – Comparison portion for Alternatives 7A,B	35.2	-4	53	-17	92	-1	33	< -1	3	-46	29
	Alternative 7A	38.0	-3	75	-21	105	-2	51	< -1	6	-50	31
	Alternative 7B	46.4	-1	61	-22	94	-1	50	< -1	6	-51	38
	Proposed – Comparison portion for Alternative 7C	20.1	< -1	5	-3	30	-2	17			-15	7
	Alternative 7C	20.3	< -1	5	-5	30	-3	17			-16	7
	Proposed – Comparison portion for Alternative 7D	6.2	-1	3	-9	34	-5	28			-5	4
	Alternative 7D	6.8	-1	3	-9	34	-5	28			-5	4
	Proposed – Comparison portion for Alternative 7E	3.8	-2	10	-40	31	-3	29			-15	13
	Alternative 7E	4.5	-2	10	-31	31	-3	29			-15	13
	Proposed – Comparison portion for Alternative 7F	10.5	-2	10	-23	32	-3	31			-20	18
	Alternative 7F	10.8	-2	10	-21	32	-3	31			-21	18
	Proposed – Comparison portion for Alternative 7G	3.1	< -1	3	-17	6	-1	7			-27	7
	Alternative 7G	3.2	< -1	3	-19	6	-1	7			-27	7
	Proposed – Comparison portion for Alternatives 7H,I	118.1	-2	73	-8	169	-2	94	< -1	5	-19	71
	Alternative 7H	127.5	-1	79	-11	162	-2	108	< -1	10	-14	51
Alternative 7I	173.4	-1	89	-14	196	-2	141	< -1	10	-10	45	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9	-1	29	-3	116	-1	85	< -1	1	-6	47	
Alternative 7J <sup>2/</sup>	202.1	-1	90	-12	266	-2	197	< -1	11	-9	55	
8	Proposed –Total Length	131.0			-3	232	-2	285	< -1	3	-7	33
	Proposed – Comparison portion for Alternative 8A	51.4			-3	75	-2	97			-12	27
	Alternative 8A	53.6			-2	106	-3	125			-10	39
	Proposed – Comparison portion for Alternative 8B	45.3			-3	119	-1	140	< -1	2	-2	3
	Alternative 8B	45.8			-2	73	-1	82			-2	8
	Proposed – Comparison portion for Alternative 8C	6.5			-5	38	-2	33				
	Alternative 8C	6.4			-5	38	-2	33				
	Proposed – Comparison portion for Alternative 8D	6.9			-1	30	-2	42			-2	2
	Alternative 8D	8.1			-1	32	-2	46			-1	2
Proposed – Comparison portion for Alternative 8E	7.0			-2	32	-2	48	< -1	1	-6	3	
Alternative 8E	18.5			-2	55	-2	85	< -1	1	-4	3	
9	Proposed –Total Length	161.7			-3	314	-2	303	< -1	4	-4	46
	Proposed – Comparison portion for Alternative 9A	7.8			-4	15	-2	17			-5	3
	Alternative 9A	7.7			-4	15	-2	19			-5	3
	Proposed – Comparison portion for Alternative 9B	49.5			-4	101	-2	76			-5	21
	Alternative 9B	53.2			-3	135	-2	115	< -1		-8	41
	Proposed – Comparison portion for Alternative 9C	14.7			-12	29	< -1	14			-8	7
	Alternative 9C	15.3			-12	30	< -1	14			-13	11
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			-2	120	-2	142	< -1	3	-2	13
	Alternative 9-D	58.4			-1	120	-1	132	< -1	4	-1	10
	Alternative 9-E	68.7			-6	158	-2	179	< -1	3	-1	2
	Alternative 9F	62.9			-1	117	-1	160	< -1	3	-2	16
Alternative 9G	56.4			-1	113	-1	149	< -1	3	-1	12	
Alternative 9H	61.0			-1	114	-1	150	< -1	3	-2	13	
10	Proposed –Total Length	33.6			-1	20	-5	34			-16	17

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-4a. Pre- and Post-Construction Levels of Fragmentation Resulting from Transmission Lines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	10006	11	2949	60	3041	75	1023	17	383	16
	Proposed – Comparison portion for Alternative 1E-A	17.6	829	5	906	37	1285	51	1075	10	440	13
	Alternative 1E-A	16.1	717	7	779	38	1309	50	639	10	503	13
	Proposed – Comparison portion for Alternative 1E-B	37.9	11893	2	5655	13	9394	13	2351	2		
	Alternative 1E-B	59.3	7659	8	3663	25	6355	26	795	4	896	6
	Proposed – Comparison portion for Alternative 1E-C	75.4	13138	8	5313	27	5829	27	950	7		
	Alternative 1E-C	48.7	5006	9	1762	39	6705	24	387	5		
1W	1W(a) Proposed – Total Length	76.5	3873	13	1382	74	3063	79	857	15	436	15
	Proposed – Comparison portion for Alternative 1W-A	20.3	962	4	873	38	1534	51	1087	10	345	16
	Alternative 1W-A	16.2	775	6	834	37	1225	53	605	11	462	14
	1W(c) Proposed – Total Length	70.6	4088	13	1381	72	3024	72	518	18	474	14
2	Proposed – Total Length	96.7			9406	49	775	15	444	16	1193	5
	Proposed – Comparison portion for Alternative 2A	28.8			4426	34	781	1	308	10	2557	2
	Alternative 2A	28.4			4423	34	781	1	370	10	307	2
	Proposed – Comparison portion for Alternative 2B	7.0			2292	23	781	1	258	9		
	Alternative 2B	6.2			2070	23	781	1	285	9		
	Proposed – Comparison portion for Alternative 2C	28.4			8577	18	204	3	820	2	1192	5
	Alternative 2C	24.4			12792	11	204	3	359	1	734	5
3	Proposed – Total Length	56.5	183	11	16459	24						
4	Proposed – Total Length	203.0	148	746	822	929	21	682	95	418	904	134
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	3182	17	4798	80	30	83	479	36	1041	26
	Alternative 4A	85.2	466	27	4042	99	29	84	512	37	811	34
	Alternative 4B	100.2	9	8	4484	105	13	164	734	48	661	39
	Alternative 4C	101.6	9	8	4515	104	12	149	754	48	733	42
	Alternative 4D	100.8	9	8	4495	105	13	164	734	48	661	39
	Alternative 4E	102.2	9	8	4526	104	12	149	754	48	733	42
	Alternative 4F	87.5	1092	23	4339	92	30	83	522	38	886	29
5	Proposed – Total Length	54.6	58	561	151	777	25	854	13	153	617	206
	Proposed – Comparison portion for Alternatives 5A,B	25.3	68	390	179	401	22	302	11	72	759	73
	Alternative 5A	33.7	67	497	201	454	30	317	10	81	1139	60
	Alternative 5B	44.4	43	653	255	506	28	411	10	109	1281	68
	Proposed – Comparison portion for Alternative 5C	33.2	65	470	182	464	23	451	13	91	612	117
	Alternative 5C	26.1	22	516	182	502	27	585	16	107	341	125
	Proposed – Comparison portion for Alternative 5D	19.4	82	205	144	308	19	380	12	81	595	89
	Alternative 5D	17.5	83	178	131	294	20	357	11	77	779	71
	Proposed – Comparison portion for Alternative 5E	5.8	15	66	114	166	15	295	14	54	368	84
Alternative 5E	5.3	15	66	112	167	15	295	16	54	366	81	
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-4a. Pre- and Post-Construction Levels of Fragmentation Resulting from Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	118.1	40	996	148	1374	60	1544	14	153	1507	193
	Proposed – Comparison portion for Alternatives 7A,B	35.2	51	567	191	518	30	520	11	77	818	82
	Alternative 7A	38.0	41	719	238	492	31	523	9	74	949	66
	Alternative 7B	46.4	24	846	297	508	28	600	9	109	1154	69
	Proposed – Comparison portion for Alternative 7C	20.1	17	151	92	427	113	464	10	27	1028	38
	Alternative 7C	20.3	17	164	101	351	98	444	5	2	1525	35
	Proposed – Comparison portion for Alternative 7D	6.2	31	101	109	211	62	264	6	8	735	28
	Alternative 7D	6.8	31	101	106	217	62	267	6	8	780	28
	Proposed – Comparison portion for Alternative 7E	3.8	24	84	246	69	23	148	6	10	1487	19
	Alternative 7E	4.5	24	88	223	80	25	158	6	11	1717	17
	Proposed – Comparison portion for Alternative 7F	10.5	33	132	207	124	28	210	24	24	2164	22
	Alternative 7F	10.8	34	141	212	132	29	229	25	31	1982	23
	Proposed – Comparison portion for Alternative 7G	3.1	22	126	673	29	19	85	10	2	3470	7
	Alternative 7G	3.2	22	122	689	28	20	84	10	2	3530	7
	Proposed – Comparison portion for Alternatives 7H,I	118.1	40	996	148	1374	60	1544	14	153	1507	193
	Alternative 7H	127.5	42	1639	271	1236	55	1136	14	314	1082	190
Alternative 7I	173.4	26	1938	383	1466	63	1608	15	381	771	248	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	39	1022	148	1714	62	2078	13	160	1548	218	
Alternative 7J <sup>1/</sup>	202.1	26	1903	382	1716	59	2157	15	370	807	259	
8	Proposed – Total Length	131.0			97	3164	55	4449	13	181	605	229
	Proposed – Comparison portion for Alternative 8A	51.4			81	1265	62	1531	15	49	760	125
	Alternative 8A	53.6			55	1459	68	1512	11	44	783	151
	Proposed – Comparison portion for Alternative 8B	45.3			110	1158	60	1611	13	87	686	48
	Alternative 8B	45.8			91	985	68	1251	17	55	1584	50
	Proposed – Comparison portion for Alternative 8C	6.5			73	438	41	621	20	10	604	12
	Alternative 8C	6.4			71	451	43	621	18	11	485	12
	Proposed – Comparison portion for Alternative 8D	6.9			105	305	138	233			475	7
	Alternative 8D	8.1			100	324	154	229			540	9
	Proposed – Comparison portion for Alternative 8E	7.0			88	318	83	344	8	32	495	20
Alternative 8E	18.5			96	519	80	620	10	52	422	25	
9	Proposed – Total Length	161.7	17	89	112	3044	80	3562	38	223	1479	137
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	142	141	80	218	3	4	1630	21
	Alternative 9A	7.7	9	13	146	149	82	223	3	4	1475	21
	Proposed – Comparison portion for Alternative 9B	49.5			140	871	90	1127	18	35	1611	36
	Alternative 9B	53.2			88	1186	75	1269	19	65	1453	68
	Proposed – Comparison portion for Alternative 9C	14.7			544	115	31	447	13	8	1670	18
	Alternative 9C	15.3			528	111	24	441	8	11	2215	18
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			79	1532	87	1373	56	126	1105	57
	Alternative 9D	58.4			76	1662	73	1773	41	176	561	88
	Alternative 9E	68.7	26	80	160	1379	59	2275	47	78	612	27
	Alternative 9F	62.9			73	1771	78	1767	41	172	697	84
Alternative 9G	56.4			75	1620	74	1691	44	160	644	76	
Alternative 9H	61.0			72	1727	80	1680	44	156	808	72	
10	Proposed – Total Length	33.6	18	60	47	582	138	424	9	29	2312	49

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-4a. Pre- and Post-Construction Levels of Fragmentation Resulting from Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	2822	39	1525	116	1444	158	561	31	279	22
	Proposed – Comparison portion for Alternative 1E-A	17.6	345	12	559	60	649	101	512	21	301	19
	Alternative 1E-A	16.1	359	14	485	61	661	99	319	20	344	19
	Proposed – Comparison portion for Alternative 1E-B	37.9	2643	9	2228	33	4697	26	1175	4		
	Alternative 1E-B	59.3	3225	19	2081	44	4030	41	795	4	672	8
	Proposed – Comparison portion for Alternative 1E-C	75.4	3185	33	2277	63	2623	60	665	10		
	Alternative 1E-C	48.7	2145	21	1090	63	2476	65	323	6		
1W	1W(a) Proposed – Total Length	76.5	1798	28	867	118	1467	165	476	27	311	21
	Proposed – Comparison portion for Alternative 1W-A	20.3	385	10	553	60	815	96	518	21	251	22
	Alternative 1W-A	16.2	387	12	523	59	636	102	317	21	324	20
	1W(c) Proposed – Total Length	70.6	1898	28	864	115	1361	160	322	29	332	20
2	Proposed – Total Length	96.7			5065	91	554	21	338	21	1193	5
	Proposed – Comparison portion for Alternative 2A	28.8			2280	66	781	1	220	14	2557	2
	Alternative 2A	28.4			2211	68	781	1	265	14	307	2
	Proposed – Comparison portion for Alternative 2B	7.0			1146	46	781	1	194	12		
	Alternative 2B	6.2			1035	46	781	1	214	12		
	Proposed – Comparison portion for Alternative 2C	28.4			4825	32	204	3	547	3	1192	5
	Alternative 2C	24.4			7036	20	204	3	359	1	734	5
3	Proposed – Total Length	56.5	183	11	5895	60						
4	Proposed – Total Length	203.0	142	780	736	1037	20	703	89	443	739	164
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	2163	25	3172	121	30	84	410	42	773	35
	Alternative 4A	85.2	381	33	2779	144	29	85	412	46	613	45
	Alternative 4B	100.2	9	8	3363	140	13	165	608	58	560	46
	Alternative 4C	101.6	9	8	3283	143	12	150	614	59	603	51
	Alternative 4D	100.8	9	8	3371	140	13	165	608	58	560	46
	Alternative 4E	102.2	9	8	3292	143	12	150	614	59	603	51
	Alternative 4F	87.5	811	31	2872	139	30	84	441	45	659	39
5	Proposed – Total Length	54.6	52	626	126	937	24	911	13	157	456	279
	Proposed – Comparison portion for Alternatives 5A,B	27.1	60	440	145	495	20	320	11	74	503	110
	Alternative 5A	34.6	58	567	156	585	26	368	9	88	644	106
	Alternative 5B	45.3	38	732	197	654	25	466	10	116	708	123
	Proposed – Comparison portion for Alternative 5C	33.2	58	527	146	579	21	490	13	93	429	167
	Alternative 5C	26.1	21	544	157	584	25	623	16	108	263	162
	Proposed – Comparison portion for Alternative 5D	19.4	72	236	116	384	18	407	12	83	438	121
	Alternative 5D	17.5	71	208	104	368	19	385	10	79	565	98
	Proposed – Comparison portion for Alternative 5E	5.8	13	73	95	200	14	314	13	55	306	101
Alternative 5E	5.3	13	73	94	200	14	314	15	55	306	97	
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-4a. Pre- and Post-Construction Levels of Fragmentation Resulting from Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	117.9	37	1089	125	1627	55	1687	14	156	999	291
	Proposed – Comparison portion for Alternatives 7A,B	38.8	46	624	155	638	28	556	11	79	520	129
	Alternative 7A	41.5	38	780	191	614	28	584	8	80	555	113
	Alternative 7B	50.1	22	903	239	632	25	651	9	115	681	117
	Proposed – Comparison portion for Alternative 7C	20.1	17	155	85	460	106	492	10	27	723	54
	Alternative 7C	20.3	17	168	93	384	93	471	5	2	1068	50
	Proposed – Comparison portion for Alternative 7D	6.2	29	109	90	255	54	304	6	8	556	37
	Alternative 7D	6.8	29	109	88	261	54	307	6	8	590	37
	Proposed – Comparison portion for Alternative 7E	3.8	19	103	150	113	19	181	6	10	911	31
	Alternative 7E	4.5	20	107	144	124	21	191	6	11	1006	29
	Proposed – Comparison portion for Alternative 7F	10.5	29	151	151	170	24	248	24	24	1221	39
	Alternative 7F	10.8	30	160	157	178	25	267	25	31	1140	40
	Proposed – Comparison portion for Alternative 7G	3.1	20	134	342	57	15	108	10	2	1429	17
	Alternative 7G	3.2	21	130	344	56	15	107	10	2	1453	17
	Proposed – Comparison portion for Alternatives 7H,I	117.9	37	1089	125	1627	55	1687	14	156	999	291
	Alternative 7H	127.4	39	1732	227	1475	49	1266	13	328	800	257
Alternative 7I	173.3	25	2034	326	1721	57	1778	14	396	602	318	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	38	1056	136	1865	59	2191	13	161	1254	269	
Alternative 7J <sup>1/</sup>	202.1	25	1999	325	2014	53	2377	14	384	627	333	
8	Proposed – Total Length	131.0			89	3456	51	4803	13	188	527	263
	Proposed – Comparison portion for Alternative 8A	51.4			76	1360	57	1656	15	49	629	151
	Alternative 8A	53.6			51	1583	62	1664	11	44	679	174
	Proposed – Comparison portion for Alternative 8B	45.3			97	1310	54	1791	12	93	610	54
	Alternative 8B	45.8			84	1073	62	1371	16	57	1238	64
	Proposed – Comparison portion for Alternative 8C	6.5			68	476	38	665	20	10	558	13
	Alternative 8C	6.4			66	489	40	665	18	11	448	13
	Proposed – Comparison portion for Alternative 8D	6.9			94	341	118	272			415	8
	Alternative 8D	8.1			89	362	130	272			486	10
Proposed – Comparison portion for Alternative 8E	7			78	358	72	400	8	34	450	22	
Alternative 8E	18.5			82	608	69	722	10	54	377	28	
9	Proposed – Total Length	161.7	17	93	99	3444	72	3952	35	239	1055	192
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	115	174	70	250	3	4	1141	30
	Alternative 9A	7.7	9	13	119	184	71	257	3	4	1032	30
	Proposed – Comparison portion for Alternative 9B	49.5			123	988	84	1209	17	37	1094	53
	Alternative 9B	53.2			78	1343	68	1400	19	67	1019	97
	Proposed – Comparison portion for Alternative 9C	14.7			409	153	30	469	10	10	1002	30
	Alternative 9C	15.3			391	150	23	463	6	13	1286	31
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			72	1671	78	1538	52	136	839	75
	Alternative 9D	58.2			67	1867	65	1979	39	187	484	102
	Alternative 9E	68.7	26	80	143	1539	54	2480	43	85	533	31
	Alternative 9F	62.9			65	1974	70	1985	39	181	568	103
Alternative 9G	56.4			67	1815	66	1894	42	169	532	92	
Alternative 9H	61			65	1922	71	1885	41	165	654	89	
10	Proposed – Total Length	33.6	17	64	43	628	120	485	8	30	1595	71

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-4b. Change in Fragmentation Levels as a Result of Transmission Lines Between Pre- and Post-Construction**

Segment Number	Proposed or Alternative Name		Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
1E	Proposed – Total Length	100.6	-7184	28	-1424	56	-1598	83	-462	14	-105	6
	Proposed – Comparison portion for Alternative 1E-A	17.6	-484	7	-347	23	-636	50	-563	11	-139	6
	Alternative 1E-A	16.1	-359	7	-294	23	-648	49	-319	10	-159	6
	Proposed – Comparison portion for Alternative 1E-B	37.9	-9250	7	-3427	20	-4697	13	-1175	2		
	Alternative 1E-B	59.3	-4434	11	-1582	19	-2325	15			-224	2
	Proposed – Comparison portion for Alternative 1E-C	75.4	-9953	25	-3036	36	-3206	33	-285	3		
	Alternative 1E-C	48.7	-2860	12	-671	24	-4229	41	-65	1		
1W	1W(a) Proposed – Total Length	76.5	-2075	15	-515	44	-1597	86	-381	12	-124	6
	Proposed – Comparison portion for Alternative 1W-A	20.3	-577	6	-320	22	-719	45	-569	11	-94	6
	Alternative 1W-A	16.2	-387	6	-311	22	-588	49	-288	10	-139	6
	1W(c) Proposed – Total Length	70.6	-2190	15	-516	43	-1663	88	-197	11	-142	6
2	Proposed – Total Length	96.7			-4341	42	-221	6	-106	5		
	Proposed – Comparison portion for Alternative 2A	28.8			-2146	32			-88	4		
	Alternative 2A	28.4			-2211	34			-106	4		
	Proposed – Comparison portion for Alternative 2B	7.0			-1146	23			-65	3		
	Alternative 2B	6.2			-1035	23			-71	3		
	Proposed – Comparison portion for Alternative 2C	28.4			-3753	14			-273	1		
	Alternative 2C	24.4			-5757	9						
3	Proposed – Total Length	56.5			-10564	36						
4	Proposed – Total Length	203.0	-6	34	-86	108	< -1	21	-5	25	-165	30
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	-1018	8	-1626	41	< -1	1	-68	6	-268	9
	Alternative 4A	85.2	-85	6	-1263	45	< -1	1	-100	9	-198	11
	Alternative 4B	100.2			-1121	35	< -1	1	-127	10	-101	7
	Alternative 4C	101.6			-1231	39	< -1	1	-141	11	-129	9
	Alternative 4D	100.8			-1124	35	< -1	1	-127	10	-101	7
	Alternative 4E	102.2			-1234	39	< -1	1	-141	11	-129	9
	Alternative 4F	87.5	-282	8	-1467	47	< -1	1	-81	7	-227	10
5	Proposed – Total Length	54.6	-6	65	-26	160	-2	57	< -1	4	-162	73
	Proposed – Comparison portion for Alternatives 5A,B	25.3	-8	50	-34	94	-1	18	< -1	2	-255	37
	Alternative 5A	33.7	-8	70	-45	131	-4	51	< -1	7	-494	46
	Alternative 5B	44.4	-5	79	-58	148	-3	55	< -1	7	-573	55
	Proposed – Comparison portion for Alternative 5C	33.2	-7	57	-36	115	-2	39	< -1	2	-183	50
	Alternative 5C	26.1	-1	28	-26	82	-2	38	< -1	1	-78	37
	Proposed – Comparison portion for Alternative 5D	19.4	-11	31	-29	76	-1	27	< -1	2	-157	32
	Alternative 5D	17.5	-12	30	-26	74	-1	28	< -1	2	-215	27
	Proposed – Comparison portion for Alternative 5E	5.8	-1	7	-19	34	< -1	19	< -1	1	-62	17
Alternative 5E	5.3	-1	7	-19	33	< -1	19	< -1	1	-60	16	
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-4b.** Change in Fragmentation Levels as a Result of Transmission Lines Between Pre- and Post-Construction cont.

Segment Number	Proposed or Alternative Name		Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
7	Proposed – Total Length	118.1	-3	93	-23	253	-5	143	< -1	3	-508	98
	Proposed – Comparison portion for Alternatives 7A,B	35.2	-5	57	-36	120	-2	36	< -1	2	-298	47
	Alternative 7A	38.0	-3	61	-47	122	-3	61	< -1	6	-395	47
	Alternative 7B	46.4	-2	57	-58	124	-2	51	< -1	6	-474	48
	Proposed – Comparison portion for Alternative 7C	20.1	< -1	4	-7	33	-6	28			-305	16
	Alternative 7C	20.3	< -1	4	-9	33	-6	27			-458	15
	Proposed – Comparison portion for Alternative 7D	6.2	-2	8	-19	44	-8	40			-179	9
	Alternative 7D	6.8	-2	8	-18	44	-8	40			-190	9
	Proposed – Comparison portion for Alternative 7E	3.8	-4	19	-96	44	-4	33			-575	12
	Alternative 7E	4.5	-4	19	-79	44	-4	33			-710	12
	Proposed – Comparison portion for Alternative 7F	10.5	-4	19	-56	46	-4	38			-943	17
	Alternative 7F	10.8	-4	19	-55	46	-4	38			-843	17
	Proposed – Comparison portion for Alternative 7G	3.1	-1	8	-330	28	-4	23			-2041	10
	Alternative 7G	3.2	-1	8	-344	28	-4	23			-2076	10
	Proposed – Comparison portion for Alternatives 7H,I	118.1	-3	93	-23	253	-5	143	< -1	3	-508	98
	Alternative 7H	127.5	-2	93	-44	239	-6	130	< -1	14	-282	67
	Alternative 7I	173.4	-1	96	-57	255	-6	170	< -1	15	-170	70
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	-1	34	-12	151	-3	113	< -1	1	-293	51	
Alternative 7J <sup>1/</sup>	202.1	-1	96	-56	298	-5	220	< -1	14	-179	74	
8	Proposed – Total Length	131.0			-8	292	-4	354	< -1	7	-78	34
	Proposed – Comparison portion for Alternative 8A	51.4			-6	95	-5	125			-131	26
	Alternative 8A	53.6			-4	124	-6	152			-103	23
	Proposed – Comparison portion for Alternative 8B	45.3			-13	152	-6	180	< -1	6	-76	6
	Alternative 8B	45.8			-7	88	-6	120	< -1	2	-347	14
	Proposed – Comparison portion for Alternative 8C	6.5			-6	38	-3	44			-46	1
	Alternative 8C	6.4			-6	38	-3	44			-37	1
	Proposed – Comparison portion for Alternative 8D	6.9			-11	36	-20	39			-59	1
	Alternative 8D	8.1			-10	38	-24	43			-54	1
	Proposed – Comparison portion for Alternative 8E	7.0			-10	40	-12	56	< -1	2	-45	2
Alternative 8E	18.5			-14	89	-11	102	< -1	2	-45	3	
9	Proposed – Total Length	161.7	< -1	4	-13	400	-8	390	-3	16	-424	55
	Proposed – Comparison portion for Alternative 9A	7.8			-27	33	-10	32			-489	9
	Alternative 9A	7.7			-28	35	-11	34			-442	9
	Proposed – Comparison portion for Alternative 9B	49.5			-17	117	-6	82	< -1	2	-517	17
	Alternative 9B	53.2			-10	157	-7	131	< -1	2	-435	29
	Proposed – Comparison portion for Alternative 9C	14.7			-135	38	-1	22	-3	2	-668	12
	Alternative 9C	15.3			-137	39	-1	22	-1	2	-929	13
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			-7	139	-9	165	-4	10	-265	18
	Alternative 9D	58.4			-8	205	-8	206	-2	11	-77	14
	Alternative 9E	68.7			-17	160	-5	205	-4	7	-79	4
	Alternative 9F	62.9			-7	203	-9	218	-2	9	-129	19
Alternative 9G	56.4			-8	195	-8	203	-2	9	-112	16	
Alternative 9H	61.0			-7	195	-9	205	-2	9	-154	17	
10	Proposed – Total Length	33.6	-1	4	-3	46	-17	61	< -1	1	-716	22

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-5a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads and Transmission Lines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	744	148	293	603	305	747	114	152	90	68
	Proposed – Comparison portion for Alternative 1E-A	17.6	414	10	160	209	175	375	83	130	97	59
	Alternative 1E-A	16.1	335	15	180	164	177	369	100	64	97	67
	Proposed – Comparison portion for Alternative 1E-B	37.9	951	25	364	202	513	238	784	6		
	Alternative 1E-B	59.3	888	69	291	315	414	399	289	11	173	31
	Proposed – Comparison portion for Alternative 1E-C	75.4	779	135	357	402	443	355	302	22		
	Alternative 1E-C	48.7	617	73	214	321	422	381	176	11		
1W	1W(a) Proposed – Total Length	76.5	579	87	191	536	306	791	90	142	88	74
	Proposed – Comparison portion for Alternative 1W-A	20.3	427	9	156	212	200	392	84	130	88	63
	Alternative 1W-A	16.2	332	14	187	165	171	379	95	70	94	69
	1W(c) Proposed – Total Length	70.6	554	96	205	486	296	736	101	92	99	67
2	Proposed – Total Length	96.7			356	1294	208	56	92	77	124	48
	Proposed – Comparison portion for Alternative 2A	28.8			235	641	260	3	64	48	146	35
	Alternative 2A	28.4			223	675	260	3	69	54	77	8
	Proposed – Comparison portion for Alternative 2B	7.0			258	204	260	3	60	39		
	Alternative 2B	6.2			244	195	260	3	64	40		
	Proposed – Comparison portion for Alternative 2C	28.4			245	631	61	10	109	15	124	48
	Alternative 2C	24.4			276	510	61	10	90	4	105	35
3	Proposed – Total Length	56.4	153	13	506	655						
4	Proposed – Total Length	203.0	108	1019	273	2792	16	893	54	726	182	664
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	784	69	432	888	25	101	132	131	162	167
	Alternative 4A	85.2	197	64	401	997	24	102	158	120	165	167
	Alternative 4B	100.2	6	11	445	1057	12	175	163	216	185	139
	Alternative 4C	101.6	6	11	445	1055	11	159	168	216	195	158
	Alternative 4D	100.8	6	11	445	1060	12	175	163	216	185	139
	Alternative 4E	102.2	6	11	445	1058	11	159	168	216	195	158
	Alternative 4F	87.5	344	73	394	1013	25	101	155	128	158	163
5	Proposed – Total Length	54.6	51	647	93	1266	18	1197	10	208	177	717
	Proposed – Comparison portion for Alternatives 5A,B	25.3	59	446	124	579	16	395	8	97	245	226
	Alternative 5A	33.7	57	583	141	646	23	416	8	100	275	248
	Alternative 5B	44.4	37	745	166	774	21	537	8	133	299	291
	Proposed – Comparison portion for Alternative 5C	33.2	56	551	120	705	17	605	10	122	207	346
	Alternative 5C	26.1	19	590	107	852	20	793	11	162	132	322
	Proposed – Comparison portion for Alternative 5D	19.4	66	257	87	510	15	492	9	111	201	264
	Alternative 5D	17.5	66	225	80	480	15	480	8	107	224	247
	Proposed – Comparison portion for Alternative 5E	5.8	12	77	66	288	12	366	9	80	139	222
Alternative 5E	5.3	12	77	66	285	12	365	10	81	137	216	
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-5a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads and Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Pre-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	118.1	36	1108	94	2165	42	2207	11	198	237	1229
	Proposed – Comparison portion for Alternatives 7A,B	35.2	45	643	129	767	22	703	8	107	255	263
	Alternative 7A	38.0	35	836	156	753	23	685	7	91	251	250
	Alternative 7B	46.4	21	959	184	817	22	764	8	132	288	277
	Proposed – Comparison portion for Alternative 7C	20.1	16	170	62	628	81	648	9	30	267	146
	Alternative 7C	20.3	15	184	75	477	76	576	3	3	320	167
	Proposed – Comparison portion for Alternative 7D	6.2	30	105	69	333	49	334	5	10	124	166
	Alternative 7D	6.8	30	105	67	342	49	337	5	10	124	176
	Proposed – Comparison portion for Alternative 7E	3.8	22	92	131	129	18	189	5	12	150	188
	Alternative 7E	4.5	22	96	121	148	20	202	5	13	153	191
	Proposed – Comparison portion for Alternative 7F	10.5	31	140	120	214	22	267	19	30	198	241
	Alternative 7F	10.8	32	151	122	229	23	292	18	42	196	233
	Proposed – Comparison portion for Alternative 7G	3.1	20	138	224	87	13	126	7	3	282	86
	Alternative 7G	3.2	20	134	230	84	13	125	7	3	287	86
	Proposed – Comparison portion for Alternatives 7H,I	118.1	36	1108	94	2165	42	2207	11	198	237	1229
	Alternative 7H	127.5	35	1951	145	2311	36	1735	10	411	209	985
Alternative 7I	173.4	23	2224	194	2901	40	2557	12	487	178	1072	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	33	1234	73	3465	36	3584	10	214	174	1942	
Alternative 7J <sup>1/</sup>	202.1	22	2260	168	3887	35	3612	11	494	165	1268	
8	Proposed – Total Length	131.0			50	6085	32	7610	11	223	137	1014
	Proposed – Comparison portion for Alternative 8A	51.4			51	2008	40	2346	15	51	157	604
	Alternative 8A	53.6			34	2390	40	2538	10	49	125	945
	Proposed – Comparison portion for Alternative 8B	45.3			47	2692	29	3296	9	122	123	268
	Alternative 8B	45.8			44	2062	34	2508	12	78	142	556
	Proposed – Comparison portion for Alternative 8C	6.5			45	714	29	872	14	14	177	41
	Alternative 8C	6.4			44	727	30	878	12	16	153	38
	Proposed – Comparison portion for Alternative 8D	6.9			36	884	35	904			60	55
	Alternative 8D	8.1			36	907	38	916			58	84
	Proposed – Comparison portion for Alternative 8E	7.0			38	743	34	832	6	42	125	79
Alternative 8E	18.5			39	1273	35	1423	8	68	109	97	
9	Proposed – Total Length	161.7	15	101	55	6153	41	6928	23	362	134	1511
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	66	304	41	425	3	4	224	153
	Alternative 9A	7.7	9	13	69	316	42	437	3	4	214	145
	Proposed – Comparison portion for Alternative 9B	49.5			69	1771	50	2016	16	40	113	511
	Alternative 9B	53.2			47	2251	39	2405	11	110	125	793
	Proposed – Comparison portion for Alternative 9C	14.7			146	427	20	704	9	11	171	176
	Alternative 9C	15.3			139	422	15	695	6	13	185	215
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			43	2807	41	2911	29	244	96	657
	Alternative 9D	58.4			33	3767	31	4147	25	292	74	662
	Alternative 9E	68.7	25	81	94	2340	39	3437	34	109	88	188
	Alternative 9F	62.9			34	3751	34	4081	24	293	79	741
	Alternative 9G	56.4			35	3514	32	3885	26	272	71	688
Alternative 9H	61.0			35	3601	35	3882	25	268	82	713	
10	Proposed – Total Length	33.6	16	66	31	875	75	774	8	32	286	396

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-5a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads and Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
1E	Proposed – Total Length	100.6	328	336	217	816	204	1116	91	191	66	93
	Proposed – Comparison portion for Alternative 1E-A	17.6	153	27	123	273	114	573	68	158	68	84
	Alternative 1E-A	16.1	157	32	131	226	116	563	72	89	71	92
	Proposed – Comparison portion for Alternative 1E-B	37.9	449	53	259	284	430	284	336	14		
	Alternative 1E-B	59.3	461	133	235	389	346	478	289	11	158	34
	Proposed – Comparison portion for Alternative 1E-C	75.4	340	309	258	555	299	526	201	33		
1W	Alternative 1E-C	48.7	242	186	149	460	246	655	138	14		
	1W(a) Proposed – Total Length	76.5	234	215	139	735	194	1247	74	173	66	99
	Proposed – Comparison portion for Alternative 1W-A	20.3	148	26	121	275	136	574	69	158	63	88
	Alternative 1W-A	16.2	150	31	136	227	113	573	70	95	69	94
2	1W(c) Proposed – Total Length	70.6	237	224	146	679	182	1198	78	120	72	92
	Proposed – Total Length	96.7			279	1651	115	101	78	91	124	48
	Proposed – Comparison portion for Alternative 2A	28.8			179	841	260	3	52	59	146	35
	Alternative 2A	28.4			170	882	260	3	57	65	77	8
	Proposed – Comparison portion for Alternative 2B	7.0			191	276	260	3	52	45		
	Alternative 2B	6.2			178	267	260	3	56	46		
3	Proposed – Comparison portion for Alternative 2C	28.4			190	814	61	10	78	21	124	48
	Alternative 2C	24.4			208	677	61	10	72	5	105	35
4	Proposed – Total Length	56.4	153	13	380	857						
	Proposed – Total Length	203.0	97	1138	229	3336	15	925	52	765	164	740
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	535	101	330	1164	24	103	122	141	140	193
	Alternative 4A	85.2	161	78	316	1266	24	104	141	134	138	200
	Alternative 4B	100.2	6	11	343	1374	12	177	149	237	160	161
	Alternative 4C	101.6	6	11	340	1380	11	161	151	239	159	194
	Alternative 4D	100.8	6	11	343	1377	12	177	149	237	160	161
	Alternative 4E	102.2	6	11	340	1383	11	161	151	239	159	194
5	Alternative 4F	87.5	251	100	315	1267	24	103	143	139	134	191
	Proposed – Total Length	54.6	42	778	74	1590	17	1281	9	215	140	909
	Proposed – Comparison portion for Alternatives 5A,B	25.3	48	553	90	798	15	424	8	100	164	338
	Alternative 5A	33.7	43	776	93	978	19	505	7	112	176	388
	Alternative 5B	44.4	30	942	105	1221	18	640	8	145	183	475
	Proposed – Comparison portion for Alternative 5C	33.2	46	669	88	958	16	662	10	125	149	482
	Alternative 5C	26.1	18	634	89	1027	18	854	11	165	101	421
	Proposed – Comparison portion for Alternative 5D	19.4	52	327	68	653	14	528	9	113	153	347
	Alternative 5D	17.5	50	293	62	618	14	517	7	109	170	325
6	Proposed – Comparison portion for Alternative 5E	5.8	11	88	56	340	12	392	9	81	115	268
	Alternative 5E	5.3	11	88	56	335	12	391	10	82	113	262
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-5a. Pre- and Post-Construction Levels of Fragmentation Resulting from Roads and Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Post-Construction Conditions									
			Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count	Average Patch Size (Acre)	Patch Count
7	Proposed – Total Length	118.1	31	1288	75	2716	38	2442	10	204	191	1519
	Proposed – Comparison portion for Alternatives 7A,B	35.2	37	768	94	1057	20	765	8	110	172	390
	Alternative 7A	38.0	29	1003	107	1090	20	799	6	102	160	391
	Alternative 7B	46.4	18	1092	124	1214	19	864	7	143	183	435
	Proposed – Comparison portion for Alternative 7C	20.1	15	180	56	694	74	703	9	30	201	194
	Alternative 7C	20.3	15	194	66	543	69	630	3	3	248	215
	Proposed – Comparison portion for Alternative 7D	6.2	28	114	56	411	40	407	5	10	113	182
	Alternative 7D	6.8	28	114	55	420	40	410	5	10	114	192
	Proposed – Comparison portion for Alternative 7E	3.8	16	121	73	233	14	249	5	12	132	214
	Alternative 7E	4.5	17	125	71	252	15	262	5	13	134	217
	Proposed – Comparison portion for Alternative 7F	10.5	26	169	80	320	18	335	19	30	168	284
	Alternative 7F	10.8	27	180	84	335	18	360	18	42	165	276
	Proposed – Comparison portion for Alternative 7G	3.1	18	148	137	142	11	152	7	3	211	115
	Alternative 7G	3.2	19	144	139	139	11	151	7	3	215	115
	Proposed – Comparison portion for Alternatives 7H,I	118.1	31	1288	75	2716	38	2442	10	204	191	1519
	Alternative 7H	127.5	32	2148	115	2924	32	1959	10	433	173	1187
Alternative 7I	173.4	21	2420	154	3636	36	2803	11	509	152	1262	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	31	1295	67	3785	34	3767	10	215	159	2122	
Alternative 7J <sup>1/</sup>	202.1	20	2458	138	4728	32	3927	10	518	142	1472	
8	Proposed – Total Length	131.0			47	6548	30	8138	10	233	127	1087
	Proposed – Comparison portion for Alternative 8A	51.4			48	2152	38	2514	15	51	144	660
	Alternative 8A	53.6			31	2568	37	2772	10	49	116	1020
	Proposed – Comparison portion for Alternative 8B	45.3			43	2941	27	3586	8	130	117	281
	Alternative 8B	45.8			41	2216	32	2689	11	81	135	588
	Proposed – Comparison portion for Alternative 8C	6.5			41	774	27	944	14	14	169	43
	Alternative 8C	6.4			41	787	28	950	12	16	145	40
	Proposed – Comparison portion for Alternative 8D	6.9			34	933	33	981			58	57
	Alternative 8D	8.1			34	958	35	997			56	86
	Proposed – Comparison portion for Alternative 8E	7			34	810	31	919	6	45	118	84
Alternative 8E	18.5			35	1401	31	1576	8	71	101	105	
9	Proposed – Total Length	161.7	15	105	50	6867	37	7593	22	382	122	1658
	Proposed – Comparison portion for Alternative 9A	7.8	9	13	53	376	37	467	3	4	201	170
	Alternative 9A	7.7	9	13	56	392	38	482	3	4	191	162
	Proposed – Comparison portion for Alternative 9B	49.5			61	2003	46	2191	15	41	104	560
	Alternative 9B	53.2			41	2524	36	2650	11	111	113	876
	Proposed – Comparison portion for Alternative 9C	14.7			122	511	19	726	8	12	148	203
	Alternative 9C	15.3			116	507	15	717	6	14	161	247
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			40	3046	37	3223	27	258	89	708
	Alternative 9D	58.4			31	4076	29	4479	23	307	70	701
	Alternative 9E	68.7	25	81	84	2643	36	3750	30	121	85	195
	Alternative 9F	62.9			32	4045	31	4438	23	306	73	797
Alternative 9G	56.4			32	3797	30	4230	25	285	66	736	
Alternative 9H	61			32	3885	32	4228	24	281	76	764	
10	Proposed – Total Length	33.6	15	70	29	938	68	863	8	33	246	460

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-5b. Change in Fragmentation Levels as a Result of Roads and Transmission Lines Between Pre- and Post-Construction**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
1E	Proposed – Total Length	100.6	-416	188	-77	213	-101	369	-23	39	-24	25
	Proposed – Comparison portion for Alternative 1E-A	17.6	-261	17	-38	64	-60	198	-15	28	-29	25
	Alternative 1E-A	16.1	-178	17	-50	62	-61	194	-28	25	-27	25
	Proposed – Comparison portion for Alternative 1E-B	37.9	-503	28	-105	82	-83	46	-448	8		
	Alternative 1E-B	59.3	-427	64	-55	74	-68	79			-15	3
	Proposed – Comparison portion for Alternative 1E-C	75.4	-438	174	-98	153	-144	171	-101	11		
	Alternative 1E-C	48.7	-375	113	-65	139	-177	274	-38	3		
1W	1W(a) Proposed – Total Length	76.5	-345	128	-52	199	-112	456	-16	31	-22	25
	Proposed – Comparison portion for Alternative 1W-A	20.3	-280	17	-36	63	-63	182	-15	28	-25	25
	Alternative 1W-A	16.2	-182	17	-51	62	-58	194	-25	25	-25	25
	1W(c) Proposed – Total Length	70.6	-316	128	-58	193	-114	462	-24	28	-27	25
2	Proposed – Total Length	96.7			-77	357	-93	45	-14	14		
	Proposed – Comparison portion for Alternative 2A	28.8			-56	200			-12	11		
	Alternative 2A	28.4			-52	207			-12	11		
	Proposed – Comparison portion for Alternative 2B	7.0			-67	72			-8	6		
	Alternative 2B	6.2			-66	72			-8	6		
	Proposed – Comparison portion for Alternative 2C	28.4			-55	183			-31	6		
	Alternative 2C	24.4			-68	167			-18	1		
3	Proposed – Total Length	56.4			-126	202						
4	Proposed – Total Length	203.0	-11	119	-45	544	< -1	32	-3	39	-19	76
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	-248	32	-103	276	< -1	2	-9	10	-22	26
	Alternative 4A	85.2	-35	14	-85	269	< -1	2	-16	14	-27	33
	Alternative 4B	100.2			-103	317	< -1	2	-14	21	-25	22
	Alternative 4C	101.6			-105	325	< -1	2	-16	23	-36	36
	Alternative 4D	100.8			-102	317	< -1	2	-14	21	-25	22
	Alternative 4E	102.2			-105	325	< -1	2	-16	23	-36	36
	Alternative 4F	87.5	-93	27	-79	254	< -1	2	-12	11	-23	28
5	Proposed – Total Length	54.6	-9	131	-19	324	-1	84	< -1	7	-37	192
	Proposed – Comparison portion for Alternatives 5A,B	25.3	-12	107	-34	219	-1	29	< -1	3	-81	112
	Alternative 5A	33.7	-14	193	-48	332	-4	89	< -1	12	-99	140
	Alternative 5B	44.4	-8	197	-61	447	-3	103	< -1	12	-116	184
	Proposed – Comparison portion for Alternative 5C	33.2	-10	118	-32	253	-1	57	< -1	3	-58	136
	Alternative 5C	26.1	-1	44	-18	175	-1	61	< -1	3	-31	99
	Proposed – Comparison portion for Alternative 5D	19.4	-14	70	-19	143	-1	36	< -1	2	-48	83
	Alternative 5D	17.5	-15	68	-18	138	-1	37	< -1	2	-54	78
	Proposed – Comparison portion for Alternative 5E	5.8	-2	11	-10	52	< -1	26	< -1	1	-24	46
	Alternative 5E	5.3	-2	11	-10	50	< -1	26	< -1	1	-24	46
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.10-5b. Change in Fragmentation Levels as a Result of Roads and Transmission Lines Between Pre- and Post-Construction cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Forest Woodlands		Shrublands		Grasslands		Riparian		Agriculture/Disturbed	
			Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count	Change in Average Patch Size (Acre)	Change in Patch Count
7	Proposed – Total Length	118.1	-5	180	-19	551	-4	235	< -1	6	-45	290
	Proposed – Comparison portion for Alternatives 7A,B	35.2	-7	125	-35	290	-2	62	< -1	3	-83	127
	Alternative 7A	38.0	-6	167	-48	337	-3	114	< -1	11	-90	141
	Alternative 7B	46.4	-3	133	-60	397	-3	100	< -1	11	-104	158
	Proposed – Comparison portion for Alternative 7C	20.1	< -1	10	-6	66	-6	55			-66	48
	Alternative 7C	20.3	< -1	10	-9	66	-7	54			-71	48
	Proposed – Comparison portion for Alternative 7D	6.2	-2	9	-13	78	-9	73			-11	16
	Alternative 7D	6.8	-2	9	-13	78	-9	73			-10	16
	Proposed – Comparison portion for Alternative 7E	3.8	-5	29	-59	104	-4	60			-18	26
	Alternative 7E	4.5	-5	29	-50	104	-5	60			-18	26
	Proposed – Comparison portion for Alternative 7F	10.5	-5	29	-40	106	-5	68			-30	43
	Alternative 7F	10.8	-5	29	-39	106	-4	68			-30	43
	Proposed – Comparison portion for Alternative 7G	3.1	-1	10	-87	55	-2	26			-71	29
	Alternative 7G	3.2	-1	10	-91	55	-2	26			-72	29
	Proposed – Comparison portion for Alternatives 7H,I	118.1	-5	180	-19	551	-4	235	< -1	6	-45	290
	Alternative 7H	127.5	-3	197	-30	613	-4	224	< -1	22	-36	202
Alternative 7I	173.4	-2	196	-39	735	-3	246	< -1	22	-27	190	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	-2	61	-6	320	-2	183	< -1	1	-15	180	
Alternative 7J <sup>1/</sup>	202.1	-2	198	-30	841	-3	315	< -1	24	-23	204	
8	Proposed – Total Length	131.0			-4	463	-2	528	< -1	10	-9	73
	Proposed – Comparison portion for Alternative 8A	51.4			-3	144	-3	168			-13	56
	Alternative 8A	53.6			-2	178	-3	234			-9	75
	Proposed – Comparison portion for Alternative 8B	45.3			-4	249	-2	290	< -1	8	-6	13
	Alternative 8B	45.8			-3	154	-2	181	< -1	3	-8	32
	Proposed – Comparison portion for Alternative 8C	6.5			-3	60	-2	72			-8	2
	Alternative 8C	6.4			-3	60	-2	72			-8	2
	Proposed – Comparison portion for Alternative 8D	6.9			-2	49	-3	77			-2	2
	Alternative 8D	8.1			-2	51	-3	81			-1	2
	Proposed – Comparison portion for Alternative 8E	7.0			-3	67	-3	87	< -1	3	-7	5
Alternative 8E	18.5			-4	128	-3	153	< -1	3	-8	8	
9	Proposed – Total Length	161.7	< -1	4	-6	714	-4	665	-1	20	-12	147
	Proposed – Comparison portion for Alternative 9A	7.8			-13	72	-4	42			-22	17
	Alternative 9A	7.7			-13	76	-4	45			-22	17
	Proposed – Comparison portion for Alternative 9B	49.5			-8	232	-4	175	< -1	1	-10	49
	Alternative 9B	53.2			-5	273	-4	245	< -1	1	-12	83
	Proposed – Comparison portion for Alternative 9C	14.7			-24	84	< -1	22	< -1	1	-23	27
	Alternative 9C	15.3			-23	85	< -1	22	< -1	1	-24	32
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			-3	239	-4	312	-2	14	-7	51
	Alternative 9D	58.4			-3	309	-2	332	-1	15	-4	39
	Alternative 9E	68.7			-11	303	-3	313	-3	12	-3	7
	Alternative 9F	62.9			-3	294	-3	357	-1	13	-6	56
Alternative 9G	56.4			-3	283	-3	345	-1	13	-5	48	
Alternative 9H	61.0			-3	284	-3	346	-1	13	-5	51	
10	Proposed – Total Length	33.6	< -1	4	-2	63	-8	89	< -1	1	-40	64

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-6. Acres of Construction Impacts to Big Game Habitat Impacted by the Gateway West Transmission Line**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Wildlife Habitat Impacted							
			Bighorn Sheep Winter Range	Elk Calving Areas	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range	Pronghorn Summer Range
1E	Proposed – Total Length	100.6	37			105		406	403	
	Proposed – Comparison portion for Alternative 1E-A	17.6						184	147	
	Alternative 1E-A	16.1						125	114	
	Proposed – Comparison portion for Alternative 1E-B	37.9				40		48	164	
	Alternative 1E-B	59.3				207		277	235	
	Proposed – Comparison portion for Alternative 1E-C	75.4	37			105		187	242	
1W	Alternative 1E-C	48.7				34		120	81	
	1W(a) Proposed – Total Length	76.5				38		389	285	
	Proposed – Comparison portion for Alternative 1W-A	20.3						190	173	
	Alternative 1W-A	16.2						136	117	
2	1W(c) Proposed – Total Length	70.6				59		433	310	
	Proposed – Total Length	96.7				257	206	1,201	1,335	
	Proposed – Comparison portion for Alternative 2A	28.8				208	157	227	308	
	Alternative 2A	28.4				29	32	157	444	
	Proposed – Comparison portion for Alternative 2B	7.0					44	104	104	
	Alternative 2B	6.2					2	57	80	
	Proposed – Comparison portion for Alternative 2C	28.4				237	141	158	198	
3	Alternative 2C	24.4				t <sup>1/</sup>	t <sup>1/</sup>	133	278	
	Proposed – Total Length	56.5						625	863	
4	Proposed – Total Length	203.0		99		791	307	1,337	1,083	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2		99		539	307	445	338	
	Alternative 4A	85.2		131		296	378	262	406	
	Alternative 4B	100.2				551	71	636	355	
	Alternative 4C	101.6				545	210	639	345	
	Alternative 4D	100.8				546	78	640	352	
	Alternative 4E	102.2				539	210	640	346	
5	Alternative 4F	87.5		148		195	352	229	317	
	Proposed – Total Length	54.6				1		532		
	Proposed – Comparison portion for Alternatives 5A,B	25.3				1		151		
	Alternative 5A	33.7						221		
	Alternative 5B	44.4						321		
	Proposed – Comparison portion for Alternative 5C	33.2				1		377		
	Alternative 5C	26.1				131		112		
	Proposed – Comparison portion for Alternative 5D	19.4						311		
Alternative 5D	17.5						279			
6	Proposed – Comparison portion for Alternative 5E	5.8						46		
	Alternative 5E	5.3						48		
6	Proposed – Total Length	0.5						30		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-6. Acres of Construction Impacts to Big Game Habitat Impacted by the Gateway West Transmission Line cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Wildlife Habitat Impacted							
			Bighorn Sheep Winter Range	Elk Calving Areas	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range	Pronghorn Summer Range
7	Proposed – Total Length	118.1						650		
	Proposed – Comparison portion for Alternatives 7A,B	35.2						221		
	Alternative 7A	38.0						130		
	Alternative 7B	46.4						179		
	Proposed – Comparison portion for Alternative 7C	20.1						54		
	Alternative 7C	20.3						95		
	Proposed – Comparison portion for Alternative 7D	6.2						32		
	Alternative 7D	6.8						32		
	Proposed – Comparison portion for Alternative 7E	3.8						41		
	Alternative 7E	4.5						65		
	Proposed – Comparison portion for Alternative 7F	10.5						140		
	Alternative 7F	10.8						160		
	Proposed – Comparison portion for Alternative 7G	3.1						46		
	Alternative 7G	3.2						65		
	Proposed – Comparison portion for Alternatives 7H,I	118.1						650		
	Alternative 7H	127.5	26					500		
Alternative 7I	173.4			90	5		683		3	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9						821			
Alternative 7J <sup>2/</sup>	202.1			90	5		753		3	
8	Proposed – Total Length	131.0				273		750	100	
	Proposed – Comparison portion for Alternative 8A	51.4						654		
	Alternative 8A	53.6						296		
	Proposed – Comparison portion for Alternative 8B	45.3				92				
	Alternative 8B	45.8				92				
	Proposed – Comparison portion for Alternative 8C	6.5				92				
	Alternative 8C	6.4				93				
	Proposed – Comparison portion for Alternative 8D	6.9								
	Alternative 8D	8.1								
	Proposed – Comparison portion for Alternative 8E	7.0								
Alternative 8E	18.5	16								
9	Proposed – Total Length	161.7						171	331	
	Proposed – Comparison portion for Alternative 9A	7.8						40		
	Alternative 9A	7.7						47		
	Proposed – Comparison portion for Alternative 9B	49.5								
	Alternative 9B	53.2								
	Proposed – Comparison portion for Alternative 9C	14.7								
	Alternative 9C	15.3								
	Proposed – Comparison portion for Alternatives 9D-9H	57.2							233	
	Alternative 9D	58.4	16						9	
	Alternative 9E	68.7	195						392	
Alternative 9F	62.9	16						9		
Alternative 9G	56.4	26						13		
Alternative 9H	61.0	26						13		
10	Proposed – Total Length	33.6						146		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-7. Acres of Construction Impacts that Would Occur within a 1-mile Buffer around Raptors and Birds of Prey Nests**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Habitat Impacts (acres)									
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Prairie Falcon	Red-tailed Hawk	Swainsons Hawk
1E	Proposed – Total Length	100.6					38	65	16	14		
	Proposed – Comparison portion for Alternative 1E-A	17.6										
	Alternative 1E-A	16.1		12								
	Proposed – Comparison portion for Alternative 1E-B	37.9					38	37		14		
	Alternative 1E-B	59.3					76	74		30		
	Proposed – Comparison portion for Alternative 1E-C	75.4					38	65	16	14		
1W	Alternative 1E-C	48.7					25		6	14		
	1W(a) Proposed – Total Length	76.5					32	4	11	15		
	Proposed – Comparison portion for Alternative 1W-A	20.3										
	Alternative 1W-A	16.2		11								
2	1W(c) Proposed – Total Length	70.6		21			61		11	15		
	Proposed – Total Length	96.7	41	1	55		558	274		48	166	72
	Proposed – Comparison portion for Alternative 2A	28.8		1			150	66			41	24
	Alternative 2A	28.4	21	26			85	62			27	
	Proposed – Comparison portion for Alternative 2B	7.0		1			53				41	
	Alternative 2B	6.2		28			0				29	
3	Proposed – Comparison portion for Alternative 2C	28.4					157	92			52	70
	Alternative 2C	24.4	45				152	156		51	91	21
	Proposed – Total Length	56.5	20		51		178	154		222	91	
4	Proposed – Total Length	203.0	23	18	22	134	135	77	38	138	176	20
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	20		22		46	4		2	40	18
	Alternative 4A	85.2	17		20		28	52		30	81	18
	Alternative 4B	100.2	10		73	21	t <sup>1/</sup>	58		25	67	18
	Alternative 4C	101.6	10		73	21	t <sup>1/</sup>	58		25	74	18
	Alternative 4D	100.8	11		73	21	t <sup>1/</sup>	58		25	67	19
	Alternative 4E	102.2	11		73	21	t <sup>1/</sup>	58		25	74	19
	Alternative 4F	87.5	18		20		28	52		30	47	18
5	Proposed – Total Length	54.6		28	27							
	Proposed – Comparison portion for Alternatives 5A,B	25.3										
	Alternative 5A	33.7										
	Alternative 5B	44.4										
	Proposed – Comparison portion for Alternative 5C	33.2										
	Alternative 5C	26.1										
	Proposed – Comparison portion for Alternative 5D	19.4		28								
	Alternative 5D	17.5		21								
6	Proposed – Comparison portion for Alternative 5E	5.8		28								
	Alternative 5E	5.3		<1								
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup>"t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-7. Acres of Construction Impacts that Would Occur within a 1-mile buffer around Raptors and Birds of Prey Nests cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Habitat Impacts (acres)												
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Prairie Falcon	Red-tailed Hawk	Swainsons Hawk			
7	Proposed – Total Length	118.1			85		68								
	Proposed – Comparison portion for Alternatives 7A,B	35.2													
	Alternative 7A	38.0													
	Alternative 7B	46.4													
	Proposed – Comparison portion for Alternative 7C	20.1			47		13								
	Alternative 7C	20.3			22										
	Proposed – Comparison portion for Alternative 7D	6.2			19										
	Alternative 7D	6.8			27										
	Proposed – Comparison portion for Alternative 7E	3.8					46								
	Alternative 7E	4.5					37								
	Proposed – Comparison portion for Alternative 7F	10.5					55								
	Alternative 7F	10.8					37								
	Proposed – Comparison portion for Alternative 7G	3.1													
	Alternative 7G	3.2													
	Proposed – Comparison portion for Alternatives 7H,I	118.1			85		68								
	Alternative 7H	127.5			19		315							90	
Alternative 7I	173.4			19		240		41	6		33		19		
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9			85	14	159	t <sup>1/</sup>								
Alternative 7J <sup>2/</sup>	202.1			19	25	334	41	6			33		19		
8	Proposed – Total Length	131.0			316		746				129				
	Proposed – Comparison portion for Alternative 8A	51.4			15										
	Alternative 8A	53.6													
	Proposed – Comparison portion for Alternative 8B	45.3			300		496				129				
	Alternative 8B	45.8			154		212								
	Proposed – Comparison portion for Alternative 8C	6.5			1		139								
	Alternative 8C	6.4			13		113								
	Proposed – Comparison portion for Alternative 8D	6.9			114		123								
	Alternative 8D	8.1			140		143								
	Proposed – Comparison portion for Alternative 8E	7.0			83		20								
Alternative 8E	18.5			79		205									
9	Proposed – Total Length	161.7			240	77	470	t <sup>1/</sup>		133			74		
	Proposed – Comparison portion for Alternative 9A	7.8					14								
	Alternative 9A	7.7						18							
	Proposed – Comparison portion for Alternative 9B	49.5			82		99			52			74		
	Alternative 9B	53.2			13		43			11			3		
	Proposed – Comparison portion for Alternative 9C	14.7			25		93						74		
	Alternative 9C	15.3			41		43						3		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			112	34	167								
	Alternative 9D	58.4			251		287			333					
	Alternative 9E	68.7			50		127								
	Alternative 9F	62.9			270		398								
Alternative 9G	56.4			241		281									
Alternative 9H	61.0			260		372									
10	Proposed – Total Length	33.6			20										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-8. Acres of Operation Impacts to Big Game Habitat Impacted by the Gateway West Transmission Line**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Wildlife Habitat Impacted							
			Bighorn Sheep Winter Range	Elk Calving Areas	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range	Pronghorn Summer Range
1E	Proposed – Total Length	100.6	10			24		111	110	
	Proposed – Compare to Alternative 1E-A	17.6						47	39	
	Alternative 1E-A	16.1						39	36	
	Proposed – Compare to Alternative 1E-B	37.9				9		15	41	
	Alternative 1E-B	59.3				46		56	43	
	Proposed – Compare to Alternative 1E-C	75.4	10			24		55	68	
1W	Alternative 1E-C	48.7				10		40	31	
	1W(a) Proposed – Total Length	76.5				11		117	84	
	Proposed – Comparison portion for Alternative 1W-A	20.3						42	38	
	Alternative 1W-A	16.2						40	34	
2	1W(c) Proposed – Total Length	70.6				10		79	62	
	Proposed – Total Length	96.7				47	34	304	351	
	Proposed – Compare to Alternative 2A	28.8				39	27	43	53	
	Alternative 2A	28.4				<1	2	36	89	
	Proposed – Compare to Alternative 2B	7.0					8	16	16	
	Alternative 2B	6.2					1	12	18	
	Proposed – Compare to Alternative 2C	28.4				47	26	33	37	
Alternative 2C	24.4				t <sup>1/</sup>	t <sup>1/</sup>	22	45		
3	Proposed – Total Length	56.5						169	219	
4	Proposed – Total Length	203.0		24		169	70	310	254	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2		24		116	70	92	59	
	Alternative 4A	85.2		39		72	89	63	85	
	Alternative 4B	100.2				121	12	143	76	
	Alternative 4C	101.6				114	41	138	76	
	Alternative 4D	100.8				125	12	149	77	
	Alternative 4E	102.2				116	41	142	77	
Alternative 4F	87.5		46		43	85	48	64		
5	Proposed – Total Length	54.6				<1		80		
	Proposed – Compare to Alternatives 5A,B	25.3				<1		30		
	Alternative 5A	33.7						33		
	Alternative 5B	44.4						43		
	Proposed – Compare to Alternative 5C	33.2				<1		60		
	Alternative 5C	26.1				15		14		
	Proposed – Compare to Alternative 5D	19.4						43		
	Alternative 5D	17.5						30		
Proposed – Compare to Alternative 5E	5.8						4			
Alternative 5E	5.3						5			
6	Proposed – Total Length	0.5						28		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-8. Acres of Operation Impacts to Big Game Habitat Impacted by the Gateway West Transmission Line cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Wildlife Habitat Impacted							
			Bighorn Sheep Winter Range	Elk Calving Areas	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range	Pronghorn Summer Range
7	Proposed – Total Length	118.1						77		
	Proposed – Comparison portion for Alternatives 7A,B	35.2						23		
	Alternative 7A	38.0						20		
	Alternative 7B	46.4						22		
	Proposed – Compare to Alternative 7C	20.1						6		
	Alternative 7C	20.3						9		
	Proposed – Compare to Alternative 7D	6.2						4		
	Alternative 7D	6.8						4		
	Proposed – Compare to Alternative 7E	3.8						5		
	Alternative 7E	4.5						8		
	Proposed – Compare to Alternative 7F	10.5						18		
	Alternative 7F	10.8						22		
	Proposed – Compare to Alternative 7G	3.1						4		
	Alternative 7G	3.2						4		
	Proposed – Compare to Alternatives 7H,I	118.1						77		
	Alternative 7H	127.5	4					79		
Alternative 7I	173.4			17	3		110		1	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9						94			
Alternative 7J <sup>2/</sup>	202.1			17	3		151		1	
8	Proposed – Total Length	131.0				32		92	13	
	Proposed – Compare to Alternative 8A	51.4						83		
	Alternative 8A	53.6						48		
	Proposed – Compare to Alternative 8B	45.3				11				
	Alternative 8B	45.8				11				
	Alternative 8B – Compare to Alternative 8C	6.5				11				
	Alternative 8C	6.4				15				
	Proposed – Compare to Alternative 8D	6.9								
	Alternative 8D	8.1								
	Proposed – Comparison portion for Alternative 8E	7.0								
Alternative 8E	18.5	1								
9	Proposed – Total Length	161.7						17	44	
	Proposed – Compare to Alternative 9A	7.8						5		
	Alternative 9A	7.7						5		
	Proposed – Compare to Alternative 9B	49.5								
	Alternative 9B	53.2								
	Proposed – Compare to Alternative 9C	14.7								
	Alternative 9C	15.3								
	Proposed – Comparison portion for Alternatives 9D-9H	57.2							28	
	Alternative 9D	58.4	1						<1	
	Alternative 9E	68.7	32						57	
	Alternative 9F	62.9	1						<1	
Alternative 9G	56.4	2						2		
Alternative 9H	61.0	2						2		
10	Proposed – Total Length	33.6						31		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-9. Acres of Operational Impacts that Would Occur within a 1-mile Buffer around Raptors and Birds of Prey Nests**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Habitat Impacts (acres)									
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Prairie Falcon	Red-tailed Hawk	Swainsons Hawk
1E	Proposed – Total Length	100.6					11	15	5	3		
	Proposed – Comparison portion for Alternative 1E-A	17.6										
	Alternative 1E-A	16.1		4								
	Proposed – Comparison portion for Alternative 1E-B	37.9					11	11		3		
	Alternative 1E-B	59.3					14	15		6		
	Proposed – Comparison portion for Alternative 1E-C	75.4					11	15	5	3		
1W	Alternative 1E-C	48.7					7		2	4		
	1W(a) Proposed – Total Length	76.5					9	2	3	4		
	Proposed – Comparison portion for Alternative 1W-A	20.3										
	Alternative 1W-A	16.2		3								
2	1W(c) Proposed – Total Length	70.6		4			11		3	4		
	Proposed – Total Length	96.7	12	0	11		135	79		14	40	15
	Proposed – Comparison portion for Alternative 2A	28.8		0			23	14			7	7
	Alternative 2A	28.4	5	7			15	15			8	
	Proposed – Comparison portion for Alternative 2B	7.0		0			8				7	
	Alternative 2B	6.2		6			t <sup>1/</sup>				6	
	Proposed – Comparison portion for Alternative 2C	28.4					30	20			11	14
3	Alternative 2C	24.4	8				20	22		6	12	2
	Proposed – Total Length	56.5	5		9		33	78		87	26	
4	Proposed – Total Length	203.0	6	4	4	26	29	34	10	76	33	4
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	5		4		10	2		1	8	3
	Alternative 4A	85.2	3				5	10		6	15	3
	Alternative 4B	100.2	2		12	5	t <sup>1/</sup>	16		8	16	3
	Alternative 4C	101.6	2		12	5	t <sup>1/</sup>	16		8	17	3
	Alternative 4D	100.8	2		12	5	t <sup>1/</sup>	16		8	16	3
	Alternative 4E	102.2	2		12	5	t <sup>1/</sup>	16		8	17	3
	Alternative 4F	87.5	4				5	10		6	11	3
5	Proposed – Total Length	54.6		1	4							
	Proposed – Comparison portion for Alternatives 5A,B	25.3										
	Alternative 5A	33.7										
	Alternative 5B	44.4										
	Proposed – Comparison portion for Alternative 5C	33.2										
	Alternative 5C	26.1										
	Proposed – Comparison portion for Alternative 5D	19.4		1								
	Alternative 5D	17.5		3								
6	Proposed – Comparison portion for Alternative 5E	5.8		1								
	Alternative 5E	5.3		<1								
6	Proposed – Total Length	0.5										

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.10-9. Acres of Operational Impacts that Would Occur within a 1-mile Buffer around Raptors and Birds of Prey Nests cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Raptor and Birds of Prey Habitat Impacts (acres)											
			American Kestrel	Bald Eagle	Burrowing Owl	Common Raven	Ferruginous Hawk	Golden Eagle	Northern Goshawk	Prairie Falcon	Red-tailed Hawk	Swainsons Hawk		
7	Proposed – Total Length	118.1			9			8						
	Proposed – Comparison portion for Alternatives 7A,B	35.2												
	Alternative 7A	38.0												
	Alternative 7B	46.4												
	Proposed – Comparison portion for Alternative 7C	20.1			7			2						
	Alternative 7C	20.3			2									
	Proposed – Comparison portion for Alternative 7D	6.2			<1									
	Alternative 7D	6.8			<1									
	Proposed – Comparison portion for Alternative 7E	3.8						4						
	Alternative 7E	4.5						3						
	Proposed – Comparison portion for Alternative 7F	10.5						6						
	Alternative 7F	10.8						4						
	Proposed – Comparison portion for Alternative 7G	3.1												
	Alternative 7G	3.2												
	Proposed – Comparison portion for Alternatives 7H,I	118.1			9			8						
Alternative 7H	127.5			2			46						12	
Alternative 7I	173.4			2			38	7	3		3		5	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9			9		3	20							
Alternative 7J <sup>2/</sup>	202.1			2		<1	44	7	3		3		5	
8	Proposed – Total Length	131.0			35			89			12			
	Proposed – Comparison portion for Alternative 8A	51.4			1									
	Alternative 8A	53.6												
	Proposed – Comparison portion for Alternative 8B	45.3			34			61			12			
	Alternative 8B	45.8			12			24						
	Proposed – Comparison portion for Alternative 8C	6.5			<1			15						
	Alternative 8C	6.4			<1			16						
	Proposed – Comparison portion for Alternative 8D	6.9			17			19						
	Alternative 8D	8.1			15			15						
Proposed – Comparison portion for Alternative 8E	7.0			8			2							
Alternative 8E	18.5			10			19							
9	Proposed – Total Length	161.7			27	13		65			21			8
	Proposed – Comparison portion for Alternative 9A	7.8						3						
	Alternative 9A	7.7							2					
	Proposed – Comparison portion for Alternative 9B	49.5			8			13			10			8
	Alternative 9B	53.2			1			6			3			
	Proposed – Comparison portion for Alternative 9C	14.7			<1			10						8
	Alternative 9C	15.3			4			9						
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			11		6	21						
	Alternative 9D	58.4			31			29			34			
	Alternative 9E	68.7			5			12						
Alternative 9F	62.9			31			43							
Alternative 9G	56.4			30			29							
Alternative 9H	61.0			31			42							
10	Proposed – Total Length	33.6			2									

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.10-10.** Acres of Construction Impacts to Big Game Habitat Impacted by the Design Alternative

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Wildlife Habitat Impacted						
			Bighorn Sheep Winter Range	Elk Calving Areas	Elk Summer Range	Elk Winter Range	Moose Winter Range	Mule Deer Winter Range	Pronghorn Winter Range
2	Proposed – Total Length	96.7				323	242	1,525	1,702
	Proposed – Comparison portion for Alternative 2A	28.8				256	175	293	407
	Alternative 2A	28.4				30	33	212	568
	Proposed – Comparison portion for Alternative 2B	7.0					50	144	144
	Alternative 2B	6.2					2	89	114
	Proposed – Comparison portion for Alternative 2C	28.4				303	172	201	274
	Alternative 2C	24.4				t <sup>1/</sup>	t <sup>1/</sup>	176	354
3	Proposed – Total Length	56.5						768	1,081
4	Proposed – Total Length	203.0		122		1034	410	1,721	1,407
	Proposed – Comparison portion for Alternatives 4A-4F	90.2		122		714	410	589	443
	Alternative 4A	85.2		168		373	478	339	534
	Alternative 4B	100.2				731	90	817	452
	Alternative 4C	101.6				726	235	835	440
	Alternative 4D	100.8				710	98	806	448
	Alternative 4E	102.2				705	235	821	441
	Alternative 4F	87.5		197		239	449	308	411

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.11-1. Threatened, Endangered, or Candidate Wildlife Species with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	ESA Status/ State Located in	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Mammals</b>								
Black-footed Ferret	<i>Mustela nigripes</i>	Endangered / WY	-	SGCN / Wyoming	Ferrets use open habitat used by prairie dogs such as: grasslands, steppe, and shrub steppe. The ferrets do not dig their own burrows and rely on abandoned prairie dog burrows for shelter. Only large complexes (several thousand acres of closely spaced colonies) can support and sustain a breeding population of black-footed ferrets.	Yes – Currently, there is a known black-footed ferret population in the Shirley Basin in the Rawlins FO. Potential black-footed ferret habitat occurs within the Kemmerer FO, Rock Springs FO and Rawlins FO.	Prairie dog towns (>200 acres) were mapped and used to represent BFF habitat.	2, 3, 4
Canada Lynx	<i>Lynx canadensis</i>	Threatened / ID; WY	-	SGCN / Wyoming	Douglas-fir and spruce/fir vegetation types. A mosaic of habitat conditions is required with denning habitat existing primarily in mature and old growth conifer stands at high elevations, while foraging habitat is found in early successional coniferous forests (Butts 1992).	Yes – Segment 4 bisects linkage area and Lynx Analysis Unit (LAU). The LAU is described as core habitat and is considered occupied habitat (Forest Service 2005).	Linkage area and Lynx Analysis Units (LAUs) were used to identify habitat.	4
				SGCN / Idaho				
Gray Wolf	<i>Canus lupus</i>	Non-essential Experimental Population / WY Endangered / ID	FS sensitive (R4)	SGCN / Idaho	Wolves do not exhibit particular habitat preference except for the presence of native ungulates within its territory on a year round basis. While establishing new packs, wolves have demonstrated greater tolerance of human presence and disturbance than previously thought characteristic of this species.	Yes – The Analysis Area is in the Yellowstone and Central Idaho non-experimental population area. It is probable that transitory wolves may use portions of the Analysis Area while dispersing to new areas.	Known locations of wolf packs mapped by the IDCCDC and the WYNDD.	All segments could provide habitat for this species.
Grizzly Bear	<i>Ursus arctos horribilis</i>	Threatened / ID; WY	FS sensitive (R2)	SGCN / Wyoming	Grizzly bears are habitat generalist, but are found most often in open mountainous habitats away from human developments.	Yes- The Project would pass through the southern boundary of the Yellowstone Distinct Population Segment (DPS).	The boundary of the Yellowstone DPS.	3, 4
Northern Idaho Ground squirrel	<i>Spermophilus brunneus brunneus</i>	Threatened / ID	-	SGCN / Idaho	Idaho Ground Squirrels are only found in west-central Idaho within Adams and Valley counties (USFWS 2003). Habitat for this species occurs in medium high elevations, surrounded by forests. Populations are typically associated with shallow rocky soils in xeric meadows surrounded by ponderosa pine and Douglas-fir forests.	No – The Analysis Area does not intercept the species current distribution. In addition, limited habitat for the species occurs within the Analysis Area.	N/A	N/A
Southern Idaho Ground Squirrel	<i>Spermophilus brunneus endemicus</i>	Candidate	FS sensitive (R4)	SGCN / Idaho	The southern subspecies of the Idaho ground squirrel is found at lower elevations within hilly areas and grasslands. These areas are often dominated by annual grassland with relict big sagebrush and bunch grasses. Distribution extends from Emmett, Idaho, northwest to Weiser, Idaho and the surrounding area of Squaw Butte, Midvale Hill, and Henley Basin in Gem, Payette, and Washington counties. Its range is bounded on the south by the Payette River, on the west by the Snake River and on the northeast by lava flows.	No – The Analysis Area lies to the south of the current distribution of this species.	N/A	N/A
Wolverine	<i>Gulo gulo luscus</i>	Candidate	FS sensitive (R2, R4) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Low-density, wide-ranging species that inhabits remote forested areas, ranging over a variety of habitats. Large home ranges ranging from 160 to 1,440 mi <sup>2</sup> .	No – The Project would cross through the Caribou-Targhee NF along Segment 4 (which contains wolverines); however, the high altitude mature forest habitat required by this species does not occur within the Analysis Area.	N/A	N/A
<b>Birds</b>								
Greater Sage-Grouse	<i>Centrocercus urophasianus</i>	Candidate	MIS (Caribou NF) FS sensitive (R2, R4) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Habitat occurs within basin-prairie shrub and mountain-foothill shrub communities. Greater sage grouse are only found in areas where adequate sagebrush is available to meet habitat and biological needs. As a sagebrush obligate species, greater sage grouse rely upon the plant species to meet most of its habitat needs during all aspects of its annual life cycles. Adequate stands of sagebrush are essential as greater sage grouse rely on the leaves for food and plant structure for cover.	Yes – Habitat occurs throughout the Analysis Area. Leks have been documented within ½ mile of both proposed and alternative segments.	Shrubland	All segments could provide habitat for this species.
Interior Least Tern	<i>Sterna antillarum</i>	Endangered / WY	-	-	Interior least terns breed in isolated areas along the Missouri, Mississippi, Ohio, Red, and Rio Grande river systems. Their winter home is not known, but probably includes coastal areas of Central and South America. In the U.S, terns use barren to sparsely vegetated sandbars along rivers, sand and gravel pits, or lake and reservoir shorelines from late April to August.	Yes – Water withdrawals in the Platte River Watershed, regardless of location, could impact the species.	Areas down stream of the analysis area	N/A
Mountain Plover	<i>Charadrius montanus</i>	Proposed	FS sensitive (R2) BLM sensitive	SGCN / Wyoming	Species inhabits low, open habitats such as arid shortgrass and mixed grass prairies dominated by blue grama and buffalo grass with scattered clumps of cacti and forbs, and saltbush habitats of the shrub-steppe of central and western Wyoming. It prefers to nest in large, flat grassland expanses with sparse, short vegetation (10 cm or less), and bare ground. It is adapted to areas that have been disturbed by prairie dogs, heavy grazing, or fire.	Yes – Potential habitat for this species occurs throughout the Analysis Area.	Xeric shrublands and grasslands with a slope of less than 9%.	1E, 1W, 2, 3, and 4
Piping Plover	<i>Charadrius melodus</i>	Threatened / WY	-	-	In general, this species inhabits wide, sparsely vegetated sand or gravel beaches adjacent to vast alkali lakes; however, they can be found along the beaches near reservoirs, rivers, freshwater lakes, dry alkali lakes and industrial ponds, as well as sandpits and gravel mines	Yes – only in that water withdrawals in the Platte River Watershed, regardless of location could impact the species.	Areas down stream of the analysis area	N/A
Whooping Crane	<i>Grus americana</i>	Endangered / WY	-	-	This species inhabits shallow-water wetlands which varying in size (1–25 ha), shape, and depth. During migration, they can be found feeding in croplands and roosting in wetlands found along their migration paths.	Yes – only in that water withdrawals in the Platte River Watershed, regardless of location could impact the species.	Areas down stream of the analysis area	N/A
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate / west of continental divide	FS sensitive (R2, R4) east of the continental divide BLM sensitive	SGCN / Wyoming	Yellow-billed cuckoos are riparian obligate species that prefer extensive areas of dense thickets and mature deciduous forests near water, and requires low, dense, shrubby vegetation for nest sites. In Wyoming, the only areas that currently support the large cottonwood-riparian stands that are required by this species occur in isolated stands along the Bighorn, Powder, and North Platte rivers (WGFD N.D.). The Yellow-billed Cuckoo is considered an uncommon summer resident in Wyoming. In southwestern Idaho, the species is typically considered a 'rare summer visitor'. There have been confirmed sightings within Owyhee, Canyon, Elmore, Ada, Blaine, and Twin Falls counties within the last 25 years (Taylor 2000). The most suitable habitat in Idaho for the species occurs along the Snake River corridor (Taylor 2000).	Yes – The Project would cross through riparian habitats that could support this species.	Riparian cottonwood forest of greater than 5 ha (Reynolds and Hinckley 2005) with a percent overstory canopy of greater than 50 percent.	1E, 1W, 5, 7, 8, 9, 10
				SGCN / Idaho				

**Table D.11-1. Threatened, Endangered, or Candidate Wildlife Species with the Potential to Occur within the Analysis Area cont.**

Common Name	Scientific Name	ESA Status/ State Located in	Federal Agency Status	Greatest Conservation Need (SGCN) / State	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Fish</b>								
Bonytail	<i>Gila elegans</i>	Endangered/ ID; WY	-	-	Slow moving waterbodies with rocky or muddy bottoms.	Yes – only in that water withdrawals in the Colorado River Watershed, regardless of location could impact the species.	Rivers of the Colorado Basin. Green River intersects segment 4.	N/A
Bull Trout	<i>Salvelinus confluentus</i>	Threatened / ID	-	SGCN / Idaho	In Idaho bull trout occur in the East Fork, West Fork, and headwater tributaries and primarily in headwaters above 7,200 feet elevation within the Jarbidge Wilderness Area (including Slide, Pine, Sawmill, Fall, and Cougar Creeks), as well as Dave Creek. Bull trout require clean, cold water (below 59 degrees Fahrenheit). Bull trout require diverse, yet well connected habitats with structural components that provide good hiding cover (boulders and large wood). Spawning habitat consists of very cold water and loose clean gravel.	No	N/A	N/A
		MIS (Sawtooth NF)						
Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Threatened / ID	-	SGCN / Idaho	In Idaho, spawning habitat in the Snake River Basin consists of streams that are shallow, clear, and cold with a strong upwelling of water through the gravel. Fry habitat is found primarily along the sides of pools and near the cover of overhanging banks. Adults migrate to sea for three to five years and return to natal streams days or weeks before spawning.	No	N/A	N/A
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	Endangered / ID; WY	-	-	The fish occurs in the warm, swift waters of the big rivers of the Colorado Basin. Adults are migratory and inhabit pools and eddies just outside the main current. Young can be found in backwater areas. Colorado pikeminnow are adapted to rivers with seasonally variable flow, high silt loads, and turbulence. Young-of-the-year and juvenile Colorado pikeminnow live in shallow backwater areas, with little or no current over silt and sand bottoms. When they are about 8 inches in length, habitat preferences change with fish seeking deeper water with some velocity. Colorado pikeminnow can tolerate a broad range of temperatures from 35 degrees C in the summer to lower than 10 degrees C in winter.	Yes – only in that water withdrawals in the Colorado River Watershed, regardless of location could impact the species.	Rivers of the Colorado Basin. Green River intersects segment 4.	N/A
Humpback Chub	<i>Gila cypha</i>	Endangered / ID; WY	-	-	The humpback chub lives primarily in canyons with swift currents and white water. Spawning occurs at depths ranging 1.8 to 3.8 meters, and water velocities of 0.15 to 0.3 meters per second, over boulder, sand, and possibly gravel substrates. The humpback chub have been associated with a variety of habitats ranging from pools with turbulent to little or no current; substrates of silt, sand, boulder, or bedrock; and depth ranging from 1 meter to as deep as 15 meters.	Yes – only in that water withdrawals in the Colorado River Watershed, regardless of location could impact the species.	Rivers of the Colorado Basin. Green River intersects segment 4.	N/A
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	Endangered / ID; WY	-	-	This species is a bottom-oriented species inhabiting the Missouri and Mississippi Rivers from Montana to Louisiana. Pallid sturgeon live close to the bottom of large, silty rivers with swift currents and sandy bottoms. The preferred habitat is comprised of sand flats and gravel bars where water velocity ranges from 10 to 90 centimeters per second and water temperatures range from 32 to 86 degrees Fahrenheit. ( <a href="http://www.epa.gov/espp/litstatus/effects/appendix_c_life_history_sturgeon.pdf">http://www.epa.gov/espp/litstatus/effects/appendix_c_life_history_sturgeon.pdf</a> )	Yes – only in that water withdrawals in the Platte River Watershed, regardless of location could impact the species.	Rivers of the Platte Basin. Green River intersects segment 4.	N/A
Razorback Sucker	<i>Xyrauchen texanus</i>	Endangered / ID; WY	-	-	The razorback sucker occurred in medium to large rivers with swift turbulent waters, as well as slow backwater areas where it feeds on benthic fauna and flora, detritus, and plankton. Most wild fish are now found in Lake Mohave, which represents the largest population within the lower Colorado River basin. A few adults have also been found in Lake Mead and Lake Havasu. In the upper basin, they can be found in unimpounded waters of the Green, Yampa, and mainstem of the Colorado.	Yes – only in that water withdrawals in the Colorado River Watershed, regardless of location could impact the species.	Rivers of the Colorado Basin. Green River intersects segment 4.	N/A
Sockeye Salmon	<i>Oncorhynchus nerka</i>	Endangered / ID	-	SGCN / Idaho	Sockeye inhabit streams, rivers, lakes, estuaries, and marine environments of the Pacific coast. Spawning occurs in rivers or streams and upwelling areas along lake beaches. Streams and rivers used for spawning must have a lake in the system. Fry rear in lakes and then migrate to the sea.	No – Occurs in Salmon River north of Analysis Area with the run terminating at Redfish Lake.	N/A	N/A
Steelhead	<i>Oncorhynchus mykiss</i>	Threatened / ID	-	SGCN / Idaho	Spawning steelhead require flat water greater than 9.4 inches deep with gravel small enough to dig in found between areas of steep gradients with large gravel. Optimal water temperatures range from 53.6 to 64.4 degrees Fahrenheit. Fry migrate downstream to estuaries and eventually to the sea. Adults return to natal streams to spawn.	No – Occurs in tributaries to the Salmon River north of the Analysis Area	N/A	N/A
White Sturgeon (Kootenai River)	<i>Acipenser transmontanus</i>	Endangered / ID	-	SGCN / Idaho	In North America, white sturgeon is found from Ensenada, Mexico to the Cook Inlet in Alaska. Most are found in estuaries of large rivers along the Pacific coast. Older juveniles and adults are commonly found in rivers, estuaries, and marine environments. Spawning takes place in swift currents with a rocky bottom near rapids. Adult fish tend to occur in deeper, faster waters of large river mainstems, where they spend most of their time on or near the bottom of the riverbed. Juveniles prefer slow moving sloughs and backwaters. Spawning habitat is usually in turbulent fast water, but locations can range from shallow murky side channels with pebbly and sandy bottoms to deeper, less murky main channels with larger boulders and cobble.	No	Occurs in Snake River upstream to Shoshone Falls	N/A

**Table D.11-1. Threatened, Endangered, or Candidate Wildlife Species with the Potential to Occur within the Analysis Area cont.**

Common Name	Scientific Name	ESA Status/ State Located in	Federal Agency Status	Greatest Conservation Need (SGCN) / State	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Amphibians</b>								
Columbia Spotted Frog – Great Basin Population only	<i>Rana luteiventris</i>	Candidate / ID	FS sensitive (R2, R4) BLM sensitive	SGCN / Wyoming SGCN / Idaho	This species is aquatic and lives in or near permanent bodies of water such as: lakes, ponds, slow streams and marshes. They prefer areas with thick algae and vegetation for cover, but may also hide under decaying vegetation. They most commonly occur in non-woody wetland plant communities.	Yes – Permanent water bodies occur in most segments within the Analysis Area.	Permanent wetland and open water areas below 9720 feet in elevation; delineated from vegetation mapping.	4, 9
Northern Leopard Frog	<i>Rana pipiens</i>	Proposed	FS sensitive (R2) BLM sensitive	SGCN / Wyoming SGCN / Idaho	Beaver ponds, permanent water in plains and foothills. Springs, slow streams, marshes, bogs, ponds, canals, flood plains, reservoirs, and lakes; usually permanent water with rooted aquatic vegetation. In summer, commonly inhabits wet meadows and fields. Takes cover underwater, in damp niches, or in caves when inactive. Overwinters usually underwater.	Yes	Wetland habitat mapped for the Northern Leopard Frog	4, 5, 7, 8, 9, 10
Wyoming Toad	<i>Bufo baxteri</i>	Endangered / WY	-	SGCN / Wyoming	The toad is historically found only in the Laramie Basin within 30 miles from Laramie, Wyoming. By the early 1990s a captured breeding program was commenced in an attempt to save the endangered toad from extinction, but no known wild reproduction has occurred since 1991. It formerly inhabited flood plains, ponds, and small seepage lakes in the shortgrass communities of the Laramie Basin.	No – The Analysis Area does not intercept historical or current distribution for this species.	N/A	N/A
<b>Invertebrates</b>								
Utah Valvata Snail	<i>Valvata utahensis</i>	Endangered / ID	-	SGCN / Idaho	Found primarily in the Snake River of Idaho, the Utah valvata snail prefers small pebbles and gravels, cobbles embedded in silt, and submerged aquatic vegetation but is found predominantly in silt substrates. The Utah valvata snail is known to range in the Snake River from RM 582 to the confluence of the South Fork and Henrys Fork, Snake River (RM 837).	Yes – Project intersects Big Wood River and Snake River	Big Wood River and Snake River	8, 10
Bliss Rapids Snail	<i>Taylorconcha serpenticola</i>	Threatened / ID	-	SGCN / Idaho	The Bliss Rapids snail resides on the sides and undersides of rocks in free-flowing and cold-water springs in the middle Snake River, Idaho. It prefers relatively clean and rocky substrates so that it can graze on algae and diatoms at night.	Yes – Project intersects middle Snake River	Snake River	8
Idaho Springsnail	<i>Pyrgulopsis idahoensis</i> (now <i>Pyrgulopsis robusta</i> )	Delisted / ID	-	-	The Idaho springsnail is found in the middle Snake River, Idaho. It occupies various substrates in lake and river habitats of the middle Snake River, where it feeds on diatoms.	Yes – Project intersects middle Snake River	Snake River	8
Banbury Springs Limpet	<i>Lanx sp.</i>	Endangered / ID	-	SGCN / Idaho	The Banbury limpet requires cold, clear and well-oxygenated water with swift currents. The Banbury limpet are found on smooth basalt, boulders, or cobble-sized grounds ranging from 2 to 20 inches deep, but they avoid areas with green algae. Currently, this species only exists at four cold-spring locations that are isolated from each other: Thousand Springs, Box Canyon Springs, Briggs Springs and Banbury Springs.	Yes – Project intersects Snake River near Thousand Springs. Does not intersect Box Canyon Springs.	Snake River	8
Snake River Physa Snail	<i>Physa natricina</i>	Endangered / ID	-	SGCN / Idaho	The Snake River physa snail is found in the middle Snake River of southern Idaho. It is believed to be confined to the Snake River, inhabiting areas of swift current on the undersides of large cobbles and boulder-sized rocks. Individuals have been found in relatively undisturbed areas with gravel, boulder, or cobble substrates and a low percentage of epiphytic algae or macrophytes	Yes – Project intersects middle Snake River	Snake River	8, 10
Bruneau Hot Springsnail	<i>Pyrgulopsis bruneauensis</i>	Endangered / ID	-	SGCN / Idaho	The Bruneau hot springsnail occurs in thermal springs along an approximately 5 mile reach of the Bruneau River and in Hot Creek. The Bruneau hot springsnail inhabits small, geothermal spring runs and seeps, typically on basalt bedrock. Temperatures in these waters range from 15.7 to 36.9 degrees Celsius. Substrates usually comprise gravel and silt but individuals are also found on sand, mud, and algal film. Macrophytes are usually absent from occupied habitat.	Yes – Project intersects Bruneau River north of Hot Creek.	Bruneau River	9

Notes: **BLM** = Bureau of Land Management; **FS** = U.S. Forest Service; **R2** = Forest Service Region 2; **R4** = Forest Service Region 4.

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Mammals</b>							
American Hog-nosed Skunk	<i>Conepatus leuconotus</i>	FS sensitive (R2)	-	American hog-nosed skunks occur in riparian areas, canyons, and rocky mountain slopes.	No – Within FS Region 2, this species occurs only in Colorado.	N/A	N/A
American marten	<i>Martes americana</i>	MIS (Medicine Bow NF)	-	This species inhabits mainly mature coniferous forests.	Yes	Coniferous Forest	1E, 1W, 4, 5, 7
		FS sensitive (R2)					
Big Brown Bat	<i>Eptesicus fuscus</i>	BLM sensitive (only in Nevada)	-	This species inhabits various wooded and semi-open habitats. Will generally roost in buildings, hollow trees, rock crevices, tunnels, and cliff faces.	Yes – Given the wide range of habitats utilized by this species and the overlap between known distribution in the Analysis Area, it is assumed that all segments may provide habitat	Variable habitats that contain caves and rock faces	All segments could provide habitat for this species.
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>	FS sensitive (R2)	SGCN / Wyoming	Basin-prairie shrub, grasslands: Habitat includes arid grassland and shrub/grassland communities, usually with slopes less than 12 to 15 percent; in intermountain valleys, benches, and plateaus with diverse grass and for cover.	Yes – Colonies occur within the Analysis Area.	Grasslands and Shrublands	1E, 1W
		BLM sensitive					
Brazilian Free-Tailed Bat	<i>Tadarida brasiliensis</i>	BLM sensitive (only in Nevada)	-	This species inhabits a wide variety of habitat types from deserts, woodlands, to forests. Will roost in buildings, rock crevices, tunnels, and cliff faces.	Yes – only in Elko County Nevada	Variable habitats that contain caves and rock faces	7I
California Bighorn Sheep	<i>Ovis canadensis californiana</i>	FS sensitive (R4)	SGCN / Wyoming	California bighorn sheep inhabit grassy mountains, alpine meadows and foothill country near rocky cliffs that allow quick escape. Common summer habitat includes grazing lands at 6,000-8,500 feet in elevation and winter habitat occurs at 2,500-5,000 feet where show is not very deep. California bighorns, a subspecies, are found in desert canyons of southwestern Idaho, while Rocky Mountain bighorns are found in the central Idaho mountains.	Potentially	steep rocky areas	7, 9
		BLM sensitive	SGCN/ Idaho				
California Myotis	<i>Myotis californicus</i>	BLM sensitive (only in Nevada)	-	This species inhabits a wide variety of habitat types from deserts, woodlands, to forests. Will roost in buildings, shrubs, trees, or on the ground. Hibernates in caves, mines, tunnels, or buildings.	Yes – this species range overlaps portions of the Project in Nevada and Idaho.	Variable habitats that contain caves and rock faces	5, 7, 8, 9, 10
Cliff Chipmunk	<i>Tamias dorsalis</i>	BLM sensitive	SGCN / Wyoming	Habitat occurs within rocky, steep hillsides; Cliff chipmunks spend much of their time near cliffs. Dens typically occur in rocky outcroppings. Species generally inhabits elevations of 1500 to 3700 meters with scrub-type habitat. Species typically occurs within juniper communities (Juniperus spp.), however, it can also use oaks (Quercus spp.), maples (Acer spp.), Piñon pine (Pinus monophylla), and Ponderosa Pine (P. ponderosa) communities.	Yes – Limited habitat within the Analysis Area occurs for this species.	Coniferous Forest	1E, 1W, 4, 5, 7
			SGCN/ Idaho				
Dark Kangaroo Mouse	<i>Microdipodops megacephalus</i>	BLM sensitive	SGCN/ Idaho	Habitat is found in loose sands and gravel in shadscale scrub, sagebrush scrub, and alkali sink plant communities. May occur in sand dunes near margins of range. The altitude of the habitat is around 1,190-2,455 m. Burrows are constructed in soft ground with the entrance near a shrub. Average home range for males is 6,613 square meters and 3,932 for females.	Yes – Species known to occur within portions of Owyhee County (ICDC and IDFG 2005).	Shrubland	8, 9
Bighorn Sheep	<i>Ovis canadensis nelsoni</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Bighorn sheep inhabit grassy mountains, alpine meadows and foothill country near rocky cliffs that allow quick escape. Common summer habitat includes grazing lands at 6,000-8,500 feet in elevation and winter habitat occurs at 2,500-5,000 feet where show is not very deep. California bighorns, a subspecies, are found in desert canyons of southwestern Idaho, while Rocky Mountain bighorns are found in the central Idaho mountains.	Potentially	steep rocky areas	7, 9
			SGCN/ Idaho				
Fisher	<i>Martes pennanti</i>	FS sensitive (R4)	SGCN / Wyoming	Fishers prefer coniferous forests, but they are also found in mixed and deciduous forests. They prefer habitats with high canopy closure. They also prefer habitats with many hollow trees for dens. Trees typically found in fisher habitats include spruce, fir, white cedar and some hardwoods.	No – The vegetation composition and structures required by this species does not occur within the Analysis Area.	N/A	N/A
		BLM sensitive	SGCN/ Idaho				
Fringed Myotis	<i>Myotis thysanodes</i>	FS sensitive (R2)	SGCN / Wyoming	Conifer forests, woodland-chaparral, caves and mine; Habitat occurs within caves, mines, snags, rock outcrops, and human structures as roost sites, with foraging habitat often occurring within riparian areas. Open water habitats provide foraging habitat and these can include streams, reservoirs, stock tanks and other water catchments.	Unlikely but possible – Potential habitat for this species occurs within some segments of the Analysis Area. In addition a gross scale general distribution layer for this species overlaps with the Project area; however, suitable habitat and known distributions do not overlap. Therefore it is unlikely that this species occurs within the analysis area.	Coniferous Forest	Forests - 1E, 1W, 4, 5, 7 Species distribution 3, 8
		BLM sensitive	SGCN/ Idaho				
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>	FS sensitive (R2)	-	Basin-prairie shrub, grasslands: Habitat includes arid grassland and shrub/grassland communities.	No – Species distribution does not overlap with the Analysis Area.	N/A	N/A

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Mammals cont.</b>							
Hoary Bat	<i>Lasiurus cinereus</i>	BLM sensitive (only in Nevada)	-	This species typically inhabits deciduous and coniferous forests. Roosts in trees or rock crevices, but rarely uses caves.	Yes	Forests	All segments could provide habitat for this species.
Idaho Pocket Gopher	<i>Thomomys idahoensis</i>	BLM sensitive	SGCN / Wyoming	Shallow stony soils in open sagebrush, sagebrush-grassland, and mountain meadow habitats; Idaho Pocket Gophers are active all year long. When they excavate burrows in the winter, they leave the dirt piled in snow tunnels.	Yes – Habitat for this species does occur within the Analysis Area.	Shrubland	All segments could provide habitat for this species.
			SGCN/ Idaho				
Kit Fox	<i>Vulpes macrotis</i>	FS sensitive (R2)	SGCN/ Idaho	Habitat occurs within semi-desert shrubland and margins of pinyon-juniper woodland. Habitat typically has a saltbush, shadscale, sagebrush and greasewood presence.	Yes – Habitat for this species occurs within the Analysis Area.	Shrubland	All segments could provide habitat for this species.
		BLM sensitive					
Little Brown Myotis	<i>Myotis lucifugus</i>	BLM sensitive (only in Nevada)	-	This species will inhabit and roost in buildings, trees, and caves.	Yes	Variable habitats that contain caves and rock faces	All segments could provide habitat for this species.
Little Pocket Mouse	<i>Perognathus longimembris</i>	BLM sensitive	SGCN/ Idaho	Habitat typically occurs in sagebrush, creosote bush, and cactus communities. On slopes with widely spaced shrubs, found in firm, sandy soil overlain with pebbles. In Idaho, found in shadscale/dwarf sage on lower slopes of alluvial fans in Raft River Valley.	No – Species distribution does not overlap with the Analysis Area.	N/A	N/A
Long-Eared Myotis	<i>Myotis evotis</i>	BLM sensitive	SGCN / Wyoming	Species inhabits coniferous forest and woodland, including juniper, Ponderosa pine, and spruce-fir. It typically forages over rivers, streams, and ponds within the forest-woodland environment. During summer, it roosts in a wide variety of structures, including cavities in snags, under loose bark, stumps, buildings, rock crevices, caves, and abandoned mines. During winter, it probably hibernates primarily in caves and abandoned mines.	Yes – Relatively small portions of some segments contain habitat for this species.	Coniferous Forest	1E, 1W, 4, 5, 7
Long-Legged Myotis	<i>Myotis volans</i>	BLM sensitive (only in Nevada)	-	This species will inhabit forests, riparian areas, and deserts. Will roost in buildings, rock crevices, trees.	Yes	Variable habitats that contain caves and rock faces	All segments could provide habitat for this species.
Merriam's Ground Squirrel	<i>Spermophilus canus vigilis</i>	BLM sensitive	-	Shallow stony soils; Little is known about the subspecies. Their annual cycles and diet probably are similar to southern Idaho ground squirrels. Burrow diameter usually is <2 inches; entrances often under bushes or rocks.	Yes	West side of Snake River in west-central Idaho	8, 9, 10
New Mexico Meadow Jumping Mouse	<i>Zapus hudsonius luteus</i>	FS sensitive (R2)	-	The New Mexico meadow jumping mouse is endemic to New Mexico, Arizona, and a small area of southern Colorado. It nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 feet	No – Species distribution does not overlap with the Analysis Area.	N/A	N/A
Pallid Bat	<i>Antrozous pallidus</i>	BLM sensitive (only in Nevada)	-	This species inhabits arid deserts and grasslands. Will roost in buildings or rock crevices, but rarely in trees or caves.	Yes	Variable habitats that contain caves and rock faces	All segments could provide habitat for this species.
Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	FS sensitive (R2)	-	This species lives primarily in heavily vegetated, shrub-dominated riparian (streamside) habitats and immediately adjacent upland habitats along the foothills. The species occurs in southeastern Wyoming south to Colorado Springs along the eastern edge of the Front Range of Colorado. The species occurs in Albany, Laramie, Platte Goshen, and Converse counties in Wyoming (USFWS 2008b).	Yes – Marginal streamside habitat required by the species does occur within the Analysis Area.	Riparian and wetland habitats	1E, 1W, 2, 3, 4
		BLM sensitive					
Preble's Shrew	<i>Sorex preblei</i>	BLM sensitive (only in Nevada)	-	This species inhabits a shrubland habitats and wetland-riparian areas.	Yes – Species distribution overlaps the project area in Elko County, NV.	Riparian and wetland habitats	7I
Pygmy Rabbit	<i>Brachylagus idahoensis</i>	FS sensitive (R4)	SGCN / Wyoming	Basin-prairie and riparian shrub: Species inhabits dense, tall stands of big sagebrush, usually along intermittent streams or riparian areas in sagebrush-grasslands. It is dependent on sagebrush, which comprises up to 99% of its winter diet. Also, since it excavates its own burrows, soft, deep soil is a key habitat feature.	Yes	Sagebrush shrubland	Segments 2 through 10
		BLM sensitive	SGCN / Idaho				
Pygmy Shrew	<i>Sorex hoyi</i>	FS sensitive (R2)	SGCN / Wyoming SGCN/ Idaho	This southern version of the shrew inhabits moist environments such as bogs, marshes, wet prairies, and the forested margins of lakes and streams.	No – Species distribution does not overlap with the Analysis Area.	N/A	N/A
Piute Ground Squirrel	<i>Spermophilus mollis artemisiae</i>	BLM sensitive	-	Species prefers areas with native shrubs, especially winterfat, and sagebrush.	Yes – Habitat for this species does occur within the Analysis Area.	Shrubland	5, 7, 8, 9, 10
River Otter	<i>Lontra canadensis</i>	FS sensitive (R2)	-	Inhabits rivers, ponds, and lakes located adjacent to wooded areas.	Yes	Wetlands, waterbodies, and riparian areas	All segments could provide habitat for this species.

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Mammals cont.</b>							
Rocky Mountain Bighorn Sheep	<i>Ovis canadensis canadensis</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Bighorn sheep inhabit grassy mountains, alpine meadows and foothill country near rocky cliffs that allow quick escape. Common summer habitat includes grazing lands at 6,000-8,500 feet in elevation and winter habitat occurs at 2,500-5,000 feet where snow is not very deep. California bighorns, a subspecies, are found in desert canyons of southwestern Idaho, while Rocky Mountain bighorns are found in the central Idaho mountains.	No – The Analysis Area does not overlap with the known distribution for this species.	N/A	N/A
		BLM sensitive	SGCN/ Idaho				
Small-Footed Myotis	<i>Myotis ciliolabrum</i>	BLM sensitive (only in Nevada)	-	This species typically inhabits dry arid and semi-arid habitats. Roosts in buildings, rock crevices, loose bark, under boulders, and caves.	Yes	Dry habitats with caves or rock faces present	All segments could provide habitat for this species.
Silver-Haired Bat	<i>Lasiorycteris noctivagans</i>	BLM sensitive (only in Nevada)	-	This species typically inhabits forested areas. Will roost in trees, but rarely buildings or caves.	Yes	Forests	All segments could provide habitat for this species.
Snowshoe Hare	<i>Lepus americanus</i>	MIS (Medicine Bow NF)	-	Snowshoe hares inhabit dense young woodlands in environments with relatively deep winter snow accumulation. Optimum densities of woody shrubs and small trees range from 4,600 to 33,210 stems per ha.	Yes	Woodlands	1E, 1W, 4, 5, 7
Spotted Bat	<i>Euderma maculatum</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Species occupies a wide variety of habitats typically adjacent to perennial water, from desert scrub to coniferous forest, although it is most often observed in low deserts and basins and juniper woodlands. It roosts in cracks and crevices in high cliffs and canyons. It also may occasionally roost in buildings, caves, or abandoned mines, although cliffs are the only roosting habitat in which reproductive females have been documented.	Yes – Given the wide range of habitats utilized by this species and the overlap between known distribution in the Analysis Area, it is assumed that all segments may provide habitat. Analysis Area, although IDFG indicates it may not be present in southeastern Idaho (IDFG 2005)[1]	Caves, Coniferous Forest, and Shrublands	All segments could provide habitat for this species.
		BLM sensitive	SGCN/ Idaho				
Swift Fox	<i>Vulpes velox</i>	FS sensitive (R2)	SGCN / Wyoming	Species prefers grasslands. Swift fox tend to be associated with short and mixed grass prairie. They form their dens in sandy soil on open prairies, in plowed fields, or along fences.	Yes – Habitat for this species does occur within the Analysis Area.	Grasslands	All segments could provide habitat for this species.
		BLM sensitive					
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Species inhabits forests and basin-prairie shrub. Roosting habitat includes: caves, mines, snags, rock outcrops, and human structures. Similar habitat as the fringed myotis, but more closely associated with caves and mines for day roosts and hibernation sites. It is common in shrub-steppe, juniper woodlands and dry coniferous forests.	Yes – Potential habitat for species occurs within some segments of the Analysis Area including mines, snags, and caves.	Caves, Coniferous Forest, and Shrublands	1W, 4, 5, 7, 8, 9, 10,
		BLM sensitive	SGCN/ Idaho				
Uinta Chipmunk	<i>Tamias umbrinus</i>	BLM sensitive	SGCN/ Idaho	Habitat often includes coniferous forests at moderate to high elevations (to upper treeline). In Wyoming, they are reported occupying spruce-fir forest, lodgepole pine-Douglas-fir forest, and ponderosa pine forest. In more southern regions of the global range, they are most often associated with ponderosa pine habitats, but also are found in drier pinyon pine-juniper woodlands.	No – Suitable habitat for this species does not occur within the Analysis Area.	N/A	N/A
Water Vole	<i>Microtus richardsoni</i>	FS sensitive (R2)	SGCN / Wyoming	Habitat for the water vole consists of a disjunct pattern of short, fragmented patches along reaches of alpine and subalpine, spring fed or glacial streams; with gravel bottoms and a slope of approximately 5 degrees.	No	N/A	N/A
Western Pipistrelle	<i>Pipistrellus hesperus</i>	BLM sensitive (only in Nevada)	-	This species inhabits deserts and scrublands. Roosts in buildings, caves, rock crevices, and under boulders.	Yes	Variable habitats that contain caves and rock faces	7, 9
Western Red Bat	<i>Lasiurus blossevillii</i>	BLM sensitive (only in Nevada)	-	This species inhabits forested areas. Roosts in trees.	No – Distribution does not overlap the Project area.	N/A	N/A
White-tailed Prairie Dog	<i>Cynomys leucurus</i>	FS sensitive (R2)	SGCN / Wyoming	Basin-prairie shrub, grasslands: Habitat includes arid grassland and shrub/grassland communities, usually with slopes less than 12 to 15 percent; typically higher elevations than the black tailed prairie dog, in intermountain valleys, benches, and plateaus with diverse grass and forb cover. Where it occurs east of the Continental Divide in Wyoming, it probably occupies areas that are too dry for the black-tailed prairie dog.	Yes – Colonies do occur within the Analysis Area	Grasslands and Shrublands	1E, 1W, 2, 3, 4
		BLM sensitive					
Wyoming Ground Squirrel	<i>Spermophilus elegans nevadensis</i>	BLM sensitive	SGCN / Wyoming	Primarily valley bottoms, foothills, grasslands and semidesert shrublands. Their geographic centers are in southwestern Montana, central and southwestern Wyoming, and southwestern Idaho, but populations occur in the states bordering these regions.	Yes – Habitat for this species does occur within the Analysis Area.	Grasslands and Shrublands	All segments provide potential habitat for this species.
	SGCN/ Idaho						

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Mammals cont.</b>							
Wyoming Pocket Gopher	<i>Thomomys clusius</i>	FS sensitive (R2)	SGCN / Wyoming	Limited information is available regarding the habitat requirements of Wyoming pocket gophers. The species seems to prefer loose, gravelly, upland soils, often where greasewood is growing. This species' range is relatively limited, and populations are small; consequently, few animals have ever been found. The species is the only vertebrate animal that occurs exclusively in Wyoming. The current known distribution is restricted to the south-central portion of the state.	Yes – Given the limited available data regarding the distribution and habitat needs of this species, it is assumed that there is the potential that Wyoming pocket gopher habitat occurs within the Analysis Area.	Shrublands	2, 3, 4
		BLM sensitive					
Yuma Myotis	<i>Myotis yumanensis</i>	BLM sensitive (only in Nevada)	-	This species inhabits a variety of habitats including deserts, riparian areas, woodlands, and forests. Roosts in buildings or caves.	Yes	Variable habitats that contain caves and rock faces	5, 7, 8, 9
<b>Birds</b>							
American Bittern	<i>Botaurus lentiginosus</i>	FS sensitive (R2)	SGCN / Wyoming	This species nests near freshwater wetlands with tall, emergent vegetation or in grassy, upland areas in close proximity to such wetlands. Nesting habitat is typically close in proximity to foraging habitat which consists of emergent wetland vegetation.	Yes – This species distribution overlaps the analysis area	Wetlands	All segments provide potential habitat for this species, although some segments would only be used as transitory habitat.
American White Pelican	<i>Pelecanus erythrorhynchos</i>	BLM sensitive	SGCN / Wyoming	Habitat occurs on a variety of aquatic and wetland habitats, including rivers, lakes, reservoirs (both large and small), estuaries, bays, marshes, and sometimes in inshore marine habitats. These habitats are used variously for nesting, loafing, and feeding. Nesting colonies usually are situated on islands or peninsulas in brackish or freshwater lakes, where they are isolated from mammalian predators.	Yes – Habitat for this species occurs within the Analysis Area.	Aquatic Habitats	All segments provide potential habitat for this species, although some segments would only be used as transitory habitat.
	SGCN/ Idaho						
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Species typically occurs close to fish bearing open water, including major rivers, lakes, and reservoirs. Generally occupy riparian or lacustrine habitat as breeders but occasionally exploit upland areas for food. On rivers, they concentrate on runs and pools, riffles are important seasonally as prey fishes are spawning; lakes and reservoirs are used in shallow areas with gentle sloped shorelines and wetlands. Winter foraging habitat can include upland areas where they feed on carrion, and small mammals.	Yes – Both winter foraging and nesting habitat occurs within the Analysis Area. Bald eagles were observed within the transmission line corridor during raptor surveys conducted in April 2008. An active bald eagle nest was identified within the Kemmerer FO on April 6 in a heron rookery on the Hams Fork River. An active bald eagle nest was also identified within the Casper FO on the North Platte River on April 14 <sup>th</sup> . A pair of bald eagles were observed incubating or perched nearby.	Aquatic Habitats, with emphasis on fisheries.	All segments could provide potential habitat for this species, although some segments would only be used as transitory habitat.
		BLM sensitive	SGCN/ Idaho				
Baird's Sparrow	<i>Ammodramus bairdii</i>	BLM sensitive	-	Species utilizes grasslands and weedy fields. Species does not inhabit prairie lands where fire suppression and changes in natural grazing patterns have allowed woody vegetation to grow excessively. Baird's Sparrows prefer to nest in native prairie, but structure may ultimately be more important than plant species composition.	Yes – Potential habitat for this species occurs intermittently throughout the Analysis Area.	Grasslands	All segments could provide habitat for this species.
Black-backed Woodpecker	<i>Picoides arcticus</i>	FS sensitive (R2)	SGCN / Wyoming	This species inhabits forest habitats, especially those that have experienced a recent fire, as these provide a rich food source.	No – This species distribution does not overlap the analysis area	N/A	N/A
Black Tern	<i>Chlidonias niger</i>	FS sensitive (R2)	SGCN / Wyoming	Preferred summer habitats for this species occurs in inland marshes and sloughs, typically with fairly dense cattail or other marsh vegetation and pockets of open water. These wetlands are often shallow in nature. Winter habitat is on the coasts of South America.	Yes – Habitat for this species occurs intermittently throughout most segments.	Wetlands	1E, 1W, 2, 4, 5, 7, 8, 9
		BLM sensitive	SGCN/ Idaho				
Black-throated Sparrow	<i>Amphispiza bilineata</i>	BLM sensitive	-	Species prefers a sparse, isolated desert environment. Hot, dry weather in the desert uplands, creosote bush and scrub environments are the most frequent habitats. These sparrows prefer terrain that is either steeply sloped or very flat. Besides desert uplands, they also favor alluvial fans and hill slopes, usually with much exposed rock and gravel pavement. Within the Analysis Area, habitat most likely occurs within sagebrush communities.	Yes – This species is not common within the Analysis Area; However, potential habitat does occur within Idaho and southwestern Wyoming.	Shrubland	3, 4, 5, 7, 8, 9, 10
Black Rosy-Finch	<i>Leucosticte atrata</i>	BLM sensitive (only in Nevada)	-	This species inhabits shrubby or grassy areas, which include cultivated farms and other areas near human habitation. Nests in rock crevices in cliffs or in buildings.	Yes	Grasslands and Shrublands	All segments could provide habitat for this species.
Black Swift	<i>Cypseloides niger</i>	FS sensitive (R2)	SGCN/ Idaho	Breeding black swifts inhabit sea caves and cliffs along the Pacific coast, and adjacent to or near wet cliff sites in montane canyons. Most nests within the interior U.S. occur on shaded cliff walls near areas of dripping water. Wintering habitat consists of similar habitats described for breeding habitat.	No	N/A	N/A
Bobolink	<i>Dolichonyx oryzivorus</i>	BLM sensitive (only in Nevada)	-	This species inhabits tall grassy areas, flooded meadows, prairies, and cultivated farmlands.	Yes	Grasslands and Shrublands	All segments could provide habitat for this species.

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Birds cont.</b>							
Boreal Owl	<i>Aegolius funereus</i>	FS sensitive (R2, R4)	SGCN / Wyoming SGCN/ Idaho	Species preferred habitat varies throughout its range but includes mainly old-growth forests with woodpecker cavities for nesting. They inhabit a range of forests from pure coniferous to pure deciduous forests. Idaho they were found to favor spruce-fir or subalpine-fir above 5,000 ft. elevation. Hunting habitat includes forest meadows and open forests.	Yes – Suitable habitat does occur within the portion of the Analysis Area.	Coniferous Forest	1E, 1W, 4, 5, 7
Brewer's Sparrow	<i>Spizella breweri</i>	FS sensitive (R2) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Species is closely associated with sagebrush, preferring dense stands broken up with grassy areas. In the northern part of their range, they can be found in habitats such as sub-alpine fir or dwarf birch, or montane pinon-juniper woodlands.	Yes – Habitat for the species does occur within the Analysis Area.	Grasslands and Shrublands	All segments could provide habitat for this species.
Burrowing Owl	<i>Athene cunicularia</i>	FS sensitive (R2) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Grasslands, basin-prairie shrub: owls use vacant rodent burrows, mainly associated with prairie dog habitat. In Wyoming, the highest concentrations of burrowing owls are in the south and east, although they occur and breed throughout the state (WGFD. ND).	Yes – Breeding records within the region of Analysis Area are associated with prairie dog colonies (WGFD. ND.).	Grasslands and Shrublands	All segments could provide habitat for this species.
California Spotted Owl	<i>Strix occidentalis occidentalis</i>	FS sensitive (R4)	-	The California spotted owl's range overlaps that of the northern spotted owl in the southern Cascade Range, and extends south through the western Sierra Nevada to Tulare County. They also occur in discrete populations in mountainous areas of coastal and southern California from Monterey County to northern Baja California.	No – This species distribution does not overlap the analysis area	N/A	N/A
Cassin's Sparrow	<i>Aimophila cassinii</i>	FS sensitive (R2)	-	This species breeds in breeds in habitats that are dominated by grasses but have some percentage of shrub cover as well. Nests are located placed on the ground or just off the ground, within a low shrub.	No – This species distribution does not overlap the analysis area	N/A	N/A
Calliope Hummingbird	<i>Stellula calliope</i>	BLM sensitive	-	Species is a summer resident within the region. Summer habitat is mostly montane communities, breeding at elevations ranging from 3,900 ft to timberline. Species occupies habitats ranging from riparian forests to shrub-sapling secondary growth to open montane forests.	Yes – Species is known to occur within western Wyoming and southern Idaho and marginal habitat occurs within the Analysis Area.	Deciduous and Coniferous Forests	1E, 1W, 4, 5, 7
Chestnut-Collared Longspur	<i>Calcarius ornatus</i>	FS sensitive (R2)	SGCN / Wyoming	This species is a native prairie obligate, and prefers level to rolling native mixed-grass and shortgrass uplands. In drier areas it can be found in moist lowlands.	Yes	Native prairie	1E, 1W, 2, 3
Columbian Sharp-Tailed Grouse	<i>Tympanuchus phasianellus columbianus</i>	MIS (Caribou NF) FS sensitive (R2, R4) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Species inhabits mountain-foothills shrub communities of serviceberry, snowberry, chokecherry, and Gambel oak; sagebrush-grassland; and willow riparian habitats. In Wyoming, it prefers mountain-foothills shrub and sagebrush-snowberry habitats in the transitional zone between sagebrush-grass and forested habitats. Forest habitats (riparian draws) may provide winter forage. Leks are the center of breeding activity and are typically located in areas with little slope and low, sparse vegetation, such as knolls, ridgetops, or benches that allow good visibility.	Yes – Columbian sharp-tailed grouse leks and suitable habitat have been documented within the Analysis Area.	Shrubland	2, 3, 4, 5, 7, 9
Common Loon	<i>Gavia immer</i>	FS sensitive (R4)	-	This species generally inhabits clear, oligotrophic lakes, surrounded by forest, with rocky shorelines, deeply indented bays, numerous islands, and floating bogs. Forest types are characteristic of boreal and mixed forests. Idaho and Wyoming do not generally provide habitat for the common loon; however, there is a small area of breed habitat located on the border of Idaho, Wyoming, and Montana; north of the Project area.	No	N/A	N/A
Ferruginous Hawk	<i>Buteo regalis</i>	FS sensitive (R2) BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Species uses mixed-grass prairie communities and is often associated with little bluestem, prairie June grass, green needle-grass, western wheatgrass, and Kentucky bluegrass. Trees are common nest sites, including eastern cottonwoods, peachleaf willow, juniper, box elder maple, green ash, Chinese elm, and American elm. Species also uses sagebrush and saltbrush, greasewood shrublands.	Yes – Nest sites have been documented within the Analysis Area. The ICDC documented multiple nest sites within segments 7, 8, and 9, and the WNDD documented nest sites within segments 1W, 1E, 2, 3, and 4.	Grasslands	All segments could provide habitat for this species.
Flammulated Owl	<i>Otus flammeolus</i>	FS sensitive (R2, R4) BLM sensitive	SGCN/ Idaho	Species is associated with mature and old-growth xeric ponderosa pine/Douglas-fir stands with preference for mature growth with open canopy avoiding dense young stands. Nests in woodpecker holes made in mature aspen or ponderosa pine habitat.	Yes – Suitable habitat occurs within the portion of the Analysis Area.	Coniferous or aspen forest	1E, 1W, 4, 5, 7
Gray Vireo	<i>Vireo vicinior</i>	BLM sensitive (only in Nevada)	-	This species inhabits semi-arid shrublands.	No – This species distribution does not overlap the analysis area	N/A	N/A
Greater Prairie-Chicken	<i>Tympanuchus cupido</i>	FS sensitive (R2)	-	This grassland species inhabits mid-tallgrass and tallgrass of the Great Plains region.	No – This species distribution does not overlap the analysis area	N/A	N/A
Great Gray Owl	<i>Strix nebulosa</i>	FS sensitive (R4)	SGCN / Wyoming	Species favors dense, mature coniferous forests with close proximity to meadows or open fields. This combination allows conifer nesting and roosting along with the abundance of small rodents that occur in forest openings.	Yes – Suitable habitat does occur within a portion of the Analysis Area.	Mature Coniferous Forest	1E, 1W, 4, 5, 7

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Birds cont.</b>							
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	FS sensitive (R2)	SGCN / Wyoming	This species inhabits open grassland habitats. It prefers grassland patches that are at-least 8 ha or larger in size.	Yes	Grassland habitats that are at-least 8 ha in size	All segments could provide habitat for this species.
			SGCN/ Idaho				
Golden Crowned Kinglet	<i>Regulus satrapa</i>	MIS (Medicine Bow NF)	-	This species inhabits dense, coniferous forests, especially where spruce or firs are present.	Yes	Coniferous forests	1E, 1W, 4, 5, 7
Gunnison Sage-Grouse	<i>Centrocercus minimus</i>	FS sensitive (R2)	-	This sage-grouse species inhabits a variety of habitats: such as sagebrush habitats with a diversity of grasses and forbs and healthy, as well as wetland and riparian areas.	No – This species distribution does not overlap the analysis area	N/A	N/A
Hammond's Flycatcher	<i>Empidonax hammondi</i>	BLM sensitive	-	Species inhabits cool forests, especially coniferous or mixed forests with fir trees. Hammond's Flycatchers have been found to favor old-growth associates in Douglas-fir/ponderosa pine forests.	Yes – Marginal habitat for this species occurs within the Analysis Area.	Coniferous Forest	1E, 1W, 4, 5, 7
Harlequin Duck	<i>Histrionicus histrionicus</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Species prefers cold, shallow, rapid mountain streams away from concentrated human activities. It nests on the ground along streams with less than 5% gradient, dense shrubs lining the banks, braided channels, swift currents, abundant aquatic insects, and good water quality.	No	N/A	N/A
			SGCN/ Idaho				
Lewis's Woodpecker	<i>Melanerpes lewis</i>	FS sensitive (R2)	SGCN / Wyoming	Species prefers open ponderosa pine forest, open riparian woodland dominated by cottonwood, and logged or burned pine forest. May prefer ponderosa pine forest at medium to high elevations and open riparian forests at low elevations. Often classified as a specialist in burned pine forest habitat although suitability of burned areas may vary with post-fire age, size, and intensity of burn.	Yes – Habitat for this species occurs within the Analysis Area.	Deciduous and Coniferous Forest	1E, 1W, 4, 5, 7
		BLM sensitive	SGCN/ Idaho				
Juniper Titmouse	<i>Baeolophus griseus</i>	BLM sensitive (only in Nevada)	-	This species inhabits pinyon-juniper woodlands.	Yes – This species distribution overlaps the analysis area along 71 in Nevada. About 1.4 miles of suitable habitat would be crossed.	Woodlands	71
Least Bittern	<i>Ixobrychus exilis</i>	BLM sensitive (only in Nevada)	-	This species inhabits wetland areas.	Yes – This species distribution overlaps the analysis area along the NV portion of 71	Wetlands	71
Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>	FS sensitive (R2)	-	This species inhabits xeric grasslands of the southwestern Great Plains region.	No – This species distribution does not overlap the analysis area	N/A	N/A
Lincoln's Sparrow	<i>Melospiza lincolni</i>	MIS (Medicine Bow NF)	-	Habitat information on this species is limited, but based on what is known, they seem to prefer riparian willow habitats at elevations between 2,050 and 2,260 m.	Yes	Riparian willow areas	All segments could provide habitat for this species.
Loggerhead Shrike	<i>Lanius ludovicianus</i>	FS sensitive (R2)	-	Species habitat occurs in basin-prairie shrub and mountain-foothill shrub. Species prefers open habitat including shrub-steppe, deserts and grasslands with access to elevated perches and impaling stations. Feeds mostly on large insects such as grasshoppers and beetles but some small birds and rodents are also taken.	Yes – Habitat occurs throughout the Analysis Area. Nesting has been documented in the ICDC within the proposed Segment 8.	Shrublands and Grasslands	All segments could provide habitat for this species.
		BLM sensitive					
Long-billed Curlew	<i>Numenius americanus</i>	FS sensitive (R2)	SGCN / Wyoming	Habitat occurs in grasslands, plains, foothills, and wet meadows. Species selects open habitats year-round. During the breeding season, they frequent prairies and grasslands, as well as plowed fields, meadows, and pastures.	Yes – Habitat for this species occurs throughout the Analysis Area. The ICDC records indicate that the species has been documented within the Analysis Area along both proposed and alternative segment 8 routes and nesting has been documented within the Analysis Area along both proposed and alternative Segment 9 routes.	Grasslands	All segments could provide habitat for this species.
		BLM sensitive	SGCN/ Idaho				
Long-Eared Owl	<i>Asio otus</i>	BLM sensitive (only in Nevada)	-	This species will inhabit forests, orchards, and parks. Dense areas used for nesting, while open areas used for foraging.	Yes	Forests	All segments could provide habitat for this species.
McCown's Longspur	<i>Calcarius mccownii</i>	FS sensitive (R2)	SGCN / Wyoming	This species inhabits shortgrass prairies which contain sparse vegetation coverage. They can utilize agricultural areas (predominantly within their northern range).	Yes	Grasslands	1E, 1W, 2, 3
Mountain Quail	<i>Oreortyx pictus</i>	FS sensitive (R4)	SGCN/ Idaho	Habitat includes mixed evergreen forests and woodlands. Species are typically found in dense cover with scattered open areas on slopes in foothills and mountains. They use the dense thickets resulting from fires or clearcuts, and they are seldom found far from this cover. In summer, the quail require a source of water, which may limit their nesting range.	Yes	Coniferous Forest and Shrubland	All segments could provide habitat for this species.
		BLM sensitive					

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Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Birds cont.</b>							
Northern Goshawk	<i>Accipiter gentilis</i>	MIS (Caribou and Medicine Bow NF)	SGCN / Wyoming	Species occurs within mature conifer and deciduous forests. Species is a forest habitat generalist and requires abundant prey base, possibly related to understory shrub development in forested habitat. Generally considered to prefer mature coniferous forests, but will also inhabit deciduous and mixed forests from sea level to subalpine areas.	Yes – Suitable and potential habitat occurs within the Analysis Area.	Mature Coniferous and Deciduous Forests	1E, 1W, 4, 5, 7, 9
		FS sensitive (R2, R4)					
		BLM sensitive					
Northern Harrier	<i>Circus cyaneus</i>	FS sensitive (R2)	-	This species inhabits a wide range of open wetland and upland habitats during the breeding season, including fresh to alkali wetlands, wet or dry grasslands, lightly grazed agricultural pastures, old fields, brushy areas, and cold desert shrub-steppe. In the nonbreeding season, the northern harrier uses a wide variety of open habitats with herbaceous cover, including freshwater and saltwater wetlands, grasslands, idle fields, agricultural pastureland, desert, and to a lesser extent cropland	Yes – Observation and nests have been found within or near the analysis area	Wetland, Shrublands, and Grasslands	All segments could provide habitat for this species.
Olive-sided Flycatcher	<i>Contopus borealis</i>	FS sensitive (R2)	-	Olive-sided flycatchers are generally restricted to coniferous or mixed-coniferous forests. Throughout their breeding range, they primarily occur in montane, subalpine, and boreal forests. In addition, they often occur along wooded shores of lakes, rivers, and bogs where forest edges, variation in tree height, and standing dead trees are found. This species is most often associated with forest edges and openings caused by natural or anthropogenic disturbances, including small forest gaps resulting from tree death in old-growth forests, or along the edges of early successional forests. Olive-sided flycatchers usually do not occur in closed canopy forests and are uncommon in forests in the sapling-pole or mature forest stages that lack gaps or edges.	Yes	Forest	1E, 1W, 4, 5, 7, 9
		BLM sensitive					
Peregrine Falcon	<i>Falco peregrinus</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Tall cliffs: Nests near rocky cliffs and often hunts near water.	Yes	Rocky habitats near riparian/wetlands areas used for hunting	All segments could contain rock habitats
		BLM sensitive	SGCN/ Idaho				
Pileated Woodpecker	<i>Dryocopus pileatus</i>	MIS (Sawtooth NF)	-	This species can be found within late successional stages of coniferous or deciduous forest, as well as younger forests that have scattered, large, or dead trees. This species is not found within Wyoming, but does have year round breeding habitat in the northern half of Idaho (north of the Project area).	No	N/A	N/A
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	BLM sensitive (only in Nevada)	-	This species inhabits pinyon juniper and scrub oak woodlands.	Yes – This species distribution overlaps the analysis area along 7I within NV.	Forest / Woodlands	7I
Prairie Falcon	<i>Falco mexicanus</i>	BLM sensitive	-	This species tends to occupy open treeless terrain including prairies, deserts, riverine escarpments, canyons, foothills, and mountains.	Yes – Found all year in Idaho and Wyoming	Shrublands and Grasslands	All segments could provide habitat for this species.
Purple Martin	<i>Progne subis</i>	FS sensitive (R2)	-	This species nests in forest edges and clearings adjacent to waterbodies.	Likely – This species distribution is adjacent to the analysis area, and some individuals would likely pass infrequently into the analysis area.	Riparian areas	1E, 1W, 2, 4, 5, 7, 8, 9
Red-Naped Sapsucker	<i>Sphyrapicus nuchalis</i>	BLM sensitive (only in Nevada)	-	This species inhabits forested areas adjacent to clearcuts and open areas. It is a cavity nester, that excavates holes in snags or live trees.	Yes	Forests	1E, 1W, 2, 4, 5, 7
Sage Sparrow	<i>Amphispiza belli</i>	FS sensitive (R2)	SGCN / Wyoming	Basin-prairie shrub, mountain-foothill shrub: Species breeds in open, shrublands, most commonly in sagebrush grassland areas. These sparrows favor dense stands of sagebrush with a modest amount of understory vegetation. Winter habitat for sage sparrows is found in open flats, deserts and dry chaparral of the Southwest	Yes	Sagebrush	All segments could provide habitat for this species.
		BLM sensitive					
Sage Thrasher	<i>Oreoscoptes montanus</i>	BLM sensitive	SGCN / Wyoming	Basin-prairie shrub, mountain-foothill shrub: The species is a sagebrush obligate as they are common inhabitants of shrub-steppe communities that are dominated by big sagebrush. Nest-site selection is specific as most nests are located within or beneath sagebrush plants with high foliage and branch density. Dense patches of large sagebrush plants and low densities of exotic plants also seem to be an important habitat characteristic for sage thrashers	Yes	Sagebrush	All segments could provide habitat for this species.
Sandhill Crane	<i>Grus canadensis</i>	BLM sensitive (only in Nevada)	-	This species inhabits open grasslands, marshes, marshy edges of lakes and ponds, and river banks. Will nest on the ground or in shallow water. During the nonbreeding season, this species roosts at night in shallow water along river channels, on alluvial islands of braided rivers, or in natural basin wetlands	Yes	Wetlands	All segments could provide habitat for this species.
Short Eared Owl	<i>Asio flammeus</i>	FS sensitive (R2)	SGCN / Wyoming	The short eared owl typically inhabits open habitats including grasslands, sagebrush, marshes, and tundra.	Yes	Open grassland and sagebrush habitats	All segments could provide habitat for this species.
			SGCN/ Idaho				

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Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Birds cont.</b>							
Snowy Plover	<i>Charadrius alexandrinus</i>	BLM sensitive (only in Nevada)	-	This species will inhabit sandy shores of rivers, lakes, or ponds. The nest on the ground on broad beaches or mud flats.	Yes – This species distribution overlaps the analysis area along 7I in NV.	Wetlands	7I
Swainson's Hawk	<i>Buteo swainsoni</i>	BLM sensitive (only in Nevada)	-	This species inhabits open pine-oak woodlands with a abundant shrub-grass component, grasslands, and cultivated farmlands. Nests in trees or bushes.	Yes	Shrublands and Grasslands	All segments could provide habitat for this species.
Three-Toed Woodpecker	<i>Picoides dorsalis</i>	MIS (Medicine Bow NF)	SGCN / Wyoming	This species inhabits old growth spruce-fir as well as lodgepole pine forests. These birds will also exploit recently burned forests, as these provide a rich food source.	Yes	Mature forests	1E, 1W, 4, 5, 7
		FS sensitive (R2, R4)	SGCN/ Idaho				
		BLM sensitive					
Trumpeter Swan	<i>Cygnus buccinator</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Lakes, ponds, rivers; Species nest on the margins of interconnected shallow marshes and lakes, lakes within forest or sagebrush habitat, and oxbows of rivers. They prefer stable, quiet, shallow waters where small islands, muskrat houses, or dense emergent vegetation provide nesting and loafing sites. Nutrient-rich waters, with dense aquatic plant and invertebrate growth, provide the best habitat	No	N/A	N/A
		BLM sensitive	SGCN/ Idaho				
Upland Sandpiper	<i>Bartramia longicauda</i>	BLM sensitive	SGCN / Wyoming SGCN/ Idaho	Native grassland: Species requires taller grass for nesting. It is almost never found on mudflats or in wetland environments where other shorebirds are found. Nests on pasture, prairie remnants, hayfields, summer fallow (bare soil), mulched grain stubble, standing grain stubble, and growing grain, but was most common in nontilled uplands (road rights-of-way, vegetation around prairie wetlands, heavily grazed wetlands, and small tracts of idled grasslands).	No – Occurs in Kootenai and Valley County which are outside of the Analysis Area.	N/A	N/A
Vesper Sparrow	<i>Pooecetes gramineus</i>	BLM sensitive (only in Nevada)		This species inhabits open areas such as grasslands, shrublands, and farmlands.	Yes	Shrublands and Grasslands	All segments could provide habitat for this species.
Virginia's Warbler	<i>Vermivora virginiae</i>	BLM sensitive	SGCN/ Idaho	Typically found in pinyon-juniper and oak woodlands. Nests found in dense thickets of mountain mahogany and some populations breed in high, mixed-conifer forests. Occupies scrubby habitats below the pine belt and surrounding conifers. Never occurs in coniferous forest where there is not a deciduous mix. Strong association for breeding in steep draws, drainages, or slopes with oak or other shrubby vegetation.	Yes	Pinyon-juniper, oak woodlands, mountain mahogany.	1E, 1W, 4, 5, 7
White-faced Ibis	<i>Plegadis chihi</i>	BLM sensitive	SGCN / Wyoming	Marshes, wet meadows: Frequently feeds in shallowly flooded wetlands of short, emergent plants, such as sedges, spikerushes, glassworts, inland saltgrass, and black greasewood. Nearby irrigated crops, particularly alfalfa, barley, and native hay meadows are important feeding sites. Water appears to be a requirement for a suitable feeding site. Usually nests in emergent vegetation or low trees and shrubs over shallow water, use hardstem bulrush, alkali bulrush, cattails, or build a stick nest in small willows.	Yes – Populations near American Falls and Rupert.	Wetlands - near American Falls and Rupert	5, 7
			SGCN/ Idaho				
White-headed Woodpecker	<i>Picoides albolarvatus</i>	FS sensitive (R4)	SGCN/ Idaho	Species prefers semi-open areas with large, mature trees, providing 40-70% canopy. Forages on live, mature conifers with deeply creviced and scaly bark (Raphael and White 1984). Nest and roost cavities and trees provide cover.	No – Populations near McCall and Riggins do not intersect with Analysis Area.	N/A	N/A
		BLM sensitive					
White-tailed Ptarmigan	<i>Lagopus leucura</i>	FS sensitive (R2)	-	This species inhabits alpine ecosystems at or above treeline as well as stream courses and meadows within the subalpine zone.	No	N/A	N/A
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	BLM sensitive	-	Open coniferous forests. Breeds at middle to high elevations, generally from 4,900–10,500 feet. Nests at lower elevations (from 2,800–4,250 feet) at the northern edge of its range.	Yes – Known to occur in Bear Lake County, Blaine County.	Open forest habitats	4, 5, 7
Willow Flycatcher	<i>Empidonax traillii</i>	BLM sensitive	SGCN / Wyoming	Breeding habitat consists of deciduous thickets, especially willows and often near water. Winters in shrubby clearings and early successional growth.	Yes – Breeding bird survey route in western Sweetwater Co	Riparian areas - breeding bird survey route in western Sweetwater Co	4
Wilson's Warbler	<i>Wilsonia pusilla</i>	MIS (Medicine Bow NF)	-	This species of warbler inhabits mesic shrub communities or willow woodlands located near the edges of beaver ponds and lakes, riparian zones, fens, bogs and overgrown clear-cuts.	Yes	Riparian areas	All segments could provide habitat for this species.
Yellow-Breasted Chat	<i>Icteria virens</i>	BLM sensitive (only in Nevada)	-	This species inhabits open areas such as grasslands, shrublands, and fencerows; often located near human habitations	Yes	Shrublands and Grasslands	All segments could provide habitat for this species.

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<b>Fish</b>							
Big Lost River Whitefish	<i>Prosopium williamsoni</i>	FS sensitive (R4)	SGCN / Wyoming	This species inhabits larger tributaries and the mainstem of the Big Lost River. Two metapopulations currently exist: one above and one below the Mackay Dam.	No – The Project does not cross the Big Lost River area	N/A	N/A
Bluehead Sucker	<i>Catostomus discobolus</i>	FS sensitive (R2)	SGCN / Wyoming	Bear, Snake and Green drainages, all waters. This species has been reported to typically be found in runs or riffles with rock or gravel substrate. Juveniles have been collected from shallow riffles, backwaters, and eddies with silt or gravel substrate. Although the species generally inhabits streams with cool temperatures, bluehead suckers have been found inhabiting small creeks with water temperatures as high as 82.4°F). This species is found in a large variety of river systems ranging from large rivers with discharges of several hundred cubic meters per sec to small creeks with less than a 0.05 cubic meters per second (1.8 cubic feet per sec).	Yes	Snake and Green River drainages	4, 5, 7, 8, 9, 10
		BLM sensitive	SGCN / Idaho				
Bonneville Cutthroat Trout	<i>Oncorhynchus clarki utah</i>	FS sensitive (R4)	SGCN / Wyoming	Clear mountain streams within the Bonneville basin, along the Bear River drainage.	Yes – Occurs in Bear River and drainages	Bear River	4
		BLM sensitive	SGCN / Idaho				
Colorado River Cutthroat Trout	<i>Oncorhynchus clarki pleuriticus</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Clear mountain streams along the Colorado River drainages located above the Grand Canyon; including the green river	Yes – Occurs in Green River	Green River	4
		BLM sensitive					
Common Trout (Brook; Brown; Rainbow)	-	MIS (Medicine Bow NF)	-	Found in cold waters of the Yampa, North Platte, Colorado Rivers.	Yes	Rivers	4, 5, 7, 8, 9, 10
Finescale Dace	<i>Phoxinus neogaeus</i>	FS sensitive (R2)	SGCN / Wyoming	Finescale dace typically occur in cool, boggy lakes and sluggish, acidic streams. They are commonly found in lakes and ponds and are often associated with beaver ponds.	Yes	Waterbodies	4, 5, 7, 8, 9, 10
Fine-spotted Cutthroat Trout, Snake River Cutthroat	<i>Oncorhynchus clarki</i> spp	FS sensitive (R4)	SGCN / Wyoming	Snake River drainage, clear, fast water	Yes – Occurs in Snake River and drainages	Snake River	4, 5, 7, 8, 9, 10
		BLM sensitive	SGCN / Idaho				
Flannelmouth Sucker	<i>Catostomus latipinnis</i>	FS sensitive (R2) BLM sensitive	SGCN / Wyoming	Colorado River drainage, large rivers, streams and lakes. Although preferring large rivers with deep riffles and runs, they can also be found in smaller streams and sometimes in lakes. Native to the Colorado River drainage basin, in Wyoming it's found in the Green and Little Snake river drainages. In the spring they leave the large rivers and ascend small tributary streams to spawn;	Yes – Occurs in Green River drainages	Green River	4
Flathead Chub	<i>Platygobio gracilis</i>	FS sensitive (R2)	SGCN / Wyoming	Near the Project area, this species is found in the northern portion of Wyoming including the Big Horn, Tongue, Powder, Little Powder, Belle Fourche, and Cheyenne River systems. This species distribution in Wyoming is north of the project area.	No	N/A	N/A
Hornyhead Chub	<i>Nocomis biguttatus</i>	FS sensitive (R2) BLM sensitive	SGCN / Wyoming	Found in small to medium sized streams, with gravel and rock substrates, and warm waters with abundant aquatic vegetation.	No	N/A	N/A
Independence Valley Tui Chub	<i>Gila bicolor euchila</i>	BLM sensitive (only in Nevada)	-	Found in slow moving freashwater marshes wihtin Elko County, Nevada.	No – the project would not cross through suitable habitats within Elko County	N/A	N/A
Lake Chub	<i>Couesius plumbeus</i>	FS sensitive (R2)	SGCN / Wyoming	Found in glacial scour lakes and rivers with clear water and gravel bottoms.	Yes	Rivers	4
			SGCN / Idaho				
Leatherside Chub	<i>Gila copei</i>	BLM sensitive	SGCN / Idaho	Bear, Snake and Green drainages, clear, cool streams and pools having water temperatures between 60 and 75°F.	Yes – Occurs in Upper Snake River in Lincoln County, WY	Upper Snake River	4
Mountain Sucker	<i>Catostomus platyrhynchus</i>	FS sensitive (R2)	SGCN / Wyoming	This species can be found in small headwater streams along the Snake River, and lentic habitats such as the Lower Green River Lake.	Yes	Rivers	4, 5, 7
Northern Leatherside Chub	<i>Lepidomeda copei</i> (formally <i>Gila copei</i> )	FS sensitive (R4) BLM sensitive	SGCN / Wyoming	The leatherside chub inhabits deep pools in medium sized streams that have cool water temperatures between 60 and 75 degrees fahrenheit. They are found in streams with dense vegetation or abundant lateral habitat. Along the Project area, they can be found in the northeastern portions of the Bonneville Basin, as well as Snake and Bear River drainages along the Wyoming-Idaho-Utah boarder. Introduced populations can also be found within the Colorado River system.	Yes – this species is found in the Snake River drainage above Shoshone Falls, as well as the Raft River, Goose Creek, Good Creek, and Bear River. In addition, introduced populations occur in the Colorado and Green River system.	The Snake River above Shoshone Falls, as well as the Raft River, Good Creek, Goose Creek, Bear River, Colorado River, and Green River.	4, 7

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<b>Fish cont.</b>							
Northern Redbelly Dace	<i>Phoxinus eos</i>	FS sensitive (R2)	-	Found in slow moving, spring fed streams which contain abundant vegetation and large wood debris.	No – species not native to the Project area.	N/A	N/A
Pearl Dace	<i>Margariscus margarita</i>	FS sensitive (R2)	SGCN / Wyoming	Found in slow moving, spring fed streams with well vegetated banks, and a diverse system of pool habitats.	No	N/A	N/A
Plains Minnow	<i>Hybognathus placitus</i>	FS sensitive (R2)	SGCN / Wyoming	Found along the channels of shallow, fluctuating streams with shifting sand substrates.	No	N/A	N/A
Redband Trout	<i>Oncorhynchus mykiss gairdneri</i>	BLM sensitive	SGCN / Idaho	Redband trout occur in inland drainages of the Pacific Northwest. Great Basin redband trout are found in arid forest and desert environments characterized by extreme fluctuations in stream flow and temperature.	Yes – Occurs in Snake River drainages	Snake River	8, 9, 10
Relict Dace	<i>Relictus solitarius</i>	BLM sensitive (only in Nevada)	-	Found in springs brooks, lakes, and reservoirs.	No – the project does not cross the distribution of this species	N/A	N/A
Rio Grande Chub	<i>Gila pandora</i>	FS sensitive (R2)	-	Current distribution limited to the tributary systems of the Rio Grande. Can be found in cool, fast flowing reaches with gravel or cobble substrates, and banks with overhanging vegetation.	No	N/A	N/A
Rio Grande Cutthroat Trout	<i>Oncorhynchus clarkii virginialis</i>	FS sensitive (R2)	-	Current distribution is limited to tributaries of the Rio Grande in Colorado and New Mexico. Found in small, high elevation streams. This species of trout is more of a generalist than other <i>Oncorhynchus</i> .	No	N/A	N/A
Rio Grande Sucker	<i>Catostomus plebeius</i>	FS sensitive (R2)	-	Current distribution limited to the tributary systems of the Rio Grande. Found in slow moving waters that contain coarse substrates.	No	N/A	N/A
Roundtail Chub	<i>Gila robusta</i>	FS sensitive (R2)	SGCN / Wyoming	Colorado River drainage, mostly large rivers, also streams and lakes below 7,546 feet. Streams should have a complexity of pool and riffle habitats. Juveniles and adults are typically found in relatively deep, low-velocity habitats that are often associated with woody debris or other types of cover. Substrate in roundtail chub habitat may range from rock and gravel to silt and sand. Larvae have been reported in low velocity areas associated with backwater habitats. Temperature tolerance of roundtail chub has been reported up to 102.2 °F, but temperature preference ranges between 71.6 ° and 75.2 °F.	Yes – Found in Green and Little Snake River drainages	Green and Little Snake River	4
		BLM sensitive					
Shoshone Sculpin	<i>Cottus greenei</i>	BLM sensitive	SGCN / Idaho	Shoshone sculpin are found in approximately two dozen springs/streams in the Hagerman Valley. Their habitat is essentially restricted to the clear, cool (60.8 degrees Fahrenheit) well oxygenated water of the Thousand Springs Formation. They select low velocity waters with abundant gravel, rock, and aquatic vegetation.	Yes – Occurs in Hagerman Valley	Waterbodies	8
Southern Leatherside Chub	<i>Lepidomeda aliciae</i> (formally <i>Gila copei</i> )	FS sensitive (R4)	-	This species is native to streams and rivers of the southeastern portion of the Bonneville Basin; similar habitats to the northern leatherside chub, but with a most southern distribution. Occurs in Utah Lake and Sevier River drainages	Unlikely – distribution is likely south of the Project Area	N/A	N/A
Southern Redbelly Dace	<i>Phoxinus erythrogaster</i>	FS sensitive (R2)	-	Found predominantly within slow moving headwaters and upland creeks with abundant bank vegetation and large woody debris. Prefers clear waters and a gravel substrate.	No	N/A	N/A
Sturgeon Chub	<i>Macrhybopsis gelida</i>	FS sensitive (R2)	SGCN / Wyoming	Found in fast moving streams with high turbidity. Often in shallow waters such as rock or gravel riffles.	Yes	Rivers	4, 5, 7, 8, 9, 10
Westslope Cutthroat Trout	<i>Oncorhynchus clarkii lewisi</i>	FS sensitive (R4) BLM sensitive	SGCN / Idaho	Westslope cutthroat are common in both headwaters lake and stream environments. The newborn fry frequently migrate back to lakes to rear after 1 to 2 years in their native stream. Spawning and rearing streams tend to be cold and nutrient poor. Westslope cutthroat trout seek out gravel substrate in riffles and pool crests for spawning habitat. Westslope cutthroat trout also require cold water. Westslope cutthroat trout tend to thrive in streams with more pool habitat and cover than uniform, simple habitat. Juvenile cutthroat trout overwinter in the interstitial spaces of large stream substrate. Adult cutthroat trout need deep, slow moving pools that do not fill with anchor ice in order to survive the winter.	Yes – Occurs in Snake River and drainages	Snake River	5, 7, 8, 9, 10
Wood River Sculpin	<i>Cottus leiopomus</i>	FS sensitive (R4) BLM sensitive	SGCN / Idaho	The Wood River sculpin occurs only in the Wood River drainage in south-central Idaho. The Wood River sculpin occurs mainly in small to medium sized streams with cool, clear waters and a swift current. Individuals are most commonly found in riffles and runs with a gravel or cobble substrate.	Yes	Waterbodies	8

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Reptiles</b>							
Yellowstone Cutthroat Trout	<i>Oncorhynchus clarki bouvieri</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Yellowstone, Bighorn, and Snake River drainage, small mountain streams and large rivers (including Raft River, Goose Creek, Piney Creek, and Trout Creek)	Yes	Snake River	4, 5, 7, 8, 9, 10
		BLM sensitive	SGCN / Idaho				
Black Hills Redbelly Snake	<i>Storeria occipitomaculata pahasapae</i>	FS sensitive (R2)	SGCN / Wyoming	This species inhabits mountainous or hilly woodlands in the Black Hills. It is commonly found under rocks and logs in moist areas.	No – In Wyoming, this species range is limited to Crook and Weston Counties.	N/A	N/A
Common Garter Snake	<i>Thamnophis sirtalis</i>	BLM sensitive	SGCN / Wyoming	Common Garter Snakes are usually found in habitats associated with water, such as streams, rivers, lakes, ponds and marshes. They can also be found in open meadows and coniferous forests	Yes – Found in western Wyoming	Wetlands and open meadows/coniferous forests	2, 3, 4
Longnose Snake	<i>Rhinocheilus lecontei</i>	BLM sensitive	SGCN / Idaho	Arid and semi-arid deserts, grasslands, shrublands, and prairies. Sea level to 6,200 ft	Yes – Occurs at Bruneau Sand Dunes	Sand dunes	9
Desert Massasuga Rattlesnake	<i>Sistrurus catenatus edwardsii</i>	FS sensitive (R2)	-	This species inhabits shortgrass prairie habitat.	No – This species distribution does not overlap the analysis area	N/A	N/A
Midget Faded Rattlesnake	<i>Crotalus viridis concolor</i>	BLM sensitive	SGCN / Wyoming	Mountain foothills shrub, rock outcrop in sagebrush desert.	Yes – Occurs from Green River to Rock Springs	Shrublands	4
Mojave Black-collared Lizard	<i>Crotaphytus bicinctores</i>	BLM sensitive	SGCN / Idaho	Isolated populations occur in eastern Idaho and Utah. Prefers arid rocky hilly deserts with sparse vegetation, but sometimes found in areas with few rocks.	Yes – Occurs in Ada, Canyon, and Elmore counties	Shrublands	8, 9
Short-Horned Lizard	<i>Phrynosoma douglassii</i> ; <i>Phrynosoma hernandesi</i>	BLM sensitive (only in Nevada)	-	This species can inhabit areas ranging from semiarid plains to high mountains, usually t in open, shrubby, or openly wooded areas with sparse vegetation at ground level	Yes – This species could occur along the portion of the analysis area in NV	Shrublands	71
Western Ground Snake	<i>Sonora semiannulata</i>	BLM sensitive	SGCN / Idaho	Inhabits areas with surface cover and some moisture: grassland, riverbottoms, desert flats, ranchland, sand hummocks, open rocky hillsides with loose soil, sandy washes, dry streambeds, and riparian thickets.	Yes – Occurs near Hammet	Riparian areas	8, 9
<b>Amphibians</b>							
Boreal Toad (Northern Rocky Mountain population)	<i>Bufo boreas boreas</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Pond margins, wet meadows, riparian areas. Boreal toads live in a wide range of habitats in western North America: wetlands, forests, woodlands, sagebrush, meadows, and floodplains in the mountains and valleys. Boreal toads generally occur between 7,500 and 12,000 feet in Region 2. The wetland habitat classification system of Cowardin et al. (1979) defines the following wetland classes: aquatic bed, streambed, rocky shore, unconsolidated shore, emergent wetland (persistent and non-persistent), scrub-shrub wetland, and forested wetland. Boreal toads are likely to be found within these classes in Riverine, Lacustrine, and Palustrine wetland systems.	Yes	Locations mapped by Idaho CDC and WYNDD.	All segments could provide habitat for this species.
		BLM sensitive					
Great Basin Spadefoot	<i>Spea intermontana</i>	BLM sensitive	SGCN / Wyoming	Spring seeps, permanent and temporary waters. Mainly sagebrush flats, semi-desert shrublands, pinyon-juniper woodland. Digs its own burrow in loose soil or uses those of small mammals. Breeds in temporary or permanent water, including rain pools, pools in intermittent streams, and flooded areas along streams. Eggs are attached to vegetation in water or placed on bottom of pool.	Yes – Occurs in Natrona County and Green River Valley	Wetlands and waterbodies	1W, 4
Idaho Giant Salamander	<i>Dicamptodon aterrimus</i>	BLM sensitive	SGCN / Idaho	Known to occur up to 2160 m in elevation. Transformed adults, although seldom seen, inhabit moist coniferous forests where they may be found under logs, bark, or rocks. They are most active on warm, rainy nights. Larvae are usually found in swift, cold mountain streams, but may occasionally be found in lakes or ponds.	No – Occurs in northern Idaho outside of Analysis Area.	N/A	N/A
Mountain Yellow-Legged Frog	<i>Rana muscosa</i>	FS sensitive (R4)	-	Found in wetland habitats within mountain areas of California and Nevada.	No	N/A	N/A
Plains Leopard Frog	<i>Lithobates blairi</i>	FS sensitive (R2)	-	This species inhabits large waterbodies and streams, but will breed in smaller wetlands.	No – This species distribution does not overlap the analysis area	N/A	N/A
Yosemite Toad	<i>Bufo canorus</i>	FS sensitive (R4)	-	Found in wetland habitats within California.	No	N/A	N/A

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Amphibians cont.</b>							
Spotted Frog	<i>Rana pretiosa (lutiventris)</i>	FS sensitive (R2, R4)	SGCN / Wyoming	Ponds, sloughs, small streams. Columbia Spotted Frogs are fairly aquatic and are generally found in or near permanent bodies of water such as lakes, ponds, sluggish streams and marshes. The littoral zone is generally comprised of emergent vegetation including grasses and sedges. During the summer these frogs can be found some distance from the breeding sites but still associated with moist vegetation. Found from sea level to about 9,842 feet, usually in hilly areas near cool, permanent, quiet water in streams, rivers, lakes, pools, springs, and marshes. Highly aquatic, but may disperse into forests, grasslands, and brushlands. In the Northwest, prefers areas with thick algae and emergent vegetation, but may use sunken, dead, or decaying vegetation as escape cover.	Yes – Riparian/wetland habitats mapped for this species are present within segment 4	Riparian and wetland habitats	4, 9
		BLM sensitive	SGCN / Idaho				
Wood Frog	<i>Lithobates sylvatica</i>	FS sensitive (R2)	-	This species inhabits wetlands habitats as well as adjoining grassy meadows, willow bogs, coniferous forests, and aspen groves in their western range. In the eastern range they inhabit both closed canopy deciduous and coniferous forests.	No – This species distribution does not overlap the analysis area	N/A	N/A
Woodhouse Toad	<i>Bufo woodhousii</i>	BLM sensitive	SGCN / Wyoming	Inhabits a wide variety of habitats - irrigation ditches, temporary pools, backyards, grassland, sagebrush flats, woods, desert streams, farms, river floodplains. Prefers sandy areas. From below sea level to 8,500 ft. (2600 m.)	Yes – Occurs in Ada, Canyon and Elmore County and eastern Wyoming counties.	Wetland and adjacent upland habitats	8, 9, 1E, 1W
			SGCN / Idaho				
<b>Invertebrates</b>							
Bruneau Dunes Tiger Beetle	<i>Cicindela waynei waynei</i>	BLM sensitive	SGCN / Idaho	This species primarily occurs in the sparsely vegetated margins of sand dunes. Adults can be found on dunes but spend much of their time on more stabilized substrate in saddles between dunes. Larvae develop in burrows in flat areas in the narrow area between the drifting sand of the dunes and the established desert plant community. Such sites usually having a covering of small gravel or pebbles.	Yes – Occurs in Minidoka, Blain, and Power Counties	Sand dunes in Owyhee County	4, 9
Blind Cave Leioidid Beetle	<i>Glacivicola bathyscoides</i>	BLM sensitive	SGCN / Idaho	This species is known only from southern Idaho and westernmost Wyoming. This species has only been found in lava tube caves in the vicinity of permanent ice	Yes – Occurs in Lincoln and Power County	Lava tube caves in the vicinity of permanent ice in Lincoln and Power County	4, 5, 7, 8
California Floater	<i>Anodonta californiensis</i>	BLM sensitive	SGCN / Wyoming	The California floater, a freshwater mussel, is found in the Snake River in scattered locations between Bliss and Alkali Creek. The California floater prefers habitats immediately upstream or downstream of rapids in mud-sand substrates with good water quality.	Yes – Occurs in Elmore, Gooding, Jerome, and Twin Falls County, Idaho	Wetlands	8, 9, 10
			SGCN / Idaho				
Columbia Pebblesnail	<i>Fluminicola fuscus</i>	BLM sensitive	-	The Columbia pebblesnail is found in the Snake River below Lower Salmon Falls Dam and in the tailwaters of the Bliss Dam. The pebblesnail lives in flowing waters and uses gravel- to boulder-sized substrate at the edges or downstream of rapids and whitewater areas.	Yes – Occurs in Gooding and Twin Falls County, Idaho	Wetlands and waterbodies.	8, 9, 10
Cooper's Rocky Mountain Snail	<i>Oreohelix strigosa cooperi</i>	FS sensitive (R2)	SGCN / Wyoming	This species if found in moist forest habitats.	No – Known occurrences are limited to the Black Hills National Forest	N/A	N/A
Dark Blue	<i>Euphilotes ancilla purpura</i>	FS sensitive (R4)	-	This butterfly is endemic to the Spring Mountains of Clark County Nevada. It inhabits stream banks, springs and seeps; primarily in mixed conifer and juniper areas.	No – This species distribution does not overlap the analysis area	N/A	N/A
Grey's Silverspot	<i>Speyeria hesperis greyi</i>	BLM sensitive (only in Nevada)	-	This species distribution is limited to the Ruby Mountains and East Humboldt Range, in Elko County, Nevada.	No – This species distribution does not overlap the analysis area	N/A	N/A
Hudsonian Emerald	<i>Somatochlora hudsonica</i>	FS sensitive (R2)	-	This species inhabits wetland habitats which contain shallow, organic soils over dolomitic bedrock; calcareous water from intermittent seeps; or shallow small channels and/or sheet-flow	Unlikely – Near the analysis area, this species is know near Moran in Grand Teton National Park and along the North Fork of the Little Laramie River in the Medicine Bow National Forest (Both outside of the analysis area.	N/A	N/A
Humboldt Pyrg	<i>Pyrgulopsis humboldtensis</i>	BLM sensitive (only in Nevada)	-	Inhabits springs within Elko County NV, which contain aquatic vegetation. Watersheds where this species occurs in Elko county include Upper Humboldt and North Fork Humboldt.	No – The distribution of this species does not cross the analysis area, and no springs would be impacted witin Elko County	N/A	N/A
Large-Gland Carico Pyrg	<i>Pyrgulopsis basiglans</i>	BLM sensitive (only in Nevada)	-	Inhabits springs within Elko County NV, which contain aquatic vegetation. This species occurs in the Middle Humboldt watershed in Elko County.	No – The distribution of this species does not cross the analysis area, and no springs would be impacted witin Elko County	N/A	N/A

**Table D.11-2. BLM Sensitive, Forest Service Sensitive, or MIS with the Potential to Occur within the Analysis Area**

Common Name	Scientific Name	Federal Agency Status	State Species of Greatest Conservation Need (SGCN) / State Listed in	Habitat Description	Does the Species Have Distribution or Potential Habitat within the Analysis Area?	Habitat Unit used for Analysis	Segments Species may be Present In
<b>Invertebrates cont.</b>							
Mattoni's Blue	<i>Euphilotes pallescens mattonii</i>	BLM sensitive (only in Nevada)	-	This species is endemic to Nevada, and is known to occur in Pilot-Thousand Springs, Long-Ruby Valleys and Bruneau watersheds in Elko County. It is dependent on slender buckwheat ( <i>Eriogonum microthecum laxiflorum</i> ) in that females lay eggs upon young flowers and larvae feed on pollen and developing seeds. Slender buckwheat grows in mountain habitats above approximately 4,900 feet in elevation.	Potentially – The analysis area would cross near the Pilot-Thousand Springs watershed, and would grassland habitats in this area would be a sufficient elevations to support slender buckwheat	Grasslands	7I
Morand's Checkerspot	<i>Euphydryas anicia morandi</i>	FS sensitive (R4)	-	This butterfly is endemic to the Spring Mountains of Clark County Nevada. There are small populations in the Lee Canyon ski areas. It inhabits meadows and avalanche chutes.	No – This species distribution does not overlap the analysis area	N/A	N/A
Mt. Charleston Blue Butterfly	<i>Icarcia shasta charlestonensis</i>	FS sensitive (R4)	-	This butterfly is endemic to the Spring Mountains of Clark County Nevada. It occurs on relatively flat ridgelines in the Spring Mountains; typically above 8,200 feet.	No – This species distribution does not overlap the analysis area	N/A	N/A
Nokomis Fritillary Butterfly (Siverspot butterfly)	<i>Speyeria nokomis nokomis</i>	FS sensitive (R2)	-	This species of butterfly inhabits spring-fed meadows, seeps, marshes, and boggy streamside meadows associated with flowing water.	No – This species distribution does not overlap the analysis area	N/A	N/A
Ottoo skipper	<i>Hesperia ottoe</i>	FS sensitive (R2)	-	This butterfly is a prairie obligate species that can be found in dry-mesic to mesic prairies.	No – This species distribution does not overlap the analysis area. The closest occurrence is in Platte County.	N/A	1E, 1W
Pygmy mountain Snail	<i>Oreohelix pygmaea</i>	FS sensitive (R2)	SGCN / Wyoming	This species inhabits moist forest habitats.	No – Known occurrences of this species include Tensleep Canyon and Shell Canyon, WY. These canyons are outside of the analysis area	N/A	N/A
Regal Fritillary	<i>Speyeria idalia</i>	FS sensitive (R2)	-	This species inhabits tallgrass prairie, wet meadows, and marshy habitats.	No – This species distribution does not overlap the analysis area. The closest occurrence is in Platte County.	N/A	N/A
Rocky Mountain capshell	<i>Acroloxus coloradensis</i>	FS sensitive (R2)	-	This species inhabits lakes with high calcium content and low elevations (approximately 2,864 m).	No – This species distribution does not overlap the analysis area.	N/A	N/A
St. Anthony Sand Dunes Tiger Beetle	<i>Cicindela arenicola</i>	BLM sensitive	SGCN / Idaho	This species is found on sand dunes. Larvae live in burrows located in flat, grassy areas where the sand is at least a meter thick, often on the windward side of sand dunes.	Yes – Occurs in Bannock, Power, Blaine, Minnidoka, Lincoln, and possibly Bingham Counties	Sand dunes	4, 9
Schell Creek Mountainsnail	<i>Oreohelix nevadensis</i>	BLM sensitive (only in Nevada)	-	Inhabits springs within Elko County NV, which contain aquatic vegetation. This species occurs in the Spring-Steptoe Valley watershed in Elko County.	No – The distribution of this species does not cross the analysis area, and no springs would be impacted within Elko County	N/A	N/A
Shortface Lanx	<i>Fisherola nuttalli</i>	BLM sensitive	SGCN / Idaho	Shortface lanx inhabits cold, unpolluted, medium to large streams with fast-flowing, well-oxygenated water and cobbleboulder substrate, and is generally found at the edges of rapids. Current populations occur in the Snake River.	Yes – Occurs in Snake River	Snake River	8, 9, 10
Spring Mountain Checkerspot	<i>Chlosyne acastus robusta</i>	FS sensitive (R4)	-	This butterfly is endemic to the Spring Mountains of Clark County Nevada. It can be found in Kyle Canyon and Deer Creek. It occurs primarily in riparian areas.	No – This species distribution does not overlap the analysis area	N/A	N/A
Susan's Purse-making Caddisfly	<i>Ochrotrichia susanae</i>	FS sensitive (R2)	-	The larva of this species are aquatic and inhabit small, cold streams that are well-oxygenated, highly buffered, and low in trace metals. Adults are weak flyers and tend to remain close to larva habitat.	No – This species is only known in central Colorado.	N/A	N/A
Transverse Gland Pyrg	<i>Pyrgulopsis cruciglans</i>	BLM sensitive (only in Nevada)	-	Inhabits springs within Elko County NV, which contain aquatic vegetation. This species occurs in the Spring-Steptoe Valley watershed in Elko County.	No – The distribution of this species does not cross the analysis area, and no springs would be impacted within Elko County	N/A	N/A
Vinyards Pyrg	<i>Pyrgulopsis vinyardi</i>	BLM sensitive (only in Nevada)	-	Inhabits springs within Elko County NV, which contain aquatic vegetation. This species occurs in the Rock watershed in Elko County.	No – The distribution of this species does not cross the analysis area, and no springs would be impacted within Elko County	N/A	N/A

Notes: **BLM** = Bureau of Land Management; **FS** = U.S. Forest Service; **R2** = Forest Service Region 2; **R4** = Forest Service Region 4.

**Table D.11-3. Miles of Habitat Crossed for Federal ESA Wildlife Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Habitat Crossed							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
1E	Proposed – Total Length	100.6				62.0		64.3	2.1	
	Proposed – Comparison portion for Alternative 1E-A	17.6				9.7		12.4	0.3	
	Alternative 1E-A	16.1				6.9		11.3	0.4	
	Proposed – Comparison portion for Alternative 1E-B	37.9				27.8		33.3	0.7	
	Alternative 1E-B	59.3				39.7		39.7	0.8	
	Proposed – Comparison portion for Alternative 1E-C	75.4				49.3		48.6	1.7	
	Alternative 1E-C	48.7				35.5		36.8	0.5	
1W	1W(a) Proposed – Total Length	76.5				45.7		49.1	1.2	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 1W-A	20.3				8.7		12.3	0.2	
	Alternative 1W-A	16.2				5.5		10.9	0.6	
	1W(c) Proposed – Total Length	70.6				42.3		43.7	1.9	
2	Proposed – Total Length	96.7	14.5			86.0		68.6	1.1	
	Proposed – Comparison portion for Alternative 2A	28.8				24.4		19.5	0.6	
	Alternative 2A	28.4				24.9		21.4	0.6	
	Proposed – Comparison portion for Alternative 2B	7.0				6.1		4.4	0.1	
	Alternative 2B	6.2				5.0		5.5	0.3	
	Proposed – Comparison portion for Alternative 2C	28.4				25.5		18.1	0.2	
	Alternative 2C	24.4				23.7		14.2	0.2	
3	Proposed – Total Length	56.5	17.6			44.7	36.3	48.2	0.9	
4	Proposed – Total Length	203.0	41.7	10.3	1.5	144.0	139.9	76.5	7.2	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	29.8	10.3	1.5	69.7	78.6	43.0	2.5	
	Alternative 4A	85.2	24.4		2.3	69.1	71.3	36.4	3.3	
	Alternative 4B	100.2	30.1		1.3	85.3	18.9	39.4	2.1	
	Alternative 4C	101.6	30.1		0.7	83.2	31.1	39.4	1.5	
	Alternative 4D	100.8	30.1		1.2	84.9	18.9	39.4	2.1	
	Alternative 4E	102.2	30.1		0.6	82.8	31.1	39.4	1.5	
	Alternative 4F	87.5	24.4	4.5	1.8	69.1	76.0	36.4	2.8	
5	Proposed – Total Length	54.6				25.3			0.5	t <sup>1/</sup>
	Proposed – Comparison portion for Alternatives 5A,B	25.3				10.5			0.1	t <sup>1/</sup>
	Alternative 5A	33.7				17.8			t <sup>1/</sup>	t <sup>1/</sup>
	Alternative 5B	44.4				20.8			t <sup>1/</sup>	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 5C	33.2				16.1			0.2	
	Alternative 5C	26.1				12.9			0.2	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 5D	19.4				10.4			0.4	
	Alternative 5D	17.5				4.6			0.6	0.3
	Proposed – Comparison portion for Alternative 5E	5.8				1.7			0.3	
Alternative 5E	5.3				0.9			0.2		
6	Proposed – Total Length	0.5				0.5			t <sup>1/</sup>	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

**Table D.11-3. Miles of Habitat Crossed for Federal ESA Wildlife Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Habitat Crossed							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
7	Proposed – Total Length	118.1				43.4			0.3	
	Proposed – Comparison portion for Alternatives 7A,B	35.2				11.1			0.1	
	Alternative 7A	38.0				17.2			0.6	t <sup>1/</sup>
	Alternative 7B	46.4				22.8			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 7C	20.1				7.6			t <sup>1/</sup>	
	Alternative 7C	20.3				6.0				
	Proposed – Comparison portion for Alternative 7D	6.2				3.1			t <sup>1/</sup>	
	Alternative 7D	6.8				2.6			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 7E	3.8				3.2				
	Alternative 7E	4.5				3.9				
	Proposed – Comparison portion for Alternative 7F	10.5				7.5				
	Alternative 7F	10.8				8.3				
	Proposed – Comparison portion for Alternative 7G	3.1				2.4				
	Alternative 7G	3.2				0.3				
	Proposed – Comparison portion for Alternatives 7H,I	118.1				43.4			0.3	
	Alternative 7H	127.5				84.5			1.1	
Alternative 7I	173.4				106.4			0.9	0.2	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9				58.8			0.4		
Alternative 7J <sup>2/</sup>	202.1				137.2			1.0		
8	Proposed – Total Length	131.0			t <sup>1/</sup>	73.6			0.8	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 8A	51.4				30.2			0.2	t <sup>1/</sup>
	Alternative 8A	53.6				25.6			0.6	
	Proposed – Comparison portion for Alternative 8B	45.3				22.2			0.2	
	Alternative 8B	45.8			0.2	16.9			0.4	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 8C	6.5				3.6			t <sup>1/</sup>	
	Alternative 8C	6.4				3.2				
	Proposed – Comparison portion for Alternative 8D	6.9				2.7				
	Alternative 8D	8.1				2.3				
	Proposed – Comparison portion for Alternative 8E	7.0				2.8			0.2	
Alternative 8E	18.5			0.1	9.7			0.1		
9	Proposed – Total Length	161.7			0.6	102.9			0.6	
	Proposed – Comparison portion for Alternative 9A	7.8				3.7			t <sup>1/</sup>	
	Alternative 9A	7.7				5.1			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 9B	49.5			t <sup>1/</sup>	39.4			t <sup>1/</sup>	
	Alternative 9B	53.2				23.4			0.1	
	Proposed – Comparison portion for Alternative 9C	14.7				13.8			t <sup>1/</sup>	
	Alternative 9C	15.3				9.57			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			0.6	29.7			0.6	
	Alternative 9D	58.4			0.3	28.7			0.5	
	Alternative 9E	68.7			0.2	49.3			0.2	
	Alternative 9F	62.9			0.5	30.5			0.7	
Alternative 9G	56.4			0.3	28.3			0.5		
Alternative 9H	61.0			0.5	30.1			0.7		
10	Proposed – Total Length	33.6				6.9			0.4	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-4. Miles of Habitat Crossed for BLM and Forest Service Sensitive Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Habitat Crossed										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	colony	complex <sup>1/</sup>			within a 1-mile nest buffer				
1E	Proposed – Total Length	100.6		2.7	3.8	19.0	67.7		1.9	2.1		74.0	
	Proposed – Comparison portion for Alternative 1E-A	17.6		2.7	2.7	17.1	15.5			0.3		13.1	
	Alternative 1E-A	16.1	2.0	6.6	1.4	10.4	14.1			0.4		8.3	
	Proposed – Comparison portion for Alternative 1E-B	37.9					34.0			0.7		35.3	
	Alternative 1E-B	59.3					41.5			0.8		44.2	
	Proposed – Comparison portion for Alternative 1E-C	75.4					50.5		1.9	1.7		55.5	
1W	Alternative 1E-C	48.7					36.0		1.7	0.7		43.5	
	1W(a) Proposed – Total Length	76.5		2.0	1.7	22.2	57.5		2.0	1.2		56.6	
	Proposed – Comparison portion for Alternative 1W-A	20.3		2.0	1.1	19.9	17.2			0.2		8.1	
	Alternative 1W-A	16.2	1.9	6.3	2.3	11.8	14.0			0.6		8.5	
2	1W(c) Proposed – Total Length	70.6	1.9	6.8	3.0	9.9	50.0		2.0	1.9		53.2	
	Proposed – Total Length	96.7					66.4			1.1	59.7	75.1	28.4
	Proposed – Comparison portion for Alternative 2A	28.8					16.1			0.6	15.4	18.2	
	Alternative 2A	28.4	1.9				21.5			0.6	19.6	22.5	1.3
	Proposed – Comparison portion for Alternative 2B	7.0					5.3			0.1	4.8	6.2	
	Alternative 2B	6.2	2.0				3.4			0.3	2.9	3.4	1.6
3	Proposed – Comparison portion for Alternative 2C	28.4					15.2			0.2	15.5	18.4	
	Alternative 2C	24.4					19.4			0.2	19.4	21.7	
4	Proposed – Total Length	56.5					37.2				32.2	38.2	43.6
	Proposed – Total Length	203.0	2.0				108.1	61.8	3.6		101.9	112.6	8.7
	Proposed – Comparison portion for Alternatives 4A-4F	90.2					52.2	6.5			58.8	66.4	
	Alternative 4A	85.2					48.7	6.5			63.4	75.4	
	Alternative 4B	100.2					69.2	8.2			70.4	87.6	
	Alternative 4C	101.6					75.0	8.2			73.3	92.7	
	Alternative 4D	100.8					66.2	8.2			67.2	87.2	
	Alternative 4E	102.2					72.0	8.2			70.0	92.4	
5	Alternative 4F	87.5					52.3	6.5			66.1	74.7	
	Proposed – Total Length	54.6	1.6	t <sup>2/</sup>			22.7	50.6			17.4		
	Proposed – Comparison portion for Alternatives 5A,B	25.3	0.0				9.6	25.1			6.1		
	Alternative 5A	33.7	0.0				14.3	33.6			8.1		
	Alternative 5B	44.4	0.0				23.0	43.5			11.1		
	Proposed – Comparison portion for Alternative 5C	33.2	0.0				11.1	32.9			8.6		
	Alternative 5C	26.1	0.0				14.9	26.1			10.7		
	Proposed – Comparison portion for Alternative 5D	19.4	1.6	t <sup>2/</sup>			6.0	17.5			5.7		
Alternative 5D	17.5	1.7	t <sup>2/</sup>			8.3	16.2			5.6			
6	Proposed – Comparison portion for Alternative 5E	5.8	1.6	t <sup>2/</sup>			2.9	3.9			1.7		
	Alternative 5E	5.3		t <sup>2/</sup>			0.9	1.7			0.9		
6	Proposed – Total Length	0.5					0.4	0.2			0.4		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" miles crossed represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total miles of prairie dog habitat crossed.

<sup>2/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

**Table D.11-4. Miles of Habitat Crossed for BLM and Forest Service Sensitive Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Habitat Crossed										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	colony	complex <sup>1/</sup>							
7	Proposed – Total Length	118.1					68.6	76.9			38.6		
	Proposed – Comparison portion for Alternatives 7A,B	35.2					19.7	35.0			8.0		
	Alternative 7A	38.0					18.3	35.4			12.4		
	Alternative 7B	46.4					26.1	46.2			13.8		
	Proposed – Comparison portion for Alternative 7C	20.1					15.0	15.9			9.8		
	Alternative 7C	20.3					17.5	19.1			14.1		
	Proposed – Comparison portion for Alternative 7D	6.2					4.4	1.1			3.9		
	Alternative 7D	6.8					4.9	2.1			4.6		
	Proposed – Comparison portion for Alternative 7E	3.8					1.7				1.7		
	Alternative 7E	4.5					1.0				1.0		
	Proposed – Comparison portion for Alternative 7F	10.5					5.0				3.5		
	Alternative 7F	10.8					4.1				2.6		
	Proposed – Comparison portion for Alternative 7G	3.1					1.7	2.7			1.7		
	Alternative 7G	3.2					2.1	2.5			2.0		
	Proposed – Comparison portion for Alternatives 7H,I	118.1					68.6	76.2			38.6		
	Alternative 7H	127.5					65.8	88.5			57.5		
Alternative 7I	173.4					81.6	115.4			85.9			
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9					90.8	78.6			60.5			
Alternative 7J <sup>3/</sup>	202.1					113.0	127.4			121.0			
8	Proposed – Total Length	131.0					111.2				109.0		
	Proposed – Comparison portion for Alternative 8A	51.4					37.0				36.1		
	Alternative 8A	53.6		t <sup>2/</sup>			36.2				32.3		
	Proposed – Comparison portion for Alternative 8B	45.3					41.4				40.5		
	Alternative 8B	45.8					28.8				27.6		
	Proposed – Comparison portion for Alternative 8C	6.5					6.4				6.4		
	Alternative 8C	6.4					6.2				6.2		
	Proposed – Comparison portion for Alternative 8D	6.9					6.9				6.9		
	Alternative 8D	8.1					6.6				6.6		
Proposed – Comparison portion for Alternative 8E	7.0					5.3				5.3			
Alternative 8E	18.5		t <sup>2/</sup>			16.8				16.8			
9	Proposed – Total Length	161.7					131.1	1.8			110.5		
	Proposed – Comparison portion for Alternative 9A	7.8					7.6				7.6		
	Alternative 9A	7.7					7.0				7.0		
	Proposed – Comparison portion for Alternative 9B	49.5					46.7				45.3		
	Alternative 9B	53.2					41.5				39.2		
	Proposed – Comparison portion for Alternative 9C	14.7					13.4				11.9		
	Alternative 9C	15.3					14.3				13.2		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					40.3				23.2		
	Alternative 9D	58.4		t <sup>2/</sup>			51.7				50.8		
	Alternative 9E	68.7					52.3				50.4		
	Alternative 9F	62.9		t <sup>2/</sup>			50.4				46.8		
Alternative 9G	56.4		t <sup>2/</sup>			51.1				49.7			
Alternative 9H	61.0		t <sup>2/</sup>			49.8				45.6			
10	Proposed – Total Length	33.6		t <sup>2/</sup>			16.7				16.6		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" miles crossed represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total miles of prairie dog habitat crossed.

<sup>2/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-5. Acres of Construction Impacts for Federal ESA Wildlife Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Construction Impacts							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
1E	Proposed – Total Length	100.6				731		791	9	
	Proposed – Comparison portion for Alternative 1E-A	17.6				122		163	<1	
	Alternative 1E-A	16.1				58		88	2	
	Proposed – Comparison portion for Alternative 1E-B	37.9				301		350	3	
	Alternative 1E-B	59.3				496		556	4	
	Proposed – Comparison portion for Alternative 1E-C	75.4				588		607	9	
	Alternative 1E-C	48.7				231		236	3	
1W	1W(a) Proposed – Total Length	76.5				379		408	7	<1
	Proposed – Comparison portion for Alternative 1W-A	20.3				96		133	<1	
	Alternative 1W-A	16.2				48		90	2	
	1W(c) Proposed – Total Length	70.6				486		615	12	
2	Proposed – Total Length	96.7	232			1,390		1,139	12	
	Proposed – Comparison portion for Alternative 2A	28.8				331		277	3	
	Alternative 2A	28.4				384		351	6	
	Proposed – Comparison portion for Alternative 2B	7.0				88		65	<1	
	Alternative 2B	6.2				59		69	5	
	Proposed – Comparison portion for Alternative 2C	28.4				331		233	2	
	Alternative 2C	24.4				316		202	<1	
3	Proposed – Total Length	56.5	222			694	611	737	14	
4	Proposed – Total Length	203.0	549	302	9	2,073	1,949	1,125	66	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	408	302	9	973	1,085	605	16	
	Alternative 4A	85.2	328		52	1,020	1,043	502	59	
	Alternative 4B	100.2	443		36	1,240	287	575	48	
	Alternative 4C	101.6	443		28	1,203	423	575	40	
	Alternative 4D	100.8	443		32	1,241	301	576	44	
	Alternative 4E	102.2	443		28	1,198	424	576	40	
5	Alternative 4F	87.5	321	121	35	1,004	1,087	496	43	
	Proposed – Total Length	54.6				436			11	<1
	Proposed – Comparison portion for Alternatives 5A,B	25.3				194			5	<1
	Alternative 5A	33.7				291			<1	<1
	Alternative 5B	44.4				314			<1	<1
	Proposed – Comparison portion for Alternative 5C	33.2				263			4	
	Alternative 5C	26.1				231			5	1
	Proposed – Comparison portion for Alternative 5D	19.4				187			6	
Alternative 5D	17.5				96			6	9	
6	Proposed – Comparison portion for Alternative 5E	5.8				54			3	
	Alternative 5E	5.3				36			2	
6	Proposed – Total Length	0.5				42			2	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.11-5. Acres of Construction Impacts for Federal ESA Wildlife Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Construction Impacts							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
7	Proposed – Total Length	118.1				579			8	<1
	Proposed – Comparison portion for Alternatives 7A,B	35.2				139			4	t <sup>1/</sup>
	Alternative 7A	38.0				269			4	<1
	Alternative 7B	46.4				341			1	
	Proposed – Comparison portion for Alternative 7C	20.1				105			t <sup>1/</sup>	
	Alternative 7C	20.3				77				
	Proposed – Comparison portion for Alternative 7D	6.2				42			3	<1
	Alternative 7D	6.8				36			3	<1
	Proposed – Comparison portion for Alternative 7E	3.8				44				
	Alternative 7E	4.5				51				
	Proposed – Comparison portion for Alternative 7F	10.5				102			<1	
	Alternative 7F	10.8				121			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 7G	3.1				28			t <sup>1/</sup>	
	Alternative 7G	3.2				12			<1	
	Proposed – Comparison portion for Alternatives 7H,I	118.1				579			8	<1
	Alternative 7H	127.5				1,346			9	t <sup>1/</sup>
Alternative 7I	173.4				1,658			15	6	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9				805			9	<1	
Alternative 7J <sup>2/</sup>	202.1				2,110			16	t <sup>1/</sup>	
8	Proposed – Total Length	131.0			<1	1,174			6	<1
	Proposed – Comparison portion for Alternative 8A	51.4				472			3	<1
	Alternative 8A	53.6				404			2	<1
	Proposed – Comparison portion for Alternative 8B	45.3			<1	364			<1	
	Alternative 8B	45.8			7	287			8	<1
	Proposed – Comparison portion for Alternative 8C	6.5				61			<1	
	Alternative 8C	6.4				55			<1	
	Proposed – Comparison portion for Alternative 8D	6.9				43			t <sup>1/</sup>	
	Alternative 8D	8.1				43			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 8E	7.0				34				
Alternative 8E	18.5			<1	170			t <sup>1/</sup>		
9	Proposed – Total Length	161.7			4	1,547			5	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 9A	7.8				64			<1	
	Alternative 9A	7.7				88			<1	
	Proposed – Comparison portion for Alternative 9B	49.5			t <sup>1/</sup>	580			<1	
	Alternative 9B	53.2				340			4	
	Proposed – Comparison portion for Alternative 9C	14.7				207			<1	
	Alternative 9C	15.3				146				
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			4	451			4	
	Alternative 9D	58.4			<1	394			3	t <sup>1/</sup>
	Alternative 9E	68.7			2	711			2	
	Alternative 9F	62.9			5	442			9	t <sup>1/</sup>
Alternative 9G	56.4			<1	418			5	t <sup>1/</sup>	
Alternative 9H	61.0			5	445			10	t <sup>1/</sup>	
10	Proposed – Total Length	33.6				109			3	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-6. Acres of Construction Impacts to BLM and Forest Service Sensitive Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Construction										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	Colony	Complex <sup>1/</sup>			Within a 1-mile Nest Buffer				
1E	Proposed – Total Length	100.6		22	38	202	795		16	9		833	
	Proposed – Comparison portion for Alternative 1E-A	17.6		22	33	192	189			<1		140	
	Alternative 1E-A	16.1	12	53	14	80	108			2		67	
	Proposed – Comparison portion for Alternative 1E-B	37.9					340			3		365	
	Alternative 1E-B	59.3					538			4		594	
	Proposed – Comparison portion for Alternative 1E-C	75.4					597		16	9		658	
1W	Alternative 1E-C	48.7					223		9	3		267	
	1W(a) Proposed – Total Length	76.5		14	15	225	463		11	7		430	
	Proposed – Comparison portion for Alternative 1W-A	20.3		14	11	209	179			<1		93	
	Alternative 1W-A	16.2	11	47	19	107	119			2		70	
2	1W(c) Proposed – Total Length	70.6	21	72	29	139	616		11	12		641	
	Proposed – Total Length	96.7	<1				1113			12	880	1225	419
	Proposed – Comparison portion for Alternative 2A	28.8	<1				236			3	225	260	<1
	Alternative 2A	28.4	26				340			6	314	349	18
	Proposed – Comparison portion for Alternative 2B	7.0	<1				70			<1	63	81	<1
	Alternative 2B	6.2	28				44			5	38	44	20
	Proposed – Comparison portion for Alternative 2C	28.4					219			2	222	259	
3	Alternative 2C	24.4					262			<1	263	287	
	Proposed – Total Length	56.5					601				539	612	586
4	Proposed – Total Length	203.0	18				1536	861	38		1506	1585	119
	Proposed – Comparison portion for Alternatives 4A-4F	90.2					697	83			850	957	
	Alternative 4A	85.2					683	84			912	1092	
	Alternative 4B	100.2					1019	119			1044	1282	
	Alternative 4C	101.6					1068	118			1062	1326	
	Alternative 4D	100.8					994	119			1011	1291	
	Alternative 4E	102.2					1029	115			1022	1325	
5	Alternative 4F	87.5					710	86			939	1073	
	Proposed – Total Length	54.6	28				469	891			338		
	Proposed – Comparison portion for Alternatives 5A,B	25.3					190	427			103		
	Alternative 5A	33.7					264	546			164		
	Alternative 5B	44.4					369	673			186		
	Proposed – Comparison portion for Alternative 5C	33.2					239	575			152		
	Alternative 5C	26.1					287	430			226		
	Proposed – Comparison portion for Alternative 5D	19.4	28				153	352			123		
	Alternative 5D	17.5	21				174	323			107		
6	Proposed – Comparison portion for Alternative 5E	5.8	28				72	91			59		
	Alternative 5E	5.3	<1				45	60			45		
	Proposed – Total Length	0.5					42	16			42		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" acres impacted represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total acres of prairie dog habitat impacted.

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.11-6. Acres of Construction Impacts to BLM and Forest Service Sensitive Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Construction										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	Colony	Complex <sup>1/</sup>			Within a 1-mile Nest Buffer				
7	Proposed – Total Length	118.1					1025	1067			606		
	Proposed – Comparison portion for Alternatives 7A,B	35.2					311	493			140		
	Alternative 7A	38.0					337	592			226		
	Alternative 7B	46.4					456	735			240		
	Proposed – Comparison portion for Alternative 7C	20.1					223	232			149		
	Alternative 7C	20.3					263	278			205		
	Proposed – Comparison portion for Alternative 7D	6.2					66	28			56		
	Alternative 7D	6.8					79	40			71		
	Proposed – Comparison portion for Alternative 7E	3.8					25				25		
	Alternative 7E	4.5					26				26		
	Proposed – Comparison portion for Alternative 7F	10.5					89				65		
	Alternative 7F	10.8					85				60		
	Proposed – Comparison portion for Alternative 7G	3.1					30	41			30		
	Alternative 7G	3.2					46	56			45		
	Proposed – Comparison portion for Alternatives 7H,I	118.1					1025	1067			606		
Alternative 7H	127.5					1174	1444			1053			
Alternative 7I	173.4					1395	1893	6		1429			
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9					1330	1093			910			
Alternative 7J <sup>3/</sup>	202.1					1830	2068			1925			
8	Proposed – Total Length	131.0					1797				1768		
	Proposed – Comparison portion for Alternative 8A	51.4					591				584		
	Alternative 8A	53.6					594				509		
	Proposed – Comparison portion for Alternative 8B	45.3					665				647		
	Alternative 8B	45.8					495				470		
	Proposed – Comparison portion for Alternative 8C	6.5					135				135		
	Alternative 8C	6.4					107				97		
	Proposed – Comparison portion for Alternative 8D	6.9					118				118		
	Alternative 8D	8.1					126				126		
Proposed – Comparison portion for Alternative 8E	7.0					76				76			
Alternative 8E	18.5					268				268			
9	Proposed – Total Length	161.7					2083	26			1778		
	Proposed – Comparison portion for Alternative 9A	7.8					100				100		
	Alternative 9A	7.7					111				111		
	Proposed – Comparison portion for Alternative 9B	49.5					743				702		
	Alternative 9B	53.2					593				549		
	Proposed – Comparison portion for Alternative 9C	14.7					221				180		
	Alternative 9C	15.3					189				164		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					649				413		
	Alternative 9D	58.4					733				720		
	Alternative 9E	68.7					844				820		
	Alternative 9F	62.9					784				737		
Alternative 9G	56.4					763				728			
Alternative 9H	61.0					794				725			
10	Proposed – Total Length	33.6					254				253		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" acres impacted represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total acres of prairie dog habitat impacted

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-7. Acres of Habitat Occupancy during Operations for Federal ESA Wildlife Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Operation Impacts							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
1E	Proposed – Total Length	100.6				186		192	2	
	Proposed – Comparison portion for Alternative 1E-A	17.6				29		37	t <sup>1/</sup>	
	Alternative 1E-A	16.1				18		27	<1	
	Proposed – Comparison portion for Alternative 1E-B	37.9				68		78	<1	
	Alternative 1E-B	59.3				109		116	<1	
	Proposed – Comparison portion for Alternative 1E-C	75.4				150		149	2	
1W	Alternative 1E-C	48.7				70		73	1	
	1W(a) Proposed – Total Length	76.5				119		120	2	<1
	Proposed – Comparison portion for Alternative 1W-A	20.3				22		28	<1	
	Alternative 1W-A	16.2				14		26	<1	
2	1W(c) Proposed – Total Length	70.6				95		98	2	
	Proposed – Total Length	96.7	39			365		307	4	
	Proposed – Comparison portion for Alternative 2A	28.8				63		52	<1	
	Alternative 2A	28.4				78		68	1	
	Proposed – Comparison portion for Alternative 2B	7.0				14		11	t <sup>1/</sup>	
	Alternative 2B	6.2				14		16	<1	
3	Proposed – Comparison portion for Alternative 2C	28.4				69		49	<1	
	Alternative 2C	24.4				51		32	t <sup>1/</sup>	
4	Proposed – Total Length	56.5	52			184	162	188	2	
	Proposed – Total Length	203.0	113	233	2	486	449	260	14	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	85	233	2	203	232	119	3	
	Alternative 4A	85.2	72		6	232	234	109	7	
	Alternative 4B	100.2	111		3	295	64	139	4	
	Alternative 4C	101.6	111		2	284	90	139	3	
	Alternative 4D	100.8	111		3	297	65	139	5	
	Alternative 4E	102.2	111		2	283	90	139	4	
5	Alternative 4F	87.5	72	91	3	227	246	109	4	
	Proposed – Total Length	54.6				100			2	<1
	Proposed – Comparison portion for Alternatives 5A,B	25.3				34			<1	<1
	Alternative 5A	33.7				44			<1	<1
	Alternative 5B	44.4				50			<1	<1
	Proposed – Comparison portion for Alternative 5C	33.2				42			<1	
	Alternative 5C	26.1				30			<1	1
	Proposed – Comparison portion for Alternative 5D	19.4				35			2	
Alternative 5D	17.5				23			2	8	
6	Proposed – Comparison portion for Alternative 5E	5.8				17			1	
	Alternative 5E	5.3				16			1	
6	Proposed – Total Length	0.5				39			2	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

**Table D.11-7. Acres of Habitat Occupancy during Operations for Federal ESA Wildlife Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Operation Impacts							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
7	Proposed – Total Length	118.1				96			<1	t <sup>1/</sup>
	Proposed – Comparison portion for Alternatives 7A,B	35.2				14			<1	t <sup>1/</sup>
	Alternative 7A	38.0				44			<1	<1
	Alternative 7B	46.4				51			<1	
	Proposed – Comparison portion for Alternative 7C	20.1				14			t <sup>1/</sup>	
	Alternative 7C	20.3				8				
	Proposed – Comparison portion for Alternative 7D	6.2				4			t <sup>1/</sup>	t <sup>1/</sup>
	Alternative 7D	6.8				4			t <sup>1/</sup>	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 7E	3.8				4				
	Alternative 7E	4.5				7				
	Proposed – Comparison portion for Alternative 7F	10.5				13			t <sup>1/</sup>	
	Alternative 7F	10.8				15			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 7G	3.1				3			t <sup>1/</sup>	
	Alternative 7G	3.2				0			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternatives 7H,I	118.1				96			<1	t <sup>1/</sup>
Alternative 7H	127.5				227			1	t <sup>1/</sup>	
Alternative 7I	173.4				291			2	5	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9				126			<1	t <sup>1/</sup>	
Alternative 7J <sup>2/</sup>	202.1				355			2	t <sup>1/</sup>	
8	Proposed – Total Length	131.0			t <sup>1/</sup>	144			<1	<1
	Proposed – Comparison portion for Alternative 8A	51.4				65			<1	<1
	Alternative 8A	53.6				59			<1	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 8B	45.3			t <sup>1/</sup>	44			<1	
	Alternative 8B	45.8			t <sup>1/</sup>	34			<1	<1
	Proposed – Comparison portion for Alternative 8C	6.5				9			t <sup>1/</sup>	
	Alternative 8C	6.4				8			t <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 8D	6.9				7				
	Alternative 8D	8.1				4				
Proposed – Comparison portion for Alternative 8E	7.0				4					
Alternative 8E	18.5				14					
9	Proposed – Total Length	161.7			<1	209			1	t <sup>1/</sup>
	Proposed – Comparison portion for Alternative 9A	7.8				7			t <sup>1/</sup>	
	Alternative 9A	7.7				10			<1	
	Proposed – Comparison portion for Alternative 9B	49.5				84			t <sup>1/</sup>	
	Alternative 9B	53.2				40			<1	
	Proposed – Comparison portion for Alternative 9C	14.7				24				
	Alternative 9C	15.3				18				
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			<1	54			<1	
	Alternative 9D	58.4				38			t <sup>1/</sup>	t <sup>1/</sup>
	Alternative 9E	68.7			<1	86			<1	
Alternative 9F	62.9			<1	44			<1	t <sup>1/</sup>	
Alternative 9G	56.4			<1	39			<1	t <sup>1/</sup>	
Alternative 9H	61.0			<1	45			<1	t <sup>1/</sup>	
10	Proposed – Total Length	33.6				27			<1	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of occupancy

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-8. Acres of Operation Impacts to BLM and Forest Service Sensitive Species with Available Quantitative Data**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Operation										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	Colony	Complex <sup>1/</sup>			Within a 1-mile Nest Buffer				
1E	Proposed – Total Length	100.6		7	7	46	191		5	2		198	
	Proposed – Comparison portion for Alternative 1E-A	17.6		7	5	44	44			t <sup>2/</sup>		30	
	Alternative 1E-A	16.1	4	17	4	22	34			<1		21	
	Proposed – Comparison portion for Alternative 1E-B	37.9					78			<1		82	
	Alternative 1E-B	59.3					120			<1		127	
	Proposed – Comparison portion for Alternative 1E-C	75.4					145		5	2		158	
1W	Alternative 1E-C	48.7					63		3	<1		75	
	1W(a) Proposed – Total Length	76.5		4	5	52	126		3	2		119	
	Proposed – Comparison portion for Alternative 1W-A	20.3		4	3	47	38			<1		19	
	Alternative 1W-A	16.2	3	13	6	32	35			<1		19	
2	1W(c) Proposed – Total Length	70.6	4	14	5	17	104		3	2		111	
	Proposed – Total Length	96.7	<1				288			4	193	310	86
	Proposed – Comparison portion for Alternative 2A	28.8	<1				45			<1	43	50	<1
	Alternative 2A	28.4	7				67			1	63	69	6
	Proposed – Comparison portion for Alternative 2B	7.0	<1				12			t <sup>2/</sup>	11	14	<1
	Alternative 2B	6.2	6				11			<1	9	11	6
3	Proposed – Comparison portion for Alternative 2C	28.4					45			<1	45	54	
	Alternative 2C	24.4					42			t <sup>2/</sup>	43	46	
4	Proposed – Total Length	56.5					161				146	163	125
	Proposed – Total Length	203.0	4				353	192	10		365	358	25
	Proposed – Comparison portion for Alternatives 4A-4F	90.2					143	16			186	207	
	Alternative 4A	85.2					151	17			215	245	
	Alternative 4B	100.2					248	25			265	311	
	Alternative 4C	101.6					253	25			261	313	
	Alternative 4D	100.8					241	26			258	314	
5	Alternative 4E	102.2					244	24			252	312	
	Alternative 4F	87.5					158	18			223	244	
	Proposed – Total Length	54.6	1				87	163			77		
	Proposed – Comparison portion for Alternatives 5A,B	25.3					26	72			18		
	Alternative 5A	33.7					31	84			20		
	Alternative 5B	44.4					45	96			25		
	Proposed – Comparison portion for Alternative 5C	33.2					28	92			23		
	Alternative 5C	26.1					32	55			27		
6	Proposed – Comparison portion for Alternative 5D	19.4	1				26	56			25		
	Alternative 5D	17.5	3				34	47			26		
	Proposed – Comparison portion for Alternative 5E	5.8	1				18	18			16		
	Alternative 5E	5.3	<1				16	17			16		
6	Proposed – Total Length	0.5					41	15			41		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" acres impacted represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total acres of prairie dog habitat impacted.

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.11-8. Acres of Operation Impacts to BLM and Forest Service Sensitive Species with Available Quantitative Data cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Operation										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Preble's Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	Colony	Complex <sup>1/</sup>			Within a 1-mile Nest Buffer				
7	Proposed – Total Length	118.1					134	141			93		
	Proposed – Comparison portion for Alternatives 7A,B	35.2				25	45			11			
	Alternative 7A	38.0				37	90			26			
	Alternative 7B	46.4				47	96			28			
	Proposed – Comparison portion for Alternative 7C	20.1				29	30			22			
	Alternative 7C	20.3				24	26			19			
	Proposed – Comparison portion for Alternative 7D	6.2				8	1			7			
	Alternative 7D	6.8				10	3			9			
	Proposed – Comparison portion for Alternative 7E	3.8				2				2			
	Alternative 7E	4.5				3				3			
	Proposed – Comparison portion for Alternative 7F	10.5				12				8			
	Alternative 7F	10.8				12				8			
	Proposed – Comparison portion for Alternative 7G	3.1				3	4			3			
	Alternative 7G	3.2				3	3			3			
	Proposed – Comparison portion for Alternatives 7H,I	118.1				134	141			93			
	Alternative 7H	127.5				182	237			170			
Alternative 7I	173.4				218	322	3		251				
Proposed – Comparison portion for Alternative 7J	143.9				176	143			135				
Alternative 7J	202.1				273	366			298				
8	Proposed – Total Length	131.0				213				209			
	Proposed – Comparison portion for Alternative 8A	51.4				77				76			
	Alternative 8A	53.6				80				71			
	Proposed – Comparison portion for Alternative 8B	45.3				77				75			
	Alternative 8B	45.8				54				53			
	Proposed – Comparison portion for Alternative 8C	6.5				15				15			
	Alternative 8C	6.4				15				15			
	Proposed – Comparison portion for Alternative 8D	6.9				16				16			
	Alternative 8D	8.1				12				12			
Proposed – Comparison portion for Alternative 8E	7.0				8				8				
Alternative 8E	18.5				25				25				
9	Proposed – Total Length	161.7				291	3			251			
	Proposed – Comparison portion for Alternative 9A	7.8				13				13			
	Alternative 9A	7.7				16				16			
	Proposed – Comparison portion for Alternative 9B	49.5				116				110			
	Alternative 9B	53.2				70				66			
	Proposed – Comparison portion for Alternative 9C	14.7				23				17			
	Alternative 9C	15.3				25				23			
	Proposed – Comparison portion for Alternatives 9D-9H	57.2				76				46			
	Alternative 9D	58.4				71				70			
	Alternative 9E	68.7				112				107			
	Alternative 9F	62.9				76				70			
Alternative 9G	56.4				74				71				
Alternative 9H	61.0				79				71				
10	Proposed – Total Length	33.6				37				37			

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The number of "colony" acres impacted represents colonies that are not part of complexes; the sum of the two numbers, "colonies" and "complexes," adds up to total acres of prairie dog habitat impacted.

<sup>2/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-9. Number of Greater Sage-Grouse Leks within Specified Distances from Route Centerlines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffer Distance and Active Status													
			0.25-mile Buffer		0.6-mile Buffer		1-mile Buffer		2-mile Buffer		3-mile Buffer		4-mile Buffer		11-mile Buffer	
			Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined
1E	Proposed – Total Length	100.6			1		1	3	5	3	8	3	11	5	55	9
	Proposed – Comparison portion for Alternative 1E-A	17.6					1		2	2	2	2	3	2	13	3
	Alternative 1E-A	16.1							1	2	3	2	3	2	12	3
	Proposed – Comparison portion for Alternative 1E-B	37.9					1	1	3	1	5	1	6	2	23	5
	Alternative 1E-B	59.3						2		2	1	2	3	3	26	7
	Proposed – Comparison portion for Alternative 1E-C	75.4					1	1	3	1	6	1	8	3	46	8
1W	Alternative 1E-C	48.7						2		4		6		35	5	
	1W(a) Proposed – Total Length	76.5			1		1	1	4	2	5	2	10	2	45	7
	Proposed – Comparison portion for Alternative 1W-A	20.3					1		2	2	2	2	3	2	15	4
	Alternative 1W-A	16.2							1	2	3	2	3	2	12	3
	1W(c) Proposed – Total Length	70.6					1		2	2	7	2	10	2	40	6
2	Proposed – Total Length	96.7			1		8		21		29	1	38	2	137	10
	Proposed – Comparison portion for Alternative 2A	28.8					4		9		12	1	14	2	55	8
	Alternative 2A	28.4			1		2		6	1	8	2	13	2	56	7
	Proposed – Comparison portion for Alternative 2B	7.0									1		2		25	2
	Alternative 2B	6.2									1		2		25	2
	Proposed – Comparison portion for Alternative 2C	28.4					4		11		15	1	19	2	45	9
	Alternative 2C	24.4						2	3	2	9	4	12	4	38	9
3	Proposed – Total Length	56.5						1		3		4		62	3	
4	Proposed – Total Length	203.0			1		5	2	14	5	26	5	32	6	89	20
	Proposed – Comparison portion for Alternatives 4A-4F	90.2			1		4		12	1	21	1	25	3	62	14
	Alternative 4A	85.2			2	1	4	1	11	5	17	5	20	8	68	19
	Alternative 4B	100.2			1		2		12		23	1	30	5	75	19
	Alternative 4C	101.6			1		1		15		26	2	33	5	75	19
	Alternative 4D	100.8			1		1		13		20	1	25	5	75	19
	Alternative 4E	102.2							16		23	2	28	5	75	19
	Alternative 4F	87.5			2	1	6	1	11	4	21	4	23	7	66	19
5	Proposed – Total Length	54.6	1		1		1		1		1		1		2	3
	Proposed – Comparison portion for Alternatives 5A,B	25.3	1		1		1		1		1		1		2	2
	Alternative 5A	33.7									1		1	1	4	7
	Alternative 5B	44.4							1		1	3	2	4	11	12
	Proposed – Comparison portion for Alternative 5C	33.2	1		1		1		1		1		1		2	2
	Alternative 5C	26.1											1		1	1
	Proposed – Comparison portion for Alternative 5D	19.4													1	
	Alternative 5D	17.5													1	
6	Proposed – Comparison portion for Alternative 5E	5.8														
	Alternative 5E	5.3														
6	Proposed – Total Length	0.5														7

<sup>1/</sup> Refers to leks that have been defined as occupied in Wyoming and Idaho, and all leks in Nevada

**Table D.11-9. Number of Greater Sage-Grouse Leks within Specified Distances from Route Centerlines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffer Distance and Active Status													
			0.25-mile Buffer		0.6-mile Buffer		1-mile Buffer		2-mile Buffer		3-mile Buffer		4-mile Buffer		11-mile Buffer	
			Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined
7	Proposed – Total Length	118.1			2		2	3	3	3	4	7	6	10	39	31
	Proposed – Comparison portion for Alternatives 7A,B	35.2			1		1		1	3	1		1	1	2	4
	Alternative 7A	38.0							1		1		1	2	4	10
	Alternative 7B	46.4							1	2	2	4	2	7	14	14
	Proposed – Comparison portion for Alternative 7C	20.1								1		1	1	2	4	7
	Alternative 7C	20.3								2		2	1	2	4	7
	Proposed – Comparison portion for Alternative 7D	6.2									1	4	3	5	5	6
	Alternative 7D	6.8									1	4	3	5	5	6
	Proposed – Comparison portion for Alternative 7E	3.8					2		2	2	3	3		3	7	7
	Alternative 7E	4.5					2		2	3		3		3	7	8
	Proposed – Comparison portion for Alternative 7F	10.5						2	2	2		3		3	8	8
	Alternative 7F	10.8		1		1		2		3		3		3	9	8
	Proposed – Comparison portion for Alternative 7G	3.1							1		1	1	1	2	27	17
	Alternative 7G	3.2							1		1	1	1	2	27	17
	Proposed – Comparison portion for Alternatives 7H,I	118.1			2		2	3	3	3	4	7	6	10	39	31
Alternative 7H	127.5			2		4	3	11	13	15	23	21	27	87	57	
Alternative 7I	173.4					1	11	7	28	16	43	35	57	130	119	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.8			2		2	3	3	4	4	8	9	14	73	61	
Alternative 7J <sup>2/</sup>	202.1	4	1	5	3	17	16	33	35	45	51	73	76	238	203	
8	Proposed – Total Length	131.0								1	3	1	7	17	39	
	Proposed – Comparison portion for Alternative 8A	51.4								1	1	1	6	12	31	
	Alternative 8A	53.6										1	2	1	20	
	Proposed – Comparison portion for Alternative 8B	45.3												2	5	
	Alternative 8B	45.8												1	5	
	Proposed – Comparison portion for Alternative 8C	6.5														
	Alternative 8C	6.4														
	Proposed – Comparison portion for Alternative 8D	6.9														
	Alternative 8D	8.1														
	Proposed – Comparison portion for Alternative 8E	7.0													1	1
Alternative 8E	18.5													1	2	
9	Proposed – Total Length	161.7			1		1	1	2	1	7	7	13	53	69	
	Proposed – Comparison portion for Alternative 9A	7.8											1	22	8	
	Alternative 9A	7.7											1	22	8	
	Proposed – Comparison portion for Alternative 9B	49.5						1		1	1	2	4	11	22	
	Alternative 9B	53.2										1		7	16	
	Proposed – Comparison portion for Alternative 9C	14.7							1		1	2	3	10	21	
	Alternative 9C	15.3										1	1	8	21	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			1		1		1		3	1	5	13	22	
	Alternative 9D	58.4										1	1	3	6	
	Alternative 9E	68.7					2	2	5	7	8	14	9	18	15	28
	Alternative 9F	62.9											1	1	4	6
Alternative 9G	56.4											1	1	3	8	
Alternative 9H	61.0											1	1	4	8	
10	Proposed – Total Length	33.6		1		2		3		5		8	1	9	24	26

<sup>1/</sup> Refers to leks that have been defined as occupied in Wyoming and Idaho, and all leks in Nevada

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-10. Number of Columbian Sharp-Tailed Grouse Leks within Specified Distances from Route Centerlines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffer Distance and Active Status					
			0.25-mile Buffer		0.6-mile Buffer		2-mile Buffer	
			Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined
1E	Proposed – Total Length	100.6						
	Proposed – Comparison portion for Alternative 1E-A	17.6						
	Alternative 1E-A	16.1						
	Proposed – Comparison portion for Alternative 1E-B	37.9						
	Alternative 1E-B	59.3						
	Proposed – Comparison portion for Alternative 1E-C	75.4						
1W	Alternative 1E-C	48.7						
	1W(a) Proposed – Total Length	76.5						
	Proposed – Comparison portion for Alternative 1W-A	20.3						
	Alternative 1W-A	16.2						
2	1W(c) Proposed – Total Length	70.6						
	Proposed – Total Length	96.7						
	Proposed – Comparison portion for Alternative 2A	28.8						
	Alternative 2A	28.4						
	Proposed – Comparison portion for Alternative 2B	7.0						
	Alternative 2B	6.2						
3	Proposed – Comparison portion for Alternative 2C	28.4						
	Alternative 2C	24.4						
	Proposed – Total Length	56.5						
4	Proposed – Total Length	203.0			1		9	4
	Proposed – Comparison portion for Alternatives 4A-4F	90.2						
	Alternative 4A	85.2						
	Alternative 4B	100.2						
	Alternative 4C	101.6						
	Alternative 4D	100.8						
	Alternative 4E	102.2						
5	Alternative 4F	87.5						
	Proposed – Total Length	54.6			1		4	1
	Proposed – Comparison portion for Alternatives 5A,B	25.3					2	1
	Alternative 5A	33.7				1	2	4
	Alternative 5B	44.4					5	8
	Proposed – Comparison portion for Alternative 5C	33.2			1		2	1
	Alternative 5C	26.1					1	
	Proposed – Comparison portion for Alternative 5D	19.4			1		2	
	Alternative 5D	17.5					1	
6	Proposed – Comparison portion for Alternative 5E	5.8					1	
	Alternative 5E	5.3					1	
	Proposed – Total Length	0.5						

<sup>1/</sup> Refers to leks that have been defined as occupied in Wyoming and Idaho, and all leks in Nevada

**Table D.11-10. Number of Columbian Sharp-Tailed Grouse Leks within Specified Distances from Route Centerlines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffer Distance and Active Status					
			0.25-mile Buffer		0.6-mile Buffer		2-mile Buffer	
			Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined	Occupied <sup>1/</sup>	Undetermined
7	Proposed – Total Length	118.1			2		10	4
	Proposed – Comparison portion for Alternatives 7A,B	35.2			1		8	2
	Alternative 7A	38.0					4	11
	Alternative 7B	46.4				1	7	16
	Proposed – Comparison portion for Alternative 7C	20.1			1		2	2
	Alternative 7C	20.3	1		1		4	3
	Proposed – Comparison portion for Alternative 7D	6.2						
	Alternative 7D	6.8						
	Proposed – Comparison portion for Alternative 7E	3.8						
	Alternative 7E	4.5						
	Proposed – Comparison portion for Alternative 7F	10.5						
	Alternative 7F	10.8						
	Proposed – Comparison portion for Alternative 7G	3.1						
	Alternative 7G	3.2						
	Proposed – Comparison portion for Alternatives 7H,I	118.1			2		10	4
	Alternative 7H	127.5		1		4	4	20
	Alternative 7I	173.4		1		4	5	20
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9			2		10	4	
Alternative 7J <sup>2/</sup>	202.1		1		2	4	20	
8	Proposed – Total Length	131.0						
	Proposed – Comparison portion for Alternative 8A	51.4						
	Alternative 8A	53.6						
	Proposed – Comparison portion for Alternative 8B	45.3						
	Alternative 8B	45.8						
	Proposed – Comparison portion for Alternative 8C	6.5						
	Alternative 8C	6.4						
	Proposed – Comparison portion for Alternative 8D	6.9						
	Alternative 8D	8.1						
	Proposed – Comparison portion for Alternative 8E	7.0						
Alternative 8E	18.5							
9	Proposed – Total Length	161.7						
	Proposed – Comparison portion for Alternative 9A	7.8						
	Alternative 9A	7.7						
	Proposed – Comparison portion for Alternative 9B	49.5						
	Alternative 9B	53.2						
	Proposed – Comparison portion for Alternative 9C	14.7						
	Alternative 9C	15.3						
	Proposed – Comparison portion for Alternatives 9D-9H	57.2						
	Alternative 9D	58.4						
	Alternative 9E	68.7						
	Alternative 9F	62.9						
Alternative 9G	56.4							
Alternative 9H	61.0							
10	Proposed – Total Length	33.6						

<sup>1/</sup> Refers to leks that have been defined as occupied in Wyoming and Idaho, and all leks in Nevada

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.11-11. Miles of Agency Designated Greater Sage-Grouse Habitat Crossed by the Route Centerlines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Core Areas Crossed	Key Areas Crossed	R1 Habitats Crossed	R2 Habitats Crossed	R3 Habitats Crossed
1E	Proposed – Total Length	100.6	37.2				
	Proposed – Comparison portion for Alternative 1E-A	17.6	8.9				
	Alternative 1E-A	16.1	0.5				
	Proposed – Comparison portion for Alternative 1E-B	37.9	15.4				
	Alternative 1E-B	59.3					
	Proposed – Comparison portion for Alternative 1E-C	75.4	20.8				
	Alternative 1E-C	48.7	17.8				
1W	1W(a) Proposed – Total Length	76.5	34.0				
	Proposed – Comparison portion for Alternative 1W-A	20.3	8.5				
	Alternative 1W-A	16.2	0.7				
	1W(c) Proposed – Total Length	70.6	24.8				
2	Proposed – Total Length	96.7	44.5				
	Proposed – Comparison portion for Alternative 2A	28.8	14.9				
	Alternative 2A	28.4	16.8				
	Proposed – Comparison portion for Alternative 2B	7.0					
	Alternative 2B	6.2					
	Proposed – Comparison portion for Alternative 2C	28.4	27.7				
	Alternative 2C	24.4	24.1				
3	Proposed – Total Length	56.5					
4	Proposed – Total Length	203.0	43.8	14.2			
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	31.9	2.6			
	Alternative 4A	85.2	28.4	2.6			
	Alternative 4B	100.2	44.0	4.9	0.3		
	Alternative 4C	101.6	56.4	4.9	0.3		
	Alternative 4D	100.8	44.6	4.9	0.3		
	Alternative 4E	102.2	57.0	4.9	0.3		
	Alternative 4F	87.5	27.0	2.6			
5	Proposed – Total Length	54.6					
	Proposed – Comparison portion for Alternatives 5A,B	25.3					
	Alternative 5A	33.7		2.9			
	Alternative 5B	44.4		9.1	0.8		
	Proposed – Comparison portion for Alternative 5C	33.2					
	Alternative 5C	26.1					
	Proposed – Comparison portion for Alternative 5D	19.4					
	Alternative 5D	17.5					
	Proposed – Comparison portion for Alternative 5E	5.8					
Alternative 5E	5.3						
6	Proposed – Total Length	0.5			0.3		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.11-11. Miles of Agency Designated Greater Sage-Grouse Habitat Crossed by the Route Centerlines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Core Areas Crossed	Key Areas Crossed	R1 Habitats Crossed	R2 Habitats Crossed	R3 Habitats Crossed
7	Proposed – Total Length	118.1		11.9	16.5		5.1
	Proposed – Comparison portion for Alternatives 7A,B	35.2					
	Alternative 7A	38.0		4.6			
	Alternative 7B	46.4		7.9	1.1		
	Proposed – Comparison portion for Alternative 7C	20.1		0.2	11.0		
	Alternative 7C	20.3			11.0		
	Proposed – Comparison portion for Alternative 7D	6.2		1.7	3.2		0.3
	Alternative 7D	6.8		2.5	1.7		0.3
	Proposed – Comparison portion for Alternative 7E	3.8		3.0	0.6		
	Alternative 7E	4.5		3.2			1.3
	Proposed – Comparison portion for Alternative 7F	10.5		5.1			1.4
	Alternative 7F	10.8		3.3			2.0
	Proposed – Comparison portion for Alternative 7G	3.1		3.1			
	Alternative 7G	3.2		3.2			
	Proposed – Comparison portion for Alternatives 7H,I	118.1		11.9	16.5		5.1
	Alternative 7H	127.5		41.1	26.7		9.2
Alternative 7I	173.4		67.8	41.5	1.8	14.2	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.8		16.8	17.7		5.1	
Alternative 7J <sup>1/</sup>	202.1		73.0	49.3	1.8	14.2	
8	Proposed – Total Length	131.0		13.2	21.2	11.3	
	Proposed – Comparison portion for Alternative 8A	51.4		6.0	20.4	8.7	
	Alternative 8A	53.6			15.6	5.7	
	Proposed – Comparison portion for Alternative 8B	45.3					
	Alternative 8B	45.8					
	Proposed – Comparison portion for Alternative 8C	6.5					
	Alternative 8C	6.4					
	Proposed – Comparison portion for Alternative 8D	6.9					
	Alternative 8D	8.1					
	Proposed – Comparison portion for Alternative 8E	7.0					
Alternative 8E	18.5						
9	Proposed – Total Length	161.7		11.5	10.0		
	Proposed – Comparison portion for Alternative 9A	7.8		0.2			
	Alternative 9A	7.7		2.2			
	Proposed – Comparison portion for Alternative 9B	49.5		6.6	8.7		
	Alternative 9B	53.2					
	Proposed – Comparison portion for Alternative 9C	14.7		5.3	8.6		
	Alternative 9C	15.3			0.9		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					
	Alternative 9D	58.4					
	Alternative 9E	68.7		18.2	6.9	15.2	
	Alternative 9F	62.9					
Alternative 9G	56.4						
Alternative 9H	61.0						
10	Proposed – Total Length	33.6		0.1	6.1	5.9	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles)

**Table D.11-12. Acres of Two Single-Circuit Construction Impacts to ESA Wildlife Species with Available Quantitative Data, due to Construction of the Design Alternative**

Segment Number <sup>1/</sup>	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Construction							
			Black-Footed Ferret	Canada Lynx	Columbia Spotted Frog	Greater Sage-Grouse	Grizzly Bear	Mountain Plover	Northern Leopard Frog	Yellow-Billed Cuckoo
2	Proposed – Total Length	96.7	311			1786		1505	13	
	Proposed – Comparison portion for Alternative 2A	28.8				442		372	4	
	Alternative 2A	28.4				494		456	16	
	Proposed – Comparison portion for Alternative 2B	7.0				125		87	<1	
	Alternative 2B	6.2				83		92	15	
	Proposed – Comparison portion for Alternative 2C	28.4				442		333	2	
	Alternative 2C	24.4				410		269	<1	
3	Proposed –Total Length	56.5	286			858	756	938	17	
4	Proposed –Total Length	203.0	713	368	11	2675	2521	1526	90	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	529	368	11	1249	1397	819	31	
	Alternative 4A	85.2	425		56	1348	1366	683	77	
	Alternative 4B	100.2	574		38	1636	366	753	65	
	Alternative 4C	101.6	574		30	1563	557	753	57	
	Alternative 4D	100.8	574		33	1625	382	754	60	
	Alternative 4E	102.2	573		30	1547	558	754	56	
Alternative 4F	87.5	417	150	38	1324	1417	676	59		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Only segments crossing habitats for federally-listed species are listed in this table

**Table D.11-13. Acres of Two Single-Circuit Construction Impacts to BLM and Forest Service Sensitive Species with Available Quantitative Data, due to Construction of the Design Alternative**

Segment Number <sup>1/</sup>	Proposed or Alternative Name	Segment Length (Miles)	Acres of Habitat Impacted by Construction										
			Bald Eagle		Black-Tailed Prairie Dog		Burrowing Owl	Columbian Sharp-Tailed Grouse	Northern Goshawk	Prebles Meadow Jumping Mouse	Pygmy Rabbit	White-Tailed Prairie Dog	Wyoming Pocket Gopher
			Within a 1-mile Nest Buffer	Within a 1-mile Winter Roost Buffer	Colony	Complex <sup>2/</sup>			Within a 1-mile Nest Buffer				
2	Proposed – Total Length	96.7	1				1445			15	1186	1591	541
	Proposed – Comparison portion for Alternative 2A	28.8	1				317			4	304	351	<1
	Alternative 2A	28.4	41				438			12	409	449	20
	Proposed – Comparison portion for Alternative 2B	7.0	1				96			<1	88	115	<1
	Alternative 2B	6.2	44				64			11	57	64	22
	Proposed – Comparison portion for Alternative 2C	28.4					295				310	353	
	Alternative 2C	24.4					343				346	375	
3	Proposed –Total Length	56.5					732				672	757	766
4	Proposed –Total Length	203.0	21				2062	1122	43		2022	2051	158
	Proposed – Comparison portion for Alternatives 4A-4F	90.2					904	118			1101	1217	
	Alternative 4A	85.2					895	120			1219	1422	
	Alternative 4B	100.2					1328	170			1390	1671	
	Alternative 4C	101.6					1411	157			1412	1733	
	Alternative 4D	100.8					1288	170			1340	1668	
	Alternative 4E	102.2					1354	154			1355	1719	
Alternative 4F	87.5					906	121			1223	1372		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly.

<sup>1/</sup> Only segments crossing habitats for BLM Special Status and Forest Service Sensitive Species are listed in this table.

<sup>2/</sup> The number of “colony” acres impacted represents colonies that are not part of complexes; the sum of the two numbers, “colonies” and “complexes,” adds up to total acres of prairie dog habitat impacted.

**Table D.11-14. Acres of Construction Impacts to Agency Designated Greater Sage-Grouse Habitat**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Core Areas Crossed	Key Areas Crossed	R1 Habitats Crossed	R2 Habitats Crossed	R3 Habitats Crossed
1E	Proposed – Total Length	100.6	391				
	Proposed – Comparison portion for Alternative 1E-A	17.6	103				
	Alternative 1E-A	16.1	9				
	Proposed – Comparison portion for Alternative 1E-B	37.9	144				
	Alternative 1E-B	59.3	24				
	Proposed – Comparison portion for Alternative 1E-C	75.4	238				
	Alternative 1E-C	48.7	108				
1W	1W(a) Proposed – Total Length	76.5	268				
	Proposed – Comparison portion for Alternative 1W-A	20.3	94				
	Alternative 1W-A	16.2	10				
	1W(c) Proposed – Total Length	70.6	267				
2	Proposed – Total Length	96.7	580				
	Proposed – Comparison portion for Alternative 2A	28.8	189				
	Alternative 2A	28.4	246				
	Proposed – Comparison portion for Alternative 2B	7.0					
	Alternative 2B	6.2					
	Proposed – Comparison portion for Alternative 2C	28.4	362				
	Alternative 2C	24.4	310				
3	Proposed – Total Length	56.5					
4	Proposed – Total Length	203.0	569	196			
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	417	38			
	Alternative 4A	85.2	407	39			
	Alternative 4B	100.2	603	80	5		
	Alternative 4C	101.6	754	80	5		
	Alternative 4D	100.8	639	81	5		
	Alternative 4E	102.2	778	77	5		
	Alternative 4F	87.5	395	41			
5	Proposed – Total Length	54.6					
	Proposed – Comparison portion for Alternatives 5A,B	25.3					
	Alternative 5A	33.7		34	t <sup>1/</sup>		
	Alternative 5B	44.4		127	16		
	Proposed – Comparison portion for Alternative 5C	33.2					
	Alternative 5C	26.1					
	Proposed – Comparison portion for Alternative 5D	19.4					
	Alternative 5D	17.5					
	Proposed – Comparison portion for Alternative 5E	5.8					
Alternative 5E	5.3						
6	Proposed – Total Length	0.5			15		

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.11-14. Acres of Construction Impacts to Agency Designated Greater Sage-Grouse Habitat cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Core Areas Crossed	Key Areas Crossed	R1 Habitats Crossed	R2 Habitats Crossed	R3 Habitats Crossed
7	Proposed – Total Length	118.1		176	257		64
	Proposed – Comparison portion for Alternatives 7A,B	35.2					
	Alternative 7A	38.0		54			
	Alternative 7B	46.4		98	20		
	Proposed – Comparison portion for Alternative 7C	20.1		2	161		
	Alternative 7C	20.3		t <sup>1/</sup>	160		
	Proposed – Comparison portion for Alternative 7D	6.2		19	63		3
	Alternative 7D	6.8		24	55		3
	Proposed – Comparison portion for Alternative 7E	3.8		44			7
	Alternative 7E	4.5		54			11
	Proposed – Comparison portion for Alternative 7F	10.5		82			18
	Alternative 7F	10.8		52			44
	Proposed – Comparison portion for Alternative 7G	3.1		46			
	Alternative 7G	3.2		69			
	Proposed – Comparison portion for Alternatives 7H,I	118.1		176	257		64
	Alternative 7H	127.5		637	444		125
	Alternative 7I	173.4		1057	636	21	205
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.8		260	265		64	
Alternative 7J <sup>2/</sup>	202.1		1164	725	21	205	
8	Proposed – Total Length	131.0		175	339	167	
	Proposed – Comparison portion for Alternative 8A	51.4		61	321	125	
	Alternative 8A	53.6			210	56	
	Proposed – Comparison portion for Alternative 8B	45.3					
	Alternative 8B	45.8					
	Proposed – Comparison portion for Alternative 8C	6.5					
	Alternative 8C	6.4					
	Proposed – Comparison portion for Alternative 8D	6.9					
	Alternative 8D	8.1					
	Proposed – Comparison portion for Alternative 8E	7.0					
Alternative 8E	18.5						
9	Proposed – Total Length	161.7		178	148	1	
	Proposed – Comparison portion for Alternative 9A	7.8		9			
	Alternative 9A	7.7		32			
	Proposed – Comparison portion for Alternative 9B	49.5		94	139	1	
	Alternative 9B	53.2					
	Proposed – Comparison portion for Alternative 9C	14.7		81	134		
	Alternative 9C	15.3			29		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					
	Alternative 9D	58.4					
	Alternative 9E	68.7		295	85	186	
	Alternative 9F	62.9					
Alternative 9G	56.4						
Alternative 9H	61.0						
10	Proposed – Total Length	33.6		13	81	124	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
1E	Proposed –Total Length	100.5	Chugwater Formation or group	5.4	3
			Goose egg Formation	1.6	2
			Sundance Formation	1.7	5
			Cody shale	2.3	3
			Frontier Formation	0.4	3
			Fox Hills sandstone sandstone	5.5	3
			Cloverly and Morrison Formations	4.0	3
			Lance Formation	3.3	3
			Mowry and Thermopolis shales	0.9	3
			Mesaverde group	5.5	3
			Niobrara Formation	3.5	5
			Steele shale	7.7	3
			Casper Formation	2.0	3
			Wells and Amsden Formations	1.9	3
			Madison limestone, Darby Formation, Bighorn dolomite, Gallitin Limestone, GrosVentre Formation and Flathead sandstone	0.8	3
			Alluvium and colluvium	8.9	2
			Dune sand and loess	0.2	2
			Gravel, pediment, and fan deposits	4.6	2
			Upper Miocene Rocks	2.3	5
			Wagon Bed Formation	0.9	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	2.4	5
White River Formation	4.1	5			
White River Formation, upper conglomerate member	6.8	5			
Archean Granitic Rocks	21.5	1			
Granite Gneiss	2.4	1			
<b>Paleontological Sensitivity Ranking</b>				<b>281.6</b>	
1E	Proposed – Comparison portion for Alternative 1E-A	17.6	Cody shale	1.9	3
			Fox Hills sandstone	5.5	3
			Lance Formation	3.3	3
			Mesaverde group	5.5	3
			Alluvium and colluvium	1.2	2
			Dune sand and loess	0.2	2
<b>Paleontological Sensitivity Ranking</b>				<b>51.4</b>	
1E	Alternative 1E-A	16.1	Cody shale	1.0	3
			Fox Hills sandstone	2.7	3
			Lance Formation	5.6	3
			Mesaverde group	3.7	3
			Alluvium and colluvium	3.0	2
			Dune sand and loess	0.2	2
<b>Paleontological Sensitivity Ranking</b>				<b>45.2</b>	
1E	Proposed – Comparison portion for Alternative 1E-B	37.9	Chugwater Formation or group	5.4	3
			Goose egg Formation	1.6	2
			Sundance Formation	1.7	5
			Frontier Formation	0.2	3
			Cloverly and Morrison Formations	3.8	3
			Mowry and Thermopolis shales	0.7	3
			Niobrara Formation	1.9	5
			Steele shale	5.7	3
			Wells and Amsden Formations	1.4	3
			Alluvium and colluvium	4.0	2
			Gravel, pediment, and fan deposits	4.5	2
			Wagon Bed Formation	0.9	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	2.4	5
			Archean Granitic Rocks	3.7	1
<b>Paleontological Sensitivity Ranking</b>				<b>109.7</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
1E	Alternative 1E-B	59.3	Chugwater Formation or group	11.7	3
			Goose egg Formation	0.4	2
			Sundance Formation	3.9	5
			Frontier Formation and Mowry and Thermopolis shales	1.3	3
			Cloverly, Morrison, and Sundance Formations	5.8	3
			Mowry and Thermopolis shales	0.8	3
			Niobrara Formation	0.8	5
			Steele shale	3.4	3
			Wells and Amsden Formations	7.9	3
			Alluvium and colluvium	1.5	2
			Wagon Bed Formation	2.0	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	3.4	5
			White River Formation	2.4	5
			Archean Granitic Rocks	11.8	1
			Granite Gneiss	2.4	1
			<b>Paleontological Sensitivity Ranking</b>		
1E	Proposed – Comparison portion for Alternative 1E-C	75.3	Chugwater Formation or group	5.4	3
			Goose egg Formation	1.6	2
			Sundance Formation	1.7	5
			Frontier Formation	0.2	3
			Cloverly and Morrison Formations	3.8	3
			Mowry and Thermopolis shales	0.7	3
			Niobrara Formation	3.5	5
			Steele shale	7.7	3
			Wells and Amsden Formations	1.9	3
			Alluvium and colluvium	5.7	2
			Gravel, pediment, and fan deposits	4.6	2
			Upper Miocene Rocks	2.3	5
			Wagon Bed Formation	0.9	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	2.4	5
			White River Formation	4.1	5
			White River Formation, upper conglomerate member	6.8	5
Archean Granitic Rocks	21.5	1			
Granite Gneiss	0.5	1			
<b>Paleontological Sensitivity Ranking</b>				<b>213.4</b>	
1E	Alternative 1E-C	48.7	Chugwater Formation or group	3.3	3
			Goose egg Formation	7.0	2
			Frontier Formation	1.1	3
			Cloverly, Morrison, and Sundance Formations	1.9	3
			Mowry and Thermopolis shales	0.7	3
			Niobrara Formation	1.0	5
			Steele shale	2.7	3
			Ten Sleep sandstone and Amsden Formation	0.3	2
			Madison limestone, Darby Formation, Bighorn dolomite, Gallatin Limestone, GrosVentre Formation and Flathead sandstone	0.3	3
			Alluvium and colluvium	1.1	2
			Upper Miocene Rocks	2.0	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	8.6	5
			White River Formation	4.3	5
			White River Formation, upper conglomerate member	7.1	5
			Archean Granitic Rocks	5.3	1
			Granite Gneiss	1.9	1
<b>Paleontological Sensitivity Ranking</b>				<b>169.4</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
1W	1W(a) Proposed – Total Length	76.5	Chugwater Formation or group	5.3	3
			Goose egg Formation	5.5	2
			Cody shale	2.6	3
			Frontier Formation	0.4	3
			Fox Hills sandstone sandstone	1.1	3
			Cloverly, Morrison, and Sundance Formations	1.8	3
			Lance Formation	3.8	3
			Mowry and Thermopolis shales	0.9	3
			Mesaverde group	8.5	3
			Niobrara Formation	1.0	5
			Steele shale	3.1	3
			Casper Formation	2.4	3
			Tensleep sandstone and Amsden Formation	0.1	2
			Madison limestone, Darby Formation, Bighorn dolomite, Gallatin Limestone, GrosVentre Formation and Flathead sandstone	0.5	3
			Alluvium and colluvium	3.8	2
			Dune sand and loess	4.4	2
			Upper Miocene Rocks	3.3	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	8.4	5
			White River Formation, upper conglomerate member	7.9	5
			Archean Granitic Rocks	5.2	1
			Granite Gneiss	2.1	1
<b>Paleontological Sensitivity Ranking</b>				<b>250.8</b>	
1W	Proposed – Comparison portion for Alternative 1W-A	20.3	Cody shale	1.5	3
			Fox Hills sandstone	1.1	3
			Lance Formation	3.8	3
			Mesaverde group	8.5	3
			Alluvium and colluvium	1.0	2
			Dune sand and loess	4.4	2
<b>Paleontological Sensitivity Ranking</b>				<b>55.4</b>	
1W	Alternative 1W-A	16.2	Cody shale	2.5	3
			Fox Hills sandstone	5.6	3
			Lance Formation	4.2	3
			Mesaverde group	2.6	3
			Alluvium and colluvium	1.3	2
			Dune sand and loess	0.0	2
<b>Paleontological Sensitivity Ranking</b>				<b>47.4</b>	
1W	1W(c) Proposed – Total Length	70.6	Chugwater Formation or group	7.7	3
			Goose egg Formation	3.8	2
			Cody shale	4.0	3
			Frontier Formation	0.6	3
			Fox Hills sandstone	1.0	3
			Cloverly, Morrison, and Sundance Formations	0.5	3
			Lance Formation	5.0	3
			Mowry and Thermopolis shales	0.7	3
			Mesaverde group	0.6	3
			Niobrara Formation	1.2	5
			Steele shale	2.2	3
			Casper Formation	2.5	3
			Madison limestone, Darby Formation, Bighorn dolomite, Gallatin Limestone, GrosVentre Formation and Flathead sandstone	0.7	3
			Alluvium and colluvium	7.7	2
			Upper Miocene Rocks	2.5	5
			Wind River Formation - at base locally includes equivalent of Indian Meadows Formation	9.3	5
			White River Formation, upper conglomerate member	7.8	5
			Whiter River Formation	4.5	5
			Archean Granitic Rocks	5.9	1
			Granite Gneiss	2.3	1
			<b>Paleontological Sensitivity Ranking</b>		

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
2	Proposed – Total Length	96.7	Lance Formation	4.2	3
			Lewis shale	4.4	3
			Medicine Bow Formation	0.8	3
			Mesaverde group	8.4	3
			Niobrara Formation	0.5	5
			Steele shale	2.9	3
			Steele shale and Niobrara Formation	8.5	5
			Alluvium and colluvium	8.1	2
			Playa lake and other lacustrine deposits	4.4	2
			Gravel, pediment, and fan deposits	0.7	2
			Fort Union Formation	12.5	3
			Hanna Formation	21.7	5
			Ferris Formation	1.1	5
			Miocene Rocks	8.5	3
Wasatch Formation	10.0	5			
<b>Paleontological Sensitivity Ranking</b>				<b>360.3</b>	
2	Proposed – Comparison portion for Alternative 2A	28.8	Lewis shale	1.9	3
			Medicine Bow Formation	0.8	3
			Mesaverde group	3.8	3
			Steele shale	2.9	3
			Steele shale and Niobrara Formation	2.8	5
			Alluvium and colluvium	2.9	2
			Hanna Formation	4.1	5
			Ferris Formation	1.1	5
			Miocene Rocks	8.5	3
<b>Paleontological Sensitivity Ranking</b>				<b>99.4</b>	
2	Alternative 2A	28.4	Lewis shale	2.7	3
			Medicine Bow Formation	3.1	3
			Mesaverde group	2.2	3
			Steele shale	1.7	3
			Steele shale and Niobrara Formation	3.9	5
			Alluvium and colluvium	2.8	2
			Gravel, pediment, and fan deposits	0.4	2
			Hanna Formation	4.1	5
			Ferris Formation	3.6	5
			Miocene Rocks	4.0	3
<b>Paleontological Sensitivity Ranking</b>				<b>105.3</b>	
2	Proposed – Comparison portion for Alternative 2B	7.0	Mesaverde group	1.3	3
			Steele shale	2.4	3
			Steele shale and Niobrara Formation	2.8	5
			Alluvium and colluvium	0.5	2
<b>Paleontological Sensitivity Ranking</b>				<b>26.1</b>	
2	Alternative 2B	6.2	Steele shale	1.2	3
			Steele shale and Niobrara Formation	3.5	5
			Alluvium and colluvium	1.5	2
			Gravel, pediment, and fan deposits	0.0	2
<b>Paleontological Sensitivity Ranking</b>				<b>23.9</b>	
3	Proposed – Total Length	56.5	Almond Formation	4.7	3
			Fox Hills sandstone and Lewis shale	7.6	3
			Lance Formation	2.3	3
			Alluvium and colluvium	1.9	2
			Playa lake and other lacustrine deposits	2.3	2
			Dune sand and loess	5.0	2
			Fort Union Formation	5.0	3
			Green River Formation	11.2	5
			Wasatch Formation	16.4	5
<b>Paleontological Sensitivity Ranking</b>				<b>215.3</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
4	Proposed – Total Length	203.0	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	2.4	3
			Nugget sandstone	2.1	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	5.3	3
			Aspen shale	0.6	3
			Almond Formation	4.7	3
			Baxter shale	3.2	3
			Blair Formation	4.0	3
			Bear River Formation	0.4	3
			Ericson sandstone	2.5	3
			Frontier Formation	0.8	3
			Fox Hills sandstone and Lewis shale	1.7	3
			Gannett group	0.7	3
			Hilliard shale	1.0	3
			Rock Springs Formation	8.5	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	1.0	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	0.2	3
			Wells and Amsden Formations	1.2	3
			Phosphoria Formation and related rocks	0.6	3
			Alluvium and colluvium	7.6	2
			Landslide deposits	0.2	1
			Dune sand and loess	2.9	2
			Gravel, pediment, and fan deposits	6.6	2
			Terrace gravel (Pleistocene and/or Pliocene)	1.5	2
			Bridger Formation	34.5	5
			Fowkes Formation (Pliocene? and Eocene)	0.6	3
			Fort Union Formation	1.3	3
			Green River Formation	22.1	5
			Evanston Formation	0.3	3
			Salt Lake Formation	0.4	3
			Wasatch Formation	17.0	5
			Alluvium, Eolian Loess	11.6	3
			Alluvial-fan deposits	0.2	3
			Bonneville and Alpine Formations		
			Alluvium		
			Main Canyon Formation of Bright	4.7	3
			Tufa and Travertine		
			Salt Lake Formation		
			Alluvium		
			Formation of Marsh Valley	1.1	3
			Salt Lake Formation	3.0	3
			Salt Lake Formation, Upper Conglomerate Unit		
			Salt Lake Formation, Skyline Member	17.4	5
			Salt Lake Formation, Cache Valley Member		
			Colluvium (Pleistocene)		
			Eolian Loess	3.6	3
			Salt Lake Formation	0.2	3
			Nugget Sandstone		
			Thaynes Limestone	3.7	5
			Twin Creek Limestone		
			Alluvium	5.2	3
Nugget Sandstone	0.5	3			
Swan Peak Quartzite					
Garden City Limestone	4.6	3			
St. Charles Limestone					
Nouan Limestone					
St. Charles Limestone	5.5	4			
Worm Creek Quartzite Member					
Brigham Quartzite	0.3	3			
Diamicton					
Brigham Quartzite	5.7	3			
<b>Paleontological Sensitivity Ranking</b>				<b>785.1</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
4	Proposed – Comparison portion for Alternatives 4A-4F	90.2	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	2.4	3
			Nugget sandstone	2.1	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	5.3	3
			Aspen shale	0.6	3
			Bear River Formation	0.4	3
			Frontier Formation	0.8	3
			Gannett group	0.7	3
			Hilliard shale	1.0	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	1.0	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	0.2	3
			Wells and Amsden Formations	1.2	3
			Phosphoria Formation and related rocks	0.6	3
			Alluvium and colluvium	6.2	2
			Landslide deposits	0.2	1
			Dune sand and loess	2.9	2
			Gravel, pediment, and fan deposits	6.6	2
			Terrace gravel (Pleistocene and/or Pliocene)	1.5	2
			Bridger Formation	23.9	5
			Fowkes Formation (Pliocene? and Eocene)	0.6	3
			Green River Formation	11.3	5
			Evanston Formation	0.3	3
			Salt Lake Formation	0.4	3
			Wasatch Formation	13.6	5
			Alluvium	1.4	3
			Salt Lake Formation	3.0	3
			Twin Creek Limestone	2.1	3
<b>Paleontological Sensitivity Ranking</b>				<b>350.6</b>	
4	Alternative 4A	85.2	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	0.6	3
			Water	0.7	0
			Nugget sandstone	1.3	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	2.0	3
			Aspen shale	1.7	3
			Bear River Formation	0.4	3
			Frontier Formation	2.2	3
			Gannett group	1.2	3
			Hilliard shale	5.8	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	0.9	3
			Wells and Amsden Formations	0.4	3
			Phosphoria Formation and related rocks	0.2	3
			Alluvium and colluvium	4.4	2
			Landslide deposits	4.2	1
			Dune sand and loess	1.8	2
			Gravel, pediment, and fan deposits	2.3	2
			Terrace gravel (Pleistocene and/or Pliocene)	1.5	2
			Bridger Formation	21.5	5
			Fowkes Formation (Pliocene? and Eocene)	0.9	3
			Green River Formation	18.8	5
			Evanston Formation	1.5	3
			Salt Lake Formation	0.4	3
			Wasatch Formation	4.1	5
			Alluvium	1.4	3
			Salt Lake Formation	3.0	3
			Twin Creek Limestone	2.1	3
<b>Paleontological Sensitivity Ranking</b>				<b>324.4</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
4	Alternative 4B	100.2	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	1.1	3
			Nugget sandstone	2.6	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	0.8	3
			Aspen shale	0.7	3
			Adaville Formation	1.0	3
			Frontier Formation	1.3	3
			Gannett group	0.1	3
			Hilliard shale	3.9	3
			Alluvium and colluvium	9.2	2
			Gravel, pediment, and fan deposits	3.4	2
			Bridger Formation	27.9	5
			Fowkes Formation (Pliocene? and Eocene)	2.0	3
			Green River Formation: Laney member	12.3	5
			Evanston Formation	4.1	3
			Salt Lake Formation	4.0	3
			Wasatch Formation	17.4	5
			Alluvium	1.1	3
			Salt Lake Formation	4.3	3
			Twin Creek Limestone	2.9	3
			<b>Paleontological Sensitivity Ranking</b>		
4	Alternative 4C	101.6	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	1.1	3
			Nugget sandstone	1.9	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	1.0	3
			Aspen shale	0.7	3
			Adaville Formation	1.0	3
			Frontier Formation	1.3	3
			Gannett group	1.0	3
			Hilliard shale	3.9	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	2.9	3
			Alluvium and colluvium	11.1	2
			Gravel, pediment, and fan deposits	6.1	2
			Bridger Formation	27.9	5
			Fowkes Formation (Pliocene? and Eocene)	1.9	3
			Green River Formation	12.0	5
			Evanston Formation	2.7	3
			Salt Lake Formation	1.9	3
			Wasatch Formation	15.0	5
			Alluvium	1.1	3
			Salt Lake Formation	4.3	3
			Twin Creek Limestone	2.9	3
<b>Paleontological Sensitivity Ranking</b>				<b>397.3</b>	
4	Alternative 4D	100.8	Nugget sandstone	2.3	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	0.8	3
			Aspen shale	0.7	3
			Adaville Formation	1.0	3
			Frontier Formation	1.3	3
			Gannett group	0.1	3
			Hilliard shale	3.9	3
			Alluvium and colluvium	9.2	2
			Gravel, pediment, and fan deposits	3.4	2
			Bridger Formation	27.9	5
			Fowkes Formation (Pliocene? and Eocene)	2.0	3
			Green River Formation: Laney Member	19.3	5
			Evanston Formation	4.1	3
			Salt Lake Formation	4.0	3
			Wasatch Formation	12.3	5
			Alluvium	1.1	3
Salt Lake Formation	4.3	3			
Twin Creek Limestone	2.9	3			
<b>Paleontological Sensitivity Ranking</b>				<b>408.6</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
4	Alternative 4E	102.2	Nugget sandstone	1.7	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	1.0	3
			Aspen shale	0.7	3
			Adaville Formation	1.0	3
			Frontier Formation	1.3	3
			Gannett group	1.0	3
			Hilliard shale	3.9	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	2.9	3
			Alluvium and colluvium	11.1	2
			Gravel, pediment, and fan deposits	6.1	2
			Bridger Formation	27.9	5
			Fowkes Formation (Pliocene? and Eocene)	1.9	3
			Green River Formation	19.0	5
			Evanston Formation	2.7	3
			Salt Lake Formation	1.9	3
			Wasatch Formation	10.0	5
			Alluvium	1.1	3
			Salt Lake Formation	4.3	3
			Twin Creek Limestone	2.9	3
			<b>Paleontological Sensitivity Ranking</b>		
4	Alternative 4F	87.5	Ankareh Formation, Thaynes limestone, Woodside shale, and Dinwoody Formation	0.9	3
			Nugget sandstone	0.9	3
			Stump Formation, Preuss sandstone or redbeds, and Twin Creek limestone	1.6	3
			Aspen shale	1.7	3
			Bear River Formation	0.4	3
			Frontier Formation	2.2	3
			Gannett group	0.9	3
			Hilliard shale	5.8	3
			Sage Junction, Quely, Cokeville, Thomas Fork, and Smiths Formations	1.1	3
			Wells and Amsden Formations	0.8	3
			Phosphoria Formation and related rocks	0.5	3
			Alluvium and colluvium	4.4	2
			Landslide deposits	1.8	1
			Dune sand and loess	1.8	2
			Gravel, pediment, and fan deposits	1.1	2
			Terrace gravel (Pleistocene and/or Pliocene)	1.6	2
			Bridger Formation	21.5	5
			Fowkes Formation (Pliocene? and Eocene)	0.6	3
			Green River Formation	17.8	5
			Evanston Formation	0.4	3
			Salt Lake Formation	0.4	3
			Wasatch Formation	13.1	5
			Alluvium	1.4	3
Salt Lake Formation	3.0	3			
Twin Creek Limestone	2.1	3			
<b>Paleontological Sensitivity Ranking</b>				<b>354.7</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
5	Proposed – Total Length	54.6	Great Blue Limestone, lower limestone member	3.1	3
			Floodplain sediments	1.9	3
			Formation of Marsh Valley		
			Loess	12.7	3
			Alluvial-fan deposits		
			Eolian Loess		
			Alluvial deposits		
			Loess		
			Alluvial fan gravel		
			Alluvial fan gravel	0.6	3
			Dune sand	0.0	3
			Alluvial fan gravel	4.8	3
			Bonneville flood gravel		
			Formation of Marsh Valley	0.7	4
			Starlight and Salt Lake Formations, undifferentiated		
			Sunbeam Formation	2.0	3
			Alluvium	1.8	4
			Loess		
			Starlight and Salt Lake Formations, upper member	2.2	4
			Starlight and Salt Lake Formations, undifferentiated		
			Starlight and Salt Lake Formations, upper member	1.7	3
			Oquirrh Formation, Unit D		
			Oquirrh Formation, Unit B	12.2	3
			Oquirrh Formation, Unit A, lower limestone		
			St. Charles Formation, upper member	0.8	3
			Garden City Formation		
			Garden City Formation	4.4	3
			Swan Peak Quartzite		
			Fish Haven Dolomite		
			St. Charles Formation, upper member		
			Alluvium (Holocene and Pleistocene)	0.7	2
			American Falls Lake Beds (upper Pleistocene)	0.4	3
			Raft Formation (upper or middle Pleistocene)	0.7	2
Dune sand and loess	0.4	2			
Sun Beam Formation (Upper Pleistocene)	2.8	2			
Terrace gravel (Pleistocene)	0.4	2			
Massacre Volcanics (Pliocene and upper Miocene)	0.1	3			
Walcott Tuff (upper Miocene)	0.0	3			
Water	0.2	0			
<b>Paleontological Sensitivity Ranking</b>				<b>162.9</b>	
5	Proposed – Comparison portion for Alternatives 5A,B	25.3	Alluvial deposits	1.4	3
			Alluvial-fan deposits	6.7	3
			Eolian Loess		
			Alluvial deposits		
			Loess	0.7	4
			Alluvial fan gravel		
			Starlight and Salt Lake Formations, undifferentiated	1.8	4
			Loess		
			Starlight and Salt Lake Formations, upper member	1.7	4
			Starlight and Salt Lake Formations, undifferentiated		
			Starlight and Salt Lake Formations, upper member	1.7	3
			Oquirrh Formation, Unit D		
			Oquirrh Formation, Unit B	5.9	3
			Oquirrh Formation, Unit A, lower limestone		
			St. Charles Formation, upper member	0.8	3
Garden City Formation					
Swan Peak Quartzite	4.4	3			
Fish Haven Dolomite					
St. Charles Formation, upper member					
<b>Paleontological Sensitivity Ranking</b>				<b>80.1</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
5	Alternative 5A	33.7	Alluvium	1.1	3
			Alluvial-fan deposits	11.4	3
			Salt Lake Formation, undifferentiated		
			Alluvial-fan deposits	3.3	5
			Eolian Loess		
			Salt Lake Formation, undifferentiated	2.7	3
			Oquirrh Group Unit C	6.6	3
			Oquirrh Group Unit B		
			Manning Canyon shale	1.9	3
			Oquirrh Group Units B and C, undifferentiated		
			Eolian Loess		
			Great Blue Limestone	4.7	3
			Laketown Dolomite		
			Water Canyon Formation		
			Colluvium and talus	1.1	3
			Water Canyon Formation		
			Garden City Formation		
Fish Haven Dolomite	1.0	3			
Laketown Dolomite					
<b>Paleontological Sensitivity Ranking</b>				<b>107.6</b>	
5	Alternative 5B	44.4	Eolian Loess	19.9	3
			Alluvium		
			Colluvium and talus	0.2	3
			Alluvial-fan deposits	6.3	5
			Eolian Loess		
			Salt Lake Formation, undifferentiated	2.7	3
			Oquirrh Group Unit C		
			Oquirrh Group Unit D	6.3	3
			Oquirrh Group Unit B		
			Manning Canyon shale	0.4	3
			Oquirrh Group Units B and C, undifferentiated		
			Oquirrh Group Unit A	6.4	3
			Colluvium and talus	1.1	3
			Water Canyon Formation		
			Garden City Formation		
Fish Haven Dolomite	1.0	3			
Laketown Dolomite					
<b>Paleontological Sensitivity Ranking</b>				<b>145.8</b>	
5	Proposed – Comparison portion for Alternative 5C	33.2	Alluvial deposits	1.4	3
			Alluvial-fan deposits		
			Eolian Loess		
			Alluvial deposits	5.7	3
			Loess		
			Alluvial fan gravel		
			Travertine hot springs deposits	0.6	3
			Great Blue Limestone, lower limestone member	3.1	3
			Sunbeam Formation		
			Alluvium	2.0	3
			Loess		
			Starlight and Salt Lake Formations, upper member	1.8	4
			Starlight and Salt Lake Formations, undifferentiated	0.3	4
			Starlight and Salt Lake Formations, upper member		
			Oquirrh Formation, Unit D	1.7	3
			Oquirrh Formation, Unit B		
			Oquirrh Formation, Unit A, lower limestone	12.2	3
			St. Charles Formation, upper member	0.8	3
			Garden City Formation		
Swan Peak Quartzite					
Fish Haven Dolomite	3.5	3			
St. Charles Formation, upper member					
<b>Paleontological Sensitivity Ranking</b>				<b>101.6</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
5	Alternative 5C	26.1	Loess	1.1	3
			Starlight and Salt Lake Formations, upper member	3.8	4
			Garden City Formation		
			Swan Peak Quartzite		
			Starlight and Salt Lake Formations, undifferentiated	0.8	4
			Loess	6.7	3
			Great Blue Limestone, lower limestone member		
			Sunbeam Formation		
			Starlight and Salt Lake Formations, upper member	1.8	4
			Starlight Formation, middle member, Arbon Valley Tuff member	7.2	3
			Garden City Formation		
			Swan Peak Quartzite		
			Starlight Formation, lower member	1.1	3
			Great Blue Limestone, lower limestone member		
			Garden City Formation		
			Fish Haven Dolomite	0.4	3
			Laketown Dolomite	3.2	3
Loess					
Swan Peak Quartzite					
Garden City Formation					
<b>Paleontological Sensitivity Ranking</b>				<b>84.6</b>	
5	Proposed – Comparison portion for Alternative 5D	19.4	Great Blue Limestone, lower limestone member	3.1	3
			Oquirrh Formation	6.6	3
			Alluvial-fan deposits	1.1	3
			Eolian Loess		
			Alluvial deposits		
			Loess	0.6	3
			Alluvial fan gravel		
			Colluvium and talus		
			Dune sand, alluvial fan gravel	0.0	3
			Loess	2.0	3
			Starlight and Salt Lake Formations, undifferentiated	1.5	3
			Sunbeam Formation	4.5	3
			Salt Lake Formation, undifferentiated	0.3	4
			Salt Lake Formation, upper		
			Alluvium (Holocene and Pleistocene)	0.7	2
			American Falls Lake Beds (upper Pleistocene)	0.4	3
			Raft Formation (upper or middle Pleistocene)	0.7	2
			Dune sand and loess	0.4	2
			Sunbeam Formation (upper Pleistocene)	2.8	2
			Terrace gravel (Pleistocene)	0.4	2
Massacre Volcanics (Pliocene and upper Miocene)	0.1	3			
Walcott Tuff (upper Miocene)	0.0	3			
Water	0.2	0			
<b>Paleontological Sensitivity Ranking</b>				<b>52.9</b>	
5	Alternative 5D	17.5	Oquirrh Group, Manning Canyon Shale	0.3	3
			Starlight and Salt Lake Formations, upper member	9.2	4
			Starlight and Salt Lake Formations, undifferentiated	0.8	4
			Alluvial deposits	1.6	3
			Dune sand, alluvial fan gravel	0.3	3
			Dune sand and loess	0.3	2
			Terrace gravel (Pleistocene)	0.3	2
			American Falls Lake Beds (upper Pleistocene)	0.2	3
			Loess	4.4	3
<b>Paleontological Sensitivity Ranking</b>				<b>61.9</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
5	Proposed – Comparison portion for Alternative 5E	5.8	Alluvium (Holocene and Pleistocene)	0.7	2
			American Falls Lake Beds (upper Pleistocene)	0.4	3
			Raft Formation (upper or middle Pleistocene)	0.7	2
			Dune sand and loess	0.4	2
			Sunbeam Formation (upper Pleistocene)	2.8	2
			Terrace gravel (Pleistocene)	0.4	2
			Massacre Volcanics (Pliocene and upper Miocene)	0.1	3
			Walcott Tuff (upper Miocene)	0.0	3
			Dune sand, alluvial fan gravel	0.0	3
			Water	0.0	0
			<b>Paleontological Sensitivity Ranking</b>		
5	Alternative 5E	5.3	Alluvium (Holocene and Pleistocene)	0.4	2
			American Falls Lake Beds (upper Pleistocene)	0.5	3
			Raft Formation (upper or middle Pleistocene)	0.1	2
			Dune sand and loess	0.3	2
			Sunbeam Formation (upper Pleistocene)	2.6	2
			Terrace gravel (Pleistocene)	1.1	2
			Neeley Formation (middle Pliocene to upper Miocene)	<0.1	3
			Loess	0.1	2
			Dune sand, alluvial fan gravel	0.1	3
			Water	0.1	0
			<b>Paleontological Sensitivity Ranking</b>		
6	Proposed – Total Length	0.5	Dune sand and loess	0.2	2
			Basalt of Notch Butte		
			Mixed alluvial and lacustrine deposits	0.3	2
			Basalt of Bacon Butte		
<b>Paleontological Sensitivity Ranking</b>				<b>1.0</b>	
7	Proposed – Total Length	118.1	Floodplain sediments		
			Formation of Marsh Valley	3.2	3
			Loess		
			Alluvial-fan deposits		
			Eolian Loess		
			Alluvial deposits	40.1	3
			Loess		
			Alluvial fan gravel		
			Alluvial fan gravel	13.3	3
			No detail	9.4	3
			Bonneville flood gravel		
			Formation of Marsh Valley	8.5	3
			Starlight and Salt Lake Formations, undifferentiated	12.5	4
			Sunbeam Formation		
			Alluvium	5.3	3
			Loess		
			Starlight and Salt Lake Formations, upper member	2.2	4
			No detail - possibly rhyolite	2.0	3
			Salt Lake Formation, undifferentiated	2.1	3
			Oquirrh Formation, Unit D	5.8	3
			Oquirrh Formation, Unit B		
Oquirrh Formation, Unit A, lower limestone	6.4	3			
St. Charles Formation, upper member	0.9	3			
No detail - Mississippian sedimentary units	0.9	3			
No detail - Devonian sedimentary units	0.4	3			
Garden City Formation					
Fish Haven Dolomite	5.0	3			
St. Charles Formation, upper member					
<b>Paleontological Sensitivity Ranking</b>				<b>368.9</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
7	Proposed – Comparison portion for Alternatives 7A,B	35.2	Alluvium	1.6	3
			Alluvial-fan deposits	11.5	3
			Salt Lake Formation, undifferentiated		
			Starlight and Salt Lake Formations, undifferentiated	0.3	4
			Colluvium and talus	0.4	3
			Sunbeam Formation		
			Alluvium	4.8	3
			Starlight and Salt Lake Formations, upper member	2.2	4
			Salt Lake Formation, undifferentiated	0.6	3
			Oquirrh Formation, Unit D	2.5	3
			Oquirrh Formation, Unit B		
			Oquirrh Formation, Unit A, lower limestone	5.3	3
			St. Charles Formation, upper member	0.9	3
			Garden City Formation		
No detail - Garden City Formation, Fish Haven dolomite	5.0	3			
<b>Paleontological Sensitivity Ranking</b>				<b>108.4</b>	
7	Alternative 7A	38.0	Alluvium	1.5	3
			Alluvial-fan deposits	7.0	3
			Salt Lake Formation, undifferentiated		
			Salt Lake Formation, upper tuff and basalt unit	0.1	4
			Eolian Loess	10.4	3
			Alluvial-fan deposits		
			Eolian Loess	3.2	5
			Salt Lake Formation, undifferentiated	1.5	3
			Oquirrh Group Unit C	8.2	3
			Oquirrh Group Unit B		
			Manning Canyon Shale	1.2	3
			Oquirrh Group Units B and C, undifferentiated		
			Eolian Loess		
			Great Blue Limestone	4.9	3
Laketown Dolomite					
Water Canyon Formation					
<b>Paleontological Sensitivity Ranking</b>				<b>120.3</b>	
7	Alternative 7B	46.4	Eolian Loess	0.3	3
			Alluvial deposits		
			Alluvial-fan deposits	9.9	3
			Salt Lake Formation, undifferentiated		
			Colluvium and talus	0.3	3
			Colluvium and talus	0.1	4
			Eolian Loess	14.6	3
			Alluvial-fan deposits		
			Eolian Loess	6.4	5
			Salt Lake Formation, undifferentiated	1.5	3
			Oquirrh Group Unit C		
			Oquirrh Group Unit D	8.0	3
			Oquirrh Group Units B and C, undifferentiated		
			Oquirrh Group Unit A	5.4	3
<b>Paleontological Sensitivity Ranking</b>				<b>152.2</b>	
7	Proposed – Comparison portion for Alternative 7C	20.1	No detail - Alluvium	1.2	3
			No detail - Alluvial deposits, possibly Salt Lake and/or Starlight Formations	6.9	3
			No detail - basalt	8.3	3
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	2.7	3
			No detail - possibly Salt Lake Formation, tuffs and basalts	1.0	4
			<b>Paleontological Sensitivity Ranking</b>		
7	Alternative 7C	20.3	No detail - Alluvium	0.7	3
			No detail - Alluvial deposits, possibly Salt Lake and/or Starlight Formations	8.6	4
			No detail - basalt	10.3	3
			No detail - Oquirrh Group	0.6	3
			<b>Paleontological Sensitivity Ranking</b>		

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
7	Proposed – Comparison portion for Alternative 7D	6.2	No detail - gravels, colluvium and talus	3.8	3
			No detail - basalt	1.1	3
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	1.3	3
			<b>Paleontological Sensitivity Ranking</b>	<b>18.6</b>	
7	Alternative 7D	6.8	No detail - Gravel deposits	3.8	3
			No detail - basalt	1.7	2
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	1.3	2
			<b>Paleontological Sensitivity Ranking</b>	<b>20.3</b>	
7	Proposed – Comparison portion for Alternative 7E	3.8	No detail - gravels, colluvium and talus	3.8	3
			<b>Paleontological Sensitivity Ranking</b>	<b>11.5</b>	
7	Alternative 7E	4.5	No detail - Gravel deposits	1.8	3
			No detail - Oquirrh Group	2.7	3
			<b>Paleontological Sensitivity Ranking</b>	<b>13.4</b>	
7	Proposed – Comparison portion for Alternative 7F	10.5	No detail - gravels, colluvium and talus	8.3	3
			No detail - Oquirrh Group	0.8	3
			No detail - possibly Great Blue Limestone	0.9	3
			No detail - possibly Garden City Formation and/or Fish Haven Dolomite	0.4	3
			<b>Paleontological Sensitivity Ranking</b>	<b>31.5</b>	
7	Alternative 7F	10.8	No detail - possibly Garden City Formation and/or Fish Haven Dolomite	0.5	3
			No detail - possibly Great Blue Limestone	0.8	3
			No detail - Garden City Formation, Fish Haven dolomite	1.4	3
			No detail - Oquirrh Group	5.7	3
			No detail - Gravel deposits	2.3	3
<b>Paleontological Sensitivity Ranking</b>	<b>32.3</b>				
7	Proposed – Comparison portion for Alternative 7G	3.1	No detail - Alluvial deposits, possibly Salt Lake and/or Starlight Formations	2.2	3
			No detail - possibly rhyolite	0.9	3
			<b>Paleontological Sensitivity Ranking</b>	<b>9.4</b>	
7	Alternative 7G	3.2	No detail - Alluvial deposits, possibly Salt Lake and/or Starlight Formations	3.1	3
			No detail - possibly rhyolite	0.1	3
			<b>Paleontological Sensitivity Ranking</b>	<b>9.7</b>	
7	Proposed – Comparison portion for Alternatives 7H,I	118.1	No detail - Devonian sedimentary units	0.4	3
			Great Blue Limestone, lower limestone member	0.9	3
			No detail - Garden City Formation, Fish Haven dolomite	5.0	3
			No detail - Oquirrh Group	6.4	3
			No detail - Oquirrh Group	5.8	3
			No detail - Oquirrh Group	0.9	3
			St. Charles Formation, upper member	3.2	3
			Alluvial-fan deposits	40.0	3
			Colluvium and talus	13.3	3
			Snake Plain lava flow	9.4	3
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	8.5	3
			Starlight and Salt Lake Formations, undifferentiated	12.5	4
			Alluvium, possibly Sunbeam Formation	5.3	3
			Starlight and Salt Lake Formations	2.2	4
			Salt Lake Formation, undifferentiated	2.0	3
			Salt Lake Formation, undifferentiated	2.1	3
<b>Paleontological Sensitivity Ranking</b>	<b>366.1</b>				
7	Alternative 7H	127.5	No detail - Garden City Formation, Fish Haven dolomite	3.4	3
			No detail - Garden City Formation, Fish Haven dolomite, St. Charles Limestone	3.5	3
			Oquirrh Group	8.8	3
			No detail - possibly Oquirrh Group	1.6	3
			Oquirrh Group	14.5	3
			Alluvium	5.0	3
			Alluvial-fan deposits	46.3	3
			Colluvium and talus	14.2	3
			Pleistocene glacial till and debris	0.5	3
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	4.5	3
			Starlight and Salt Lake Formations, undifferentiated	0.1	4
			Alluvium, possibly Sunbeam Formation	1.5	3
			Starlight and Salt Lake Formations	13.5	5
			Salt Lake Formation, undifferentiated	7.1	3
			Salt Lake Formation, undifferentiated	3.0	3
			<b>Paleontological Sensitivity Ranking</b>	<b>409.5</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating			
7	Alternative 7I	173.4	Undivided Devonian and Silurian rocks	3.4	3			
			No detail - Garden City Formation, Fish Haven dolomite, St. Charles Limestone	2.1	3			
			Oquirrh Group	7.7	3			
			No detail - possibly Oquirrh Group	0.8	3			
			Oquirrh Group	14.5	3			
			Alluvium	5.1	3			
			Alluvial-fan deposits	49.0	3			
			Colluvium and talus	10.0	3			
			Pleistocene glacial till and debris	3.0	3			
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	4.5	3			
			Starlight and Salt Lake Formations, undifferentiated	0.1	4			
			Alluvium, possibly Sunbeam Formation	1.5	3			
			Eocene intrusives, plutons and/or dikes	0.5	1			
			Miocene stream and lake deposits	2.9	3			
			Starlight and Salt Lake Formations	20.9	4			
			Salt Lake Formation, undifferentiated	44.3	3			
			Salt Lake Formation, undifferentiated	3.0	3			
			<b>Paleontological Sensitivity Ranking</b>				<b>561.0</b>	
			7	Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	Fan alluvium (upper Pleistocene)	0.1	3
						Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.3	3
Loess Unit No. 3 - overlies basalt	12.2	3						
Deposits of playas	0.4	3						
Basalt of Hub Butte	4.5	2						
Tuff of McMullen Creek	3.9	2						
Alluvium	0.5	3						
Alluvial fan deposits	3.6	3						
Upper member of tuff of Wooden Shoe Butte	0.4	3						
Devonian sedimentary units	0.4	3						
Mississippian sedimentary units	0.9	3						
Garden City Formation								
Fish Haven Dolomite	5.0	3						
St. Charles Formation, upper member								
Oquirrh Formation, unit B	6.4	3						
Oquirrh Formation, unit D	5.8	3						
St. Charles Formation, upper member	0.9	3						
Floodplain sediments								
Formation of Marsh Valley	3.2	3						
Loess								
Alluvial fan deposits								
Eolian Loess								
Alluvial deposits	40.1	3						
Loess								
Alluvial fan gravel								
Alluvial fan gravel	13.3	3						
No detail	9.4	3						
Formation of Marsh Valley	8.5	3						
Starlight and Salt Lake Formations, undifferentiated	12.5	4						
Alluvium	5.3	3						
Loess								
Starlight and Salt Lake Formations, upper member	2.2	4						
Rhyolite?	2.0	3						
Salt Lake Formation, undifferentiated	2.1	3						
<b>Paleontological Sensitivity Ranking</b>				<b>438.0</b>				

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
7	Alternative 7J <sup>1/</sup>	202.1	Loess Unit No. 3 - overlies basalt	0.3	3
			Undivided Devonian and Silurian rocks	3.4	3
			No detail - Garden City Formation, Fish Haven dolomite, St. Charles Limestone	2.1	3
			Oquirrh Group	7.7	3
			No detail - possibly Oquirrh Group	0.8	3
			Oquirrh Group	15.0	3
			Alluvium	7.7	3
			Alluvial fan deposits	49.0	3
			Colluvium and talus	10.0	3
			Pleistocene glacial till and debris	3.1	3
			No detail - possibly Marsh Valley Fm or Bonneville flood gravel	4.5	3
			Starlight and Salt Lake Formations, undifferentiated	0.1	4
			Alluvium, possibly Sunbeam Formation	1.5	3
			Eocene intrusives, plutons and/or dikes	0.5	1
			Miocene stream and lake deposits	2.9	3
			Pliocene olivine basalt flows and associated tuff and detritus of southern Idaho	17.6	3
			Starlight and Salt Lake City Formations	20.9	5
			Salt Lake Formation, undifferentiated	52.0	3
			Salt Lake Formation, undifferentiated	3.0	3
			<b>Paleontological Sensitivity Ranking</b>		
8	Proposed – Total Length	131.0	Alluvium	3.1	3
			No-Detail gravel deposits	1.3	3
			Alluvium	1.3	3
			Cold Springs Creek lava flow	0.1	2
			Bonneville Flood Deposits	1.3	3
			Pebble gravel in conspicuous iron-stained beds as much as 25 feet thick in lake deposits	1.4	3
			Black Mesa Gravel	2.7	3
			Basalt of Higby Cave	4.1	2
			Basalt of Sand Creek	5.1	2
			Sedimentary material dominated by massive lake beds of white-weathering fine silt, clay, and diatom	0.1	3
			Dune Sand	0.2	3
			Upper Basalt of Halverson Lake	0.4	2
			Basalt of Initial Point	5.8	2
			Pleistocene waterlaid detritus; may be distal deposits of glacial floods and outwash	14.7	3
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	20.6	2
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	3.9	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	2.5	3
			Upper Pleistocene Snake Plain lava flows	2.7	2
			Upper Pleistocene Snake Plain lava flows	16.7	2
			Recent relatively un weathered Snake Plain Basalt flows and cinder cones	8.2	2
			Basalt of Swan Falls Road Hill	0.9	2
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.8	2
			Lower Pleistocene to Pliocene basalts with associated tuffs and volcanic detritus	4.6	3
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	4.9	5
			Gravel and associated clastic materials from southern sources, includes materials transported from the Owyhee Mountains	3.3	5
			Basalt of Orchard Ranch	2.6	2
			Basalt of the Tombstone Patch Rapids	1.4	2
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	12.9	5
			Basalt flows associated with the Chalk Hills and Poison Creek Formations	0.3	5
			Poison Creek and Chalk Hill Formations, undivided	1.7	5
			Water	0.1	0
			Basaltic tuff of Waldvogel Canal	0.0	2
			Basaltic tuff of McDermott Road	0.0	2
Middle basalt of Halverson Lake	0.1	2			
Chalky volcanic field	1.2	3			
<b>Paleontological Sensitivity Ranking</b>				<b>369.4</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
8	Proposed – Comparison portion for Alternative 8A	51.4	Alluvium, Alluvium of mainstreams	2.1	3
			Incomplete details - Gravel deposits	1.3	3
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	3.6	2
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	1.3	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	2.5	3
			Upper Pleistocene Snake Plain lava flows	2.7	2
			Upper Pleistocene Snake Plain lava flows	16.8	2
			Recent relatively un weathered Snake Plain Basalt flows and cinder cones	8.2	2
			Lower Pleistocene to Pliocene basalts with associated tuffs and volcanic detritus	4.6	3
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	8.3	5
			<b>Paleontological Sensitivity Ranking</b>		
8	Alternative 8A	53.6	Open Water	0.4	N/A
			Alluvial-fan deposits	1.8	3
			Incomplete details - Gravel deposits	1.3	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	1.0	3
			Tuana Gravel	5.0	3
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	1.9	2
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	3.8	3
			Middle Pleistocene deposits	4.2	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	2.1	3
			Basalt of Bacon Butte	2.1	2
			Basalt of Notch Butte	19.3	2
			No details	0.8	3
			Basalt of Shoestring Road	1.1	2
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	8.7	5
<b>Paleontological Sensitivity Ranking</b>			<b>152.5</b>		
8	Proposed – Comparison portion for Alternative 8B	45.3	Open Water	0.1	0
			Alluvium	0.4	3
			Pleistocene waterlaid detritus; may be distal deposits of glacial floods and outwash	5.6	3
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	4.3	5
			Basalt of Higby Cave	4.1	2
			Basalt of Sand Creek	5.1	2
			Bonneville Flood Deposits	1.3	3
			Dune Sand	0.2	3
			Basalt of Swan Falls Road Hill	0.9	2
			Upper Basalt of Halverson Lake	0.4	2
			Basalt of Initial Point	5.8	2
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	4.9	5
			Gravel and associated clastic materials from southern sources, includes materials transported from the Owyhee Mountains	3.3	5
			Basalt of Orchard Ranch	2.6	2
			Basalt of Tombstone Patch Rapids	1.4	2
			Basalt flows associated with the Chalk Hills and Poison Creek Formations	0.3	5
			Poison Creek and Chalk Hill Formations, undivided	1.7	5
			Basaltic tuff of Waldvogel Canal	0.1	2
			Basaltic tuff of McDermott Road	0.0	2
			Middle basalt of Halverson Lake	0.1	2
Chalky volcanic field	1.2	3			
Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.8	2			
Alluvium	0.7	3			
<b>Paleontological Sensitivity Ranking</b>			<b>143.2</b>		
8	Alternative 8B	45.8	Open Water	0.4	0
			Alluvial fan deposits	2.2	3
			Basalt of Gooding Butte	0.1	3
			Basalt of Initial Point	28.3	3
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	11.8	2
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	2.0	3
			Recent relatively un weathered Snake Plain Basalt flows and cinder cones	0.5	2
			Pliocene stream and lake deposits; may be due to volcanic and block faulting events	0.5	3
<b>Paleontological Sensitivity Ranking</b>			<b>123.8</b>		

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
8	Proposed – Comparison portion for Alternative 8C	6.5	Alluvium	0.4	3
			Pleistocene waterlaid detritus; may be distal deposits of glacial floods and outwash	6.1	3
			<b>Paleontological Sensitivity Ranking</b>	<b>19.6</b>	
8	Alternative 8C	6.4	Alluvium	0.2	3
			Basalt of Initial Point	6.2	3
			<b>Paleontological Sensitivity Ranking</b>	<b>19.2</b>	
8	Proposed – Comparison portion for Alternative 8D	6.9	Basalt of Sand Creek	5.1	2
			Basalt of Initial Point	0.6	2
			Basalt of Higby Cave	0.4	2
			Alluvium	0.1	3
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.8	2
			<b>Paleontological Sensitivity Ranking</b>	<b>13.9</b>	
8	Alternative 8D	8.1	Basalt of Sand Creek	2.3	2
			Basalt of Initial Point	3.1	2
			Basalt of Higby Cave	1.7	2
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	0.7	5
			Alluvium	0.3	3
			<b>Paleontological Sensitivity Ranking</b>	<b>18.7</b>	
8	Proposed – Comparison portion for Alternative 8E	7.0	Open Water	0.1	0
			Middle basalt of Halverson Lake	0.1	2
			Upper Basalt of Halverson Lake	0.4	2
			Basalt of Swan Falls Road Hill	0.7	2
			Basaltic tuff of McDermott Road	0.0	2
			Basalt of the Tombstone Patch Rapids	1.4	2
			Basaltic tuff of Waldvogel Canal	0.0	2
			Bonneville Flood Deposits	1.3	3
			Dune sand	0.2	3
			Basalt of Initial Point	1.2	2
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	1.4	5
			Basalt flows associated with the Chalk Hills and Poison Creek Formations	0.2	5
			<b>Paleontological Sensitivity Ranking</b>	<b>20.0</b>	
8	Alternative 8E	18.5	Open Water	0.1	0
			Lower basalt of Promontory Point	0.6	2
			Upper basalt of Promontory Point	6.7	2
			Oregon Trail volcanic field	2.6	2
			Basalt of Sinker Butte	2.9	2
			Basalt of Swan Falls Road Hill	1.6	2
			Basalt of Murphy Rim	0.4	2
			Basalt of Trio Hill	1.1	2
			Basaltic tuff of Swan Falls Dam	1.2	2
			Basaltic tuff of Moore Road	0.2	2
			Landslide deposits	0.2	3
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	0.8	5
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	0.1	5
			<b>Paleontological Sensitivity Ranking</b>	<b>39.4</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
9	Proposed – Total Length	162.2	Fan alluvium 2 (upper Pleistocene)	0.1	3
			Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.9	3
			Loess Unit 2: thin loess overlying basalt (Upper and Middle Pleistocene)	2.4	3
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	22.8	3
			Deposits of Playas (Holocene and Upper Pleistocene)	0.4	3
			Alluvium	0.6	3
			Alluvium	7.1	3
			Alluvium of sidestreams (Holocene)	0.2	3
			Deadman Canyon Lava flow	0.1	2
			Black Mesa Gravel	6.8	3
			Sedimentary material dominated by massive lake beds of white-weathering fine silt, clay, and diatom	6.1	3
			Basalt of Hub Butte (Pleistocene)	4.5	2
			Pleistocene outwash, fanglomerate, flood and terrace gravels	1.3	3
			Lower Pleistocene outwash, fanglomerate, flood and terrace gravels	8.2	3
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	0.3	2
			Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	5.2	3
			Tuana Gravel	0.6	3
			Glenns Ferry Formation	7.5	5
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	5.8	5
			Rhyolite of castleford Crossing (Miocene)	3.5	2
			Basalt of Devil Creek Butte or Tuana Butte (Pliocene or Miocene)	0.6	2
			Pliocene silicic welded tuff, ash and flow rock; most common in southwestern Idaho	5.0	2
			Tuff of McMullen Creek	3.9	2
			Basalt of the Murphy Area	6.2	2
			Pliocene olivine basalt flows and associated tuff and detritus of southern Idaho	1.6	3
			Poison Creek and Chalk Hill Formations, undivided	6.0	5
			Rhyolite lava flows of Reynolds Creek	0.4	2
			Teapot volcanic field	1.5	3
			Upper Member of Tuff of Wooden Shoe Butte	0.4	3
			Alluvial fan deposits (Holocene and Pleistocene)	3.8	3
			Landslide deposits (Holocene to Middle Pleistocene)	0.2	3
			Pebble gravel in conspicuous iron-stained beds as much as 25 feet thick in lake deposits	0.2	3
			Talus	0.1	3
Gravel surface, abundant Eocene volcanics (Quaternary or Tertiary)	0.3	3			
Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.7	3			
Gravel lens or surface, abundant quartzite (Tertiary)	1.1	3			
Clay to sand sized sediments (Miocene or Pliocene)	25.3	3			
Chalky volcanic field	0.7	3			
Basalt of Sinker Creek	0.4	2			
Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	10.0	5			
Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	8.7	5			
Chalk Hills Formation of the Idaho Group	0.7	5			
<b>Paleontological Sensitivity Ranking</b>				<b>539.0</b>	
9	Proposed – Comparison portion for Alternative 9A	7.8	Basalt of Hub Butte (Pleistocene)	4.4	2
			Alluvial fan deposits (Holocene and Pleistocene)	0.3	3
			Alluvium	0.1	3
			Fan alluvium 2 (upper Pleistocene)	0.1	3
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	2.9	3
<b>Paleontological Sensitivity Ranking</b>				<b>18.9</b>	
9	Alternative 9A	7.7	Basalt of Hub Butte (Pleistocene)	2.7	2
			Alluvial fan deposits (Holocene and Pleistocene)	1.2	3
			Alluvium (Holocene)	0.1	3
			Fan alluvium 2 (upper Pleistocene)	0.5	2
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	2.3	3
<b>Paleontological Sensitivity Ranking</b>				<b>19.4</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
9	Proposed – Comparison portion for Alternative 9B	49.5	Pleistocene outwash, fanglomerate, flood and terrace gravels	1.3	3
			Lower Pleistocene outwash, fanglomerate, flood and terrace gravels	7.4	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	0.1	2
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	1.8	5
			Pliocene olivine basalt flows and associated tuff and detritus of southern Idaho	1.6	3
			Pliocene silicic welded tuff, ash and flow rock; most common in southwestern Idaho	5.0	2
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	4.4	3
			Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.6	3
			Loess Unit 2: thin loess overlying basalt (Upper and Middle Pleistocene)	2.4	3
			Landslide deposits (Holocene to Middle Pleistocene)	0.2	3
			Rhyolite of castleford Crossing (Miocene)	3.5	2
			Alluvium of sidestreams (Holocene)	0.2	3
			Basalt of Devil Creek Butte or Tuana Butte (Pliocene or Miocene)	0.6	2
			Deadman Canyon lava flow	0.1	2
			Pebble gravel in conspicuous iron-stained beds as much as 25 feet thick in lake deposits	0.2	3
			Black Mesa Gravel	6.8	3
			Sedimentary material dominated by massive lake beds of white-weathering fine silt, clay, and diatom	6.1	3
			Talus	0.0	3
			Tuana Gravel	0.6	3
			Glenns Ferry Formation	6.6	5
<b>Paleontological Sensitivity Ranking</b>				<b>155.9</b>	
9	Alternative 9B	53.2	Middle Pleistocene plateau and canyon-filling basalt in and near the Snake Plain	0.0	2
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	5.1	3
			Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.7	3
			Rhyolite of Balanced Rock (Miocene)	0.0	2
			Basalt of Devil Creek Butte or Tuana Butte (Pliocene or Miocene)	3.8	2
			Rhyolite of castleford Crossing (Miocene)	0.6	2
			Yahoo Clay (Pleistocene)	0.2	3
			Basalt of Elmas Hill (Pliocene or Miocene)	0.2	2
			Glenns Ferry Formation (Pliocene)	11.0	5
			Rhyolite of Salmon Falls Creek, undivided (Miocene)	0.9	2
			Tuana Gravel	4.8	3
			Alluvium	1.5	3
			Black Mesa Gravel	5.8	3
			Sedimentary material dominated by massive lake beds of white-weathering fine silt, clay, and diatom	8.1	3
			Glenns Ferry Formation	6.9	5
			Tuana Gravel	3.1	3
Older Alluvium	0.1	3			
Pebble gravel in conspicuous iron-stained beds as much as 25 feet thick in lake deposits	0.4	3			
<b>Paleontological Sensitivity Ranking</b>				<b>189.9</b>	
9	Proposed – Comparison portion for Alternative 9C	14.7	(Pliocene or Miocene)	3.5	2
			Basalt of Devel Creek Butte or Tuana Butte (Pliocene or Miocene)	0.6	2
			Alluvium of side streams (Holocened and Pleistocene)	0.2	3
			Pliocene silicic welded tuff, ash and flow rock; most common in southwestern Idaho	2.8	2
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	4.4	3
			Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.6	3
			Loess Unit 2: thin loess overlying basalt (Upper and Middle Pleistocene)	2.4	3
			Landslide deposits (Holocene to Middle Pleistocene)	0.2	3
<b>Paleontological Sensitivity Ranking</b>				<b>37.2</b>	
9	Alternative 9C	15.3	Alluvium	0.3	3
			Pleistocene outwash, fanglomerate, flood and terrace gravels	0.3	3
			Rhyolite of castleford Crossing (Miocene)	2.0	2
			Basalt of Devil Creek Butte or Tuana Butte (Pliocene or Miocene)	3.6	2
			Pliocene silicic welded tuff, ash and flow rock; most common in southwestern Idaho	1.7	2
			Glenns Ferry Formation (Pliocene)	0.3	5
			Tuana Gravel	0.7	3
			Rhyolite of Balanced Rock (Miocene)	0.5	2
			Loess Unit 3, Moderately thick loess overlying basalt (upper to lower? Pleistocene)	5.1	3
			Colluvium derived from hard rocks (Holocene to Lower Pleistocene)	0.7	3
Alluvium of side streams	0.1	3			
<b>Paleontological Sensitivity Ranking</b>				<b>38.5</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
9	Proposed – Comparison portion for Alternatives 9D,E,F,G,H	57.4	Gravel surface, abundant Eocene volcanics (Quaternary or Tertiary)	0.3	3
			Alluvial fan deposits (Holocene and Pleistocene)	0.3	3
			Alluvium	6.2	3
			Glenns Ferry Formation	0.9	5
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.7	3
			Clay to sand sized sediments (Miocene or Pliocene)	25.2	3
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	10.0	5
			Gravel and associated clastic materials from southern sources, includes materials transported from the Owyhee Mountains	5.8	5
			Basalt of the Murphy Area	3.9	2
			Poison Creek and Chalk Hill Formations, undivided	2.4	5
			Basalt of Sinker Creek	0.4	2
			Chalk Hills Formation of the Idaho Group	0.7	5
			Gravel lens or surface, abundant quartzite (Tertiary)	0.6	3
			<b>Paleontological Sensitivity Ranking</b>		
9	Alternative 9D	58.4	Open Water	0.3	0
			Gravel lens or surface, abundant quartzite (Tertiary)	0.2	3
			Clay to sand sized sediments (Miocene or Pliocene)	8.1	3
			Dune sand	1.0	3
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	5.2	3
			Basalt of Goldsmith Road (Pliocene)	1.2	2
			Bonneville Flood Deposits	1.1	3
			Alluvial Deposits	0.7	3
			Basalt of Strike Dam Road (Pleistocene)	0.5	2
			Basalt of Dixie Road (Pliocene)	0.8	2
			Basalt of Canyon Creek (Pliocene)	4.3	2
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	9.5	5
			Basalt of Dorsey Butte	3.8	2
			Chattin Flat volcanic complex	0.2	2
			Basalt of Big Foot Butte	2.2	2
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.3	2
			Basalt of Old Powerline Road	1.0	2
			Upper basalt of Promontory Point	3.9	2
			Basaltic tuff of Moore Road	0.2	2
			Basaltic tuff of Swan Falls Dam	1.2	2
			Basalt of Sinker Butte	2.9	2
			Oregon Trail volcanic field	3.1	2
			Basalt of Murphy Rim	0.4	2
			Poison Creek and Chalk Hill Formations, undivided	0.9	5
			Basalt of Katie Lane	0.1	2
			Lower basalt of Promontory Point	1.3	2
			Basalt that flowed north and south from the south-central part of the Central Ridge Vent Complex	2.3	2
			Landslide deposits	0.1	3
Gravel surface, lithology undivided (Quaternary or Tertiary)	0.2	3			
Basalt of the Murphy Area	1.4	2			
<b>Paleontological Sensitivity Ranking</b>				<b>163.7</b>	
9	Alternative 9E	68.9	Gravel lens or surface, abundant quartzite (Tertiary)	0.8	3
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.6	3
			Glenns Ferry Formation	1.5	5
			Dune Sand	1.4	3
			Alluvium	1.4	3
			Clay to sand sized sediments (Miocene or Pliocene)	26.3	3
			Middle Pleistocene deposits	2.3	3
			Pliocene olivine basalt flows and associated tuff and detritus of southern Idaho	2.1	3
			Chalk Hills Formation of the Idaho Group	1.5	5
			Gravel and associated clastic materials from southern sources, includes materials transported from the Owyhee Mountains	9.1	5
			Poison Creek and Chalk Hill Formations, undivided	0.2	5
			Basalt of the Murphy Area	3.4	2
			Alluvial Fan Deposits	0.4	3
			Basalt of Hot Creek (Pliocene)	0.3	2
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.2	3
			Reefal limestone of Hot Spring (Miocene to Pliocene)	0.7	3
			Rhyolite, undifferentiated	1.0	2
			Basalt of Black Rocks (Pliocene)	0.5	2
			Rhyolite of Horse Basin (Miocene)	0.8	2
			Idaho Group and other fluvial, lacustrine, and eolian sediments in the northeast part of the Murphy Quadrangle	4.9	5
			Pliocene stream and lake deposits; may be due to volcanic and block faulting events	3.1	3
			Pliocene silicic welded tuff, ash and flow rock; most common in southwestern Idaho	1.5	2
			Rhyolite of Browns Creek area	0.7	2
			Granite of Silver City batholith, Owyhee Mountains	0.7	1
			Silver City Rhyolite, undifferentiated	1.9	2
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	1.1	5
Basalt flows associated with the Chalk Hills and Poison Creek Formations	0.1	2			
Basalt flows that are subaerial, undivided	0.4	2			
<b>Paleontological Sensitivity Ranking</b>				<b>231.6</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
9	Alternative 9F	63.2	Open Water	0.1	0
			Basalt of Strike Dam Road (Pleistocene)	0.5	2
			Basalt of Canyon Creek (Pliocene)	1.8	2
			Basalt of Dixie Road (Pliocene)	0.8	2
			Alluvial fan deposits (Holocene and Pleistocene)	0.3	3
			Alluvial Deposits	2.3	3
			Bonneville Flood Deposits	0.4	3
			Gravel surface, lithology undivided (Quaternary or Tertiary)	0.0	3
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.6	3
			Gravel lens or surface, abundant quartzite (Tertiary)	0.6	3
			Clay to sand sized sediments (Miocene or Pliocene)	17.7	3
			Glenns Ferry Formation	0.4	5
			Open Water	0.1	0
			Basalt that flowed north and south from the south-central part of the Central Ridge Vent Complex	2.3	2
			Basalt of Old Powerline Road	1.0	2
			Lower basalt of Promontory Point	1.3	2
			Upper basalt of Promontory Point	3.9	2
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.3	2
			Oregon Trail volcanic field	3.1	2
			Basalt of Sinker Butte	2.9	2
			Basalt of Big Foot Butte	2.2	2
			Basalt of Dorsey Butte	3.8	2
			Basalt of Murphy Rim	0.4	2
			Basaltic tuff of Swan Falls Dam	1.2	2
			Basaltic tuff of Moore Road	0.2	2
			Basalt of Canyon Creek (Pliocene)	2.5	2
			Chattin Flat volcanic complex	0.2	2
			Basalt of the Murphy Area	1.4	2
			Alluvial Deposits	0.6	3
			Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	9.4	5
			Poison Creek and Chalk Hill Formations, undivided	0.9	5
			<b>Paleontological Sensitivity Ranking</b>		
9	Alternative 9G	56.4	Open Water	0.2	0
			Basalt of Strike Dam Road (Pleistocene)	0.5	2
			Basalt of Canyon Creek (Pliocene)	1.8	2
			Basalt of Dixie Road (Pliocene)	0.8	2
			Basalt of Goldsmith Road (Pliocene)	1.2	2
			Basalt of Katie Lane	0.1	2
			Alluvial Deposits	0.1	3
			Bonneville Flood Deposits	1.1	3
			Dune sand	1.0	3
			Landslide deposits (Holocene to Middle Pleistocene)	0.1	3
			Gravel surface, lithology undivided (Quaternary or Tertiary)	0.2	3
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	5.2	3
			Gravel lens or surface, abundant quartzite (Tertiary)	0.2	3
			Clay to sand sized sediments (Miocene or Pliocene)	8.1	3
			Open Water	0.1	0
			Basalt that flowed north and south from the south-central part of the Central Ridge Vent Complex	2.3	2
			Basalt of Old Powerline Road	1.0	2
			Lower basalt of Promontory Point	0.8	2
			Upper basalt of Promontory Point	1.2	2
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.3	2
			Montini volcanic complex	1.2	2
			Oregon Trail volcanic field	4.1	2
			Basalt of Sinker Butte	3.6	2
			Basalt of Big Foot Butte	2.2	2
			Conservancy Flats volcanic complex	0.1	2
			Basalt of Dorsey Butte	3.8	2
			Basalt of Murphy Rim	1.1	2
			Lower basalt of Nahas Ranch	0.4	2
			Upper basalt of Nahas Ranch	0.4	2
			Basalt of Otter Massacre Site	0.2	2
			Basaltic tuff of Red Trails	0.3	2
			Basalt of Canyon Creek (Pliocene)	2.5	2
Chattin Flat volcanic complex	0.2	2			
Basalt of the Murphy Area	1.4	2			
Alluvium	0.3	3			
Bonneville Flood Deposits	0.1	3			
Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	8.0	5			
Poison Creek and Chalk Hill Formations, undivided	0.4	5			
<b>Paleontological Sensitivity Ranking</b>				<b>153.8</b>	

**Table D.13-1. Paleontological Sensitivity Rankings for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (miles)	Formation Name	Miles Crossed	Sensitivity Rating
9	Alternative 9H	61.2	Open Water	0.1	0
			Basalt of Strike Dam Road (Pleistocene)	0.5	2
			Basalt of Canyon Creek (Pliocene)	1.8	2
			Basalt of Dixie Road (Pliocene)	0.8	2
			Alluvial fan deposits (Holocene and Pleistocene)	0.3	3
			Alluvial Deposits	2.3	3
			Bonneville Flood Deposits	0.4	3
			Gravel surface, lithology undivided (Quaternary or Tertiary)	0.0	3
			Gravel surface, abundant quartzite (Quaternary and Tertiary)	0.6	3
			Gravel lens or surface, abundant quartzite (Tertiary)	0.6	3
			Clay to sand sized sediments (Miocene or Pliocene)	17.7	3
			Gravel surface, lithology undivided (Quaternary or Tertiary)	0.4	5
			Open Water	0.1	0
			Basalt that flowed north and south from the south-central part of the Central Ridge Vent Complex	2.3	2
			Basalt of Old Powerline Road	1.0	2
			Lower basalt of Promontory Point	0.8	2
			Upper basalt of Promontory Point	1.2	2
			Undifferentiated basalt flows on the periphery of the Birds of Prey area whose sources are unknown	0.3	2
			Montini volcanic complex	1.2	2
			Oregon Trail volcanic field	4.1	2
			Basalt of Sinker Butte	3.6	2
			Basalt of Big Foot Butte	2.2	2
			Conservancy Flats volcanic complex	0.1	2
			Basalt of Dorsey Butte	3.8	2
			Basalt of Murphy Rim	1.1	2
			Lower basalt of Nahas Ranch	0.4	2
			Upper basalt of Nahas Ranch	0.4	2
			Basalt of Otter Massacre Site	0.2	2
			Basaltic tuff of Red Trails	0.3	2
			Basalt of Canyon Creek (Pliocene)	2.5	2
			Chattin Flat volcanic complex	0.2	2
			Basalt of the Murphy Area	1.4	2
			Alluvium	0.3	3
Bonneville Flood Deposits	0.1	3			
Glenns Ferry Formation of the Idaho Group, includes some younger lacustrine and fluvial sediments	8.0	5			
Poison Creek and Chalk Hill Formations, undivided	0.4	5			
<b>Paleontological Sensitivity Ranking</b>				<b>170.5</b>	
10	Proposed – Total Length	33.6	Open Water	0.3	N/A
			Alluvium of side streams	0.4	3
			Alluvial-fan deposits	1.7	3
			Basalt of Skelaton Butte	4.2	2
			Basalt of Rocky Butte	15.3	2
			Basalt of Wilson Butte		2
			Basalt of Notch Butte	2.9	3
			Mixed alluvial and lacustrine deposits		
			Basalt of Bacon Butte		
			Basalt of Hansen Butte	8.8	2
			Younger Tertiary basalt flows, undivided		
<b>Paleontological Sensitivity Ranking</b>				<b>71.5</b>	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-1. OPS Earthquake Hazard for Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Earthquake Zone Rank		
			Low < 70	Medium 70 to 84	High 85 to 100
1E	Proposed – Total Length	100.6	100.6		
	Proposed – Compare to Alternative 1E-A	17.6	17.6		
	Alternative 1E-A	16.1	16.1		
	Proposed – Compare to Alternative 1E-B	37.9	37.9		
	Alternative 1E-B	59.3	59.3		
	Proposed – Compare to Alternative 1E-C	75.4	75.4		
	Alternative 1E-C	48.7	48.7		
1W	1W(a) Proposed – Total Length	76.5	76.5		
	Proposed – Comparison portion for Alternative 1W-A	20.3	20.3		
	Alternative 1W-A	16.2	16.2		
	1W(c) Proposed – Total Length	70.6	70.6		
2	Proposed – Total Length	96.7	96.7		
	Proposed – Compare to Alternative 2A	28.8	28.8		
	Alternative 2A	28.4	28.4		
	Proposed – Compare to Alternative 2B	7.0	7		
	Alternative 2B	6.2	6.2		
	Proposed – Compare to Alternative 2C	28.4			
	Alternative 2C	24.4			
3	Proposed – Total Length	56.4	56.4		
4	Proposed – Total Length	203.0	97.9	15.9	89.2
	Proposed – Compare to Alternatives 4A-4F	90.2	45.8	15.9	28.5
	Alternative 4A	85.2	38	16.5	30.6
	Alternative 4B	100.2	38.8	18.3	43.2
	Alternative 4C	101.6	38.8	18.3	44.6
	Alternative 4D	100.8	38.8	18.4	43.6
	Alternative 4E	102.2	38.8	18.4	45
	Alternative 4F	87.5	38	16.7	32.8
5	Proposed – Total Length	54.6		10	44.6
	Proposed – Compare to Alternatives 5A,B	25.3			25.3
	Alternative 5A	33.7			33.7
	Alternative 5B	44.4			44.4
	Proposed – Compare to Alternative 5C	33.2		4.3	28.9
	Alternative 5C	26.1		2.9	23.2
	Proposed – Compare to Alternative 5D	19.4		10	9.4
	Alternative 5D	17.5		7.7	9.8
	Proposed – Compare to Alternative 5E	5.8		5.8	
Alternative 5E	5.3		5.3		
6	Proposed – Total Length	0.5	0.3	0.2	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.14-1. OPS Earthquake Hazard for Proposed and Alternative Routes cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Earthquake Zone Rank		
			Low < 70	Medium 70 to 84	High 85 to 100
7	Proposed – Total Length	118.1	41.1	31.5	45.4
	Proposed – Compare to Alternatives 7A,B	35.2		1.4	33.8
	Alternative 7A	38.0		1.1	36.8
	Alternative 7B	46.4		1.1	45.3
	Proposed – Compare to Alternative 7C	20.1		20.1	
	Alternative 7C	20.3		20.3	
	Proposed – Compare to Alternative 7D	6.2	1.3	4.9	
	Alternative 7D	6.8	2.1	4.7	
	Proposed – Compare to Alternative 7E	3.8	3.8		
	Alternative 7E	4.5	4.5		
	Proposed – Compare to Alternative 7F	10.5	10.5		
	Alternative 7F	10.8	10	0.8	
	Proposed – Compare to Alternative 7G	3.1	3.1		
	Alternative 7G	3.2	3.2		
	Proposed – Compare to Alternatives 7H,I	118.1	41.1	31.5	45.4
	Alternative 7H	127.5	30.9	29.8	66.7
	Alternative 7I	173.4	44.5	43.7	85.2
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	67.0	31.5	45.4	
Alternative 7J <sup>1/</sup>	202.1	73.2	43.7	85.2	
8	Proposed – Total Length	131.0	131		
	Proposed – Compare to Alternative 8A	51.4	51.4		
	Alternative 8A	53.6	53.6		
	Proposed – Compare to Alternative 8B	45.3	45.3		
	Alternative 8B	45.8	45.8		
	Alternative 8B – Compare to Alternative 8C	6.5	6.5		
	Alternative 8C	6.4	6.4		
	Proposed – Compare to Alternative 8D	6.9	6.9		
	Alternative 8D	8.1	8.1		
	Proposed – Compare to Alternative 8E	7.0	7.0		
	Alternative 8E	18.5	18.5		
9	Proposed – Total Length	161.7	161.7		
	Proposed – Compare to Alternative 9A	7.8	7.8		
	Alternative 9A	7.7	7.7		
	Proposed – Compare to Alternative 9B	49.5	49.5		
	Alternative 9B	53.2	53.2		
	Proposed – Compare to Alternative 9C	14.7	14.7		
	Alternative 9C	15.3	15.3		
	Proposed – Compare to Alternative 9D,E,F,G,H	57.2	57.2		
	Alternative 9D	58.4	58.4		
	Alternative 9E	68.7	68.7		
	Alternative 9F	62.9	62.9		
	Alternative 9G	56.4	56.4		
Alternative 9H	61.0	61.0			
10	Seg 10 Proposed – Total Length	33.6	33.6		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-2. Affected Miles by Earthquake Magnitude Buffers**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffered Mileage		
			Magnitude 0.1 to 6	Magnitude 6.0 to 6.9	Magnitude >7
1E	Proposed – Total Length	100.6	79.8		
	Proposed – Comparison portion for Alternative 1E-A	17.6	17.6		
	Alternative 1E-A	16.1	16.1		
	Proposed – Comparison portion for Alternative 1E-B	37.9	22.5		
	Alternative 1E-B	59.3	29		
	Proposed – Comparison portion for Alternative 1E-C	75.4	54.6		
	Alternative 1E-C	48.7	28.3		
1W	1W(a) Proposed – Total Length	76.5	54.7		
	Proposed – Comparison portion for Alternative 1W-A	20.3	20.3		
	Alternative 1W-A	16.2	16.2		
	1W(c) Proposed – Total Length	70.6	49.7		
2	Proposed – Total Length	96.7	90.4		
	Proposed – Comparison portion for Alternative 2A	28.8	28.8		
	Alternative 2A	28.4	28.4		
	Proposed – Comparison portion for Alternative 2B	7	7		
	Alternative 2B	6.2	6.2		
	Proposed – Comparison portion for Alternative 2C	28.4	28.4		
	Alternative 2C	24.4	24.4		
3	Proposed – Total Length	56.4	40.5		
4	Proposed – Total Length	203	176.8	105.7	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	76.7	45	
	Alternative 4A	85.2	66.4	49.9	
	Alternative 4B	100.2	82.2	63.8	
	Alternative 4C	101.6	79.5	65.2	
	Alternative 4D	100.8	82.8	64.4	
	Alternative 4E	102.2	80.1	65.8	
Alternative 4F	87.6	64.9	52.3		
5	Proposed – Total Length	54.6	7.3	47.9	4.5
	Proposed – Comparison portion for Alternatives 5A,B	25.3		25.3	
	Alternative 5A	33.7		33.7	
	Alternative 5B	44.4	9.9	44.4	
	Proposed – Comparison portion for Alternative 5C	33.2		32.2	
	Alternative 5C	26.1		24.9	
	Proposed – Comparison portion for Alternative 5D	19.4		12.7	4.5
	Alternative 5D	17.5		13.5	3.1
Proposed – Comparison portion for Alternative 5E	5.8			4.5	
Alternative 5E	5.3			4.3	
6	Proposed – Total Length	0.5	0.3		0.5

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.14-2. Affected Miles by Earthquake Magnitude Buffers cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffered Mileage		
			Magnitude 0.1 to 6	Magnitude 6.0 to 6.9	Magnitude >7
7	Proposed – Total Length	118.1	6.8	58.8	4.9
	Proposed – Comparison portion for Alternatives 7A,B	35.2		35.2	
	Alternative 7A	38.0		38	
	Alternative 7B	46.4	11.1	46.4	
	Proposed – Comparison portion for Alternative 7C	20.1		7	4.9
	Alternative 7C	20.3		10.4	
	Proposed – Comparison portion for Alternative 7D	6.2			
	Alternative 7D	6.8			
	Proposed – Comparison portion for Alternative 7E	3.8			
	Alternative 7E	4.5			
	Proposed – Comparison portion for Alternative 7F	10.5			
	Alternative 7F	10.8			
	Proposed – Comparison portion for Alternative 7G	3.1			
	Alternative 7G	3.2			
	Proposed – Comparison portion for Alternatives 7H,I	118.1	6.8	58.9	4.9
	Alternative 7H	127.5	52.9	77.6	
	Alternative 7I	173.4	70.5	97.5	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	79.4	15.6	58.9	4.9	
Alternative 7J <sup>1/</sup>	168.0	70.5	97.5		
8	Proposed – Total Length	131.0			65.4
	Proposed – Comparison portion for Alternative 8A	51.4	27.4		51.4
	Alternative 8A	53.6	25.8		53.6
	Proposed – Comparison portion for Alternative 8B	45.3			
	Alternative 8B	45.8			
	Alternative 8B – Comparison portion for Alternative 8C	6.5			
	Alternative 8C	6.4			
	Proposed – Comparison portion for Alternative 8D	6.9			
	Alternative 8D	8.1			
	Proposed – Comparison portion for Alternative 8E	7.0			
Alternative 8E	18.5				
9	Proposed – Total Length	161.7			
	Proposed – Comparison portion for Alternative 9A	7.8			
	Alternative 9A	7.7			
	Proposed – Comparison portion for Alternative 9B	49.5			
	Alternative 9B	53.2			21.6
	Proposed – Comparison portion for Alternative 9C	14.7			
	Alternative 9C	15.3			
	Proposed – Comparison portion for Alternatives 9D-9H	57.2			
	Alternative 9D	58.4			
	Alternative 9E	68.7			
	Alternative 9F	62.9			
Alternative 9G	56.4				
Alternative 9H	61.0				
10	Proposed – Total Length	33.6	13.9		25.8

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-3. Miles of Landslide Hazard Ranking Crossed by Alternative**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffered Mileage		
			Low Risk <70	Medium Risk 70-84	High Risk 85-100
1E	Proposed – Total Length	100.6	100.6		
	Proposed – Compare to Alternative 1E-A	17.6	17.6		
	Alternative 1E-A	16.1	16.1		
	Proposed – Compare to Alternative 1E-B	37.9	37.9		
	Alternative 1E-B	59.3	59.3		
	Proposed – Compare to Alternative 1E-C	75.4	75.4		
	Alternative 1E-C	48.7	44.3		4.4
1W	1W(a) Proposed – Total Length	76.5	72.2		4.3
	Proposed – Comparison portion for Alternative 1W-A	20.3	20.3		
	Alternative 1W-A	16.2	16.2		
	1W(c) Proposed – Total Length	70.6	67		3.6
2	Proposed – Total Length	96.7	96.7		
	Proposed – Compare to Alternative 2A	28.8	28.8		
	Alternative 2A	28.4	28.4		
	Proposed – Compare to Alternative 2B	7.0	7		
	Alternative 2B	6.2	6.2		
	Proposed – Compare to Alternative 2C	28.4	28.4		
	Alternative 2C	24.4	24.4		
3	Proposed – Total Length	56.4	35.2	21.2	
4	Proposed – Total Length	203.0	154.3	15	33.7
	Proposed – Compare to Alternatives 4A-4F	90.2	54.5	3.5	32.1
	Alternative 4A	85.2	43.9	3	38.2
	Alternative 4B	100.2	50.1	5	45.1
	Alternative 4C	101.6	46.5	16.7	38.4
	Alternative 4D	100.8	50.1	5	45.7
	Alternative 4E	102.2	46.5	16.7	39
	Alternative 4F	87.5	43.9	2.4	41.2
5	Proposed – Total Length	54.6	54.6		
	Proposed – Compare to Alternatives 5A,B	25.3	25.3		
	Alternative 5A	33.7	33.7		
	Alternative 5B	44.4	44.4		
	Proposed – Compare to Alternative 5C	33.2	33.2		
	Alternative 5C	26.1	26.1		
	Proposed – Compare to Alternative 5D	19.4	19.4		
	Alternative 5D	17.5	17.5		
	Proposed – Compare to Alternative 5E	5.8	5.8		
	Alternative 5E	5.3	5.3		
6	Proposed – Total Length	0.5	0.5		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.14-3. Miles of Landslide Hazard Ranking Crossed by Alternative cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Buffered Mileage		
			Low Risk <70	Medium Risk 70-84	High Risk 85-100
7	Proposed – Total Length	118.1	118.1		
	Proposed – Compare to Alternatives 7A,B	35.2	35.2		
	Alternative 7A	38.0	38		
	Alternative 7B	46.4	46.4		
	Proposed – Compare to Alternative 7C	20.1	20.1		
	Alternative 7C	20.3	20.3		
	Proposed – Compare to Alternative 7D	6.2	6.2		
	Alternative 7D	6.8	6.8		
	Proposed – Compare to Alternative 7E	3.8	3.8		
	Alternative 7E	4.5	4.5		
	Proposed – Compare to Alternative 7F	10.5	10.5		
	Alternative 7F	10.8	10.8		
	Proposed – Compare to Alternative 7G	3.1	3.1		
	Alternative 7G	3.2	3.2		
	Proposed – Compare to Alternatives 7H,I	118.1	118.1		
	Alternative 7H	127.5	127.5		
Alternative 7I	173.4	169.1	4.3		
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	143.9			
Alternative 7J <sup>1/</sup>	202.1	197.8	4.3		
8	Proposed – Total Length	131.0	123.9	7.1	
	Proposed – Compare to Alternative 8A	51.4	46.7	4.8	
	Alternative 8A	53.6	53.6		
	Proposed – Compare to Alternative 8B	45.3	42.9	2.4	
	Alternative 8B	45.8	42.3	3.4	
	Alternative 8B – Compare to Alternative 8C	6.5	6.5		
	Alternative 8C	6.4	6.4		
	Proposed – Compare to Alternative 8D	6.9	6.9		
	Alternative 8D	8.1	8.1		
	Proposed – Compare to Alternative 8E	7.0	4.6	2.4	
Alternative 8E	18.5	18.5			
9	Proposed – Total Length	161.7	161.7		
	Proposed – Compare to Alternative 9A	7.8	7.8		
	Alternative 9A	7.7	7.7		
	Proposed – Compare to Alternative 9B	49.5	49.5		
	Alternative 9B	53.2	53.2		
	Proposed – Compare to Alternative 9C	14.7	14.7		
	Alternative 9C	15.3	15.3		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	57.2		
	Alternative 9D	58.4	58.4		
	Alternative 9E	68.7	68.7		
	Alternative 9F	62.9	62.9		
	Alternative 9G	56.4	56.4		
Alternative 9H	61.0	61.0			
10	Seg 10 Proposed – Total Length	33.6	33.6		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-4. Acres of Construction Disturbance within Subsidence Areas**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Total Disturbance Acreage	Mineral			Abandoned Underground Mines	Total Subsidence Potential Area <sup>1/</sup>
				Coal	Oil and Gas	Trona		
1E	Proposed – Total Length	100.6	1096		31		37	57
	Proposed – Comparison portion for Alternative 1E-A	17.6	213		16		19	23
	Alternative 1E-A	16.1	125		12		9	12
	Proposed – Comparison portion for Alternative 1E-B	37.9	393		6		8	14
	Alternative 1E-B	59.3	729		5			5
	Proposed – Comparison portion for Alternative 1E-C	75.3	832		16		19	34
1W	Alternative 1E-C	48.7	311		21			21
	1W(a) Proposed – Total Length	76.5	623		60		22	63
	Proposed – Comparison portion for Alternative 1W-A	20.3	210		28		17	31
	Alternative 1W-A	16.2	136		6		4	6
2	1W(c) Proposed – Total Length	70.6	817		35		10	39
	Proposed – Total Length	96.7	1544	11	373		140	517
	Proposed – Comparison portion for Alternative 2A	28.8	398		83		28	112
	Alternative 2A	28.4	446		92		50	142
	Proposed – Comparison portion for Alternative 2B	7.0	104		54			54
	Alternative 2B	6.2	80		34			34
	Proposed – Comparison portion for Alternative 2C	28.4	369	11	46		109	166
3	Alternative 2C	28.8	322	8	61		4	67
	Proposed – Total Length	56.4	863	15	317			317
4	Proposed – Total Length	203.0	2846	15	472	33		502
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	1234		300	3		303
	Alternative 4A	85.2	1250		250	4	27	281
	Alternative 4B	100.2	1484	11	473	37	56	562
	Alternative 4C	101.6	1478	11	395	37	41	459
	Alternative 4D	100.8	1505	11	520	37	53	597
	Alternative 4E	102.2	1495	11	448	37	41	512
5	Alternative 4F	87.5	1260		229	5	14	248
	Proposed-Total Length	54.6						
	Proposed – Comparison portion for Alternatives 5A,B	25.3						
	Alternative 5A	33.7						
	Alternative 5B	44.4						
	Proposed – Comparison portion for Alternative 5C	33.2						
	Alternative 5C	26.1						
	Proposed – Comparison portion for Alternative 5D	19.4						
	Alternative 5D	17.5						
6	Proposed – Comparison portion for Alternative 5E	5.8						
	Alternative 5E	5.3						
	Proposed-Total Length	0.5						

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The Total Subsidence Potential Area is a GIS analysis of the dissolved area of all four categories. If categories overlap, the total area may be less than the sum of the categories.

**Table D.14-4. Acres of Construction Disturbance within Subsidence Areas cont.**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Total Disturbance Acreage	Mineral				Total Subsidence Potential Area
				Coal	Oil and Gas	Trona	Abandoned Underground Mines	
7	Proposed-Total Length	118.1						
	Proposed – Comparison portion for Alternatives 7A,B	35.2						
	Alternative 7A	38.0						
	Alternative 7B	46.4						
	Proposed – Comparison portion for Alternative 7C	20.1						
	Alternative 7C	20.3						
	Proposed – Comparison portion for Alternative 7D	6.2						
	Alternative 7D	6.8						
	Proposed – Comparison portion for Alternative 7E	3.8						
	Alternative 7E	4.5						
	Proposed – Comparison portion for Alternative 7F	10.5						
	Alternative 7F	10.8						
	Proposed – Comparison portion for Alternative 7G	3.1						
	Alternative 7G	3.2						
	Proposed – Comparison portion for Alternatives 7H,I	118.1						
	Alternative 7H	127.5						
Alternative 7I	173.4							
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9							
Alternative 7J <sup>2/</sup>	202.1							
8	Proposed – Total Length	131.0						
	Proposed – Comparison portion for Alternative 8A	51.4						
	Alternative 8A	53.6						
	Proposed – Comparison portion for Alternative 8B	45.3						
	Alternative 8B	45.8						
	Proposed – Comparison portion for Alternative 8C	6.5						
	Alternative 8C	6.4						
	Proposed – Comparison portion for Alternative 8D	6.9						
	Alternative 8D	8.1						
	Proposed – Comparison portion for Alternative 8E	7.0						
Alternative 8E	18.5							
9	Proposed – Total Length	161.7						
	Proposed – Comparison portion for Alternative 9A	7.8						
	Alternative 9A	7.7						
	Proposed – Comparison portion for Alternative 9B	49.5						
	Alternative 9B	53.2						
	Proposed – Comparison portion for Alternative 9C	14.7						
	Alternative 9C	15.3						
	Proposed – Comparison portion for Alternatives 9D-9H	57.2						
	Alternative 9D	58.4						
	Alternative 9E	68.7						
	Alternative 9F	62.9						
10	Alternative 9G	56.4						
	Alternative 9H	61.0						
10	Proposed – Total Length	33.6						

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-5. Acres of Operations Disturbance within Subsidence Areas**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Total Disturbance Acreage	Mineral			Abandoned Underground Mines	Total Subsidence Potential Area <sup>1/</sup>
				Coal	Oil and Gas	Trona		
1E	Proposed – Total Length	100.6	283		6		12	15
	Proposed – Comparison portion for Alternative 1E-A	17.6	51		5		6	7
	Alternative 1E-A	16.1	39		7		6	7
	Proposed – Comparison portion for Alternative 1E-B	37.9	91		1		3	4
	Alternative 1E-B	59.3	164		1			1
	Proposed – Comparison portion for Alternative 1E-C	75.4	218		2		6	8
	Alternative 1E-C	48.7	92		4			4
1W	1W(a) Proposed – Total Length	76.5	182		20		7	21
	Proposed – Comparison portion for Alternative 1W-A	20.3	47		6		2	6
	Alternative 1W-A	16.2	40		2		<1	2
	1W(c) Proposed – Total Length	70.6	144		5			5
2	Proposed – Total Length	96.7	401	3	95		25	121
	Proposed – Comparison portion for Alternative 2A	28.8	74		16		4	20
	Alternative 2A	28.4	90		21		8	28
	Proposed – Comparison portion for Alternative 2B	7.0	16		9			9
	Alternative 2B	6.2	18		7			7
	Proposed – Comparison portion for Alternative 2C	28.4	77	3	10		19	31
	Alternative 2C	24.4	52	1	12		<1	13
3	Proposed – Total Length	56.4	191	4	77			77
4	Proposed – Total Length	203.0	651	3	100	6		105
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	262		63	1		64
	Alternative 4A	85.2	277		56	1	7	64
	Alternative 4B	100.2	348	4	116	10	12	134
	Alternative 4C	101.6	341	4	96	10	10	112
	Alternative 4D	100.8	355	4	131	10	12	150
	Alternative 4E	102.2	345	4	110	10	10	126
Alternative 4F	87.5	280		53	2	3	58	
5	Proposed-Total Length	54.6						
	Proposed – Comparison portion for Alternatives 5A,B	25.3						
	Alternative 5A	33.7						
	Alternative 5B	44.4						
	Proposed – Comparison portion for Alternative 5C	33.2						
	Alternative 5C	26.1						
	Proposed – Comparison portion for Alternative 5D	19.4						
	Alternative 5D	17.5						
	Proposed – Comparison portion for Alternative 5E	5.8						
Alternative 5E	5.3							
6	Proposed-Total Length	0.5						

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> The Total Subsidence Potential Area is a GIS analysis of the dissolved area of all four categories. If categories overlap, the total area may be less than the sum of the categories.

**Table D.14-5. Acres of Operations Disturbance within Subsidence Areas cont.**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Total Disturbance Acreage	Mineral				Total Subsidence Potential Area
				Coal	Oil and Gas	Trona	Abandoned Underground Mines	
7	Proposed-Total Length	118.1						
	Proposed – Comparison portion for Alternatives 7A,B	35.2						
	Alternative 7A	38.0						
	Alternative 7B	46.4						
	Proposed – Comparison portion for Alternative 7C	20.1						
	Alternative 7C	20.3						
	Proposed – Comparison portion for Alternative 7D	6.2						
	Alternative 7D	6.8						
	Proposed – Comparison portion for Alternative 7E	3.8						
	Alternative 7E	4.5						
	Proposed – Comparison portion for Alternative 7F	10.5						
	Alternative 7F	10.8						
	Proposed – Comparison portion for Alternative 7G	3.1						
	Alternative 7G	3.2						
	Proposed – Comparison portion for Alternatives 7H,I	118.1						
	Alternative 7H	127.5						
Alternative 7I	173.4							
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9							
Alternative 7J <sup>2/</sup>	202.1							
8	Proposed – Total Length	131.0						
	Proposed – Comparison portion for Alternative 8A	51.4						
	Alternative 8A	53.6						
	Proposed – Comparison portion for Alternative 8B	45.3						
	Alternative 8B	45.8						
	Proposed – Comparison portion for Alternative 8C	6.5						
	Alternative 8C	6.4						
	Proposed – Comparison portion for Alternative 8D	6.9						
	Alternative 8D	8.1						
Proposed – Comparison portion for Alternative 8E	7.0							
Alternative 8E	18.5							
9	Proposed – Total Length	161.7						
	Proposed – Comparison portion for Alternative 9A	7.8						
	Alternative 9A	7.7						
	Proposed – Comparison portion for Alternative 9B	49.5						
	Alternative 9B	53.2						
	Proposed – Comparison portion for Alternative 9C	14.7						
	Alternative 9C	15.3						
	Proposed – Comparison portion for Alternatives 9D-9H	57.2						
	Alternative 9D	58.4						
	Alternative 9E	68.7						
	Alternative 9F	62.9						
Alternative 9G	56.4							
Alternative 9H	61.0							
10	Proposed – Total Length	33.6						

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-6. Miles of Each Depth to Shallow Bedrock Category Crossed by Proposed and Alternative Routes**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Depth to Bedrock (feet)			
			1 to 4	4 to 8	8 to 12	Total Shallow Bedrock
1E	Proposed – Total Length	100.6	14.7	11.2	15.4	41.3
	Proposed – Comparison portion for Alternative 1E-A	17.6	0.4			0.4
	Alternative 1E-A	16.1	3.2			3.2
	Proposed – Comparison portion for Alternative 1E-B	37.9	1.5	10.6		12.1
	Alternative 1E-B	59.3	5.3	29.8		35.2
	Proposed – Comparison portion for Alternative 1E-C	75.3	13.0	11.2	11.5	35.6
	Alternative 1E-C	48.7			10.5	10.5
1W	1W(a) Proposed – Total Length	76.5	0.8		14.6	15.4
	Proposed – Comparison portion for Alternative 1W-A	20.3				
	Alternative 1W-A	16.2	3.1			3.1
	1W(c) Proposed – Total Length	70.6	7.1		13.7	20.8
2	Proposed – Total Length	96.7				
	Proposed – Comparison portion for Alternative 2A	28.8				
	Alternative 2A	28.4				
	Proposed – Comparison portion for Alternative 2B	7.0				
	Alternative 2B	6.2				
	Proposed – Comparison portion for Alternative 2C	28.4				
3	Proposed – Total Length	56.4	37.6	3.1		40.6
	Proposed – Total Length	203.0	52.6	2.8	10.0	65.3
4	Proposed – Comparison portion for Alternatives 4A-4F	90.2	24.0			24.0
	Alternative 4A	85.2	31.8			31.8
	Alternative 4B	100.2	53.0			53.0
	Alternative 4C	101.6	45.3			45.3
	Alternative 4D	100.8	54.1			54.1
	Alternative 4E	102.2	46.3			46.3
	Alternative 4F	87.5	35.8			35.8
5	Proposed-Total Length	54.6	2.4	12.2		14.6
	Proposed – Comparison portion for Alternatives 5A,B	25.3	2.4	9.8		12.2
	Alternative 5A	33.7	5.4	10.5		15.9
	Alternative 5B	44.4	2.6	14.9		17.5
	Proposed – Comparison portion for Alternative 5C	33.2	2.4	10.3		12.7
	Alternative 5C	26.1	2.4	1.6		4.0
	Proposed – Comparison portion for Alternative 5D	19.4		2.4		2.4
	Alternative 5D	17.5		1.5		1.5
	Proposed – Comparison portion for Alternative 5E	5.8		1.0		
Alternative 5E	5.3		0.7			
6	Proposed-Total Length	0.5	0.2	0.2		0.5

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.14-6. Miles of Each Depth to Shallow Bedrock Category Crossed by Proposed and Alternative Routes cont.**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Depth to Bedrock (feet)			
			1 to 4	4 to 8	8 to 12	Total Shallow Bedrock
7	Proposed – Total Length	118.1	17.1	22.4	6.9	46.3
	Proposed – Comparison portion for Alternatives 7A,B	35.2	2.4	10.1		12.5
	Alternative 7A	38.0	5.4	10.3		15.7
	Alternative 7B	46.4	2.2	15.0		17.2
	Proposed – Comparison portion for Alternative 7C	20.1	12.0			12.0
	Alternative 7C	20.3	10.2			10.2
	Proposed – Comparison portion for Alternative 7D	6.2	2.2		0.8	3.0
	Alternative 7D	6.8	3.2		0.8	4.0
	Proposed – Comparison portion for Alternative 7E	3.8		1.1	2.7	3.8
	Alternative 7E	4.5		0.1	4.4	4.5
	Proposed – Comparison portion for Alternative 7F	10.5		3.7	6.1	9.7
	Alternative 7F	10.8		1.4	5.9	7.3
	Proposed – Comparison portion for Alternative 7G	3.1		0.9		0.9
	Alternative 7G	3.2		0.1		0.1
	Proposed – Comparison portion for Alternatives 7H,I	118.1	17.1	22.4	6.9	46.3
	Alternative 7H	127.5	8.3	18.3	7.8	34.4
Alternative 7I	173.4	13.4	37.2	29.8	80.5	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	22.8	23.2	23.7	69.7	
Alternative 7J <sup>1/</sup>	202.1	18.8	35.7	56.8	111.3	
8	Proposed – Total Length	131.0	25.3	76.8	9.2	111.4
	Proposed – Comparison portion for Alternative 8A	51.4	12.3	21.9	4.6	38.8
	Alternative 8A	53.6	12.0	24.5	4.9	41.4
	Proposed – Comparison portion for Alternative 8B	45.3	13.0	20.6	4.6	38.3
	Alternative 8B	45.8	1.6	24.4	8.5	34.5
	Alternative 8B – Comparison portion for Alternative 8C	6.5		6.5		6.5
	Alternative 8C	6.4		6.4		6.4
	Proposed – Comparison portion for Alternative 8D	6.9		3.9		3.9
	Alternative 8D	8.1		4.3		4.3
	Proposed – Comparison portion for Alternative 8E	7.0	2.5		2.5	5.0
Alternative 8E	18.5	1.9		11.9	13.8	
9	Proposed – Total Length	161.7	72.1	33.0	30.1	135.2
	Proposed – Comparison portion for Alternative 9A	7.8	5.7		2.1	7.8
	Alternative 9A	7.7	4.1		3.6	7.7
	Proposed – Comparison portion for Alternative 9B	49.5	17.2	29.5	0.1	46.8
	Alternative 9B	53.2	3.0	41.7	4.4	49.1
	Proposed – Comparison portion for Alternative 9C	14.7	12.9		0.1	12.9
	Alternative 9C	15.3	5.2	1.8	4.4	11.4
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	43.3		5.0	48.3
	Alternative 9D	58.4	10.6		8.0	18.6
	Alternative 9E	68.7	51.0	6.3	4.2	61.5
	Alternative 9F	62.9	19.7		8.0	27.6
Alternative 9G	56.4	7.5		11.1	18.6	
Alternative 9H	61.0	16.5		11.1	27.6	
10	Proposed – Total Length	33.6	7.1	0.4	0.6	8.1

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.14-7. Miles of Shallow Bedrock in Landslide, Subsidence, or Coal (Methane) Zones**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Bedrock/ Landslide <sup>1/</sup>	Bedrock/ Subsidence	Bedrock/ Coal	Bedrock in All Zones <sup>2/</sup>
1E	Proposed – Total Length	100.6				
	Proposed – Comparison portion for Alternative 1E-A	17.6				
	Alternative 1E-A	16.1				
	Proposed – Comparison portion for Alternative 1E-B	37.9				
	Alternative 1E-B	59.3				
	Proposed – Comparison portion for Alternative 1E-C	75.4				
	Alternative 1E-C	48.7				
1W	1W(a) Proposed – Total Length	76.5				
	Proposed – Comparison portion for Alternative 1W-A	20.3				
	Alternative 1W-A	16.2				
	1W(c) Proposed – Total Length	70.6				
2	Proposed – Total Length	96.7				
	Proposed – Comparison portion for Alternative 2A	28.8				
	Alternative 2A	28.4				
	Proposed – Comparison portion for Alternative 2B	7.0				
	Alternative 2B	6.2				
	Proposed – Comparison portion for Alternative 2C	28.4				
	Alternative 2C	24.4				
3	Proposed – Total Length	56.4	13.0	17.4	0.5	24.0
4	Proposed – Total Length	203.0	27.1	10.1		33.6
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	22.3	2.6		22.3
	Alternative 4A	85.2	29.9	8.3		30.9
	Alternative 4B	100.2	43.5	22.5	0.7	48.4
	Alternative 4C	101.6	35.8	16.9	0.7	40.6
	Alternative 4D	100.8	44.6	26.3	0.7	49.4
	Alternative 4E	102.2	36.8	20.7	0.7	41.7
	Alternative 4F	87.5	33.9	6.1		34.9
5	Proposed-Total Length	54.6				
	Proposed – Comparison portion for Alternatives 5A,B	25.3				
	Alternative 5A	33.7				
	Alternative 5B	44.4				
	Proposed – Comparison portion for Alternative 5C	33.2				
	Alternative 5C	26.1				
	Proposed – Comparison portion for Alternative 5D	19.4				
	Alternative 5D	17.5				
	Proposed – Comparison portion for Alternative 5E	5.8				
Alternative 5E	5.3					
6	Proposed-Total Length	0.5				

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Landslide is defined as medium or high landslide hazards as shown on Table D.14-3.

<sup>2/</sup> Bedrock in all zones is a GIS analysis of the dissolved area of all three bedrock categories. If categories overlap, the distance may be less than the sum of the three numbers.

**Table D.14-7. Miles of Shallow Bedrock in Landslide, Subsidence, or Coal (Methane) Zones cont.**

Segment Number	Proposed Alternative or Route Name	Segment Length (Miles)	Bedrock/ Landslide <sup>1/</sup>	Bedrock/ Subsidence	Bedrock/ Coal	Bedrock in All Zones <sup>2/</sup>
7	Proposed-Total Length	118.1				
	Proposed – Comparison portion for Alternatives 7A,B	35.2				
	Alternative 7A	38.0				
	Alternative 7B	46.4				
	Proposed – Comparison portion for Alternative 7C	20.1				
	Alternative 7C	20.3				
	Proposed – Comparison portion for Alternative 7D	6.2				
	Alternative 7D	6.8				
	Proposed – Comparison portion for Alternative 7E	3.8				
	Alternative 7E	4.5				
	Proposed – Comparison portion for Alternative 7F	10.5				
	Alternative 7F	10.8				
	Proposed – Comparison portion for Alternative 7G	3.1				
	Alternative 7G	3.2				
	Proposed – Comparison portion for Alternatives 7H,I	118.1				
	Alternative 7H	127.5				
	Alternative 7I	173.4	4.3			4.3
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9					
Alternative 7J <sup>3/</sup>	202.1	4.3			4.3	
8	Proposed – Total Length	131.0	0.8			0.8
	Proposed – Comparison portion for Alternative 8A	51.4				
	Alternative 8A	53.6				
	Proposed – Comparison portion for Alternative 8B	45.3	0.8			0.8
	Alternative 8B	45.8	2.7			2.7
	Proposed – Comparison portion for Alternative 8C	6.5				
	Alternative 8C	6.4				
	Proposed – Comparison portion for Alternative 8D	6.9				
	Alternative 8D	8.1				
	Proposed – Comparison portion for Alternative 8E	7.0				
Alternative 8E	18.5					
9	Proposed – Total Length	161.7				
	Proposed – Comparison portion for Alternative 9A	7.8				
	Alternative 9A	7.7				
	Proposed – Comparison portion for Alternative 9B	49.5				
	Alternative 9B	53.2				
	Proposed – Comparison portion for Alternative 9C	14.7				
	Alternative 9C	15.3				
	Proposed – Comparison portion for Alternatives 9D-9H	57.2				
	Alternative 9D	58.4				
	Alternative 9E	68.7				
	Alternative 9F	62.9				
Alternative 9G	56.4					
Alternative 9H	61.0					
10	Proposed – Total Length	33.6				

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Landslide is defined as medium or high landslide hazards as shown on Table D.14-3.

<sup>2/</sup> Bedrock in all zones is a GIS analysis of the dissolved area of all three bedrock categories. If categories overlap, the distance may be less than the sum of the three numbers.

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.15-1. Analysis of Soil Factors in Construction Disturbance Areas (in acres)**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Acres	Highly Wind Erodible	High K Factor	Slope > 25%	Low T Factor	Prime Farmland	Compaction Prone	Stony/Rocky	Droughty Soil	Shallow Bedrock	Hydric Soil
1E	Proposed – Total Length	100.6	1,096	289	21	202	227			275	565	179	
	Proposed – Comparison portion for Alternative 1E-A	17.6	213	65	10	10	10			10	74	10	
	Alternative 1E-A	16.1	125	91	23	23	23			23	113	23	
	Proposed – Comparison portion for Alternative 1E-B	37.9	393	204		41	73			96	300	26	
	Alternative 1E-B	59.3	729	370		203	284			276	645	62	
	Proposed – Comparison portion for Alternative 1E-C	75.4	832	224		181	214			254	479	158	
1W	Proposed – Comparison portion for Alternative 1E-C	48.7	311	68							67		
	Alternative 1E-C	48.7	311	68							67		
	1W(a) Proposed – Total Length	76.5	623	178	7	7	7			7	185	7	
	Proposed – Comparison portion for Alternative 1W-A	20.3	210	83							83		
2	Alternative 1W-A	16.2	136	101	22	22	22			22	123	22	
	1W(c) Proposed – Total Length	70.6	817	277	65	65	65			65	342	65	
	Proposed – Total Length	96.7	1,544	813	53						811		
	Proposed – Comparison portion for Alternative 2A	28.8	398	261							261		
	Alternative 2A	28.4	446	248							248		
	Proposed – Comparison portion for Alternative 2B	7.0	104	104							104		
3	Alternative 2B	6.2	80	79							79		
	Proposed – Comparison portion for Alternative 2C	28.4	369	161							161		
	Alternative 2C	24.4	322	235							235		
	Proposed – Total Length	56.5	863	861	248		562				614	518	
	Proposed – Total Length	203.0	2,846	1,311	896	535	1,085		104	742	1,767	716	130
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	1,234	672	92	98	627		10	475	847	352	36
4	Alternative 4A	85.2	1,250	797	266	42	628		10	387	802	474	64
	Alternative 4B	100.2	1,484	971	306	1	861		14	430	980	766	64
	Alternative 4C	101.6	1,478	969	405		748		14	443	981	666	51
	Alternative 4D	100.8	1,505	996	319	1	870		14	436	985	778	60
	Alternative 4E	102.2	1,495	993	406		769		14	441	974	687	51
	Alternative 4F	87.5	1,260	808	248	103	707		10	346	755	561	59
5	Proposed – Total Length	54.6	982	86	853	265	352	400		363	437	49	
	Proposed – Comparison portion for Alternatives 5A,B	25.3	439	12	390	239	191	76		239	239	49	
	Alternative 5A	33.7	554	17	464	274	237	191		274	274	88	
	Alternative 5B	44.4	683		651	302	265	246		302	302	31	
	Proposed – Comparison portion for Alternative 5C	33.2	590	12	540	184	184	260		184	184	49	
	Alternative 5C	26.1	433	42	432	91	78	83		78	78	43	
	Proposed – Comparison portion for Alternative 5D	19.4	411	74	337	30	76	330		30	104		
	Alternative 5D	17.5	366	68	297	2	52	296		2	70		
6	Proposed – Comparison portion for Alternative 5E	5.8	138	74	63		46	91			74		
	Alternative 5E	5.3	104	66	38		40	64			66		
6	Proposed – Total Length	0.5	65	65			63	2			65	30	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.15-1. Analysis of Soil Factors in Construction Disturbance Areas (in acres) cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Acres	Highly Wind Erodible	High K Factor	Slope > 25%	Low T Factor	Prime Farmland	Compaction Prone	Stony/Rocky	Droughty Soil	Shallow Bedrock	Hydric Soil
7	Proposed – Total Length	118.1	1,804	409	1,740	364	537	1,077		436	682	263	
	Proposed – Comparison portion for Alternatives 7A,B	35.2	499	9	463	179	144	237		179	179	35	
	Alternative 7A	38.0	618	18	529	266	236	261		266	266	89	
	Alternative 7B	46.4	746		723	288	258	281		288	288	22	
	Proposed – Comparison portion for Alternative 7C	20.1	288	30	288		169	216			169	169	
	Alternative 7C	20.3	289	11	289	<1	131	206		<1	131	131	
	Proposed – Comparison portion for Alternative 7D	6.2	112	12	112	6	55	55		6	62	55	
	Alternative 7D	6.8	126	17	125	6	71	71		6	78	71	
	Proposed – Comparison portion for Alternative 7E	3.8	67	15	67	52		15		52	52		
	Alternative 7E	4.5	78	7	78	68		7		68	68		
	Proposed – Comparison portion for Alternative 7F	10.5	201	93	201	92		93		92	92		
	Alternative 7F	10.8	169	26	169	89		26		89	89		
	Proposed – Comparison portion for Alternative 7G	3.1	48	38	48		10	38					
	Alternative 7G	3.2	72	64	72		8	64					
	Proposed – Comparison portion for Alternatives 7H,I	118.1	1,804	409	1,740	364	537	1,077		436	682	263	
Alternative 7H	127.5	2,118	412	1,981	574	692	719		959	961	128		
Alternative 7I	173.4	2,735	886	2,351	1,054	1,241	731		1,043	1,391	200		
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	2,231	445	1,899	388	903	1,381		727	974	335		
Alternative 7J <sup>1/</sup>	202.1	3,181	887	2,372	1,072	1,670	1,091		1,481	1,829	274		
8	Proposed – Total Length	131.0	2,125	600	1,540		1,717	428		3	1,288	412	
	Proposed – Comparison portion for Alternative 8A	51.4	814	502	288		540	317			575	185	
	Alternative 8A	53.6	824	535	280		242	198		8	581	165	
	Proposed – Comparison portion for Alternative 8B	45.3	754	98	696		641	111		3	330	227	
	Alternative 8B	45.8	779	202	727		593	357			256	32	
	Alternative 8B – Comparison portion for Alternative 8C	6.5	139		138		138				72		
	Alternative 8C	6.4	138	25	138		126	25			50		
	Proposed – Comparison portion for Alternative 8D	6.9	123		123		74	5			68		
	Alternative 8D	8.1	143		142		84	6			78		
	Proposed – Comparison portion for Alternative 8E	7.0	98	49	59		69	49			39	38	
Alternative 8E	18.5	286	242	267		207	242			19	25		
9	Proposed – Total Length	161.7	2,670	1,233	1,224	24	1,694	891		416	1,466	1,168	
	Proposed – Comparison portion for Alternative 9A	7.8	117		63		117	54		54	54	63	
	Alternative 9A	7.7	133		58		133	75		75	75	58	
	Proposed – Comparison portion for Alternative 9B	49.5	825	109	672		326	44		42	151	284	
	Alternative 9B	53.2	816	170	557		163	116		120	257	43	
	Proposed – Comparison portion for Alternative 9C	14.7	239		196		238	20		43	43	196	
	Alternative 9C	15.3	279	32	146		246	121		132	235	114	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	955	813	227		793	247		726	813	706	
	Alternative 9D	58.4	815	763	568		287	653		245	763	154	
	Alternative 9E	68.7	1,004	441	630		770	222		373	531	690	
	Alternative 9F	62.9	971	920	568		432	655		402	920	299	
Alternative 9G	56.4	848	819	559		328	706		287	818	121		
Alternative 9H	61.0	979	949	559		472	692		418	949	265		
10	Proposed – Total Length	33.6	549	267	334		229	145		204	444	123	
<b>Total of All Proposed Segments (grey shaded areas)</b>		<b>1103</b>	<b>15984</b>	<b>6389</b>	<b>6981</b>	<b>1462</b>	<b>6538</b>	<b>2943</b>	<b>104</b>	<b>2511</b>	<b>8666</b>	<b>3530</b>	<b>130</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.15-2. Analysis of Soil Factors in Operations Disturbance Areas (in acres)**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Acres	Erosion Factors			Sensitive Soils		Factors Affecting Reclamation					Permanent Soil Loss
				Highly Wind Erodeable	High K Factor	Slope > 25%	Low T Factor	Prime Farmland	Compaction Prone	Stony/Rocky	Droughty Soil	Shallow Bedrock	Hydric Soil	
1E	Proposed – Total Length	100.6	283	72	6	54	60			70	142	44		162
	Proposed – Comparison portion for Alternative 1E-A	17.6	51	18	3	3	3			3	21	3		28
	Alternative 1E-A	16.1	39	29	6	6	6			6	35	6		28
	Proposed – Comparison portion for Alternative 1E-B	37.9	91	45		10	15			22	68	4		53
	Alternative 1E-B	59.3	164	86		54	71			60	146	19		88
	Proposed – Comparison portion for Alternative 1E-C	75.4	218	54		48	54			64	118	38		124
1W	Alternative 1E-C	48.7	92	17						17				79
	1W(a) Proposed – Total Length	76.5	182	51	2	2	2			2	52	2		118
	Proposed – Comparison portion for Alternative 1W-A	20.3	47	19							19			25
	Alternative 1W-A	16.2	40	30	6	6	6			6	36	6		18
2	1W(c) Proposed – Total Length	70.6	144	51	11	11	11			11	62	11		103
	Proposed – Total Length	96.7	401	170	9						170			237
	Proposed – Comparison portion for Alternative 2A	28.8	74	44							44			53
	Alternative 2A	28.4	90	50							50			48
	Proposed – Comparison portion for Alternative 2B	7.0	16	16							16			13
	Alternative 2B	6.2	18	18							18			12
	Proposed – Comparison portion for Alternative 2C	28.4	77	35							35			54
3	Alternative 2C	24.4	52	34						34				44
	Proposed – Total Length	56.5	219	219	89		115				130	103		189
4	Proposed – Total Length	203.0	651	323	245	124	284		18	173	389	156	25.0	483
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	262	147	20	26	134		2	96	178	84	9.0	171
	Alternative 4A	85.2	277	178	54	12	143		2	93	185	114	9.0	163
	Alternative 4B	100.2	348	235	68	<1	201		3	104	239	185	9.0	186
	Alternative 4C	101.6	341	237	83		174		3	98	231	161	8.0	194
	Alternative 4D	100.8	355	243	69	<1	210		3	106	240	194	9.0	189
	Alternative 4E	102.2	345	245	83		179		3	96	228	166	7.0	198
5	Alternative 4F	87.5	280	183	51	28	160		2	79	171	133	9.0	162
	Proposed – Total Length	54.6	175	22	144	52	93	54		86	105	9		110
	Proposed – Comparison portion for Alternatives 5A,B	25.3	73	2	63	49	38	15		49	49	9		45
	Alternative 5A	33.7	87	2	69	55	50	23		55	55	18		50
	Alternative 5B	44.4	99		93	52	46	27		52	51	6		63
	Proposed – Comparison portion for Alternative 5C	33.2	94	2	85	37	37	37		37	37	9		41
	Alternative 5C	26.1	56	4	56	14	12	9		12	12	6		33
	Proposed – Comparison portion for Alternative 5D	19.4	63	20	44	3	21	40		3	23			30
6	Alternative 5D	17.5	53	21	32	1	21	28		1	22			37
	Proposed – Comparison portion for Alternative 5E	5.8	24	20	4		19	5			20			21
6	Alternative 5E	5.3	24	21	4		18	6			21			21
	Proposed – Total Length	0.5	61	61			60	1			61	28		61

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.15-2. Analysis of Soil Factors in Operations Disturbance Areas (in acres) cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Acres	Erosion Factors			Sensitive Soils		Factors Affecting Reclamation					Permanent Soil Loss
				Highly Wind Erodeable	High K Factor	Slope > 25%	Low T Factor	Prime Farmland	Compaction Prone	Stony/Rocky	Droughty Soil	Shallow Bedrock	Hydric Soil	
7	Proposed – Total Length	118.1	231	41	227	45	102	108		76	106	32		172
	Proposed – Comparison portion for Alternatives 7A,B	35.2	47	1	44	19	15	19		19	19	2		39
	Alternative 7A	38.0	96	3	76	51	49	28		51	51	19		60
	Alternative 7B	46.4	99		94	44	42	28		44	44	5		65
	Proposed – Comparison portion for Alternative 7C	20.1	36	3	36	0	25	30			25	25		21
	Alternative 7C	20.3	28		28	0	15	21			15	15		22
	Proposed – Comparison portion for Alternative 7D	6.2	11	2	11	1	4	4		1	4	4		7
	Alternative 7D	6.8	13	3	13	1	5	5		1	6	5		7
	Proposed – Comparison portion for Alternative 7E	3.8	6	1	6	6		1		5	5			5
	Alternative 7E	4.5	8		8	8				7	7			6
	Proposed – Comparison portion for Alternative 7F	10.5	27	13	27	12		13		12	12			16
	Alternative 7F	10.8	24	6	24	12		6		12	12			11
	Proposed – Comparison portion for Alternative 7G	3.1	6	4	6		2	4						4
	Alternative 7G	3.2	6	5	6			5						3
	Proposed – Comparison portion for Alternatives 7H,I	118.1	231	41	227	45	102	108		76	106	32		172
	Alternative 7H	127.5	340	63	314	86	143	94		193	163	25		197
Alternative 7I	173.4	451	132	398	195	216	82		194	255	40		248	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	294	42	262	49	160	137		108	138	47		208	
Alternative 7J <sup>1/</sup>	202.1	512	132	415	221	250	120		263	324	46		323	
8	Proposed – Total Length	131.0	246	78	172		206	44		<1	156	61		153
	Proposed – Comparison portion for Alternative 8A	51.4	99	70	28		70	34			78	36		69
	Alternative 8A	53.6	102	73	27		41	23		2	78	33		73
	Proposed – Comparison portion for Alternative 8B	45.3	87	7	84		76	11		<1	36	24		46
	Alternative 8B	45.8	69	10	68		55	27			21			42
	Alternative 8B – Comparison portion for Alternative 8C	6.5	15		15		15				5			7
	Alternative 8C	6.4	16		16		16				3			8
	Proposed – Comparison portion for Alternative 8D	6.9	19		19		12	1			10			11
	Alternative 8D	8.1	15		15		8	2			6			8
	Proposed – Comparison portion for Alternative 8E	7.0	10	5	7		8	5			3	4		6
Alternative 8E	18.5	27	21	25		20	21			2	4		17	
9	Proposed – Total Length	161.7	359	150	181	4	222	100		49	181	144		184
	Proposed – Comparison portion for Alternative 9A	7.8	15		10		15	5		5	5	10		6
	Alternative 9A	7.7	18		10		18	8		8	8	10		10
	Proposed – Comparison portion for Alternative 9B	49.5	121	22	97		36	3		3	24	33		54
	Alternative 9B	53.2	85	18	55		18	12		14	30	4		58
	Proposed – Comparison portion for Alternative 9C	14.7	26		23		26			3	3	23		15
	Alternative 9C	15.3	31	2	14		29	14		18	18	12		18
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	106	89	27		91	25			79	81		60
	Alternative 9D	58.4	80	72	57		29	63			24	16		43
	Alternative 9E	68.7	134	58	83		100	27			51	91		84
	Alternative 9F	62.9	93	85	57		44	60			36	32		51
Alternative 9G	56.4	83	81	59		34	70			25	12		45	
Alternative 9H	61.0	96	94	59		49	67			38	27		53	
10	Proposed – Total Length	33.6	81	40	45		51	13		9	37	27		59
<b>Total of All Proposed Segments (grey shaded areas)</b>		<b>1,103</b>	<b>3,033</b>	<b>1,278</b>	<b>1,131</b>	<b>292</b>	<b>1,206</b>	<b>320</b>	<b>18</b>	<b>476</b>	<b>1,591</b>	<b>617</b>	<b>25</b>	<b>2,031</b>

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.15-3. Soil Impacts on National Forest-Construction Areas (in acres)**

Segment Number	Proposed or Alternative Name	Total Segment Acres	Total Forest Acres	Highly Erodible Soil (High K Factor)	Low Soil Loss Tolerance (Low T Factor)
<b>Medicine Bow-Routt National Forest</b>					
1E	Proposed – Total Length	1,096	25		
	Proposed – Comparison Portion for Alternative 1E-C	832	25		
	Alternative 1E-C	311	12		
1W	1W(a) Proposed – Total Length	623	16		
	1W(c) Proposed – Total Length	817	27		
<b>Total of All Medicine Bow NF Segments (grey shaded areas)</b>		<b>2,536</b>	<b>68</b>		
<b>Caribou National Forest</b>					
4	Proposed-Total Length	2,846	116	116	
<b>Total of All Caribou NF Segments (grey shaded areas)</b>		<b>2,846</b>	<b>116</b>	<b>116</b>	
<b>Sawtooth National Forest</b>					
7	Proposed-Total Length	1,804			
	Proposed – Comparison Portion for Alternatives 7H,I	1,804			
	Alternative 7H	2,118	167	75	99
	Alternative 7I	2,735	448	337	306
	Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	2,231	<1	<1	<1
	Alternative 7J <sup>1/</sup>	3,180	251	158	176
<b>Total of Sawtooth NF Segment 7 (grey shaded area)</b>		<b>1,804</b>			

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.15-4. Soil Impacts on National Forest-Operations Areas (in acres)**

Segment Number	Proposed or Alternative Name	Total Segment Acres	Total Forest Acres	Highly Erodible Soil (High K Factor)	Low Soil Loss Tolerance (Low T Factor)	Permanent Soil Loss
<b>Medicine Bow National Forest</b>						
1E	Proposed – Total Length	283	8			5
	Proposed – Comparison portion for Alternative 1E-C	218	8			5
	Alternative 1E-C	97	4			3
1W	1W(a) Proposed – Total Length	182	5			2
	1W(c) Proposed – Total Length	144	4			4
<b>Total of All Medicine Bow NF Segments (grey shaded areas)</b>		<b>609</b>	<b>17</b>			<b>17</b>
<b>Caribou National Forest</b>						
4	Proposed-Total Length	651	27	27		27
<b>Total of All Caribou NF Segments (grey shaded areas)</b>		<b>651</b>	<b>27</b>	<b>27</b>		<b>20</b>
<b>Sawtooth National Forest</b>						
7	Proposed-Total Length	231				
	Proposed – Comparison portion for Alternatives 7H,I	231				
	Alternative 7H	340	26	7	21	14
	Alternative 7I	451	94	72	55	35
	Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	294				
	Alternative 7J <sup>1/</sup>	511	53	35	32	18
<b>Total of Sawtooth NF Segment 7 (grey shaded area)</b>		<b>231</b>				

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.15-5.** Analysis of Soil Factors in Construction of Two Single-Circuit Alternative Areas (in acres)<sup>1/</sup>

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Acres	Erosion Factors			Sensitive Soils		Factors Affecting Reclamation				
				Highly Wind Erodible	High K Factor	Slope > 25%	Low T Factor	Prime Farmland	Compaction Prone	Stony/Rocky	Droughty Soil	Shallow Bedrock	Hydric Soil
2	Proposed – Total Length	96.7	1972	1084	66						1082		
	Proposed – Comparison portion for Alternative 2A	28.8	520	342							342		
	Alternative 2A	28.4	570	311							311		
	Proposed – Comparison portion for Alternative 2B	7.0	144	144							144		
	Alternative 2B	6.2	114	114							114		
	Proposed – Comparison portion for Alternative 2C	28.4	489	218							218		
	Alternative 2C	24.4	417	287							287		
3	Proposed – Total Length	56.5	1081	1079	294		728				785	667	
4	Proposed – Total Length	203.0	3706	1672	1165	708	1488		151	973	2323	888	193
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	1601	852	127	120	807		23	627	1110	428	65
	Alternative 4A	85.2	1634	1032	358	58	830		23	516	1065	622	82
	Alternative 4B	100.2	1936	1247	413	2	1115		28	576	1292	973	94
	Alternative 4C	101.6	1931	1244	550		964		28	606	1309	850	67
	Alternative 4D	100.8	1946	1261	428	2	1122		28	582	1285	985	89
	Alternative 4E	102.2	1937	1257	551		967		28	604	1289	873	67
	Alternative 4F	87.5	1646	1043	337	125	904		23	473	1013	706	76

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> These areas compare with the areas for the same segments shown in Table D.15-1 in Appendix D

**Table D.16-1. Surface Water Road Crossings by Crossing Type**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Crossings	Number of Crossings															Estimated Disturbance Area (Acres)	Total Drive-through	Total Cut/Fill	Total Culvert		
				Ephemeral			Intermittent Dry		Intermittent Dry		Intermittent Dry		Intermittent Wet		Intermittent Wet		Perennial						Artificial	
				Drive Through	Cut/Fill	TMDL/ 303(d)	Drive Through	Cut/Fill	Temporary Culvert	TMDL/ 303(d)	Avoid	Temporary Culvert	TMDL/ 303(d)	Permanent Culvert	Avoid	TMDL/ 303(d)	Avoid	TMDL/ 303(d)						
1E	Proposed – Total Length	100.6	319	126	106		14	38				25		3	5		2		5	140	144	28		
	Proposed – Comparison portion for Alternative 1E-A	17.6	18	5	5		2	4				1					1		<1	7	9	1		
	Alternative 1E-A	16.1	34	7	5		3	9				5					5		<1	10	14	5		
	Proposed – Comparison portion for Alternative 1E-B	37.9	92	45	38		2	4				3							<1	47	42	3		
	Alternative 1E-B	59.3	135	53	44		3	9				18		3	4		1		3	56	53	21		
	Proposed – Comparison portion for Alternative 1E-C	75.4	282	114	99		10	31				19		3	5		1		4	124	130	22		
Alternative 1E-C	48.7	103	41	35		5	12				9					1		2	46	47	9			
1W	1W(a) Proposed – Total Length	76.5	165	65	55		8	19				14		2	2				3	73	74	16		
	Proposed – Comparison portion for Alternative 1W-A	20.3	23	6	5		3	7				2							<1	9	12	2		
	Alternative 1W-A	16.2	26	3	3		3	8				6					3		<1	6	11	6		
	1W(c) Proposed – Total Length	70.6	198	76	56		13	31				12		2	3		5		3	89	87	14		
2	Proposed – Total Length	96.7	276	143	104		0	1	12			1		g <sup>2/</sup>			6		4	143	105	22		
	Proposed – Comparison portion for Alternative 2A	28.8	62	33	24				4								1		<1	33	24	4		
	Alternative 2A	28.4	78	41	30				3			2					2		<1	41	30	5		
	Proposed – Comparison portion for Alternative 2B	7.0	9	5	3				1										<1	5	3	1		
	Alternative 2B	6.2	15	8	5							1					1		<1	8	5	1		
	Proposed – Comparison portion for Alternative 2C	28.4	70	34	25			1	9			1							1	34	26	10		
Alternative 2C	24.4	17	4	3				6			3					1		1	4	3	9			
3	Proposed – Total Length	56.5	127	46	38		6	13				18		2	4				3	52	51	20		
4	Proposed – Total Length	203.0	414	140	147	3	14	32				20		18	27		13		6	154	179	38		
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	224	90	87	1	7	15				10		3	4		7		3	97	102	13		
	Alternative 4A	85.2	242	58	57	1	23	55				10		10	15		13		4	81	112	20		
	Alternative 4B	100.2	375	121	118	1	16	38				50		5	8		18		8	137	156	55		
	Alternative 4C	101.6	354	111	116	1	17	38				43		4	7		17		7	128	154	47		
	Alternative 4D	100.8	413	140	137	1	16	38				50		5	8		18		8	156	175	55		
	Alternative 4E	102.2	387	132	128	1	16	39				43		4	7		17		7	148	167	47		
	Alternative 4F	87.5	220	55	54	1	16	36				4		18	26		10		4	71	90	22		
5	Proposed – Total Length	54.6	177	91	39	40											7		1	91	39			
	Proposed – Comparison portion for Alternatives 5A,B	25.3	88	38	16	34													<1	38	16			
	Alternative 5A	33.7	84	24	10	19	6	4		1		12		3	5				2	30	14	15		
	Alternative 5B	44.4	103	41	18	21	8	5				3		3	4				1	49	23	6		
	Proposed – Comparison portion for Alternative 5C	33.2	147	74	32	40											1		<1	74	32			
	Alternative 5C	26.1	52	27	12	8	1	1									3		<1	28	13			
	Proposed – Comparison portion for Alternative 5D	19.4	75	47	20	6											2		<1	47	20			
	Alternative 5D	17.5	51	27	11	6	2	2									3		<1	29	13			
Proposed – Comparison portion for Alternative 5E	5.8	5	3	1												1			3	1				
Alternative 5E	5.3	6	3	2												1		t <sup>1/</sup>	3	2				
6	Proposed – Total Length	0.5																						

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of disturbance

<sup>2/</sup> These nine crossings are not all perennial; some will require a permanent culvert

**Table D.16-1. Surface Water Road Crossings by Crossing Type cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Crossings	Number of Crossings															Estimated Disturbance Area (Acres)	Total Drive-through	Total Cut/Fill	Total Culvert	
				Ephemeral			Intermittent Dry		Intermittent Dry		Intermittent Dry		Intermittent Wet		Perennial		Artificial						
				Drive Through	Cut/Fill	TMDL/ 303(d)	Drive Through	Cut/Fill	Temporary Culvert	TMDL/ 303(d)	Avoid	Temporary Culvert	TMDL/ 303(d)	Permanent Culvert	Avoid	TMDL/ 303(d)	Avoid	TMDL/ 303(d)					
7	Proposed – Total Length	118.1	209	50	73	15			12			5		18	4		32		5	50	73	35	
	Proposed – Comparison portion for Alternatives 7A,B	35.2	43	14	14	15													<1	14	14		
	Alternative 7A	38.0	110	24	23	25	4	8			3		12		4	6			1	3	28	31	16
	Alternative 7B	46.4	101	27	29	25	3	8					1		3	5				1	30	37	4
	Proposed – Comparison portion for Alternative 7C	20.1	17	4	4													1	8	t <sup>1/</sup>	4	4	
	Alternative 7C	20.3	24	11	11														1	<1	11	12	
	Proposed – Comparison portion for Alternative 7D	6.2	17	5	5									2					4	<1	5	6	2
	Alternative 7D	6.8	18	4	5									2					6	<1	4	6	2
	Proposed – Comparison portion for Alternative 7E	3.8	6												2	4				<1			2
	Alternative 7E	4.5	7												3	4				<1			3
	Proposed – Comparison portion for Alternative 7F	10.5	38	4	3		2	6						1					2	3	6	9	9
	Alternative 7F	10.8	19	4	4		2	4						1					2	<1	6	8	3
	Proposed – Comparison portion for Alternative 7G	3.1	4	2	1									1						<1	2	1	1
	Alternative 7G	3.2																					
	Proposed – Comparison portion for Alternatives 7H,I	118.1	209	60	63	15	4	8					5		9	13		32		5	64	71	14
Alternative 7H	127.5	448	134	141	10	27	64					7		12	18		35		4	161	205	19	
Alternative 7I	173.4	525	175	184	19	23	53			1		13		11	16	12	17	1	5	198	237	24	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9	257	70	73	18	5	12					6		10	14		49		5	75	85	16	
Alternative 7J <sup>3/</sup>	202.1	536	153	223	19			85		1		9		15	3	8	20		12	153	223	109	
8	Proposed – Total Length	131.0	259	106	51	26	7	15		2			1	3	9		38	1	1	113	66	3	
	Proposed – Comparison portion for Alternative 8A	51.4	57	16	8	1	1	2						2	6		21		<1	17	10	2	
	Alternative 8A	53.6	55	12	6	1	1	3						1	3		27	1	<1	13	9	1	
	Proposed – Comparison portion for Alternative 8B	45.3	112	47	23	25	3	6			2							5	1	<1	50	29	
	Alternative 8B	45.8	18	8	4	3		1			2									<1	8	5	
	Proposed – Comparison portion for Alternative 8C	6.5	18	8	4	3		1			2									<1	8	5	
	Alternative 8C	6.4	21	12	6	2		1												<1	12	7	
	Proposed – Comparison portion for Alternative 8D	6.9	8	1		6													1	t <sup>1/</sup>	1		
	Alternative 8D	8.1	8	2	1	4													1	t <sup>1/</sup>	2	1	
	Proposed – Comparison portion for Alternative 8E	7.0	6	1														5			1		
Alternative 8E	18.5	12	7	3		1	1												t <sup>1/</sup>	8	4		
9	Proposed – Total Length	161.7	322	107	83	14	4	9	7	5		16		2	2	1	72		4	111	92	25	
	Proposed – Comparison portion for Alternative 9A	7.8	16	3	4									1	1		7		t <sup>1/</sup>	3	4	1	
	Alternative 9A	7.7	13	1	1									2	2	1	6		t <sup>1/</sup>	1	1	2	
	Proposed – Comparison portion for Alternative 9B	49.5	69	18	19	8	3	6		4		6		1	1		3		1	21	25	7	
	Alternative 9B	53.2	58	18	18	4				2				1	1		14		<1	18	18	1	
	Proposed – Comparison portion for Alternative 9C	14.7	27	12	12													3		<1	12	12	
	Alternative 9C	15.3	21	4	3	1								1			12		t <sup>1/</sup>	4	3		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	136	37	39	1	2	4		1							1	51		<1	39	43	
	Alternative 9D	58.4	45	20	19	5												1		<1	20	19	
	Alternative 9E	68.7	139	60	47	18					1			2	4	4		2	1	1	60	47	4
	Alternative 9F	62.9	57	26	20	6												5		<1	26	20	
Alternative 9G	56.4	35	15	11	6												3		<1	15	11		
Alternative 9H	61.0	47	19	14	7												7		<1	19	14		
10	Proposed – Total Length	33.6	25	13			1	1	1								9		t <sup>1/</sup>	14	1	1	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of disturbance

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-2. Potential Construction Disturbance (in Acres per Risk Rank) In Areas of Flood Hazard Risk**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Flood Hazard Rank		
			0 to 69	70 to 84	85 to 100
			Low Risk	Moderate Risk	High Risk
1E	Proposed – Total Length	100.6	991	28	75
	Proposed – Comparison portion for Alternative 1E-A	17.6	165	13	36
	Alternative 1E-A	16.1	102	12	10
	Proposed – Comparison portion for Alternative 1E-B	37.9	377	15	
	Alternative 1E-B	59.3	666	36	26
	Proposed – Comparison portion for Alternative 1E-C	75.4	777	15	39
	Alternative 1E-C	48.7	310		18
1W	1W(a) Proposed – Total Length	76.5	554	17	50
	Proposed – Comparison portion for Alternative 1W-A	20.3	170	11	29
	Alternative 1W-A	16.2	116	11	9
	1W(c) Proposed – Total Length	70.6	767	5	45
2	Proposed – Total Length	96.7	1345	19	178
	Proposed – Comparison portion for Alternative 2A	28.8	335	2	60
	Alternative 2A	28.4	370	4	71
	Proposed – Comparison portion for Alternative 2B	7.0	93	2	10
	Alternative 2B	6.2	62	3	14
	Proposed – Comparison portion for Alternative 2C	28.4	367		1
	Alternative 2C	24.4	293	6	22
3	Proposed – Total Length	56.5	792	70	
4	Proposed – Total Length	203.0	2121	512	209
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	667	424	141
	Alternative 4A	85.2	916	194	138
	Alternative 4B	100.2	1111	237	133
	Alternative 4C	101.6	1140	220	116
	Alternative 4D	100.8	1136	233	134
	Alternative 4E	102.2	1156	220	117
	Alternative 4F	87.5	971	149	139
5	Proposed – Total Length	54.6	619	257	105
	Proposed – Comparison portion for Alternatives 5A,B	25.3	400	5	33
	Alternative 5A	33.7	457	33	64
	Alternative 5B	44.4	584	31	66
	Proposed – Comparison portion for Alternative 5C	33.2	343	186	60
	Alternative 5C	26.1	279	80	73
	Proposed – Comparison portion for Alternative 5D	19.4	80	252	78
	Alternative 5D	17.5	31	187	147
	Proposed – Comparison portion for Alternative 5E	5.8	13	79	45
Alternative 5E	5.3	13	60	31	
6	Proposed – Total Length	0.5	44	21	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-2. Potential Construction Disturbance (in Acres per Risk Rank) In Areas of Flood Hazard Risk cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Flood Hazard Rank		
			0 to 69	70 to 84	85 to 100
			Low Risk	Moderate Risk	High Risk
7	Proposed – Total Length	118.1	1414	234	154
	Proposed – Comparison portion for Alternatives 7A,B	35.2	297	128	73
	Alternative 7A	38.0	466	76	75
	Alternative 7B	46.4	561	72	113
	Proposed – Comparison portion for Alternative 7C	20.1	184	44	60
	Alternative 7C	20.3	198	62	28
	Proposed – Comparison portion for Alternative 7D	6.2	78	32	2
	Alternative 7D	6.8	86	32	7
	Proposed – Comparison portion for Alternative 7E	3.8	67		
	Alternative 7E	4.5	78		
	Proposed – Comparison portion for Alternative 7F	10.5	201		
	Alternative 7F	10.8	169		
	Proposed – Comparison portion for Alternative 7G	3.1	48		
	Alternative 7G	3.2	72		
	Proposed – Comparison portion for Alternatives 7H,I	118.1	1414	234	154
	Alternative 7H	127.5	1997	16	101
	Alternative 7I	173.4	2587	43	101
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	1840	234	154	
Alternative 7J <sup>1/</sup>	202.1	3030	43	101	
8	Proposed – Total Length	131.0	1814	39	269
	Proposed – Comparison portion for Alternative 8A	51.4	706	8	100
	Alternative 8A	53.6	699	18	105
	Proposed – Comparison portion for Alternative 8B	45.3	619	19	115
	Alternative 8B	45.8	617		160
	Proposed – Comparison portion for Alternative 8C	6.5	138		
	Alternative 8C	6.4	138		
	Proposed – Comparison portion for Alternative 8D	6.9	76		46
	Alternative 8D	8.1	71		71
	Proposed – Comparison portion for Alternative 8E	7.0	72		26
Alternative 8E	18.5	242	14	30	
9	Proposed – Total Length	161.7	2162	221	283
	Proposed – Comparison portion for Alternative 9A	7.8	117		
	Alternative 9A	7.7	133		
	Proposed – Comparison portion for Alternative 9B	49.5	663	52	109
	Alternative 9B	53.2	662	5	148
	Proposed – Comparison portion for Alternative 9C	14.7	138	52	48
	Alternative 9C	15.3	169	9	100
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	737	77	139
	Alternative 9D	58.4	657	61	95
	Alternative 9E	68.7	797	144	61
	Alternative 9F	62.9	769	75	126
Alternative 9G	56.4	678	42	126	
Alternative 9H	61.0	770	56	151	
10	Proposed – Total Length	33.6	500		48

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-3. Potential Operations (in Acres per Risk Rank) Disturbance In Areas of Flood Hazard Risk**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Flood Hazard Rank		
			0 to 69	70 to 84	85 to 100
			Low Risk	Moderate Risk	High Risk
1E	Proposed – Total Length	100.6	245	9	29
	Proposed – Comparison portion for Alternative 1E-A	17.6	35	5	10
	Alternative 1E-A	16.1	29	7	2
	Proposed – Comparison portion for Alternative 1E-B	37.9	86	4	
	Alternative 1E-B	59.3	154	6	4
	Proposed – Comparison portion for Alternative 1E-C	75.4	195	4	18
1W	Alternative 1E-C	48.7	82		15
	1W(a) Proposed – Total Length	76.5	150	8	24
	Proposed – Comparison portion for Alternative 1W-A	20.3	37	4	7
	Alternative 1W-A	16.2	34	3	2
2	1W(c) Proposed – Total Length	70.6	127	<1	16
	Proposed – Total Length	96.7	313	5	82
	Proposed – Comparison portion for Alternative 2A	28.8	60	<1	13
	Alternative 2A	28.4	71	1	18
	Proposed – Comparison portion for Alternative 2B	7.0	15	<1	<1
	Alternative 2B	6.2	15	<1	1
	Proposed – Comparison portion for Alternative 2C	28.4	77		<1
3	Alternative 2C	24.4	48	1	3
	Proposed – Total Length	56.5	209	10	
4	Proposed – Total Length	203.0	512	101	36
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	148	85	28
	Alternative 4A	85.2	211	38	28
	Alternative 4B	100.2	271	46	30
	Alternative 4C	101.6	272	42	26
	Alternative 4D	100.8	278	46	31
	Alternative 4E	102.2	275	42	27
	Alternative 4F	87.5	221	30	28
5	Proposed – Total Length	54.6	126	37	12
	Proposed – Comparison portion for Alternatives 5A,B	25.3	66	2	5
	Alternative 5A	33.7	67	7	13
	Alternative 5B	44.4	85	6	7
	Proposed – Comparison portion for Alternative 5C	33.2	57	27	10
	Alternative 5C	26.1	38	7	11
	Proposed – Comparison portion for Alternative 5D	19.4	21	36	7
	Alternative 5D	17.5	16	24	12
	Proposed – Comparison portion for Alternative 5E	5.8	12	10	2
6	Alternative 5E	5.3	12	10	2
	Proposed – Total Length	0.5	42	18	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-3. Potential Operations (in Acres per Risk Rank) Disturbance In Areas of Flood Hazard Risk cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Flood Hazard Rank		
			0 to 69	70 to 84	85 to 100
			Low Risk	Moderate Risk	High Risk
7	Proposed – Total Length	118.1	195	18	17
	Proposed – Comparison portion for Alternatives 7A,B	35.2	29	9	8
	Alternative 7A	38.0	72	9	14
	Alternative 7B	46.4	81	8	10
	Proposed – Comparison portion for Alternative 7C	20.1	27	4	5
	Alternative 7C	20.3	20	5	2
	Proposed – Comparison portion for Alternative 7D	6.2	8	2	<1
	Alternative 7D	6.8	8	3	2
	Proposed – Comparison portion for Alternative 7E	3.8	6		
	Alternative 7E	4.5	8		
	Proposed – Comparison portion for Alternative 7F	10.5	27		
	Alternative 7F	10.8	24		
	Proposed – Comparison portion for Alternative 7G	3.1	6		
	Alternative 7G	3.2	6		
	Proposed – Comparison portion for Alternatives 7H,I	118.1	195	18	17
	Alternative 7H	127.5	325	4	10
Alternative 7I	173.4	431	9	10	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	258	18	17	
Alternative 7J <sup>1/</sup>	202.1	492	9	10	
8	Proposed – Total Length	131.0	207	6	33
	Proposed – Comparison portion for Alternative 8A	51.4	85	2	12
	Alternative 8A	53.6	92	1	9
	Proposed – Comparison portion for Alternative 8B	45.3	70	3	14
	Alternative 8B	45.8	53		16
	Proposed – Comparison portion for Alternative 8C	6.5	15		
	Alternative 8C	6.4	16		
	Proposed – Comparison portion for Alternative 8D	6.9	13		6
	Alternative 8D	8.1	8		8
	Proposed – Comparison portion for Alternative 8E	7.0	7		3
Alternative 8E	18.5	23	2	2	
9	Proposed – Total Length	161.7	297	28	34
	Proposed – Comparison portion for Alternative 9A	7.8	15		
	Alternative 9A	7.7	18		
	Proposed – Comparison portion for Alternative 9B	49.5	105	6	10
	Alternative 9B	53.2	73	<1	11
	Proposed – Comparison portion for Alternative 9C	14.7	19	6	2
	Alternative 9C	15.3	22	<1	9
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	81	9	15
	Alternative 9D	58.4	66	5	9
	Alternative 9E	68.7	99	21	14
	Alternative 9F	62.9	75	7	11
	Alternative 9G	56.4	70	2	10
Alternative 9H	61.0	80	5	12	
10	Proposed – Total Length	33.6	75		6

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-4. Flood Hazard Risk (in Acres per Risk Rank) in Two Single-Circuit Alternatives**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Flood Hazard Rank		
			0 to 69	70 to 84	85 to 100
			Low Risk	Moderate Risk	High Risk
2	Proposed – Total Length	96.7	1759	20	190
	Proposed – Comparison portion for Alternative 2A	28.8	450	2	67
	Alternative 2A	28.4	474	5	90
	Proposed – Comparison portion for Alternative 2B	7.0	131	2	12
	Alternative 2B	6.2	81	4	28
	Proposed – Comparison portion for Alternative 2C	28.4	487		1
	Alternative 2C	24.4	384	7	25
3	Proposed – Total Length	56.5	1000	80	
4	Proposed – Total Length	203.0	2770	655	274
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	855	544	200
	Alternative 4A	85.2	1199	240	193
	Alternative 4B	100.2	1438	311	184
	Alternative 4C	101.6	1484	290	154
	Alternative 4D	100.8	1451	306	185
	Alternative 4E	102.2	1490	290	155
	Alternative 4F	87.5	1261	189	194

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-5. Surface Water Diversions Within One-Half Mile Buffer of Transmission Lines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Surface Water Diversions	Percent
1E	Proposed – Total Length	100.6	71	32.0
	Proposed – Comparison portion for Alternative 1E-A	17.6	65	29.3
	Alternative 1E-A	16.1	32	14.4
	Proposed – Comparison portion for Alternative 1E-B	37.9	2	0.9
	Alternative 1E-B	59.3	17	7.7
	Proposed – Comparison portion for Alternative 1E-C	75.4	5	2.3
1W	Alternative 1E-C	48.7	3	1.4
	1W(a) Proposed – Total Length	76.5	71	32.0
	Proposed – Comparison portion for Alternative 1W-A	20.3	63	28.4
	Alternative 1W-A	16.2	61	27.5
2	1W(c) Proposed – Total Length	70.6	101	45.5
	Proposed – Total Length	96.7	36	65.5
	Proposed – Comparison portion for Alternative 2A	28.8	6	10.9
	Alternative 2A	28.4	8	14.5
	Proposed – Comparison portion for Alternative 2B	7.0	4	7.3
	Alternative 2B	6.2	13	23.6
	Proposed – Comparison portion for Alternative 2C	28.4	8	14.5
3	Alternative 2C	24.4	7	12.7
	Proposed – Total Length	56.5	27	100
4	Proposed – Total Length	203.0	121	62.4
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	10	5.2
	Alternative 4A	85.2	22	11.3
	Alternative 4B	100.2	28	14.4
	Alternative 4C	101.6	41	21.1
	Alternative 4D	100.8	28	14.4
	Alternative 4E	102.2	41	21.1
	Alternative 4F	87.5	24	12.4
5	Proposed – Total Length	54.6	130	45.1
	Proposed – Comparison portion for Alternatives 5A,B	25.3	41	14.2
	Alternative 5A	33.7	26	9.0
	Alternative 5B	44.4	28	9.7
	Proposed – Comparison portion for Alternative 5C	33.2	29	10.1
	Alternative 5C	26.1	29	10.1
	Proposed – Comparison portion for Alternative 5D	19.4	25	8.7
	Alternative 5D	17.5	102	35.4
	Proposed – Comparison portion for Alternative 5E	5.8	21	7.3
6	Alternative 5E	5.3	17	5.9
	Proposed – Total Length	0.5	5	100

**Table D.16-5. Surface Water Diversions Within One-Half Mile Buffer of Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Surface Water Diversions	Percent
7	Proposed – Total Length	118.1	700	28.6
	Proposed – Comparison portion for Alternatives 7A,B	35.2	51	2.1
	Alternative 7A	38.0	59	2.4
	Alternative 7B	46.4	31	1.3
	Proposed – Comparison portion for Alternative 7C	20.1	57	2.3
	Alternative 7C	20.3	62	2.5
	Proposed – Comparison portion for Alternative 7D	6.2	67	2.7
	Alternative 7D	6.8	66	2.7
	Proposed – Comparison portion for Alternative 7E	3.8	10	0.4
	Alternative 7E	4.5	7	0.3
	Proposed – Comparison portion for Alternative 7F	10.5	56	2.3
	Alternative 7F	10.8	13	0.5
	Proposed – Comparison portion for Alternative 7G	3.1	54	2.2
	Alternative 7G	3.2	57	2.3
	Proposed – Comparison portion for Alternatives 7H,I	118.1	700	28.6
	Alternative 7H	127.5	1082	44.2
Alternative 7I	173.4	784	32.0	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	977	39.9	
Alternative 7J <sup>1/</sup>	202.1	668	27.3	
8	Proposed – Total Length	131.0	327	25.5
	Proposed – Comparison portion for Alternative 8A	51.4	160	12.5
	Alternative 8A	53.6	607	47.3
	Proposed – Comparison portion for Alternative 8B	45.3	91	7.1
	Alternative 8B	45.8	264	20.6
	Proposed – Comparison portion for Alternative 8C	6.5	11	0.9
	Alternative 8C	6.4	23	1.8
	Proposed – Comparison portion for Alternative 8D	6.9		0.0
	Alternative 8D	8.1	107	8.3
	Proposed – Comparison portion for Alternative 8E	7.0	11	0.9
Alternative 8E	18.5	3	0.2	
9	Proposed – Total Length	161.7	724	61.8
	Proposed – Comparison portion for Alternative 9A	7.8	19	1.6
	Alternative 9A	7.7	26	2.2
	Proposed – Comparison portion for Alternative 9B	49.5	30	2.6
	Alternative 9B	53.2	92	7.8
	Proposed – Comparison portion for Alternative 9C	14.7	18	1.5
	Alternative 9C	15.3	70	6.0
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	299	25.5
	Alternative 9D	58.4	191	16.3
	Alternative 9E	68.7	107	9.1
	Alternative 9F	62.9	168	14.3
Alternative 9G	56.4	193	16.5	
Alternative 9H	61.0	170	14.5	
10	Proposed – Total Length	33.6	145	100

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

Source: IDWR

**Table D.16-6. Number of Surface Water Road Crossings by Stream Type**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Perennial			Intermittent - Wet		Intermittent - Dry			Ephemeral			Artificial <sup>1/</sup>		Stream Crossings	Percent Ephemeral, Non-listed	Sediment-Impaired	Percent of SI to total crossings	Temperature-Impaired	Percent of TI to Total Crossings
			Non-listed	Sediment-Impaired	Temperature - Impaired	Non-listed	Sediment-Impaired	Non-listed	Sediment-Impaired	Temperature - Impaired	Non-listed	Sediment-Impaired	Non-listed	Sediment-Impaired							
1E	Proposed – Total Length	100.6	8			25		52			232			2		319	73				
	Proposed – Comparison portion for Alternative 1E-A	17.6				1		6			10			1		18	56				
	Alternative 1E-A	16.1				5		12			12			5		34	35				
	Proposed – Comparison portion for Alternative 1E-B	37.9				3		6			83					92	90				
	Alternative 1E-B	59.3	7			18		12			97			1		135	72				
	Proposed – Comparison portion for Alternative 1E-C	75.4	8			19		41			213			1		282	76				
	Alternative 1E-C	48.7				9		17			76			1		103	74				
1W	1W(a) Proposed – Total Length	76.5	4			14		27			120					165	73				
	Proposed – Comparison portion for Alternative 1W-A	20.3				2		10			11					23	48				
	Alternative 1W-A	16.2				6		11			6			3		26	23				
	1W(c) Proposed – Total Length	70.6	5			12		44			132			5		198	67				
2	Proposed – Total Length	96.7	9			1		13			247			6		276	89				
	Proposed – Comparison portion for Alternative 2A	28.8						4			57			1		62	92				
	Alternative 2A	28.4				2		3			71			2		78	91				
	Proposed – Comparison portion for Alternative 2B	7.0						1			8					9	89				
	Alternative 2B	6.2				1					13			1		15	87				
	Proposed – Comparison portion for Alternative 2C	28.4				1		10			59					70	84				
	Alternative 2C	24.4				3		6			7			1		17	41				
3	Proposed – Total Length	56.5	6			18		19			84					127	66				
4	Proposed – Total Length	203.0	45			20		46			287	3		13		414	69	3	0.7		
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	7			10		22			177	1		7		224	79	1	0.4		
	Alternative 4A	85.2	25			10		78			115	1		13		242	48	1	0.4		
	Alternative 4B	100.2	13			50		54			239	1		18		375	64	1	0.3		
	Alternative 4C	101.6	11			43		55			227	1		17		354	64	1	0.3		
	Alternative 4D	100.8	13			50		54			277	1		18		413	67	1	0.2		
	Alternative 4E	102.2	11			43		55			260	1		17		387	67	1	0.3		
Alternative 4F	87.5	44			4		52			109	1		10		220	50	1	0.5			
5	Proposed – Total Length	54.6									130	40		7		177	73	40	23		
	Proposed – Comparison portion for Alternatives 5A,B	25.3									54	34				88	61	34	39		
	Alternative 5A	33.7	8			12		10	1		34	19				84	40	20	24		
	Alternative 5B	44.4	7			3		13			59	21				103	57	21	20		
	Proposed – Comparison portion for Alternatives 5C	33.2									106	40		1		147	72	40	27		
	Alternative 5C	26.1						2			39	8		3		52	75	8	15		
	Proposed – Comparison portion for Alternatives 5D	19.4									67	6		2		75	89	6	8		
	Alternative 5D	17.5						4			38	6		3		51	75	6	12		
Proposed – Comparison portion for Alternatives 5E	5.8									4			1		5	80					
Alternative 5E	5.3									5			1		6	83					
6	Proposed – Total Length	0.5																			

<sup>1/</sup> Artificial = pipe, aqueduct, canal, drain, ditch or artificial path (natural stream channelized into pipe, ditch or culvert)

**Table D.16-6.** Number of Surface Water Road Crossings by Stream Type cont.

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Perennial			Intermittent - Wet		Intermittent - Dry			Ephemeral			Artificial <sup>1/</sup>		Total					
			Non-listed	Sediment-Impaired	Temperature - Impaired	Non-listed	Sediment-Impaired	Non-listed	Sediment-Impaired	Temperature - Impaired	Non-listed	Sediment-Impaired	Temperature - Impaired	Non-listed	Sediment-Impaired	Stream Crossings	Percent Ephemeral, Non-listed	Sediment-Impaired	Percent of SI to total crossings	Temperature-Impaired	Percent of TI to Total Crossings
7	Proposed – Total Length	118.1	22			5		12			123	15		32		209	59	15	7		
	Proposed – Comparison portion for Alternatives 7A,B	35.2									28	15				43	65	15	35		
	Alternative 7A	38.0	10			12		12	3		47	25		1		110	43	29	26		
	Alternative 7B	46.4	8			1		11			56	25				101	55	25	25		
	Proposed – Comparison portion for Alternative 7C	20.1	1								8			8		17	47				
	Alternative 7C	20.3						1			22			1		24	92				
	Proposed – Comparison portion for Alternative 7D	6.2				2		1			10			4		17	59				
	Alternative 7D	6.8				2					9			6		17	53				
	Proposed – Comparison portion for Alternative 7E	3.8	6													6	0				
	Alternative 7E	4.5	7													7	0				
	Proposed – Comparison portion for Alternative 7F	10.5	20			1		8			7			2		38	18				
	Alternative 7F	10.8	4			1		6			8					19	42				
	Proposed – Comparison portion for Alternative 7G	3.1				1					3					4	75				
	Alternative 7G	3.2																			
	Proposed – Comparison portion for Alternatives 7H,I	118.1	22			5		12			213	15		32		209	102	15	7		
Alternative 7H	127.5	30			7		91			275	10		35		448	61	10	2			
Alternative 7I	173.4	27	4	8	13		76		1	359	11	8	17	1	525	68	16	3	17	3	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9	24			6		17			143	15	3	49		257	56	15	6	3	1	
Alternative 7J <sup>2/</sup>	202.1	18		8	9		85		1	376	11	8	20		536	70	11	2.1	17	3	
8	Proposed – Total Length	131.0	12				1	22	2		157	26		38	1	259	61	30	12		
	Proposed – Comparison portion for Alternative 8A	51.4	8					3			24	1		21		57	42	1	2		
	Alternative 8A	53.6	4					4			18	1		27	1	55	33	2	4		
	Proposed – Comparison portion for Alternative 8B	45.3						9	2		70	25		5	1	112	63	28	25		
	Alternative 8B	45.8						1	2		12	3				18	67	5	28		
	Proposed – Comparison portion for Alternative 8C	6.5						1	2		12	3				18	67	5	28		
	Alternative 8C	6.4						1			18	2				21	86	2	10		
	Proposed – Comparison portion for Alternative 8D	6.9									1	6			1	8	13	7	88		
	Alternative 8D	8.1									3	4			1	8	38	5	63		
	Proposed – Comparison portion for Alternative 8E	7.0									1			5		6	17				
Alternative 8E	18.5						2			10					12	83					
9	Proposed – Total Length	161.7	4	1		16		20	5		190	10	4	72		322	59	16	5	4	1.2
	Proposed – Comparison portion for Alternative 9A	7.8	2								7			7		16	44				
	Alternative 9A	7.7	4		1						2			6		13	15			1	7.7
	Proposed – Comparison portion for Alternative 9B	49.5	2			6		9	4		37	8		3		69	54	12	17		
	Alternative 9B	53.2	2						2		36	4		14		58	62	6	10		
	Proposed – Comparison portion for Alternative 9C	14.7									24			3		27	89				
	Alternative 9C	15.3					1				7	1		12		21	33	2	10		
	Proposed – Comparison portion for Alternatives 9D-9H	57.2		1				5	1		76		1	51		135	56	2	1.5	1	0.7
	Alternative 9D	58.4									39	5		1		45	87	5	11		
	Alternative 9E	68.7	7				2	1	1		107	12	6	2	1	139	77	16	12		
Alternative 9F	62.9									46	5	1	5		57	81	5	9	1	2	
Alternative 9G	56.4									26	6		3		35	74	6	17			
Alternative 9H	61.0									33	6	1	7		47	70	6	13	1	2	
10	Proposed – Total Length	33.6						3			13			9		25	52				
<b>Total of Proposed Only</b>			<b>115</b>	<b>1</b>	<b>0</b>	<b>111</b>	<b>1</b>	<b>258</b>	<b>7</b>	<b>0</b>	<b>1715</b>	<b>94</b>	<b>4</b>	<b>184</b>	<b>1</b>	<b>2491</b>		<b>104</b>		<b>4</b>	

Source: DEQ

<sup>1/</sup> Artificial = pipe, aqueduct, canal, drain, ditch or artificial path (natural stream channelized into pipe, ditch or culvert)

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-7. Potential Construction Disturbance (in Acres per Depth Range) in Areas Containing Shallow Groundwater**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Depth to Groundwater					Total Acres	Percent
			1 to 4 feet	4 to 7 feet	7 to 10 feet	10 to 14 feet	14+ feet		
1E	Proposed – Total Length	100.6					1094	1094	
	Proposed – Comparison portion for Alternative 1E-A	17.6					213	213	
	Alternative 1E-A	16.1					124	124	
	Proposed – Comparison portion for Alternative 1E-B	37.9					392	392	
	Alternative 1E-B	59.3					728	728	
	Proposed – Comparison portion for Alternative 1E-C	75.4					831	831	
	Alternative 1E-C	48.7					327	327	
1W	1W(a) Proposed – Total Length	76.5					622	622	
	Proposed – Comparison portion for Alternative 1W-A	20.3					210	210	
	Alternative 1W-A	16.2					136	136	
	1W(c) Proposed – Total Length	70.6					817	817	
2	Proposed – Total Length	96.7					1542	1542	
	Proposed – Comparison portion for Alternative 2A	28.8					397	397	
	Alternative 2A	28.4					445	445	
	Proposed – Comparison portion for Alternative 2B	7.0					104	104	
	Alternative 2B	6.2					79	79	
	Proposed – Comparison portion for Alternative 2C	28.4					368	368	
	Alternative 2C	24.4					321	321	
3	Proposed – Total Length	56.5					862	862	
4	Proposed – Total Length	203.0	130				2711	2841	4.6
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	36				1195	1232	2.9
	Alternative 4A	85.2	64	21			1162	1247	6.8
	Alternative 4B	100.2	64	38			1380	1482	6.9
	Alternative 4C	101.6	51	26			1398	1475	5.3
	Alternative 4D	100.8	60	38			1406	1503	6.5
	Alternative 4E	102.2	51	22			1420	1492	4.9
	Alternative 4F	87.5	59	21			1178	1258	6.4
5	Proposed – Total Length	54.6			12		969	981	1.2
	Proposed – Comparison portion for Alternatives 5A,B	25.3			12		427	439	2.7
	Alternative 5A	33.7			17		535	553	3.2
	Alternative 5B	44.4					682	682	
	Proposed – Comparison portion for Alternatives 5C	33.2			12		577	589	2.0
	Alternative 5C	26.1			31		401	432	7.2
	Proposed – Comparison portion for Alternatives 5D	19.4					411	411	
	Alternative 5D	17.5					365	365	
	Proposed – Comparison portion for Alternatives 5E	5.8					137	137	
Alternative 5E	5.3					104	104		
6	Proposed – Total Length	0.5					65	65	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-7. Potential Construction Disturbance (in Acres per Depth Range) in Areas Containing Shallow Groundwater cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Depth to Groundwater					Total Acres	Percent
			1 to 4 feet	4 to 7 feet	7 to 10 feet	10 to 14 feet	14+ feet		
7	Proposed – Total Length	118.1	25		9	159	1607	1801	10.8
	Proposed – Comparison portion for Alternatives 7A,B	35.2	25		9		464	498	6.9
	Alternative 7A	38.0	13		18		586	617	5.0
	Alternative 7B	46.4	29				716	745	3.9
	Proposed – Comparison portion for Alternative 7C	20.1					288	288	
	Alternative 7C	20.3					289	289	
	Proposed – Comparison portion for Alternative 7D	6.2					112	112	
	Alternative 7D	6.8					126	126	
	Proposed – Comparison portion for Alternative 7E	3.8					67	67	
	Alternative 7E	4.5					78	78	
	Proposed – Comparison portion for Alternative 7F	10.5					201	201	
	Alternative 7F	10.8					169	169	
	Proposed – Comparison portion for Alternative 7G	3.1					48	48	
	Alternative 7G	3.2					72	72	
	Proposed – Comparison portion for Alternatives 7H,I	118.1	25		9	159	1607	1801	10.8
	Alternative 7H	127.5	2			2	2110	2114	0.2
Alternative 7I	173.4	2				2729	2731	0.1	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	25		9	159	2033	2227		
Alternative 7J <sup>1/</sup>	202.1	2				3173	3174		
8	Proposed – Total Length	131.0					2121	2121	
	Proposed – Comparison portion for Alternative 8A	51.4					813	813	
	Alternative 8A	53.6					823	823	
	Proposed – Comparison portion for Alternative 8B	45.3					753	753	
	Alternative 8B	45.8					778	778	
	Proposed – Comparison portion for Alternative 8C	6.5					138	138	
	Alternative 8C	6.4					138	138	
	Proposed – Comparison portion for Alternative 8D	6.9					123	123	
	Alternative 8D	8.1					142	142	
	Proposed – Comparison portion for Alternative 8E	7.0					98	98	
Alternative 8E	18.5					285	285		
9	Proposed – Total Length	161.7					2666	2666	
	Proposed – Comparison portion for Alternative 9A	7.8					117	117	
	Alternative 9A	7.7					133	133	
	Proposed – Comparison portion for Alternative 9B	49.5					824	824	
	Alternative 9B	53.2					814	814	
	Proposed – Comparison portion for Alternative 9C	14.7					238	238	
	Alternative 9C	15.3					278	278	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					953	953	
	Alternative 9D	58.4					813	813	
	Alternative 9E	68.7					1003	1003	
	Alternative 9F	62.9					970	970	
	Alternative 9G	56.4					847	847	
Alternative 9H	61.0					977	977		
10	Proposed – Total Length	33.6					548	548	

Source: STATSGO

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-8. Potential Operations Disturbance (in Acres per Depth Range) in Areas Containing Shallow Groundwater**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Depth to Groundwater					Total Acres	Percent
			1 to 4 feet	4 to 7 feet	7 to 10 feet	10 to 14 feet	14+ feet		
1E	Proposed – Total Length	100.6					283	283	
	Proposed – Comparison portion for Alternative 1E-A	17.6					51	51	
	Alternative 1E-A	16.1					39	39	
	Proposed – Comparison portion for Alternative 1E-B	37.9					91	91	
	Alternative 1E-B	59.3					164	164	
	Proposed – Comparison portion for Alternative 1E-C	75.4					217	217	
	Alternative 1E-C	48.7					97	97	
1W	1W(a) Proposed – Total Length	76.5					182	182	
	Proposed – Comparison portion for Alternative 1W-A	20.3					47	47	
	Alternative 1W-A	16.2					40	40	
	1W(c) Proposed – Total Length	70.6					144	144	
2	Proposed – Total Length	96.7					400	400	
	Proposed – Comparison portion for Alternative 2A	28.8					74	74	
	Alternative 2A	28.4					90	90	
	Proposed – Comparison portion for Alternative 2B	7.0					16	16	
	Alternative 2B	6.2					18	18	
	Proposed – Comparison portion for Alternative 2C	28.4					77	77	
	Alternative 2C	24.4					52	52	
3	Proposed – Total Length	56.5					219	219	
4	Proposed – Total Length	203.0	25				625	650	3.8
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	9				252	262	3.6
	Alternative 4A	85.2	9	4			263	276	4.7
	Alternative 4B	100.2	9	9			329	347	5.2
	Alternative 4C	101.6	7	7			326	340	4.2
	Alternative 4D	100.8	9	7			338	355	4.6
	Alternative 4E	102.2	7	5			332	344	3.7
	Alternative 4F	87.5	9	4			266	279	4.9
5	Proposed – Total Length	54.6			2		172	175	1.4
	Proposed – Comparison portion for Alternatives 5A,B	25.3			2		70	73	3.4
	Alternative 5A	33.7			2		85	87	2.7
	Alternative 5B	44.4					99	99	
	Proposed – Comparison portion for Alternatives 5C	33.2			2		92	94	2.6
	Alternative 5C	26.1			3		53	56	6.1
	Proposed – Comparison portion for Alternatives 5D	19.4					63	63	
	Alternative 5D	17.5					53	53	
	Proposed – Comparison portion for Alternatives 5E	5.8					24	24	
	Alternative 5E	5.3					24	24	
6	Proposed – Total Length	0.5					61	61	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-8. Potential Operations Disturbance (in Acres per Depth Range) in Areas Containing Shallow Groundwater cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Depth to Groundwater					Total Acres	Percent
			1 to 4 feet	4 to 7 feet	7 to 10 feet	10 to 14 feet	14+ feet		
7	Proposed – Total Length	118.1	2		1	11	216	231	6.2
	Proposed – Comparison portion for Alternatives 7A,B	35.2	2		1		43	46	6.6
	Alternative 7A	38.0	1		3		91	96	4.3
	Alternative 7B	46.4	2				97	99	2.2
	Proposed – Comparison portion for Alternative 7C	20.1					36	36	
	Alternative 7C	20.3					28	28	
	Proposed – Comparison portion for Alternative 7D	6.2					11	11	
	Alternative 7D	6.8					13	13	
	Proposed – Comparison portion for Alternative 7E	3.8					6	6	
	Alternative 7E	4.5					8	8	
	Proposed – Comparison portion for Alternative 7F	10.5					27	27	
	Alternative 7F	10.8					24	24	
	Proposed – Comparison portion for Alternative 7G	3.1					6	6	
	Alternative 7G	3.2					6	6	
	Proposed – Comparison portion for Alternatives 7H,I	118.1	2		1	11	216	231	6.2
	Alternative 7H	127.5	<1			<1	339	340	0.2
Alternative 7I	173.4	<1				450	451	0.0	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	2		1	11	279	294		
Alternative 7J <sup>1/</sup>	202.1	<1				511	511		
8	Proposed – Total Length	131.0					246	246	
	Proposed – Comparison portion for Alternative 8A	51.4					99	99	
	Alternative 8A	53.6					102	102	
	Proposed – Comparison portion for Alternative 8B	45.3					87	87	
	Alternative 8B	45.8					69	69	
	Proposed – Comparison portion for Alternative 8C	6.5					15	15	
	Alternative 8C	6.4					16	16	
	Proposed – Comparison portion for Alternative 8D	6.9					19	19	
	Alternative 8D	8.1					15	15	
	Proposed – Comparison portion for Alternative 8E	7.0					10	10	
Alternative 8E	18.5					27	27		
9	Proposed – Total Length	161.7					358	358	
	Proposed – Comparison portion for Alternative 9A	7.8					15	15	
	Alternative 9A	7.7					18	18	
	Proposed – Comparison portion for Alternative 9B	49.5					121	121	
	Alternative 9B	53.2					85	85	
	Proposed – Comparison portion for Alternative 9C	14.7					26	26	
	Alternative 9C	15.3					31	31	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2					106	106	
	Alternative 9D	58.4					80	80	
	Alternative 9E	68.7					134	134	
	Alternative 9F	62.9					93	93	
Alternative 9G	56.4					83	83		
Alternative 9H	61.0					96	96		
10	Proposed – Total Length	33.6					81	81	

Source: STATSGO

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-9. Potential Two Single-Circuit Alternatives Construction Disturbance (in Acres per Depth Range) in Areas Containing Shallow Groundwater**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Depth to Groundwater					Total Acres	Percent
			1 to 4 feet	4 to 7 feet	7 to 10 feet	10 to 14 feet	14+ feet		
2	Proposed – Total Length	96.7						1970	
	Proposed – Comparison portion for Alternative 2A	28.8						519	
	Alternative 2A	28.4						569	
	Proposed – Comparison portion for Alternative 2B	7.0						144	
	Alternative 2B	6.2						114	
	Proposed – Comparison portion for Alternative 2C	28.4						488	
	Alternative 2C	24.4						416	
3	Proposed – Total Length	56.5						1079	
4	Proposed – Total Length	203.0	193				3508	3700	5.2
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	65				1534	1599	4.1
	Alternative 4A	85.2	82	24			1525	1631	6.5
	Alternative 4B	100.2	94	67			1772	1933	8.3
	Alternative 4C	101.6	67	54			1807	1928	6.3
	Alternative 4D	100.8	89	54			1799	1943	7.4
	Alternative 4E	102.2	67	36			1831	1934	5.3
	Alternative 4F	87.5	76	24			1543	1644	6.1

Source: STATSGO

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-10. Potable Water Wells within One-Half Mile of Transmission Lines**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Potable Water Wells
1E	Proposed – Total Length	100.6	47
	Proposed – Comparison portion for Alternative 1E-A	17.6	44
	Alternative 1E-A	16.1	26
	Proposed – Comparison portion for Alternative 1E-B	37.9	
	Alternative 1E-B	59.3	5
	Proposed – Comparison portion for Alternative 1E-C	75.4	2
	Alternative 1E-C	48.7	1
1W	1W(a) Proposed – Total Length	76.5	41
	Proposed – Comparison portion for Alternative 1W-A	20.3	39
	Alternative 1W-A	16.2	44
	1W(c) Proposed – Total Length	70.6	62
2	Proposed – Total Length	96.7	8
	Proposed – Comparison portion for Alternative 2A	28.8	3
	Alternative 2A	28.4	3
	Proposed – Comparison portion for Alternative 2B	7.0	1
	Alternative 2B	6.2	10
	Proposed – Comparison portion for Alternative 2C	28.4	2
	Alternative 2C	24.4	2
3	Proposed – Total Length	56.5	3
4	Proposed – Total Length	203.0	23
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	4
	Alternative 4A	85.2	6
	Alternative 4B	100.2	8
	Alternative 4C	101.6	12
	Alternative 4D	100.8	8
	Alternative 4E	102.2	12
	Alternative 4F	87.5	9
5	Proposed – Total Length	54.6	35
	Proposed – Comparison portion for Alternatives 5A,B	25.3	6
	Alternative 5A	33.7	4
	Alternative 5B	44.4	7
	Proposed – Comparison portion for Alternatives 5C	33.2	6
	Alternative 5C	26.1	3
	Proposed – Comparison portion for Alternatives 5D	19.4	10
	Alternative 5D	17.5	25
	Proposed – Comparison portion for Alternatives 5E	5.8	9
	Alternative 5E	5.3	7
6	Proposed – Total Length	0.5	3

**Table D.16-10. Potable Water Wells within One-Half Mile of Transmission Lines cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Potable Water Wells
7	Proposed – Total Length	118.1	81
	Proposed – Comparison portion for Alternatives 7A,B	35.2	2
	Alternative 7A	38.0	8
	Alternative 7B	46.4	6
	Proposed – Comparison portion for Alternative 7C	20.1	4
	Alternative 7C	20.3	11
	Proposed – Comparison portion for Alternative 7D	6.2	
	Alternative 7D	6.8	3
	Proposed – Comparison portion for Alternative 7E	3.8	14
	Alternative 7E	4.5	10
	Proposed – Comparison portion for Alternative 7F	10.5	16
	Alternative 7F	10.8	1
	Proposed – Comparison portion for Alternative 7G	3.1	4
	Alternative 7G	3.2	4
	Proposed – Comparison portion for Alternatives 7H,I	118.1	81
	Alternative 7H	127.5	57
	Alternative 7I	173.4	35
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	95	
Alternative 7J <sup>1/</sup>	202.1	35	
8	Proposed – Total Length	131.0	176
	Proposed – Comparison portion for Alternative 8A	51.4	76
	Alternative 8A	53.6	119
	Proposed – Comparison portion for Alternative 8B	45.3	86
	Alternative 8B	45.8	135
	Proposed – Comparison portion for Alternative 8C	6.5	16
	Alternative 8C	6.4	26
	Proposed – Comparison portion for Alternative 8D	6.9	1
	Alternative 8D	8.1	8
	Proposed – Comparison portion for Alternative 8E	7.0	
Alternative 8E	18.5	1	
9	Proposed – Total Length	161.7	88
	Proposed – Comparison portion for Alternative 9A	7.8	6
	Alternative 9A	7.7	2
	Proposed – Comparison portion for Alternative 9B	49.5	2
	Alternative 9B	53.2	18
	Proposed – Comparison portion for Alternative 9C	14.7	
	Alternative 9C	15.3	12
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	39
	Alternative 9D	58.4	17
	Alternative 9E	68.7	2
	Alternative 9F	62.9	27
	Alternative 9G	56.4	19
Alternative 9H	61.0	29	
10	Proposed – Total Length	33.6	55

Source: IDWR

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-11. Miles of the Eastern Snake River Plain Aquifer crossed by Proposed and Alternative Routes**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Eastern Snake River Plain Aquifer Crossed
1E	Proposed – Total Length	100.6	
	Proposed – Comparison portion for Alternative 1E-A	17.6	
	Alternative 1E-A	16.1	
	Proposed – Comparison portion for Alternative 1E-B	37.9	
	Alternative 1E-B	59.3	
	Proposed – Comparison portion for Alternative 1E-C	75.3	
	Alternative 1E-C	48.7	
1W	1W(a) Proposed – Total Length	76.5	
	Proposed – Comparison portion for Alternative 1W-A	20.3	
	Alternative 1W-A	16.2	
	1W(c) Proposed – Total Length	70.6	
2	Proposed – Total Length	96.7	
	Proposed – Comparison portion for Alternative 2A	28.8	
	Alternative 2A	28.4	
	Proposed – Comparison portion for Alternative 2B	7.0	
	Alternative 2B	6.2	
	Proposed – Comparison portion for Alternative 2C	28.4	
	Alternative 2C	24.4	
3	Proposed – Total Length	56.4	
4	Proposed – Total Length	203.0	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	
	Alternative 4A	85.2	
	Alternative 4B	100.2	
	Alternative 4C	101.6	
	Alternative 4D	100.8	
	Alternative 4E	102.2	
	Alternative 4F	87.5	
5	Proposed – Total Length	54.6	3.1
	Proposed – Comparison portion for Alternatives 5A,B	27.1	
	Alternative 5A	34.6	
	Alternative 5B	45.3	
	Proposed – Comparison portion for Alternatives 5C	33.2	
	Alternative 5C	26.1	
	Proposed – Comparison portion for Alternatives 5D	19.4	3.1
	Alternative 5D	17.5	2.6
	Proposed – Comparison portion for Alternatives 5E	5.8	3.1
	Alternative 5E	5.3	2.7
6	Proposed – Total Length		0.5

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

**Table D.16-11. Miles of the Eastern Snake River Plain Aquifer crossed by Proposed and Alternative Routes cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Miles of Eastern Snake River Plain Aquifer Crossed
7	Proposed – Total Length	117.9	28.7
	Proposed – Comparison portion for Alternatives 7A,B	38.8	
	Alternative 7A	41.5	
	Alternative 7B	50.1	
	Proposed – Comparison portion for Alternative 7C	20.1	
	Alternative 7C	20.3	
	Proposed – Comparison portion for Alternative 7D	6.2	
	Alternative 7D	6.8	
	Proposed – Comparison portion for Alternative 7E	3.8	3.6
	Alternative 7E	4.5	0.7
	Proposed – Comparison portion for Alternative 7F	10.5	5.0
	Alternative 7F	10.8	
	Proposed – Comparison portion for Alternative 7G	3.1	1.2
	Alternative 7G	3.2	2.6
	Proposed – Comparison portion for Alternatives 7H,I	117.9	28.7
	Alternative 7H	127.4	2.2
Alternative 7I	173.3	0.9	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	37.1	
Alternative 7J <sup>1/</sup>	202.1	0.9	
8	Proposed – Total Length	131.0	42.5
	Proposed – Comparison portion for Alternative 8A	51.4	42.5
	Alternative 8A	53.6	24.5
	Proposed – Comparison portion for Alternative 8B	45.3	
	Alternative 8B	45.8	
	Proposed – Comparison portion for Alternative 8C	6.5	
	Alternative 8C	6.4	
	Proposed – Comparison portion for Alternative 8D	6.9	
	Alternative 8D	8.1	
	Proposed – Comparison portion for Alternative 8E	7.0	
Alternative 8E	18.5		
9	Proposed – Total Length	161.7	8.4
	Proposed – Comparison portion for Alternative 9A	7.8	5.4
	Alternative 9A	7.7	2.6
	Proposed – Comparison portion for Alternative 9B	49.5	
	Alternative 9B	53.2	
	Proposed – Comparison portion for Alternative 9C	14.7	
	Alternative 9C	15.3	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	
	Alternative 9D	58.2	
	Alternative 9E	68.7	
	Alternative 9F	62.9	
Alternative 9G	56.4		
Alternative 9H	61.0		
10	Proposed – Total Length	33.6	33.6

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-12. Estimated Transmission Line Construction Water Requirements per Segment**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Water Requirement	Total Water Requirement	Construction Period	Volume Per Day
			(gallons)	(acre-feet)	(days)	
1E	Proposed – Total Length	100.6	2,158,320	6.6	419	5,151
	Proposed – Comparison portion for Alternative 1E-A	17.6	377,875	1.2	67	5,640
	Alternative 1E-A	16.1	345,539	1.1	73	4,733
	Proposed – Comparison portion for Alternative 1E-B	37.9	812,518	2.5	183	4,440
	Alternative 1E-B	59.3	1,273,250	3.9	287	4,436
	Proposed – Comparison portion for Alternative 1E-C	75.4	1,617,996	5.0	364	4,445
	Alternative 1E-C	48.7	1,045,598	3.2	236	4,431
1W	1W(a) Proposed – Total Length	76.5	1,726,656	5.3	355	4,864
	Proposed – Comparison portion for Alternative 1W-A	20.3	457,695	1.4	94	4,869
	Alternative 1W-A	16.2	366,790	1.1	75	4,891
	1W(c) Proposed – Total Length	70.6	1,561,498	4.8	293	5,329
2	Proposed – Total Length	96.7	2,728,139	8.4	368	7,413
	Proposed – Comparison portion for Alternative 2A	28.8	811,682	2.5	110	7,379
	Alternative 2A	28.4	801,593	2.5	108	7,422
	Proposed – Comparison portion for Alternative 2B	7.0	197,439	0.6	34	5,807
	Alternative 2B	6.2	174,677	0.5	30	5,823
	Proposed – Comparison portion for Alternative 2C	28.4	800,334	2.5	110	7,276
	Alternative 2C	24.4	687,800	2.1	93	7,396
3	Proposed – Total Length	56.5	1,667,196	5.1	401	4,158
4	Proposed – Total Length	203.0	5,884,609	18.1	740	7,952
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	2,614,894	8.0	329	7,948
	Alternative 4A	85.2	2,469,044	7.6	311	7,939
	Alternative 4B	100.2	2,904,793	8.9	365	7,958
	Alternative 4C	101.6	2,946,363	9.0	370	7,963
	Alternative 4D	100.8	2,922,302	9.0	367	7,963
	Alternative 4E	102.2	2,963,872	9.1	372	7,967
	Alternative 4F	87.5	2,537,848	7.8	320	7,931
5	Proposed – Total Length	54.6	1,614,478	5.0	378	4,271
	Proposed – Comparison portion for Alternatives 5A,B	25.3	746,297	2.3	188	3,970
	Alternative 5A	33.7	995,544	3.1	240	4,148
	Alternative 5B	44.4	1,311,577	4.0	314	4,177
	Proposed – Comparison portion for Alternatives 5C	33.2	980,308	3.0	230	4,262
	Alternative 5C	26.1	771,147	2.4	181	4,260
	Proposed – Comparison portion for Alternatives 5D	19.4	573,821	1.8	134	4,282
	Alternative 5D	17.5	516,553	1.6	121	4,269
	Proposed – Comparison portion for Alternatives 5E	5.8	170,411	0.5	40	4,260
Alternative 5E	5.3	156,261	0.5	37	4,223	
6	Proposed – Total Length	0.5	65,897	0.2	218	302

**Table D.16-12. Estimated Transmission Line Construction Water Requirements per Segment cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Total Water Requirement	Total Water Requirement	Construction Period	Volume Per Day
			(gallons)	(acre-feet)	(days)	
7	Proposed – Total Length	118.1	3,518,904	10.8	480	7,331
	Proposed – Comparison portion for Alternatives 7A,B	35.2	1,048,407	3.2	158	6,635
	Alternative 7A	38.0	1,131,303	3.5	169	6,694
	Alternative 7B	46.4	1,384,524	4.2	204	6,787
	Proposed – Comparison portion for Alternative 7C	20.1	599,120	1.8	82	7,306
	Alternative 7C	20.3	603,716	1.9	83	7,274
	Proposed – Comparison portion for Alternative 7D	6.2	185,184	0.6	25	7,407
	Alternative 7D	6.8	202,109	0.6	28	7,218
	Proposed – Comparison portion for Alternative 7E	3.8	113,941	0.3	15	7,596
	Alternative 7E	4.5	133,454	0.4	18	7,414
	Proposed – Comparison portion for Alternative 7F	10.5	312,960	1.0	43	7,278
	Alternative 7F	10.8	321,064	1.0	44	7,297
	Proposed – Comparison portion for Alternative 7G	3.1	93,792	0.3	13	7,215
	Alternative 7G	3.2	96,291	0.3	13	7,407
	Proposed – Comparison portion for Alternatives 7H,I	118.1	3,518,904	10.8	480	7,331
	Alternative 7H	127.5	3,800,191	11.7	517	7,350
Alternative 7I	173.4	5,167,877	15.9	705	7,330	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>1/</sup>	143.9	4,289,202	13.2	585	7,332	
Alternative 7J <sup>1/</sup>	202.1	6,023,959	18.5	822	7,328	
8	Proposed – Total Length	131.0	3,802,261	11.7	435	8,741
	Proposed – Comparison portion for Alternative 8A	51.4	1,492,591	4.6	171	8,729
	Alternative 8A	53.6	1,555,436	4.8	178	8,738
	Proposed – Comparison portion for Alternative 8B	45.3	1,313,241	4.0	150	8,755
	Alternative 8B	45.8	1,328,062	4.1	152	8,737
	Proposed – Comparison portion for Alternative 8C	6.5	189,597	0.6	22	8,618
	Alternative 8C	6.4	186,093	0.6	21	8,862
	Proposed – Comparison portion for Alternative 8D	6.9	200,433	0.6	23	8,714
	Alternative 8D	8.1	234,362	0.7	27	8,680
	Proposed – Comparison portion for Alternative 8E	7.0	203,111	0.6	23	8,831
Alternative 8E	18.5	536,793	1.6	62	8,658	
9	Proposed – Total Length	161.7	4,658,923	14.3	504	9,244
	Proposed – Comparison portion for Alternative 9A	7.8	224,306	0.7	24	9,346
	Alternative 9A	7.7	221,566	0.7	24	9,232
	Proposed – Comparison portion for Alternative 9B	49.5	1,425,346	4.4	154	9,255
	Alternative 9B	53.2	1,534,154	4.7	165	9,298
	Proposed – Comparison portion for Alternative 9C	14.7	424,163	1.3	46	9,221
	Alternative 9C	15.3	440,673	1.4	48	9,181
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	1,646,918	5.1	178	9,252
	Alternative 9D	58.4	1,681,986	5.2	181	9,293
	Alternative 9E	68.7	1,978,586	6.1	213	9,289
	Alternative 9F	62.9	1,812,317	5.6	196	9,247
	Alternative 9G	56.4	1,625,035	5.0	178	9,129
Alternative 9H	61.0	1,757,573	5.4	190	9,250	
10	Proposed – Total Length	33.6	1,021,405	3.1	291	3,510
<b>TOTAL WATER REQUIRED: Proposed Segments</b>			<b>30,408,286 gallons / 93 acre-feet</b>			

<sup>1/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-13. TMDL and 303(d) listed Streams in the Analysis Area (Named Streams)**

Segment	Stream Name	TMDL Sediment	TMDL Temperature	303(d) listed Sediment	303(d) listed Temperature
Segment 4	Sheep Creek	X			
Segment 5, Comp 5AB	East Fork Rock Creek	X			
Segment 5, Comp 5AB, Comp 5C	Bannock Creek	X			
Segment 5, Segment 5D, Comp5AB, Comp5C	East Fork Rock Creek	X			
Segment 5A	Bannock Creek	X			
Segment 5A, Segment 5B, Segment 7, Comp7AB, Comp7HI	East Fork Rock Creek	X			
Segment 5B	Bannock Creek	X			
	Bannock Creek	X			
Segment 5C	Bannock Creek	X			
	Squaw Creek	X			
Segment 5D	East Fork Rock Creek	X			
Segment 7, Comp 7HI, Comp 7J	South Fork Rock Creek	X			
Segment 7A	South Fork Rock Creek	X			
Segment 7A, 7B	Warm Springs Creek		X		
Segment 7B	South Fork Rock Creek			X	
Segment 7B, 7H, 7I	Bannock Creek			X	
Segment 7I	Goose Creek			X	
	Shoshone Creek			X	
	Horse Creek			X	
	Cherry Creek			X	
	Piney Creek			X	
Segment 7J	Bannock Creek			X	
	South Fork Rock Creek	X			
	Goose Creek	X			
	Piney Creek			X	
Segment 8	Cold Springs Creek		X		
	Sand Creek			X	
Segment 8, Comp8B, Comp8D	Sand Creek			X	
	Sand Creek			X	
Segment 8, Segment 8D, Comp8B, Comp8D	Sand Creek			X	
	Sand Creek			X	
Segment 8D	Sand Creek			X	
Segment 9	Browns Creek			X	
	Sailor Creek			X	
Segment 9, Comp9B	Deadman Creek			X	
Segment 9, Comp9DE	Sinker Creek			X	
	Birch Creek			X	
	Jacks Creek			X	
Segment 9B	Yahoo Creek			X	
Segment 9C	Deadman Creek			X	
Segment 9D	Jack Creek			X	
	Rabbit Creek			X	
Segment 9E	Castle Creek			X	
	Birch Creek			X	
	Browns Creek				X
	Pickett Creek				X
	Poison Creek				X
Segment 9F	Jacks Creek				X
	Jack Creek			X	
Segment 9G	Rabbit Creek			X	
	Jack Creek			X	
Segment 9H	Rabbit Creek			X	
	Jack Creek			X	

**Table D.16-14. Acreage Comparison of Construction Related Stream Impacts**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Intermittent Wet/Dry (within 500 feet)		Ephemeral (within 100 feet)		TMDL and 303(d) Listed Sediment-Impaired (within 500 feet)		Total Disturbed Acres
			Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	
1E	Proposed – Total Length	100.6	179	16.4	77	7.1			1096
	Proposed – Comparison portion for Alternative 1E-A	17.6	37	17.4	2	1.1			213
	Alternative 1E-A	16.1	36	29.1	3	2.7			125
	Proposed – Comparison portion for Alternative 1E-B	37.9	22	5.7	26	6.7			393
	Alternative 1E-B	59.3	94	12.9	34	4.6			729
	Proposed – Comparison portion for Alternative 1E-C	75.4	121	14.5	72	8.7			832
1W	Alternative 1E-C	48.7	50	16.2	33	10.5			311
	1W(a) Proposed – Total Length	76.5	83	13.3	39	6.3			623
	Proposed – Comparison portion for Alternative 1W-A	20.3	22	10.3	3	1.4			210
	Alternative 1W-A	16.2	40	29.3	4	2.8			136
2	1W(c) Proposed – Total Length	70.6	183	22.4	53	6.4			817
	Proposed – Total Length	96.7	102	6.6	121	7.9			1544
	Proposed – Comparison portion for Alternative 2A	28.8	17	4.3	39	9.8			398
	Alternative 2A	28.4	20	4.4	39	8.7			446
	Proposed – Comparison portion for Alternative 2B	7.0	7	6.9	3	2.7			104
	Alternative 2B	6.2	13	16.1	11	13.3			80
	Proposed – Comparison portion for Alternative 2C	28.4	34	9.2	44	12.0			369
3	Alternative 2C	24.4	3	0.8	11	3.5			322
	Proposed – Total Length	56.5	111	12.9	67	7.7			862
4	Proposed – Total Length	203.0	327	11.5	184	6.4	50	1.8	2846
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	115	9.3	103	8.4	5	0.4	1234
	Alternative 4A	85.2	318	25.5	62	4.9	5	0.4	1250
	Alternative 4B	100.2	207	13.9	132	8.9	8	0.5	1484
	Alternative 4C	101.6	233	15.8	128	8.7	8	0.5	1478
	Alternative 4D	100.8	215	14.3	140	9.3	8	0.5	1505
	Alternative 4E	102.2	233	15.6	137	9.2	8	0.5	1495
5	Alternative 4F	87.5	285	22.6	71	5.6	5	0.4	1260
	Proposed – Total Length	54.6	<1		118	12.0	172	17.6	982
	Proposed – Comparison portion for Alternatives 5A,B	25.3			48	10.9	137	31.2	439
	Alternative 5A	33.7	57	10.3	37	6.6	74	13.4	554
	Alternative 5B	44.4	68	9.9	45	6.6	80	11.7	683
	Proposed – Comparison portion for Alternatives 5C	33.2	<1		76	12.9	115	19.5	590
	Alternative 5C	26.1	5	1.1	30	6.8	42	9.6	433
	Proposed – Comparison portion for Alternatives 5D	19.4	<1		51	12.4	21	5.2	411
6	Alternative 5D	17.5	12	3.2	33	8.9	32	8.8	366
	Proposed – Comparison portion for Alternatives 5E	5.8			8	5.6			138
	Alternative 5E	5.3			6	5.5			104
6	Proposed – Total Length	0.5			3	5.0			65

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.16-14. Acreage Comparison of Construction Related Stream Impacts cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Intermittent Wet/Dry (within 500 feet)		Ephemeral (within 100 feet)		TMDL and 303(d) Listed Sediment-Impaired (within 500 feet)		Total Disturbed Acres
			Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	
7	Proposed – Total Length	118.1	193	10.7	104	5.7	142	7.9	1804
	Proposed – Comparison portion for Alternatives 7A,B	35.2			44	8.8	108	21.6	499
	Alternative 7A	38.0	64	10.3	53	8.6	87	14.0	618
	Alternative 7B	46.4	69	9.3	60	8.0	109	14.6	746
	Proposed – Comparison portion for Alternative 7C	20.1	12	4.1	6	2.1	10	3.6	288
	Alternative 7C	20.3	11	3.7	22	7.7	7	2.4	289
	Proposed – Comparison portion for Alternative 7D	6.2	5	4.7	6	5.1			112
	Alternative 7D	6.8	5	4.1	7	5.3			126
	Proposed – Comparison portion for Alternative 7E	3.8	23	35.1					67
	Alternative 7E	4.5	24	30.2					78
	Proposed – Comparison portion for Alternative 7F	10.5	75	37.5	2	1.1			201
	Alternative 7F	10.8	51	30.0	10	5.7			169
	Proposed – Comparison portion for Alternative 7G	3.1			6	12.1	2	3.5	48
	Alternative 7G	3.2			3	4.3	7	10.2	72
	Proposed – Comparison portion for Alternatives 7H,I	118.1	193	10.7	104	5.7	142	7.9	1804
Alternative 7H	127.5	391	18.4	156	7.3	155	7.3	2118	
Alternative 7I	173.4	306	11.2	220	8.1	254	9.3	2735	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9	202	9.0	121	5.4	166	7.4	2231	
Alternative 7J <sup>2/</sup>	202.1	306	9.6	246	7.7	304	9.5	3180	
8	Proposed – Total Length	131.0	111	5.2	103	4.8	107	5.0	2125
	Proposed – Comparison portion for Alternative 8A	51.4	52	6.4	21	2.5	30	3.7	815
	Alternative 8A	53.6	22	2.7	24	2.9	18	2.2	824
	Proposed – Comparison portion for Alternative 8B	45.3	23	3.0	42	5.6	70	9.3	754
	Alternative 8B	45.8	17	2.1	46	5.9	111	14.2	779
	Proposed – Comparison portion for Alternative 8C	6.5	13	9.6	11	8.1	13	9.1	139
	Alternative 8C	6.4	7	5.0	8	5.8	11	7.9	138
	Proposed – Comparison portion for Alternative 8D	6.9			1	1.1	18	15.0	123
	Alternative 8D	8.1			4	2.6	18	12.7	143
	Proposed – Comparison portion for Alternative 8E	7.0	2	2.3	3	3.3			98
Alternative 8E	18.5	5	1.7	11	3.9			286	
9	Proposed – Total Length	161.7	131	4.9	120	4.5	116	4.3	2670
	Proposed – Comparison portion for Alternative 9A	7.8	2	2.0	4	3.5	4	3.2	117
	Alternative 9A	7.7	6	4.4	4	3.3	6	4.2	133
	Proposed – Comparison portion for Alternative 9B	49.5	57	7.0	25	3.1	59	7.2	825
	Alternative 9B	53.2	15	1.8	37	4.5	75	9.2	816
	Proposed – Comparison portion for Alternative 9C	14.7	<1	0.1	15	6.3	<1	0.1	239
	Alternative 9C	15.3	1	0.5	13	4.5	2	0.9	279
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	26	2.8	59	6.2	29	3.0	955
	Alternative 9D	58.4	2	0.2	26	3.1	25	3.1	815
	Alternative 9E	68.7	23	2.3	58	5.8	67	6.7	1004
	Alternative 9F	62.9	7	0.7	46	4.7	34	3.5	971
Alternative 9G	56.4	7	0.8	21	2.5	43	5.0	848	
Alternative 9H	61.0	7	0.7	41	4.2	46	4.7	979	
10	Proposed – Total Length	33.6	25	4.5	19	3.4	21	3.8	549

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-15. Acreage Comparison of Operations Disturbance to Stream Buffers**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Within 500 feet of Perennial and Intermittent Streams		Within 100 feet of Ephemeral Streams		Within 500 feet of TMDL and 303(d) Listed - Sediment Streams		Total Disturbed Acres
			Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	
1E	Proposed – Total Length	100.6	49	17.4	25	9.0			283
	Proposed – Comparison portion for Alternative 1E-A	17.6	7	13.7	1	1.5			51
	Alternative 1E-A	16.1	10	24.7	1	2.9			39
	Proposed – Comparison portion for Alternative 1E-B	37.9	5	5.0	7	7.5			91
	Alternative 1E-B	59.3	17	10.1	8	5.2			164
	Proposed – Comparison portion for Alternative 1E-C	75.4	37	16.9	24	11.0			218
1W	Alternative 1E-C	48.7	14	15.1	14	14.6			92
	1W(a) Proposed – Total Length	76.5	34	18.5	11	6.0			182
	Proposed – Comparison portion for Alternative 1W-A	20.3	7	13.9	1	1.6			47
	Alternative 1W-A	16.2	12	31.2	1	3.1			40
2	1W(c) Proposed – Total Length	70.6	24	16.8	11	7.9			144
	Proposed – Total Length	96.7	43	10.8	28	7.0			401
	Proposed – Comparison portion for Alternative 2A	28.8	5	6.3	7	9.3			74
	Alternative 2A	28.4	6	6.6	8	8.4			90
	Proposed – Comparison portion for Alternative 2B	7.0	2	10.4	1	3.2			16
	Alternative 2B	6.2	1	8.3	2	9.8			18
3	Proposed – Comparison portion for Alternative 2C	28.4	7	9.5	8	10.2			77
	Alternative 2C	24.4	<1	0.5	2	3.7			52
4	Proposed – Total Length	56.5	19	8.5	18	8.1			219
	Proposed – Total Length	203.0	68	10.4	40	6.2	10	1.5	651
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	25	9.4	21	8.1	1	0.5	262
	Alternative 4A	85.2	60	21.6	14	5.2	1	0.5	277
	Alternative 4B	100.2	54	15.4	33	9.4	1	0.3	348
	Alternative 4C	101.6	54	15.7	30	8.9	1	0.4	341
	Alternative 4D	100.8	54	15.1	35	9.9	1	0.3	355
	Alternative 4E	102.2	53	15.5	32	9.1	1	0.3	345
5	Alternative 4F	87.5	57	20.4	15	5.4	1	0.5	280
	Proposed – Total Length	54.6	t <sup>1/</sup>		28	16.1	30	17.3	175
	Proposed – Comparison portion for Alternatives 5A,B	25.3			11	15.1	23	31.6	73
	Alternative 5A	33.7	15	17.2	9	10.5	19	21.5	87
	Alternative 5B	44.4	19	19.5	9	9.5	15	14.9	99
	Proposed – Comparison portion for Alternatives 5C	33.2	t <sup>1/</sup>	0.1	21	22.3	25	26.7	94
	Alternative 5C	26.1	1	1.6	7	12.5	9	16.5	56
	Proposed – Comparison portion for Alternatives 5D	19.4	t <sup>1/</sup>	0.1	12	18.4	5	8.3	63
6	Alternative 5D	17.5	4	6.7	6	11.3	4	7.5	53
	Proposed – Comparison portion for Alternatives 5E	5.8			1	2.6			24
	Alternative 5E	5.3			1	3.7			24
6	Proposed – Total Length	0.5			3	5.3			61

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

**Table D.16-15. Acreage Comparison of Operations Disturbance to Stream Buffers cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Within 500 feet of Perennial and Intermittent Streams		Within 100 feet of Ephemeral Streams		Within 500 feet of TMDL and 303(d) Listed - Sediment Streams		Total Disturbed Acres
			Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	
7	Proposed – Total Length	118.1	22	9.4	19	8.3	13	5.7	231
	Proposed – Comparison portion for Alternatives 7A,B	35.2			5	9.9	9	18.8	47
	Alternative 7A	38.0	18	18.3	11	11.6	22	22.5	96
	Alternative 7B	46.4	19	18.8	11	11.0	19	19.7	99
	Proposed – Comparison portion for Alternative 7C	20.1	1	3.5	2	4.5	1	2.7	36
	Alternative 7C	20.3	1	2.1	2	7.3	t <sup>1/</sup>	0.3	28
	Proposed – Comparison portion for Alternative 7D	6.2	1	8.9	2	14.2			11
	Alternative 7D	6.8	1	7.7	2	12.9			13
	Proposed – Comparison portion for Alternative 7E	3.8	2	35.7		0.0			6
	Alternative 7E	4.5	3	37.7		0.0			8
	Proposed – Comparison portion for Alternative 7F	10.5	11	39.7	1	1.9			27
	Alternative 7F	10.8	8	32.9	1	4.8			24
	Proposed – Comparison portion for Alternative 7G	3.1			<1	8.1	<1	3.1	6
	Alternative 7G	3.2			<1	2.8	<1	3.1	6
	Proposed – Comparison portion for Alternatives 7H,I	118.1	22	9.4	19	8.3	13	5.7	231
Alternative 7H	127.5	68	19.9	33	9.7	16	4.8	340	
Alternative 7I	173.4	57	12.6	47	10.5	40	8.8	451	
Proposed – Comparison portion 7/9 for Alternative 7J <sup>2/</sup>	143.9	24	8.1	22	7.7	15	5.1	294	
Alternative 7J <sup>2/</sup>	202.1	51	10.1	53	10.3	60	11.8	512	
8	Proposed – Total Length	131.0	17	7.1	16	6.6	14	5.7	246
	Proposed – Comparison portion for Alternative 8A	51.4	8	8.3	3	3.1	2	1.7	99
	Alternative 8A	53.6	3	2.5	3	3.1	2	2.4	102
	Proposed – Comparison portion for Alternative 8B	45.3	3	3.7	8	8.9	12	14.0	87
	Alternative 8B	45.8	2	2.6	5	6.8	15	21.3	69
	Proposed – Comparison portion for Alternative 8C	6.5	2	11.7	1	8.0	1	9.0	15
	Alternative 8C	6.4	2	13.0	1	7.2	2	14.5	16
	Proposed – Comparison portion for Alternative 8D	6.9			<1	2.1	4	20.5	19
	Alternative 8D	8.1			1	5.1	3	21.4	15
	Proposed – Comparison portion for Alternative 8E	7.0	<1	2.2	1	5.3			10
Alternative 8E	18.5	1	2.7	1	3.3			27	
9	Proposed – Total Length	161.7	21	5.9	24	6.6	14	3.9	359
	Proposed – Comparison portion for Alternative 9A	7.8	1	3.4	1	6.0	1	3.9	15
	Alternative 9A	7.7	1	7.4	1	7.0	1	7.1	18
	Proposed – Comparison portion for Alternative 9B	49.5	10	7.9	3	2.9	8	6.3	121
	Alternative 9B	53.2	3	3.8	5	6.2	7	8.3	85
	Proposed – Comparison portion for Alternative 9C	14.7			2	5.8	t <sup>1/</sup>		26
	Alternative 9C	15.3	<1	0.6	2	5.6	<1	1.6	31
	Proposed – Comparison portion for Alternatives 9D-9H	57.2	3	3.0	11	10.3	3	3.1	106
	Alternative 9D	58.4	<1	0.4	4	4.6	3	3.5	80
	Alternative 9E	68.7	4	3.1	11	8.5	14	10.1	135
Alternative 9F	62.9	<1	0.4	5	5.9	3	3.6	93	
Alternative 9G	56.4	<1	0.4	4	4.5	4	5.1	83	
Alternative 9H	61.0	<1	0.4	6	5.7	5	5.0	96	
10	Proposed – Total Length	33.6	1	1.4	2	2.4	2	2.9	81

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> "t" indicates only a trace amount (<0.1 acre) of impact

<sup>2/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.

**Table D.16-16. Acreage Comparison of Two Single-Circuit Construction Disturbance to Stream Buffers**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Within 500 feet of Perennial and Intermittent Streams		Within 100 feet of Ephemeral Streams		Within 500 feet of TMDL and 303(d) Listed - Sediment Streams		Total Disturbed Acres
			Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	Disturbed Acres	% of Total Disturbance Area	
2	Proposed – Total Length	96.7	110	5.6	129	6.5			1972
	Proposed – Comparison portion for Alternative 2A	28.8	19	3.6	43	8.2			520
	Alternative 2A	28.4	25	4.4	41	7.2			570
	Proposed – Comparison portion for Alternative 2B	7.0	8	5.7	3	2.2			144
	Alternative 2B	6.2	18	15.7	12	10.3			114
	Proposed – Comparison portion for Alternative 2C	28.4	38	7.9	44	9.0			489
3	Alternative 2C	24.4	3	0.7	13	3.2			417
	Proposed – Total Length	56.5	136	12.5	69	6.4			1081
4	Proposed – Total Length	203.0	391	10.5	208	5.6	60	1.6	3706
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	141	8.8	117	7.3	5	0.3	1601
	Alternative 4A	85.2	356	21.8	64	3.9	5	0.3	1634
	Alternative 4B	100.2	232	12.0	138	7.1	9	0.5	1936
	Alternative 4C	101.6	259	13.4	133	6.9	9	0.5	1931
	Alternative 4D	100.8	241	12.4	146	7.5	9	0.4	1946
	Alternative 4E	102.2	258	13.3	143	7.4	9	0.5	1937
Alternative 4F	87.5	319	19.4	75	4.6	5	0.3	1646	

Note: Acreages have been rounded to the nearest whole acre; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup>"t" indicates only a trace amount (<0.1 acre) of impact

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location		
1E	Proposed – Total Length	0.4 - 1	Oregon Trail	Crossed	1E	Alternative 1E-C	2.5	Residence	988ft SE		
		0.6 - 1.2	California Trail	Crossed			5.3 - 6.5	Medicine Bow NF	Crossed		
		1.8 - 2.7	Oregon Trail	Crossed			5.7 - 16.0	Bates Hole Management Area	Crossed		
		2 - 2.6	Mormon Pioneer Trail	Crossed			9.9	Ice Cave (Historic Site)	366ft NE		
		2 - 2.6	Pony Express Trail	Crossed			30.9	Pond	926ft E		
		2.1	Gravel Pit	532ft SE			40.1	Smith Creek Reservoir	887ft NE		
		2.2	Residence	876ft NW			44.9	Airport Hanger/Structure	626ft SE		
		2.6	Outbuilding	310ft N			45.2	Freezeout Hills Number Four Mine	947ft SE		
		2.9	Residence	862ft N			45.2	Foxley Airstrip	Crossed		
		3	Residence	456ft N			48.3	Wind Farm	692ft NE		
		3	Residence	765ft N			1W	1W(a) Proposed – Total Length	3.7	Residence	886ft N
		3	Residence	950ft N					3.7	Residence	986ft N
		3	Residence	492ft N					3.7	Residence	653ft N
		3.1	Residence	508ft N					3.8	Building/Industrial	328ft S
		5.3	Residence	645ft S					3.8	Residence	926ft N
		5.3 - 5.8	Town of Glenrock	Crossed	7.5 - 8	Bozeman Trail			Crossed		
		6.2	Structure	638ft N	8.3 - 8.8	Oregon Trail			Crossed		
		6.6	Structure	546ft N	8.5 - 9	California Trail			Crossed		
		20	Outbuilding	730ft W	8.7	Residence			149ft E		
		21	Banner Mountain	713ft E	8.7	Residence			468ft W		
		22.1	Hess Draw	87ft E	9 - 9.5	Oregon Trail			Crossed		
		22.8 - 23.3	Active Mining Claims	Crossed	9.1	Building/Industrial			585ft W		
		26.9	Rainbow Canyon	356ft E	9.1	Residence			437ft W		
		27.1	Moonshine Canyon	396ft W	9.1 - 9.7	Mormon Pioneer Trail			Crossed		
		29.9 - 35.8	Medicine Bow National Forest	Crossed	22.5	Outbuilding			195ft E		
		30.6 - 33	Bates Hole MA	Crossed	23	Outbuilding	758ft E				
		36.4 - 37.1	Medicine Bow National Forest	Crossed	25.7 - 26.3	Active Mining Claims	Crossed				
		49.7	C P Ranch	771ft SW	31.8	Sensebaugh Canyon	141ft E				
		56.9	North Fork Cottonwood Creek	334ft N	33 - 35.3	Medicine Bow National Forest	Crossed				
		61.3	Residence	882ft E	33.4 - 43.9	Bates Hole MA	Crossed				
63.6	Structure	438ft E	34	Medicine Bow National Forest	455ft SE						
78.9 - 79.3	Wind Energy	Crossed	48.2 - 50.7	Active Mining Claims	Crossed						
83	Griffith Ranch	386ft E	49.2 - 56.2	Wind Energy	Crossed						
1E	Alternative 1E-A	0.4 - 1	Oregon Trail	Crossed	1W	Alternative 1W-A	0.7 - 1.2	Oregon Trail	Crossed		
		0.5 - 1.1	California Trail	Crossed			0.8 - 1.4	California Trail	Crossed		
		1.8 - 2.7	Oregon Trail	Crossed			1.8	Structure	490ft NW		
		2 - 2.5	Mormon Pioneer Trail	Crossed			1.9 - 2.8	Oregon Trail	Crossed		
		2 - 2.5	Pony Express Trail	Crossed			2.2 - 2.7	Mormon Pioneer Trail	Crossed		
		2.1	Gravel Pit	155ft NW			2.2 - 2.7	Pony Express Trail	Crossed		
		2.5	Residence	401ft E			2.3	Residence	446ft SE		
		2.5	Residence	700ft E			2.7	Outbuilding	35ft E		
		2.6	Residence	887ft E			12.2	Residence	677ft NW		
		13.5	Structure	790ft NW			12.4	Willow Creek	969ft NW		
		15.6	Residence	211ft N			13.7	Structure	710ft SE		
		1E	Alternative 1E-B	3.6			Reed Pass	58ft S	1W	1W(c) Proposed – Total Length	0.1 - 1.2
19.9	Little Pinto Creek			565ft W	0.7 - 1.3	Pony Express Trail	Crossed				
24.7	Wind Energy			323ft NW	1.2	Radio Tower	462ft N				
33.4	Residence			826ft N	1.3	Residence	452ft N				
33.4	Structure			483ft N	1.5	Residence	390ft S				
44.3	Carlin Ranch			568ft N							
44.3	Residence	407ft S									

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
1W	1W(c) Proposed – Total Length cont.	1.6	Residence	752ft N	2	Proposed – Total Length cont.	21.3	Building/Industrial	70ft S
		1.7	Residence	676ft N			23	Wind Energy	269ft S
		1.7	Residence	330ft N			23.3 - 23.5	Wind Energy	Crossed
		1.7	Residence	72ft N			31	Iron Spring	664ft N
		1.7	Residence	498ft N			41.1	Whitehorse Canyon	813ft NW
		1.7	Residence	638ft N			41.5	Gravel Pit	89ft N
		1.7	Residence	248ft N			41.9 - 42.1	North Platte SRMA	Crossed
		1.8	Residence	363ft N			42.2	Sand Pit	414ft N
		1.8	Residence	493ft N			42.8	Wind Energy	385ft S
		1.8	Residence	86ft N			55.3 - 56.3	Wind Energy	Crossed
		1.8	Residence	251ft S			57.3 - 58.3	Wind Energy	Crossed
		1.8	Residence	526ft S			58.6 - 59.1	National Historic Trails	Crossed
		1.9	Residence	326ft N			58.7	Building/Industrial	39ft S
		1.9	Residence	330ft S			58.7	Building/Industrial	251ft N
		1.9	Residence	582ft S			58.7	Building/Industrial	717ft N
		1.9	Residence	736ft S			59	Recreation Site	841ft S
		1.9	Residence	872ft S			59.1	Building/Industrial	14ft N
		2	Residence	427ft N			59.2	Residence	907ft N
		2.1	Residence	782ft NW			59.3 - 60.3	Wind Energy	Crossed
		2.1	Residence	357ft SE			61.2 - 62.2	Historic Trails	Crossed
		2.3	Residence	235ft SE			61.3 - 62.4	Wind Energy	Crossed
		7.2	Structure	752ft S			61.4 - 62.4	Hogback Lake Proposed SRMA	Crossed
		10	Barn	495ft S			63 - 63.5	Wind Energy	Crossed
		14.2	V R Ditch	546ft S			64.7	Wind Energy	605ft S
		14.5	Kimball Ranch	996ft S			66 - 67	Wind Energy	Crossed
		18.3	Banner Mountain	783ft W			67.5 - 73.9	Red Rim-Daley Wildlife HMA	Crossed
		19.3	Negro Creek Park	398ft W			68.1 - 69.1	Wind Energy	Crossed
		20 - 20.5	Active Mining Claims	Crossed			69.6 - 69.9	Wind Energy	Crossed
		20.5 - 21	Medicine Bow National Forest	Crossed			70.9 - 71.9	Wind Energy	Crossed
		27.2 - 29.6	Medicine Bow National Forest	Crossed			72.8	Active Mining Claims	148ft S
		27.8 - 38.2	Bates Hole MA	Crossed			74 - 75	Wind Energy	Crossed
		41.8	Perey Reservoir	915ft E			77.5 - 78.1	Wind Energy	Crossed
		42.5 - 45	Active Mining Claims	Crossed			77.9	Wind Energy	838ft N
43.4 - 50.5	Wind Energy	Crossed	79.1 - 80.1	Wind Energy	Crossed				
44.4	Substation	35ft E	86	Oil/Gas Well	486ft N				
45.4	Structure	311ft W	0.1	Hanna town	422ft NE				
64.9	Structure	542ft W	1	Hanna Number Six Mine	981ft S				
2	Proposed – Total Length	1.8	Wind Farm	859ft N	2	Alternative 2A	2.8 - 3.8	Wind Energy	Crossed
		5.5	Coulter Mine	57ft S			4.8 - 5.8	Wind Energy	Crossed
		5.9	Structure	127ft S			7.2	Eagle Rock	540ft SE
		6.4	Hanna Draw	54ft N			21.5	Gravel Pit	987ft S
		8.2 - 9.2	Wind Energy	Crossed			21.9	Barn	532ft N
		10.1 - 11.2	Active Coal Lease	Crossed	2	Alternative 2B	0.9	Gravel Pit	262ft N
		10.2 - 11.2	Wind Energy	Crossed			1.7	Mine	657ft S
		11.4	Barrel Spring	199ft E			1.8	Residence	691ft N
		11.9	Wind Energy	902ft E			1.9	Residence	567ft S
		13.3	Mine	635ft W			1.9	Residence	499ft N
		14.1	Antelope Dam	217ft E			1.9	Residence	260ft N
		14.1	Antelope Reservoir	217ft E			1.9	Residence	781ft S
		14.2 - 14.4	Wind Energy	Crossed	1.9	Residence	936ft S		
		15.2 - 16.2	Wind Energy	Crossed	2	Alternative 2C	0.9	Rock Crossing Mine	215ft NE
		16.9 - 17.2	Wind Energy	Crossed			2.5-6.7	Seminole II Surface Mine (Coal)	Crossed
		17.7 - 17.9	Wind Energy	Crossed			3.0 - 3.2	Active Coal Lease	Crossed
		18.2 - 18.5	Wind Energy	Crossed			3.7 - 4.5	Mining surface reclamation from NAIP imagery	Crossed
		21.1	Building/Industrial	144ft NW			4.5 - 4.8	Active Coal Lease	Crossed
		21.2	Building/Industrial	70ft NW			9-9.3	EDC Surface Mine (Coal)	Crossed
		21.2	Building/Industrial	211ft NW			10.3 - 10.6	Mining surface reclamation from NAIP imagery	Crossed
		21.2	Building/Industrial	93ft NW	10.3-13.2	EDC Surface Mine (Coal)	Crossed		
					12.1	Oil/Gas Well	2,265ft NW		

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
3	Proposed – Total Length	0.1 - 46.6	Point of Rocks MOA	Crossed	4	Proposed – Total Length cont.	157.7	Substation	214ft NE
		3.9 - 9.7	Upper Muddy Creek Watershed	Crossed			160.2	Shed	230ft SW
		4.3	Jim Bridger Mine	791ft NE			162	Sago Spring	70ft NE
		5.8	Oil/Gas Well	45ft N			162.6	Gravel Pit	197ft NE
		16.4 - 16.9	Wind Energy	Crossed			163.2	Ledge Hollow	479ft SW
		19.7 - 20	Table Rock CDP	Crossed			166.4 - 175.6	Caribou	Crossed
		32.7	Patrick Draw Oil Field	245ft S			172.5	Humberg Spring	68ft S
		40.9 - 41.4	Active Coal Lease	Crossed			177	Residence	39ft S
		42.0 - 43.1	Active Coal Lease	Crossed			177	Residence	58ft S
		44.1	Point of Rocks CDP	85ft W			179.2	Trout Creek	837ft N
44.4	Tenmile Draw	383ft E	179.4 - 180	California Trail	Crossed				
4	Proposed – Total Length	0.1 - 12.2	Point of Rocks MOA	Crossed	4	Alternative 4A	180.5	Building/Industrial	538ft S
		3.9 - 4.4	Active Coal Lease	Crossed			182.5	Mine	75ft SE
		29.6 - 30.9	North Rock Springs CDP	Crossed			182.9	Structure	259ft NW
		43.8	Wind Energy	558ft N			196.2	Shed	625ft N
		52.6	Seedskadee National Wildlife Refugee	777ft N			200.1	Silo	651ft S
		52.7	Building/Industrial	740ft N			201.4	Portneuf Marsh Valley Canal	119ft SW
		57.5 - 58	California Trail	Crossed			202	Residence	977ft SW
		57.5 - 58	Oregon Trail	Crossed			0.6	Building/Industrial	740ft N
		62.5 - 63	Pony Express Trail	Crossed			0.5	Seedskadee National Wildlife Refugee	777ft N
		75.1	Structure	405ft W			5.4 - 5.9	California Trail	Crossed
		82.5 - 83	California Trail	Crossed			5.4 - 5.9	Oregon Trail	Crossed
		82.7 - 82.8	Historic Trail Buffer - Medium Quality (500ft Buffer)	Crossed			10.4 - 10.9	Pony Express Trail	Crossed
		82.9 - 83.1	Historic Trail Buffer - Medium Quality (500ft Buffer)	Crossed			28.6	Oil/Gas Well	913ft N
		94 - 97.1	Oregon Trail SRMA_Proposed	Crossed			32.9 - 33.9	Wind Energy	Crossed
		94.1 - 95.5	California Trail	Crossed			35.8 - 40	Wind Energy	Crossed
		94.7	Historic Trail Buffer - Medium Quality (500ft Buffer)	306ft N			44	Structure	78ft N
		94.8 - 95.8	Historic Trail - High Quality (.25mi Buffer)	Crossed			48.6	Active Coal Lease	430ft W
		107.1	North Fork Roney Creek	463ft S			50.3 - 50.8	Historic Trail Buffer - Medium Quality (500ft Buffer)	Crossed
		107.1	Structure	343ft S			50.5 - 51.1	California Trail	Crossed
		113.4	West Fork Beaver Creek	124ft N			53.4	Meadow Creek	722ft S
		123.4 - 124.4	Pine Creek SRMA	Crossed			53.5	Kemmerer Number 1 Dam	603ft S
		127.7	Residence	148ft N			53.7	Kemmerer Reservoir	96ft N
		129.1	Quealy Reservoir	711ft N			59.5 - 60.1	Dempsey SRMA	Crossed
		129.2	Raymond Mountain WSA	618ft N			60.4 - 60.6	Dempsey SRMA	Crossed
		130.7 - 131.3	California Trail	Crossed			60.7	Dempsey SRMA	760ft NE
		131.2	Birch Gulch	729ft N			60.7	SSP - Physaria dornii	230ft SW
		131.2	Pivot	170ft S			60.7	Wind Energy	764ft NE
		131.2	Residence	752ft S			60.7 - 61.6	Wind Energy	Crossed
		131.3	Residence	574ft N			60.7 - 61.9	Dempsey SRMA	Crossed
		131.4	Dixon Slough	429ft S			61.2 - 61.8	Historic Trail - High Quality (.25mi Buffer)	Crossed
		131.6	Garrett Creek	541ft N			61.4 - 61.9	California Trail	Crossed
		139.4	Cook Canal	743ft NE			62.4 - 62.8	Dempsey SRMA	Crossed
		143.7 - 144.2	Oregon Trail	Crossed			63.2 - 64	California Trail	Crossed
		144.9	Sheep Creek Dam	877ft N			63.4 - 64	Historic Trail - High Quality (.25mi Buffer)	Crossed
		144.9	Sheep Creek Reservoir	877ft N			63.7 - 65.9	Rock Creek/Tunp Draft Preferred Alt	Crossed
		150.3	Banks Valley	948ft S			64 - 65	Wind Energy	Crossed
		151.5	Shed	878ft N			66.1 - 67.6	Rock Creek/Tunp Draft Preferred Alt	Crossed
		152.4	Residence	823ft S			70.8 - 71.7	California Trail	Crossed
		152.4	Residence	555ft S			71.3	Shed	19ft N
		152.5	Residence	435ft N			71.5	Residence	807ft S
152.7 - 153.2	California Trail	Crossed	72.1 - 72.1	Town of Cokeville	Crossed				
152.7 - 153.2	Oregon Trail	Crossed	72.2	Residence	719ft NE				
152.9	Gravel Pit	998ft N	73.2	Taylor CDP	527ft SW				
152.9	Residence	474ft N	73.3	Waste Water Treatment Facility	292ft SW				
153.2	Residence	253ft S	73.5	Dry Hollow	666ft SW				
153.2	Structure	600ft S	82.3	Cook Canal	743ft NE				
155.5	Structure	103ft NE							

**Table D.17-1. Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives**

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
4	Alternative 4B	9.2 - 9.8	California Trail	Crossed	4	Alternative 4C	64.9	SSP - Physaria dornii	993ft N
		9.2 - 9.8	Oregon Trail	Crossed			65.2 - 67.2	Bear River SMA	Crossed
		9.6 - 9.6	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			67.5	Bear River SMA	129ft N
		12.1	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			69.7	Tower	504ft S
		12.1 - 12.6	Pony Express Trail	Crossed			69.7 - 71.7	Rock Creek/Tunp Draft Preferred Alt	Crossed
		12.2 - 12.3	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			72.5 - 74.4	Rock Creek/Tunp Draft Preferred Alt	Crossed
		16	Oil/Gas Well	20ft S			74.7 - 75	Rock Creek/Tunp Draft Preferred Alt	Crossed
		37.5	Coyote Spring	498ft N			76.7	Shed	189ft W
		43.5	Glencoe Mine	698ft S			76.9	Barn	832ft W
		43.5	Structure	862ft S			77.1 - 83.3	California Trail	Crossed
		47.9	Elkol Strip Mine	909ft N			77.3	Substation	745ft W
		47.9 - 48.7	Active Coal Lease	Crossed			77.8	Barn	462ft W
		48.7 - 49.5	Wind Energy	Crossed			78	Shed	812ft W
		52.3	C H Smith Dam	994ft W			78.2	Leeds Creek	501ft W
		52.3	C H Smith Reservoir	994ft W			78.3	Gravel Pit	259ft W
		53	Residence	953ft NE			79.5	Barn	9ft E
		54.3	SSP - Physaria condensata	757ft SW			80.6 - 81.6	Historic Trail - High Quality (.25mi Buffer)	Crossed
		60.3	Ollie Spring	832ft SE			80.7 - 80.8	Rock Creek/Tunp Draft Preferred Alt	Crossed
		62.5 - 63	Bear River SMA	Crossed			80.8	Covey Canal	296ft W
		63 - 63.7	Bear River SMA	Crossed			81.2	Residence	326ft W
		63 - 64.6	Active Mining Claims	Crossed			81.4	Horse Creek	30ft E
		63.7 - 64.9	Bear River SMA	Crossed			82	SSP - Lepidium integrifolium var. integrifolium	819ft NW
		64.1 - 65	California Trail	Crossed			82.4	Commercial Building	45ft W
		64.9	SSP - Physaria dornii	993ft N			82.7	Commercial Building	667ft W
		65.2 - 67.7	Bear River SMA	Crossed			83 - 85.3	Cokeville Meadows National Wildlife Refuge	Crossed
		68.2 - 68.7	Bear River SMA	Crossed			85	Windmill Draw	508ft SW
		69.1	Bulldog Hollow	619ft S			9.2 - 9.8	California Trail	Crossed
		70 - 70.1	Bear River SMA	Crossed			9.2 - 9.8	Oregon Trail	Crossed
		72.2 - 76.8	Cokeville Meadows National Wildlife Refuge	Crossed			9.6 - 9.6	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed
		73.1	Pivot	252ft E			12.1 - 12.1	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed
		74	Pivot	184ft E			12.1 - 12.6	Pony Express Trail	Crossed
		74 - 74.8	California Trail	Crossed			12.2 - 12.3	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed
74.2	B-Q Dam	339ft W	16	Oil/Gas Well	20ft S				
74.2 - 74.3	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed	37.5	Coyote Spring	498ft N				
84.4	Red Mountain	622ft E	43.5	Glencoe Mine	698ft S				
4	Alternative 4C	9.2 - 9.8	California Trail	Crossed	4	Alternative 4D	43.5	Structure	862ft S
		9.2 - 9.8	Oregon Trail	Crossed			47.9	Elkol Strip Mine	909ft N
		9.6 - 9.6	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			47.9 - 48.7	Active Coal Lease	Crossed
		12.1 - 12.1	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			48.7 - 49.5	Wind Energy	Crossed
		12.1 - 12.6	Pony Express Trail	Crossed			52.3	C H Smith Dam	994ft W
		12.2 - 12.3	Historic Trail Buffer - Low Quality (100ft Buffer)	Crossed			52.3	C H Smith Reservoir	994ft W
		16	Oil/Gas Well	20ft S			53	Residence	953ft NE
		37.5	Coyote Spring	498ft N			54.3 - 55.3	Wind Energy	Crossed
		43.5	Glencoe Mine	698ft S			56.3	Mine	220ft SE
		43.5	Structure	862ft S			56.7 - 57.3	Wind Energy	Crossed
		47.9	Elkol Strip Mine	909ft N			60 - 60.8	Wind Energy	Crossed
		47.9 - 48.7	Active Coal Lease	Crossed			63.1 - 63.6	Bear River SMA	Crossed
		48.7 - 49.5	Wind Energy	Crossed			63.6 - 64.3	Bear River SMA	Crossed
		52.3	C H Smith Dam	994ft W			63.6 - 65.2	Active Mining Claims	Crossed
		52.3	C H Smith Reservoir	994ft W			64.3 - 65.5	Bear River SMA	Crossed
		53	Residence	953ft NE			64.7 - 65.6	California Trail	Crossed
		54.3	SSP - Physaria condensata	757ft SW			65.5	SSP - Physaria dornii	993ft N
		60.3	Ollie Spring	832ft SE			65.8 - 68.3	Bear River SMA	Crossed
		62.5 - 63	Bear River SMA	Crossed			68.8 - 69.3	Bear River SMA	Crossed
		63 - 64.6	Active Mining Claims	Crossed			69.7	Bulldog Hollow	619ft S
		63 - 63.7	Bear River SMA	Crossed			70.6 - 70.7	Bear River SMA	Crossed
		63.7 - 64.9	Bear River SMA	Crossed			72.8 - 77.5	Cokeville Meadows National Wildlife Refuge	Crossed
		64.1 - 65	California Trail	Crossed			73.7	Pivot	252ft E



**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location		
5	Proposed – Total Length cont.	34.9	Hutchinson Canyon	98ft N	5	Alternative 5D cont.	15	Residence	739ft S		
		36.9	Green Canyon	70ft E			15	Residence	926ft S		
		51.3	Residence	575ft S			15.3	Residence	347ft S		
		51.4	Commercial Building	958ft N			15.5	Residence	301ft S		
		51.7	Residence	480ft NW			15.5 - 16.1	Oregon Trail	Crossed		
		51.7	Residence	616ft N			15.6	Residence	738ft S		
		51.9	Barn	381ft NW			15.6	Residence	359ft S		
		51.9	Barn	415ft NW			15.6	Residence	970ft S		
		51.9	Barn	389ft NW			15.7	Residence	515ft S		
		52	Residence	857ft NW			15.7	Residence	957ft S		
		52	Residence	923ft NW			15.7	Residence	798ft S		
		52	Residence	421ft NW			15.7	Residence	583ft S		
		52.1	Residence	787ft NW			15.7	Residence	583ft S		
		52.1	Residence	984ft NW			15.8	Residence	936ft S		
		52.1	Residence	984ft NW			15.8	Residence	750ft S		
		52.3	Residence	864ft N			16.3	Borrow Pit	433ft W		
		52.4	Residence	842ft N			16.4	Warm Creek	270ft E		
		52.4	Residence	900ft N			17.4	Substation	484ft S		
		52.5	Pipeline Recreation Site	392ft NE			5	Alternative 5E	2.0	Residence	867ft NW
		52.6	Pipeline	748ft NE					2.0	Barn	929ft NE
52.6 - 53.1	Oregon Trail	Crossed	2.6	Commercial Building	508ft SW						
54	Marys Mine Access Area	43ft N	2.8 - 3.1	Undeveloped Subdivision	Crossed						
54.6	Substation	484ft S	2.9	Residence	824ft S						
			3.4	Residence	979ft S						
			0.5	Residence	406ft NE						
5	Alternative 5A	3.5-4.4	California Trail	Crossed	7	Proposed – Total Length	2.9	Residence	769ft NE		
		14	Residence	522ft N			4.9	Potter Creek	834ft NE		
		16.7	Arbon Cemetery	594ft N			5	Residence	370ft NE		
		23.6	Deep Creek Mountains	471ft S			8 - 8.6	Caribou National Forest	Crossed		
		31.9	Residence	141ft E			8.6-11.6	Caribou National Forest	125ft S		
		34.4	Mill Canyon	805ft W			9.3-10	Elkhorn Mountain Roadless Area	125ft S		
34.4	Residence	659ft W	10.4	South Fork Hawkins Creek			615ft N				
5	Alternative 5B	3.5-4.4	California Trail	Crossed			11.3	Hawkins Dam	1000ft N		
		23.4	Residence	675ft S			11.3	Hawkins Reservoir	900ft N		
		38.5	Residence	175ft E			11.3	Sheep Creek	172ft N		
		38.8	Portage Canyon	485ft W			12.9 - 13.4	California Trail	Crossed		
		39.5	Pivot	745ft W			14.3	Residence	692ft SW		
		42.6	Residence	141ft E			19.3	Bradley Mountain	419ft N		
		45.1	Mill Canyon	805ft W			24.5	Residence	146ft S		
45.1	Residence	659ft W	59.2 - 59.8	Oregon Trail			Crossed				
5	Alternative 5C	17.1	Sawmill Creek	685ft SW			59.5	Calder Creek	460ft NE		
5	Alternative 5D	0.3	Mill Canyon	320ft S			59.6	Oregon-California Trail Junction	421ft S		
		0.3	Residence	277ft S			72.5 - 73.3	National Historic Trails	Crossed		
		10.5	Cold Creek Canyon	861ft NE			72.5 - 73.3	Oregon Trail	Crossed		
		13.3	Residence	736ft E			74.2 - 74.7	Wind Energy	Crossed		
		13.3	Residence	699ft E	75.3	Guinn Canyon	327ft SE				
		13.4	Residence	668ft NE	75.4	Pivot	179ft NW				
		13.5	Residence	513ft NE	82.5	Residence	738ft W				
		13.6	Residence	919ft NE	82.6	Residence	428ft W				
		13.9	Cold Creek	Crossed	82.7	Residence	813ft NW				
		14	Residence	222ft E	82.8	Residence	761ft NW				
		14.5	Residence	395ft W							
15	Residence	738ft S									

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
7	Proposed – Total Length cont.	83.6	Residence	165ft NW	7	Alternative 7H cont.	11.3	Hawkins Dam	1000ft N
		83.6	Residence	366ft SE			11.3	Hawkins Reservoir	900ft N
		83.6	Residence	798ft SE			11.7-12.8	Caribou National Forest	Crossed
		87.2	Searle Airstrip	Crossed			13.2-13.8	California Trail	Crossed
		92.5	Residence	951ft S			40.2-41.1	Curlew National Grasslands	125ft S
		94.4	Residence	960ft SW			42-44	Curlew National Grasslands	125ft S
		94.5	Residence	477ft SW			47.9 - 48.4	California Trail	Crossed
		97.1	Residence	247ft NE			48.8	Eyrie Peak	896ft SE
		98	Residence	555ft S			57.7	Silo	752ft N
		100.1	Residence	213ft NW			57.7	Warehouse	555ft N
		100.1	Residence	295ft NW			58.3 - 66.4	Raft River - Curlew Valley IBA	Crossed
		100.2	Residence	236ft NE			69	Residence	930ft N
		102.8 - 103.2	CAFO	Crossed			71.3	Residence	677ft SW
		104.3	Butte Wildlife Habitat Area South	353ft S			72 - 75.9	Raft River - Curlew Valley IBA	Crossed
		114.3	Tugaw Airstrip (planned)	Crossed			72.2	Gravel Pit	377ft N
114.1	Bower Cemetery	759ft N	78.9	Blacksmith Creek	924ft N				
114.2	Cold Spring Creek	691ft S	78.9	Connor Creek	828ft N				
114.5	Residence	901ft N	80.4 - 81.1	California Trail	Crossed				
7	Alternative 7A	4.1-5.2	Caribou National Forest	Crossed	7	Alternative 7I	80.7	Jones Hollow	146ft N
		5.6-6.2	California Trail	Crossed			81.6	Kemp Hollow	987ft N
		27.4	Residence	775ft SW			81.9	Mt. Harrison	184ft N
		29.3	Residence	619ft S			83.4	Rocky Hollow	175ft N
		29.4	Residence	885ft N			84.8	Cottonwood Creek	759ft S
7	Alternative 7B	4.1-5.2	Caribou National Forest	Crossed	7	Alternative 7I	87.3	Stinson Creek	346ft SE
		5.6-6.2	California Trail	Crossed			87.4	Cache Peak	173ft S
		23.9	Bull Canyon	751ft S			89.9	Cold Spring	154ft W
		23.4	Residence	858ft N			90.5 - 90.7	Active Mining Claims	Crossed
		24.4	Residence	607ft S			91.5	Albion Mountains	469ft S
		25	South Fork Bull Canyon	96ft N			93.1	Salt Lick Spring	934ft S
		32.3	Stewart Canyon	228ft E			101.2	Active Mining Claims	475ft SW
34.6	Goddard Canyon	51ft E	115.8	Robber Gulch	976ft SW				
7	Alternative 7C	8.1	Pivot	187ft S	7	Alternative 7I	116.4	Buckhorn Canyon	420ft SW
		9.2	CAFO	767ft N			123.5	Bower Cemetery	759ft N
		9.2 - 10.3	California Trail	Crossed			123.6	Cold Spring Creek	691ft S
		9.6	Residence	448ft NE			124	Residence	901ft N
		9.6	Residence	642ft NE			0.5	Residence	406ft NE
7	Alternative 7D	1.2 - 2.7	Oregon Trail	Crossed	7	Alternative 7I	2.9	Residence	769ft NE
		1.8 - 2.1	Wind Energy	Crossed			4.9	Potter Creek	834ft NE
		4.1	Pivot	344ft E			5	Residence	370ft NE
7	Alternative 7E	1.6	Water Canyon Spring	885ft SE	7	Alternative 7I	8-8.6	Caribou National Forest	Crossed
		3.9	Residence	266ft SW			8.6-11.6	Caribou National Forest	125ft S
		4.0	Residence	235ft NW			9.3-10	Elkhorn Mountain Roadless Area	125ft S
		4.0	Residence	467ft SE			10.3	South Fork Hawkins Creek	615ft N
		4.0	Residence	776ft NW			11.3	Hawkins Dam	1,000ft N
7	Alternative 7F	3.2	Water Canyon Spring	885ft SE	7	Alternative 7I	11.3	Hawkins Reservoir	900ft N
7	Alternative 7G	0.2	Tugaw Airstrip - planned	Crossed	7	Alternative 7I	11.7-12.8	Caribou National Forest	Crossed
		0.1	Bower Cemetery	980ft NE			13.2-13.8	California Trail	Crossed
		0.1	Cold Spring Creek	691ft S			40.2-41.1	Curlew National Grasslands	125ft S
		0.3	Residence	274ft N			42-44	Curlew National Grasslands	125ft S
7	Alternative 7H	0.5	Residence	406ft NE	7	Alternative 7I	47.9 - 48.4	California Trail	Crossed
		2.9	Residence	769ft NE			48.8	Eyrie Peak	896ft SE
		4.9	Potter Creek	834ft NE			57.7	Silo	752ft N
		5	Residence	370ft NE			57.7	Warehouse	555ft N
		8-8.6	Caribou National Forest	Crossed			58.3 - 72.1	Raft River - Curlew Valley IBA	Crossed
		8.6-11.6	Caribou National Forest	125ft S			67.2	Monument Canyon	28ft W
		9.3-10	Elkhorn Mountain Roadless Area	125ft S			75.3 - 75.5	Raft River - Curlew Valley IBA	Crossed
		10.3	South Fork Hawkins Creek	615ft N			82.4 - 83	California Trail	Crossed
						85.9 - 97.2	Raft River - Curlew Valley IBA	Crossed	

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
7	Alternative 7I cont.	100.3	Sparks Spring	520ft N	7	Alternative 7J -B	2.6	Pivot	121ft S
		103.2 - 103.9	California Trail	Crossed			3.9	Residence	355ft S
		111.3 - 112.2	California Trail	Crossed			4.3	Residence	151ft N
		112.3	California Trail	924ft NW			11.5	Structure	11ft N
		114.7 - 115.2	California Trail	Crossed			2.2	Pivot	213ft S
		114.9	Pole Creek	177ft N			3.3	Pivot	320ft S
		120	Sawtooth National Forest	906ft N			3.7	Residence	619ft S
		120.8	Mahogany Butte	316ft N			14.8	Residence	945ft S
		133.1	Willow Spring Creek	382ft SW			14.9	Residence	978ft N
		133.7	Middle Fork Hannahs Fork	575ft SW			16.2	Residence	782ft N
		133.7	North Fork Hannahs Fork	799ft SW			16.8	Residence	194ft S
		133.7	South Hannahs Fork	799ft SW			16.9	Residence	621ft N
		137.9	Sheep Spring Creek	44ft W			17	Residence	204ft N
		143.4	Southeast Spring	779ft W			17.2	Residence	344ft S
		149.1	Soldier Spring	558ft E			17.3	Residence	480ft S
		152.3	Williams Spring	951ft NE			17.4	CAFO	847ft S
		154.6	Water Tank	85ft SW			17.5	Residence	774ft S
		154.8	Gravel Pit	823ft NE			19.3	Pivot	196ft S
		161.8	Structure	11ft N			19.9	Pivot	104ft S
		162.1	Dry Cottonwood Creek	838ft N			21.9	Gravel Pit	390ft SW
162.1	North Cottonwood Creek	838ft N	22.1	Residence	553ft NE				
169	Residence	151ft N	22.4	Residence	716ft NE				
169.4	Residence	355ft S	26.6	Irrigation Ditch	491ft SW				
170.7	Pivot	121ft S	28.3	Residence	291ft S				
7	Alternative 7J -A	0.5	Residence	406ft NE	8	Proposed – Total Length	28.7	Pivot	228ft NE
		2.9	Residence	769ft NE			38.3	Warm Spring	157ft NE
		4.9	Potter Creek	834ft NE			38.4	Residence	318ft NE
		5	Residence	370ft NE			39.3	Bell Mare Creek	627ft SW
		8-8.6	Caribou National Forest	Crossed			42.3	Buckbrush Draw	614ft N
		8.6-11.6	Caribou National Forest	125ft S			43.9	Walker Ditch	966ft S
		9.3-10	Elkhorn Mountain Roadless Area	125ft S			44.8 - 56.7	MUA-3 Lower Bennett	Crossed
		10.3	South Fork Hawkins Creek	615ft N			45.5	Cedar Spring	592ft S
		11.3	Hawkins Dam	1000ft N			46.2 - 46.8	Wind Energy	Crossed
		11.3	Hawkins Reservoir	900ft N			46.3 - 46.9	Oregon Trail Rutted Segments	Crossed
		11.7-12.8	Caribou National Forest	Crossed			49.6 - 50	Oregon Trail Rutted Segments	Crossed
		13.2-13.8	California Trail	Crossed			52.2	Residence	165ft SW
		40.2-41.1	Curlew National Grasslands	125ft S			55.1 - 55.8	Oregon Trail	Crossed
		42-44	Curlew National Grasslands	125ft S			55.3 - 55.8	Oregon Trail Rutted Segments	Crossed
		47.9-48.4	California Trail	Crossed			65.2 - 67.2	Morley Nelson Snake River Birds of Prey NCA	Crossed
		48.8	Eyrie Peak	896ft SE			70.4	Feeder Canal	959ft SW
		57.7	Silo	752ft N			83.3 - 83.6	LEPA MA 8	Crossed
		57.7	Warehouse	555ft N			85.4 - 89.3	LEPA MA 8	Crossed
		58.3-72.1	Raft River-Curlew Valley IBA	Crossed			93.5 - 98.3	LEPA MA 8B	Crossed
		67.2	Monument Canyon	28ft W			98.3 - 126.1	Morley Nelson Snake River Birds of Prey NCA	Crossed
		75.3-75.5	Raft River-Curlew Valley IBA	Crossed			98.5-107.7	Idaho National Guard Orchard Training Area	Crossed
		82.4-83	California Trail	Crossed			116.5 - 119.8	Guffey Butte/Black Butte Archaeological District	Crossed
		85.9-97.2	Raft River-Curlew Valley IBA	Crossed			117.4 - 119.5	Snake River Canyon SRMA	Crossed
		100.3	Sparks Spring	520ft N			117.5-117.9	Halverson Bar Non-motorized Area (BLM)	Crossed
		103.2-103.9	California Trail	Crossed			118 - 123.3	Birds of Prey Avoidance Area	Crossed
		111.3-112.2	California Trail	Crossed			118.1-118.5	Wees Bar Non-motorized Area (BLM)	Crossed
		112.3	California Trail	924ft NW			120.1	Con Shea Basin	867ft SE
		114.7-115.2	California Trail	Crossed			121.3 - 121.9	Oregon Trail	Crossed
		114.9	Pole Creek	177ft N			121.4 - 121.6	Oregon Trail SRMA	Crossed
		120	Sawtooth National Forest	906ft N			123.3 - 126.1	Owyhee Front SRMA	Crossed
		120.8	Mahogany Butte	316ft N			123.4 - 130.4	Black Mountain HMA	Crossed
		133.1	Willow Spring Creek	382ft SW			123.5	Residence	510ft N
		133.7	Middle Fork Hannahs Fork	575ft SW			123.6	Residence	566ft N
		133.7	North Fork Hannahs Fork	799ft SW			123.6	Residence	923ft N
		133.7	South Hannahs Fork	799ft SW			123.7	Residence	210ft N
		137.2	Structure	123ft NW			128.9	CAFO	888ft NE

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
8	Proposed – Total Length cont.	128.9	Structure	914ft NE	8	Alternative 8A cont.	25.6 - 46.5	MUA-7 Saylor Creek East	Crossed
		128.9	Structure	395ft NE			27.2	Fossil Gulch Canal	338ft N
		128.9	Structure	736ft NE			31.2	Wind Farm	239ft SW
		129	Structure	987ft NE			33.1 - 33.8	Oregon Trail	Crossed
		129.5 - 129.6	LF167310-Wilson Creek Sanitary LF	Crossed			33.6 - 33.9	Oregon Trail SRMA	Crossed
		130.4	Residence	768ft W			37 - 37.8	Oregon Trail SRMA	Crossed
		130.4	Residence	629ft SW			37.3 - 38.1	Oregon Trail	Crossed
		130.5	Residence	945ft E			43.6	Radio Tower	564ft NE
		130.5	Residence	929ft E			44.9 - 45.3	Oregon Trail SRMA	Crossed
		130.5	Residence	297ft E			45.9	Residence	633ft E
		130.6	Residence	478ft E			46	Residence	934ft W
		130.6	Residence	766ft E			46.1	Residence	654ft E
130.7	Residence	616ft SW	46.2	Residence	31ft NE				
8	Alternative 8A	1.5	Pivot	205ft N	8	Alternative 8B	0.1 - 3.5	LEPA MA 8	Crossed
		4.3	Residence	336ft N			8.1	Animal Pen	678ft S
		4.6	CAFO	166ft S			10.1 - 11.4	LEPA MA 8B	Crossed
		4.6	Residence	575ft S			13.1 - 13.6	LEPA MA 8B	Crossed
		4.7	Animal Pen	154ft N			19.1	Jackie Lynn	283ft S
		19.5	Residence	903ft S			19.3	Residence	501ft S
		20	Residence	367ft S			19.3	Residence	268ft N
		21.2	Pivot	141ft S			19.3	Residence	318ft N
		23.3	Billingsley Creek Wildlife Management Area	343ft S			19.3	Residence	509ft N
		23.3	Residence	257ft N			19.4	Residence	440ft N
		23.5	Justice Grade	769ft N			19.4	Residence	474ft N
		23.6	Residence	419ft NW			19.4	Residence	524ft N
		23.6	Residence	315ft NW			19.4	Residence	529ft N
		23.6	Residence	571ft NW			19.4	Residence	405ft N
		23.6	Residence	217ft N			19.4	Residence	363ft N
		23.7	Residence	469ft NW			20.3	Residence	815ft N
		23.7	Residence	46ft S			20.6	Residence	877ft N
		23.7	Residence	757ft S			20.8	Residence	958ft S
		23.7	Residence	360ft N			20.8	Residence	294ft N
		23.7	Residence	465ft N			21.4	Residence	32ft N
		23.8	Residence	928ft S			21.7	Vista	725ft S
		23.8	Residence	380ft NW			23.9	Sand Creek	353ft S
		23.8	Residence	632ft N			24	Residence	736ft S
		23.8	Residence	669ft NW			24.5	Residence	341ft N
		23.9	Residence	984ft N			26.5	Commercial Building	179ft N
		23.9	Residence	800ft S			27 - 27.5	LEPA MA 6	Crossed
		23.9	Residence	695ft S			28.1 - 28.8	Kuna city	Crossed
		23.9	Residence	476ft S			28.8 - 31.6	LEPA MA 6	Crossed
		23.9	Residence	454ft S			29.4	Gravel Pit	591ft S
		23.9	Residence	624ft S			30.2	Kuna Butte	271ft N
		23.9	Residence	712ft S			33.3	Residence	841ft W
		23.9	Residence	993ft S					
		23.9	Residence	831ft S					
		24	Residence	691ft S					
		24.0	Residence	315ft SE					
		24.0	Residence	340ft SE					
		24.0	Residence	916ft S					
		24.0	Residence	924ft S					
		24.1	Structure	409ft S					
		24.2	Residence	263ft S					
		24.2	Residence	342ft N					
		24.2	Residence	403ft N					
		24.3	Fish Farm	798ft N					
		24.5	Snake River	210ft N					
		24.5 - 25.6	MUA-8 Hagerman Fossil Beds	Crossed					

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
8	Alternative 8B cont.	33.3	Residence	398ft E	8	Alternative 8C	0.1 - 2	LEPA MA 8	Crossed
		33.9	Blue Sage Estates	3ft W			4.9 - 5.6	Mayfield Springs	Crossed
		33.9	Residence	163ft NW			4.9 - 5.2	Regina Heights	Crossed
		33.9	Residence	722ft W	5.1	Residence	441ft N		
		33.9 - 34	Colombani Estates	Crossed	8	Alternative 8D	0.1 - 0.4	Idaho National Guard Orchard Training Area	Crossed
		33.9 - 34.2	Sagebrush Ridge Estates	Crossed			0.1 - 8	Morley Nelson Snake River Birds of Prey NCA	Crossed
		34	Residence	730ft W			1.5	Residence	173ft S
		34.1	Residence	574ft W			4.4	Building/Industrial	543ft N
		34.3	Residence	70ft W			5.9	Animal Pen	479ft N
		34.3	Residence	421ft W	8	Alternative 8E	0-18.4	Morley Nelson Snake River Birds of Prey NCA	Crossed
		34.8	Silo	59ft W			8.7-10.2	Guffey Butte/Black Butte Archaeological District	Crossed
		35	Gravel Pit	195ft E			9.4-10.8	Snake River Canyon SRMA	Crossed
		37	Residence	278ft N	9	Proposed – Total Length	1	Antelope Valley	799ft N
		37.1	Animal Pen	37ft S			2.2	Residence	146ft S
		37.2	Residence	202ft N			3.9	Gravel Pit	645ft N
		37.2	Residence	9ft S			4.7	Indian Springs Estate	452ft N
		37.3	Residence	301ft S			6.4	Animal Pen	717ft S
		37.4	Residence	140ft N			6.5	Residence	417ft N
		37.4	Residence	83ft S			8.9	McMullen Creek Dam	735ft S
		37.7	Residence	338ft N			12.1 - 12.8	LF168312-Hub Butte	Crossed
		37.8	Warehouse	111ft S			12.7	Residence	62ft S
		37.9	Residence	176ft N			18.1 - 19.1	Wind Energy	Crossed
		37.9	Residence	134ft N			30.2	Lower Salmon Falls Creek	802ft SW
		38.5	Residence	129ft S			32.4 - 32.7	Salmon Falls Creek Canyon	Crossed
		39	Residence	20ft S			32.5 - 33	Active Mining Claims	Crossed
		39.4	Residence	179ft N			32.6 - 35.5	MUA-14 Salmon Falls Creek ACEC	Crossed
		39.7	Residence	173ft N			35.5 - 37.5	MUA-13 East Devil	Crossed
		40.4	Residence	170ft SE			37.5 - 46.6	MUA-12 West Devil	Crossed
		42.1	Residence	608ft SE			46.6 - 80.6	MUA-7 Saylor Creek East	Crossed
		42.2	Residence	463ft SE			56.9	Indian Ridge	694ft NE
		42.6	Deer Flat National Wildlife Refuge	683ft S			59.8 - 72.8	Saylor Creek HMA	Crossed
		42.8	Snake	445ft SE			76.5	Deadman Falls	790ft S
		43.5 - 44.1	Oregon Trail	Crossed			78.1	Water Tank	190ft N
		43.8	CAFO	924ft W			80.6 - 87.7	MUA-6 Saylor Creek West	Crossed
		43.8	Outbuilding	24ft E			87.6 - 96.4	Morley Nelson Snake River Birds of Prey NCA	Crossed
		43.8	Outbuilding	516ft E			96.6 - 98.7	MUA-6 Saylor Creek West	Crossed
		43.9	CAFO	671ft E			97.4	Residence	276ft NW
		43.9	Outbuilding	77ft E			98.8	Beeroth Canal	233ft S
		43.9	Outbuilding	36ft W			98.9	Bieroth Canal	625ft N
		43.9	Outbuilding	94ft E			98.9	Residence	720ft N
		43.9	Outbuilding	181ft E			99	Cemetery	344ft S
		43.9	Residence	38ft W			99.1	O X Cemetery	369ft S
		43.9	Residence	20ft E			100.5	Pivot	591ft NE
		43.9	Residence	199ft W			109.4	Residence	92ft N
		44	Residence	729ft E			110	Residence	308ft N
		44.2	Residence	248ft SE			115.7	Gravel Pit	43ft SW
		44.3	Residence	88ft N			118.7	Animal Pen	140ft S
		44.6	Residence	71ft N			118.8	Residence	251ft N
		44.9	Bernard Ditch	788ft S			119.3	Residence	179ft S
		45.1	Residence	937ft S			131.4	Residence	450ft N
		45.3	Residence	98ft N			132	Residence	124ft SW
		45.3	Residence	560ft S			132.8	Feeny Wells	324ft S
45.3	Residence	490ft N	134.2	Browns Creek			405ft SW		
45.3	Residence	923ft N	134.4	Residence			70ft NE		
45.5	Residence	575ft N	142 - 145.8	Owyhee Front SRMA			Crossed		
45.5	Residence	758ft N	142 - 145.8	Morley Nelson Snake River Birds of Prey NCA			Crossed		
			150.9 - 152.1	Owyhee Front SRMA			Crossed		

**Table D.17-1. Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives**

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
9	Proposed – Total Length cont.	150.9 - 152.1	Morley Nelson Snake River Birds of Prey NCA	Crossed	9	Alternative 9D cont.	15.9 - 16.6	Oregon Trail	Crossed
		151.1 - 160.6	Black Mountain HMA	Crossed			16	Structure	954ft NE
		158.5	Reynolds 2	66ft SW			17.1 - 58.1	Morley Nelson Snake River Birds of Prey NCA	Crossed
		160.5	Claypit	110ft E			16.3	Locust Park	902ft NE
		160.7	Residence	593ft E			16.9	C.J. Strike Reservoir SRMA	211ft E
		160.8	Residence	584ft E			18.1	Structure	272ft E
		161	Residence	776ft E			34.8-39.4	Idaho National Guard Orchard Training Area	Crossed
		161	Residence	805ft E			44.4-46.6	Guffey Butte/Black Butte Archaeological District	Crossed
		161.1	Residence	600ft E			45.2-46.8	Snake River Canyon SRMA	Crossed
		161.2	Residence	775ft E			46.5-48	Guffey Butte/Black Butte Archaeological District	Crossed
9	Alternative 9A	1.6	Residence	361ft N	9	Alternative 9E	46.7-56.9	Birds of Prey Avoidance Area	Crossed
		6.1	Gravel Pit	358ft S			47.6	Sinker Butte	775ft NE
9	Alternative 9B	0.6 - .7	Active Mining Claims	Crossed	9	Alternative 9E	55.2-55.8	Oregon Trail	Crossed
		1.3	Residence	9ft SW			55.3-55.5	Oregon Trail SRMA	Crossed
		6.2	Residence	894ft E			56.9-58.1	Owyhee Front SRMA	Crossed
		7.3	Residence	696ft E			56.9-58.2	Black Mountain HMA	Crossed
		8.7	CAFO	365ft E			0.1 - 2.5	Morley Nelson Snake River Birds of Prey NCA	Crossed
		9.1	Residence	561ft W			2.4 - 6.2	MUA-6 Saylor Creek West	Crossed
		9.3	Residence	515ft W			5.6	Buckaroo Dam	39ft N
		9.8 - 23.8	MUA-7 Saylor Creek East	Crossed			5.9	Harris Dam	817ft S
		12.1	Pivot	292ft E			5.9 - 9.6	Active Mining Claims	Crossed
		12.4	Pivot	119ft W			27.2 - 27.3	Active Mining Claims	Crossed
		13	Pivot	280ft W			28.1 - 29.1	Active Mining Claims	Crossed
		14.1	Pivot	395ft W			40.6 - 42.5	Active Mining Claims	Crossed
		17.4	Magic Water Canal	913ft E			43 - 43.3	Active Mining Claims	Crossed
		23.8 - 26.3	MUA-9 Hagerman ORV (Owsley Bridge)	Crossed			43.7 - 44.1	Active Mining Claims	Crossed
		25.6	Wind Energy	337ft SW			43.7 - 44.1	Active Mining Claims	Crossed
		26.3 - 52.3	MUA-7 Saylor Creek East	Crossed			51.2 - 52.3	Active Mining Claims	Crossed
		26.5 - 27.2	Wind Energy	Crossed			64.1 - 65.6	Active Mining Claims	Crossed
		28.4	Animal Pen	457ft NE			66.3	Murphy Y Annex	173ft W
		38.3 - 44.4	Saylor Creek HMA	Crossed			66.4 - 66.6	LF167311-Murphy L.F.	Crossed
		41.1	Gravel Pit	525ft S			66.5	Briar Creek	416ft W
46.1	Residence	613ft S	66.7 - 66.8	Murphy Y	Crossed				
46.7	Pivot	133ft N	66.8	South Fork Rabbit Creek	11ft E				
47.9	Warehouse	970ft SW	67.6 - 68.7	Black Mountain HMA	Crossed				
48	Pivot	60ft SW	68.4 - 68.5	Owyhee Front SRMA	Crossed				
48.4	Residence	906ft NE	68.4 - 68.5	Morley Nelson Snake River Birds of Prey NCA	Crossed				
49.1	Grindstone Ag Airport	398ft SW	0-1.4	Morley Nelson Snake River Birds of Prey NCA	Crossed				
52.3 - 53.2	MUA-6 Saylor Creek West	Crossed	1.5-3.6	MUA-6 Saylor Creek West	Crossed				
9	Alternative 9C	0.6 - .7	Active Mining Claims	Crossed	9	Alternative 9F	2.3	Residence	276ft NW
		1.3	Residence	9ft SW			3.7	Beeroth Canal	233ft S
		6.2	Residence	894ft E			3.8	Bieroth Canal	625ft N
		7.3	Residence	696ft E			3.8	Residence	720ft N
		8.7	CAFO	377ft E			4	Cemetery	344ft S
		9.1	Residence	300ft E			4.1	O X Cemetery	369ft S
		9.2	Residence	762ft E			5.5	Pivot	591ft NE
		9.6 - 15.2	MUA-7 Saylor Creek East	Crossed			14.4	Residence	92ft N
9	Alternative 9D	0.1 - 6.8	Morley Nelson Snake River Birds of Prey NCA	Crossed	9	Alternative 9F	14.9	Residence	308ft N
		7 - 9.4	MUA-6 Saylor Creek West	Crossed			19.7	Structure	380ft SE
		8.3 - 9.9	Oregon Trail	Crossed			20.5	Residence	867ft NE
		9.4 - 15.8	C.J. Strike SRMA	Crossed			20.6	Structure	882ft S
		9.4 - 15.8	Morley Nelson Snake River Birds of Prey NCA	Crossed			20.6	Residence	907ft SE
		9.9 - 12.1	C.J. Strike Reservoir SRMA	Crossed			21.6-62.8	Morley Nelson Snake River Birds of Prey NCA	Crossed
		12.2 - 12.8	C.J. Strike Reservoir SRMA	Crossed			22.6	Structure	272ft E
		12.3-14.1	Cove Non-motorized Area (BLM)	Crossed			39.3-43.9	Idaho National Guard Orchard Training Area	Crossed
		13.8 - 14.4	Oregon Trail	Crossed			50.2-51.4	Guffey Butte/Black Butte Archaeological District	Crossed
		14.1 - 14.3	Oregon Trail SRMA	Crossed			45.2-46.8	Snake River Canyon SRMA	Crossed
14.6 - 15.8	C.J. Strike Reservoir SRMA	Crossed	50.7-61.6	Birds of Prey Avoidance Area	Crossed				
			60-60.2	Oregon Trail SRMA	Crossed				
			61.6-62.8	Owyhee Front SRMA	Crossed				
			61.6-62.9	Black Mountain HMA	Crossed				

**Table D.17-1.** Specific Land Uses Crossed or Within 1,000 Feet of the Proposed Action and Alternatives

Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location	Segment Number	Proposed or Alternative Name	Milepost	Land Use/Feature Type	Location
9	Alternative 9G	0.1-6.8	Morley Nelson Snake River Birds of Prey NCA	Crossed	10	Proposed – Total Length	0.2	Midpoint Substation	456ft N
		7-9.4	MUA-6 Saylor Creek West	Crossed			0.2	Residence	724ft S
		8.3-9.9	Oregon Trail	Crossed			6.2	Residence	672ft NE
		9.4-15.8	C.J. Strike SRMA	Crossed			13.7	Residence	777ft W
		9.4-15.8	Morley Nelson Snake River Birds of Prey NCA	Crossed			13.8	Residence	494ft W
		9.9-12.1	C.J. Strike Reservoir SRMA	Crossed			13.8	Residence	782ft W
		12.2-12.8	C.J. Strike Reservoir SRMA	Crossed			13.9	Residence	372ft W
		12.3-14.1	Cove Non-motorized Area (BLM)	Crossed			15.3	Residence	815ft SW
		13.8-14.4	Oregon Trail	Crossed			15.5	Residence	181ft SW
		14.1-14.3	Oregon Trail SRMA	Crossed			15.5	Residence	63ft NE
		14.6-15.8	C.J. Strike Reservoir SRMA	Crossed			18.8	CAFO	31ft E
		15.9-16.6	Oregon Trail	Crossed			19.2	Residence	74ft E
		16	Structure	954ft NE			19.2	Residence	274ft W
		17.1-49.5	Morley Nelson Snake River Birds of Prey NCA	Crossed			19.6	Residence	180ft N
		16.3	Locust Park	902ft NE			20.1	Residence	739ft E
		16.9	C.J. Strike Reservoir SRMA	211ft E			20.5	Residence	972ft E
		18.1	Structure	272ft E			22.4	Residence	583ft E
		34.8-39.4	Idaho National Guard Orchard Training Area	Crossed			25.2	Residence	688ft SE
		43.4-44.3	Guffey Butte/Black Butte Archaeological Area	Crossed			25.3	Residence	490ft NW
		44.3-49.5	Birds of Prey Avoidance Area	Crossed			30.1 - 30.6	Oregon Trail	Crossed
		49.9-56.3	Morley Nelson Snake River Birds of Prey NCA	Crossed			30.4	Residence	884ft W
		49.9-56.3	Birds of Prey Avoidance Area	Crossed			32.1	Pivot	246ft W
		54.2-54.4	Oregon Trail SRMA	Crossed			33.2	Residence	28ft E
55.2-56.3	Owyhee Front SRMA	Crossed	33.3	CAFO	9ft E				
55.3-56.4	Black Mountain HMA	Crossed	33.3	Residence	781ft E				
9	Alternative 9H	0-1.4	Morley Nelson Snake River Birds of Prey NCA	Crossed					
		1.5-3.6	MUA-6 Saylor Creek West	Crossed					
		2.3	Residence	276ft NW					
		3.7	Beerth Canal	233ft S					
		3.8	Bieroth Canal	625ft N					
		3.8	Residence	720ft N					
		4	Cemetery	344ft S					
		4.1	O X Cemetery	369ft S					
		5.5	Pivot	591ft NE					
		14.4	Residence	92ft N					
		14.9	Residence	308ft N					
		19.7	Structure	380ft SE					
		20.5	Residence	867ft NE					
		20.6	Structure	882ft S					
		20.6	Residence	907ft SE					
		21.6-54	Morley Nelson Snake River Birds of Prey NCA	Crossed					
		22.6	Structure	272ft E					
		39.3-43.9	Idaho National Guard Orchard Training Area	Crossed					
		47.9-48.8	Guffey Butte/Black Butte Archaeological Area	Crossed					
		48.8-54	Birds of Prey Avoidance Area	Crossed					
		54.4-60.8	Morley Nelson Snake River Birds of Prey NCA	Crossed					
		54.4-60.8	Birds of Prey Avoidance Area	Crossed					
		58.8-59	Oregon Trail SRMA	Crossed					
59.7-60.8	Owyhee Front SRMA	Crossed							
59.8-60.9	Black Mountain HMA	Crossed							

**Table D.19-1. Roads, Railroads and Bridges Within One Mile of Project Centerline**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Road Types (Miles)			Total Road Miles	Railroad Miles	Bridges		
			County-Maintained Highways or Numbered/Lettered Routes	State Highway	US Highway			Interstate	Number of Bridges in Inventory <sup>1/</sup>	Notes
1E	Proposed – Total Length	100.6	30.5	4.1	2.8	13.4	50.8	8.8	14	One is posted for load One has op rating of 11.7 metric tons
	Proposed – Comparison portion for Alternative 1E-A	17.6	12.5	2.0	2.8	13.4	30.7	8.8	12	
	Alternative 1E-A	16.1	11.0	t <sup>2/</sup>	2.0	4.2	17.2	7.1	8	
	Proposed – Comparison portion for Alternative 1E-B	37.9	8.6	2.1			10.7		1	
	Alternative 1E-B	59.3	6.6	8.4			15.0		3	
	Proposed – Comparison portion for Alternative 1E-C	75.4	17.2	2.1			19.3		2	One is posted for load One has op rating of 11.7 metric tons
1W	Alternative 1E-C	48.7	6.4	17.6			24.0		1	
	1W(a) Proposed – Total Length	76.5	11.8	20.0	2.2	5.6	39.6	11.6	4	
	Proposed – Comparison portion for Alternative 1W-A	20.3	3.9	2.7	2.2	5.6	14.4	11.6	3	
	Alternative 1W-A	16.2	14.5	t <sup>2/</sup>	2.0	4.2	20.7	7.3	9	
2	1W(c) Proposed – Total Length	70.6	17.2	16.7	2.0	7.1	43.0	7.8	13	
	Proposed – Total Length	96.7	9.0	6.7	19.6	10.4	45.7	16.4	8	One is posted for load
	Proposed – Comparison portion for Alternative 2A	28.8	0.3	2.1	16.4	10.4	29.3	10.7	8	One is posted for load
	Alternative 2A	28.4	1.8	3.0	5.5	10.4	20.6	31.4	1	
	Proposed – Comparison portion for Alternative 2B	7.0	0.3			9.7	10.1	1.8	7	One is posted for load
	Alternative 2B	6.2	1.8			10.0	11.9	3.4	5	One is posted for load
3	Proposed – Comparison portion for Alternative 2C	28.4	3.0	2.3	19.4		24.7	11.7	1	
	Alternative 2C	24.4			3.7		3.7	15.9		
4	Proposed – Total Length	56.5	18.8	9.1		40.9	68.8	16.2	10	
	Proposed – Total Length	203.0	50.5	27.3	17.5		95.3	21.0	4	
	Proposed – Comparison portion for Alternatives 4A-4F	90.2	12.2	11.5	6.3		30.1	7.8		
	Alternative 4A	85.2	14.7	12.0	6.0		32.8	13.3	2	
	Alternative 4B	100.2	17.6	3.5	16.5		37.5	31.1	9	
	Alternative 4C	101.6	15.1	2.8	30.9		48.8	47.3	10	
	Alternative 4D	100.8	16.2	3.5	10.7		30.4	27.0	5	
	Alternative 4E	102.2	13.8	2.8	25.2		41.7	43.2	6	
5	Alternative 4F	87.5	10.0	12.8	5.6		28.3	10.3		
	Proposed – Total Length	54.6	2.0	1.3		11.0	14.3	2.6	3	
	Proposed – Comparison portion for Alternatives 5A,B	25.3							1 <sup>1/</sup>	
	Alternative 5A	33.7								
	Alternative 5B	44.4								
	Proposed – Comparison portion for Alternatives 5C	33.2							1 <sup>1/</sup>	
	Alternative 5C	26.1								
	Proposed – Comparison portion for Alternatives 5D	19.4		0.9		5.9	6.8	2.6	2	
6	Alternative 5D	17.5				4.7	4.7	2.7	4	
	Proposed – Comparison portion for Alternatives 5E	5.8		0.9		5.9	6.8	2.6	2	
	Alternative 5E	5.3		1.0		5.2	6.2	3.0	2	
6	Proposed – Total Length	0.5			1.5		1.5	2.7		

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Inventoried bridges include those carrying routes smaller than county lettered/numbered routes

<sup>2/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

**Table D.19-1. Roads, Railroads and Bridges Within One Mile of Project Centerline cont.**

Segment Number	Proposed or Alternative Name	Segment Length (Miles)	Road Types (Miles)			Total Road Miles	Railroad Miles	Bridges		
			County-Maintained Highways or Numbered/Lettered Routes	State Highway	US Highway			Interstate	Number of Bridges in Inventory <sup>1/</sup>	Notes
7	Proposed – Total Length	118.1	5.6	5.2		16.3	27.2	2.4	14	
	Proposed – Comparison portion for Alternatives 7A,B	35.2		0.2			0.2		2	
	Alternative 7A	38.0		0.6			0.6		1	
	Alternative 7B	46.4		1.0			1.0			
	Proposed – Comparison portion for Alternative 7C	20.1				11.0	11.0		6	
	Alternative 7C	20.3				4.0	4.0		2	
	Proposed – Comparison portion for Alternative 7D	6.2		2.4		4.1	6.5		2	
	Alternative 7D	6.8		3.5		4.8	8.2		2	
	Proposed – Comparison portion for Alternative 7E	3.8	1.3	2.1			3.4		1	
	Alternative 7E	4.5	1.3	1.2			2.5			
	Proposed – Comparison portion for Alternative 7F	10.5	1.3	2.1			3.4		2	
	Alternative 7F	10.8	1.3	1.1			2.4			
	Proposed – Comparison portion for Alternative 7G	3.1								
	Alternative 7G	3.2								
	Proposed – Comparison portion for Alternatives 7H,I	118.1	5.6	5.2		16.3	27.2	2.4	14	
Alternative 7H	127.5	1.9	8.1		11.6	21.6		8	Two are posted for load One has op rating of 11.7 metric tons	
Alternative 7I	173.4	1.9	4.0		11.6	17.5		6		
Proposed – Comparison portion 7/9 for Alternative 7J <sup>3/</sup>	143.9		10.3	2.0	8.2	16.4	4.5	15		
Alternative 7J <sup>3/</sup>	202.1		4.6	2.0	5.7	9.5	2.4	6		
8	Proposed – Total Length	131.0	1.3	8.6	5.9	9.1	25.0	7.5	4	
	Proposed – Comparison portion for Alternative 8A	51.4	1.3	2.0	3.9		7.3	3.1	1	
	Alternative 8A	53.6	3.2	0.7	2.0	10.3	16.1	6.9	10	Two are posted for load
	Proposed – Comparison portion for Alternative 8B	45.3		6.6		9.1	15.7	4.4	2	
	Alternative 8B	45.8	4.3	3.1		11.5	18.9	14.7	12	
	Proposed – Comparison portion for Alternative 8C	6.5				11.4	11.4		6	
	Alternative 8C	6.4				5.5	5.5		4	
	Proposed – Comparison portion for Alternative 8D	6.9								
	Alternative 8D	8.1								
Proposed – Comparison portion for Alternative 8E	7.0									
Alternative 8E	18.5									
9	Proposed – Total Length	161.7	2.0	23.7			25.7	2.1	3	
	Proposed – Comparison portion for Alternative 9A	7.8	0.2				0.2			
	Alternative 9A	7.7	0.2				0.2			
	Proposed – Comparison portion for Alternative 9B	49.5							1 <sup>1/</sup>	
	Alternative 9B	53.2							1 <sup>1/</sup>	
	Proposed – Comparison portion for Alternative 9C	14.7							1 <sup>1/</sup>	
	Alternative 9C	15.3							1 <sup>1/</sup>	
	Proposed – Comparison portion for Alternatives 9D-9H	57.2		22.6			22.6		1	
	Alternative 9D	58.4		10.5			10.5		2	
	Alternative 9E	68.7		3.7			3.7		3	
	Alternative 9F	62.9		11.8			11.8		2	
Alternative 9G	56.4		10.1			10.1		3		
Alternative 9H	61.0		11.9			11.9		3		
10	Proposed – Total Length	33.6	2.3	6.1	1.8	4.0	14.3	4.8	7	

Note: Mileages have been rounded to the nearest tenth of a mile; therefore, numbers are inexact and columns/rows may not sum exactly

<sup>1/</sup> Inventoried bridges include those carrying routes smaller than county lettered/numbered routes

<sup>2/</sup> "t" indicates only a trace amount (<0.1 mile) crossed

<sup>3/</sup> Alternative 7J connects with Segment 9 approximately 25.8 miles west of the proposed Cedar Hill Substation, which is the western terminus of Segment 7 and the beginning point for Segment 9. The table above compares 7J (202 miles) with the corresponding portion of Segment 7/9 (118.1 miles of Segment 7 and 25.8 miles of Segment 9, for a total of 143.9 miles). All other Segment 7 alternatives are compared to Segment 7 of the Proposed Route (118.1 miles) only.