

1 **APPENDIX I**  
2 **Friant-Kern Canal Middle Reach Capacity Correction Project**  
3 **Transportation Assumptions**



— BUREAU OF —  
RECLAMATION

**Bureau of Reclamation**  
**Interior Region 10 California-Great Basin**  
**California\*, Nevada\*, Oregon\***  
**\*Partial**



September 2020



Appendix I  
Transportation Assumptions

- 1 This document provides vehicle assumptions that were used to estimate the expected
- 2 transportation impacts resulting from the Canal Enlargement and Realignment and Canal
- 3 Enlargement Alternatives for the Friant-Kern Canal Middle Reach Capacity Correction Project.

**Canal Enlargement and Realignment (CER) Alternative - ADT**

Description	Type of vehicle	Number of Vehicles	Construction Duration (months)	2021												2022											
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Segment 4 Canal lining	Passenger car	10	7																					20	20		
Segment 1 Canal lining	Passenger car	10	9																								
Excavation	Passenger car	40	16					80	80	80	80	80	80	80	80	80	80	80	80	80	80	80					
	Heavy Vehicle <sup>1</sup>	2						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8					
New canal lining	Passenger car	25	9														50	50	50	50	50	50	50	50	50		
Siphons	Passenger car	36	19					72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72		
	Heavy Vehicle <sup>1</sup>	12						48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48		
Check Structures	Passenger car	12	14	24	24	24	24	24	24	24						24	24	24	24	24	24	24					
	Heavy Vehicle <sup>1</sup>	4				16	16	16	16								16	16	16	16							
Utility relocation	Passenger car	4	4	8	8	8	8																				
	Heavy Vehicle <sup>1</sup>	1		4	4	4	4																				
Well abandonment	Passenger car	2	1.5	4	4																						
	Heavy Vehicle <sup>1</sup>	1		4	4																						
Concrete Batch Plant	Passenger car	6	41	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
	Heavy Vehicle <sup>1</sup>	6		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24		
<b>Total</b>				80	80	88	88	284	284	268	244	244	244	244	244	268	268	334	334	334	334	318	294	206	206	226	56

**Canal Enlargement and Realignment (CER) Alternative - ADT**

Description	Type of vehicle	Number of Vehicles	Construction Duration (months)	2023												2024											
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Segment 4 Canal lining	Passenger car	10	7	20	20	20	20	20																			
Segment 1 Canal lining	Passenger car	10	9									20	20	20	20	20	20	20	20								
Excavation	Passenger car	40	16																								
	Heavy Vehicle <sup>1</sup>	2																									
New canal lining	Passenger car	25	9																								
Siphons	Passenger car	36	19																								
	Heavy Vehicle <sup>1</sup>	12																									
Check Structures	Passenger car	12	14																								
	Heavy Vehicle <sup>1</sup>	4																									
Utility relocation	Passenger car	4	4																								
	Heavy Vehicle <sup>1</sup>	1																									
Well abandonment	Passenger car	2	1.5																								
	Heavy Vehicle <sup>1</sup>	1																									
Concrete Batch Plant	Passenger car	6	41	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12								
	Heavy Vehicle <sup>1</sup>	6		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24								
<b>Total</b>				56	56	56	56	56	36	36	36	56	56	56	56	56	56	56	56	0	0	0	0	0	0		

**Canal Enlargement (CE) Alternative - ADT**

Description	Type of Vehicle	Number of Vehicles	Construction Duration (in months)	2021												2022											
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Segment 4 Canal lining	Passenger car	10	7																								
	Heavy Vehicle <sup>1</sup>	5																									
Segment 1 Canal lining	Passenger car	10	9																								
	Heavy Vehicle <sup>1</sup>	5																									
Canal Widening/Lining	Passenger Car	20	24											40	40	40								40			
Excavation	Passenger Car	20	20											40	40	40	40							40	40		
	Heavy Vehicle <sup>1</sup>	1												4	4	4	4							4	4		
Bridges/Siphons	Passenger Car	20	36										40	40	40	40							40	40	40	40	
	Heavy Vehicle <sup>1</sup>	12											48	48	48	48							48	48	48	48	
Check Structures	Passenger Car	12	14	24	24	24	24	24	24	24							24	24	24	24	24	24	24				
	Heavy Vehicle <sup>1</sup>	4				16	16	16	16									16	16	16	16						
Utility relocation	Passenger Car	4	4												8										8		
	Heavy Vehicle <sup>1</sup>	1													4										4		
Well abandonment	Passenger Car	2	1	4																							
	Heavy Vehicle <sup>1</sup>	1		4																							
Concrete Batch Plant	Passenger car	6		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
	Heavy Vehicle <sup>1</sup>	3		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
<b>Total</b>				<b>56</b>	<b>48</b>	<b>64</b>	<b>64</b>	<b>64</b>	<b>64</b>	<b>48</b>	<b>24</b>	<b>112</b>	<b>112</b>	<b>156</b>	<b>208</b>	<b>132</b>	<b>132</b>	<b>64</b>	<b>64</b>	<b>64</b>	<b>48</b>	<b>24</b>	<b>112</b>	<b>112</b>	<b>156</b>	<b>208</b>	

**Canal Enlargement (CE) Alternative - ADT**

Description	Type of Vehicle	Number of Vehicles	Construction Duration (in months)	2023												2024												
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Segment 4 Canal lining	Passenger car	10	7																									
	Heavy Vehicle <sup>1</sup>	5																										
Segment 1 Canal lining	Passenger car	10	9																									
	Heavy Vehicle <sup>1</sup>	5																										
Canal Widening/Lining	Passenger Car	20	24	40	40									40	40	40								40				
Excavation	Passenger Car	20	20	40	40									40	40	40	40						40	40				
	Heavy Vehicle <sup>1</sup>	1		4	4									4	4	4	4						4	4				
Bridges/Siphons	Passenger Car	20	36										40	40	40	40						40	40	40	40			
	Heavy Vehicle <sup>1</sup>	12											48	48	48	48						48	48	48	48			
Check Structures	Passenger Car	12	14																									
	Heavy Vehicle <sup>1</sup>	4																										
Utility relocation	Passenger Car	4	4											8										8				
	Heavy Vehicle <sup>1</sup>	1												4										4				
Well abandonment	Passenger Car	2	1																									
	Heavy Vehicle <sup>1</sup>	1																										
Concrete Batch Plant	Passenger car	6		12	12									12	12	12								12				
	Heavy Vehicle <sup>1</sup>	3		12	12									12	12	12								12				
<b>Total</b>				<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>	<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>

**Canal Enlargement (CE) Alternative - ADT**

Description	Type of Vehicle	Number of Vehicles	Construction Duration (in months)	2025												2026												
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Segment 4 Canal lining	Passenger car	10	7																									
	Heavy Vehicle <sup>1</sup>	5																										
Segment 1 Canal lining	Passenger car	10	9																									
	Heavy Vehicle <sup>1</sup>	5																										
Canal Widening/Lining	Passenger Car	20	24	40	40									40	40	40								40				
Excavation	Passenger Car	20	20	40	40									40	40	40	40							40	40			
	Heavy Vehicle <sup>1</sup>	1		4	4									4	4	4	4							4	4			
Bridges/Siphons	Passenger Car	20	36										40	40	40	40							40	40	40	40		
	Heavy Vehicle <sup>1</sup>	12											48	48	48	48							48	48	48	48		
Check Structures	Passenger Car	12	14																									
	Heavy Vehicle <sup>1</sup>	4																										
Utility relocation	Passenger Car	4	4											8											8			
	Heavy Vehicle <sup>1</sup>	1												4											4			
Well abandonment	Passenger Car	2	1																									
	Heavy Vehicle <sup>1</sup>	1																										
Concrete Batch Plant	Passenger car	6		12	12									12	12	12									12			
	Heavy Vehicle <sup>1</sup>	3		12	12									12	12	12									12			
<b>Total</b>				<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>	<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>



**Canal Enlargement (CE) Alternative - ADT**

Description	Type of Vehicle	Number of Vehicles	Construction Duration (in months)	2027												2028												
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Segment 4 Canal lining	Passenger car	10	7																									
	Heavy Vehicle <sup>1</sup>	5																										
Segment 1 Canal lining	Passenger car	10	9																									
	Heavy Vehicle <sup>1</sup>	5																										
Canal Widening/Lining	Passenger Car	20	24	40	40									40	40	40								40				
Excavation	Passenger Car	20	20	40	40									40	40	40	40							40	40			
	Heavy Vehicle <sup>1</sup>	1		4	4									4	4	4	4							4	4			
Bridges/Siphons	Passenger Car	20	36										40	40	40	40							40	40	40	40		
	Heavy Vehicle <sup>1</sup>	12											48	48	48	48							48	48	48	48		
Check Structures	Passenger Car	12	14																									
	Heavy Vehicle <sup>1</sup>	4																										
Utility relocation	Passenger Car	4	4												8										8			
	Heavy Vehicle <sup>1</sup>	1													4										4			
Well abandonment	Passenger Car	2	1																									
	Heavy Vehicle <sup>1</sup>	1																										
Concrete Batch Plant	Passenger car	6		12	12										12	12	12								12			
	Heavy Vehicle <sup>1</sup>	3		12	12										12	12	12								12			
<b>Total</b>				<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>	<b>108</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>88</b>	<b>132</b>	<b>208</b>

**Canal Enlargement (CE) Alternative - ADT**

Description	Type of Vehicle	Number of Vehicles	Construction Duration (in months)	2029												2030											
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Segment 4 Canal lining	Passenger car	10	7					20	20	20	20	20	20	20													
	Heavy Vehicle <sup>1</sup>	5						20	20	20	20	20	20	20													
Segment 1 Canal lining	Passenger car	10	9											20	20	20	20	20	20	20	20						
	Heavy Vehicle <sup>1</sup>	5												20	20	20	20	20	20	20	20						
Canal Widening/Lining	Passenger Car	20	24	40	40																						
Excavation	Passenger Car	20	20	40	40																						
	Heavy Vehicle <sup>1</sup>	1		4	4																						
Bridges/Siphons	Passenger Car	20	36			40	40	40	40	40	40	40	40	40	40	40											
	Heavy Vehicle <sup>1</sup>	12				48	48	48	48	48	48	48	48	48	48	48											
Check Structures	Passenger Car	12	14																								
	Heavy Vehicle <sup>1</sup>	4																									
Utility relocation	Passenger Car	4	4																								
	Heavy Vehicle <sup>1</sup>	1																									
Well abandonment	Passenger Car	2	1																								
	Heavy Vehicle <sup>1</sup>	1																									
Concrete Batch Plant	Passenger car	6				12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12						
	Heavy Vehicle <sup>1</sup>	3				12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12						
<b>Total</b>				84	84	24	112	152	152	152	152	152	152	152	152	152	152	152	64	64	64	64	0	0			