

Primary Equipment Description	CalEEMod Classification	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Quantity	Estimated Schedule (Days)	Estimated Schedule (Days)	Utilization (Hrs./Day)	Horse-Power	Load Factor	Utilization (Hrs./Day)	Project total		Paved %	Total Trips	Avg Distance	Fx Paved Avg	% Paved Avg	Vendor Trip	Vendor Trip Distance	% paved		
												Hrs	mil/day									VMT	
Survey				4	8	863	863					25	172600						2	50			
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	863	863	10			10	50	86300	0.99									
<b>Staging Yard</b>				5	10	863	863					25	215750		3452	20	1	74	1	50			
R/T Forklift	Forklifts	Diesel	1		1	863	863	5	350	0.2	5	1750	0	0									
1-Ton Truck, 4x4	Onroad MD	Diesel	1		1	863	863	4			4	50	43150	0.99									
Water Truck	Onroad HHD	Diesel	2		2	863	863	10			10	10	17260	0.1	3452	20	74%						
Boom/Crane Truck	Onroad HHD	Diesel	1		1	863	863	5			5	30	25890	0.9									
Truck, Semi-Tractor	Onroad HHD	Diesel	1		1	863	863	6			6	30	25890	1									
<b>Tree Trimming &amp; Removal</b>				5	10	30	30					25	7500		60	30	1	90	1	50			
Chipper	Other Genera	Gas	1		1	30	30	4	50	0.34	4	200	0	0									
Stump Grinder	Other Genera	Gas	1		1	30	30	6	25	0.34	6	150	0	0									
1-Ton Truck, 4x4	Onroad MD	Diesel	1		1	30	30	8			8	50	1500	0.99									
Manlift/Bucket Truck	Onroad HHD	Diesel	1		1	30	30	8			8	30	900	0.9	60	30	90%						
Dump Truck, 4x4	Onroad HHD	Diesel	1		1	30	30	8			8	30	900	0.9									
<b>Roads &amp; Landing Work</b>				5	10	33	33					25	8250		74	12	0	34	2	50			
Backhoe/Front Loader	Tractors/Loac	Diesel	1		1	33	33	4	350	0.37	4	1400	0	0									
Track Type Dozer	Tractors/Loac	Diesel	1		1	33	33	4	350	0.37	4	1400	0	0									
Motor Grader	Graders	Diesel	1		1	33	33	6	350	0.41	6	2100	0	0									
Drum Type Compactor	Rollers	Diesel	1		1	33	33	6	250	0.38	6	1500	0	0									
Excavator	Excavators	Diesel	1		1	33	33	4	300	0.38	4	1200	0	0									
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	33	33	8			8	50	3300	0.99									
Water Truck	Onroad HHD	Diesel	2		2	33	33	8			8	10	660	0.1	74	12	34%						
Lowboy Truck/Trailer	Onroad HHD	Diesel	1		1	8	8	4			4	30	240	0.99									
<b>Wet Crossing Installation</b>				6	12	12	12					25	3600		72	17	0.847	85	1	50			
Tracked Excavator	Excavators	Diesel	1		1	12	12	8	250	0.38	8	2000	0	0									
Rubber Tire Backhoe	Rough Terrai	Diesel	1		1	12	12	8	125	0.4	8	1000	0	0									
Wheel Loader	Tractors/Loac	Diesel	1		1	12	12	8	250	0.37	8	2000	0	0									
1-Ton Truck, 4x4	Onroad MD	Diesel	1		1	12	12	8			8	50	600	0.99									
Dump Truck	Onroad HHD	Diesel	2		2	12	12	8			8	30	720	0.9	72	17	85%						
Water Truck	Onroad HHD	Diesel	1		1	12	12	10			10	10	120	0.1									
Concrete Truck	Onroad HHD	Diesel	3		3	12	12	4			4	10	360	0.99									
<b>TSP Foundation Install</b>				5	10	274	274					25	68500		1644	20	1	85	2	50			
Backhoe/Front Loader	Tractors/Loac	Diesel	1		1	274	274	10	200	0.37	10	2000	0	0									
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	274	274	5			5	50	27400	0.99									
Water Truck	Onroad HHD	Diesel	1		1	274	274	10			10	10	2740	0.1	1644	20	85%						
Auger Truck	Onroad HHD	Diesel	1		1	274	274	10			10	30	8220	0.9									
Dump Truck	Onroad HHD	Diesel	1		1	274	274	10			10	30	8220	0.9									
Boom/Crane Truck	Onroad HHD	Diesel	1		1	274	274	7			7	30	8220	0.9									
Concrete Mixer Truck	Onroad HHD	Diesel	2		2	274	274	6			6	10	5480	0.99									
<b>TSP Haul</b>				5	10	35	35					25	8750		140	25	1	87	2	50			
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	35	35	8			8	50	3500	0.99									
Flat Bed Pole Truck	Onroad HHD	Diesel	2		2	35	35	10			10	30	2100	0.99	140	25	87%						
Boom/Crane Truck	Onroad HHD	Diesel	1		1	35	35	8			8	30	1050	0.9									
Water Truck	Onroad HHD	Diesel	1		1	35	35	10			10	10	350	0.1									
<b>TSP Assembly</b>				5	10	137	137					25	34250		274	20	1	70	4	50			
Compressor Trailer	Air Compress	Diesel	1		1	137	137	6	60	0.48	6	360	0	0									
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	137	137	6			6	50	13700	0.99	0	0							



Primary Equipment Description	CalEEMod Classification	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Quantity	Estimated Schedule (Days)	Estimated Schedule (Days)	Utilization (Hrs./Day)	Horse-Power	Load Factor	Utilization (Hrs./Day)	Project total		Paved %	Total Trips	Avg Distance	Fx Paved Avg	% Paved Avg	Vendor Trip	Vendor Trip Distance	% paved			
												Hrs	mil/day									VMT		
Helicopter Support Truck	Onroad HHD	Diesel	1		1	87	87	8			8		10	870	0.9									
Medium/Heavy-duty Helicopter	Helicopter	Jet A	1		1	87	87	6			6	522	0											
<b>WP Pole Haul</b>					<b>5</b>	<b>10</b>	<b>141</b>	<b>141</b>					<b>25</b>	<b>35250</b>		<b>423</b>	<b>23</b>	<b>1</b>	<b>82</b>	<b>1</b>	<b>50</b>			
3/4-Ton Truck, 4x4	Onroad MD	Gas	1		1	141	141	10			10		50	7050	0.99	0	0							
Water Truck	Onroad HHD	Diesel	1		1	141	141	10			10		10	1410	0.1	423	23	82%						
Boom/Crane Truck	Onroad HHD	Diesel	1		1	141	141	8			8		30	4230	0.9									
Flat Bed Pole Truck	Onroad HHD	Diesel	1		1	141	141	10			10		30	4230	0.99									
<b>WP Pole Assembly</b>					<b>5</b>	<b>10</b>	<b>141</b>	<b>141</b>					<b>25</b>	<b>35250</b>		<b>282</b>	<b>20</b>	<b>1</b>	<b>70</b>	<b>4</b>	<b>50</b>			
Compressor Trailer	Air Compress	Diesel	1		1	141	141	6	60	0.48	6	360	0		0									
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	141	141	6			6		50	14100	0.99	0	0							
1-Ton Truck, 4x4	Onroad MD	Gas	2		2	141	141	10			10		50	14100	0.99									
Boom/Crane Truck	Onroad HHD	Diesel	1		1	141	141	10			10		30	4230	0.9	282	20	70%						
Water Truck	Onroad HHD	Diesel	1		1	141	141	8			8		10	1410	0.1									
<b>WP Pole Install</b>					<b>5</b>	<b>10</b>	<b>141</b>	<b>141</b>					<b>25</b>	<b>35250</b>		<b>987</b>	<b>21</b>	<b>1</b>	<b>87</b>	<b>1</b>	<b>50</b>			
Backhoe/Front Loader	Tractors/Load	Diesel	1		1	141	141	10	125	0.37	10	1250	0		0									
1-Ton Truck, 4x4	Onroad MD	Gas	1		1	141	141	6			6		50	7050	0.99	0	0							
Water Truck	Onroad HHD	Diesel	1		1	141	141	10			10		10	1410	0.1	987	21	87%						
Boom/Crane Truck	Onroad HHD	Diesel	1		1	141	141	7			7		30	4230	0.9									
Manlift/Bucket Truck	Onroad HHD	Diesel	1		1	141	141	10			10		30	4230	0.9									
Auger Truck	Onroad HHD	Diesel	1		1	141	141	8			8		30	4230	0.9									
Extendable Flat Bed Pole	Onroad HHD	Diesel	1		1	141	141	6			6		30	4230	0.99									
Jet A Fuel Truck	Onroad HHD	Diesel	1		1	141	141	4			4		10	1410	0.99									
Helicopter Support Truck	Onroad HHD	Diesel	1		1	141	141	8			8		10	1410	0.9									
Medium/Heavy-duty Helicopter	Helicopter	Jet A	1		1	141	141	6			6	846	0		0									
<b>Guard Structure Installation / Removal</b>					<b>6</b>	<b>12</b>	<b>38</b>	<b>38</b>					<b>25</b>	<b>11400</b>					<b>152</b>	<b>25</b>	<b>1</b>	<b>85</b>	<b>4</b>	<b>50</b>
Compressor Trailer	Air Compress	Diesel	2		2	38	38	7	60	0.48	7	840	0		0									
Backhoe/Front Loader	Tractors/Load	Diesel	1		1	38	38	10	350	0.37	10	3500	0		0									
Auger Truck	Onroad HHD	Diesel	1		1	38	38	8			8		30	1140	0.9									
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	38	38	8			8		50	3800	0.99									
1-Ton Truck, 4x4	Onroad MD	Gas	2		2	38	38	8			8		50	3800	0.99									
Water Truck	Onroad HHD	Diesel	1		1	38	38	5			5		10	380	0.1	152	25	85%						
Manlift/Bucket Truck	Onroad HHD	Diesel	1		1	38	38	8			8		30	1140	0.9									
Boom/Crane Truck	Onroad HHD	Diesel	1		1	38	38	10			10		30	1140	0.9									
Extendable Flat Bed Pole	Onroad HHD	Diesel	1		1	38	38	8			8		30	1140	0.99									
<b>Remove/Install Conductor and OPGW/OHGW</b>					<b>0</b>	<b>17</b>	<b>17</b>						<b>25</b>	<b>0</b>					<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>
Conductor Splicing Rig	Other Constr	Diesel	1		1	17	17	10	350	0.42	10	3500	0		0									
Fiber Splicing Lab	Other Constr	Diesel	1		1	17	17	10	300	0.42	10	3000	0		0									
Backhoe/Front Loader	Tractors/Load	Diesel	1		1	17	17	10	125	0.37	10	1250	0		0									
<b>Remove/Install Conductor and OPGW/OHGW</b>					<b>5</b>	<b>10</b>	<b>168</b>	<b>168</b>					<b>25</b>	<b>42000</b>		<b>1950</b>	<b>22</b>	<b>1</b>	<b>92</b>	<b>3</b>	<b>50</b>			
Sock Line Puller	Other Constr	Diesel	1		1	168	168	10	300	0.42	10	3000	0		0									
Bull Wheel Puller	Other Constr	Diesel	1		1	168	168	10	350	0.42	10	3500	0		0									
Hydraulic Rewind Puller	Other Constr	Diesel	1		1	168	168	10	350	0.42	10	3500	0		0									
Static Truck/Tensioner	Onroad HHD	Diesel	1		1	168	168	10			10		10	1680	0.99									
3/4-Ton Truck, 4x4	Onroad MD	Gas	1		1	168	168	10			10		50	8400	0.99									
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	168	168	4			4		50	16800	0.99									
Dump Truck	Onroad HHD	Diesel	1		1	168	168	10			10		30	5040	0.9									
Wire Truck/Trailer	Onroad HHD	Diesel	2		2	168	168	10			10		10	3360	0.99									
Truck, Semi-Tractor	Onroad HHD	Diesel	2		2	168	168	10			10		30	10080	1									

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												Hrs	mil/day	VMT											
Manlift/Bucket Truck	Onroad HHD	Diesel	1		1	168	168	10			10		30	5040	0.9	1950	22	92%							
Boom/Crane Truck	Onroad HHD	Diesel	1		1	168	168	10			10		30	5040	0.9										
Lowboy Truck/Trailer	Onroad HHD	Diesel	2		2	168	168	10			10		30	10080	0.99										
Jet A Fuel Truck	Onroad HHD	Diesel	1		1	135	135	4			4		10	1350	0.99										
Helicopter Support Truck	Onroad HHD	Diesel	1		1	135	135	8			8		10	1350	0.9										
Water Truck	Onroad HHD	Diesel	1		1	168	168	10			10		10	1680	0.1										
Light Helicopter	Helicopter	Jet A	1		1	135	135	10			10	1350	0		0										
<b>Telecommunications Underground Installation</b>					<b>5</b>	<b>10</b>	<b>12</b>	<b>12</b>					<b>25</b>	<b>3000</b>		<b>96</b>	<b>20</b>	<b>1</b>	<b>90</b>	<b>15</b>	<b>50</b>				
Compressor Trailer	Air Compress	Diesel	1		1	12	12	4	60	0.48	4	240	0		0										
Backhoe/Front Loader	Tractors/Load	Diesel	1		1	12	12	6	125	0.37	6	750	0		0										
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	12	12	4			4		50	1200	0.99										
Dump Truck	Onroad HHD	Diesel	2		2	12	12	6			6		30	720	0.9	96	20	90%							
Pipe Truck/Trailer	Onroad HHD	Diesel	1		1	12	12	8			8		30	360	0.99										
Water Truck	Onroad HHD	Diesel	1		1	12	12	6			6		10	120	0.1										
Concrete Mixer Truck	Onroad HHD	Diesel	3		3	12	12	2			2		10	360	0.99										
Lowboy Truck/Trailer	Onroad HHD	Diesel	1		1	12	12	4			4		30	360	0.99										
<b>Fish Lake Valley Metering Station, Civil/Structural Work</b>					<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>					<b>25</b>	<b>0</b>					<b>20</b>	<b>15</b>	<b>1</b>	<b>90</b>	<b>0</b>	<b>50</b>	
R/T Crane	Cranes	Diesel	2		2	5	5	4	250	0.29	4	2000	0		0										
Auger Truck	Onroad HHD	Diesel	2		2	5	5	8			8		30	300	0.9	20	15	90%							
<b>Fish Lake Valley Metering Station, Civil/Structural Work</b>					<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>					<b>25</b>	<b>0</b>		<b>20</b>	<b>20</b>	<b>1</b>	<b>92</b>	<b>0</b>	<b>50</b>				
Excavator	Excavators	Diesel	1		1	10	10	8	300	0.38	8	2400	0		0										
R/T Forklift	Forklifts	Diesel	2		2	10	10	6	350	0.2	6	4200	0		0										
Backhoe/Front Loader	Tractors/Load	Gas	3		3	10	10	8	75	0.37	8	1800	0		0										
Concrete Mixer Truck	Onroad HHD	Diesel	1		1	10	10	4			4		10	100	0.99	20	20	92%							
Dump Truck	Onroad HHD	Diesel	1		1	10	10	6			6		30	300	0.9										
<b>Fish Lake Valley Metering Station, Civil/Structural Work</b>					<b>0</b>	<b>0</b>	<b>20</b>	<b>20</b>					<b>25</b>	<b>0</b>		<b>40</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>50</b>				
Backhoe/Front Loader	Tractors/Load	Diesel	2		2	20	20	8	125	0.37	8	2000	0		0										
Water Truck	Onroad HHD	Diesel	2		2	20	20	4			4		10	400	0.1	40	10	10%							
<b>Fish Lake Valley Metering Station, Civil/Structural Work</b>					<b>5</b>	<b>10</b>	<b>40</b>	<b>40</b>					<b>25</b>	<b>10000</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>50</b>				
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	40	40	4			4		50	4000	0.99										
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	40	40	4			4		50	4000	0.99										
<b>Fish Lake Valley Metering Station, Electrical</b>					<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>					<b>25</b>	<b>0</b>		<b>10</b>	<b>30</b>	<b>1</b>	<b>99</b>	<b>0</b>	<b>50</b>				
R/T Crane	Cranes	Diesel	3		3	10	10	4	350	0.29	4	4200	0		0										
Extendable Flat Bed Pole	Onroad HHD	Gas	1		1	10	10	4			4		30	300	0.99	10	30	99%							
<b>Fish Lake Valley Metering Station, Electrical</b>					<b>0</b>	<b>0</b>	<b>20</b>	<b>20</b>					<b>25</b>	<b>0</b>		<b>60</b>	<b>30</b>	<b>1</b>	<b>90</b>	<b>0</b>	<b>50</b>				
R/T Forklift	Forklifts	Diesel	2		2	20	20	4	350	0.2	4	2800	0		0										
Manlift/Bucket Truck	Onroad HHD	Diesel	3		3	20	20	8			8		30	1800	0.9	60	30	90%							
<b>Fish Lake Valley Metering Station, Electrical</b>					<b>5</b>	<b>10</b>	<b>40</b>	<b>40</b>					<b>25</b>	<b>10000</b>					<b>0</b>	<b>5</b>	<b>50</b>				
1-Ton Truck, 4x4	Onroad MD	Diesel	3		3	40	40	4			4		50	6000	0.99										
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	40	40	4			4		50	4000	0.99										
<b>Fish Lake Valley Metering Station, Wiring</b>					<b>5</b>	<b>10</b>	<b>30</b>	<b>30</b>					<b>25</b>	<b>7500</b>		<b>30</b>	<b>30</b>	<b>1</b>	<b>90</b>	<b>0</b>	<b>50</b>				
Manlift/Bucket Truck	Onroad HHD	Diesel	1		1	30	30	8			8		30	900	0.9	30	30	90%							
<b>Fish Lake Valley Metering Station, Testing</b>					<b>5</b>	<b>10</b>	<b>20</b>	<b>20</b>					<b>25</b>	<b>5000</b>							<b>2</b>	<b>50</b>			
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	20	20	4			4		50	2000	0.99										
<b>Fish Lake Valley Metering Station, Commissioning</b>					<b>5</b>	<b>10</b>	<b>20</b>	<b>20</b>					<b>25</b>	<b>5000</b>							<b>2</b>	<b>50</b>			
3/4-Ton Truck, 4x4	Onroad MD	Gas	2		2	20	20	4			4		50	2000	0.99										
<b>Restoration</b>					<b>7</b>	<b>14</b>	<b>42</b>	<b>42</b>					<b>25</b>	<b>14700</b>		<b>82</b>	<b>20</b>	<b>1</b>	<b>76</b>	<b>2</b>	<b>50</b>				
Backhoe/Front Loader	Tractors/Load	Diesel	1		1	42	42	4	125	0.37	4	500	0		0										

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												Hrs	mil/day									VMT
Motor Grader	Graders	Diesel	1		1	42	42	6	250	0.41	6	1500	0	0								
Drum Type Compactor	Rollers	Diesel	1		1	42	42	4	100	0.38	4	400	0	0								
1-Ton Truck, 4x4	Onroad MD	Diesel	2		2	42	42	4			4		50	4200	0.99							
Water Truck	Onroad HHD	Diesel	1		1	42	42	8			8		10	420	0.1	82	20	76%				
Lowboy Truck/Trailer	Onroad HHD	Diesel	1		1	40	40	4			4		30	1200	0.99							

Primary Equipment Description	Worker Vehicles						Equipment			Trucks			Helicopter		FUEL USE (GAL)		
	Gasoline			Diesel			BSFC	Gasoline Fuel Use	Diesel Fuel Use	Fuel Efficiency (mi/gal)	Fuel Use	Fuel Use	Burn Rate (gal/hr)	Fuel Use	DIESEL	GASOLINE	JET A
	Fuel Efficiency	% Vehicles	Fuel Use	Fuel Efficiency	% Vehicles	Fuel Use					Gasoline	Diesel		Jet A			
Survey	27.11	96%	6126	38	0.32%	14									14.5	6,126	-
1-Ton Truck, 4x4									9		9907				9,907	-	-
Staging Yard	27.11	96%	7658	38	0.32%	18									18.1	7,658	-
R/T Forklift							0.367		6324						6,324	-	-
1-Ton Truck, 4x4									9		4953				4,953	-	-
Water Truck									6		2868				2,868	-	-
Boom/Crane Truck									6		4302				4,302	-	-
Truck, Semi-Tractor									6		4302				4,302	-	-
Tree Trimming & Remo	27.11	96%	266	38	0.32%	1										266	-
Chipper							0.408	195							-	195	-
Stump Grinder							0.408	73							-	73	-
1-Ton Truck, 4x4									9		172				172	-	-
Manlift/Bucket Truck									6		150				150	-	-
Dump Truck, 4x4									6		150				150	-	-
Roads & Landing Work	27.11	96%	293	38	0.32%	1										293	-
Backhoe/Front Loader							0.367		9360						9,360	-	-
Track Type Dozer							0.367		9360						9,360	-	-
Motor Grader							0.367		15557						15,557	-	-
Drum Type Compactor							0.367		7357						7,357	-	-
Excavator							0.367		7062						7,062	-	-
1-Ton Truck, 4x4									9		379				379	-	-
Water Truck									6		110				110	-	-
Lowboy Truck/Trailer									6		40				40	-	-
Wet Crossing Installation	27.11	96%	128	38	0.32%	0										128	-
Tracked Excavator							0.367		9809						9,809	-	-
Rubber Tire Backhoe							0.367		2581						2,581	-	-
Wheel Loader							0.367		9551						9,551	-	-
1-Ton Truck, 4x4									9		69				69	-	-
Dump Truck									6		120				120	-	-
Water Truck									6		20				20	-	-
Concrete Truck									6		60				60	-	-
TSP Foundation Install	27.11	96%	2431	38	0.32%	6									5.7	2,431	-
Backhoe/Front Loader							0.367		7640						7,640	-	-
3/4-Ton Truck, 4x4									5	5518					-	5,518	-
Water Truck									6		455				455	-	-
Auger Truck									6		1366				1,366	-	-
Dump Truck									6		1366				1,366	-	-
Boom/Crane Truck									6		1366				1,366	-	-
Concrete Mixer Truck									6		911				911	-	-
TSP Haul	27.11	96%	311	38	0.32%	1									0.7	311	-
3/4-Ton Truck, 4x4									5	705					-	705	-
Flat Bed Pole Truck									6		349				349	-	-
Boom/Crane Truck									6		174				174	-	-
Water Truck									6		58				58	-	-
TSP Assembly	27.11	96%	1216	38	0.32%	3									2.9	1,216	-
Compressor Trailer							0.408		595						595	-	-
3/4-Ton Truck, 4x4									5	2759					-	2,759	-

Primary Equipment Description	Worker Vehicles						Equipment			Trucks			Helicopter		FUEL USE (GAL)			
	Gasoline			Diesel			BSFC	Gasoline Fuel Use	Diesel Fuel Use	Fuel Efficiency (mi/gal)	Fuel Use		Burn Rate (gal/hr)	Fuel Use		DIESEL	GASOLINE	JET A
	Fuel Efficiency	% Vehicles	Fuel Use	Fuel Efficiency	% Vehicles	Fuel Use					Gasoline	Diesel		Jet A				
1-Ton Truck, 4x4									9		1573				1,573	-	-	
Boom/Crane Truck									6		683				683	-	-	
Water Truck									6		228				228	-	-	
<b>TSP Erection</b>	<b>27.11</b>	<b>96%</b>	<b>1216</b>	<b>38</b>	<b>0.32%</b>	<b>3</b>									<b>2.9</b>	<b>1,216</b>	<b>-</b>	
Compressor Trailer							0.408		595						595	-	-	
R/T Crane							0.367		12838						12,838	-	-	
3/4-Ton Truck, 4x4									5	1379					-	1,379	-	
1-Ton Truck, 4x4									9		786				786	-	-	
Water Truck									6		228				228	-	-	
Jet A Fuel Truck									6		228				228	-	-	
Helicopter Support Truck									6		228				228	-	-	
Medium/Heavy-duty Helic												396	325,512		-	-	325,512	
<b>TSP H-Frame Foundatio</b>	<b>27.11</b>	<b>96%</b>	<b>284</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>									<b>0.7</b>	<b>284</b>	<b>-</b>	
Backhoe/Front Loader							0.367		23399						23,399	-	-	
3/4-Ton Truck, 4x4									5	644					-	644	-	
Water Truck									6		53				53	-	-	
Dump Truck									6		160				160	-	-	
Boom/Crane Truck									6		160				160	-	-	
Auger Truck									6		160				160	-	-	
Concrete Mixer Truck									6		106				106	-	-	
<b>TSP H-Frame Haul</b>	<b>27.11</b>	<b>96%</b>	<b>35</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>									<b>0.1</b>	<b>35</b>	<b>-</b>	
3/4-Ton Truck, 4x4									5	81					-	81	-	
Flat Bed Pole Truck									6		40				40	-	-	
Boom/Crane Truck									6		20				20	-	-	
Water Truck									6		7				7	-	-	
<b>TSP Assembly</b>	<b>27.11</b>	<b>96%</b>	<b>142</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>									<b>0.3</b>	<b>142</b>	<b>-</b>	
Compressor Trailer							0.408		595						595	-	-	
3/4-Ton Truck, 4x4									5	322					-	322	-	
1-Ton Truck, 4x4									9		184				184	-	-	
Boom/Crane Truck									6		80				80	-	-	
Water Truck									6		27				27	-	-	
<b>TSP Erection</b>	<b>27.11</b>	<b>96%</b>	<b>142</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>									<b>0.3</b>	<b>142</b>	<b>-</b>	
Compressor Trailer							0.408		595						595	-	-	
R/T Crane							0.367		12838						12,838	-	-	
3/4-Ton Truck, 4x4									5	161					-	161	-	
1-Ton Truck, 4x4									9		92				92	-	-	
Water Truck									6		27				27	-	-	
Jet A Fuel Truck									6		7				7	-	-	
Helicopter Support Truck									6		7				7	-	-	
Medium/Heavy-duty Helic												32	768		-	-	768	
<b>Wood Pole / H-Frame Re</b>	<b>27.11</b>	<b>96%</b>	<b>1544</b>	<b>38</b>	<b>0.32%</b>	<b>4</b>									<b>3.7</b>	<b>1,544</b>	<b>-</b>	
Compressor Trailer							0.408		496						496	-	-	
1-Ton Truck, 4x4									9		1997				1,997	-	-	
Flat Bed Pole Truck									6		867				867	-	-	
Boom/Crane Truck									6		867				867	-	-	
Manlift/Bucket Truck									6		867				867	-	-	
Water Truck									6		289				289	-	-	
Jet A Fuel Truck									6		145				145	-	-	

Primary Equipment Description	Worker Vehicles						Equipment			Trucks			Helicopter		FUEL USE (GAL)			
	Gasoline			Diesel			BSFC	Gasoline Fuel Use	Diesel Fuel Use	Fuel Efficiency (mi/gal)	Fuel Use		Burn Rate (gal/hr)	Fuel Use		DIESEL	GASOLINE	JET A
	Fuel Efficiency	% Vehicles	Fuel Use	Fuel Efficiency	% Vehicles	Fuel Use					Gasoline	Diesel		Jet A				
Helicopter Support Truck									6		145			145	-	-		
Medium/Heavy-duty Helic												32	16,704	-	-	16,704		
<b>WP Pole Haul</b>	<b>27.11</b>	<b>96%</b>	<b>1251</b>	<b>38</b>	<b>0.32%</b>	<b>3</b>								<b>3.0</b>	<b>1,251</b>	<b>-</b>		
3/4-Ton Truck, 4x4									5	1420				-	1,420	-		
Water Truck									6		234			234	-	-		
Boom/Crane Truck									6		703			703	-	-		
Flat Bed Pole Truck									6		703			703	-	-		
<b>WP Pole Assembly</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>		
Compressor Trailer							0.408				595				595	-	-	
3/4-Ton Truck, 4x4									5	2839				-	2,839	-		
1-Ton Truck, 4x4									5	2839				-	2,839	-		
Boom/Crane Truck									6		703			703	-	-		
Water Truck									6		234			234	-	-		
<b>WP Pole Install</b>	<b>27.11</b>	<b>96%</b>	<b>1251</b>	<b>38</b>	<b>0.32%</b>	<b>3</b>								<b>3.0</b>	<b>1,251</b>	<b>-</b>		
Backhoe/Front Loader							0.367				2985				2,985	-	-	
1-Ton Truck, 4x4									5	1420				-	1,420	-		
Water Truck									6		234			234	-	-		
Boom/Crane Truck									6		703			703	-	-		
Manlift/Bucket Truck									6		703			703	-	-		
Auger Truck									6		703			703	-	-		
Extendable Flat Bed Pole									6		703			703	-	-		
Jet A Fuel Truck									6		234			234	-	-		
Helicopter Support Truck									6		234			234	-	-		
Medium/Heavy-duty Helic												32	27,072	-	-	27,072		
<b>Guard Structure Installa</b>	<b>27.11</b>	<b>96%</b>	<b>405</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>								<b>1.0</b>	<b>405</b>	<b>-</b>		
Compressor Trailer							0.408				1388				1,388	-	-	
Backhoe/Front Loader							0.367				23399				23,399	-	-	
Auger Truck									6		189			189	-	-		
3/4-Ton Truck, 4x4									5	765				-	765	-		
1-Ton Truck, 4x4									5	765				-	765	-		
Water Truck									6		63			63	-	-		
Manlift/Bucket Truck									6		189			189	-	-		
Boom/Crane Truck									6		189			189	-	-		
Extendable Flat Bed Pole									6		189			189	-	-		
<b>Remove/Install Conducto</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>		
Conductor Splicing Rig							0.367								-	-	-	
Fiber Splicing Lab							0.367								-	-	-	
Backhoe/Front Loader															-	-	-	
<b>Remove/Install Conducto</b>	<b>27.11</b>	<b>96%</b>	<b>1491</b>	<b>38</b>	<b>0.32%</b>	<b>4</b>								<b>3.5</b>	<b>1,491</b>	<b>-</b>		
Sock Line Puller							0.367				19514				19,514	-	-	
Bull Wheel Puller							0.367				26561				26,561	-	-	
Hydraulic Rewind Puller							0.367				26561				26,561	-	-	
Static Truck/Tensioner									6		279			279	-	-		
3/4-Ton Truck, 4x4									5	1692				-	1,692	-		
1-Ton Truck, 4x4									9		1929			1,929	-	-		
Dump Truck									6					-	-	-		
Wire Truck/Trailer									6					-	-	-		
Truck, Semi-Tractor									6		1675			1,675	-	-		

Primary Equipment Description	Worker Vehicles						Equipment			Trucks			Helicopter		FUEL USE (GAL)		
	Gasoline			Diesel			BSFC	Gasoline Fuel Use	Diesel Fuel Use	Fuel Efficiency (mi/gal)	Fuel Use	Fuel Use	Burn Rate (gal/hr)	Fuel Use	DIESEL	GASOLINE	JET A
	Fuel Efficiency	% Vehicles	Fuel Use	Fuel Efficiency	% Vehicles	Fuel Use					Gasoline	Diesel		Jet A			
Manlift/Bucket Truck									6		837			837	-	-	
Boom/Crane Truck									6					-	-	-	
Lowboy Truck/Trailer									6		1675			1,675	-	-	
Jet A Fuel Truck									6		224			224	-	-	
Helicopter Support Truck									6		224			224	-	-	
Water Truck									6		279			279	-	-	
Light Helicopter												32	43,200	-	-	43,200	
<b>Telecommunications Unit</b>	<b>27.11</b>	<b>96%</b>	<b>106</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>0.3</b>	<b>106</b>	<b>-</b>	
Compressor Trailer							0.408				397				397	-	-
Backhoe/Front Loader							0.367				1791				1,791	-	-
1-Ton Truck, 4x4									9		138				138	-	-
Dump Truck									6		120				120	-	-
Pipe Truck/Trailer									6		60				60	-	-
Water Truck									6		20				20	-	-
Concrete Mixer Truck									6		60				60	-	-
Lowboy Truck/Trailer									6		60				60	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>	
R/T Crane															-	-	-
Auger Truck									6		50				50	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>	
Excavator							0.367				14125				14,125	-	-
R/T Forklift							0.367				15178				15,178	-	-
Backhoe/Front Loader							0.408	2867							-	2,867	-
Concrete Mixer Truck									6		17				17	-	-
Dump Truck									6		50				50	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>	
Backhoe/Front Loader							0.367				4775				4,775	-	-
Water Truck									6		66				66	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>355</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>								<b>0.8</b>	<b>355</b>	<b>-</b>	
1-Ton Truck, 4x4									9		459				459	-	-
3/4-Ton Truck, 4x4									5	805					-	805	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>	
R/T Crane							0.367				22008				22,008	-	-
Extendable Flat Bed Pole									6	50					-	50	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>0</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>-</b>	<b>-</b>	<b>-</b>	
R/T Forklift							0.367				10118				10,118	-	-
Manlift/Bucket Truck									6		299				299	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>355</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>								<b>0.8</b>	<b>355</b>	<b>-</b>	
1-Ton Truck, 4x4									9		689				689	-	-
3/4-Ton Truck, 4x4									5	805					-	805	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>266</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>								<b>0.6</b>	<b>266</b>	<b>-</b>	
Manlift/Bucket Truck									6		150				150	-	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>177</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>0.4</b>	<b>177</b>	<b>-</b>	
3/4-Ton Truck, 4x4									5	403					-	403	-
<b>Fish Lake Valley Metering</b>	<b>27.11</b>	<b>96%</b>	<b>177</b>	<b>38</b>	<b>0.32%</b>	<b>0</b>								<b>0.4</b>	<b>177</b>	<b>-</b>	
3/4-Ton Truck, 4x4									5	403					-	403	-
<b>Restoration</b>	<b>27.11</b>	<b>96%</b>	<b>522</b>	<b>38</b>	<b>0.32%</b>	<b>1</b>								<b>1.2</b>	<b>522</b>	<b>-</b>	
Backhoe/Front Loader							0.367				1194				1,194	-	-

Primary Equipment Description	Worker Vehicles						Equipment			Trucks		Helicopter		FUEL USE (GAL)			
	Gasoline			Diesel			BSFC	Gasoline Fuel Use	Diesel Fuel Use	Fuel Efficiency (mi/gal)	Fuel Use	Fuel Use	Burn Rate (gal/hr)	Fuel Use	DIESEL	GASOLINE	JET A
	Fuel Efficiency	% Vehicles	Fuel Use	Fuel Efficiency	% Vehicles	Fuel Use					Gasoline	Diesel		Jet A			
Motor Grader							0.367		7937						7,937	-	-
Drum Type Compactor							0.367		785						785	-	-
1-Ton Truck, 4x4										9		482			482	-	-
Water Truck										6		70			70	-	-
Lowboy Truck/Trailer										6		199			199	-	-
			28,149			62		3,135	315,860		25,775	60,924			376,849	57,059	413,256

Primary Equipment Description	Diesel (gallons)	holine (gall)	A (gall)	VTM (miles)
<b>Worker Vehicles</b>				
Passenger Vehicles	67	28,149	-	828,300
<b>Construction Vehicles</b>				
1-Ton Truck, 4x4	23,808	5,024	-	232,350
3/4-Ton Truck, 4x4	-	20,701	-	102,800
Auger Truck	2,468	-	-	14,850
Boom/Crane Truck	9,950	-	-	64,920
Concrete Mixer Truck	1,093	-	-	6,580
Concrete Truck	60	-	-	360
Dump Truck	1,815	-	-	15,960
Dump Truck, 4x4	150	-	-	900
Extendable Flat Bed Pole Truck	892	50	-	5,670
Flat Bed Pole Truck	1,959	-	-	11,790
Lowboy Truck/Trailer	1,974	-	-	11,880
Manlift/Bucket Truck	3,195	-	-	19,230
Pipe Truck/Trailer	60	-	-	360
Static Truck/Tensioner	279	-	-	1,680
Truck, Semi-Tractor	5,977	-	-	35,970
Water Truck	5,570	-	-	33,520
Wire Truck/Trailer	-	-	-	3,360
<b>Construction Equipment</b>				
Backhoe/Front Loader	74,542	2,867	-	-
Bull Wheel Puller	26,561	-	-	-
Chipper	-	195	-	-
Compressor Trailer	5,256	-	-	-
Conductor Splicing Rig	-	-	-	-
Drum Type Compactor	8,141	-	-	-
Excavator	21,187	-	-	-
Fiber Splicing Lab	-	-	-	-
Flatbed Trailer	-	-	-	-
Hydraulic Rewind Puller	26,561	-	-	-
Motor Grader	23,494	-	-	-
R/T Crane	47,683	-	-	-
R/T Forklift	31,620	-	-	-
Rubber Tire Backhoe	2,581	-	-	-
Sock Line Puller	19,514	-	-	-
Stump Grinder	-	73	-	-
Track Type Dozer	9,360	-	-	-
Tracked Excavator	9,809	-	-	-
Wheel Loader	9,551	-	-	-
R/T Crane (M)	-	-	-	-
R/T Crane (L)	-	-	-	-
Sock Line Puller	-	-	-	-
Bull Wheel Puller	-	-	-	-
Hydraulic Rewind Puller	-	-	-	-
Static Truck/ Tensioner	-	-	-	-
<b>Helicopter and Support</b>				
Light Helicopter	-	-	43,200	-
Medium/Heavy-duty Helicopter	-	-	#####	-
Helicopter Support Truck	837	-	-	5,040
Jet A Fuel Truck	837	-	-	5,040
TOTAL	376,851	57,059	#####	1,400,560

Primary Equipment Description	Diesel (gallons)	Gasoline (gallons)	Jet A (gallons)
Worker Vehicles	67	28,149	-
Construction Vehicles	59,250	25,775	0
Construction Equipment	315,860	3,135	0
Helicopter and Support	1,675	0	413,256
	376,851	57,059	413,256

	Vehicle Miles Travelled, Daily <sup>1</sup>	Vehicle Miles Travelled, Total
Worker vehicles	976	828,300
Construction vehicles	674	572,260

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Statewide

Region: California

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar	Vehicle Class	Model Year	Speed	Fuel	Population	Total VMT	Fuel Consumption	Miles/gal	Fraction of Vehicles	Worker	HHDT	MHDT		
Statewide	2024	HHDT	Aggregate	Aggregate	Gasoline	150.122193	9389.359	2.466708	3.806433						
Statewide	2024	HHDT	Aggregate	Aggregate	Diesel	307158.339	42799671	7111.766	6.01815		Gasoline	27.10534	0.962095222	3.806433435	4.965929905
Statewide	2024	HHDT	Aggregate	Aggregate	Natural Gas	17975.308	1182489	214.0223	5.525074		Diesel	38.31808	0.003215879	6.018149872	8.711203371
Statewide	2024	LDA	Aggregate	Aggregate	Gasoline	12932359.3	5.08E+08	17446.54	29.12493	60.9%					
Statewide	2024	LDA	Aggregate	Aggregate	Diesel	46051.8551	1393608	33.39075	41.73636	0.2%					
Statewide	2024	LDA	Aggregate	Aggregate	Electricity	698860.963	32845574	0	0	3.3%					
Statewide	2024	LDT1	Aggregate	Aggregate	Gasoline	1316921.63	44795753	1851.769	24.19079	6.2%					
Statewide	2024	LDT1	Aggregate	Aggregate	Diesel	676.78567	9607.209	0.404647	23.74222	0.0%					
Statewide	2024	LDT1	Aggregate	Aggregate	Electricity	2849.74694	117980.1	0	0	0.0%					
Statewide	2024	LDT2	Aggregate	Aggregate	Gasoline	6196167.72	2.47E+08	10509.78	23.50958	29.2%					
Statewide	2024	LDT2	Aggregate	Aggregate	Diesel	21611.8849	901223.1	28.61873	31.49067	0.1%					
Statewide	2024	LDT2	Aggregate	Aggregate	Electricity	35461.7415	1293238	0	0	0.2%					
Statewide	2024	MHDT	Aggregate	Aggregate	Gasoline	49136.1987	2647286	533.0897	4.96593						
Statewide	2024	MHDT	Aggregate	Aggregate	Diesel	277729.374	12176259	1397.77	8.711203						
Statewide	2024	MHDT	Aggregate	Aggregate	Natural Gas	3069.09772	148297.4	19.30647	7.681227						

PhaseName	WorkerTriç	VendorTriç	HaulingTriç	WorkerTriç	VendorTriç	HaulingTriç	WorkerVel	VendorVel	HaulingVel
01 Survey	4	0	0	0	2	0	LD_Mix	MHDT	HHDT
02 Staging Yard	5	74	0	0	1	3452	LD_Mix	MHDT	HHDT
03 Tree Trimming at	5	90	0	0	1	60	LD_Mix	MHDT	HHDT
04 Road Work	5	34	0	0	2	74	LD_Mix	MHDT	HHDT
07 TSP Haul	5	87	0	0	2	140	LD_Mix	MHDT	HHDT
05 Wet Crossing Ins	6	85	0	0	1	72	LD_Mix	MHDT	HHDT
08 TSP Assembly	5	70	0	0	4	274	LD_Mix	MHDT	HHDT
06 Install TDIP Foun	5	85	0	0	2	1644	LD_Mix	MHDT	HHDT
09 TSP Erection	5	66	0	0	2	411	LD_Mix	MHDT	HHDT
10 TSP H-Frame Fou	5	85	0	0	2	192	LD_Mix	MHDT	HHDT
11 TSP H-Frame Hau	5	87	0	0	2	16	LD_Mix	MHDT	HHDT
12 TSP H-Frame Ass	5	70	0	0	4	32	LD_Mix	MHDT	HHDT
13 TSP H-Frame Ere	5	38	0	0	2	24	LD_Mix	MHDT	HHDT
14 Wood Pole H-Fra	5	86	0	0	2	870	LD_Mix	MHDT	HHDT
15 Wood Pole Pole I	5	82	0	0	1	423	LD_Mix	MHDT	HHDT
16 Wood Pole Asser	5	70	0	0	4	282	LD_Mix	MHDT	HHDT
17 Wood Pole Instal	5	87	0	0	1	987	LD_Mix	MHDT	HHDT
18 Guard Structures	6	85	0	0	4	152	LD_Mix	MHDT	HHDT
19A Remove and Ins	0	0	0	0	0	0	LD_Mix	MHDT	HHDT
19B Remove and Ins	5	92	0	0	3	1950	LD_Mix	MHDT	HHDT
20 Telecommunicat	5	90	0	0	15	96	LD_Mix	MHDT	HHDT
21a Fish Lake Civil	0	90	0	0	0	20	LD_Mix	MHDT	HHDT
21b Fish Lake Civil	0	92	0	0	0	20	LD_Mix	MHDT	HHDT
21c Fish Lake Civil	0	10	0	0	0	40	LD_Mix	MHDT	HHDT
21d Fish Lake Civil	5	0	0	0	4	0	LD_Mix	MHDT	HHDT
22a Fish Lake Electri	0	99	0	0	0	10	LD_Mix	MHDT	HHDT
22b Fish Lake Electr	0	90	0	0	0	60	LD_Mix	MHDT	HHDT
22c Fish Lake Electri	5	0	0	0	5	0	LD_Mix	MHDT	HHDT
23 Fish Lake Wiring	5	90	0	0	0	30	LD_Mix	MHDT	HHDT
24 Fish Lake Testing	5	0	0	0	2	0	LD_Mix	MHDT	HHDT
25 Fish Lake Commi	5	0	0	0	2	0	LD_Mix	MHDT	HHDT
26 Restoration	7	76	0	0	2	82	LD_Mix	MHDT	HHDT

PhaseNam	WorkerPer	VendorPer	HaulingPer	RoadSilt	Lo Material	Sil Material	M Average	Ve Mean	VehicleSpeed
01 Survey	100	99	0	0.1	8.5	0.5	2.4	40	
02 Staging	100	99	74	0.1	8.5	0.5	2.4	40	
03 Tree Tri	100	99	90	0.1	8.5	0.5	2.4	40	
04 Road W	100	99	34	0.1	8.5	0.5	2.4	40	
07 TSP Ha	100	99	87	0.1	8.5	0.5	2.4	40	
05 Wet Crc	100	99	85	0.1	8.5	0.5	2.4	40	
08 TSP Ass	100	99	70	0.1	8.5	0.5	2.4	40	
06 Install T	100	99	85	0.1	8.5	0.5	2.4	40	
09 TSP Ere	100	99	66	0.1	8.5	0.5	2.4	40	
10 TSP H-F	100	99	85	0.1	8.5	0.5	2.4	40	
11 TSP H-F	100	99	87	0.1	8.5	0.5	2.4	40	
12 TSP H-F	100	99	70	0.1	8.5	0.5	2.4	40	
13 TSP H-F	100	99	38	0.1	8.5	0.5	2.4	40	
14 Wood F	100	99	86	0.1	8.5	0.5	2.4	40	
15 Wood F	100	99	82	0.1	8.5	0.5	2.4	40	
16 Wood F	100	99	70	0.1	8.5	0.5	2.4	40	
17 Wood F	100	99	87	0.1	8.5	0.5	2.4	40	
18 Guard S	100	99	85	0.1	8.5	0.5	2.4	40	
19A Remov	100	99	0	0.1	8.5	0.5	2.4	40	
19B Remov	100	99	92	0.1	8.5	0.5	2.4	40	
20 Telecon	100	99	90	0.1	8.5	0.5	2.4	40	
21a Fish La	100	99	90	0.1	8.5	0.5	2.4	40	
21b Fish La	100	99	92	0.1	8.5	0.5	2.4	40	
21c Fish La	100	99	10	0.1	8.5	0.5	2.4	40	
21d Fish La	100	99	0	0.1	8.5	0.5	2.4	40	
22a Fish La	100	99	99	0.1	8.5	0.5	2.4	40	
22b Fish La	100	99	90	0.1	8.5	0.5	2.4	40	
22c Fish La	100	99	0	0.1	8.5	0.5	2.4	40	
23 Fish Lak	100	99	90	0.1	8.5	0.5	2.4	40	
24 Fish Lak	100	99	0	0.1	8.5	0.5	2.4	40	
25 Fish Lak	100	99	0	0.1	8.5	0.5	2.4	40	
26 Restora	100	99	76	0.1	8.5	0.5	2.4	40	

Description	CalEEMod	Onroad Engine	Distance	Paved road	Road
¾-Ton Truck, 4x4	Onroad MD	MD	50	0.99	onroad
1-Ton Truck	Onroad MD	MD	50	0.99	onroad
1-Ton Truck, 4x4	Onroad MD	MD	50	0.99	onroad
¾-Ton Truck, 4x4	Onroad MD	MD	50	0.99	onroad
Auger Truck	Onroad HHD	HHD	30	0.9	onroad
Backhoe/Front Loader	Tractors/Loaders/Backhoes				offroad
Boom/Crane Truck	Onroad HHD	HHD	30	0.9	onroad
Bull Wheel Puller	Other Construction Equipment				offroad
Chipper	Other General Industrial Equipment				offroad
Compressor Trailer	Air Compressors				offroad
Concrete Mixer Truck	Onroad HHD	HHD	10	0.99	onroad
Concrete Truck	Onroad HHD	HHD	10	0.99	onroad
Conductor Splicing Rig	Other Construction Equipment				offroad
Drum Type Compactor	Rollers				offroad
Dump Truck	Onroad HHD	HHD	30	0.9	onroad
Dump Truck, 4x4	Onroad HHD	MD	30	0.9	onroad
Excavator	Excavators				offroad
Extendable Flat Bed Pole Truck	Onroad HHD	HHD	30	0.99	onroad
Fiber Splicing Lab	Other Construction Equipment				offroad
Flat Bed Pole Truck	Onroad HHD	HHD	30	0.99	onroad
Flatbed Trailer	NA				offroad
Helicopter Support Truck	Onroad HHD	HHD	10	0.9	onroad
Hydraulic Rewind Puller	Other Construction Equipment				offroad
Jet A Fuel Truck	Onroad HHD	HHD	10	0.99	onroad
Light Helicopter	Helicopter				Heli
Lowboy Truck/Trailer	Onroad HHD	HHD	30	0.99	onroad
Manlift/Bucket Truck	Onroad HHD	HHD	30	0.9	onroad
Medium/Heavy-duty Helicopter	Helicopter				offroad
Motor Grader	Graders				offroad
Pipe Truck/Trailer	Onroad HHD	HHD	30	0.99	onroad
R/T Crane	Cranes				offroad
R/T Forklift	Forklifts				offroad
Rubber Tire Backhoe	Rough Terrain Forklifts				offroad
Sock Line Puller	Other Construction Equipment				offroad
Static Truck/Tensioner	Onroad HHD	HHD	10	0.99	onroad
Stump Grinder	Other General Industrial Equipment				offroad
Track Type Dozer	Tractors/Loaders/Backhoes				offroad
Tracked Excavator	Excavators				offroad
Truck, Semi-Tractor	Onroad HHD	HHD	30	1	onroad
Water Truck	Onroad HHD	HHD	10	0.1	onroad
Wheel Loader	Tractors/Loaders/Backhoes				offroad
Wire Truck/Trailer	Onroad HHD	HHD	10	0.99	onroad
R/T Crane (M)	Cranes				offroad
R/T Crane (L)	Cranes				offroad
Sock Line Puller	Other Construction Equipment				offroad
Bull Wheel Puller	Other Construction Equipment				offroad
Hydraulic Rewind Puller	Other Construction Equipment				offroad
Static Truck/ Tensioner	Other Construction Equipment				offroad
Medium-duty Helicopter	Helicopter				Heli

## Appendix D

Table 3.3 OFFROAD Default Horsepower and Load Factors

OFFROAD	Horsepower	Load Factor
Aerial Lifts	63	0.31
Air Compressor	78	0.48
Bore/Drill	221	0.5
Cement and Mortar	9	0.56
Concrete/Block	81	0.73
Cranes	231	0.29
Crawler Tractors	212	0.43
Crushing/Processing	85	0.78
Dumpers/Trucks	16	0.38
Excavators	158	0.38
Forklifts	89	0.2
Generator	84	0.74
Graders	187	0.41
Off-Highway Trucks	124	0.44
Off-Highway Trucks	402	0.38
Other Construction	172	0.42
Other Generator	88	0.34
Other Material	168	0.4
Pavers	130	0.42
Paving Equipment	132	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.3
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Tractors	247	0.4
Rubber Tired Tractors	203	0.36
Scrapers	367	0.48
Signal Boats	6	0.82
Skid Steer Loaders	65	0.37
Surfacing Equipment	263	0.3
Sweepers/Trucks	64	0.46
Tractors/Loaders	97	0.37
Trenchers	78	0.5
Welders	46	0.45

### Notes:

1. Based on the weighted average horsepower (by equipment population) and load factors for the mode of the engine groupings in 2011 OFFROAD

D-10 October 2017