AQ/GHG Phasing and Modeling Assumptions

_		End Date	Number of Work Days ¹
Phase 1			•
Establish temporary overland routes	7/2/2018	11/30/2018	15
Establish work areas, staging areas, pull sites, and landing zones	7/2/2018	11/30/2018	75
Stage material and equipment	6/4/2018	7/2/2018	20
TSP Foundation/Pad concrete work	7/2/2018	11/30/2018	75
Install new poles/towers	7/2/2018	5/1/2019	88
Demolish and remove old towers	10/1/2018	5/1/2019	88
Install temporary guard structures	8/13/2018	4/8/2019	30
Install top cage extensions	10/1/2018	11/21/2018	44
Install new switches	10/1/2018	5/1/2019	4
Install new conductor	10/1/2018	5/1/2019	44
Site clean up	5/6/2019	8/9/2019	75
Helicopter Work ²	7/2/2018	5/1/2019	88
Phase 2		, ,	
Establish temporary overland routes	5/6/2019	11/21/2019	30
Establish work areas, staging areas,	5/6/2019	8/22/2019	75
pull sites, and landing zones	5/6/2019	8/22/2019	75
Stage material and equipment	5/6/2019	6/7/2019	24
TSP Foundation/Pad concrete work	5/6/2019	8/22/2019	75
Install new poles/towers	5/6/2019	3/26/2020	88
Demolish and remove old towers	9/30/2019	3/26/2020	88
Install temporary guard structures	8/19/2019	3/16/2020	30
Install top cage extensions	9/30/2019	3/16/2020	10
Install new switches	9/30/2019	3/16/2020	4
Install new conductor	9/30/2019	3/26/2020	44
Site clean up	3/30/2020	6/30/2020	75
Helicopter Work ²	5/6/2019	3/26/2020	88
Phase 3			
Prepare temporary overland routes	8/26/2020	11/1/2019	20
Establish work areas, staging areas, pull sites, and landing zones	8/26/2020	11/1/2019	49
Stage material and equipment	8/26/2020	9/26/2019	20
TSP Foundation/Pad concrete work	8/3/2020	10/9/2020	75
Install temporary shoefly poles	9/14/2020	1/22/2021	44
Install tubular steel poles	8/26/2020	1/22/2021	44
Demolish and remove steel towers	10/5/2020	2/26/2021	44
Install temporary guard structures	8/26/2020	1/29/2021	20
Install new conductor	10/5/2020	1/29/2021	44
Site clean up	2/1/2021	4/1/2021	75
Helicopter Work ²	8/26/2020	1/29/2021	44

¹ Number of Work Days represents the anticipated number of actual working days that would occur for each activity, and are less than the number of days between the starting and ending dates given for each construction activity.

² Note that multiple construction activities described above include the use of helicopters, and there are some activities with concurrent construction schedules (i.e., overlapping construction schedules). However, because a maximum of 3 helicopters (two light and one heavy) would operate during project construction on any given day, helicopters are listed as an individual activity that could potentially occur over the entire construction period for each of the three phases of construction.

Project Element/Phase	Equipment Type	Horsepower (CalEEMod	Equipment Quantity	Hours/Day
Phases 1 and 2		Defaults)		
Establish temporary overland	Backhoe	1		
Establish temporary overland routes	grader	97		
	water truck	174	1 (all)	5 (all)
	foreman type	NA	ı (un)	o (air)
	pickups	NA		
Establish work areas, staging	Backhoe			
areas, pull sites, and landing	bulldozer	97		
zones	compactor	255		
201100	dump truck	8		
	grader	?	1 (all)	5 (all)
	excavator	174	1 (u.i.)	o (u.i.)
	water truck	162		
	foreman type	NA		
	pickups	NA		
Stage material and equipment	Semi truck	NA	8	
otage material and equipment	fork lift	89	1	5 (all)
1	foreman pickups	NA	4	J (all)
TSP Foundation/Pad concrete	Excavator	162	7	
work	augur	205		
WOLK	water truck	NA		
	backhoe	97	1 (all)	5 (all)
		NA		
	cement truck			
Install now poles/tower-	concrete pumps Backhoe	84	1	1
Install new poles/towers	excavator	97	1	
	excavator water truck	162	1	
		NA		5 (11)
	foreman type	NA	6	5 (all)
	pickups	NA	1	
	dump truck	See footnote	See	
	helicopters ¹		footnote	
Demolish and remove old towers		97	1	
	excavator	162	1	
	water truck	NA	1	
	foreman type	NA	6	5 (all)
	pickups	NA	1	
	dump truck	See footnote	See	
	helicopters ¹	See foothore	footnote	
Install temporary guard				
structures	Line truck	NA		5
	bucket truck	NA NA		5
			1 (all)	5
	foreman pickups	NA 226		7
	crane	220		/
Install top cage extensions	Crane	006	1	
	forklift	226	1	
	foreman pickup	89	2	5 (all)
	trucks	NA	See	
	helicopters1	See footnote	footnote	
Install new switches				
		1		
		1		
	Crane	226		
	line truck	NA	1 (all)	5 (all)
	foreman type	NA	()	- ()
	pickups	1		
Install new conductor	3 drum puller	1	1	5
	V grove puller	150	1	5
	reel trailers	190	1	5
	crane	14	1	5
	bucket truck	226	4	2
	line truck	NA	3	5
	foreman type	NA	4	5
		NA	1 -	See
	pickup	See footnote	See	
	helicopters ¹	162	footnote	footnote
Charles	T	162	1 (all)	5 (all)
Site clean up	Excavator	-	` '	
Site clean up	backhoe	97	, ,	
Site clean up	backhoe dump truck	97 NA		
Site clean up	backhoe	97		

Project Element/Phase	Equipment Type	Horsepower (CalEEMod Defaults)	Equipment Quantity	Hours/Day
Phase 3 Only				
Prepare temporary overland			1 (all)	5 (all)
routes	grader	97		
	water truck	174		
	foreman type	NA		
	pickups	NA		
Establish work areas, staging	Backhoe	97	1 (all)	5 (all)
areas, pull sites, and landing	bulldozer	255		
zones	compactor	8		
	dump truck	NA		
	grader	174		
	excavator	162		
	water truck	NA		
	foreman type			
	pickups	NA		
Stage material and	Semi truck	NA	8	5 (all)
equipment	fork lift	89	1	
-4-1	foreman pickups	NA	4	
TSP Foundation/Pad	Excavator	162	1 (all)	5 (all)
concrete work	augur	205	\··,	- \/
	water truck	NA		
	backhoe	97		
	cement truck	NA		
	concrete pumps	84		
Install temporary shoefly	concrete pullips	0-1	1 (all)	5 (all)
	Time to a	NI A	I (dii)	5 (all)
poles	Line truck	NA		
	bucket truck	NA		
	crane	226		
	foreman pickups	NA		
	construction digger	162		
Install tubular steel poles	Backhoe	0.7	1	5 (all)
	excavator	97	1	
	water truck	162	1	
	foreman type	NA	6	
	pickups	NA	1	
	dump truck	NA	See	
	helicopters ¹	See footnote	footnote	
Demolish and remove steel	Backhoe		1	5 (all)
towers	excavator	97	1	J (all)
towers	water truck	162		
		NA	1	
	foreman type	NA	6	
	pickups	NA	1	
	dump truck	See footnote	See	
	helicopters ¹		footnote	
Install temporary guard	Line truck	NA	1 (all)	5
structures	bucket truck	NA		5
	foreman pickups	NA		5
	crane	226		7
		220		
Install new conductor	3 drum puller	150	1	5
	V grove puller		1	5
	reel trailers	190	1	5
	crane	14	1	5
	bucket truck	226	4	2
	line truck	NA	3	5
	foreman type	NA	4	5
	pickups	NA	4 See	ľ
	helicopters ¹	See footnote		
Site clean up	пенсориего		footnote 1 (all)	5 (all)
		162		
	Excavator			1
	Excavator backhoe	97		
		97 NA		
	backhoe			
	backhoe dump truck	NA		
	backhoe dump truck water truck	NA NA		

Note that fuel type for all equipment except helicopters is diesel

Although multiple activities include the use of helicopters, and some of these construction activities may overlap (temporally),
a maximum of 3 total helicopters (two light, one heavy) would operate for project construction on any given day.

Helicopter details:

Light helicopter: 40 gal/hr

Heavy helicopter: 90 gal/hr

Average flight time for the light helicopters is 4.5 flight hours each, 9 hours (2 helicopters) @ 40 gallons = 360 gal/day

Average flight time for the heavy helicopter is 5 flight hours, 5 hours @ 90 gallons = 450 gal/day