

**SDG&E Tie Line 695/6971 Reconductor Project
San Diego Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	0.00	1000sqft	98.33	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2018
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Selected General Light Industry as the most appropriate default land use type. Assumed that "Lot acreage" was equivalent to the total area of site disturbance as described in Section 4.3 within the document.

Construction Phase - The construction phasing is per the construction schedule within the PEA.

Off-road Equipment - Off-highway trucks = water truck, spray truck

Crew trucks and pickup trucks are included within the worker VMT calculations.

Off-road Equipment - Off-highway truck = water trucks, tractor trailer units, and bucket trucks

Off-road Equipment - Off-highway Truck = water trucks and cement trucks

Crew trucks are counted in the worker VMT calculations.

Off-road Equipment - Off-highway Truck = water trucks and tractor trailer units

Other Construction Equipment = mowers

Off-road Equipment - Off-highway truck = water trucks, boom trucks, bucket trucks, wire truck, pulling rig

Crew trucks and pickups are included within the worker VMT calculations.

Off-road Equipment - Off-highway trucks = water truck, bucket trucks, and wire dolly

Trips and VMT - Worker trips based on the max number of workers per phase. Assumed 10 haul trips/day for trenching, and 2 haul trips/day for staging yard construction. Vendor trips estimated to be 2 trips/day for each water truck and cement truck. Maximum trip length for vendor trips was estimated at 69 miles, and for haul trips at 74 miles.

Grading - Site preparation activities would occur at approximately 10.25 acres total. Assumed half that amount for total acres disturbed from demobilization activities. Trenching operations will generate up to approximately 2,900 cy total.

Construction Off-road Equipment Mitigation - Mitigation measures: water exposed areas for dust control, and replace ground cover of disturbed areas.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1,550.00	60.00
tblConstructionPhase	NumDays	1,550.00	108.00
tblConstructionPhase	NumDays	1,550.00	60.00
tblConstructionPhase	NumDays	155.00	12.00
tblConstructionPhase	NumDays	60.00	35.00
tblConstructionPhase	NumDays	60.00	49.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	4/20/2018	4/11/2018
tblConstructionPhase	PhaseEndDate	8/15/2018	6/6/2018
tblConstructionPhase	PhaseEndDate	7/23/2018	7/9/2018
tblConstructionPhase	PhaseEndDate	6/20/2018	5/14/2018
tblConstructionPhase	PhaseEndDate	9/4/2018	9/26/2018
tblConstructionPhase	PhaseStartDate	2/10/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	4/12/2018	2/1/2018
tblConstructionPhase	PhaseStartDate	5/15/2018	5/1/2018
tblConstructionPhase	PhaseStartDate	6/7/2018	5/1/2018
tblConstructionPhase	PhaseStartDate	7/10/2018	8/1/2018
tblGrading	AcresOfGrading	26.25	0.00
tblGrading	AcresOfGrading	21.44	0.00
tblLandUse	LotAcreage	0.00	98.33
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	11.00
tblOffRoadEquipment	PhaseName		Stringing Activities/Transfer Conductor/Sagging Activities

tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripLength	20.00	74.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripLength	7.30	69.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	40.00	14.00
tblTripsAndVMT	WorkerTripNumber	0.00	12.00
tblTripsAndVMT	WorkerTripNumber	0.00	50.00
tblTripsAndVMT	WorkerTripNumber	35.00	32.00
tblTripsAndVMT	WorkerTripNumber	0.00	24.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Site Preparation	1/1/2018	2/9/2018	6	35	
2	Pier Foundation Construction	Building Construction	2/1/2018	4/11/2018	6	60	
3	Direct Bury Construction and Pole Installation	Building Construction	2/1/2018	6/6/2018	6	108	
4	Trenching for Installation of Underground Cables	Grading	5/1/2018	5/14/2018	6	12	
5	Stringing Activities/Transfer Conductor/Sagging Activities	Building Construction	5/1/2018	7/9/2018	6	60	
6	Demobilization/Clean Up/Road Refreshing	Site Preparation	8/1/2018	9/26/2018	6	49	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Dumpers/Tenders	1	3.00	16	0.38
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Graders	2	6.00	174	0.41
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Off-Highway Trucks	4	3.00	400	0.38
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Other Construction Equipment	2	7.00	171	0.42
Pier Foundation Construction	Air Compressors	3	5.00	78	0.48
Pier Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Pier Foundation Construction	Forklifts	3	4.00	89	0.20
Pier Foundation Construction	Generator Sets	1	8.00	84	0.74

Pier Foundation Construction	Off-Highway Trucks	12	3.00	400	0.38
Direct Bury Construction and Pole Installation	Air Compressors	3	3.00	78	0.48
Direct Bury Construction and Pole Installation	Bore/Drill Rigs	3	7.00	205	0.50
Direct Bury Construction and Pole Installation	Cranes	3	5.00	226	0.29
Direct Bury Construction and Pole Installation	Off-Highway Trucks	9	4.00	400	0.38
Trenching for Installation of Underground Cables	Bore/Drill Rigs	1	6.00	205	0.50
Trenching for Installation of Underground Cables	Off-Highway Trucks	4	3.00	400	0.38
Trenching for Installation of Underground Cables	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Stringing Activities/Transfer Conductor/Sagging Activities	Off-Highway Trucks	11	4.00	400	0.38
Demobilization/Clean Up/Road Refreshing	Graders	1	7.00	174	0.41
Demobilization/Clean Up/Road Refreshing	Off-Highway Trucks	2	6.00	400	0.38
Demobilization/Clean Up/Road Refreshing	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Pier Foundation Construction	Cranes	1	7.00	226	0.29
Stringing Activities/Transfer Conductor/Sagging Activities	Cranes	1	7.00	226	0.29
Trenching for Installation of Underground Cables	Excavators	2	8.00	162	0.38
Direct Bury Construction and Pole Installation	Forklifts	3	8.00	89	0.20
Stringing Activities/Transfer Conductor/Sagging Activities	Forklifts	3	8.00	89	0.20
Direct Bury Construction and Pole Installation	Generator Sets	1	8.00	84	0.74
Stringing Activities/Transfer Conductor/Sagging Activities	Generator Sets	1	8.00	84	0.74
Trenching for Installation of Underground Cables	Graders	1	8.00	174	0.41
Trenching for Installation of Underground Cables	Rubber Tired Dozers	1	8.00	255	0.40
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Rubber Tired Dozers	3	8.00	255	0.40
Demobilization/Clean Up/Road Refreshing	Rubber Tired Dozers	3	8.00	255	0.40
Trenching for Installation of Underground Cables	Scrapers	2	8.00	361	0.48
Pier Foundation Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Direct Bury Construction and Pole Installation	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Stringing Activities/Transfer Conductor/Sagging Activities	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Pier Foundation Construction	Welders	1	8.00	46	0.45
Direct Bury Construction and Pole Installation	Welders	1	8.00	46	0.45
Stringing Activities/Transfer Conductor/Sagging Activities	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Staging Yard Setup, Road Refinishing	16	14.00	2.00	0.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT
Pier Foundation Construction	26	12.00	8.00	2.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT
Direct Bury Construction and Pole	26	50.00	24.00	1.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT
Trenching for Installation of Stringing	14	32.00	2.00	12.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT
Activities/Transfer Demobilization/Clean Up/Road Refinishing	20	24.00	6.00	0.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT
	7	14.00	2.00	0.00	10.80	69.00	74.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area

3.2 Staging Yard Setup, Road Refinishing, Vegetation

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3162	0.0000	0.3162	0.1738	0.0000	0.1738	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1346	1.4213	0.9946	1.3900e-003		0.0714	0.0714		0.0657	0.0657	0.0000	126.4909	126.4909	0.0393	0.0000	127.3163
Total	0.1346	1.4213	0.9946	1.3900e-003	0.3162	0.0714	0.3876	0.1738	0.0657	0.2395	0.0000	126.4909	126.4909	0.0393	0.0000	127.3163

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-003	0.0205	0.0101	7.0000e-005	2.1400e-003	3.7000e-004	2.5100e-003	6.1000e-004	3.4000e-004	9.5000e-004	0.0000	6.4489	6.4489	4.0000e-005	0.0000	6.4498
Worker	6.9000e-004	9.2000e-004	8.6300e-003	2.0000e-005	1.9600e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.6941	1.6941	8.0000e-005	0.0000	1.6958
Total	1.9900e-003	0.0214	0.0187	9.0000e-005	4.1000e-003	3.8000e-004	4.4900e-003	1.1300e-003	3.5000e-004	1.4900e-003	0.0000	8.1430	8.1430	1.2000e-004	0.0000	8.1456

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0711	0.0000	0.0711	0.0391	0.0000	0.0391	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1346	1.4213	0.9946	1.3900e-003		0.0714	0.0714		0.0657	0.0657	0.0000	126.4908	126.4908	0.0393	0.0000	127.3161
Total	0.1346	1.4213	0.9946	1.3900e-003	0.0711	0.0714	0.1426	0.0391	0.0657	0.1048	0.0000	126.4908	126.4908	0.0393	0.0000	127.3161

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3000e-003	0.0205	0.0101	7.0000e-005	2.1400e-003	3.7000e-004	2.5100e-003	6.1000e-004	3.4000e-004	9.5000e-004	0.0000	6.4489	6.4489	4.0000e-005	0.0000	6.4498
Worker	6.9000e-004	9.2000e-004	8.6300e-003	2.0000e-005	1.9600e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.6941	1.6941	8.0000e-005	0.0000	1.6958
Total	1.9900e-003	0.0214	0.0187	9.0000e-005	4.1000e-003	3.8000e-004	4.4900e-003	1.1300e-003	3.5000e-004	1.4900e-003	0.0000	8.1430	8.1430	1.2000e-004	0.0000	8.1456

3.3 Pier Foundation Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2130	2.1000	1.2768	3.1900e-003		0.0971	0.0971		0.0911	0.0911	0.0000	287.6508	287.6508	0.0807	0.0000	289.3450
Total	0.2130	2.1000	1.2768	3.1900e-003		0.0971	0.0971		0.0911	0.0911	0.0000	287.6508	287.6508	0.0807	0.0000	289.3450

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	8.1000e-004	3.9000e-004	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2400	0.2400	0.0000	0.0000	0.2401
Vendor	8.9100e-003	0.1406	0.0692	5.0000e-004	0.0147	2.5300e-003	0.0172	4.2000e-003	2.3200e-003	6.5300e-003	0.0000	44.2213	44.2213	2.9000e-004	0.0000	44.2273
Worker	1.0200e-003	1.3500e-003	0.0127	4.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.4893	2.4893	1.2000e-004	0.0000	2.4918
Total	9.9800e-003	0.1428	0.0823	5.4000e-004	0.0177	2.5600e-003	0.0202	4.9900e-003	2.3500e-003	7.3500e-003	0.0000	46.9506	46.9506	4.1000e-004	0.0000	46.9592

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2130	2.1000	1.2768	3.1900e-003		0.0971	0.0971		0.0911	0.0911	0.0000	287.6504	287.6504	0.0807	0.0000	289.3446
Total	0.2130	2.1000	1.2768	3.1900e-003		0.0971	0.0971		0.0911	0.0911	0.0000	287.6504	287.6504	0.0807	0.0000	289.3446

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	8.1000e-004	3.9000e-004	0.0000	6.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2400	0.2400	0.0000	0.0000	0.2401
Vendor	8.9100e-003	0.1406	0.0692	5.0000e-004	0.0147	2.5300e-003	0.0172	4.2000e-003	2.3200e-003	6.5300e-003	0.0000	44.2213	44.2213	2.9000e-004	0.0000	44.2273
Worker	1.0200e-003	1.3500e-003	0.0127	4.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.4893	2.4893	1.2000e-004	0.0000	2.4918
Total	9.9800e-003	0.1428	0.0823	5.4000e-004	0.0177	2.5600e-003	0.0202	4.9900e-003	2.3500e-003	7.3500e-003	0.0000	46.9506	46.9506	4.1000e-004	0.0000	46.9592

3.4 Direct Bury Construction and Pole Installation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4250	4.3436	2.5211	6.4200e-003		0.1975	0.1975		0.1843	0.1843	0.0000	580.6596	580.6596	0.1678	0.0000	584.1830
Total	0.4250	4.3436	2.5211	6.4200e-003		0.1975	0.1975		0.1843	0.1843	0.0000	580.6596	580.6596	0.1678	0.0000	584.1830

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	4.0000e-004	2.0000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.1200	0.1200	0.0000	0.0000	0.1200
Vendor	0.0481	0.7594	0.3737	2.6900e-003	0.0794	0.0137	0.0931	0.0227	0.0126	0.0353	0.0000	238.7949	238.7949	1.5500e-003	0.0000	238.8274
Worker	7.6300e-003	0.0101	0.0951	2.7000e-004	0.0217	1.6000e-004	0.0218	5.7500e-003	1.5000e-004	5.9000e-003	0.0000	18.6694	18.6694	9.2000e-004	0.0000	18.6886
Total	0.0558	0.7699	0.4690	2.9600e-003	0.1011	0.0138	0.1149	0.0285	0.0127	0.0412	0.0000	257.5842	257.5842	2.4700e-003	0.0000	257.6361

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4250	4.3436	2.5211	6.4200e-003		0.1975	0.1975		0.1843	0.1843	0.0000	580.6590	580.6590	0.1678	0.0000	584.1823
Total	0.4250	4.3436	2.5211	6.4200e-003		0.1975	0.1975		0.1843	0.1843	0.0000	580.6590	580.6590	0.1678	0.0000	584.1823

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	4.0000e-004	2.0000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.1200	0.1200	0.0000	0.0000	0.1200
Vendor	0.0481	0.7594	0.3737	2.6900e-003	0.0794	0.0137	0.0931	0.0227	0.0126	0.0353	0.0000	238.7949	238.7949	1.5500e-003	0.0000	238.8274
Worker	7.6300e-003	0.0101	0.0951	2.7000e-004	0.0217	1.6000e-004	0.0218	5.7500e-003	1.5000e-004	5.9000e-003	0.0000	18.6694	18.6694	9.2000e-004	0.0000	18.6886
Total	0.0558	0.7699	0.4690	2.9600e-003	0.1011	0.0138	0.1149	0.0285	0.0127	0.0412	0.0000	257.5842	257.5842	2.4700e-003	0.0000	257.6361

3.5 Trenching for Installation of Underground Cables - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0520	0.0000	0.0520	0.0216	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.4591	0.3090	5.4000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.2589	49.2589	0.0153	0.0000	49.5810
Total	0.0409	0.4591	0.3090	5.4000e-004	0.0520	0.0206	0.0727	0.0216	0.0190	0.0406	0.0000	49.2589	49.2589	0.0153	0.0000	49.5810

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	4.8500e-003	2.3500e-003	2.0000e-005	3.8000e-004	7.0000e-005	4.5000e-004	1.0000e-004	7.0000e-005	1.7000e-004	0.0000	1.4403	1.4403	1.0000e-005	0.0000	1.4405
Vendor	4.5000e-004	7.0300e-003	3.4600e-003	2.0000e-005	7.4000e-004	1.3000e-004	8.6000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	2.2111	2.2111	1.0000e-005	0.0000	2.2114
Worker	5.4000e-004	7.2000e-004	6.7600e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3276	1.3276	7.0000e-005	0.0000	1.3290
Total	1.2700e-003	0.0126	0.0126	6.0000e-005	2.6600e-003	2.1000e-004	2.8600e-003	7.2000e-004	2.0000e-004	9.2000e-004	0.0000	4.9789	4.9789	9.0000e-005	0.0000	4.9808

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0117	0.0000	0.0117	4.8600e-003	0.0000	4.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0409	0.4591	0.3090	5.4000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.2589	49.2589	0.0153	0.0000	49.5809
Total	0.0409	0.4591	0.3090	5.4000e-004	0.0117	0.0206	0.0324	4.8600e-003	0.0190	0.0239	0.0000	49.2589	49.2589	0.0153	0.0000	49.5809

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	4.8500e-003	2.3500e-003	2.0000e-005	3.8000e-004	7.0000e-005	4.5000e-004	1.0000e-004	7.0000e-005	1.7000e-004	0.0000	1.4403	1.4403	1.0000e-005	0.0000	1.4405
Vendor	4.5000e-004	7.0300e-003	3.4600e-003	2.0000e-005	7.4000e-004	1.3000e-004	8.6000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	2.2111	2.2111	1.0000e-005	0.0000	2.2114
Worker	5.4000e-004	7.2000e-004	6.7600e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3276	1.3276	7.0000e-005	0.0000	1.3290
Total	1.2700e-003	0.0126	0.0126	6.0000e-005	2.6600e-003	2.1000e-004	2.8600e-003	7.2000e-004	2.0000e-004	9.2000e-004	0.0000	4.9789	4.9789	9.0000e-005	0.0000	4.9808

**3.6 Stringing Activities/Transfer Conductor/Sagging Activities -
Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2070	2.0646	1.2158	2.9700e-003		0.0947	0.0947		0.0880	0.0880	0.0000	269.0650	269.0650	0.0790	0.0000	270.7247
Total	0.2070	2.0646	1.2158	2.9700e-003		0.0947	0.0947		0.0880	0.0880	0.0000	269.0650	269.0650	0.0790	0.0000	270.7247

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6900e-003	0.1055	0.0519	3.7000e-004	0.0110	1.9000e-003	0.0129	3.1500e-003	1.7400e-003	4.9000e-003	0.0000	33.1660	33.1660	2.2000e-004	0.0000	33.1705
Worker	2.0300e-003	2.7100e-003	0.0254	7.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	4.9785	4.9785	2.4000e-004	0.0000	4.9836
Total	8.7200e-003	0.1082	0.0773	4.4000e-004	0.0168	1.9400e-003	0.0188	4.6800e-003	1.7800e-003	6.4700e-003	0.0000	38.1445	38.1445	4.6000e-004	0.0000	38.1541

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2070	2.0646	1.2158	2.9700e-003		0.0947	0.0947		0.0880	0.0880	0.0000	269.0646	269.0646	0.0790	0.0000	270.7243
Total	0.2070	2.0646	1.2158	2.9700e-003		0.0947	0.0947		0.0880	0.0880	0.0000	269.0646	269.0646	0.0790	0.0000	270.7243

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6900e-003	0.1055	0.0519	3.7000e-004	0.0110	1.9000e-003	0.0129	3.1500e-003	1.7400e-003	4.9000e-003	0.0000	33.1660	33.1660	2.2000e-004	0.0000	33.1705
Worker	2.0300e-003	2.7100e-003	0.0254	7.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	4.9785	4.9785	2.4000e-004	0.0000	4.9836
Total	8.7200e-003	0.1082	0.0773	4.4000e-004	0.0168	1.9400e-003	0.0188	4.6800e-003	1.7800e-003	6.4700e-003	0.0000	38.1445	38.1445	4.6000e-004	0.0000	38.1541

3.7 Demobilization/Clean Up/Road Refreshing - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4426	0.0000	0.4426	0.2433	0.0000	0.2433	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1301	1.3906	0.9554	1.3300e-003		0.0642	0.0642		0.0591	0.0591	0.0000	121.2505	121.2505	0.0378	0.0000	122.0432
Total	0.1301	1.3906	0.9554	1.3300e-003	0.4426	0.0642	0.5069	0.2433	0.0591	0.3024	0.0000	121.2505	121.2505	0.0378	0.0000	122.0432

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8200e-003	0.0287	0.0141	1.0000e-004	3.0000e-003	5.2000e-004	3.5200e-003	8.6000e-004	4.7000e-004	1.3300e-003	0.0000	9.0285	9.0285	6.0000e-005	0.0000	9.0297
Worker	9.7000e-004	1.2900e-003	0.0121	3.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3717	2.3717	1.2000e-004	0.0000	2.3742
Total	2.7900e-003	0.0300	0.0262	1.3000e-004	5.7500e-003	5.4000e-004	6.2900e-003	1.5900e-003	4.9000e-004	2.0800e-003	0.0000	11.4002	11.4002	1.8000e-004	0.0000	11.4039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0996	0.0000	0.0996	0.0547	0.0000	0.0547	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1301	1.3906	0.9554	1.3300e-003		0.0642	0.0642		0.0591	0.0591	0.0000	121.2503	121.2503	0.0378	0.0000	122.0430
Total	0.1301	1.3906	0.9554	1.3300e-003	0.0996	0.0642	0.1638	0.0547	0.0591	0.1138	0.0000	121.2503	121.2503	0.0378	0.0000	122.0430

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8200e-003	0.0287	0.0141	1.0000e-004	3.0000e-003	5.2000e-004	3.5200e-003	8.6000e-004	4.7000e-004	1.3300e-003	0.0000	9.0285	9.0285	6.0000e-005	0.0000	9.0297
Worker	9.7000e-004	1.2900e-003	0.0121	3.0000e-005	2.7500e-003	2.0000e-005	2.7700e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3717	2.3717	1.2000e-004	0.0000	2.3742
Total	2.7900e-003	0.0300	0.0262	1.3000e-004	5.7500e-003	5.4000e-004	6.2900e-003	1.5900e-003	4.9000e-004	2.0800e-003	0.0000	11.4002	11.4002	1.8000e-004	0.0000	11.4039

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511818	0.073499	0.191840	0.131575	0.036332	0.005186	0.012677	0.022513	0.001864	0.002072	0.006564	0.000601	0.003458

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation
