SDG&E Tie Line 695/6971 Reconductor Project

San Diego Air Basin, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Demobilization/Clean Up/Road Refreshing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Direct Bury Construction and Pole Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pier Foundation and Micropile Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stringing Activities/Transfer Conductor/Sagging Activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching for Installation of Underground Cables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	6	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	7	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	3	No Change	0.00
Dumpers/Tenders	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Graders	Diesel	No Change	0	3	No Change	0.00

Off-Highway Trucks	Diesel	No Change	0	42	No Change	0.00
Other Construction Equipment	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	4	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.88200E-002	2.60750E-001	2.41050E-001	3.90000E-004	1.95700E-002	1.95700E-002	0.00000E+000	3.31924E+001	3.31924E+001	3.15000E-003	0.00000E+000	3.32586E+001
Bore/Drill Rigs	5.23900E-002	7.29810E-001	3.63800E-001	1.63000E-003	2.06200E-002	1.89700E-002	0.00000E+000	1.49002E+002	1.49002E+002	4.63900E-002	0.00000E+000	1.49976E+002
Cement and Mortar Mixers	7.30000E-004	4.60000E-003	3.85000E-003	1.00000E-005	1.80000E-004	1.80000E-004	0.00000E+000	5.72850E-001	5.72850E-001	6.00000E-005	0.00000E+000	5.74090E-001
Cranes	4.71100E-002	5.63050E-001	2.08180E-001	4.80000E-004	2.43700E-002	2.24200E-002	0.00000E+000	4.34792E+001	4.34792E+001	1.35400E-002	0.00000E+000	4.37634E+001
Dumpers/Tenders	1.33000E-003	8.45000E-003	4.55000E-003	1.00000E-005	3.30000E-004	3.30000E-004	0.00000E+000	1.00202E+000	1.00202E+000	1.10000E-004	0.00000E+000	1.00428E+000
Excavators	3.71000E-003	3.96800E-002	4.19800E-002	7.00000E-005	1.92000E-003	1.77000E-003	0.00000E+000	6.04116E+000	6.04116E+000	1.88000E-003	0.00000E+000	6.08065E+000
Forklifts	6.68000E-003	5.90400E-002	4.54200E-002	6.00000E-005	4.71000E-003	4.33000E-003	0.00000E+000	5.23177E+000	5.23177E+000	1.63000E-003	0.00000E+000	5.26597E+000
Graders	3.32900E-002	3.32400E-001	1.86700E-001	2.50000E-004	1.86900E-002	1.71900E-002	0.00000E+000	2.27090E+001	2.27090E+001	7.07000E-003	0.00000E+000	2.28575E+001
Off-Highway Trucks	4.15520E-001	4.47314E+000	2.25760E+000	7.10000E-003	1.63270E-001	1.50210E-001	0.00000E+000	6.48111E+002	6.48111E+002	2.01770E-001	0.00000E+000	6.52349E+002
Other Construction Equipment	1.45100E-002	1.58110E-001	1.08510E-001	1.60000E-004	8.32000E-003	7.65000E-003	0.00000E+000	1.47198E+001	1.47198E+001	4.58000E-003	0.00000E+000	1.48160E+001
Tractors/Loaders/Backhoes	7.48000E-003	7.39600E-002	6.57200E-002	9.00000E-005	5.24000E-003	4.82000E-003	0.00000E+000	7.98034E+000	7.98034E+000	2.48000E-003	0.00000E+000	8.03252E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.88200E-002	2.60750E-001	2.41050E-001	3.90000E-004	1.95700E-002	1.95700E-002	0.00000E+000	3.31923E+001	3.31923E+001	3.15000E-003	0.00000E+000	3.32586E+001
Bore/Drill Rigs	5.23900E-002	7.29810E-001	3.63800E-001	1.63000E-003	2.06200E-002	1.89700E-002	0.00000E+000	1.49002E+002	1.49002E+002	4.63900E-002	0.00000E+000	1.49976E+002
Cement and Mortar Mixers	7.30000E-004	4.60000E-003	3.85000E-003	1.00000E-005	1.80000E-004	1.80000E-004	0.00000E+000	5.72840E-001	5.72840E-001	6.00000E-005	0.00000E+000	5.74090E-001
Cranes	4.71100E-002	5.63050E-001	2.08180E-001	4.80000E-004	2.43700E-002	2.24200E-002	0.00000E+000	4.34791E+001	4.34791E+001	1.35400E-002	0.00000E+000	4.37634E+001
Dumpers/Tenders	1.33000E-003	8.45000E-003	4.55000E-003	1.00000E-005	3.30000E-004	3.30000E-004	0.00000E+000	1.00202E+000	1.00202E+000	1.10000E-004	0.00000E+000	1.00428E+000

Excavators	3.71000E-003	3.96800E-002	4.19800E-002	7.00000E-005	1.92000E-003	1.77000E-003	0.00000E+000	6.04115E+000	6.04115E+000	1.88000E-003	0.00000E+000	6.08065E+000
Forklifts	6.68000E-003	5.90400E-002	4.54200E-002	6.00000E-005	4.71000E-003	4.33000E-003	0.00000E+000	5.23176E+000	5.23176E+000	1.63000E-003	0.00000E+000	5.26596E+000
Graders	3.32900E-002	3.32400E-001	1.86700E-001	2.50000E-004	1.86900E-002	1.71900E-002	0.00000E+000	2.27090E+001	2.27090E+001	7.07000E-003	0.00000E+000	2.28575E+001
Off-Highway Trucks	4.15520E-001	4.47314E+000	2.25760E+000	7.10000E-003	1.63270E-001	1.50210E-001	0.00000E+000	6.48111E+002	6.48111E+002	2.01770E-001	0.00000E+000	6.52348E+002
Other Construction Equipment	1.45100E-002	1.58110E-001	1.08510E-001	1.60000E-004	8.32000E-003	7.65000E-003	0.00000E+000	1.47198E+001	1.47198E+001	4.58000E-003	0.00000E+000	1.48160E+001
Tractors/Loaders/Backhoes	7.48000E-003	7.39600E-002	6.57200E-002	9.00000E-005	5.24000E-003	4.82000E-003	0.00000E+000	7.98033E+000	7.98033E+000	2.48000E-003	0.00000E+000	8.03251E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20510E-006	1.20510E-006	0.00000E+000	0.00000E+000	1.20270E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20803E-006	1.20803E-006	0.00000E+000	0.00000E+000	1.20019E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.74566E-005	1.74566E-005	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14998E-006	1.14998E-006	0.00000E+000	0.00000E+000	1.14251E-006
Dumpers/Tenders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.65531E-006	1.65531E-006	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.91140E-006	1.91140E-006	0.00000E+000	0.00000E+000	1.89899E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.32106E-006	1.32106E-006	0.00000E+000	0.00000E+000	1.31248E-006
Off-Highway Trucks	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20350E-006	1.20350E-006	0.00000E+000	0.00000E+000	1.19568E-006
Other Construction Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.35871E-006	1.35871E-006	0.00000E+000	0.00000E+000	1.34989E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.25308E-006	1.25308E-006	0.00000E+000	0.00000E+000	1.24494E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	50.00	PM2.5 Reduction	50.00		

Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Demobilization/Clean Up/Road Refreshing	Fugitive Dust	0.02	0.00	0.00	0.00	0.77	0.78
Demobilization/Clean Up/Road Refreshing	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Direct Bury Construction and Pole Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Direct Bury Construction and Pole Installation	Roads	0.09	0.02	0.09	0.02	0.00	0.00
Pier Foundation and Micropile Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Pier Foundation and Micropile Construction	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Fugitive Dust	0.02	0.00	0.00	0.00	0.77	0.78
Staging Yard Setup, Road Refinishing, Vegetation Trimming, BMP Installation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Stringing Activities/Transfer Conductor/Sagging Activities	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Stringing Activities/Transfer Conductor/Sagging Activities	Roads	0.02	0.00	0.02	0.00	0.00	0.00
Trenching for Installation of Underground Cables	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Trenching for Installation of Underground Cables	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			

	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00

No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	

No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services	
Percent Reduction in Waste Disposed	