
APPENDIX A

CALEEMod.2016.3.1 EMISSIONS REPORTS

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Annual

Mountain Gate CSD Water System Improvements
Shasta County AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	11.00	Acre	11.00	0.00	0
Other Non-Asphalt Surfaces	4.00	Acre	4.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - .

Construction Phase - Construction schedule provided by PACE.

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Trips and VMT - Vehicle trips based on specific project characteristics.

Demolition -

Grading - Grading information provided by PACE.

Vehicle Trips - No increase in operational emissions.

Area Coating - No increase in pavement over existing conditions.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measures included in Initial Study/MND.

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	20.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	150.00
tblConstructionPhase	NumDays	20.00	30.00
tblGrading	AcresOfGrading	150.00	15.00
tblGrading	MaterialExported	0.00	8,260.00
tblGrading	MaterialImported	0.00	7,660.00
tblLandUse	LandUseSquareFeet	479,160.00	0.00

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tblLandUse	LandUseSquareFeet	174,240.00	0.00
tblOffRoadEquipment	HorsePower	247.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	792.00	327.00
tblTripsAndVMT	HaulingTripNumber	1,033.00	243.00
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripNumber	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	5.00	18.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2023	0.1794	1.8203	1.4664	3.3400e-003	0.5917	0.0754	0.6672	0.2828	0.0696	0.3524	0.0000	294.5783	294.5783	0.0845	0.0000	296.6917
2024	0.0268	0.1289	0.2005	3.2000e-004	9.7000e-004	6.3300e-003	7.3000e-003	2.6000e-004	5.8300e-003	6.0800e-003	0.0000	27.8208	27.8208	8.7600e-003	0.0000	28.0399
Maximum	0.1794	1.8203	1.4664	3.3400e-003	0.5917	0.0754	0.6672	0.2828	0.0696	0.3524	0.0000	294.5783	294.5783	0.0845	0.0000	296.6917

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2023	0.1794	1.8203	1.4664	3.3400e-003	0.1382	0.0754	0.2136	0.0651	0.0696	0.1347	0.0000	294.5780	294.5780	0.0845	0.0000	296.6914
2024	0.0268	0.1289	0.2005	3.2000e-004	5.5000e-004	6.3300e-003	6.8800e-003	1.6000e-004	5.8300e-003	5.9800e-003	0.0000	27.8207	27.8207	8.7600e-003	0.0000	28.0399
Maximum	0.1794	1.8203	1.4664	3.3400e-003	0.1382	0.0754	0.2136	0.0651	0.0696	0.1347	0.0000	294.5780	294.5780	0.0845	0.0000	296.6914

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	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	76.60	0.00	67.31	76.94	0.00	60.75	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-3-2023	7-2-2023	0.6300	0.6300
2	7-3-2023	10-2-2023	0.7524	0.7524
3	10-3-2023	1-2-2024	0.5841	0.5841
4	1-3-2024	4-2-2024	0.1441	0.1441
		Highest	0.7524	0.7524

2.2 Overall Operational

Unmitigated Operational

	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					
Area	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0000e-005	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

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2.2 Overall Operational

Mitigated Operational

	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					
Area	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0000e-005	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

	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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/3/2023	4/14/2023	5	10	
2	Site Preparation	Site Preparation	4/17/2023	4/28/2023	5	10	
3	Grading	Grading	5/1/2023	11/24/2023	5	150	
4	Building Construction	Building Construction	11/27/2023	12/22/2023	5	20	
5	Paving	Paving	12/27/2023	2/6/2024	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15

Acres of Paving: 15

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

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	1	6.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	8.00	1	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

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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
Demolition	4	15.00	0.00	327.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	18.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	20.00	0.00	243.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2023

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					0.0870	0.0000	0.0870	0.0132	0.0000	0.0132	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8100e-003	0.0868	0.0570	1.3000e-004		3.9700e-003	3.9700e-003		3.7000e-003	3.7000e-003	0.0000	11.2200	11.2200	3.0800e-003	0.0000	11.2969
Total	8.8100e-003	0.0868	0.0570	1.3000e-004	0.0870	3.9700e-003	0.0910	0.0132	3.7000e-003	0.0169	0.0000	11.2200	11.2200	3.0800e-003	0.0000	11.2969

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3.2 Demolition - 2023

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	8.4000e-004	0.0289	5.0600e-003	1.3000e-004	2.7400e-003	6.0000e-005	2.8000e-003	7.6000e-004	6.0000e-005	8.1000e-004	0.0000	11.9682	11.9682	4.5000e-004	0.0000	11.9795
Vendor	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
Worker	1.8000e-004	1.2000e-004	1.2200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027
Total	1.0200e-003	0.0291	6.2800e-003	1.3000e-004	3.1000e-003	6.0000e-005	3.1600e-003	8.6000e-004	6.0000e-005	9.1000e-004	0.0000	12.2706	12.2706	4.6000e-004	0.0000	12.2822

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					0.0196	0.0000	0.0196	2.9700e-003	0.0000	2.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8100e-003	0.0868	0.0570	1.3000e-004		3.9700e-003	3.9700e-003		3.7000e-003	3.7000e-003	0.0000	11.2200	11.2200	3.0800e-003	0.0000	11.2969
Total	8.8100e-003	0.0868	0.0570	1.3000e-004	0.0196	3.9700e-003	0.0236	2.9700e-003	3.7000e-003	6.6700e-003	0.0000	11.2200	11.2200	3.0800e-003	0.0000	11.2969

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3.2 Demolition - 2023

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	8.4000e-004	0.0289	5.0600e-003	1.3000e-004	1.7200e-003	6.0000e-005	1.7800e-003	5.1000e-004	6.0000e-005	5.6000e-004	0.0000	11.9682	11.9682	4.5000e-004	0.0000	11.9795
Vendor	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
Worker	1.8000e-004	1.2000e-004	1.2200e-003	0.0000	2.0000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3025	0.3025	1.0000e-005	0.0000	0.3027
Total	1.0200e-003	0.0291	6.2800e-003	1.3000e-004	1.9200e-003	6.0000e-005	1.9900e-003	5.7000e-004	6.0000e-005	6.2000e-004	0.0000	12.2706	12.2706	4.6000e-004	0.0000	12.2822

3.3 Site Preparation - 2023

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					0.0301	0.0000	0.0301	0.0166	0.0000	0.0166	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	7.6800e-003	0.0112	2.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.3679	1.3679	4.4000e-004	0.0000	1.3790
Total	7.6000e-004	7.6800e-003	0.0112	2.0000e-005	0.0301	3.8000e-004	0.0305	0.0166	3.5000e-004	0.0169	0.0000	1.3679	1.3679	4.4000e-004	0.0000	1.3790

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3.3 Site Preparation - 2023

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	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
Worker	2.2000e-004	1.4000e-004	1.4700e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3630	0.3630	1.0000e-005	0.0000	0.3632
Total	2.2000e-004	1.4000e-004	1.4700e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3630	0.3630	1.0000e-005	0.0000	0.3632

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					6.7700e-003	0.0000	6.7700e-003	3.7200e-003	0.0000	3.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	7.6800e-003	0.0112	2.0000e-005		3.8000e-004	3.8000e-004		3.5000e-004	3.5000e-004	0.0000	1.3679	1.3679	4.4000e-004	0.0000	1.3790
Total	7.6000e-004	7.6800e-003	0.0112	2.0000e-005	6.7700e-003	3.8000e-004	7.1500e-003	3.7200e-003	3.5000e-004	4.0700e-003	0.0000	1.3679	1.3679	4.4000e-004	0.0000	1.3790

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3.3 Site Preparation - 2023

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	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
Worker	2.2000e-004	1.4000e-004	1.4700e-003	0.0000	2.4000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3630	0.3630	1.0000e-005	0.0000	0.3632
Total	2.2000e-004	1.4000e-004	1.4700e-003	0.0000	2.4000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3630	0.3630	1.0000e-005	0.0000	0.3632

3.4 Grading - 2023

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					0.4608	0.0000	0.4608	0.2493	0.0000	0.2493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1479	1.5411	1.2076	2.6400e-003		0.0646	0.0646		0.0594	0.0594	0.0000	231.7025	231.7025	0.0749	0.0000	233.5759
Total	0.1479	1.5411	1.2076	2.6400e-003	0.4608	0.0646	0.5254	0.2493	0.0594	0.3087	0.0000	231.7025	231.7025	0.0749	0.0000	233.5759

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3.4 Grading - 2023

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	6.2000e-004	0.0215	3.7600e-003	9.0000e-005	2.0400e-003	4.0000e-005	2.0800e-003	5.6000e-004	4.0000e-005	6.0000e-004	0.0000	8.8938	8.8938	3.4000e-004	0.0000	8.9022
Vendor	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
Worker	3.6100e-003	2.3500e-003	0.0245	7.0000e-005	7.1700e-003	5.0000e-005	7.2200e-003	1.9100e-003	5.0000e-005	1.9600e-003	0.0000	6.0492	6.0492	1.7000e-004	0.0000	6.0535
Total	4.2300e-003	0.0239	0.0282	1.6000e-004	9.2100e-003	9.0000e-005	9.3000e-003	2.4700e-003	9.0000e-005	2.5600e-003	0.0000	14.9430	14.9430	5.1000e-004	0.0000	14.9558

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					0.1037	0.0000	0.1037	0.0561	0.0000	0.0561	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1479	1.5411	1.2076	2.6400e-003		0.0646	0.0646		0.0594	0.0594	0.0000	231.7022	231.7022	0.0749	0.0000	233.5756
Total	0.1479	1.5411	1.2076	2.6400e-003	0.1037	0.0646	0.1683	0.0561	0.0594	0.1155	0.0000	231.7022	231.7022	0.0749	0.0000	233.5756

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3.4 Grading - 2023

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	6.2000e-004	0.0215	3.7600e-003	9.0000e-005	1.2800e-003	4.0000e-005	1.3200e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	8.8938	8.8938	3.4000e-004	0.0000	8.9022
Vendor	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
Worker	3.6100e-003	2.3500e-003	0.0245	7.0000e-005	4.0800e-003	5.0000e-005	4.1300e-003	1.1500e-003	5.0000e-005	1.2000e-003	0.0000	6.0492	6.0492	1.7000e-004	0.0000	6.0535
Total	4.2300e-003	0.0239	0.0282	1.6000e-004	5.3600e-003	9.0000e-005	5.4500e-003	1.5300e-003	9.0000e-005	1.6200e-003	0.0000	14.9430	14.9430	5.1000e-004	0.0000	14.9558

3.5 Building Construction - 2023

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	0.0129	0.1161	0.1292	2.2000e-004		5.5400e-003	5.5400e-003		5.2500e-003	5.2500e-003	0.0000	18.8100	18.8100	4.1000e-003	0.0000	18.9125
Total	0.0129	0.1161	0.1292	2.2000e-004		5.5400e-003	5.5400e-003		5.2500e-003	5.2500e-003	0.0000	18.8100	18.8100	4.1000e-003	0.0000	18.9125

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3.5 Building Construction - 2023

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	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
Worker	4.8000e-004	3.1000e-004	3.2600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8066	0.8066	2.0000e-005	0.0000	0.8071
Total	4.8000e-004	3.1000e-004	3.2600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8066	0.8066	2.0000e-005	0.0000	0.8071

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	0.0129	0.1161	0.1292	2.2000e-004		5.5400e-003	5.5400e-003		5.2500e-003	5.2500e-003	0.0000	18.8100	18.8100	4.1000e-003	0.0000	18.9125
Total	0.0129	0.1161	0.1292	2.2000e-004		5.5400e-003	5.5400e-003		5.2500e-003	5.2500e-003	0.0000	18.8100	18.8100	4.1000e-003	0.0000	18.9125

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3.5 Building Construction - 2023

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	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
Worker	4.8000e-004	3.1000e-004	3.2600e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.8066	0.8066	2.0000e-005	0.0000	0.8071
Total	4.8000e-004	3.1000e-004	3.2600e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.8066	0.8066	2.0000e-005	0.0000	0.8071

3.6 Paving - 2023

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	1.5500e-003	0.0153	0.0219	3.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	3.0040	3.0040	9.7000e-004	0.0000	3.0283
Paving	1.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9900e-003	0.0153	0.0219	3.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	3.0040	3.0040	9.7000e-004	0.0000	3.0283

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3.6 Paving - 2023

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	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
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908
Total	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908

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	1.5500e-003	0.0153	0.0219	3.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	3.0040	3.0040	9.7000e-004	0.0000	3.0283
Paving	1.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9900e-003	0.0153	0.0219	3.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	3.0040	3.0040	9.7000e-004	0.0000	3.0283

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3.6 Paving - 2023

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	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
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908
Total	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0907	0.0907	0.0000	0.0000	0.0908

3.6 Paving - 2024

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	0.0133	0.1286	0.1975	3.1000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	27.0358	27.0358	8.7400e-003	0.0000	27.2544
Paving	0.0130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0263	0.1286	0.1975	3.1000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	27.0358	27.0358	8.7400e-003	0.0000	27.2544

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3.6 Paving - 2024

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	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
Worker	4.5000e-004	2.8000e-004	3.0300e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.7850	0.7850	2.0000e-005	0.0000	0.7855
Total	4.5000e-004	2.8000e-004	3.0300e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.7850	0.7850	2.0000e-005	0.0000	0.7855

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	0.0133	0.1286	0.1975	3.1000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	27.0358	27.0358	8.7400e-003	0.0000	27.2544
Paving	0.0130					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0263	0.1286	0.1975	3.1000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	27.0358	27.0358	8.7400e-003	0.0000	27.2544

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3.6 Paving - 2024

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	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
Worker	4.5000e-004	2.8000e-004	3.0300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.7850	0.7850	2.0000e-005	0.0000	0.7855
Total	4.5000e-004	2.8000e-004	3.0300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.7850	0.7850	2.0000e-005	0.0000	0.7855

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	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
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.538831	0.031280	0.180238	0.098915	0.025981	0.005683	0.012706	0.096234	0.001312	0.001172	0.005254	0.001260	0.001133
Other Non-Asphalt Surfaces	0.538831	0.031280	0.180238	0.098915	0.025981	0.005683	0.012706	0.096234	0.001312	0.001172	0.005254	0.001260	0.001133

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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	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	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Unmitigated	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

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6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Annual

	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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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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Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

Mountain Gate CSD Water System Improvements
Shasta County AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	11.00	Acre	11.00	0.00	0
Other Non-Asphalt Surfaces	4.00	Acre	4.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	82
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

Project Characteristics -

Land Use - .

Construction Phase - Construction schedule provided by PACE.

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Trips and VMT - Vehicle trips based on specific project characteristics.

Demolition -

Grading - Grading information provided by PACE.

Vehicle Trips - No increase in operational emissions.

Area Coating - No increase in pavement over existing conditions.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measures included in Initial Study/MND.

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	20.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	150.00
tblConstructionPhase	NumDays	20.00	30.00
tblGrading	AcresOfGrading	150.00	15.00
tblGrading	MaterialExported	0.00	8,260.00
tblGrading	MaterialImported	0.00	7,660.00
tblLandUse	LandUseSquareFeet	479,160.00	0.00

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

tblLandUse	LandUseSquareFeet	174,240.00	0.00
tblOffRoadEquipment	HorsePower	247.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	792.00	327.00
tblTripsAndVMT	HaulingTripNumber	1,033.00	243.00
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripLength	16.80	6.60
tblTripsAndVMT	WorkerTripNumber	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	5.00	18.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2023	2.0405	23.0499	16.5279	0.0518	18.0571	0.8628	18.8645	3.3585	0.7938	4.1523	0.0000	5,213.2045	5,213.2045	1.1089	0.0000	5,232.5824
2024	1.9913	9.5443	14.8873	0.0235	0.0754	0.4690	0.5444	0.0200	0.4315	0.4515	0.0000	2,278.9772	2,278.9772	0.7159	0.0000	2,296.8735
Maximum	2.0405	23.0499	16.5279	0.0518	18.0571	0.8628	18.8645	3.3585	0.7938	4.1523	0.0000	5,213.2045	5,213.2045	1.1089	0.0000	5,232.5824

Mitigated Construction

	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
Year	lb/day										lb/day					
2023	2.0405	23.0499	16.5279	0.0518	4.3163	0.8628	5.1236	0.7690	0.7938	1.5628	0.0000	5,213.2045	5,213.2045	1.1089	0.0000	5,232.5824
2024	1.9913	9.5443	14.8873	0.0235	0.0426	0.4690	0.5117	0.0120	0.4315	0.4435	0.0000	2,278.9772	2,278.9772	0.7159	0.0000	2,296.8735
Maximum	2.0405	23.0499	16.5279	0.0518	4.3163	0.8628	5.1236	0.7690	0.7938	1.5628	0.0000	5,213.2045	5,213.2045	1.1089	0.0000	5,232.5824

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

	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	75.96	0.00	70.97	76.88	0.00	56.42	0.00	0.00	0.00	0.00	0.00	0.00

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

2.2 Overall Operational

Unmitigated Operational

	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	lb/day										lb/day					
Area	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	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
Mobile	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	1.4000e-004	1.0000e-005	1.5300e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005	0.0000	3.5000e-003

Mitigated Operational

	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	lb/day										lb/day					
Area	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	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
Mobile	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	1.4000e-004	1.0000e-005	1.5300e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005	0.0000	3.5000e-003

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

	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	Demolition	Demolition	4/3/2023	4/14/2023	5	10	
2	Site Preparation	Site Preparation	4/17/2023	4/28/2023	5	10	
3	Grading	Grading	5/1/2023	11/24/2023	5	150	
4	Building Construction	Building Construction	11/27/2023	12/22/2023	5	20	
5	Paving	Paving	12/27/2023	2/6/2024	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15

Acres of Paving: 15

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

OffRoad Equipment

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	1	6.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	8.00	1	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

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
Demolition	4	15.00	0.00	327.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	18.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	20.00	0.00	243.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	6.60	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2023

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	lb/day										lb/day					
Fugitive Dust					17.4089	0.0000	17.4089	2.6361	0.0000	2.6361			0.0000			0.0000
Off-Road	1.7611	17.3540	11.3990	0.0256		0.7949	0.7949		0.7390	0.7390		2,473.5799	2,473.5799	0.6782		2,490.5336
Total	1.7611	17.3540	11.3990	0.0256	17.4089	0.7949	18.2038	2.6361	0.7390	3.3751		2,473.5799	2,473.5799	0.6782		2,490.5336

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.2 Demolition - 2023

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	lb/day										lb/day					
Hauling	0.1647	5.6739	0.9658	0.0254	0.5728	0.0119	0.5847	0.1571	0.0114	0.1685		2,665.3051	2,665.3051	0.0949		2,667.6765
Vendor	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
Worker	0.0456	0.0220	0.2842	7.5000e-004	0.0754	5.3000e-004	0.0759	0.0200	4.9000e-004	0.0205		74.3194	74.3194	2.1200e-003		74.3723
Total	0.2103	5.6959	1.2500	0.0262	0.6482	0.0125	0.6606	0.1771	0.0119	0.1890		2,739.6246	2,739.6246	0.0970		2,742.0488

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	lb/day										lb/day					
Fugitive Dust					3.9170	0.0000	3.9170	0.5931	0.0000	0.5931			0.0000			0.0000
Off-Road	1.7611	17.3540	11.3990	0.0256		0.7949	0.7949		0.7390	0.7390	0.0000	2,473.5799	2,473.5799	0.6782		2,490.5336
Total	1.7611	17.3540	11.3990	0.0256	3.9170	0.7949	4.7119	0.5931	0.7390	1.3321	0.0000	2,473.5799	2,473.5799	0.6782		2,490.5336

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.2 Demolition - 2023

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	lb/day										lb/day					
Hauling	0.1647	5.6739	0.9658	0.0254	0.3566	0.0119	0.3686	0.1040	0.0114	0.1154		2,665.3051	2,665.3051	0.0949		2,667.6765
Vendor	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
Worker	0.0456	0.0220	0.2842	7.5000e-004	0.0426	5.3000e-004	0.0432	0.0120	4.9000e-004	0.0125		74.3194	74.3194	2.1200e-003		74.3723
Total	0.2103	5.6959	1.2500	0.0262	0.3993	0.0125	0.4117	0.1160	0.0119	0.1279		2,739.6246	2,739.6246	0.0970		2,742.0488

3.3 Site Preparation - 2023

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	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	0.1514	1.5357	2.2313	3.1200e-003		0.0758	0.0758		0.0698	0.0698		301.5765	301.5765	0.0975		304.0149
Total	0.1514	1.5357	2.2313	3.1200e-003	6.0221	0.0758	6.0979	3.3102	0.0698	3.3800		301.5765	301.5765	0.0975		304.0149

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.3 Site Preparation - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0547	0.0264	0.3411	9.0000e-004	0.0904	6.3000e-004	0.0911	0.0240	5.8000e-004	0.0246		89.1833	89.1833	2.5400e-003		89.2468
Total	0.0547	0.0264	0.3411	9.0000e-004	0.0904	6.3000e-004	0.0911	0.0240	5.8000e-004	0.0246		89.1833	89.1833	2.5400e-003		89.2468

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	lb/day										lb/day					
Fugitive Dust					1.3550	0.0000	1.3550	0.7448	0.0000	0.7448			0.0000			0.0000
Off-Road	0.1514	1.5357	2.2313	3.1200e-003		0.0758	0.0758		0.0698	0.0698	0.0000	301.5765	301.5765	0.0975		304.0149
Total	0.1514	1.5357	2.2313	3.1200e-003	1.3550	0.0758	1.4308	0.7448	0.0698	0.8146	0.0000	301.5765	301.5765	0.0975		304.0149

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.3 Site Preparation - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0547	0.0264	0.3411	9.0000e-004	0.0512	6.3000e-004	0.0518	0.0144	5.8000e-004	0.0149		89.1833	89.1833	2.5400e-003		89.2468
Total	0.0547	0.0264	0.3411	9.0000e-004	0.0512	6.3000e-004	0.0518	0.0144	5.8000e-004	0.0149		89.1833	89.1833	2.5400e-003		89.2468

3.4 Grading - 2023

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	lb/day										lb/day					
Fugitive Dust					6.1438	0.0000	6.1438	3.3241	0.0000	3.3241			0.0000			0.0000
Off-Road	1.9716	20.5483	16.1011	0.0352		0.8615	0.8615		0.7926	0.7926		3,405.4435	3,405.4435	1.1014		3,432.9782
Total	1.9716	20.5483	16.1011	0.0352	6.1438	0.8615	7.0053	3.3241	0.7926	4.1166		3,405.4435	3,405.4435	1.1014		3,432.9782

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.4 Grading - 2023

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	lb/day										lb/day					
Hauling	8.1600e-003	0.2811	0.0479	1.2600e-003	0.0284	5.9000e-004	0.0290	7.7800e-003	5.7000e-004	8.3500e-003		132.0426	132.0426	4.7000e-003		132.1601
Vendor	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
Worker	0.0608	0.0293	0.3790	1.0000e-003	0.1005	7.0000e-004	0.1012	0.0267	6.5000e-004	0.0273		99.0926	99.0926	2.8200e-003		99.1631
Total	0.0690	0.3104	0.4268	2.2600e-003	0.1289	1.2900e-003	0.1302	0.0344	1.2200e-003	0.0357		231.1352	231.1352	7.5200e-003		231.3233

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	lb/day										lb/day					
Fugitive Dust					1.3824	0.0000	1.3824	0.7479	0.0000	0.7479			0.0000			0.0000
Off-Road	1.9716	20.5483	16.1011	0.0352		0.8615	0.8615		0.7926	0.7926	0.0000	3,405.4435	3,405.4435	1.1014		3,432.9782
Total	1.9716	20.5483	16.1011	0.0352	1.3824	0.8615	2.2439	0.7479	0.7926	1.5405	0.0000	3,405.4435	3,405.4435	1.1014		3,432.9782

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.4 Grading - 2023

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	lb/day										lb/day					
Hauling	8.1600e-003	0.2811	0.0479	1.2600e-003	0.0177	5.9000e-004	0.0183	5.1500e-003	5.7000e-004	5.7200e-003		132.0426	132.0426	4.7000e-003		132.1601
Vendor	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
Worker	0.0608	0.0293	0.3790	1.0000e-003	0.0569	7.0000e-004	0.0576	0.0160	6.5000e-004	0.0166		99.0926	99.0926	2.8200e-003		99.1631
Total	0.0690	0.3104	0.4268	2.2600e-003	0.0745	1.2900e-003	0.0758	0.0211	1.2200e-003	0.0223		231.1352	231.1352	7.5200e-003		231.3233

3.5 Building Construction - 2023

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	lb/day										lb/day					
Off-Road	1.2939	11.6046	12.9175	0.0220		0.5542	0.5542		0.5245	0.5245		2,073.4473	2,073.4473	0.4520		2,084.7481
Total	1.2939	11.6046	12.9175	0.0220		0.5542	0.5542		0.5245	0.5245		2,073.4473	2,073.4473	0.4520		2,084.7481

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0608	0.0293	0.3790	1.0000e-003	0.1005	7.0000e-004	0.1012	0.0267	6.5000e-004	0.0273		99.0926	99.0926	2.8200e-003		99.1631
Total	0.0608	0.0293	0.3790	1.0000e-003	0.1005	7.0000e-004	0.1012	0.0267	6.5000e-004	0.0273		99.0926	99.0926	2.8200e-003		99.1631

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	lb/day										lb/day					
Off-Road	1.2939	11.6046	12.9175	0.0220		0.5542	0.5542		0.5245	0.5245	0.0000	2,073.4473	2,073.4473	0.4520		2,084.7481
Total	1.2939	11.6046	12.9175	0.0220		0.5542	0.5542		0.5245	0.5245	0.0000	2,073.4473	2,073.4473	0.4520		2,084.7481

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0608	0.0293	0.3790	1.0000e-003	0.0569	7.0000e-004	0.0576	0.0160	6.5000e-004	0.0166		99.0926	99.0926	2.8200e-003		99.1631
Total	0.0608	0.0293	0.3790	1.0000e-003	0.0569	7.0000e-004	0.0576	0.0160	6.5000e-004	0.0166		99.0926	99.0926	2.8200e-003		99.1631

3.6 Paving - 2023

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.9607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9934	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.6 Paving - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0456	0.0220	0.2842	7.5000e-004	0.0754	5.3000e-004	0.0759	0.0200	4.9000e-004	0.0205		74.3194	74.3194	2.1200e-003		74.3723
Total	0.0456	0.0220	0.2842	7.5000e-004	0.0754	5.3000e-004	0.0759	0.0200	4.9000e-004	0.0205		74.3194	74.3194	2.1200e-003		74.3723

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.9607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9934	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.6 Paving - 2023

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0456	0.0220	0.2842	7.5000e-004	0.0426	5.3000e-004	0.0432	0.0120	4.9000e-004	0.0125		74.3194	74.3194	2.1200e-003		74.3723
Total	0.0456	0.0220	0.2842	7.5000e-004	0.0426	5.3000e-004	0.0432	0.0120	4.9000e-004	0.0125		74.3194	74.3194	2.1200e-003		74.3723

3.6 Paving - 2024

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9488	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.6 Paving - 2024

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0425	0.0197	0.2615	7.2000e-004	0.0754	5.2000e-004	0.0759	0.0200	4.8000e-004	0.0205		71.4300	71.4300	1.8800e-003		71.4771
Total	0.0425	0.0197	0.2615	7.2000e-004	0.0754	5.2000e-004	0.0759	0.0200	4.8000e-004	0.0205		71.4300	71.4300	1.8800e-003		71.4771

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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.9607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9488	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

3.6 Paving - 2024

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	lb/day										lb/day					
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
Vendor	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
Worker	0.0425	0.0197	0.2615	7.2000e-004	0.0426	5.2000e-004	0.0432	0.0120	4.8000e-004	0.0124		71.4300	71.4300	1.8800e-003		71.4771
Total	0.0425	0.0197	0.2615	7.2000e-004	0.0426	5.2000e-004	0.0432	0.0120	4.8000e-004	0.0124		71.4300	71.4300	1.8800e-003		71.4771

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

	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	lb/day										lb/day					
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
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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.538831	0.031280	0.180238	0.098915	0.025981	0.005683	0.012706	0.096234	0.001312	0.001172	0.005254	0.001260	0.001133
Other Non-Asphalt Surfaces	0.538831	0.031280	0.180238	0.098915	0.025981	0.005683	0.012706	0.096234	0.001312	0.001172	0.005254	0.001260	0.001133

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas 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
NaturalGas 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

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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

Mitigated

	NaturalGas 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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

6.0 Area Detail

6.1 Mitigation Measures Area

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

	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	lb/day										lb/day					
Mitigated	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Unmitigated	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

6.2 Area by SubCategory

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	1.4000e-004	1.0000e-005	1.5300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Mountain Gate CSD Water System Improvements - Shasta County AQMD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
