

# Appendix AQ

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Air Quality Modeling Files

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Annual

**Blue Wave Express Car Wash and Hotel Project\_Phase 1**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	PacifiCorp				
<b>CO2 Intensity (lb/MW hr)</b>	1656.39	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

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Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space

Construction Phase - Applicant provided: phase 1 = 4 months

Demolition - estimated square footage from google earth

Grading -

Vehicle Trips -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Area Coating -

Water And Wastewater -

Energy Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	6.00	16.00
tblConstructionPhase	NumDays	3.00	8.00
tblConstructionPhase	PhaseEndDate	6/26/2020	8/14/2020
tblConstructionPhase	PhaseEndDate	7/9/2020	9/17/2020
tblConstructionPhase	PhaseEndDate	7/1/2020	8/26/2020
tblConstructionPhase	PhaseStartDate	7/2/2020	8/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	8/17/2020
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73
tblLandUse	LotAcreage	0.07	0.87

**2.0 Emissions Summary**



## Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	0.7464	0.7464
2	9-1-2020	9-30-2020	0.1416	0.1416
		Highest	0.7464	0.7464

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	8/14/2020	5	55	
2	Site Preparation	Site Preparation	8/17/2020	8/26/2020	5	8	
3	Grading	Grading	8/27/2020	9/17/2020	5	16	

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**Acres of Grading (Site Preparation Phase): 12**

**Acres of Grading (Grading Phase): 8**

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

**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
Demolition	5	13.00	0.00	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use DPF for Construction Equipment

Water Exposed Area

**3.2 Demolition - 2020**

**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					5.7900e-003	0.0000	5.7900e-003	8.8000e-004	0.0000	8.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.5760	0.4031	6.6000e-004		0.0317	0.0317		0.0296	0.0296	0.0000	57.9361	57.9361	0.0149	0.0000	58.3084
<b>Total</b>	<b>0.0585</b>	<b>0.5760</b>	<b>0.4031</b>	<b>6.6000e-004</b>	<b>5.7900e-003</b>	<b>0.0317</b>	<b>0.0375</b>	<b>8.8000e-004</b>	<b>0.0296</b>	<b>0.0305</b>	<b>0.0000</b>	<b>57.9361</b>	<b>57.9361</b>	<b>0.0149</b>	<b>0.0000</b>	<b>58.3084</b>



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**3.2 Demolition - 2020**

**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	2.2000e-004	7.7500e-003	1.5600e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.5000e-004	0.0000	2.0309	2.0309	1.0000e-004	0.0000	2.0335
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	1.1800e-003	8.5000e-004	8.7800e-003	3.0000e-005	2.8200e-003	2.0000e-005	2.8400e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.4749	2.4749	6.0000e-005	0.0000	2.4764
<b>Total</b>	<b>1.4000e-003</b>	<b>8.6000e-003</b>	<b>0.0103</b>	<b>5.0000e-005</b>	<b>3.2700e-003</b>	<b>4.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>4.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.5058</b>	<b>4.5058</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.5099</b>

**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					2.6000e-003	0.0000	2.6000e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.5760	0.4031	6.6000e-004		4.7500e-003	4.7500e-003		4.4400e-003	4.4400e-003	0.0000	57.9360	57.9360	0.0149	0.0000	58.3083
<b>Total</b>	<b>0.0585</b>	<b>0.5760</b>	<b>0.4031</b>	<b>6.6000e-004</b>	<b>2.6000e-003</b>	<b>4.7500e-003</b>	<b>7.3500e-003</b>	<b>3.9000e-004</b>	<b>4.4400e-003</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>57.9360</b>	<b>57.9360</b>	<b>0.0149</b>	<b>0.0000</b>	<b>58.3083</b>

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**3.2 Demolition - 2020**

**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	2.2000e-004	7.7500e-003	1.5600e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.5000e-004	0.0000	2.0309	2.0309	1.0000e-004	0.0000	2.0335
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	1.1800e-003	8.5000e-004	8.7800e-003	3.0000e-005	2.8200e-003	2.0000e-005	2.8400e-003	7.5000e-004	2.0000e-005	7.7000e-004	0.0000	2.4749	2.4749	6.0000e-005	0.0000	2.4764
<b>Total</b>	<b>1.4000e-003</b>	<b>8.6000e-003</b>	<b>0.0103</b>	<b>5.0000e-005</b>	<b>3.2700e-003</b>	<b>4.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>4.0000e-005</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>4.5058</b>	<b>4.5058</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.5099</b>

**3.3 Site Preparation - 2020**

**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					6.3600e-003	0.0000	6.3600e-003	6.9000e-004	0.0000	6.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6100e-003	0.0797	0.0451	1.0000e-004		3.1100e-003	3.1100e-003		2.8600e-003	2.8600e-003	0.0000	8.6107	8.6107	2.7800e-003	0.0000	8.6803
<b>Total</b>	<b>6.6100e-003</b>	<b>0.0797</b>	<b>0.0451</b>	<b>1.0000e-004</b>	<b>6.3600e-003</b>	<b>3.1100e-003</b>	<b>9.4700e-003</b>	<b>6.9000e-004</b>	<b>2.8600e-003</b>	<b>3.5500e-003</b>	<b>0.0000</b>	<b>8.6107</b>	<b>8.6107</b>	<b>2.7800e-003</b>	<b>0.0000</b>	<b>8.6803</b>

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**3.3 Site Preparation - 2020**

**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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2215	0.2215	1.0000e-005	0.0000	0.2217
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2215</b>	<b>0.2215</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2217</b>

**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					2.8600e-003	0.0000	2.8600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6100e-003	0.0797	0.0451	1.0000e-004		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	8.6107	8.6107	2.7800e-003	0.0000	8.6803
<b>Total</b>	<b>6.6100e-003</b>	<b>0.0797</b>	<b>0.0451</b>	<b>1.0000e-004</b>	<b>2.8600e-003</b>	<b>4.7000e-004</b>	<b>3.3300e-003</b>	<b>3.1000e-004</b>	<b>4.3000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>8.6107</b>	<b>8.6107</b>	<b>2.7800e-003</b>	<b>0.0000</b>	<b>8.6803</b>

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**3.3 Site Preparation - 2020**

**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	1.1000e-004	8.0000e-005	7.9000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2215	0.2215	1.0000e-005	0.0000	0.2217
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>7.9000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2215</b>	<b>0.2215</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2217</b>

**3.4 Grading - 2020**

**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					0.0524	0.0000	0.0524	0.0269	0.0000	0.0269	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.1707	0.0795	1.6000e-004		7.9200e-003	7.9200e-003		7.2900e-003	7.2900e-003	0.0000	14.4889	14.4889	4.6900e-003	0.0000	14.6060
<b>Total</b>	<b>0.0154</b>	<b>0.1707</b>	<b>0.0795</b>	<b>1.6000e-004</b>	<b>0.0524</b>	<b>7.9200e-003</b>	<b>0.0603</b>	<b>0.0269</b>	<b>7.2900e-003</b>	<b>0.0342</b>	<b>0.0000</b>	<b>14.4889</b>	<b>14.4889</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>14.6060</b>

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**3.4 Grading - 2020**

**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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
<b>Total</b>	<b>2.7000e-004</b>	<b>1.9000e-004</b>	<b>1.9600e-003</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>6.4000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>0.5538</b>	<b>0.5538</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5542</b>

**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					0.0236	0.0000	0.0236	0.0121	0.0000	0.0121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.1707	0.0795	1.6000e-004		1.1900e-003	1.1900e-003		1.0900e-003	1.0900e-003	0.0000	14.4889	14.4889	4.6900e-003	0.0000	14.6060
<b>Total</b>	<b>0.0154</b>	<b>0.1707</b>	<b>0.0795</b>	<b>1.6000e-004</b>	<b>0.0236</b>	<b>1.1900e-003</b>	<b>0.0248</b>	<b>0.0121</b>	<b>1.0900e-003</b>	<b>0.0132</b>	<b>0.0000</b>	<b>14.4889</b>	<b>14.4889</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>14.6060</b>

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**3.4 Grading - 2020**

**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	2.7000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5538	0.5538	1.0000e-005	0.0000	0.5542
<b>Total</b>	<b>2.7000e-004</b>	<b>1.9000e-004</b>	<b>1.9600e-003</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>6.4000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>0.5538</b>	<b>0.5538</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5542</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**Blue Wave Express Car Wash and Hotel Project\_Phase 1**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	PacifiCorp				
<b>CO2 Intensity (lb/MW hr)</b>	1656.39	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space

Construction Phase - Applicant provided: phase 1 = 4 months

Demolition - estimated square footage from google earth

Grading -

Vehicle Trips -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Area Coating -

Water And Wastewater -

Energy Mitigation -



Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	6.00	16.00
tblConstructionPhase	NumDays	3.00	8.00
tblConstructionPhase	PhaseEndDate	6/26/2020	8/14/2020
tblConstructionPhase	PhaseEndDate	7/9/2020	9/17/2020
tblConstructionPhase	PhaseEndDate	7/1/2020	8/26/2020
tblConstructionPhase	PhaseStartDate	7/2/2020	8/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	8/17/2020
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73
tblLandUse	LotAcreage	0.07	0.87

**2.0 Emissions Summary**

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## Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**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	6/1/2020	8/14/2020	5	55	
2	Site Preparation	Site Preparation	8/17/2020	8/26/2020	5	8	
3	Grading	Grading	8/27/2020	9/17/2020	5	16	

**Acres of Grading (Site Preparation Phase): 12****Acres of Grading (Grading Phase): 8****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

**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
Demolition	5	13.00	0.00	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.2 Demolition - 2020**

**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					0.2105	0.0000	0.2105	0.0319	0.0000	0.0319			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>	<b>0.2105</b>	<b>1.1525</b>	<b>1.3630</b>	<b>0.0319</b>	<b>1.0761</b>	<b>1.1080</b>		<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**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	7.9500e-003	0.2760	0.0549	7.7000e-004	0.0168	9.0000e-004	0.0177	4.6100e-003	8.6000e-004	5.4800e-003		81.9846	81.9846	4.1000e-003		82.0871
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	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
<b>Total</b>	<b>0.0531</b>	<b>0.3034</b>	<b>0.4037</b>	<b>1.8400e-003</b>	<b>0.1236</b>	<b>1.5900e-003</b>	<b>0.1252</b>	<b>0.0329</b>	<b>1.5000e-003</b>	<b>0.0344</b>		<b>188.6856</b>	<b>188.6856</b>	<b>6.6700e-003</b>		<b>188.8524</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.2 Demolition - 2020**

**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					0.0947	0.0000	0.0947	0.0143	0.0000	0.0143			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		0.1729	0.1729		0.1614	0.1614	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>	<b>0.0947</b>	<b>0.1729</b>	<b>0.2676</b>	<b>0.0143</b>	<b>0.1614</b>	<b>0.1758</b>	<b>0.0000</b>	<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**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	7.9500e-003	0.2760	0.0549	7.7000e-004	0.0168	9.0000e-004	0.0177	4.6100e-003	8.6000e-004	5.4800e-003		81.9846	81.9846	4.1000e-003		82.0871
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	0.0452	0.0274	0.3488	1.0700e-003	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		106.7010	106.7010	2.5700e-003		106.7652
<b>Total</b>	<b>0.0531</b>	<b>0.3034</b>	<b>0.4037</b>	<b>1.8400e-003</b>	<b>0.1236</b>	<b>1.5900e-003</b>	<b>0.1252</b>	<b>0.0329</b>	<b>1.5000e-003</b>	<b>0.0344</b>		<b>188.6856</b>	<b>188.6856</b>	<b>6.6700e-003</b>		<b>188.8524</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.3 Site Preparation - 2020**

**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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.906 2	2,372.906 2	0.7675		2,392.092 4
<b>Total</b>	<b>1.6521</b>	<b>19.9196</b>	<b>11.2678</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.7771</b>	<b>2.3678</b>	<b>0.1718</b>	<b>0.7149</b>	<b>0.8867</b>		<b>2,372.906 2</b>	<b>2,372.906 2</b>	<b>0.7675</b>		<b>2,392.092 4</b>

**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	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
<b>Total</b>	<b>0.0278</b>	<b>0.0168</b>	<b>0.2146</b>	<b>6.6000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.9000e-004</b>	<b>0.0178</b>		<b>65.6621</b>	<b>65.6621</b>	<b>1.5800e-003</b>		<b>65.7017</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.3 Site Preparation - 2020**

**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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.1166	0.1166		0.1072	0.1072	0.0000	2,372.906 2	2,372.906 2	0.7675		2,392.092 4
<b>Total</b>	<b>1.6521</b>	<b>19.9196</b>	<b>11.2678</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.1166</b>	<b>0.8324</b>	<b>0.0773</b>	<b>0.1072</b>	<b>0.1845</b>	<b>0.0000</b>	<b>2,372.906 2</b>	<b>2,372.906 2</b>	<b>0.7675</b>		<b>2,392.092 4</b>

**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	0.0278	0.0168	0.2146	6.6000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		65.6621	65.6621	1.5800e-003		65.7017
<b>Total</b>	<b>0.0278</b>	<b>0.0168</b>	<b>0.2146</b>	<b>6.6000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.9000e-004</b>	<b>0.0178</b>		<b>65.6621</b>	<b>65.6621</b>	<b>1.5800e-003</b>		<b>65.7017</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.4 Grading - 2020**

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.406 1	1,996.406 1	0.6457		2,012.548 0
<b>Total</b>	<b>1.9219</b>	<b>21.3418</b>	<b>9.9355</b>	<b>0.0206</b>	<b>6.5523</b>	<b>0.9902</b>	<b>7.5425</b>	<b>3.3675</b>	<b>0.9110</b>	<b>4.2784</b>		<b>1,996.406 1</b>	<b>1,996.406 1</b>	<b>0.6457</b>		<b>2,012.548 0</b>

**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	0.0348	0.0210	0.2683	8.2000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		82.0777	82.0777	1.9800e-003		82.1271
<b>Total</b>	<b>0.0348</b>	<b>0.0210</b>	<b>0.2683</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.3000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>4.9000e-004</b>	<b>0.0223</b>		<b>82.0777</b>	<b>82.0777</b>	<b>1.9800e-003</b>		<b>82.1271</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Summer

**3.4 Grading - 2020**

**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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.1485	0.1485		0.1366	0.1366	0.0000	1,996.406 1	1,996.406 1	0.6457		2,012.548 0
<b>Total</b>	<b>1.9219</b>	<b>21.3418</b>	<b>9.9355</b>	<b>0.0206</b>	<b>2.9486</b>	<b>0.1485</b>	<b>3.0971</b>	<b>1.5154</b>	<b>0.1366</b>	<b>1.6520</b>	<b>0.0000</b>	<b>1,996.406 1</b>	<b>1,996.406 1</b>	<b>0.6457</b>		<b>2,012.548 0</b>

**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	0.0348	0.0210	0.2683	8.2000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		82.0777	82.0777	1.9800e-003		82.1271
<b>Total</b>	<b>0.0348</b>	<b>0.0210</b>	<b>0.2683</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.3000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>4.9000e-004</b>	<b>0.0223</b>		<b>82.0777</b>	<b>82.0777</b>	<b>1.9800e-003</b>		<b>82.1271</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

**Blue Wave Express Car Wash and Hotel Project\_Phase 1**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	PacifiCorp				
<b>CO2 Intensity (lb/MW hr)</b>	1656.39	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space

Construction Phase - Applicant provided: phase 1 = 4 months

Demolition - estimated square footage from google earth

Grading -

Vehicle Trips -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Area Coating -

Water And Wastewater -

Energy Mitigation -

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	6.00	16.00
tblConstructionPhase	NumDays	3.00	8.00
tblConstructionPhase	PhaseEndDate	6/26/2020	8/14/2020
tblConstructionPhase	PhaseEndDate	7/9/2020	9/17/2020
tblConstructionPhase	PhaseEndDate	7/1/2020	8/26/2020
tblConstructionPhase	PhaseStartDate	7/2/2020	8/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	8/17/2020
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73
tblLandUse	LotAcreage	0.07	0.87

**2.0 Emissions Summary**



## Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

**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	6/1/2020	8/14/2020	5	55	
2	Site Preparation	Site Preparation	8/17/2020	8/26/2020	5	8	
3	Grading	Grading	8/27/2020	9/17/2020	5	16	

**Acres of Grading (Site Preparation Phase): 12****Acres of Grading (Grading Phase): 8****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

**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
Demolition	5	13.00	0.00	53.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area



Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

**3.2 Demolition - 2020**

**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					0.2105	0.0000	0.2105	0.0319	0.0000	0.0319			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>	<b>0.2105</b>	<b>1.1525</b>	<b>1.3630</b>	<b>0.0319</b>	<b>1.0761</b>	<b>1.1080</b>		<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**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	8.1700e-003	0.2828	0.0591	7.5000e-004	0.0168	9.2000e-004	0.0178	4.6100e-003	8.8000e-004	5.4900e-003		80.6076	80.6076	4.3100e-003		80.7153
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	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
<b>Total</b>	<b>0.0560</b>	<b>0.3166</b>	<b>0.3866</b>	<b>1.7400e-003</b>	<b>0.1236</b>	<b>1.6100e-003</b>	<b>0.1252</b>	<b>0.0329</b>	<b>1.5200e-003</b>	<b>0.0345</b>		<b>178.8961</b>	<b>178.8961</b>	<b>6.7100e-003</b>		<b>179.0639</b>

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**3.2 Demolition - 2020**

**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					0.0947	0.0000	0.0947	0.0143	0.0000	0.0143			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		0.1729	0.1729		0.1614	0.1614	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>	<b>0.0947</b>	<b>0.1729</b>	<b>0.2676</b>	<b>0.0143</b>	<b>0.1614</b>	<b>0.1758</b>	<b>0.0000</b>	<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**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	8.1700e-003	0.2828	0.0591	7.5000e-004	0.0168	9.2000e-004	0.0178	4.6100e-003	8.8000e-004	5.4900e-003		80.6076	80.6076	4.3100e-003		80.7153
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	0.0478	0.0338	0.3276	9.9000e-004	0.1068	6.9000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.2885	98.2885	2.4000e-003		98.3486
<b>Total</b>	<b>0.0560</b>	<b>0.3166</b>	<b>0.3866</b>	<b>1.7400e-003</b>	<b>0.1236</b>	<b>1.6100e-003</b>	<b>0.1252</b>	<b>0.0329</b>	<b>1.5200e-003</b>	<b>0.0345</b>		<b>178.8961</b>	<b>178.8961</b>	<b>6.7100e-003</b>		<b>179.0639</b>

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**3.3 Site Preparation - 2020**

**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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.7771	0.7771		0.7149	0.7149		2,372.906 2	2,372.906 2	0.7675		2,392.092 4
<b>Total</b>	<b>1.6521</b>	<b>19.9196</b>	<b>11.2678</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.7771</b>	<b>2.3678</b>	<b>0.1718</b>	<b>0.7149</b>	<b>0.8867</b>		<b>2,372.906 2</b>	<b>2,372.906 2</b>	<b>0.7675</b>		<b>2,392.092 4</b>

**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	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
<b>Total</b>	<b>0.0294</b>	<b>0.0208</b>	<b>0.2016</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.9000e-004</b>	<b>0.0178</b>		<b>60.4852</b>	<b>60.4852</b>	<b>1.4800e-003</b>		<b>60.5222</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

**3.3 Site Preparation - 2020**

**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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.6521	19.9196	11.2678	0.0245		0.1166	0.1166		0.1072	0.1072	0.0000	2,372.906 2	2,372.906 2	0.7675		2,392.092 4
<b>Total</b>	<b>1.6521</b>	<b>19.9196</b>	<b>11.2678</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.1166</b>	<b>0.8324</b>	<b>0.0773</b>	<b>0.1072</b>	<b>0.1845</b>	<b>0.0000</b>	<b>2,372.906 2</b>	<b>2,372.906 2</b>	<b>0.7675</b>		<b>2,392.092 4</b>

**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	0.0294	0.0208	0.2016	6.1000e-004	0.0657	4.3000e-004	0.0661	0.0174	3.9000e-004	0.0178		60.4852	60.4852	1.4800e-003		60.5222
<b>Total</b>	<b>0.0294</b>	<b>0.0208</b>	<b>0.2016</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.9000e-004</b>	<b>0.0178</b>		<b>60.4852</b>	<b>60.4852</b>	<b>1.4800e-003</b>		<b>60.5222</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 1 - Bay Area AQMD Air District, Winter

**3.4 Grading - 2020**

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.406 1	1,996.406 1	0.6457		2,012.548 0
<b>Total</b>	<b>1.9219</b>	<b>21.3418</b>	<b>9.9355</b>	<b>0.0206</b>	<b>6.5523</b>	<b>0.9902</b>	<b>7.5425</b>	<b>3.3675</b>	<b>0.9110</b>	<b>4.2784</b>		<b>1,996.406 1</b>	<b>1,996.406 1</b>	<b>0.6457</b>		<b>2,012.548 0</b>

**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	0.0368	0.0260	0.2520	7.6000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		75.6065	75.6065	1.8500e-003		75.6528
<b>Total</b>	<b>0.0368</b>	<b>0.0260</b>	<b>0.2520</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>5.3000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>4.9000e-004</b>	<b>0.0223</b>		<b>75.6065</b>	<b>75.6065</b>	<b>1.8500e-003</b>		<b>75.6528</b>

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**3.4 Grading - 2020**

**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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.1485	0.1485		0.1366	0.1366	0.0000	1,996.406 1	1,996.406 1	0.6457		2,012.548 0
<b>Total</b>	<b>1.9219</b>	<b>21.3418</b>	<b>9.9355</b>	<b>0.0206</b>	<b>2.9486</b>	<b>0.1485</b>	<b>3.0971</b>	<b>1.5154</b>	<b>0.1366</b>	<b>1.6520</b>	<b>0.0000</b>	<b>1,996.406 1</b>	<b>1,996.406 1</b>	<b>0.6457</b>		<b>2,012.548 0</b>

**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	0.0368	0.0260	0.2520	7.6000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		75.6065	75.6065	1.8500e-003		75.6528
<b>Total</b>	<b>0.0368</b>	<b>0.0260</b>	<b>0.2520</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>5.3000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>4.9000e-004</b>	<b>0.0223</b>		<b>75.6065</b>	<b>75.6065</b>	<b>1.8500e-003</b>		<b>75.6528</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Annual

**Blue Wave Express Car Wash and Hotel Project\_Phase 2**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	11.00	Space	0.00	4,400.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Annual

Project Characteristics -

Land Use - Applicant provided: carwash on 0.87 acre portion of project site; project description has 11 parking stalls at carwash

Construction Phase - Applicant provided: 8 month construction of carwash facility, 1.45 times longer than default. Architectural coating increased to half the time of construction to be more realistic of painting throughout construction

Demolition -

Vehicle Trips - Not changed; operation considered separately

Woodstoves -

Water And Wastewater - Outdoor water use adjusted based on assumption of 44.8 gallons/vehicle and 963 vehicles per day from traffic study; indoor water use adjusted to applicant provided info (18.2 gallons/ day)

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation - AB 2230 requires car washes to use recycle and reuse 60% of water

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00



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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	5.00	73.00
tblConstructionPhase	NumDays	100.00	145.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	2/18/2021	5/12/2021
tblConstructionPhase	PhaseEndDate	2/4/2021	4/8/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	4/19/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	2/5/2021	4/9/2021
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	0.07	0.87

## 2.0 Emissions Summary

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## Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-18-2020	12-17-2020	0.3202	0.3202
2	12-18-2020	3-17-2021	0.3225	0.3225
3	3-18-2021	6-17-2021	0.1393	0.1393
		Highest	0.3225	0.3225

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	9/18/2020	4/8/2021	5	145	
2	Paving	Paving	4/9/2021	4/19/2021	5	7	
3	Architectural Coating	Architectural Coating	2/1/2021	5/12/2021	5	73	

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Annual

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: 4,320; Non-Residential Outdoor: 1,440; Striped Parking Area: 264  
(Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**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
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use DPF for Construction Equipment

Water Exposed Area

**3.2 Building Construction - 2020**

**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	0.0323	0.3320	0.2770	4.3000e-004		0.0196	0.0196		0.0180	0.0180	0.0000	37.5227	37.5227	0.0121	0.0000	37.8261
<b>Total</b>	<b>0.0323</b>	<b>0.3320</b>	<b>0.2770</b>	<b>4.3000e-004</b>		<b>0.0196</b>	<b>0.0196</b>		<b>0.0180</b>	<b>0.0180</b>	<b>0.0000</b>	<b>37.5227</b>	<b>37.5227</b>	<b>0.0121</b>	<b>0.0000</b>	<b>37.8261</b>

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**3.2 Building Construction - 2020**

**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	1.5000e-004	4.3300e-003	1.0900e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.9818	0.9818	5.0000e-005	0.0000	0.9831
Worker	3.7000e-004	2.7000e-004	2.7600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7788	0.7788	2.0000e-005	0.0000	0.7793
<b>Total</b>	<b>5.2000e-004</b>	<b>4.6000e-003</b>	<b>3.8500e-003</b>	<b>2.0000e-005</b>	<b>1.1400e-003</b>	<b>3.0000e-005</b>	<b>1.1600e-003</b>	<b>3.1000e-004</b>	<b>3.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.7606</b>	<b>1.7606</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>1.7624</b>

**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	0.0323	0.3320	0.2770	4.3000e-004		2.9400e-003	2.9400e-003		2.7000e-003	2.7000e-003	0.0000	37.5226	37.5226	0.0121	0.0000	37.8260
<b>Total</b>	<b>0.0323</b>	<b>0.3320</b>	<b>0.2770</b>	<b>4.3000e-004</b>		<b>2.9400e-003</b>	<b>2.9400e-003</b>		<b>2.7000e-003</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>37.5226</b>	<b>37.5226</b>	<b>0.0121</b>	<b>0.0000</b>	<b>37.8260</b>

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**3.2 Building Construction - 2020**

**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	1.5000e-004	4.3300e-003	1.0900e-003	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.9818	0.9818	5.0000e-005	0.0000	0.9831
Worker	3.7000e-004	2.7000e-004	2.7600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7788	0.7788	2.0000e-005	0.0000	0.7793
<b>Total</b>	<b>5.2000e-004</b>	<b>4.6000e-003</b>	<b>3.8500e-003</b>	<b>2.0000e-005</b>	<b>1.1400e-003</b>	<b>3.0000e-005</b>	<b>1.1600e-003</b>	<b>3.1000e-004</b>	<b>3.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.7606</b>	<b>1.7606</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>1.7624</b>

**3.2 Building Construction - 2021**

**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	0.0271	0.2795	0.2542	4.0000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	35.0287	35.0287	0.0113	0.0000	35.3119
<b>Total</b>	<b>0.0271</b>	<b>0.2795</b>	<b>0.2542</b>	<b>4.0000e-004</b>		<b>0.0157</b>	<b>0.0157</b>		<b>0.0144</b>	<b>0.0144</b>	<b>0.0000</b>	<b>35.0287</b>	<b>35.0287</b>	<b>0.0113</b>	<b>0.0000</b>	<b>35.3119</b>

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**3.2 Building Construction - 2021**

**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	1.1000e-004	3.6600e-003	9.1000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.9077	0.9077	4.0000e-005	0.0000	0.9088
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.7014	0.7014	2.0000e-005	0.0000	0.7018
<b>Total</b>	<b>4.3000e-004</b>	<b>3.8800e-003</b>	<b>3.2700e-003</b>	<b>2.0000e-005</b>	<b>1.0600e-003</b>	<b>2.0000e-005</b>	<b>1.0800e-003</b>	<b>2.9000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>1.6091</b>	<b>1.6091</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.6106</b>

**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	0.0271	0.2795	0.2542	4.0000e-004		2.3500e-003	2.3500e-003		2.1600e-003	2.1600e-003	0.0000	35.0287	35.0287	0.0113	0.0000	35.3119
<b>Total</b>	<b>0.0271</b>	<b>0.2795</b>	<b>0.2542</b>	<b>4.0000e-004</b>		<b>2.3500e-003</b>	<b>2.3500e-003</b>		<b>2.1600e-003</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>35.0287</b>	<b>35.0287</b>	<b>0.0113</b>	<b>0.0000</b>	<b>35.3119</b>



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**3.2 Building Construction - 2021**

**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	1.1000e-004	3.6600e-003	9.1000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.9077	0.9077	4.0000e-005	0.0000	0.9088
Worker	3.2000e-004	2.2000e-004	2.3600e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.7014	0.7014	2.0000e-005	0.0000	0.7018
<b>Total</b>	<b>4.3000e-004</b>	<b>3.8800e-003</b>	<b>3.2700e-003</b>	<b>2.0000e-005</b>	<b>1.0600e-003</b>	<b>2.0000e-005</b>	<b>1.0800e-003</b>	<b>2.9000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>1.6091</b>	<b>1.6091</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.6106</b>

**3.3 Paving - 2021**

**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	2.5200e-003	0.0235	0.0248	4.0000e-005		1.2400e-003	1.2400e-003		1.1500e-003	1.1500e-003	0.0000	3.2874	3.2874	9.6000e-004	0.0000	3.3113
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.5200e-003</b>	<b>0.0235</b>	<b>0.0248</b>	<b>4.0000e-005</b>		<b>1.2400e-003</b>	<b>1.2400e-003</b>		<b>1.1500e-003</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>3.2874</b>	<b>3.2874</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.3113</b>

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**3.3 Paving - 2021**

**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	1.9000e-004	1.3000e-004	1.4100e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4208	0.4208	1.0000e-005	0.0000	0.4211
<b>Total</b>	<b>1.9000e-004</b>	<b>1.3000e-004</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4208</b>	<b>0.4208</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4211</b>

**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	2.5200e-003	0.0235	0.0248	4.0000e-005		1.9000e-004	1.9000e-004		1.7000e-004	1.7000e-004	0.0000	3.2874	3.2874	9.6000e-004	0.0000	3.3113
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.5200e-003</b>	<b>0.0235</b>	<b>0.0248</b>	<b>4.0000e-005</b>		<b>1.9000e-004</b>	<b>1.9000e-004</b>		<b>1.7000e-004</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>3.2874</b>	<b>3.2874</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.3113</b>

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**3.3 Paving - 2021**

**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	1.9000e-004	1.3000e-004	1.4100e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4208	0.4208	1.0000e-005	0.0000	0.4211
<b>Total</b>	<b>1.9000e-004</b>	<b>1.3000e-004</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>5.0000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4208</b>	<b>0.4208</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4211</b>

**3.4 Architectural Coating - 2021**

**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					
Archit. Coating	8.9500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9900e-003	0.0557	0.0663	1.1000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	9.3194	9.3194	6.4000e-004	0.0000	9.3354
<b>Total</b>	<b>0.0169</b>	<b>0.0557</b>	<b>0.0663</b>	<b>1.1000e-004</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>	<b>0.0000</b>	<b>9.3194</b>	<b>9.3194</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>9.3354</b>

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**3.4 Architectural Coating - 2021**

**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	1.1000e-004	8.0000e-005	8.2000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2438	0.2438	1.0000e-005	0.0000	0.2440
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2438</b>	<b>0.2438</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2440</b>

**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					
Archit. Coating	8.9500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9900e-003	0.0557	0.0663	1.1000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	9.3194	9.3194	6.4000e-004	0.0000	9.3354
<b>Total</b>	<b>0.0169</b>	<b>0.0557</b>	<b>0.0663</b>	<b>1.1000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>		<b>5.2000e-004</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>9.3194</b>	<b>9.3194</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>9.3354</b>

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**3.4 Architectural Coating - 2021**

**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	1.1000e-004	8.0000e-005	8.2000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2438	0.2438	1.0000e-005	0.0000	0.2440
<b>Total</b>	<b>1.1000e-004</b>	<b>8.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.9000e-004</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2438</b>	<b>0.2438</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2440</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**Blue Wave Express Car Wash and Hotel Project\_Phase 2**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	11.00	Space	0.00	4,400.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

Project Characteristics -

Land Use - Applicant provided: carwash on 0.87 acre portion of project site; project description has 11 parking stalls at carwash

Construction Phase - Applicant provided: 8 month construction of carwash facility, 1.45 times longer than default. Architectural coating increased to half the time of construction to be more realistic of painting throughout construction

Demolition -

Vehicle Trips - Not changed; operation considered separately

Woodstoves -

Water And Wastewater - Outdoor water use adjusted based on assumption of 44.8 gallons/vehicle and 963 vehicles per day from traffic study; indoor water use adjusted to applicant provided info (18.2 gallons/ day)

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation - AB 2230 requires car washes to use recycle and reuse 60% of water

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

## Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	5.00	73.00
tblConstructionPhase	NumDays	100.00	145.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	2/18/2021	5/12/2021
tblConstructionPhase	PhaseEndDate	2/4/2021	4/8/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	4/19/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	2/5/2021	4/9/2021
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	0.07	0.87

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.0 Construction Detail**

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**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	9/18/2020	4/8/2021	5	145	
2	Paving	Paving	4/9/2021	4/19/2021	5	7	
3	Architectural Coating	Architectural Coating	2/1/2021	5/12/2021	5	73	

**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: 4,320; Non-Residential Outdoor: 1,440; Striped Parking Area: 264 (Architectural Coating – sqft)**

**OffRoad Equipment**

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**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
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2020**

**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	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.978 1	1,102.978 1	0.3567		1,111.8962
<b>Total</b>	<b>0.8617</b>	<b>8.8523</b>	<b>7.3875</b>	<b>0.0114</b>		<b>0.5224</b>	<b>0.5224</b>		<b>0.4806</b>	<b>0.4806</b>		<b>1,102.978 1</b>	<b>1,102.978 1</b>	<b>0.3567</b>		<b>1,111.896 2</b>

**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	3.7900e-003	0.1140	0.0272	2.8000e-004	6.7700e-003	5.6000e-004	7.3300e-003	1.9500e-003	5.3000e-004	2.4800e-003		29.1708	29.1708	1.4400e-003		29.2067
Worker	0.0104	6.3100e-003	0.0805	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.6233	24.6233	5.9000e-004		24.6381
<b>Total</b>	<b>0.0142</b>	<b>0.1203</b>	<b>0.1077</b>	<b>5.3000e-004</b>	<b>0.0314</b>	<b>7.2000e-004</b>	<b>0.0321</b>	<b>8.4900e-003</b>	<b>6.8000e-004</b>	<b>9.1600e-003</b>		<b>53.7941</b>	<b>53.7941</b>	<b>2.0300e-003</b>		<b>53.8449</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2020**

**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	0.8617	8.8523	7.3875	0.0114		0.0784	0.0784		0.0721	0.0721	0.0000	1,102.978 1	1,102.978 1	0.3567		1,111.8962
<b>Total</b>	<b>0.8617</b>	<b>8.8523</b>	<b>7.3875</b>	<b>0.0114</b>		<b>0.0784</b>	<b>0.0784</b>		<b>0.0721</b>	<b>0.0721</b>	<b>0.0000</b>	<b>1,102.978 1</b>	<b>1,102.978 1</b>	<b>0.3567</b>		<b>1,111.896 2</b>

**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	3.7900e-003	0.1140	0.0272	2.8000e-004	6.7700e-003	5.6000e-004	7.3300e-003	1.9500e-003	5.3000e-004	2.4800e-003		29.1708	29.1708	1.4400e-003		29.2067
Worker	0.0104	6.3100e-003	0.0805	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.6233	24.6233	5.9000e-004		24.6381
<b>Total</b>	<b>0.0142</b>	<b>0.1203</b>	<b>0.1077</b>	<b>5.3000e-004</b>	<b>0.0314</b>	<b>7.2000e-004</b>	<b>0.0321</b>	<b>8.4900e-003</b>	<b>6.8000e-004</b>	<b>9.1600e-003</b>		<b>53.7941</b>	<b>53.7941</b>	<b>2.0300e-003</b>		<b>53.8449</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2021**

**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
<b>Total</b>	<b>0.7750</b>	<b>7.9850</b>	<b>7.2637</b>	<b>0.0114</b>		<b>0.4475</b>	<b>0.4475</b>		<b>0.4117</b>	<b>0.4117</b>		<b>1,103.2158</b>	<b>1,103.2158</b>	<b>0.3568</b>		<b>1,112.1358</b>

**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	3.1000e-003	0.1033	0.0244	2.7000e-004	6.7700e-003	2.2000e-004	6.9900e-003	1.9500e-003	2.1000e-004	2.1600e-003		28.8959	28.8959	1.3600e-003		28.9298
Worker	9.6500e-003	5.6400e-003	0.0737	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.4000e-004	6.6800e-003		23.7588	23.7588	5.3000e-004		23.7721
<b>Total</b>	<b>0.0128</b>	<b>0.1090</b>	<b>0.0981</b>	<b>5.1000e-004</b>	<b>0.0314</b>	<b>3.8000e-004</b>	<b>0.0318</b>	<b>8.4900e-003</b>	<b>3.5000e-004</b>	<b>8.8400e-003</b>		<b>52.6546</b>	<b>52.6546</b>	<b>1.8900e-003</b>		<b>52.7018</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2021**

**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	0.7750	7.9850	7.2637	0.0114		0.0671	0.0671		0.0618	0.0618	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
<b>Total</b>	<b>0.7750</b>	<b>7.9850</b>	<b>7.2637</b>	<b>0.0114</b>		<b>0.0671</b>	<b>0.0671</b>		<b>0.0618</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,103.2158</b>	<b>1,103.2158</b>	<b>0.3568</b>		<b>1,112.1358</b>

**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	3.1000e-003	0.1033	0.0244	2.7000e-004	6.7700e-003	2.2000e-004	6.9900e-003	1.9500e-003	2.1000e-004	2.1600e-003		28.8959	28.8959	1.3600e-003		28.9298
Worker	9.6500e-003	5.6400e-003	0.0737	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.4000e-004	6.6800e-003		23.7588	23.7588	5.3000e-004		23.7721
<b>Total</b>	<b>0.0128</b>	<b>0.1090</b>	<b>0.0981</b>	<b>5.1000e-004</b>	<b>0.0314</b>	<b>3.8000e-004</b>	<b>0.0318</b>	<b>8.4900e-003</b>	<b>3.5000e-004</b>	<b>8.8400e-003</b>		<b>52.6546</b>	<b>52.6546</b>	<b>1.8900e-003</b>		<b>52.7018</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.3 Paving - 2021**

**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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7214</b>	<b>6.7178</b>	<b>7.0899</b>	<b>0.0113</b>		<b>0.3534</b>	<b>0.3534</b>		<b>0.3286</b>	<b>0.3286</b>		<b>1,035.3425</b>	<b>1,035.3425</b>	<b>0.3016</b>		<b>1,042.8818</b>

**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	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
<b>Total</b>	<b>0.0579</b>	<b>0.0338</b>	<b>0.4421</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>9.3000e-004</b>	<b>0.1488</b>	<b>0.0392</b>	<b>8.6000e-004</b>	<b>0.0401</b>		<b>142.5527</b>	<b>142.5527</b>	<b>3.1900e-003</b>		<b>142.6324</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.3 Paving - 2021**

**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	0.7214	6.7178	7.0899	0.0113		0.0530	0.0530		0.0493	0.0493	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7214</b>	<b>6.7178</b>	<b>7.0899</b>	<b>0.0113</b>		<b>0.0530</b>	<b>0.0530</b>		<b>0.0493</b>	<b>0.0493</b>	<b>0.0000</b>	<b>1,035.3425</b>	<b>1,035.3425</b>	<b>0.3016</b>		<b>1,042.8818</b>

**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	0.0579	0.0338	0.4421	1.4300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		142.5527	142.5527	3.1900e-003		142.6324
<b>Total</b>	<b>0.0579</b>	<b>0.0338</b>	<b>0.4421</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>9.3000e-004</b>	<b>0.1488</b>	<b>0.0392</b>	<b>8.6000e-004</b>	<b>0.0401</b>		<b>142.5527</b>	<b>142.5527</b>	<b>3.1900e-003</b>		<b>142.6324</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 2021**

**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					
Archit. Coating	0.2453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.4642</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

**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	3.2200e-003	1.8800e-003	0.0246	8.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.9196	7.9196	1.8000e-004		7.9240
<b>Total</b>	<b>3.2200e-003</b>	<b>1.8800e-003</b>	<b>0.0246</b>	<b>8.0000e-005</b>	<b>8.2100e-003</b>	<b>5.0000e-005</b>	<b>8.2700e-003</b>	<b>2.1800e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>		<b>7.9196</b>	<b>7.9196</b>	<b>1.8000e-004</b>		<b>7.9240</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 2021**

**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					
Archit. Coating	0.2453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0141	0.0141		0.0141	0.0141	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.4642</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0141</b>	<b>0.0141</b>		<b>0.0141</b>	<b>0.0141</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

**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	3.2200e-003	1.8800e-003	0.0246	8.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.9196	7.9196	1.8000e-004		7.9240
<b>Total</b>	<b>3.2200e-003</b>	<b>1.8800e-003</b>	<b>0.0246</b>	<b>8.0000e-005</b>	<b>8.2100e-003</b>	<b>5.0000e-005</b>	<b>8.2700e-003</b>	<b>2.1800e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>		<b>7.9196</b>	<b>7.9196</b>	<b>1.8000e-004</b>		<b>7.9240</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**Blue Wave Express Car Wash and Hotel Project\_Phase 2**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	11.00	Space	0.00	4,400.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

Project Characteristics -

Land Use - Applicant provided: carwash on 0.87 acre portion of project site; project description has 11 parking stalls at carwash

Construction Phase - Applicant provided: 8 month construction of carwash facility, 1.45 times longer than default. Architectural coating increased to half the time of construction to be more realistic of painting throughout construction

Demolition -

Vehicle Trips - Not changed; operation considered separately

Woodstoves -

Water And Wastewater - Outdoor water use adjusted based on assumption of 44.8 gallons/vehicle and 963 vehicles per day from traffic study; indoor water use adjusted to applicant provided info (18.2 gallons/ day)

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation - AB 2230 requires car washes to use recycle and reuse 60% of water

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

## Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	5.00	73.00
tblConstructionPhase	NumDays	100.00	145.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	2/18/2021	5/12/2021
tblConstructionPhase	PhaseEndDate	2/4/2021	4/8/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	4/19/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	2/5/2021	4/9/2021
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	0.07	0.87

## 2.0 Emissions Summary

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## Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	9/18/2020	4/8/2021	5	145	
2	Paving	Paving	4/9/2021	4/19/2021	5	7	
3	Architectural Coating	Architectural Coating	2/1/2021	5/12/2021	5	73	

**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: 4,320; Non-Residential Outdoor: 1,440; Striped Parking Area: 264 (Architectural Coating – sqft)****OffRoad Equipment**



Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**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
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2020**

**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	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.978 1	1,102.978 1	0.3567		1,111.8962
<b>Total</b>	<b>0.8617</b>	<b>8.8523</b>	<b>7.3875</b>	<b>0.0114</b>		<b>0.5224</b>	<b>0.5224</b>		<b>0.4806</b>	<b>0.4806</b>		<b>1,102.978 1</b>	<b>1,102.978 1</b>	<b>0.3567</b>		<b>1,111.896 2</b>

**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	3.9900e-003	0.1152	0.0311	2.7000e-004	6.7700e-003	5.7000e-004	7.3400e-003	1.9500e-003	5.4000e-004	2.4900e-003		28.4327	28.4327	1.5500e-003		28.4716
Worker	0.0110	7.8000e-003	0.0756	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.6820	22.6820	5.5000e-004		22.6958
<b>Total</b>	<b>0.0150</b>	<b>0.1230</b>	<b>0.1067</b>	<b>5.0000e-004</b>	<b>0.0314</b>	<b>7.3000e-004</b>	<b>0.0321</b>	<b>8.4900e-003</b>	<b>6.9000e-004</b>	<b>9.1700e-003</b>		<b>51.1147</b>	<b>51.1147</b>	<b>2.1000e-003</b>		<b>51.1674</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2020**

**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	0.8617	8.8523	7.3875	0.0114		0.0784	0.0784		0.0721	0.0721	0.0000	1,102.978 1	1,102.978 1	0.3567		1,111.8962
<b>Total</b>	<b>0.8617</b>	<b>8.8523</b>	<b>7.3875</b>	<b>0.0114</b>		<b>0.0784</b>	<b>0.0784</b>		<b>0.0721</b>	<b>0.0721</b>	<b>0.0000</b>	<b>1,102.978 1</b>	<b>1,102.978 1</b>	<b>0.3567</b>		<b>1,111.896 2</b>

**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	3.9900e-003	0.1152	0.0311	2.7000e-004	6.7700e-003	5.7000e-004	7.3400e-003	1.9500e-003	5.4000e-004	2.4900e-003		28.4327	28.4327	1.5500e-003		28.4716
Worker	0.0110	7.8000e-003	0.0756	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.6820	22.6820	5.5000e-004		22.6958
<b>Total</b>	<b>0.0150</b>	<b>0.1230</b>	<b>0.1067</b>	<b>5.0000e-004</b>	<b>0.0314</b>	<b>7.3000e-004</b>	<b>0.0321</b>	<b>8.4900e-003</b>	<b>6.9000e-004</b>	<b>9.1700e-003</b>		<b>51.1147</b>	<b>51.1147</b>	<b>2.1000e-003</b>		<b>51.1674</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2021**

**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
<b>Total</b>	<b>0.7750</b>	<b>7.9850</b>	<b>7.2637</b>	<b>0.0114</b>		<b>0.4475</b>	<b>0.4475</b>		<b>0.4117</b>	<b>0.4117</b>		<b>1,103.2158</b>	<b>1,103.2158</b>	<b>0.3568</b>		<b>1,112.1358</b>

**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	3.2900e-003	0.1042	0.0280	2.7000e-004	6.7700e-003	2.3000e-004	7.0000e-003	1.9500e-003	2.2000e-004	2.1700e-003		28.1627	28.1627	1.4700e-003		28.1994
Worker	0.0102	6.9600e-003	0.0689	2.2000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.4000e-004	6.6800e-003		21.8861	21.8861	5.0000e-004		21.8985
<b>Total</b>	<b>0.0135</b>	<b>0.1112</b>	<b>0.0970</b>	<b>4.9000e-004</b>	<b>0.0314</b>	<b>3.9000e-004</b>	<b>0.0318</b>	<b>8.4900e-003</b>	<b>3.6000e-004</b>	<b>8.8500e-003</b>		<b>50.0488</b>	<b>50.0488</b>	<b>1.9700e-003</b>		<b>50.0979</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2021**

**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	0.7750	7.9850	7.2637	0.0114		0.0671	0.0671		0.0618	0.0618	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
<b>Total</b>	<b>0.7750</b>	<b>7.9850</b>	<b>7.2637</b>	<b>0.0114</b>		<b>0.0671</b>	<b>0.0671</b>		<b>0.0618</b>	<b>0.0618</b>	<b>0.0000</b>	<b>1,103.2158</b>	<b>1,103.2158</b>	<b>0.3568</b>		<b>1,112.1358</b>

**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	3.2900e-003	0.1042	0.0280	2.7000e-004	6.7700e-003	2.3000e-004	7.0000e-003	1.9500e-003	2.2000e-004	2.1700e-003		28.1627	28.1627	1.4700e-003		28.1994
Worker	0.0102	6.9600e-003	0.0689	2.2000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.4000e-004	6.6800e-003		21.8861	21.8861	5.0000e-004		21.8985
<b>Total</b>	<b>0.0135</b>	<b>0.1112</b>	<b>0.0970</b>	<b>4.9000e-004</b>	<b>0.0314</b>	<b>3.9000e-004</b>	<b>0.0318</b>	<b>8.4900e-003</b>	<b>3.6000e-004</b>	<b>8.8500e-003</b>		<b>50.0488</b>	<b>50.0488</b>	<b>1.9700e-003</b>		<b>50.0979</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.3 Paving - 2021**

**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	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7214</b>	<b>6.7178</b>	<b>7.0899</b>	<b>0.0113</b>		<b>0.3534</b>	<b>0.3534</b>		<b>0.3286</b>	<b>0.3286</b>		<b>1,035.3425</b>	<b>1,035.3425</b>	<b>0.3016</b>		<b>1,042.8818</b>

**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	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
<b>Total</b>	<b>0.0613</b>	<b>0.0418</b>	<b>0.4137</b>	<b>1.3200e-003</b>	<b>0.1479</b>	<b>9.3000e-004</b>	<b>0.1488</b>	<b>0.0392</b>	<b>8.6000e-004</b>	<b>0.0401</b>		<b>131.3166</b>	<b>131.3166</b>	<b>2.9700e-003</b>		<b>131.3909</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.3 Paving - 2021**

**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	0.7214	6.7178	7.0899	0.0113		0.0530	0.0530		0.0493	0.0493	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7214</b>	<b>6.7178</b>	<b>7.0899</b>	<b>0.0113</b>		<b>0.0530</b>	<b>0.0530</b>		<b>0.0493</b>	<b>0.0493</b>	<b>0.0000</b>	<b>1,035.3425</b>	<b>1,035.3425</b>	<b>0.3016</b>		<b>1,042.8818</b>

**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	0.0613	0.0418	0.4137	1.3200e-003	0.1479	9.3000e-004	0.1488	0.0392	8.6000e-004	0.0401		131.3166	131.3166	2.9700e-003		131.3909
<b>Total</b>	<b>0.0613</b>	<b>0.0418</b>	<b>0.4137</b>	<b>1.3200e-003</b>	<b>0.1479</b>	<b>9.3000e-004</b>	<b>0.1488</b>	<b>0.0392</b>	<b>8.6000e-004</b>	<b>0.0401</b>		<b>131.3166</b>	<b>131.3166</b>	<b>2.9700e-003</b>		<b>131.3909</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 2021**

**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					
Archit. Coating	0.2453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.4642</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

**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	3.4100e-003	2.3200e-003	0.0230	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.2954	7.2954	1.7000e-004		7.2995
<b>Total</b>	<b>3.4100e-003</b>	<b>2.3200e-003</b>	<b>0.0230</b>	<b>7.0000e-005</b>	<b>8.2100e-003</b>	<b>5.0000e-005</b>	<b>8.2700e-003</b>	<b>2.1800e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>		<b>7.2954</b>	<b>7.2954</b>	<b>1.7000e-004</b>		<b>7.2995</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 2 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 2021**

**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					
Archit. Coating	0.2453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0141	0.0141		0.0141	0.0141	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.4642</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0141</b>	<b>0.0141</b>		<b>0.0141</b>	<b>0.0141</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

**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	3.4100e-003	2.3200e-003	0.0230	7.0000e-005	8.2100e-003	5.0000e-005	8.2700e-003	2.1800e-003	5.0000e-005	2.2300e-003		7.2954	7.2954	1.7000e-004		7.2995
<b>Total</b>	<b>3.4100e-003</b>	<b>2.3200e-003</b>	<b>0.0230</b>	<b>7.0000e-005</b>	<b>8.2100e-003</b>	<b>5.0000e-005</b>	<b>8.2700e-003</b>	<b>2.1800e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>		<b>7.2954</b>	<b>7.2954</b>	<b>1.7000e-004</b>		<b>7.2995</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Annual

**Blue Wave Express Car Wash and Hotel Project\_Phase 3**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	113.00	Space	0.00	45,200.00	0
Hotel	116.00	Room	1.73	64,735.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Annual

Project Characteristics -

Land Use - Applicant provided: hotel on 1.73 acres with 100 parking spaces, 5 EV charging station spaces and 8 Clean Air spaces

Construction Phase - Extended phases to fit 24 months of construction (applicant provided) and more realistic architectural coating phase

Demolition -

Vehicle Trips - Not adjusted, operational emissions calculated seperately

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	10.00	236.00
tblConstructionPhase	NumDays	200.00	472.00
tblConstructionPhase	NumDays	10.00	24.00
tblConstructionPhase	PhaseEndDate	3/29/2022	5/22/2023
tblConstructionPhase	PhaseEndDate	3/1/2022	3/16/2023
tblConstructionPhase	PhaseEndDate	3/15/2022	4/19/2023
tblConstructionPhase	PhaseStartDate	3/16/2022	6/27/2022
tblConstructionPhase	PhaseStartDate	3/2/2022	3/17/2023
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.02	0.00
tblLandUse	LotAcreage	3.87	1.73

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Annual

**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					
2021	0.1589	1.2335	1.1376	2.3900e-003	0.0380	0.0546	0.0926	0.0103	0.0527	0.0630	0.0000	204.5761	204.5761	0.0280	0.0000	205.2751
2022	0.3648	1.9645	1.9700	4.1600e-003	0.0674	0.0829	0.1503	0.0183	0.0802	0.0985	0.0000	355.7665	355.7665	0.0460	0.0000	356.9157
2023	0.1475	0.4970	0.5834	1.1600e-003	0.0178	0.0213	0.0391	4.8200e-003	0.0205	0.0254	0.0000	99.6477	99.6477	0.0143	0.0000	100.0053
<b>Maximum</b>	<b>0.3648</b>	<b>1.9645</b>	<b>1.9700</b>	<b>4.1600e-003</b>	<b>0.0674</b>	<b>0.0829</b>	<b>0.1503</b>	<b>0.0183</b>	<b>0.0802</b>	<b>0.0985</b>	<b>0.0000</b>	<b>355.7665</b>	<b>355.7665</b>	<b>0.0460</b>	<b>0.0000</b>	<b>356.9157</b>

**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					
2021	0.1589	1.2335	1.1376	2.3900e-003	0.0380	8.6200e-003	0.0467	0.0103	8.3100e-003	0.0187	0.0000	204.5759	204.5759	0.0280	0.0000	205.2750
2022	0.3648	1.9645	1.9700	4.1600e-003	0.0674	0.0131	0.0805	0.0183	0.0127	0.0310	0.0000	355.7662	355.7662	0.0460	0.0000	356.9154
2023	0.1475	0.4970	0.5834	1.1600e-003	0.0178	3.3100e-003	0.0211	4.8200e-003	3.1900e-003	8.0000e-003	0.0000	99.6476	99.6476	0.0143	0.0000	100.0052
<b>Maximum</b>	<b>0.3648</b>	<b>1.9645</b>	<b>1.9700</b>	<b>4.1600e-003</b>	<b>0.0674</b>	<b>0.0131</b>	<b>0.0805</b>	<b>0.0183</b>	<b>0.0127</b>	<b>0.0310</b>	<b>0.0000</b>	<b>355.7662</b>	<b>355.7662</b>	<b>0.0460</b>	<b>0.0000</b>	<b>356.9154</b>

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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	0.00	84.23	47.41	0.00	84.25	69.18	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	5-26-2021	8-25-2021	0.5782	0.5782
2	8-26-2021	11-25-2021	0.5792	0.5792
3	11-26-2021	2-25-2022	0.5514	0.5514
4	2-26-2022	5-25-2022	0.5149	0.5149
5	5-26-2022	8-25-2022	0.6024	0.6024
6	8-26-2022	11-25-2022	0.6410	0.6410
7	11-26-2022	2-25-2023	0.6120	0.6120
8	2-26-2023	5-25-2023	0.2828	0.2828
		Highest	0.6410	0.6410

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	5/26/2021	3/16/2023	5	472	
2	Paving	Paving	3/17/2023	4/19/2023	5	24	
3	Architectural Coating	Architectural Coating	6/27/2022	5/22/2023	5	236	

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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: 97,103; Non-Residential Outdoor: 32,368; Striped Parking Area: 2,712 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**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
Building Construction	7	46.00	18.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

**3.2 Building Construction - 2021**

**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	0.1432	1.0773	1.0191	1.7400e-003		0.0541	0.0541		0.0522	0.0522	0.0000	143.4226	143.4226	0.0256	0.0000	144.0627
<b>Total</b>	<b>0.1432</b>	<b>1.0773</b>	<b>1.0191</b>	<b>1.7400e-003</b>		<b>0.0541</b>	<b>0.0541</b>		<b>0.0522</b>	<b>0.0522</b>	<b>0.0000</b>	<b>143.4226</b>	<b>143.4226</b>	<b>0.0256</b>	<b>0.0000</b>	<b>144.0627</b>



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**3.2 Building Construction - 2021**

**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	4.5100e-003	0.1485	0.0371	3.8000e-004	9.3200e-003	3.2000e-004	9.6500e-003	2.7000e-003	3.1000e-004	3.0100e-003	0.0000	36.8787	36.8787	1.8100e-003	0.0000	36.9240
Worker	0.0112	7.6900e-003	0.0815	2.7000e-004	0.0287	1.9000e-004	0.0289	7.6400e-003	1.7000e-004	7.8100e-003	0.0000	24.2748	24.2748	5.4000e-004	0.0000	24.2884
<b>Total</b>	<b>0.0157</b>	<b>0.1562</b>	<b>0.1186</b>	<b>6.5000e-004</b>	<b>0.0380</b>	<b>5.1000e-004</b>	<b>0.0386</b>	<b>0.0103</b>	<b>4.8000e-004</b>	<b>0.0108</b>	<b>0.0000</b>	<b>61.1535</b>	<b>61.1535</b>	<b>2.3500e-003</b>	<b>0.0000</b>	<b>61.2124</b>

**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	0.1432	1.0773	1.0191	1.7400e-003		8.1100e-003	8.1100e-003		7.8300e-003	7.8300e-003	0.0000	143.4225	143.4225	0.0256	0.0000	144.0626
<b>Total</b>	<b>0.1432</b>	<b>1.0773</b>	<b>1.0191</b>	<b>1.7400e-003</b>		<b>8.1100e-003</b>	<b>8.1100e-003</b>		<b>7.8300e-003</b>	<b>7.8300e-003</b>	<b>0.0000</b>	<b>143.4225</b>	<b>143.4225</b>	<b>0.0256</b>	<b>0.0000</b>	<b>144.0626</b>

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**3.2 Building Construction - 2021**

**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	4.5100e-003	0.1485	0.0371	3.8000e-004	9.3200e-003	3.2000e-004	9.6500e-003	2.7000e-003	3.1000e-004	3.0100e-003	0.0000	36.8787	36.8787	1.8100e-003	0.0000	36.9240
Worker	0.0112	7.6900e-003	0.0815	2.7000e-004	0.0287	1.9000e-004	0.0289	7.6400e-003	1.7000e-004	7.8100e-003	0.0000	24.2748	24.2748	5.4000e-004	0.0000	24.2884
<b>Total</b>	<b>0.0157</b>	<b>0.1562</b>	<b>0.1186</b>	<b>6.5000e-004</b>	<b>0.0380</b>	<b>5.1000e-004</b>	<b>0.0386</b>	<b>0.0103</b>	<b>4.8000e-004</b>	<b>0.0108</b>	<b>0.0000</b>	<b>61.1535</b>	<b>61.1535</b>	<b>2.3500e-003</b>	<b>0.0000</b>	<b>61.2124</b>

**3.2 Building Construction - 2022**

**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	0.2143	1.6254	1.6544	2.8700e-003		0.0766	0.0766		0.0740	0.0740	0.0000	236.0500	236.0500	0.0411	0.0000	237.0778
<b>Total</b>	<b>0.2143</b>	<b>1.6254</b>	<b>1.6544</b>	<b>2.8700e-003</b>		<b>0.0766</b>	<b>0.0766</b>		<b>0.0740</b>	<b>0.0740</b>	<b>0.0000</b>	<b>236.0500</b>	<b>236.0500</b>	<b>0.0411</b>	<b>0.0000</b>	<b>237.0778</b>

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**3.2 Building Construction - 2022**

**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	6.9300e-003	0.2315	0.0574	6.2000e-004	0.0154	4.6000e-004	0.0158	4.4400e-003	4.4000e-004	4.8800e-003	0.0000	60.0914	60.0914	2.8500e-003	0.0000	60.1627
Worker	0.0171	0.0114	0.1233	4.3000e-004	0.0473	3.0000e-004	0.0476	0.0126	2.8000e-004	0.0129	0.0000	38.4813	38.4813	8.0000e-004	0.0000	38.5014
<b>Total</b>	<b>0.0240</b>	<b>0.2428</b>	<b>0.1806</b>	<b>1.0500e-003</b>	<b>0.0626</b>	<b>7.6000e-004</b>	<b>0.0634</b>	<b>0.0170</b>	<b>7.2000e-004</b>	<b>0.0177</b>	<b>0.0000</b>	<b>98.5728</b>	<b>98.5728</b>	<b>3.6500e-003</b>	<b>0.0000</b>	<b>98.6641</b>

**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	0.2143	1.6254	1.6544	2.8700e-003		0.0115	0.0115		0.0111	0.0111	0.0000	236.0497	236.0497	0.0411	0.0000	237.0775
<b>Total</b>	<b>0.2143</b>	<b>1.6254</b>	<b>1.6544</b>	<b>2.8700e-003</b>		<b>0.0115</b>	<b>0.0115</b>		<b>0.0111</b>	<b>0.0111</b>	<b>0.0000</b>	<b>236.0497</b>	<b>236.0497</b>	<b>0.0411</b>	<b>0.0000</b>	<b>237.0775</b>

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**3.2 Building Construction - 2022**

**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	6.9300e-003	0.2315	0.0574	6.2000e-004	0.0154	4.6000e-004	0.0158	4.4400e-003	4.4000e-004	4.8800e-003	0.0000	60.0914	60.0914	2.8500e-003	0.0000	60.1627
Worker	0.0171	0.0114	0.1233	4.3000e-004	0.0473	3.0000e-004	0.0476	0.0126	2.8000e-004	0.0129	0.0000	38.4813	38.4813	8.0000e-004	0.0000	38.5014
<b>Total</b>	<b>0.0240</b>	<b>0.2428</b>	<b>0.1806</b>	<b>1.0500e-003</b>	<b>0.0626</b>	<b>7.6000e-004</b>	<b>0.0634</b>	<b>0.0170</b>	<b>7.2000e-004</b>	<b>0.0177</b>	<b>0.0000</b>	<b>98.5728</b>	<b>98.5728</b>	<b>3.6500e-003</b>	<b>0.0000</b>	<b>98.6641</b>

**3.2 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	0.0411	0.3162	0.3405	6.0000e-004		0.0139	0.0139		0.0134	0.0134	0.0000	49.0318	49.0318	8.3300e-003	0.0000	49.2399
<b>Total</b>	<b>0.0411</b>	<b>0.3162</b>	<b>0.3405</b>	<b>6.0000e-004</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0134</b>	<b>0.0134</b>	<b>0.0000</b>	<b>49.0318</b>	<b>49.0318</b>	<b>8.3300e-003</b>	<b>0.0000</b>	<b>49.2399</b>

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**3.2 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	1.0800e-003	0.0371	0.0107	1.3000e-004	3.1900e-003	4.0000e-005	3.2300e-003	9.2000e-004	4.0000e-005	9.6000e-004	0.0000	12.1308	12.1308	5.0000e-004	0.0000	12.1434
Worker	3.3200e-003	2.1200e-003	0.0236	8.0000e-005	9.8100e-003	6.0000e-005	9.8800e-003	2.6100e-003	6.0000e-005	2.6700e-003	0.0000	7.6862	7.6862	1.5000e-004	0.0000	7.6899
<b>Total</b>	<b>4.4000e-003</b>	<b>0.0392</b>	<b>0.0342</b>	<b>2.1000e-004</b>	<b>0.0130</b>	<b>1.0000e-004</b>	<b>0.0131</b>	<b>3.5300e-003</b>	<b>1.0000e-004</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>19.8169</b>	<b>19.8169</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>19.8333</b>

**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	0.0411	0.3162	0.3405	6.0000e-004		2.0800e-003	2.0800e-003		2.0100e-003	2.0100e-003	0.0000	49.0317	49.0317	8.3300e-003	0.0000	49.2399
<b>Total</b>	<b>0.0411</b>	<b>0.3162</b>	<b>0.3405</b>	<b>6.0000e-004</b>		<b>2.0800e-003</b>	<b>2.0800e-003</b>		<b>2.0100e-003</b>	<b>2.0100e-003</b>	<b>0.0000</b>	<b>49.0317</b>	<b>49.0317</b>	<b>8.3300e-003</b>	<b>0.0000</b>	<b>49.2399</b>

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**3.2 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	1.0800e-003	0.0371	0.0107	1.3000e-004	3.1900e-003	4.0000e-005	3.2300e-003	9.2000e-004	4.0000e-005	9.6000e-004	0.0000	12.1308	12.1308	5.0000e-004	0.0000	12.1434
Worker	3.3200e-003	2.1200e-003	0.0236	8.0000e-005	9.8100e-003	6.0000e-005	9.8800e-003	2.6100e-003	6.0000e-005	2.6700e-003	0.0000	7.6862	7.6862	1.5000e-004	0.0000	7.6899
<b>Total</b>	<b>4.4000e-003</b>	<b>0.0392</b>	<b>0.0342</b>	<b>2.1000e-004</b>	<b>0.0130</b>	<b>1.0000e-004</b>	<b>0.0131</b>	<b>3.5300e-003</b>	<b>1.0000e-004</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>19.8169</b>	<b>19.8169</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>19.8333</b>

**3.3 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	7.7400e-003	0.0748	0.1056	1.6000e-004		3.7000e-003	3.7000e-003		3.4200e-003	3.4200e-003	0.0000	14.1269	14.1269	4.4800e-003	0.0000	14.2389
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>7.7400e-003</b>	<b>0.0748</b>	<b>0.1056</b>	<b>1.6000e-004</b>		<b>3.7000e-003</b>	<b>3.7000e-003</b>		<b>3.4200e-003</b>	<b>3.4200e-003</b>	<b>0.0000</b>	<b>14.1269</b>	<b>14.1269</b>	<b>4.4800e-003</b>	<b>0.0000</b>	<b>14.2389</b>

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**3.3 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	4.2000e-004	2.7000e-004	2.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9654	0.9654	2.0000e-005	0.0000	0.9659
<b>Total</b>	<b>4.2000e-004</b>	<b>2.7000e-004</b>	<b>2.9600e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>0.9654</b>	<b>0.9654</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.9659</b>

**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	7.7400e-003	0.0748	0.1056	1.6000e-004		5.6000e-004	5.6000e-004		5.1000e-004	5.1000e-004	0.0000	14.1269	14.1269	4.4800e-003	0.0000	14.2389
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>7.7400e-003</b>	<b>0.0748</b>	<b>0.1056</b>	<b>1.6000e-004</b>		<b>5.6000e-004</b>	<b>5.6000e-004</b>		<b>5.1000e-004</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>14.1269</b>	<b>14.1269</b>	<b>4.4800e-003</b>	<b>0.0000</b>	<b>14.2389</b>

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**3.3 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	4.2000e-004	2.7000e-004	2.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9654	0.9654	2.0000e-005	0.0000	0.9659
<b>Total</b>	<b>4.2000e-004</b>	<b>2.7000e-004</b>	<b>2.9600e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>0.9654</b>	<b>0.9654</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.9659</b>

**3.4 Architectural Coating - 2022**

**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					
Archit. Coating	0.1109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.0951	0.1224	2.0000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	17.2345	17.2345	1.1200e-003	0.0000	17.2625
<b>Total</b>	<b>0.1247</b>	<b>0.0951</b>	<b>0.1224</b>	<b>2.0000e-004</b>		<b>5.5200e-003</b>	<b>5.5200e-003</b>		<b>5.5200e-003</b>	<b>5.5200e-003</b>	<b>0.0000</b>	<b>17.2345</b>	<b>17.2345</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>17.2625</b>



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**3.4 Architectural Coating - 2022**

**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	1.7400e-003	1.1500e-003	0.0125	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	3.9093	3.9093	8.0000e-005	0.0000	3.9113
<b>Total</b>	<b>1.7400e-003</b>	<b>1.1500e-003</b>	<b>0.0125</b>	<b>4.0000e-005</b>	<b>4.8000e-003</b>	<b>3.0000e-005</b>	<b>4.8300e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>3.9093</b>	<b>3.9093</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>3.9113</b>

**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					
Archit. Coating	0.1109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.0951	0.1224	2.0000e-004		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	17.2344	17.2344	1.1200e-003	0.0000	17.2625
<b>Total</b>	<b>0.1247</b>	<b>0.0951</b>	<b>0.1224</b>	<b>2.0000e-004</b>		<b>8.3000e-004</b>	<b>8.3000e-004</b>		<b>8.3000e-004</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>17.2344</b>	<b>17.2344</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>17.2625</b>

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**3.4 Architectural Coating - 2022**

**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	1.7400e-003	1.1500e-003	0.0125	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	3.9093	3.9093	8.0000e-005	0.0000	3.9113
<b>Total</b>	<b>1.7400e-003</b>	<b>1.1500e-003</b>	<b>0.0125</b>	<b>4.0000e-005</b>	<b>4.8000e-003</b>	<b>3.0000e-005</b>	<b>4.8300e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>3.9093</b>	<b>3.9093</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>3.9113</b>

**3.4 Architectural Coating - 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					
Archit. Coating	0.0830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6800e-003	0.0658	0.0915	1.5000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	12.8939	12.8939	7.7000e-004	0.0000	12.9132
<b>Total</b>	<b>0.0926</b>	<b>0.0658</b>	<b>0.0915</b>	<b>1.5000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>12.8939</b>	<b>12.8939</b>	<b>7.7000e-004</b>	<b>0.0000</b>	<b>12.9132</b>

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**3.4 Architectural Coating - 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	1.2200e-003	7.8000e-004	8.6200e-003	3.0000e-005	3.5900e-003	2.0000e-005	3.6100e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8127	2.8127	5.0000e-005	0.0000	2.8141
<b>Total</b>	<b>1.2200e-003</b>	<b>7.8000e-004</b>	<b>8.6200e-003</b>	<b>3.0000e-005</b>	<b>3.5900e-003</b>	<b>2.0000e-005</b>	<b>3.6100e-003</b>	<b>9.6000e-004</b>	<b>2.0000e-005</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>2.8127</b>	<b>2.8127</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.8141</b>

**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					
Archit. Coating	0.0830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6800e-003	0.0658	0.0915	1.5000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	12.8939	12.8939	7.7000e-004	0.0000	12.9132
<b>Total</b>	<b>0.0926</b>	<b>0.0658</b>	<b>0.0915</b>	<b>1.5000e-004</b>		<b>5.4000e-004</b>	<b>5.4000e-004</b>		<b>5.4000e-004</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>12.8939</b>	<b>12.8939</b>	<b>7.7000e-004</b>	<b>0.0000</b>	<b>12.9132</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Annual

**3.4 Architectural Coating - 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	1.2200e-003	7.8000e-004	8.6200e-003	3.0000e-005	3.5900e-003	2.0000e-005	3.6100e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8127	2.8127	5.0000e-005	0.0000	2.8141
<b>Total</b>	<b>1.2200e-003</b>	<b>7.8000e-004</b>	<b>8.6200e-003</b>	<b>3.0000e-005</b>	<b>3.5900e-003</b>	<b>2.0000e-005</b>	<b>3.6100e-003</b>	<b>9.6000e-004</b>	<b>2.0000e-005</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>2.8127</b>	<b>2.8127</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.8141</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**Blue Wave Express Car Wash and Hotel Project\_Phase 3**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	113.00	Space	0.00	45,200.00	0
Hotel	116.00	Room	1.73	64,735.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

Project Characteristics -

Land Use - Applicant provided: hotel on 1.73 acres with 100 parking spaces, 5 EV charging station spaces and 8 Clean Air spaces

Construction Phase - Extended phases to fit 24 months of construction (applicant provided) and more realistic architectural coating phase

Demolition -

Vehicle Trips - Not adjusted, operational emissions calculated seperately

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

## Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	10.00	236.00
tblConstructionPhase	NumDays	200.00	472.00
tblConstructionPhase	NumDays	10.00	24.00
tblConstructionPhase	PhaseEndDate	3/29/2022	5/22/2023
tblConstructionPhase	PhaseEndDate	3/1/2022	3/16/2023
tblConstructionPhase	PhaseEndDate	3/15/2022	4/19/2023
tblConstructionPhase	PhaseStartDate	3/16/2022	6/27/2022
tblConstructionPhase	PhaseStartDate	3/2/2022	3/17/2023
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.02	0.00
tblLandUse	LotAcreage	3.87	1.73

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**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					
2021	2.0162	15.5826	14.4679	0.0306	0.4997	0.6908	1.1905	0.1353	0.6668	0.8022	0.0000	2,885.6468	2,885.6468	0.3898	0.0000	2,895.3923
2022	3.7124	15.7672	16.1974	0.0341	0.5737	0.6769	1.2505	0.1549	0.6565	0.8114	0.0000	3,217.6435	3,217.6435	0.3990	0.0000	3,227.6189
2023	3.5501	14.4591	15.9417	0.0338	0.5737	0.5896	1.1632	0.1549	0.5716	0.7266	0.0000	3,187.3134	3,187.3134	0.4314	0.0000	3,196.9274
<b>Maximum</b>	<b>3.7124</b>	<b>15.7672</b>	<b>16.1974</b>	<b>0.0341</b>	<b>0.5737</b>	<b>0.6908</b>	<b>1.2505</b>	<b>0.1549</b>	<b>0.6668</b>	<b>0.8114</b>	<b>0.0000</b>	<b>3,217.6435</b>	<b>3,217.6435</b>	<b>0.4314</b>	<b>0.0000</b>	<b>3,227.6189</b>

**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					
2021	2.0162	15.5826	14.4679	0.0306	0.4997	0.1091	0.6088	0.1353	0.1052	0.2405	0.0000	2,885.6468	2,885.6468	0.3898	0.0000	2,895.3923
2022	3.7124	15.7672	16.1974	0.0341	0.5737	0.1069	0.6805	0.1549	0.1035	0.2584	0.0000	3,217.6435	3,217.6435	0.3990	0.0000	3,227.6189
2023	3.5501	14.4591	15.9417	0.0338	0.5737	0.0921	0.6657	0.1549	0.0891	0.2441	0.0000	3,187.3134	3,187.3134	0.4314	0.0000	3,196.9274
<b>Maximum</b>	<b>3.7124</b>	<b>15.7672</b>	<b>16.1974</b>	<b>0.0341</b>	<b>0.5737</b>	<b>0.1091</b>	<b>0.6805</b>	<b>0.1549</b>	<b>0.1052</b>	<b>0.2584</b>	<b>0.0000</b>	<b>3,217.6435</b>	<b>3,217.6435</b>	<b>0.4314</b>	<b>0.0000</b>	<b>3,227.6189</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area 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	84.26	45.76	0.00	84.29	68.25	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	Building Construction	Building Construction	5/26/2021	3/16/2023	5	472	
2	Paving	Paving	3/17/2023	4/19/2023	5	24	
3	Architectural Coating	Architectural Coating	6/27/2022	5/22/2023	5	236	

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: 97,103; Non-Residential Outdoor: 32,368; Striped Parking Area: 2,712 (Architectural Coating – sqft)

#### OffRoad Equipment

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**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
Building Construction	7	46.00	18.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2021**

**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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
<b>Total</b>	<b>1.8125</b>	<b>13.6361</b>	<b>12.8994</b>	<b>0.0221</b>		<b>0.6843</b>	<b>0.6843</b>		<b>0.6608</b>	<b>0.6608</b>		<b>2,001.2200</b>	<b>2,001.2200</b>	<b>0.3573</b>		<b>2,010.1517</b>

**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	0.0558	1.8601	0.4386	4.9100e-003	0.1218	4.0300e-003	0.1259	0.0351	3.8500e-003	0.0389		520.1254	520.1254	0.0244		520.7357
Worker	0.1479	0.0864	1.1299	3.6500e-003	0.3779	2.3800e-003	0.3803	0.1002	2.1900e-003	0.1024		364.3014	364.3014	8.1400e-003		364.5050
<b>Total</b>	<b>0.2037</b>	<b>1.9466</b>	<b>1.5686</b>	<b>8.5600e-003</b>	<b>0.4997</b>	<b>6.4100e-003</b>	<b>0.5061</b>	<b>0.1353</b>	<b>6.0400e-003</b>	<b>0.1414</b>		<b>884.4268</b>	<b>884.4268</b>	<b>0.0326</b>		<b>885.2406</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2021**

**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	1.8125	13.6361	12.8994	0.0221		0.1027	0.1027		0.0991	0.0991	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
<b>Total</b>	<b>1.8125</b>	<b>13.6361</b>	<b>12.8994</b>	<b>0.0221</b>		<b>0.1027</b>	<b>0.1027</b>		<b>0.0991</b>	<b>0.0991</b>	<b>0.0000</b>	<b>2,001.2200</b>	<b>2,001.2200</b>	<b>0.3573</b>		<b>2,010.1517</b>

**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	0.0558	1.8601	0.4386	4.9100e-003	0.1218	4.0300e-003	0.1259	0.0351	3.8500e-003	0.0389		520.1254	520.1254	0.0244		520.7357
Worker	0.1479	0.0864	1.1299	3.6500e-003	0.3779	2.3800e-003	0.3803	0.1002	2.1900e-003	0.1024		364.3014	364.3014	8.1400e-003		364.5050
<b>Total</b>	<b>0.2037</b>	<b>1.9466</b>	<b>1.5686</b>	<b>8.5600e-003</b>	<b>0.4997</b>	<b>6.4100e-003</b>	<b>0.5061</b>	<b>0.1353</b>	<b>6.0400e-003</b>	<b>0.1414</b>		<b>884.4268</b>	<b>884.4268</b>	<b>0.0326</b>		<b>885.2406</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2022**

**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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
<b>Total</b>	<b>1.6487</b>	<b>12.5031</b>	<b>12.7264</b>	<b>0.0221</b>		<b>0.5889</b>	<b>0.5889</b>		<b>0.5689</b>	<b>0.5689</b>		<b>2,001.5429</b>	<b>2,001.5429</b>	<b>0.3486</b>		<b>2,010.2581</b>

**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	0.0521	1.7629	0.4125	4.8600e-003	0.1219	3.4900e-003	0.1253	0.0351	3.3400e-003	0.0384		515.0601	515.0601	0.0233		515.6436
Worker	0.1377	0.0775	1.0411	3.5200e-003	0.3779	2.3200e-003	0.3802	0.1002	2.1400e-003	0.1024		350.9319	350.9319	7.3100e-003		351.1147
<b>Total</b>	<b>0.1897</b>	<b>1.8405</b>	<b>1.4537</b>	<b>8.3800e-003</b>	<b>0.4997</b>	<b>5.8100e-003</b>	<b>0.5055</b>	<b>0.1353</b>	<b>5.4800e-003</b>	<b>0.1408</b>		<b>865.9920</b>	<b>865.9920</b>	<b>0.0307</b>		<b>866.7583</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2022**

**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	1.6487	12.5031	12.7264	0.0221		0.0883	0.0883		0.0853	0.0853	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
<b>Total</b>	<b>1.6487</b>	<b>12.5031</b>	<b>12.7264</b>	<b>0.0221</b>		<b>0.0883</b>	<b>0.0883</b>		<b>0.0853</b>	<b>0.0853</b>	<b>0.0000</b>	<b>2,001.5429</b>	<b>2,001.5429</b>	<b>0.3486</b>		<b>2,010.2581</b>

**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	0.0521	1.7629	0.4125	4.8600e-003	0.1219	3.4900e-003	0.1253	0.0351	3.3400e-003	0.0384		515.0601	515.0601	0.0233		515.6436
Worker	0.1377	0.0775	1.0411	3.5200e-003	0.3779	2.3200e-003	0.3802	0.1002	2.1400e-003	0.1024		350.9319	350.9319	7.3100e-003		351.1147
<b>Total</b>	<b>0.1897</b>	<b>1.8405</b>	<b>1.4537</b>	<b>8.3800e-003</b>	<b>0.4997</b>	<b>5.8100e-003</b>	<b>0.5055</b>	<b>0.1353</b>	<b>5.4800e-003</b>	<b>0.1408</b>		<b>865.9920</b>	<b>865.9920</b>	<b>0.0307</b>		<b>866.7583</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
<b>Total</b>	<b>1.5233</b>	<b>11.7104</b>	<b>12.6111</b>	<b>0.0221</b>		<b>0.5145</b>	<b>0.5145</b>		<b>0.4968</b>	<b>0.4968</b>		<b>2,001.7877</b>	<b>2,001.7877</b>	<b>0.3399</b>		<b>2,010.2858</b>

**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	0.0390	1.3624	0.3714	4.7200e-003	0.1219	1.5500e-003	0.1234	0.0351	1.4800e-003	0.0366		500.5709	500.5709	0.0200		501.0696
Worker	0.1285	0.0697	0.9602	3.3800e-003	0.3779	2.2700e-003	0.3802	0.1002	2.0900e-003	0.1023		337.4784	337.4784	6.5700e-003		337.6426
<b>Total</b>	<b>0.1675</b>	<b>1.4321</b>	<b>1.3316</b>	<b>8.1000e-003</b>	<b>0.4997</b>	<b>3.8200e-003</b>	<b>0.5036</b>	<b>0.1353</b>	<b>3.5700e-003</b>	<b>0.1389</b>		<b>838.0493</b>	<b>838.0493</b>	<b>0.0265</b>		<b>838.7122</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.2 Building Construction - 2023**

**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	1.5233	11.7104	12.6111	0.0221		0.0772	0.0772		0.0745	0.0745	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
<b>Total</b>	<b>1.5233</b>	<b>11.7104</b>	<b>12.6111</b>	<b>0.0221</b>		<b>0.0772</b>	<b>0.0772</b>		<b>0.0745</b>	<b>0.0745</b>	<b>0.0000</b>	<b>2,001.7877</b>	<b>2,001.7877</b>	<b>0.3399</b>		<b>2,010.2858</b>

**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	0.0390	1.3624	0.3714	4.7200e-003	0.1219	1.5500e-003	0.1234	0.0351	1.4800e-003	0.0366		500.5709	500.5709	0.0200		501.0696
Worker	0.1285	0.0697	0.9602	3.3800e-003	0.3779	2.2700e-003	0.3802	0.1002	2.0900e-003	0.1023		337.4784	337.4784	6.5700e-003		337.6426
<b>Total</b>	<b>0.1675</b>	<b>1.4321</b>	<b>1.3316</b>	<b>8.1000e-003</b>	<b>0.4997</b>	<b>3.8200e-003</b>	<b>0.5036</b>	<b>0.1353</b>	<b>3.5700e-003</b>	<b>0.1389</b>		<b>838.0493</b>	<b>838.0493</b>	<b>0.0265</b>		<b>838.7122</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.3 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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6446</b>	<b>6.2357</b>	<b>8.8024</b>	<b>0.0136</b>		<b>0.3084</b>	<b>0.3084</b>		<b>0.2846</b>	<b>0.2846</b>		<b>1,297.6880</b>	<b>1,297.6880</b>	<b>0.4114</b>		<b>1,307.9725</b>

**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	0.0363	0.0197	0.2714	9.6000e-004	0.1068	6.4000e-004	0.1074	0.0283	5.9000e-004	0.0289		95.3743	95.3743	1.8600e-003		95.4207
<b>Total</b>	<b>0.0363</b>	<b>0.0197</b>	<b>0.2714</b>	<b>9.6000e-004</b>	<b>0.1068</b>	<b>6.4000e-004</b>	<b>0.1074</b>	<b>0.0283</b>	<b>5.9000e-004</b>	<b>0.0289</b>		<b>95.3743</b>	<b>95.3743</b>	<b>1.8600e-003</b>		<b>95.4207</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.3 Paving - 2023**

**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	0.6446	6.2357	8.8024	0.0136		0.0463	0.0463		0.0427	0.0427	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6446</b>	<b>6.2357</b>	<b>8.8024</b>	<b>0.0136</b>		<b>0.0463</b>	<b>0.0463</b>		<b>0.0427</b>	<b>0.0427</b>	<b>0.0000</b>	<b>1,297.6880</b>	<b>1,297.6880</b>	<b>0.4114</b>		<b>1,307.9725</b>

**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	0.0363	0.0197	0.2714	9.6000e-004	0.1068	6.4000e-004	0.1074	0.0283	5.9000e-004	0.0289		95.3743	95.3743	1.8600e-003		95.4207
<b>Total</b>	<b>0.0363</b>	<b>0.0197</b>	<b>0.2714</b>	<b>9.6000e-004</b>	<b>0.1068</b>	<b>6.4000e-004</b>	<b>0.1074</b>	<b>0.0283</b>	<b>5.9000e-004</b>	<b>0.0289</b>		<b>95.3743</b>	<b>95.3743</b>	<b>1.8600e-003</b>		<b>95.4207</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 2022**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>1.8471</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**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	0.0269	0.0152	0.2037	6.9000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.2000e-004	0.0200		68.6606	68.6606	1.4300e-003		68.6964
<b>Total</b>	<b>0.0269</b>	<b>0.0152</b>	<b>0.2037</b>	<b>6.9000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.2000e-004</b>	<b>0.0200</b>		<b>68.6606</b>	<b>68.6606</b>	<b>1.4300e-003</b>		<b>68.6964</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 2022**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0123	0.0123		0.0123	0.0123	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>1.8471</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0123</b>	<b>0.0123</b>		<b>0.0123</b>	<b>0.0123</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**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	0.0269	0.0152	0.2037	6.9000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.2000e-004	0.0200		68.6606	68.6606	1.4300e-003		68.6964
<b>Total</b>	<b>0.0269</b>	<b>0.0152</b>	<b>0.2037</b>	<b>6.9000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.2000e-004</b>	<b>0.0200</b>		<b>68.6606</b>	<b>68.6606</b>	<b>1.4300e-003</b>		<b>68.6964</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1.8342</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0251	0.0136	0.1879	6.6000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.1000e-004	0.0200		66.0284	66.0284	1.2800e-003		66.0605
<b>Total</b>	<b>0.0251</b>	<b>0.0136</b>	<b>0.1879</b>	<b>6.6000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.1000e-004</b>	<b>0.0200</b>		<b>66.0284</b>	<b>66.0284</b>	<b>1.2800e-003</b>		<b>66.0605</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Summer

**3.4 Architectural Coating - 2023**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0106	0.0106		0.0106	0.0106	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1.8342</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0251	0.0136	0.1879	6.6000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.1000e-004	0.0200		66.0284	66.0284	1.2800e-003		66.0605
<b>Total</b>	<b>0.0251</b>	<b>0.0136</b>	<b>0.1879</b>	<b>6.6000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.1000e-004</b>	<b>0.0200</b>		<b>66.0284</b>	<b>66.0284</b>	<b>1.2800e-003</b>		<b>66.0605</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**Blue Wave Express Car Wash and Hotel Project\_Phase 3**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	113.00	Space	0.00	45,200.00	0
Hotel	116.00	Room	1.73	64,735.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

Project Characteristics -

Land Use - Applicant provided: hotel on 1.73 acres with 100 parking spaces, 5 EV charging station spaces and 8 Clean Air spaces

Construction Phase - Extended phases to fit 24 months of construction (applicant provided) and more realistic architectural coating phase

Demolition -

Vehicle Trips - Not adjusted, operational emissions calculated seperately

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00



## Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstructionPhase	NumDays	10.00	236.00
tblConstructionPhase	NumDays	200.00	472.00
tblConstructionPhase	NumDays	10.00	24.00
tblConstructionPhase	PhaseEndDate	3/29/2022	5/22/2023
tblConstructionPhase	PhaseEndDate	3/1/2022	3/16/2023
tblConstructionPhase	PhaseEndDate	3/15/2022	4/19/2023
tblConstructionPhase	PhaseStartDate	3/16/2022	6/27/2022
tblConstructionPhase	PhaseStartDate	3/2/2022	3/17/2023
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.02	0.00
tblLandUse	LotAcreage	3.87	1.73

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**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					
2021	2.0283	15.6190	14.4607	0.0302	0.4997	0.6909	1.1906	0.1353	0.6670	0.8023	0.0000	2,843.7357	2,843.7357	0.3913	0.0000	2,853.5175
2022	3.7257	15.8022	16.1738	0.0336	0.5737	0.6770	1.2507	0.1549	0.6566	0.8115	0.0000	3,171.4365	3,171.4365	0.4003	0.0000	3,181.4438
2023	3.5627	14.4853	15.9083	0.0334	0.5737	0.5897	1.1633	0.1549	0.5717	0.7266	0.0000	3,142.8876	3,142.8876	0.4311	0.0000	3,152.5239
<b>Maximum</b>	<b>3.7257</b>	<b>15.8022</b>	<b>16.1738</b>	<b>0.0336</b>	<b>0.5737</b>	<b>0.6909</b>	<b>1.2507</b>	<b>0.1549</b>	<b>0.6670</b>	<b>0.8115</b>	<b>0.0000</b>	<b>3,171.4365</b>	<b>3,171.4365</b>	<b>0.4311</b>	<b>0.0000</b>	<b>3,181.4438</b>

**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					
2021	2.0283	15.6190	14.4607	0.0302	0.4997	0.1092	0.6089	0.1353	0.1053	0.2406	0.0000	2,843.7357	2,843.7357	0.3913	0.0000	2,853.5175
2022	3.7257	15.8022	16.1738	0.0336	0.5737	0.1070	0.6807	0.1549	0.1036	0.2585	0.0000	3,171.4365	3,171.4365	0.4003	0.0000	3,181.4438
2023	3.5627	14.4853	15.9083	0.0334	0.5737	0.0921	0.6658	0.1549	0.0892	0.2441	0.0000	3,142.8876	3,142.8876	0.4311	0.0000	3,152.5239
<b>Maximum</b>	<b>3.7257</b>	<b>15.8022</b>	<b>16.1738</b>	<b>0.0336</b>	<b>0.5737</b>	<b>0.1092</b>	<b>0.6807</b>	<b>0.1549</b>	<b>0.1053</b>	<b>0.2585</b>	<b>0.0000</b>	<b>3,171.4365</b>	<b>3,171.4365</b>	<b>0.4311</b>	<b>0.0000</b>	<b>3,181.4438</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

	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	84.25	45.75	0.00	84.27	68.24	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	Building Construction	Building Construction	5/26/2021	3/16/2023	5	472	
2	Paving	Paving	3/17/2023	4/19/2023	5	24	
3	Architectural Coating	Architectural Coating	6/27/2022	5/22/2023	5	236	

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: 97,103; Non-Residential Outdoor: 32,368; Striped Parking Area: 2,712 (Architectural Coating – sqft)

#### OffRoad Equipment

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**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
Building Construction	7	46.00	18.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use DPF for Construction Equipment

Water Exposed Area

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2021**

**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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
<b>Total</b>	<b>1.8125</b>	<b>13.6361</b>	<b>12.8994</b>	<b>0.0221</b>		<b>0.6843</b>	<b>0.6843</b>		<b>0.6608</b>	<b>0.6608</b>		<b>2,001.2200</b>	<b>2,001.2200</b>	<b>0.3573</b>		<b>2,010.1517</b>

**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	0.0591	1.8761	0.5042	4.7900e-003	0.1218	4.1700e-003	0.1260	0.0351	3.9900e-003	0.0391		506.9289	506.9289	0.0264		507.5891
Worker	0.1567	0.1068	1.0571	3.3700e-003	0.3779	2.3800e-003	0.3803	0.1002	2.1900e-003	0.1024		335.5869	335.5869	7.5900e-003		335.7767
<b>Total</b>	<b>0.2158</b>	<b>1.9829</b>	<b>1.5613</b>	<b>8.1600e-003</b>	<b>0.4997</b>	<b>6.5500e-003</b>	<b>0.5063</b>	<b>0.1353</b>	<b>6.1800e-003</b>	<b>0.1415</b>		<b>842.5157</b>	<b>842.5157</b>	<b>0.0340</b>		<b>843.3658</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2021**

**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	1.8125	13.6361	12.8994	0.0221		0.1027	0.1027		0.0991	0.0991	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
<b>Total</b>	<b>1.8125</b>	<b>13.6361</b>	<b>12.8994</b>	<b>0.0221</b>		<b>0.1027</b>	<b>0.1027</b>		<b>0.0991</b>	<b>0.0991</b>	<b>0.0000</b>	<b>2,001.2200</b>	<b>2,001.2200</b>	<b>0.3573</b>		<b>2,010.1517</b>

**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	0.0591	1.8761	0.5042	4.7900e-003	0.1218	4.1700e-003	0.1260	0.0351	3.9900e-003	0.0391		506.9289	506.9289	0.0264		507.5891
Worker	0.1567	0.1068	1.0571	3.3700e-003	0.3779	2.3800e-003	0.3803	0.1002	2.1900e-003	0.1024		335.5869	335.5869	7.5900e-003		335.7767
<b>Total</b>	<b>0.2158</b>	<b>1.9829</b>	<b>1.5613</b>	<b>8.1600e-003</b>	<b>0.4997</b>	<b>6.5500e-003</b>	<b>0.5063</b>	<b>0.1353</b>	<b>6.1800e-003</b>	<b>0.1415</b>		<b>842.5157</b>	<b>842.5157</b>	<b>0.0340</b>		<b>843.3658</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2022**

**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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
<b>Total</b>	<b>1.6487</b>	<b>12.5031</b>	<b>12.7264</b>	<b>0.0221</b>		<b>0.5889</b>	<b>0.5889</b>		<b>0.5689</b>	<b>0.5689</b>		<b>2,001.5429</b>	<b>2,001.5429</b>	<b>0.3486</b>		<b>2,010.2581</b>

**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	0.0551	1.7762	0.4739	4.7400e-003	0.1219	3.6200e-003	0.1255	0.0351	3.4600e-003	0.0385		501.9100	501.9100	0.0252		502.5407
Worker	0.1462	0.0957	0.9701	3.2400e-003	0.3779	2.3200e-003	0.3802	0.1002	2.1400e-003	0.1024		323.2843	323.2843	6.8000e-003		323.4543
<b>Total</b>	<b>0.2014</b>	<b>1.8720</b>	<b>1.4440</b>	<b>7.9800e-003</b>	<b>0.4997</b>	<b>5.9400e-003</b>	<b>0.5057</b>	<b>0.1353</b>	<b>5.6000e-003</b>	<b>0.1409</b>		<b>825.1944</b>	<b>825.1944</b>	<b>0.0320</b>		<b>825.9950</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2022**

**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	1.6487	12.5031	12.7264	0.0221		0.0883	0.0883		0.0853	0.0853	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
<b>Total</b>	<b>1.6487</b>	<b>12.5031</b>	<b>12.7264</b>	<b>0.0221</b>		<b>0.0883</b>	<b>0.0883</b>		<b>0.0853</b>	<b>0.0853</b>	<b>0.0000</b>	<b>2,001.5429</b>	<b>2,001.5429</b>	<b>0.3486</b>		<b>2,010.2581</b>

**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	0.0551	1.7762	0.4739	4.7400e-003	0.1219	3.6200e-003	0.1255	0.0351	3.4600e-003	0.0385		501.9100	501.9100	0.0252		502.5407
Worker	0.1462	0.0957	0.9701	3.2400e-003	0.3779	2.3200e-003	0.3802	0.1002	2.1400e-003	0.1024		323.2843	323.2843	6.8000e-003		323.4543
<b>Total</b>	<b>0.2014</b>	<b>1.8720</b>	<b>1.4440</b>	<b>7.9800e-003</b>	<b>0.4997</b>	<b>5.9400e-003</b>	<b>0.5057</b>	<b>0.1353</b>	<b>5.6000e-003</b>	<b>0.1409</b>		<b>825.1944</b>	<b>825.1944</b>	<b>0.0320</b>		<b>825.9950</b>



Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 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	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
<b>Total</b>	<b>1.5233</b>	<b>11.7104</b>	<b>12.6111</b>	<b>0.0221</b>		<b>0.5145</b>	<b>0.5145</b>		<b>0.4968</b>	<b>0.4968</b>		<b>2,001.7877</b>	<b>2,001.7877</b>	<b>0.3399</b>		<b>2,010.2858</b>

**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	0.0415	1.3690	0.4209	4.6000e-003	0.1219	1.6200e-003	0.1235	0.0351	1.5500e-003	0.0366		487.9189	487.9189	0.0214		488.4543
Worker	0.1370	0.0861	0.8910	3.1200e-003	0.3779	2.2700e-003	0.3802	0.1002	2.0900e-003	0.1023		310.9040	310.9040	6.0800e-003		311.0560
<b>Total</b>	<b>0.1784</b>	<b>1.4551</b>	<b>1.3118</b>	<b>7.7200e-003</b>	<b>0.4997</b>	<b>3.8900e-003</b>	<b>0.5036</b>	<b>0.1353</b>	<b>3.6400e-003</b>	<b>0.1390</b>		<b>798.8228</b>	<b>798.8228</b>	<b>0.0275</b>		<b>799.5104</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.2 Building Construction - 2023**

**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	1.5233	11.7104	12.6111	0.0221		0.0772	0.0772		0.0745	0.0745	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
<b>Total</b>	<b>1.5233</b>	<b>11.7104</b>	<b>12.6111</b>	<b>0.0221</b>		<b>0.0772</b>	<b>0.0772</b>		<b>0.0745</b>	<b>0.0745</b>	<b>0.0000</b>	<b>2,001.7877</b>	<b>2,001.7877</b>	<b>0.3399</b>		<b>2,010.2858</b>

**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	0.0415	1.3690	0.4209	4.6000e-003	0.1219	1.6200e-003	0.1235	0.0351	1.5500e-003	0.0366		487.9189	487.9189	0.0214		488.4543
Worker	0.1370	0.0861	0.8910	3.1200e-003	0.3779	2.2700e-003	0.3802	0.1002	2.0900e-003	0.1023		310.9040	310.9040	6.0800e-003		311.0560
<b>Total</b>	<b>0.1784</b>	<b>1.4551</b>	<b>1.3118</b>	<b>7.7200e-003</b>	<b>0.4997</b>	<b>3.8900e-003</b>	<b>0.5036</b>	<b>0.1353</b>	<b>3.6400e-003</b>	<b>0.1390</b>		<b>798.8228</b>	<b>798.8228</b>	<b>0.0275</b>		<b>799.5104</b>

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**3.3 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	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6446</b>	<b>6.2357</b>	<b>8.8024</b>	<b>0.0136</b>		<b>0.3084</b>	<b>0.3084</b>		<b>0.2846</b>	<b>0.2846</b>		<b>1,297.6880</b>	<b>1,297.6880</b>	<b>0.4114</b>		<b>1,307.9725</b>

**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	0.0387	0.0243	0.2518	8.8000e-004	0.1068	6.4000e-004	0.1074	0.0283	5.9000e-004	0.0289		87.8642	87.8642	1.7200e-003		87.9071
<b>Total</b>	<b>0.0387</b>	<b>0.0243</b>	<b>0.2518</b>	<b>8.8000e-004</b>	<b>0.1068</b>	<b>6.4000e-004</b>	<b>0.1074</b>	<b>0.0283</b>	<b>5.9000e-004</b>	<b>0.0289</b>		<b>87.8642</b>	<b>87.8642</b>	<b>1.7200e-003</b>		<b>87.9071</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.3 Paving - 2023**

**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	0.6446	6.2357	8.8024	0.0136		0.0463	0.0463		0.0427	0.0427	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6446</b>	<b>6.2357</b>	<b>8.8024</b>	<b>0.0136</b>		<b>0.0463</b>	<b>0.0463</b>		<b>0.0427</b>	<b>0.0427</b>	<b>0.0000</b>	<b>1,297.6880</b>	<b>1,297.6880</b>	<b>0.4114</b>		<b>1,307.9725</b>

**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	0.0387	0.0243	0.2518	8.8000e-004	0.1068	6.4000e-004	0.1074	0.0283	5.9000e-004	0.0289		87.8642	87.8642	1.7200e-003		87.9071
<b>Total</b>	<b>0.0387</b>	<b>0.0243</b>	<b>0.2518</b>	<b>8.8000e-004</b>	<b>0.1068</b>	<b>6.4000e-004</b>	<b>0.1074</b>	<b>0.0283</b>	<b>5.9000e-004</b>	<b>0.0289</b>		<b>87.8642</b>	<b>87.8642</b>	<b>1.7200e-003</b>		<b>87.9071</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 2022**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>1.8471</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**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	0.0286	0.0187	0.1898	6.3000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.2000e-004	0.0200		63.2513	63.2513	1.3300e-003		63.2845
<b>Total</b>	<b>0.0286</b>	<b>0.0187</b>	<b>0.1898</b>	<b>6.3000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.2000e-004</b>	<b>0.0200</b>		<b>63.2513</b>	<b>63.2513</b>	<b>1.3300e-003</b>		<b>63.2845</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 2022**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0123	0.0123		0.0123	0.0123	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>1.8471</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0123</b>	<b>0.0123</b>		<b>0.0123</b>	<b>0.0123</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**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	0.0286	0.0187	0.1898	6.3000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.2000e-004	0.0200		63.2513	63.2513	1.3300e-003		63.2845
<b>Total</b>	<b>0.0286</b>	<b>0.0187</b>	<b>0.1898</b>	<b>6.3000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.2000e-004</b>	<b>0.0200</b>		<b>63.2513</b>	<b>63.2513</b>	<b>1.3300e-003</b>		<b>63.2845</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1.8342</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0268	0.0168	0.1743	6.1000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.1000e-004	0.0200		60.8290	60.8290	1.1900e-003		60.8588
<b>Total</b>	<b>0.0268</b>	<b>0.0168</b>	<b>0.1743</b>	<b>6.1000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.1000e-004</b>	<b>0.0200</b>		<b>60.8290</b>	<b>60.8290</b>	<b>1.1900e-003</b>		<b>60.8588</b>

Blue Wave Express Car Wash and Hotel Project\_Phase 3 - Bay Area AQMD Air District, Winter

**3.4 Architectural Coating - 2023**

**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					
Archit. Coating	1.6425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0106	0.0106		0.0106	0.0106	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>1.8342</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0268	0.0168	0.1743	6.1000e-004	0.0739	4.5000e-004	0.0744	0.0196	4.1000e-004	0.0200		60.8290	60.8290	1.1900e-003		60.8588
<b>Total</b>	<b>0.0268</b>	<b>0.0168</b>	<b>0.1743</b>	<b>6.1000e-004</b>	<b>0.0739</b>	<b>4.5000e-004</b>	<b>0.0744</b>	<b>0.0196</b>	<b>4.1000e-004</b>	<b>0.0200</b>		<b>60.8290</b>	<b>60.8290</b>	<b>1.1900e-003</b>		<b>60.8588</b>



**Greenhouse Gas Emission Worksheet**  
**Construction Emissions**

Blue Wave Express Car Wash and Hotel Project

Annual Mobile Emissions:

References

CalEEMod Output

<b>Project Total:</b>	<b>494 metric tons CO2e</b>
Amortarized (25 years)	19.76

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**Blue Wave Express Car Wash and Hotel Project\_Existing Use**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	2,340.00	3
Automobile Care Center	1.12	1000sqft	0.03	1,120.00	0
Gasoline/Service Station	3.00	Pump	0.01	2,000.00	0
Hardware/Paint Store	2.84	1000sqft	0.07	2,840.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

## Project Characteristics -

Land Use - Existing uses: single family home = 2,340 sf; tire shop = 1,115 sf; car wash = 2,000 sf; print shop = 2,840 sf

Vehicle Trips - 650 ADT for site existing traffic estimated by Transportation analysis; ADT distributed to each commercial landuse based on traffic counts during peak hours (i.e. 37% of peak hour trips were to tire shop, 56% to carwash, and 7% to print shop); Gasoline/service station is surrogate for carwash, per traffic study average trip length to carwash is 2.8 miles; single family housing trips not adjusted

Woodstoves - no hearths

Water And Wastewater - car wash (referenced as gasoline/service station) is self service stalls so no indoor water use, outdoor water use estimated from estimated ADT (364) and 44.8 gallons per vehicle (International Carwash Association's average, 2018)

Mobile Land Use Mitigation -

Water Mitigation -

Construction Phase - Disregard construction; only analyzing existing operation

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	NumberGas	0.25	0.00
tblFireplaces	NumberNoFireplace	0.08	0.00
tblFireplaces	NumberWood	0.43	0.00
tblLandUse	LandUseSquareFeet	1,800.00	2,340.00
tblLandUse	LandUseSquareFeet	423.52	2,000.00
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	ST_TR	23.72	214.70

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

tblVehicleTrips	ST_TR	168.56	121.00
tblVehicleTrips	ST_TR	82.52	16.02
tblVehicleTrips	SU_TR	11.88	214.70
tblVehicleTrips	SU_TR	168.56	121.00
tblVehicleTrips	SU_TR	68.65	16.02
tblVehicleTrips	WD_TR	23.72	214.70
tblVehicleTrips	WD_TR	168.56	121.00
tblVehicleTrips	WD_TR	51.29	16.01
tblWater	IndoorWaterUseRate	39,845.67	0.00
tblWater	OutdoorWaterUseRate	24,421.54	5,952,128.00
tblWoodstoves	NumberCatalytic	0.04	0.00
tblWoodstoves	NumberNoncatalytic	0.04	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00

## 2.0 Emissions Summary

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## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**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	0.0353	9.0000e-005	7.5000e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0123	0.0123	1.0000e-005	0.0000	0.0126
Energy	6.4000e-004	5.7000e-003	4.2400e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	24.9851	24.9851	9.7000e-004	2.9000e-004	25.0957
Mobile	0.1210	0.4945	0.8618	2.1300e-003	0.1534	2.1300e-003	0.1555	0.0412	1.9900e-003	0.0432	0.0000	195.5558	195.5558	0.0109	0.0000	195.8279
Waste						0.0000	0.0000		0.0000	0.0000	7.8456	0.0000	7.8456	0.4637	0.0000	19.4371
Water						0.0000	0.0000		0.0000	0.0000	0.1208	6.8988	7.0197	0.0127	3.6000e-004	7.4443
<b>Total</b>	<b>0.1569</b>	<b>0.5003</b>	<b>0.8736</b>	<b>2.1600e-003</b>	<b>0.1534</b>	<b>2.6100e-003</b>	<b>0.1560</b>	<b>0.0412</b>	<b>2.4700e-003</b>	<b>0.0436</b>	<b>7.9664</b>	<b>227.4520</b>	<b>235.4184</b>	<b>0.4882</b>	<b>6.5000e-004</b>	<b>247.8176</b>



Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**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	0.1210	0.4945	0.8618	2.1300e-003	0.1534	2.1300e-003	0.1555	0.0412	1.9900e-003	0.0432	0.0000	195.5558	195.5558	0.0109	0.0000	195.8279
Unmitigated	0.1210	0.4945	0.8618	2.1300e-003	0.1534	2.1300e-003	0.1555	0.0412	1.9900e-003	0.0432	0.0000	195.5558	195.5558	0.0109	0.0000	195.8279

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	240.46	240.46	240.46	239,547	239,547
Gasoline/Service Station	363.00	363.00	363.00	84,564	84,564
Hardware/Paint Store	45.47	45.50	45.50	66,157	66,157
Single Family Housing	9.52	9.91	8.62	21,819	21,819
<b>Total</b>	<b>658.45</b>	<b>658.87</b>	<b>657.58</b>	<b>412,088</b>	<b>412,088</b>

**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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Gasoline/Service Station	2.80	2.80	2.80	2.00	79.00	19.00	14	27	59
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

**4.4 Fleet Mix**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Gasoline/Service Station	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Hardware/Paint Store	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Single Family Housing	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

**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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.6827	18.6827	8.4000e-004	1.7000e-004	18.7559
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.6827	18.6827	8.4000e-004	1.7000e-004	18.7559
NaturalGas Mitigated	6.4000e-004	5.7000e-003	4.2400e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	6.3024	6.3024	1.2000e-004	1.2000e-004	6.3398
NaturalGas Unmitigated	6.4000e-004	5.7000e-003	4.2400e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	6.3024	6.3024	1.2000e-004	1.2000e-004	6.3398



Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**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	tons/yr										MT/yr					
Automobile Care Center	29545.6	1.6000e-004	1.4500e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5767	1.5767	3.0000e-005	3.0000e-005	1.5860
Gasoline/Service Station	52760	2.8000e-004	2.5900e-003	2.1700e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8155	2.8155	5.0000e-005	5.0000e-005	2.8322
Hardware/Paint Store	6730.8	4.0000e-005	3.3000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3592	0.3592	1.0000e-005	1.0000e-005	0.3613
Single Family Housing	29065.1	1.6000e-004	1.3400e-003	5.7000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5510	1.5510	3.0000e-005	3.0000e-005	1.5602
<b>Total</b>		<b>6.4000e-004</b>	<b>5.7100e-003</b>	<b>4.2400e-003</b>	<b>4.0000e-005</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>6.3023</b>	<b>6.3023</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>6.3398</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**5.2 Energy by Land Use - NaturalGas**

**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	tons/yr										MT/yr					
Automobile Care Center	29545.6	1.6000e-004	1.4500e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5767	1.5767	3.0000e-005	3.0000e-005	1.5860
Gasoline/Service Station	52760	2.8000e-004	2.5900e-003	2.1700e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8155	2.8155	5.0000e-005	5.0000e-005	2.8322
Hardware/Paint Store	6730.8	4.0000e-005	3.3000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3592	0.3592	1.0000e-005	1.0000e-005	0.3613
Single Family Housing	29065.1	1.6000e-004	1.3400e-003	5.7000e-004	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5510	1.5510	3.0000e-005	3.0000e-005	1.5602
<b>Total</b>		<b>6.4000e-004</b>	<b>5.7100e-003</b>	<b>4.2400e-003</b>	<b>4.0000e-005</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>6.3023</b>	<b>6.3023</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>6.3398</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9251.2	2.6913	1.2000e-004	3.0000e-005	2.7018
Gasoline/Service Station	16520	4.8059	2.2000e-004	4.0000e-005	4.8247
Hardware/Paint Store	30359.6	8.8320	4.0000e-004	8.0000e-005	8.8666
Single Family Housing	8090.57	2.3536	1.1000e-004	2.0000e-005	2.3629
<b>Total</b>		<b>18.6827</b>	<b>8.5000e-004</b>	<b>1.7000e-004</b>	<b>18.7559</b>

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9251.2	2.6913	1.2000e-004	3.0000e-005	2.7018
Gasoline/Service Station	16520	4.8059	2.2000e-004	4.0000e-005	4.8247
Hardware/Paint Store	30359.6	8.8320	4.0000e-004	8.0000e-005	8.8666
Single Family Housing	8090.57	2.3536	1.1000e-004	2.0000e-005	2.3629
<b>Total</b>		<b>18.6827</b>	<b>8.5000e-004</b>	<b>1.7000e-004</b>	<b>18.7559</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

	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	0.0353	9.0000e-005	7.5000e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0123	0.0123	1.0000e-005	0.0000	0.0126
Unmitigated	0.0353	9.0000e-005	7.5000e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0123	0.0123	1.0000e-005	0.0000	0.0126

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	2.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	2.3000e-004	9.0000e-005	7.5000e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0123	0.0123	1.0000e-005	0.0000	0.0126
<b>Total</b>	<b>0.0353</b>	<b>9.0000e-005</b>	<b>7.5000e-003</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0123</b>	<b>0.0123</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0126</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**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	2.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	2.3000e-004	9.0000e-005	7.5000e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0123	0.0123	1.0000e-005	0.0000	0.0126
<b>Total</b>	<b>0.0353</b>	<b>9.0000e-005</b>	<b>7.5000e-003</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0123</b>	<b>0.0123</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0126</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.0197	0.0127	3.6000e-004	7.4443
Unmitigated	7.0197	0.0127	3.6000e-004	7.4443

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.105371 / 0.0645821	0.2651	3.4400e-003	8.0000e-005	0.3760
Gasoline/Service Station	0 / 5.95213	6.0604	2.7000e-004	6.0000e-005	6.0841
Hardware/Paint Store	0.210366 / 0.128934	0.5292	6.8800e-003	1.7000e-004	0.7506
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2336
<b>Total</b>		<b>7.0197</b>	<b>0.0127</b>	<b>3.6000e-004</b>	<b>7.4443</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.105371 / 0.0645821	0.2651	3.4400e-003	8.0000e-005	0.3760
Gasoline/Service Station	0 / 5.95213	6.0604	2.7000e-004	6.0000e-005	6.0841
Hardware/Paint Store	0.210366 / 0.128934	0.5292	6.8800e-003	1.7000e-004	0.7506
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2336
<b>Total</b>		<b>7.0197</b>	<b>0.0127</b>	<b>3.6000e-004</b>	<b>7.4443</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**



Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.8456	0.4637	0.0000	19.4371
Unmitigated	7.8456	0.4637	0.0000	19.4371

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.28	0.8688	0.0513	0.0000	2.1524
Gasoline/Service Station	1.62	0.3289	0.0194	0.0000	0.8147
Hardware/Paint Store	31.49	6.3922	0.3778	0.0000	15.8364
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
<b>Total</b>		<b>7.8456</b>	<b>0.4637</b>	<b>0.0000</b>	<b>19.4372</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.28	0.8688	0.0513	0.0000	2.1524
Gasoline/Service Station	1.62	0.3289	0.0194	0.0000	0.8147
Hardware/Paint Store	31.49	6.3922	0.3778	0.0000	15.8364
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
<b>Total</b>		<b>7.8456</b>	<b>0.4637</b>	<b>0.0000</b>	<b>19.4372</b>

**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**

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**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Annual

Equipment Type	Number
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## 11.0 Vegetation

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Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**Blue Wave Express Car Wash and Hotel Project\_Existing Use**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	2,340.00	3
Automobile Care Center	1.12	1000sqft	0.03	1,120.00	0
Gasoline/Service Station	3.00	Pump	0.01	2,000.00	0
Hardware/Paint Store	2.84	1000sqft	0.07	2,840.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

## Project Characteristics -

Land Use - Existing uses: single family home = 2,340 sf; tire shop = 1,115 sf; car wash = 2,000 sf; print shop = 2,840 sf

Vehicle Trips - 650 ADT for site existing traffic estimated by Transportation analysis; ADT distributed to each commercial landuse based on traffic counts during peak hours (i.e. 37% of peak hour trips were to tire shop, 56% to carwash, and 7% to print shop); Gasoline/service station is surrogate for carwash, per traffic study average trip length to carwash is 2.8 miles; single family housing trips not adjusted

Woodstoves - no hearths

Water And Wastewater - car wash (referenced as gasoline/service station) is self service stalls so no indoor water use, outdoor water use estimated from estimated ADT (364) and 44.8 gallons per vehicle (International Carwash Association's average, 2018)

Mobile Land Use Mitigation -

Water Mitigation -

Construction Phase - Disregard construction; only analyzing existing operation

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	NumberGas	0.25	0.00
tblFireplaces	NumberNoFireplace	0.08	0.00
tblFireplaces	NumberWood	0.43	0.00
tblLandUse	LandUseSquareFeet	1,800.00	2,340.00
tblLandUse	LandUseSquareFeet	423.52	2,000.00
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	ST_TR	23.72	214.70

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

tblVehicleTrips	ST_TR	168.56	121.00
tblVehicleTrips	ST_TR	82.52	16.02
tblVehicleTrips	SU_TR	11.88	214.70
tblVehicleTrips	SU_TR	168.56	121.00
tblVehicleTrips	SU_TR	68.65	16.02
tblVehicleTrips	WD_TR	23.72	214.70
tblVehicleTrips	WD_TR	168.56	121.00
tblVehicleTrips	WD_TR	51.29	16.01
tblWater	IndoorWaterUseRate	39,845.67	0.00
tblWater	OutdoorWaterUseRate	24,421.54	5,952,128.00
tblWoodstoves	NumberCatalytic	0.04	0.00
tblWoodstoves	NumberNoncatalytic	0.04	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Energy	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
Mobile	0.6563	2.7301	5.2058	0.0115	0.8778	0.0119	0.8897	0.2349	0.0111	0.2460		1,167.4690	1,167.4690	0.0697		1,169.2114
<b>Total</b>	<b>0.8544</b>	<b>2.7623</b>	<b>5.3124</b>	<b>0.0117</b>	<b>0.8778</b>	<b>0.0148</b>	<b>0.8926</b>	<b>0.2349</b>	<b>0.0140</b>	<b>0.2488</b>	<b>0.0000</b>	<b>1,205.6856</b>	<b>1,205.6856</b>	<b>0.0706</b>	<b>7.0000e-004</b>	<b>1,207.6579</b>

**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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Energy	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
Mobile	0.6563	2.7301	5.2058	0.0115	0.8778	0.0119	0.8897	0.2349	0.0111	0.2460		1,167.4690	1,167.4690	0.0697		1,169.2114
<b>Total</b>	<b>0.8544</b>	<b>2.7623</b>	<b>5.3124</b>	<b>0.0117</b>	<b>0.8778</b>	<b>0.0148</b>	<b>0.8926</b>	<b>0.2349</b>	<b>0.0140</b>	<b>0.2488</b>	<b>0.0000</b>	<b>1,205.6856</b>	<b>1,205.6856</b>	<b>0.0706</b>	<b>7.0000e-004</b>	<b>1,207.6579</b>





Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**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	lb/day										lb/day					
Mitigated	0.6563	2.7301	5.2058	0.0115	0.8778	0.0119	0.8897	0.2349	0.0111	0.2460		1,167.4690	1,167.4690	0.0697		1,169.2114
Unmitigated	0.6563	2.7301	5.2058	0.0115	0.8778	0.0119	0.8897	0.2349	0.0111	0.2460		1,167.4690	1,167.4690	0.0697		1,169.2114

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	240.46	240.46	240.46	239,547	239,547
Gasoline/Service Station	363.00	363.00	363.00	84,564	84,564
Hardware/Paint Store	45.47	45.50	45.50	66,157	66,157
Single Family Housing	9.52	9.91	8.62	21,819	21,819
<b>Total</b>	<b>658.45</b>	<b>658.87</b>	<b>657.58</b>	<b>412,088</b>	<b>412,088</b>

**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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Gasoline/Service Station	2.80	2.80	2.80	2.00	79.00	19.00	14	27	59
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

**4.4 Fleet Mix**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Gasoline/Service Station	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Hardware/Paint Store	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Single Family Housing	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

**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	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
NaturalGas Unmitigated	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**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					
Automobile Care Center	80.9468	8.7000e-004	7.9400e-003	6.6700e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.5232	9.5232	1.8000e-004	1.7000e-004	9.5798
Gasoline/Service Station	144.548	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.0056	17.0056	3.3000e-004	3.1000e-004	17.1067
Hardware/Paint Store	18.4405	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1695	2.1695	4.0000e-005	4.0000e-005	2.1824
Single Family Housing	79.6304	8.6000e-004	7.3400e-003	3.1200e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		9.3683	9.3683	1.8000e-004	1.7000e-004	9.4240
<b>Total</b>		<b>3.4900e-003</b>	<b>0.0313</b>	<b>0.0232</b>	<b>2.0000e-004</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>38.0666</b>	<b>38.0666</b>	<b>7.3000e-004</b>	<b>6.9000e-004</b>	<b>38.2928</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**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					
Automobile Care Center	0.0809468	8.7000e-004	7.9400e-003	6.6700e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.5232	9.5232	1.8000e-004	1.7000e-004	9.5798
Gasoline/Service Station	0.144548	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.0056	17.0056	3.3000e-004	3.1000e-004	17.1067
Hardware/Paint Store	0.0184405	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1695	2.1695	4.0000e-005	4.0000e-005	2.1824
Single Family Housing	0.0796304	8.6000e-004	7.3400e-003	3.1200e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		9.3683	9.3683	1.8000e-004	1.7000e-004	9.4240
<b>Total</b>		<b>3.4900e-003</b>	<b>0.0313</b>	<b>0.0232</b>	<b>2.0000e-004</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>38.0666</b>	<b>38.0666</b>	<b>7.3000e-004</b>	<b>6.9000e-004</b>	<b>38.2928</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

	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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Unmitigated	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538

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	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	2.5600e-003	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1501	0.1501	1.5000e-004		0.1538
<b>Total</b>	<b>0.1947</b>	<b>9.6000e-004</b>	<b>0.0833</b>	<b>0.0000</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.1501</b>	<b>0.1501</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.1538</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**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	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	2.5600e-003	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1501	0.1501	1.5000e-004		0.1538
<b>Total</b>	<b>0.1947</b>	<b>9.6000e-004</b>	<b>0.0833</b>	<b>0.0000</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.1501</b>	<b>0.1501</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.1538</b>

**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**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Winter

**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**

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Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

**Blue Wave Express Car Wash and Hotel Project\_Existing Use**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	2,340.00	3
Automobile Care Center	1.12	1000sqft	0.03	1,120.00	0
Gasoline/Service Station	3.00	Pump	0.01	2,000.00	0
Hardware/Paint Store	2.84	1000sqft	0.07	2,840.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**



## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

## Project Characteristics -

Land Use - Existing uses: single family home = 2,340 sf; tire shop = 1,115 sf; car wash = 2,000 sf; print shop = 2,840 sf

Vehicle Trips - 650 ADT for site existing traffic estimated by Transportation analysis; ADT distributed to each commercial landuse based on traffic counts during peak hours (i.e. 37% of peak hour trips were to tire shop, 56% to carwash, and 7% to print shop); Gasoline/service station is surrogate for carwash, per traffic study average trip length to carwash is 2.8 miles; single family housing trips not adjusted

Woodstoves - no hearths

Water And Wastewater - car wash (referenced as gasoline/service station) is self service stalls so no indoor water use, outdoor water use estimated from estimated ADT (364) and 44.8 gallons per vehicle (International Carwash Association's average, 2018)

Mobile Land Use Mitigation -

Water Mitigation -

Construction Phase - Disregard construction; only analyzing existing operation

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	NumberGas	0.25	0.00
tblFireplaces	NumberNoFireplace	0.08	0.00
tblFireplaces	NumberWood	0.43	0.00
tblLandUse	LandUseSquareFeet	1,800.00	2,340.00
tblLandUse	LandUseSquareFeet	423.52	2,000.00
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	ST_TR	23.72	214.70

## Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

tblVehicleTrips	ST_TR	168.56	121.00
tblVehicleTrips	ST_TR	82.52	16.02
tblVehicleTrips	SU_TR	11.88	214.70
tblVehicleTrips	SU_TR	168.56	121.00
tblVehicleTrips	SU_TR	68.65	16.02
tblVehicleTrips	WD_TR	23.72	214.70
tblVehicleTrips	WD_TR	168.56	121.00
tblVehicleTrips	WD_TR	51.29	16.01
tblWater	IndoorWaterUseRate	39,845.67	0.00
tblWater	OutdoorWaterUseRate	24,421.54	5,952,128.00
tblWoodstoves	NumberCatalytic	0.04	0.00
tblWoodstoves	NumberNoncatalytic	0.04	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area 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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Energy	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
Mobile	0.7910	2.6881	4.4501	0.0123	0.8778	0.0116	0.8895	0.2349	0.0109	0.2457		1,252.3287	1,252.3287	0.0635		1,253.9159
<b>Total</b>	<b>0.9891</b>	<b>2.7203</b>	<b>4.5566</b>	<b>0.0125</b>	<b>0.8778</b>	<b>0.0145</b>	<b>0.8923</b>	<b>0.2349</b>	<b>0.0137</b>	<b>0.2486</b>	<b>0.0000</b>	<b>1,290.5454</b>	<b>1,290.5454</b>	<b>0.0644</b>	<b>7.0000e-004</b>	<b>1,292.3624</b>

**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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Energy	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
Mobile	0.7910	2.6881	4.4501	0.0123	0.8778	0.0116	0.8895	0.2349	0.0109	0.2457		1,252.3287	1,252.3287	0.0635		1,253.9159
<b>Total</b>	<b>0.9891</b>	<b>2.7203</b>	<b>4.5566</b>	<b>0.0125</b>	<b>0.8778</b>	<b>0.0145</b>	<b>0.8923</b>	<b>0.2349</b>	<b>0.0137</b>	<b>0.2486</b>	<b>0.0000</b>	<b>1,290.5454</b>	<b>1,290.5454</b>	<b>0.0644</b>	<b>7.0000e-004</b>	<b>1,292.3624</b>



Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

**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	lb/day										lb/day					
Mitigated	0.7910	2.6881	4.4501	0.0123	0.8778	0.0116	0.8895	0.2349	0.0109	0.2457		1,252.3287	1,252.3287	0.0635		1,253.9159
Unmitigated	0.7910	2.6881	4.4501	0.0123	0.8778	0.0116	0.8895	0.2349	0.0109	0.2457		1,252.3287	1,252.3287	0.0635		1,253.9159

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	240.46	240.46	240.46	239,547	239,547
Gasoline/Service Station	363.00	363.00	363.00	84,564	84,564
Hardware/Paint Store	45.47	45.50	45.50	66,157	66,157
Single Family Housing	9.52	9.91	8.62	21,819	21,819
<b>Total</b>	<b>658.45</b>	<b>658.87</b>	<b>657.58</b>	<b>412,088</b>	<b>412,088</b>

**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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Gasoline/Service Station	2.80	2.80	2.80	2.00	79.00	19.00	14	27	59
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

**4.4 Fleet Mix**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Gasoline/Service Station	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Hardware/Paint Store	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Single Family Housing	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

**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	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928
NaturalGas Unmitigated	3.4900e-003	0.0313	0.0232	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003		38.0666	38.0666	7.3000e-004	7.0000e-004	38.2928

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area 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					
Automobile Care Center	80.9468	8.7000e-004	7.9400e-003	6.6700e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.5232	9.5232	1.8000e-004	1.7000e-004	9.5798
Gasoline/Service Station	144.548	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.0056	17.0056	3.3000e-004	3.1000e-004	17.1067
Hardware/Paint Store	18.4405	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1695	2.1695	4.0000e-005	4.0000e-005	2.1824
Single Family Housing	79.6304	8.6000e-004	7.3400e-003	3.1200e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		9.3683	9.3683	1.8000e-004	1.7000e-004	9.4240
<b>Total</b>		<b>3.4900e-003</b>	<b>0.0313</b>	<b>0.0232</b>	<b>2.0000e-004</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>38.0666</b>	<b>38.0666</b>	<b>7.3000e-004</b>	<b>6.9000e-004</b>	<b>38.2928</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**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					
Automobile Care Center	0.0809468	8.7000e-004	7.9400e-003	6.6700e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.5232	9.5232	1.8000e-004	1.7000e-004	9.5798
Gasoline/Service Station	0.144548	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.0056	17.0056	3.3000e-004	3.1000e-004	17.1067
Hardware/Paint Store	0.0184405	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1695	2.1695	4.0000e-005	4.0000e-005	2.1824
Single Family Housing	0.0796304	8.6000e-004	7.3400e-003	3.1200e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		9.3683	9.3683	1.8000e-004	1.7000e-004	9.4240
<b>Total</b>		<b>3.4900e-003</b>	<b>0.0313</b>	<b>0.0232</b>	<b>2.0000e-004</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>2.4100e-003</b>	<b>2.4100e-003</b>		<b>38.0666</b>	<b>38.0666</b>	<b>7.3000e-004</b>	<b>6.9000e-004</b>	<b>38.2928</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area 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	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538
Unmitigated	0.1947	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	0.1501	0.1501	1.5000e-004	0.0000	0.1538

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	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	2.5600e-003	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1501	0.1501	1.5000e-004		0.1538
<b>Total</b>	<b>0.1947</b>	<b>9.6000e-004</b>	<b>0.0833</b>	<b>0.0000</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.1501</b>	<b>0.1501</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.1538</b>

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area 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	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	2.5600e-003	9.6000e-004	0.0833	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1501	0.1501	1.5000e-004		0.1538
<b>Total</b>	<b>0.1947</b>	<b>9.6000e-004</b>	<b>0.0833</b>	<b>0.0000</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.1501</b>	<b>0.1501</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.1538</b>

**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**

Blue Wave Express Car Wash and Hotel Project\_Existing Use - Bay Area AQMD Air District, Summer

**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**

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Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Annual

**Blue Wave Express Car Wash and Hotel Project\_Operation**  
**Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	641.35	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

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Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space and 117 standard stalls

Construction Phase - Estimating operation, disregard all construction related emissions

Demolition - Estimated existing structures square footage using goodle earth; all structures are single story

Grading - Cut and fill is less than 2 feet

Vehicle Trips - Per traffic study, business hotels has a trip rate of 4.02 trips per day per guest room + 13% location-based adjustment = 3.5 trips/day/room; carwash estimated to have 963 ADT. Trip length for carwash and hotel adjusted per traffic study

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Water And Wastewater - Per applicant provided information carwash is anticipated to use 18.2 gallons of indoor water per day and 30.48 gallons of water per car per day.

Solid Waste -

Area Mitigation -

Energy Mitigation - CAPCOA Mitigation measure estimation minimum for higher efficacy outdoor lighting systems; Appliance information from Energy Star annual reports

Water Mitigation - Per AB 2230 60% of carwash water is recycled. % reduction in flow determined as difference between California Green Building Standards Code Mandatory for use vs Standards that are Voluntary. Source: CAPCOA Table WUW-1.3.

Architectural Coating -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	15.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	35.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73

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tblLandUse	LotAcreage	0.07	0.87
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	7.60
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	CW_TL	9.50	7.60
tblVehicleTrips	ST_TR	23.72	334.38
tblVehicleTrips	ST_TR	8.19	3.50
tblVehicleTrips	SU_TR	11.88	334.38
tblVehicleTrips	SU_TR	5.95	3.50
tblVehicleTrips	WD_TR	23.72	334.38
tblVehicleTrips	WD_TR	8.17	3.50
tblWater	IndoorWaterUseRate	270,953.59	6,643.00
tblWater	OutdoorWaterUseRate	166,068.33	3,719,989.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	12.5
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	11
tblWaterMitigation	PercentReductionInFlowShower	20	10
tblWaterMitigation	PercentReductionInFlowToilet	20	12.5

## 2.0 Emissions Summary

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## Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Annual

**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	0.2880	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003
Energy	0.0159	0.1443	0.1212	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	312.8395	312.8395	0.0101	4.3400e-003	314.3833
Mobile	0.2244	0.9211	1.7189	5.0600e-003	0.4092	4.4900e-003	0.4137	0.1098	4.1800e-003	0.1140	0.0000	466.2478	466.2478	0.0210	0.0000	466.7731
Waste						0.0000	0.0000		0.0000	0.0000	15.1249	0.0000	15.1249	0.8939	0.0000	37.4712
Water						0.0000	0.0000		0.0000	0.0000	0.9356	8.7629	9.6986	0.0965	2.3500e-003	12.8116
<b>Total</b>	<b>0.5283</b>	<b>1.0654</b>	<b>1.8425</b>	<b>5.9300e-003</b>	<b>0.4092</b>	<b>0.0155</b>	<b>0.4247</b>	<b>0.1098</b>	<b>0.0152</b>	<b>0.1250</b>	<b>16.0605</b>	<b>787.8547</b>	<b>803.9152</b>	<b>1.0214</b>	<b>6.6900e-003</b>	<b>831.4440</b>

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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	0.2880	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003
Energy	0.0159	0.1443	0.1212	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	297.5119	297.5119	9.3600e-003	4.1900e-003	298.9956
Mobile	0.2244	0.9211	1.7189	5.0600e-003	0.4092	4.4900e-003	0.4137	0.1098	4.1800e-003	0.1140	0.0000	466.2478	466.2478	0.0210	0.0000	466.7731
Waste						0.0000	0.0000		0.0000	0.0000	15.1249	0.0000	15.1249	0.8939	0.0000	37.4712
Water						0.0000	0.0000		0.0000	0.0000	0.8369	7.0930	7.9299	0.0863	2.1000e-003	10.7114
<b>Total</b>	<b>0.5283</b>	<b>1.0654</b>	<b>1.8425</b>	<b>5.9300e-003</b>	<b>0.4092</b>	<b>0.0155</b>	<b>0.4247</b>	<b>0.1098</b>	<b>0.0152</b>	<b>0.1250</b>	<b>15.9617</b>	<b>770.8571</b>	<b>786.8188</b>	<b>1.0105</b>	<b>6.2900e-003</b>	<b>813.9560</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.61</b>	<b>2.16</b>	<b>2.13</b>	<b>1.07</b>	<b>5.98</b>	<b>2.10</b>



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**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	0.2244	0.9211	1.7189	5.0600e-003	0.4092	4.4900e-003	0.4137	0.1098	4.1800e-003	0.1140	0.0000	466.2478	466.2478	0.0210	0.0000	466.7731
Unmitigated	0.2244	0.9211	1.7189	5.0600e-003	0.4092	4.4900e-003	0.4137	0.1098	4.1800e-003	0.1140	0.0000	466.2478	466.2478	0.0210	0.0000	466.7731

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	963.01	963.01	963.01	341,073	341,073
Hotel	406.00	406.00	406.00	758,723	758,723
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,099,796</b>	<b>1,099,796</b>

**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
Automobile Care Center	2.80	2.80	2.80	33.00	48.00	19.00	21	51	28
Hotel	7.60	7.60	7.60	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Hotel	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Install High Efficiency Lighting

Install Energy Efficient Appliances

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	140.3884	140.3884	6.3500e-003	1.3100e-003	140.9385
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	155.7160	155.7160	7.0400e-003	1.4600e-003	156.3262
NaturalGas Mitigated	0.0159	0.1443	0.1212	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.1235	157.1235	3.0100e-003	2.8800e-003	158.0572
NaturalGas Unmitigated	0.0159	0.1443	0.1212	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.1235	157.1235	3.0100e-003	2.8800e-003	158.0572

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**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	tons/yr										MT/yr					
Automobile Care Center	75974.4	4.1000e-004	3.7200e-003	3.1300e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0543	4.0543	8.0000e-005	7.0000e-005	4.0784
Hotel	2.86841e+006	0.0155	0.1406	0.1181	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	153.0692	153.0692	2.9300e-003	2.8100e-003	153.9788
Parking Lot	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
<b>Total</b>		<b>0.0159</b>	<b>0.1443</b>	<b>0.1212</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>	<b>0.0000</b>	<b>157.1235</b>	<b>157.1235</b>	<b>3.0100e-003</b>	<b>2.8800e-003</b>	<b>158.0572</b>

**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	tons/yr										MT/yr					
Automobile Care Center	75974.4	4.1000e-004	3.7200e-003	3.1300e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0543	4.0543	8.0000e-005	7.0000e-005	4.0784
Hotel	2.86841e+006	0.0155	0.1406	0.1181	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	153.0692	153.0692	2.9300e-003	2.8100e-003	153.9788
Parking Lot	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
<b>Total</b>		<b>0.0159</b>	<b>0.1443</b>	<b>0.1212</b>	<b>8.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>	<b>0.0000</b>	<b>157.1235</b>	<b>157.1235</b>	<b>3.0100e-003</b>	<b>2.8800e-003</b>	<b>158.0572</b>

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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			
Automobile Care Center	23788.8	6.9204	3.1000e-004	6.0000e-005	6.9476
Hotel	493281	143.5010	6.4900e-003	1.3400e-003	144.0633
Parking Lot	18200	5.2946	2.4000e-004	5.0000e-005	5.3153
<b>Total</b>		<b>155.7160</b>	<b>7.0400e-003</b>	<b>1.4500e-003</b>	<b>156.3262</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	22369.5	6.5076	2.9000e-004	6.0000e-005	6.5331
Hotel	444924	129.4334	5.8500e-003	1.2100e-003	129.9406
Parking Lot	15288	4.4475	2.0000e-004	4.0000e-005	4.4649
<b>Total</b>		<b>140.3884</b>	<b>6.3400e-003</b>	<b>1.3100e-003</b>	<b>140.9385</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	0.2880	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003
Unmitigated	0.2880	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003

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**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	0.0203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2674					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003
<b>Total</b>	<b>0.2880</b>	<b>2.0000e-005</b>	<b>2.2800e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.4500e-003</b>	<b>4.4500e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.7400e-003</b>

**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	0.0203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2674					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4500e-003	4.4500e-003	1.0000e-005	0.0000	4.7400e-003
<b>Total</b>	<b>0.2880</b>	<b>2.0000e-005</b>	<b>2.2800e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.4500e-003</b>	<b>4.4500e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.7400e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.9299	0.0863	2.1000e-003	10.7114
Unmitigated	9.6986	0.0965	2.3500e-003	12.8116

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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.006643 / 3.71999	3.8002	3.9000e-004	4.0000e-005	3.8220
Hotel	2.94255 / 0.326949	5.8984	0.0961	2.3100e-003	8.9896
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.6986</b>	<b>0.0965</b>	<b>2.3500e-003</b>	<b>12.8116</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.00594183 / 2.65473	2.7143	3.2000e-004	3.0000e-005	2.7311
Hotel	2.63196 / 0.233324	5.2156	0.0860	2.0700e-003	7.9803
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>7.9299</b>	<b>0.0863</b>	<b>2.1000e-003</b>	<b>10.7114</b>



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**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.1249	0.8939	0.0000	37.4712
Unmitigated	15.1249	0.8939	0.0000	37.4712

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	11	2.2329	0.1320	0.0000	5.5319
Hotel	63.51	12.8920	0.7619	0.0000	31.9393
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>15.1249</b>	<b>0.8939</b>	<b>0.0000</b>	<b>37.4712</b>

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**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	11	2.2329	0.1320	0.0000	5.5319
Hotel	63.51	12.8920	0.7619	0.0000	31.9393
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>15.1249</b>	<b>0.8939</b>	<b>0.0000</b>	<b>37.4712</b>

**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**

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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Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Annual

## **11.0 Vegetation**

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Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**Blue Wave Express Car Wash and Hotel Project\_Operation**  
**Bay Area AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

## Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space and 117 standard stalls

Construction Phase - Estimating operation, disregard all construction related emissions

Demolition - Estimated existing structures square footage using goodle earth; all structures are single story

Grading - Cut and fill is less than 2 feet

Vehicle Trips - Per traffic study, business hotels has a trip rate of 4.02 trips per day per guest room + 13% location-based adjustment = 3.5 trips/day/room; carwash estimated to have 963 ADT. Trip length for carwash and hotel adjusted per traffic study

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Water And Wastewater - Per applicant provided information carwash is anticipated to use 18.2 gallons of indoor water per day and 30.48 gallons of water per car per day.

Solid Waste -

Area Mitigation -

Energy Mitigation - CAPCOA Mitigation measure estimation minimum for higher efficacy outdoor lighting systems; Appliance information from Energy Star annual reports

Water Mitigation - Per AB 2230 60% of carwash water is recycled. % reduction in flow determined as difference between California Green Building Standards Code Mandatory for use vs Standards that are Voluntary. Source: CAPCOA Table WUW-1.3.

Architectural Coating -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	15.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	35.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73

## Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

tblLandUse	LotAcreage	0.07	0.87
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	7.60
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	CW_TL	9.50	7.60
tblVehicleTrips	ST_TR	23.72	334.38
tblVehicleTrips	ST_TR	8.19	3.50
tblVehicleTrips	SU_TR	11.88	334.38
tblVehicleTrips	SU_TR	5.95	3.50
tblVehicleTrips	WD_TR	23.72	334.38
tblVehicleTrips	WD_TR	8.17	3.50
tblWater	IndoorWaterUseRate	270,953.59	6,643.00
tblWater	OutdoorWaterUseRate	166,068.33	3,719,989.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	12.5
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	11
tblWaterMitigation	PercentReductionInFlowShower	20	10
tblWaterMitigation	PercentReductionInFlowToilet	20	12.5

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
Energy	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
Mobile	1.2126	5.0943	10.2349	0.0274	2.3361	0.0248	2.3609	0.6249	0.0231	0.6480		2,781.8159	2,781.8159	0.1333		2,785.1471
<b>Total</b>	<b>2.8786</b>	<b>5.8854</b>	<b>10.9246</b>	<b>0.0322</b>	<b>2.3361</b>	<b>0.0850</b>	<b>2.4211</b>	<b>0.6249</b>	<b>0.0833</b>	<b>0.7082</b>		<b>3,730.9058</b>	<b>3,730.9058</b>	<b>0.1516</b>	<b>0.0174</b>	<b>3,739.8801</b>

**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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
Energy	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
Mobile	1.2126	5.0943	10.2349	0.0274	2.3361	0.0248	2.3609	0.6249	0.0231	0.6480		2,781.8159	2,781.8159	0.1333		2,785.1471
<b>Total</b>	<b>2.8786</b>	<b>5.8854</b>	<b>10.9246</b>	<b>0.0322</b>	<b>2.3361</b>	<b>0.0850</b>	<b>2.4211</b>	<b>0.6249</b>	<b>0.0833</b>	<b>0.7082</b>		<b>3,730.9058</b>	<b>3,730.9058</b>	<b>0.1516</b>	<b>0.0174</b>	<b>3,739.8801</b>





Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**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	lb/day										lb/day					
Mitigated	1.2126	5.0943	10.2349	0.0274	2.3361	0.0248	2.3609	0.6249	0.0231	0.6480		2,781.8159	2,781.8159	0.1333		2,785.1471
Unmitigated	1.2126	5.0943	10.2349	0.0274	2.3361	0.0248	2.3609	0.6249	0.0231	0.6480		2,781.8159	2,781.8159	0.1333		2,785.1471

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	963.01	963.01	963.01	341,073	341,073
Hotel	406.00	406.00	406.00	758,723	758,723
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,099,796</b>	<b>1,099,796</b>

**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
Automobile Care Center	2.80	2.80	2.80	33.00	48.00	19.00	21	51	28
Hotel	7.60	7.60	7.60	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Hotel	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

- Install High Efficiency Lighting
- Install Energy Efficient Appliances

	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	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
NaturalGas Unmitigated	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**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					
Automobile Care Center	208.149	2.2400e-003	0.0204	0.0171	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003		24.4881	24.4881	4.7000e-004	4.5000e-004	24.6336
Hotel	7858.65	0.0848	0.7705	0.6472	4.6200e-003		0.0586	0.0586		0.0586	0.0586		924.5473	924.5473	0.0177	0.0170	930.0414
Parking Lot	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
<b>Total</b>		<b>0.0870</b>	<b>0.7909</b>	<b>0.6643</b>	<b>4.7400e-003</b>		<b>0.0601</b>	<b>0.0601</b>		<b>0.0601</b>	<b>0.0601</b>		<b>949.0354</b>	<b>949.0354</b>	<b>0.0182</b>	<b>0.0174</b>	<b>954.6750</b>

**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					
Automobile Care Center	0.208149	2.2400e-003	0.0204	0.0171	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003		24.4881	24.4881	4.7000e-004	4.5000e-004	24.6336
Hotel	7.85865	0.0848	0.7705	0.6472	4.6200e-003		0.0586	0.0586		0.0586	0.0586		924.5473	924.5473	0.0177	0.0170	930.0414
Parking Lot	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
<b>Total</b>		<b>0.0870</b>	<b>0.7909</b>	<b>0.6643</b>	<b>4.7400e-003</b>		<b>0.0601</b>	<b>0.0601</b>		<b>0.0601</b>	<b>0.0601</b>		<b>949.0354</b>	<b>949.0354</b>	<b>0.0182</b>	<b>0.0174</b>	<b>954.6750</b>

**6.0 Area Detail**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004			0.0580
Unmitigated	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004			0.0580

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

**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	0.1113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3400e-003	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
<b>Total</b>	<b>1.5790</b>	<b>2.3000e-004</b>	<b>0.0254</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0545</b>	<b>0.0545</b>	<b>1.4000e-004</b>		<b>0.0580</b>

**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	0.1113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3400e-003	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
<b>Total</b>	<b>1.5790</b>	<b>2.3000e-004</b>	<b>0.0254</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0545</b>	<b>0.0545</b>	<b>1.4000e-004</b>		<b>0.0580</b>

**7.0 Water Detail**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Winter

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**7.1 Mitigation Measures Water**

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

**Blue Wave Express Car Wash and Hotel Project\_Operation**  
**Bay Area AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	130.00	Space	0.00	52,000.00	0
Hotel	116.00	Room	1.73	64,735.00	0
Automobile Care Center	2.88	1000sqft	0.87	2,880.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

Project Characteristics -

Land Use - Applicant provided square footage for hotel and automobile center; acreage provided for each parcel/landuse; parking square footage based on 117 standard stalls, 5 EV charging stations, 8 clean air space and 117 standard stalls

Construction Phase - Estimating operation, disregard all construction related emissions

Demolition - Estimated existing structures square footage using goodle earth; all structures are single story

Grading - Cut and fill is less than 2 feet

Vehicle Trips - Per traffic study, business hotels has a trip rate of 4.02 trips per day per guest room + 13% location-based adjustment = 3.5 trips/day/room; carwash estimated to have 963 ADT. Trip length for carwash and hotel adjusted per traffic study

Area Coating - BAAQMD Regulation 8 Rule 3: Architectural Coatings

Water And Wastewater - Per applicant provided information carwash is anticipated to use 18.2 gallons of indoor water per day and 30.48 gallons of water per car per day.

Solid Waste -

Area Mitigation -

Energy Mitigation - CAPCOA Mitigation measure estimation minimum for higher efficacy outdoor lighting systems; Appliance information from Energy Star annual reports

Water Mitigation - Per AB 2230 60% of carwash water is recycled. % reduction in flow determined as difference between California Green Building Standards Code Mandatory for use vs Standards that are Voluntary. Source: CAPCOA Table WUW-1.3.

Architectural Coating -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	15.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	35.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	150	100
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblLandUse	LandUseSquareFeet	168,432.00	64,735.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	3.87	1.73



## Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

tblLandUse	LotAcreage	0.07	0.87
tblVehicleTrips	CC_TL	7.30	2.80
tblVehicleTrips	CC_TL	7.30	7.60
tblVehicleTrips	CNW_TL	7.30	2.80
tblVehicleTrips	CNW_TL	7.30	7.60
tblVehicleTrips	CW_TL	9.50	2.80
tblVehicleTrips	CW_TL	9.50	7.60
tblVehicleTrips	ST_TR	23.72	334.38
tblVehicleTrips	ST_TR	8.19	3.50
tblVehicleTrips	SU_TR	11.88	334.38
tblVehicleTrips	SU_TR	5.95	3.50
tblVehicleTrips	WD_TR	23.72	334.38
tblVehicleTrips	WD_TR	8.17	3.50
tblWater	IndoorWaterUseRate	270,953.59	6,643.00
tblWater	OutdoorWaterUseRate	166,068.33	3,719,989.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	12.5
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	11
tblWaterMitigation	PercentReductionInFlowShower	20	10
tblWaterMitigation	PercentReductionInFlowToilet	20	12.5

## 2.0 Emissions Summary

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Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area 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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
Energy	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
Mobile	1.4693	4.9906	9.1038	0.0293	2.3361	0.0246	2.3607	0.6249	0.0229	0.6478		2,979.3494	2,979.3494	0.1237		2,982.4428
<b>Total</b>	<b>3.1353</b>	<b>5.7817</b>	<b>9.7934</b>	<b>0.0341</b>	<b>2.3361</b>	<b>0.0848</b>	<b>2.4209</b>	<b>0.6249</b>	<b>0.0831</b>	<b>0.7080</b>		<b>3,928.4393</b>	<b>3,928.4393</b>	<b>0.1421</b>	<b>0.0174</b>	<b>3,937.1758</b>

**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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
Energy	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
Mobile	1.4693	4.9906	9.1038	0.0293	2.3361	0.0246	2.3607	0.6249	0.0229	0.6478		2,979.3494	2,979.3494	0.1237		2,982.4428
<b>Total</b>	<b>3.1353</b>	<b>5.7817</b>	<b>9.7934</b>	<b>0.0341</b>	<b>2.3361</b>	<b>0.0848</b>	<b>2.4209</b>	<b>0.6249</b>	<b>0.0831</b>	<b>0.7080</b>		<b>3,928.4393</b>	<b>3,928.4393</b>	<b>0.1421</b>	<b>0.0174</b>	<b>3,937.1758</b>



Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

**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	lb/day										lb/day					
Mitigated	1.4693	4.9906	9.1038	0.0293	2.3361	0.0246	2.3607	0.6249	0.0229	0.6478		2,979.3494	2,979.3494	0.1237		2,982.4428
Unmitigated	1.4693	4.9906	9.1038	0.0293	2.3361	0.0246	2.3607	0.6249	0.0229	0.6478		2,979.3494	2,979.3494	0.1237		2,982.4428

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	963.01	963.01	963.01	341,073	341,073
Hotel	406.00	406.00	406.00	758,723	758,723
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,369.01</b>	<b>1,099,796</b>	<b>1,099,796</b>

**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
Automobile Care Center	2.80	2.80	2.80	33.00	48.00	19.00	21	51	28
Hotel	7.60	7.60	7.60	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Hotel	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732
Parking Lot	0.580272	0.038274	0.193741	0.109917	0.015100	0.005324	0.018491	0.026678	0.002649	0.002134	0.005793	0.000896	0.000732

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Install High Efficiency Lighting

Install Energy Efficient Appliances

	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	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750
NaturalGas Unmitigated	0.0870	0.7909	0.6643	4.7500e-003		0.0601	0.0601		0.0601	0.0601		949.0354	949.0354	0.0182	0.0174	954.6750

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area 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					
Automobile Care Center	208.149	2.2400e-003	0.0204	0.0171	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003		24.4881	24.4881	4.7000e-004	4.5000e-004	24.6336
Hotel	7858.65	0.0848	0.7705	0.6472	4.6200e-003		0.0586	0.0586		0.0586	0.0586		924.5473	924.5473	0.0177	0.0170	930.0414
Parking Lot	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
<b>Total</b>		<b>0.0870</b>	<b>0.7909</b>	<b>0.6643</b>	<b>4.7400e-003</b>		<b>0.0601</b>	<b>0.0601</b>		<b>0.0601</b>	<b>0.0601</b>		<b>949.0354</b>	<b>949.0354</b>	<b>0.0182</b>	<b>0.0174</b>	<b>954.6750</b>

**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					
Automobile Care Center	0.208149	2.2400e-003	0.0204	0.0171	1.2000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003		24.4881	24.4881	4.7000e-004	4.5000e-004	24.6336
Hotel	7.85865	0.0848	0.7705	0.6472	4.6200e-003		0.0586	0.0586		0.0586	0.0586		924.5473	924.5473	0.0177	0.0170	930.0414
Parking Lot	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
<b>Total</b>		<b>0.0870</b>	<b>0.7909</b>	<b>0.6643</b>	<b>4.7400e-003</b>		<b>0.0601</b>	<b>0.0601</b>		<b>0.0601</b>	<b>0.0601</b>		<b>949.0354</b>	<b>949.0354</b>	<b>0.0182</b>	<b>0.0174</b>	<b>954.6750</b>

**6.0 Area Detail**

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004			0.0580
Unmitigated	1.5790	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004			0.0580

Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

**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	0.1113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3400e-003	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
<b>Total</b>	<b>1.5790</b>	<b>2.3000e-004</b>	<b>0.0254</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0545</b>	<b>0.0545</b>	<b>1.4000e-004</b>		<b>0.0580</b>

**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	0.1113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4654					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3400e-003	2.3000e-004	0.0254	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0545	0.0545	1.4000e-004		0.0580
<b>Total</b>	<b>1.5790</b>	<b>2.3000e-004</b>	<b>0.0254</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0545</b>	<b>0.0545</b>	<b>1.4000e-004</b>		<b>0.0580</b>

**7.0 Water Detail**



Blue Wave Express Car Wash and Hotel Project\_Operation - Bay Area AQMD Air District, Summer

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**7.1 Mitigation Measures Water**

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

**Greenhouse Gas Emission Worksheet**

**N<sub>2</sub>O Mobile Emissions**

Existing Use

From CalEEMod v.2016.3.2 Vehicle Fleet Mix Output:

Annual VMT: 412,088

Vehicle Type	Percent Type	CH <sub>4</sub> Emission Factor (g/mile)*	CH <sub>4</sub> Emissions (g/mile)**	N <sub>2</sub> O Emission Factor (g/mile)*	N <sub>2</sub> O Emissions (g/mile)**
Light Auto	57.7%	0.04	0.0230794	0.04	0.0230794
Light Truck < 3750 lbs	3.9%	0.05	0.0019688	0.06	0.00236256
Light Truck 3751-5750 lbs	19.4%	0.05	0.00968615	0.06	0.01162338
Med Truck 5751-8500 lbs	11.2%	0.12	0.01344828	0.2	0.0224138
Lite-Heavy Truck 8501-10,000 lbs	1.6%	0.12	0.00195804	0.2	0.0032634
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00048222	0.125	0.00066975
Med-Heavy Truck 14,001-33,000 lbs	1.8%	0.06	0.00107658	0.05	0.00089715
Heavy-Heavy Truck 33,001-60,000 lbs	2.6%	0.06	0.00154884	0.05	0.0012907
Other Bus	0.3%	0.06	0.00015684	0.05	0.0001307
Urban Bus	0.2%	0.06	0.00013644	0.05	0.0001137
Motorcycle	0.6%	0.09	0.00052866	0.01	0.00005874
School Bus	0.1%	0.06	0.00005322	0.05	0.00004435
Motor Home	0.1%	0.09	0.00006912	0.125	0.000096
<b>Total</b>	<b>100.0%</b>		<b>0.05419259</b>		<b>0.06604363</b>

**Total Emissions (metric tons) =**

**Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g**

**Conversion to Carbon Dioxide Equivalency (CO<sub>2</sub>e) Units based on Global Warming Potential (GWP)**

CH<sub>4</sub> 21 GWP  
 N<sub>2</sub>O 310 GWP  
 1 ton (short, US) = 0.90718474 metric ton

**Annual Mobile Emissions:**

	Total Emissions	Total CO <sub>2</sub> e units
N <sub>2</sub> O Emissions:	0.0272 metric tons N <sub>2</sub> O	8.44 metric tons CO <sub>2</sub> e
<b>Project Total:</b>		<b>8.44 metric tons CO<sub>2</sub>e</b>

**References**

\* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).  
 in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.  
 Assume Model year 2000-present, gasoline fueled.  
 \*\* Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.  
 \*\*\* CalEEMod v.2016.3.2 results for mobile sources.

**Greenhouse Gas Emission Worksheet**

**N<sub>2</sub>O Mobile Emissions**

Blue Wave Express Car Wash and Hotel Project

From CalEEMod v.2016.3.2 Vehicle Fleet Mix Output:

Annual VMT: **1,099,796**

Vehicle Type	Percent Type	CH <sub>4</sub> Emission Factor (g/mile)*	CH <sub>4</sub> Emissions (g/mile)**	N <sub>2</sub> O Emission Factor (g/mile)*	N <sub>2</sub> O Emissions (g/mile)**
Light Auto	58.0%	0.04	0.02321088	0.04	0.02321088
Light Truck < 3750 lbs	3.8%	0.05	0.0019137	0.06	0.00229644
Light Truck 3751-5750 lbs	19.4%	0.05	0.00968705	0.06	0.01162446
Med Truck 5751-8500 lbs	11.0%	0.12	0.01319004	0.2	0.0219834
Lite-Heavy Truck 8501-10,000 lbs	1.5%	0.12	0.001812	0.2	0.00302
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00047916	0.125	0.0006655
Med-Heavy Truck 14,001-33,000 lbs	1.8%	0.06	0.00110946	0.05	0.00092455
Heavy-Heavy Truck 33,001-60,000 lbs	2.7%	0.06	0.00160068	0.05	0.0013339
Other Bus	0.3%	0.06	0.00015894	0.05	0.00013245
Urban Bus	0.2%	0.06	0.00012804	0.05	0.0001067
Motorcycle	0.6%	0.09	0.00052137	0.01	0.00005793
School Bus	0.1%	0.06	0.00005376	0.05	0.0000448
Motor Home	0.1%	0.09	0.00006588	0.125	0.0000915
<b>Total</b>	<b>100.0%</b>		<b>0.05393096</b>		<b>0.06549251</b>

**Total Emissions (metric tons) =**

**Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g**

**Conversion to Carbon Dioxide Equivalency (CO<sub>2</sub>e) Units based on Global Warming Potential (GWP)**

CH<sub>4</sub> 21 GWP  
 N<sub>2</sub>O 310 GWP  
 1 ton (short, US) = 0.90718474 metric ton

**Annual Mobile Emissions:**

	Total Emissions	Total CO <sub>2</sub> e units
N <sub>2</sub> O Emissions:	0.0720 metric tons N <sub>2</sub> O	22.33 metric tons CO <sub>2</sub> e
<b>Project Total:</b>		<b>22.33 metric tons CO<sub>2</sub>e</b>

**References**

- \* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile). in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009. Assume Model year 2000-present, gasoline fueled.
- \*\* Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
- \*\*\* CalEEMod v.2016.3.2 results for mobile sources.