



Memorandum

Date: July 20, 2017

To: Ms. Rebecca Mitchell, Mt. San Antonio College

From: Fred Greve, Greve & Associates, LLC

Subject: West Parcel Solar Project – Truck Haul Plan (Report #17-041a)

The truck haul assumptions used in the previous analysis for the West Parcel Solar Project (“West Parcel Solar Project – Air Quality Construction Analysis,” Report #15-104C, by Greve and Associates, August 30, 2015) have been revised. Updated truck traffic are provided in the “West Parcel Solar CEQA Initial Study (Truck Haul Plan),” by Iteris, July 11, 2017. This report looks at potential changes in impacts for air quality, greenhouse gas, and noise.

AIR QUALITY

In general, truck hauling was reduced to 139,000 cubic yards of dirt, 9,929 truck loads, and 160 truck loads per day. The grading with import period was reduced to 62 days, down from an estimated 130 days previously. Since the air quality analysis focus is on peak daily emissions, shortening the work period can increase daily emissions.

It should be noted that the project will need to comply with the air quality measures adopted in the 2016 Mitigation Monitoring Program (MMP) for the 2015 Facilities Master Plan/PEP Final EIR. Measures 3a through 3j of the MMP identify a spectrum of air quality mitigation with Measures 3a, 3b, 3c, 3f, 3g, 3h, and 3i are aimed specifically at reducing quality emissions. Most significant are the requirements to use Tier IV construction equipment and to water the site three times per day during grading activities.

In their “1993 CEQA Air Quality Handbook”, the South Coast Air Quality Management District (SCAQMD) established significance thresholds to assess the impact of project related air pollutant emissions. Table 1 presents the significance thresholds for construction. There are separate thresholds for short-term construction and long-term operational emissions. A

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
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

West Parcel Solar With New Truck Haul Plan - South Coast AQMD Air District, Annual

West Parcel Solar With New Truck Haul Plan
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	10.00	1000sqft	17.70	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of site.

Construction Phase - Based on construction schedule provided.

Off-road Equipment - Equipment provided.

Off-road Equipment - Equipment provided.

Off-road Equipment - Equipment provided

Off-road Equipment - Equipment provided.

Off-road Equipment - Equipment provided.

tblConstructionPhase	NumDays	300.00	76.00
tblConstructionPhase	NumDays	30.00	62.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	10.00	62.00
tblConstructionPhase	NumDays	10.00	62.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	11/7/2018	3/30/2018
tblConstructionPhase	PhaseEndDate	7/18/2018	12/6/2017
tblConstructionPhase	PhaseEndDate	8/10/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	12/6/2017	3/14/2018
tblConstructionPhase	PhaseEndDate	2/16/2018	3/14/2018
tblConstructionPhase	PhaseStartDate	8/11/2018	1/2/2018
tblConstructionPhase	PhaseStartDate	2/17/2018	9/26/2017
tblConstructionPhase	PhaseStartDate	7/19/2018	12/7/2017
tblConstructionPhase	PhaseStartDate	9/26/2017	1/2/2018
tblConstructionPhase	PhaseStartDate	12/7/2017	1/2/2018
tblGrading	AcresOfGrading	186.00	325.00
tblGrading	AcresOfGrading	90.00	50.00
tblGrading	AcresOfGrading	0.00	75.00
tblLandUse	LotAcreage	0.23	17.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripLength	20.00	6.60
tblTripsAndVMT	HaulingTripNumber	0.00	9,929.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

2017	0.3362	4.5088	2.2051	4.8100e-003	0.6727	0.1675	0.8402	0.2716	0.1543	0.4260	0.0000	453.5408	453.5408	0.1030	0.0000	456.1155
2018	0.0192	0.1798	0.1683	2.6000e-004	0.0440	0.0121	0.0560	5.4200e-003	0.0111	0.0165	0.0000	23.6865	23.6865	5.9300e-003	0.0000	23.8348
Maximum	0.3362	4.5088	2.2051	4.8100e-003	0.6727	0.1675	0.8402	0.2716	0.1543	0.4260	0.0000	453.5408	453.5408	0.1030	0.0000	456.1155

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					
2017	0.0474	0.8612	1.6700	4.8100e-003	0.6727	-0.0034	0.6693	0.2716	-0.0026	0.2690	0.0000	453.5404	453.5404	0.1030	0.0000	456.1151
2018	2.9500e-003	4.0200e-003	0.1687	2.6000e-004	0.0440	-0.0009	0.0431	5.4200e-003	-0.0008	4.6600e-003	0.0000	23.6865	23.6865	5.9300e-003	0.0000	23.8348
Maximum	0.0474	0.8612	1.6700	4.8100e-003	0.6727	-0.0009	0.6693	0.2716	-0.0008	0.2690	0.0000	453.5404	453.5404	0.1030	0.0000	456.1151

	ROG	NOx	CO	SO2	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	85.83	81.55	22.53	0.00	0.00	102.39	20.51	0.00	102.04	38.15	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	9-1-2017	9-30-2017	0.2252	0.0653
		Highest	0.2252	0.0653

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	0.0408	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.6000e-004
Energy	9.8000e-004	8.9000e-003	7.4800e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	45.7270	45.7270	1.6700e-003	4.9000e-004	45.9135
Mobile	0.0225	0.1316	0.3376	1.1300e-003	0.0886	1.3000e-003	0.0899	0.0237	1.2200e-003	0.0250	0.0000	103.7053	103.7053	5.3800e-003	0.0000	103.8398
Waste						0.0000	0.0000		0.0000	0.0000	2.5171	0.0000	2.5171	0.1488	0.0000	6.2360
Water						0.0000	0.0000		0.0000	0.0000	0.7337	9.5940	10.3277	0.0758	1.8600e-003	12.7760
Total	0.0642	0.1405	0.3452	1.1800e-003	0.0886	1.9800e-003	0.0906	0.0237	1.9000e-003	0.0256	3.2507	159.0266	162.2773	0.2316	2.3500e-003	168.7656

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	0.0408	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.6000e-004
Energy	9.8000e-004	8.9000e-003	7.4800e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004	0.0000	45.7270	45.7270	1.6700e-003	4.9000e-004	45.9135
Mobile	0.0225	0.1316	0.3376	1.1300e-003	0.0886	1.3000e-003	0.0899	0.0237	1.2200e-003	0.0250	0.0000	103.7053	103.7053	5.3800e-003	0.0000	103.8398
Waste						0.0000	0.0000		0.0000	0.0000	2.5171	0.0000	2.5171	0.1488	0.0000	6.2360
Water						0.0000	0.0000		0.0000	0.0000	0.7337	9.5940	10.3277	0.0758	1.8600e-003	12.7760
Total	0.0642	0.1405	0.3452	1.1800e-003	0.0886	1.9800e-003	0.0906	0.0237	1.9000e-003	0.0256	3.2507	159.0266	162.2773	0.2316	2.3500e-003	168.7656

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep	Site Preparation	9/1/2017	9/25/2017	6	21	
2	Landscaping	Site Preparation	1/2/2018	3/14/2018	6	62	
3	Restoration	Site Preparation	1/2/2018	3/14/2018	6	62	
4	Grading Including Import	Grading	9/26/2017	12/6/2017	6	62	
5	Finish Grading	Grading	12/7/2017	12/29/2017	6	20	
6	Solar Panel Installation	Building Construction	1/2/2018	3/30/2018	6	76	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep	Air Compressors	1	6.00	78	0.48
Site Prep	Rubber Tired Dozers	3	8.00	247	0.40
Site Prep	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading Including Import	Cranes	0	7.00	231	0.29
Grading Including Import	Excavators	0	8.00	158	0.38
Grading Including Import	Forklifts	0	8.00	89	0.20

