

Appendix C: State Parks Mitigation Agreement

**LETTER OF AGREEMENT BETWEEN HORUS CENTRAL VALLEY SOLAR 1 AND
HORUS CENTRAL VALLEY 2, AND CALIFORNIA STATE DEPARTMENT OF PARKS
AND RECREATION REGARDING SAN LUIS SOLAR PROJECT**

This Agreement is entered into between HORUS Central Valley Solar 1 LLC and HORUS Central Valley Solar 2 LLC (collectively "**HORUS**") and the California Department of Parks and Recreation ("**State Parks**"). The parties referred to above shall be collectively referred to as the "**Parties**".

RECITALS

WHEREAS, HORUS has applied to the Bureau of Reclamation (hereinafter, "**Reclamation**") for lease of federal land to build and operate the 26 megawatt San Luis Reservoir Solar Project (hereinafter, the "**Project**"); and

WHEREAS, State Parks manages recreation facilities at the Medeiros Use Area of San Luis Reservoir State Recreation Area in Merced County, California ("**Medeiros**"); and

WHEREAS, a portion of the Project will be located on approximately 110 acres adjacent to Medeiros; and

WHEREAS, State Parks commented on the December 2015 Reclamation Draft Environmental Assessment/Finding of No Significant Impact (hereinafter, "**EA/FONSI**") requesting mitigation for impacts on State Parks facilities from Site 1 of the proposed Project, as depicted in the Draft EA/FONSI; and

WHEREAS, State Parks and HORUS have reached agreement on mitigation of Project impacts as identified below, which is fully satisfactory to both Parties, and understand that Reclamation will incorporate such mitigation, and this Agreement in the Final EA/FONSI, the Project approval, and the license to construct and operate the Projects.

THEREFORE, in consideration of these facts, the Parties memorialize their understanding and commitments on this matter in this Letter Agreement as follows:

HORUS Commitments:

HORUS has modified the Site 1 map and description in the Final EA/FONSI to remove 10 acres from development of Project facilities at Site 1, as shown on the Site 1 map included herein as Exhibit A.

Prior to commencement of construction HORUS shall have a California Licensed Land Surveyor establish the project perimeter by setting a wood hub or survey spike at every Angle Point and a Point-on-Line at nominal 300-foot intervals between the Angle Points. Every point so established will additionally be marked with a 4-foot survey lath.

HORUS will provide State Parks with a coordinate listing of all perimeter points in the California Coordinate System (CCS83) Zone 4-Feet, with a stated accuracy of 0.3 feet or better.

State Parks will perform quality control survey of the perimeter staking prior to construction within 30 days of receiving notification from HORUS that HORUS's survey is complete.

HORUS shall, at its sole cost and expense, install and maintain slats in the chain link perimeter fencing as denoted in the Exhibit A map between the developed solar installation and (a) the existing campground sites and (b) the 7 acres being reserved for a future campground as shown on the Site 1 map in the Final EA/FONSI.

HORUS shall, at its sole cost and expense, install vegetative visual screening acceptable to State Parks, Reclamation, and HORUS, to shield the view of the slatted chain link fence as denoted in the Exhibit A map from between the developed solar installation and (a) the existing campground sites and (b) the 7 acres being reserved for a future campground as shown on the Site 1 map in the

Final EA/FONSI. HORUS shall be responsible for watering as needed and maintaining the vegetation for the life of the solar project.

Within twelve months of commencement of work for Site 1, HORUS shall, at its sole cost and expense, construct a four-person waterless restroom using the CXT Custom 4 stall Tioga Special ADA Vault restroom model, color to be determined by State Parks, at the campground for public use in the location specified by State Parks or, alternatively and at HORUS's option, pay \$88,000 to State Parks to install a four-person waterless restroom at the campground. If the payment option is selected by HORUS, payment shall be received after commencement of work for Site 1, but before the completion of Site 1.

Upon completion of the Site 1 solar facilities, HORUS shall provide State Parks with an annual payment of \$10,000 by July 15 of each year, annually, for twenty years or the life of the project, whichever is greater, for State Parks use in its facilities adjacent to Site 1.

HORUS shall, at its sole cost and expense, repair any damage caused to the entrance road due to construction of its facilities.

HORUS shall make this agreement fully binding on any successors or assignees to its development interest in the Project.

State Parks Commitments:

State Parks hereby provides Reclamation and HORUS with its commitment that the above mitigation and commitments fully satisfy State Parks' concerns about the Project and that State Parks accepts Reclamation's Final EA/FONSI and approval of the Project.

State Parks shall provide HORUS with location of the four-person waterless restroom, within 90 days of request.

State Parks shall use the annual payments for the operation, maintenance, and improvement of its facilities adjacent to Site 1.

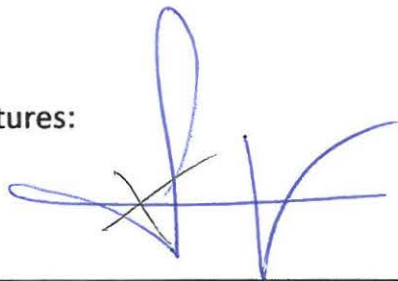
State Parks shall make this agreement fully binding on all future administrations of State Parks.

Joint Commitments:

The Parties agree to make all reasonable efforts needed in the future to effectuate this agreement, but without increasing the responsibility, exposure and/or expense to either Party, or causing delay to implementation of the Project.

The Parties represent that the below signatories have authority to bind the respective entities.

Signatures:



By: _____

Date: 06-02-17

NAME

HORUS Central Valley Solar 1 LLC

HORUS Central Valley Solar 2 LLC



By: _____

Date: 05-31-17

Kathleen Amann

Deputy Director, Park Operations

California Department of Parks and Recreation

Appendix D: Species List

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Agelaius tricolor</i>	Tricolored blackbird	None. Petitioned for listing.	E ² /SSC ³	N/A ⁴	Low	This species had a petition for listing submitted to USFWS in February 2015 and could potentially receive temporary status sometime this year. Potential offsite habitat near Site 1 but no species or previous nesting sites observed during current surveys. No nest remnants observed in any habitats assessed at or in area during current surveys. No species have been documented using the proposed sites; however, tricolored blackbirds were observed in 2002 by EDAW in close proximity to the proposed project area. Construction activities at Site 1 and along some of the transmission corridor could temporarily disturb wildlife along the shoreline of the Forebay.
<i>Ambystoma californiense</i>	California tiger salamander	T ⁵	T	N/A	N/A	No habitat or breeding ponds on site. Numerous predatory species in all water bodies. No species documented in the reviewed database on the sites.
<i>Ammodramus savannarum</i>	Grasshopper sparrow	None	SSC	N/A	Low	No nesting potential on sites. Transient flyover and foraging potential on site only. No species documented in the reviewed database on the sites.

¹ Species that have no current federal status have no FESA effect determination.

² E = Endangered

³ This California Species of Special Concern was emergency listed in December 2014 as Endangered for 100 days during which time the CDFW will conduct analysis to decide whether to leave as a Species of Special Concern or relist as Endangered.

⁴ N/A = Not Applicable.

⁵ T = Threatened

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Aquila chrysaetos</i>	Golden eagle	BCC ⁶ , Eagle Protection Act.	FP ⁷ , WL ⁸	N/A	Low	No nesting potential on sites. No LSN ⁹ within ½ mile of sites. Transient flyover and foraging potential only. No species documented in the reviewed database on the sites.
<i>Athene cunicularia</i>	Burrowing owl	None	SSC ¹⁰	N/A	Low	A 2003 CNDDDB record located approximately 0.6 miles from the southern edge of Site 1 indicated that the 0.1 mile non-specific polygon for the species crosses the Site 1 location by 175 feet. The CDFW evaluated the species to be presumed extant in the area. No sign ¹¹ of the species was found during field surveys of sites or 150 foot buffer around sites. No species documented in the reviewed database on the sites.
<i>Atriplex cordulata</i>	Heartscale	None	None	1B.2 ¹²	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Atriplex coronata</i> var. <i>vallicola</i>	Lost Hills crownscale	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.

⁶ BCC = "Bird of Conservation Concern". USFWS list of migratory and non-migratory bird species beyond those already designated as FT or FE and represent the USFWS conservation priorities. This list makes no finding with regard to whether they warrant consideration for ESA listing.

⁷ FP = "Fully Protected". CDFW "Fully Protected" was California's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction.

⁸ WL = Watch List. CDFW "Watch List" consists of taxa that were previously SSCs but no longer merit SSC status or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify status.

⁹ LSN = Large Stick Nest

¹⁰ SSC = "Species of Special Concern". CDFW "Species of Special Concern" is an administrative designation and carries no formal legal status but within CEQA needs to be considered.

¹¹ "Sign" is an indicator of use of a site by selected species. Sign typically can include such items as feathers, bones, fur, prey remnants, pellets, nesting materials, scratch marks, prints, tracks, or trails, etc.

¹² 1B.* = Plants with a California Rare Plant Rank of 1B are rare throughout their range with the majority of them endemic to California.

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Branchinecta longiantenna</i>	Longhorn fairy shrimp	E ¹³	None	N/A	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Branta hutchinsii leucopareia</i>	Cackling (=Aleutian Canada) goose	D ¹⁴	SSC	N/A	Low	No nesting potential on sites. Potential suitable nesting locations within ½ mile of sites. Transient flyover and foraging potential on site only. No species documented in the reviewed database on the sites.
<i>Buteo regalis</i>	Ferruginous hawk	BCC	WL	N/A	Low	No nesting potential on sites. No LSN within ½ mile of sites. Although no nests observed, potential nesting areas are within ½ mile radius of sites. Transient flyover and foraging potential only.
<i>Buteo swainsoni</i>	Swainson's hawk	None	T	N/A	Low	No nesting potential on sites. No LSN within ½ mile of sites. Although no nests observed, potential nesting areas are within ½ mile radius of sites. Transient flyover and foraging potential only.
<i>California macrophylla</i>	Round-leaved filaree	None	None	1B.1	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Campanula exigua</i>	Chaparral harebell	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Caulanthus lemmonii</i>	Lemmon's jewel-flower	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Chloropyron molle ssp. hispidum</i>	Hispid bird's-beak	None	None	1B.1	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.

¹³ E = Endangered¹⁴ D = Delisted

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Circus cyaneus</i>	Northern harrier	None	SSC	N/A	Low	No LSN located within ½ mile of sites. No nests or sign observed during recent site surveys. Although no nests or sign observed, potential nesting areas are within ½ mile of the sites. Primarily transient flyover and foraging potential.
<i>Delphinium californicum ssp. interius</i>	Hospital Canyon larkspur	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Delphinium recurvatum</i>	Recurved larkspur	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	T	None	N/A	N/A	No Elderberry plants located on site or within 100 feet of site. No species documented in the reviewed database on the sites.
<i>Actinemys marmorata</i>	Western pond turtle	None	SSC	N/A	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. Potential habitat is within ½ mile of sites. No species documented in the reviewed database on the sites.
<i>Eremophila alpestris actia</i>	California horned lark	None	WL	N/A	Low	Limited nesting potential on sites. Suitable nesting locations observed within ½ mile of sites. Transient flyover and foraging potential more likely than nesting. No species documented in the reviewed database on the sites. No nests or sign observed.
<i>Eryngium spinosepalum</i>	Spiny-sepal button-celery	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Eumops perotis californicus</i>	Western mastiff bat	None	SSC	N/A	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Falco mexicanus</i>	Prairie falcon	BCC	WL	N/A	Low	No nesting potential on sites. No LSN within ½ mile of sites. Although no nests observed, potential nesting areas are within ½ mile radius of sites. Transient flyover and foraging potential only.
<i>Gambelia sila</i>	Blunt-nosed leopard lizard	E	E	N/A	Low	A 1931 CNDDDB record indicated that a non-specific polygon with a 1 mile radius for the species crosses within the Site 1 property boundary by ~88 feet in the southeastern corner of the location. The CDFW evaluated the species to be presumed extant from the area. None of the preferred habitat characteristics for the species are located at the sites. No species documented in the reviewed database on the sites.
<i>Haliaeetus leucocephalus</i>	Bald eagle	BCC, D	E, FP	N/A	Low	This species was not listed in the database searches for the nine quadrangles but has been observed recently in flyovers in the area. The species has been Delisted from the Federal lists. No nesting potential exists on the sites. No LSN within ½ mile of sites. Although no nests observed, potential nesting areas are within ½ mile radius of sites. Transient flyover and foraging potential only.
<i>Hesperolinon tehamense</i>	Tehama County western flax	None	None	1B.3	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Lanius ludovicianus</i>	Loggerhead shrike	None	SSC	N/A	Low	No nesting potential on sites. Transient flyover and foraging potential on site only. No species documented in the reviewed database on the sites.
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	E	None	N/A	N/A	No vernal pools or wetlands located on sites. No suitable habitat located on the sites. No species documented in the reviewed database on the sites.

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Linderiella occidentalis</i>	California linderiella	None	None	N/A	N/A.	No vernal pools or wetlands located on sites. No suitable habitat located on the sites. No species documented in the reviewed database on the sites.
<i>Malacothamnus arcuatus</i>	Arcuate bush-mallow	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Malacothamnus hallii</i>	Hall's bush-mallow	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Masticophis flagellum ruddocki</i>	San Joaquin whipsnake	None	SSC	N/A	N/A	No species were observed during field surveys of suitable habitat. Limited habitat conditions on Site 1. No species documented in the reviewed database on the sites.
<i>Myotis yumanensis</i>	Yuma myotis	None	None	N/A	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Navarretia gowenii</i>	Lime Ridge navarretia	None	None	1B.1	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Navarretia nigelliformis ssp. radians</i>	Shining navarretia	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Perognathus inornatus inornatus</i>	San Joaquin pocket mouse	None	None	N/A	N/A	No species were observed during field surveys of suitable habitat. Limited habitat conditions on sites. No species documented in the reviewed database on the sites.
<i>Rana boylei</i>	Foothill yellow-legged frog	T	SSC	N/A	N/A	No vernal pools or wetlands located on sites. No suitable habitat located on the sites. No species documented in the reviewed database on the sites.

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Rana draytonii</i>	California red-legged frog	None	SSC	N/A	N/A	No vernal pools or wetlands located on sites. No suitable habitat located on the sites. No species documented in the reviewed database on the sites.
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Spea hammondi</i>	Western spadefoot	None	SSC	N/A	N/A	No vernal pools or wetlands located on sites. No suitable habitat located on the sites. No species documented in the reviewed database on the sites.
<i>Streptanthus insignis ssp. lyonii</i>	Arburua Ranch jewel-flower	None	None	1B.2	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.
<i>Taxidea taxus</i>	American badger	None	SSC	N/A	Low	No species were observed during field surveys or no suitable habitat is located on the sites. No species ever documented using site. Infrequent transient forays possible.
<i>Thamnophis gigas</i>	Giant garter snake	T	T	N/A	N/A	No species were observed during field surveys or no suitable habitat is located on the sites. No species documented in the reviewed database on the sites.

Table A-1: Threatened, Endangered, Proposed Threatened or Proposed Species

Scientific Name	Common Name	USFWS	CDFW	CNPS	Onsite Potential. Effect of Action ¹	Comments
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	E	T	N/A	Moderate	A 1975 CNDDDB record indicated that an individual was observed at Site 1 but the element has been searched for numerous times at the site but has not been officially recorded again since the 1975 sighting. Species was likely traversing the area in 1975 and does not use site for denning purposes. No active or abandoned dens were found that would meet habitat requirements at any of the project site locations. No natural denning structures were observed or were any manmade structures available at the site that would likely be utilized by the species. Non-substantiated, anecdotal information placed a purported kit fox in the Medeiros area in 2015.
Habitat Types						
Alkali Seep	Alkali Seep	None	None	N/A	N/A	Habitat does not exist on sites.
Cismontane Alkali Marsh	Cismontane Alkali Marsh	None	None	N/A	N/A	Habitat does not exist on sites.
Great Valley Cottonwood Riparian Forest	Great Valley Cottonwood Riparian Forest	None	None	N/A	N/A	Habitat does not exist on sites.
Sycamore Alluvial Woodland	Sycamore Alluvial Woodland	None	None	N/A	N/A	Habitat does not exist on sites.
Valley Sacaton Grassland	Valley Sacaton Grassland	None	None	N/A	N/A	Habitat does not exist on sites.
Valley Sink Scrub	Valley Sink Scrub	None	None	N/A	N/A	Habitat does not exist on sites.

Appendix E: Air Quality Modeling

San Luis Solar
San Joaquin Valley Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	246.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User defined land use type selected, project-specific equipment list and schedule used.

Construction Phase - Project-specific equipment list used. Emissions based on total operating hours of equipment; all hours modeled over a single day to simplify calculation.

Off-road Equipment - Project-specific equipment list used. Total hours for each equipment type are calculated based on the total days of equipment operation and hours per day for that equipment. Emissions based on total operating hours of equipment; all hours modeled over a single day to simplify calculation.

Grading - Cubic yards of material would be moved within site, not exported off-site. Material volume included here to estimate dust from material movement on-site.

Trips and VMT - Project-specific total vehicle trip activity used for worker and vendor trips. Water truck activity included in haul trips category. All material hauling is assumed to occur within site, and would not result in off-site hauling truck trips.

Vehicle Trips - Project-specific operational vehicle trip activity used. All trips conservatively assumed to be commercial-work (C-W) type trips.

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	465.00	1.00
tblGrading	MaterialExported	0.00	70,000.00
tblLandUse	LotAcreage	0.00	246.50
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	264.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	264.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	8,750.00	484.00
tblTripsAndVMT	VendorTripLength	6.60	100.00
tblTripsAndVMT	VendorTripNumber	0.00	996.00
tblTripsAndVMT	WorkerTripLength	16.80	19.00
tblTripsAndVMT	WorkerTripNumber	100.00	9,900.00
tblVehicleTrips	CW_TTP	0.00	100.00

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.8800e-003	2.4200e-003	0.0236	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.2255	0.2255	3.0000e-005	0.0000	0.2260
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8800e-003	2.4200e-003	0.0236	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.2255	0.2255	3.0000e-005	0.0000	0.2261

Mitigated Operational

[illegible]

Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8800e-003	2.4200e-003	0.0236	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.2255	0.2255	3.0000e-005	0.0000	0.2261

	ROG	NOx	CO	SO2	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	Grading	Grading	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Cement and Mortar Mixers	2	352.00	9	0.56
Grading	Cranes	2	352.00	226	0.29
Grading	Generator Sets	3	198.00	84	0.74
Grading	Excavators	2	264.00	162	0.38
Grading	Off-Highway Trucks	20	264.00	400	0.38
Grading	Plate Compactors	6	264.00	8	0.43
Grading	Rollers	2	88.00	80	0.38
Grading	Rubber Tired Dozers	0	0.00	255	0.40
Grading	Graders	0	0.00	174	0.41

Grading	Tractors/Loaders/Backhoes	3	264.00	97	0.37
Grading	Scrapers	0	0.00	361	0.48

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
Grading	40	9,900.00	996.00	484.00	19.00	100.00	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2016

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					5.1700e-003	0.0000	5.1700e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4075	4.5337	2.2367	5.2900e-003		0.1890	0.1890		0.1750	0.1750	0.0000	494.2654	494.2654	0.1437	0.0000	497.2825
Total	0.4075	4.5337	2.2367	5.2900e-003	5.1700e-003	0.1890	0.1942	7.8000e-004	0.1750	0.1758	0.0000	494.2654	494.2654	0.1437	0.0000	497.2825

Unmitigated Construction Off-Site

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

Hauling	8.4400e-003	0.1239	0.0808	3.6000e-004	8.2800e-003	1.9800e-003	0.0103	2.2700e-003	1.8200e-003	4.1000e-003	0.0000	32.6107	32.6107	2.3000e-004	0.0000	32.6156
Vendor	0.0321	0.5522	0.2222	1.5000e-003	0.0442	0.0113	0.0556	0.0127	0.0104	0.0231	0.0000	137.2173	137.2173	1.0500e-003	0.0000	137.2394
Worker	0.0229	0.0396	0.3812	8.3000e-004	0.0696	5.1000e-004	0.0701	0.0185	4.7000e-004	0.0190	0.0000	61.6239	61.6239	3.2600e-003	0.0000	61.6923
Total	0.0634	0.7157	0.6843	2.6900e-003	0.1221	0.0138	0.1359	0.0334	0.0127	0.0461	0.0000	231.4519	231.4519	4.5400e-003	0.0000	231.5474

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					5.1700e-003	0.0000	5.1700e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4075	4.5337	2.2367	5.2900e-003		0.1890	0.1890		0.1750	0.1750	0.0000	494.2649	494.2649	0.1437	0.0000	497.2819
Total	0.4075	4.5337	2.2367	5.2900e-003	5.1700e-003	0.1890	0.1942	7.8000e-004	0.1750	0.1758	0.0000	494.2649	494.2649	0.1437	0.0000	497.2819

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4400e-003	0.1239	0.0808	3.6000e-004	8.2800e-003	1.9800e-003	0.0103	2.2700e-003	1.8200e-003	4.1000e-003	0.0000	32.6107	32.6107	2.3000e-004	0.0000	32.6156
Vendor	0.0321	0.5522	0.2222	1.5000e-003	0.0442	0.0113	0.0556	0.0127	0.0104	0.0231	0.0000	137.2173	137.2173	1.0500e-003	0.0000	137.2394
Worker	0.0229	0.0396	0.3812	8.3000e-004	0.0696	5.1000e-004	0.0701	0.0185	4.7000e-004	0.0190	0.0000	61.6239	61.6239	3.2600e-003	0.0000	61.6923

Total	0.0634	0.7157	0.6843	2.6900e-003	0.1221	0.0138	0.1359	0.0334	0.0127	0.0461	0.0000	231.4519	231.4519	4.5400e-003	0.0000	231.5474
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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	2.8800e-003	2.4200e-003	0.0236	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.2255	0.2255	3.0000e-005	0.0000	0.2260
Unmitigated	2.8800e-003	2.4200e-003	0.0236	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.2255	0.2255	3.0000e-005	0.0000	0.2260

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	6.00	0.00	0.00		
Total	6.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	14.70	6.60	6.60	100.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.413014	0.062673	0.156172	0.176687	0.051255	0.007895	0.018867	0.100331	0.001803	0.001598	0.006448	0.000946	0.002310

4.4 Fleet Mix

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Land Use	kWh/yr	MT/yr			
User Defined	0	0.0000	0.0000	0.0000	0.0000
Industrial					
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

[illegible]

Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000

Total		0.0000	0.0000	0.0000	0.0000
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9.0 Operational Offroad

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