

**RESOLUTION NO. 5159**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLEDAD CERTIFYING AN ADDENDUM TO THE FINAL MIRAVALLE PARTNERSHIP – HAMBEY PROPERTY (BRYANT CANYON CHANNEL IMPROVEMENTS)**

**WHEREAS**, UCP Soledad is applicant and owner of certain property consisting of approximately 41.75 +/- acres and located north of Metz Road and lying between Orchard Lane and Bryant Canyon Road on Assessor's Parcel Number 257-111-022, and;

**WHEREAS**, previously an application was filed on March 5, 2003 for a Vesting Tentative Map for this property (File No. 2002-01) and the City of Soledad Planning Commission conducted a public hearing on September 11, 2003 and a duly noticed public hearing was conducted before the City Council for October 15, 2003 approving the project; and

**WHEREAS**, the Planning Commission and the City Council have received several staff reports, reviewed the Vesting Tentative Map and revisions to the map and considered all testimony and reports, including the Certified EIR adopted by the City Council May 19, 2000 and the Mitigation Measures approved with the Final EIR, and;

**WHEREAS**, as condition to the development and annexation of the property, UCP Soledad is required to make certain improvements to the Bryant Canyon Channel, which is owned and maintained by the Monterey County Water Resources Agency for the purposes of protecting property, including the subject property, from flooding and;

**WHEREAS**, the Monterey County Water Resources Agency has requested that additional CEQA analysis be completed to consider the impacts of the proposed improvements on the channel prior to the construction of said improvements, and

**WHEREAS**, subsequently, a Final Environmental Impact Report Addendum dated November, 2015 was prepared to analyze the specific environmental impacts of Bryant Canyon Channel Improvements, which would result in no more intensive development than would have occurred under the development analyzed in the 2000 EIR; and

**WHEREAS**, in accordance with CEQA and its implementing regulations at 14 California Code of Regulations 15000 et seq. (CEQA Guidelines), an addendum to this EIR has been prepared because the proposed project is consistent with the type and intensity of land uses analyzed in the previously certified GP/Redevelopment Plan EIR, there are no new significant impacts, there is no substantial increase in the severity of previously identified significant impacts, and no new mitigation measures are required (the mitigation measures adopted as part of the previous EIR are applicable to the proposed project); and

**WHEREAS**, on February 11, 2016 the Planning Commission for the City of Soledad has previously considered the Addendum for the Bryant Canyon Channel Improvements and determined to recommend certification of the Addendum to the City Council; and

**WHEREAS**, on the basis of substantial evidence in light of the whole record, the City Council has determined that no further environmental review (in the form of an environmental impact report or negative declaration) in connection with the Bryant Canyon Channel Improvements is necessary; and

**WHEREAS**, a duly noticed public hearing on this Project was held on March 2, 2016; and

**WHEREAS**, the City Council has received and considered oral and written comments from the general public, property owners and interested parties; and

**NOW THEREFORE, BE IT RESOLVED**, by the City Council of the City of Soledad that the Addendum to the Final Environmental Impact Report for the Miravale Partnership –Hamby Property (Bryant Canyon Channel Improvements) is adequate for the purposes of CEQA based on the findings included in the document and is hereby approved, a copy of which is attached here to, as Exhibit A, and by this reference incorporated herein, is hereby approved and the City Manager is authorized and directed to execute the same on behalf of the City.

Be it further resolved that the City Manager is hereby directed to file a Notice of Determination with the Monterey County Clerk.


**PASSED AND ADOPTED** by the City Council of the City of Soledad on this 2nd day of March 2016, by the following vote:

**AYES**, and in favor thereof, Councilmembers: Patricia D. Stephens, Christopher K. Bourke, Mayor Pro Tem Alejandro Chavez and Mayor Fred J. Ledesma

NOES, Councilmembers: None

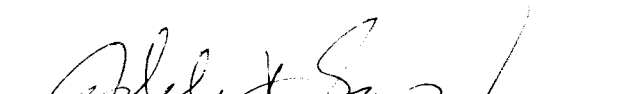
ABSTAIN, Councilmembers: None

ABSENT, Councilmembers: Richard J. Perez



FRED LEDESMA, MAYOR

ATTEST:

  
ADELA P. GONZALEZ, CITY CLERK

Addendum to the  
Environmental Impact Report

For the Miravale Partnership – Hambey Property  
(Bryant Canyon Channel Improvements)

State Clearinghouse No. 97171038

**City of Soledad**  
Department of Planning  
248 Main Street  
P.O. Box 156  
Soledad, California 93960

Contact: Brent Slama, Community and Economic Development Director  
Phone: (831) 223-5043

November 2015

**TABLE OF CONTENTS**

**INTRODUCTION..... 3**

**DESCRIPTION OF BRYANT CANYON CHANNEL IMPROVEMENTS ..... 7**

**ENVIRONMENTAL ANALYSIS OF MINOR TECHNICAL CHANGES..... 11**

**REFERENCES..... 16**

**PREPARERS..... 18**

**ATTACHMENT A - BCCI AREA MAP..... 19**

**ATTACHMENT B - BCCI PLANS..... 21**

**ATTACHMENT C - ENVIRONMENTAL ANALYSIS CHECKLIST ..... 22**

**AESTHETICS..... 23**

**AGRICULTURE AND FORESTRY RESOURCES ..... 25**

**AIR QUALITY ..... 27**

**BIOLOGICAL RESOURCES..... 31**

**CULTURAL RESOURCES..... 35**

**GEOLOGY AND SOILS ..... 36**

**GREENHOUSE GAS EMISSIONS..... 38**

**HAZARDS AND HAZARDOUS MATERIALS ..... 42**

**HYDROLOGY AND WATER QUALITY..... 44**

**LAND USE AND PLANNING ..... 46**

**MINERAL RESOURCES..... 47**

**NOISE ..... 48**

**POPULATION AND HOUSING..... 53**

**PUBLIC SERVICES ..... 54**

**RECREATION ..... 55**

**TRANSPORTATION/TRAFFIC ..... 56**

**UTILITIES AND SERVICE SYSTEMS..... 59**

## Introduction

This addendum has been prepared to address the environmental effects of the proposed Bryant Creek Channel Improvements (BCCI), an element of the previously analyzed Miravale Partnership - Hambey Property Project. Although maintained by the Monterey County Water Resources Agency (MCWRA), Bryant Creek Channel is located primarily within the City of Soledad (see Attachment A). The improvements to the channel are being undertaken as part of the residential and commercial development of adjacent land. Plans for the Bryant Canyon Channel Improvements are subject to review and approval by the City of Soledad (City) and are included as Attachment B.

The California Environmental Quality Act (CEQA) recognizes that between the date an environmental document is completed and the date the project is fully implemented, one or more of the following changes may occur: 1) the project may change; 2) the environmental setting in which the project is located may change; 3) laws, regulations, or policies may change in ways that impact the environment; and/or 4) previously unknown information can arise. Before proceeding with a project, CEQA requires the lead agency to evaluate these changes to determine whether or not they affect the conclusions in the environmental document. The purpose of this Addendum is to evaluate the changed conditions associated with the BCCI in relation to the previously prepared and certified Final Environmental Impact Report (EIR) for the Miravale Partnership - Hambey Property Project. The City is the lead agency for compliance with CEQA.

## Background

A Draft EIR for the Miravale Partnership - Hambey Property (Miravale-Hambey EIR) was prepared and circulated for public review on December 27, 1999 (City of Soledad, 1999). Public review ended on March 17, 2000, exceeding the 45-day public review period required by CEQA. Written comments were received from the following agencies and organizations: Monterey Bay Unified Air Pollution Control District (MBUAPCD); State of California Office of Planning and Research; Association of Monterey Bay Area Governments; Soledad Unified School District; Bestor Engineers; Monterey County Building and Inspection Department; City of Soledad Fire Chief; Monterey County Local Government Formation Commission; Soledad Cemetery District; and the State of California Department of Transportation (Caltrans). Verbal testimony was also received by the Soledad Planning Commission on January 13, 2000. Responses to these comments and minor revisions to the Draft EIR were included in the Final EIR for the project (City of Soledad, 2000). As noted by the City (2000), the entire EIR consists of two volumes: the Draft EIR and the Final EIR. These two documents constitute the Final EIR for the project and, for the purposes of this addendum, are collectively referred to as the Miravale - Hambey EIR in the following discussion.

The project analyzed in the Miravale - Hambey EIR was described in Section 1, Introduction, of the Draft EIR (City of Soledad 1999, p. 1-1), as follows:

The proposed project is a mixed-use development on approximately 238 acres. The project includes the development of 862 single-family residences, with an average lot size of 6,938 square feet on the western portion (Phase 1), and 6,780 square feet on the eastern portion of the site (Phase 2). Additionally, 68 multi-family units, a 13.8-acre neighborhood commercial retail site, two parks 3.35 and 8.5 acres in size, and a 9-acre school site are included in the project.

The project was also described in greater detail in Section 3, Project Description, of the Draft EIR. The Draft EIR (p. 3-5) states that the "EIR encompasses the environmental consequences of development of the total project area including both Phase 1 and Phase 2."

Table 3-2 of the Draft EIR provides a breakdown of 'Land Use Characteristics' for Phase 2, including a 3.13 acre building area for Bryant Canyon Channel. In addition, Section 4.9, Public Utilities, specifically states that:

The proposed project includes improvements to Bryant Canyon Channel to increase storm drainage capacity and improve the system. This portion of the project would require right-of-way dedication to the Monterey County Water Resources Agency for the expansion of the channel. These improvements would be constructed to the requirements of the Monterey County Water Resources Agency, Caltrans, Union Pacific Railroad, and the City of Soledad, as necessary. The City Engineer expects the existing Bryant Canyon Channel north of Metz Road would be widened and improved. The City Engineer also expects existing drop structure, channel slope, and box and pipe culvert improvements to be required to accommodate the development in Bryant Canyon south of Metz Road to the Salinas River. These improvements would not have the potential to cause significant environmental effects as they are located in areas that have already been developed or are in areas where no know resources of value exist. In addition, the development of these facilities would not create environmental impacts to adjacent properties due to the temporary nature of construction-related impacts, and the fact that long-term impacts to adjacent uses would not occur. The final design of improvements would be subject to review and approval by the City Engineer prior to the issuance of building permits for the project...

The Miravale - Hambey EIR analysis addressed the following topics: land use and planning; geology and soils; hydrology and water quality; biological resources; transportation and circulation; noise; air quality; hazardous materials; public utilities; public services; aesthetics; and cultural resources. The EIR found that significant unavoidable impacts would result from the Miravale Partnership - Hambey Property Project due to conversion of prime and unique farmland as well as operational noise and mobile source emissions related to increased traffic resulting from the development. The EIR also identified significant impacts to hydrology and water quality, biological resources, transportation and circulation, noise, air quality, hazardous materials, public utilities, aesthetics and cultural resources that could be reduced to less-than-significant levels with mitigation.

## CEQA Guidelines Regarding Changes to a Project

CEQA Guidelines Section 15162 specifies the type of documentation required when changes are proposed to a project. CEQA Guidelines Section 15162 states:

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
  - (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
  - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
  - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
    - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.
- (b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall

determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

- (c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.
- (d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

Section 15164 of the CEQA Guidelines includes situations when a subsequent or supplemental EIR is not required. CEQA Guidelines Section 15164 states:

- (a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.
- (b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
- (c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
- (d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
- (e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

Refinements to the project as described in this addendum and any altered conditions since certification of the EIR:

- would not result in any new significant environmental effects,
- would not substantially increase the severity of previously identified effects,

- would not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, and
- would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

Therefore, this addendum to the Miravale - Hambey EIR is considered the appropriate document to evaluate the environmental consequences of the proposed BCCI project refinements.

### **Description of Bryant Canyon Channel Improvements**

The Bryant Canyon Channel, located in Soledad, California, was constructed in 2002 from Metz Road to a 90-degree bend approximately 4,400 linear feet upstream extending what is known as the Soledad Ditch. This construction was in response to significant flooding which occurred along Bryant Canyon Road in March 1995 (Schaaf & Wheeler, 2014). The trapezoidal channel is earthen, with 2:1 slopes and a bottom width of 12 feet. The channel is typically dry, only carrying flows during and following rain events. Prior to channel construction, flows from small seasonal rain events were carried by a roadside ditch along Bryant Canyon Road, with larger flows spread across the alluvial plain. According to Schaaf & Wheeler (2014), the channel slope, approximately 1.2%, necessitated the use of drop structures to reduce channel flow velocities to an acceptable level. Three gabion drop structures were constructed in 2002 as well as a temporary 66-inch temporary culvert, placed where the channel crosses Bryant Canyon Road.

The current plans (Attachment B) propose construction of an additional 9 drop structures and construction of a 10-foot wide by 6-foot high box culvert to replace the temporary culvert noted above. Specific work to be completed as part of the proposed Bryant Canyon Channel Improvement Project is described below. Construction units are stated in cubic yards (CU), bank cubic yards (BCY), loose cubic yards (LCY), embankment cubic yards (ECY), square yards (SY), and linear feet (LF), as appropriate to the activity or materials.

1. Construction of 9 gabion drop structures

<b>Item</b>	<b>Unit</b>	<b>Quantity</b>
Gabions, galvanized steel, 12" deep	SY	293
Gabions, galvanized steel, 18" deep	SY	11
Gabions, galvanized steel, 36" deep	SY	71
Geotextile, woven, 600-lb tensile strength	SY	400
Excavation, Crawler Backhoe, 2CY	BCY	300
Backfill, structural, 150 HP Dozer	LCY	90
Compaction, 18" vibration. plate, 6" lift, 2 passes	ECY	90
Slab on grade, no reinforcement, 4"	SF	90
Rip Rap Approach Apron, dumped, 200lb	TON	78

Item	Unit	Quantity
Cutoff Wall	CY	8

2. Channel excavation of approximately 1,300 CY
3. Replacement of the existing 66-inch temporary culvert where the channel crosses Bryant Canyon Road

Item	Unit	Quantity
Box culvert, precast, 8 feet (ft) joints, 10 ft x 6 ft	LF	90
Rip-rap (No. 1 Backing, Method B <sup>1</sup> )	CY	90
Geotextile fabric, woven, 600-pound (lb) tensile strength	SY	100
Wingwalls	CY	51
Slurry backfill	CY	210
<b>Paving Replacement</b>		
Prep and roll subbase	SY	73
Base course, 3 in deep	SY	73
Binder course, 2 in deep	SY	73
Asphalt wearing course, 2 in deep	SY	73

<sup>1</sup> Caltrans Standard D84

4. Installing rock slope protection with geotextile fabric on the west side of the channel

Item	Unit	Quantity
Rip-rap (No. 1 Backing, Method B)	CY	1,200
Geotextile fabric, woven, 600-lb tensile strength	SY	2,000
Rip-rap (No. 1 Backing, Method B)	CY	840
Cutoff wall at confluence	CY	52

5. Reinforcement of the 90-degree bend through modification of the outboard rock-slope protected bank by raising it higher and grouting the rock

Item	Unit	Quantity
Rip-rap (No. 1 Backing, Method B)	CY	1,250
Geotextile fabric, woven, 600-lb tensile strength	SY	300
Excavation, Crawler Backhoe, 2CY	BCY	200
Cutoff wall	CY	13

6. Construction of an access road for use during construction and maintenance

Item	Unit	Quantity
Excavation, Crawler Backhoe, 2CY	BCY	40
Backfill, structural, 150 horsepower (HP) dozer	LCY	40
Stabilization fabric	SY	93
Prep and roll subbase	SY	80
Base course, 3 inches (in) deep	SY	80
Binder course, 2 in deep	SY	80
Asphalt wearing course, 2 in deep	SY	80
Bollards	each	3

In addition to an excavator and/or backhoe, other equipment that may be used during construction of improvements includes a dump truck, compactor and loader. Construction activities will occur when there are low or no flow conditions in the channel.

Sheet 11 of the project plans (Attachment B) include general and improvement plan notes. These specify that work hours will be restricted to 7:00 am to 7:00 pm Monday through Friday and 8:00 am to 5:00 pm on Saturdays. No construction of improvements will be undertaken on observed national holidays. The plans also identify the need for a traffic control plan during construction, which will be developed by the contractor and submitted to Monterey County Public Works for review. Both Sheet 11 and Sheet 16 of the plans specify erosion control requirements and include a proposed seed mixture for reseeding and stabilizing slopes after construction.

According to project plans, permit applications and supporting technical information, channel excavation would result in 1,300 CY of material dredged and 2,404 CY of material discharged during construction. Another 300 CY per structure or 2700 CY total of material would be excavated to install gabion drop structures. The excavated material will be placed on-site in an area situated between the top of the channel and Bryant Canyon Road.

Project impacts include modification to 1.9 acres (4,450 linear feet) of intermittent drainage ditch; however, no wetlands will be affected by implementation of the BCCI. Best Management Practices (BMPs) have been incorporated into the BCCI to address the low potential for impacts to special status species, as discussed below. The BCCI would be constructed upon receipt of all approvals but prior to Fall 2018.

### Required Permits

The primary regulations applicable to the project are summarized below:

#### Regulations and Regulatory Agencies

Regulation	Regulating Agency	Agency's Authority
Clean Water Act Section 404	USACE	Regulates placement of dredged or fill material into waters of the U.S.
Clean Water Act	CCRWQCB	Issues water quality certification; certification

Regulation	Regulating Agency	Agency's Authority
Section 401		required for Section 404 permits
Clean Water Act, Porter-Cologne	<u>CCRWOQB</u>	Regulates discharge of waste into waters of the U.S. and waters of the State.
NPDES Permit	CCRWOQB	Permit requirements for storm water discharges associated with construction and land disturbance activities
Federal ESA	USFWS	Other federal agencies (i.e., USACE) must consult with USFWS if their activities may affect federally-listed species
	NMFS	Other federal agencies (i.e., USACE) must consult with NMFS if their activities may affect federally-listed species
California Fish and Game Code, Sections 1600-1616	CDFG	Regulates activities that will alter a river, stream or lake
California Endangered Species Act (CESA), Fish and Game Code Section 2050 et seq.		Prohibits take of a candidate species or species listed as threatened or endangered under CESA unless authorized by CDFG pursuant to Fish and Game Code Section 2080.1 or 2081(b) and (c)
Other permits/approvals to construct	MCWRA, Monterey Bay Unified Air Pollution Control District County of Monterey, Caltrans	Encroachment, grading, traffic control plan approvals

MCWRA has initiated the permitting process for the Bryant Canyon Channel Improvement Project, including submittal of the following applications: US Army Corps of Engineers, Clean Water Act Section 404, Nationwide Permit 41 Pre-Construction Notification; Central Coast Regional Quality Control Board (CCRWOQB), Clean Water Act Section 401 Water Quality Certification; California Department of Fish and Wildlife (CDFW), Notification of Lake or Streambed Alteration; and, Monterey County Resource Management Agency (RMA), Grading and Encroachment Permits.

Comments have been received from the CCRWOQB, CDFW, and the RMA. The CCRWOQB and the CDFW have requested additional information, including supporting CEQA documentation. Additional comments/questions were raised by CCRWOQB regarding HEC-RAS modeling, biological impacts and sediment/erosion control mechanisms. MCWRA is in the process of responding to these comments.

### CEQA Responsible Agencies

The City of Soledad is the lead agency under CEQA. The following responsible agencies may rely upon the EIR and this addendum for use in their approval processes: MCWRA; CDFW; CCRWOQB; Monterey Bay Unified Air Pollution Control District (MBUAPCD); and, Monterey County Resource Management Agency.

## Environmental Analysis of Minor Technical Changes

A comparative analysis of the BCCI and the Miravale Partnership – Hambey Property project analysis included in the 1999/2000 EIR has been undertaken using a tailored checklist approach. An environmental checklist is included as Attachment C of this addendum. Many of the topics analyzed and mitigation measures required by the Miravale – Hambey EIR are not relevant to the BCCI as they address issues related to the residential and commercial development of the property (see Attachment C). However, additional analysis has been undertaken for the following resource areas due to the potential for environmental effects resulting from BCCI implementation.

### Air Quality

The Miravale – Hambey air quality analysis found that the proposed project would have the potential to generate long-term regional mobile source emissions that would exceed thresholds established by the Monterey Unified Bay Area Pollution Control District (MBUAPCD) due to the increase in traffic generated by development of the project. This was considered a significant and unavoidable impact of the project; no feasible mitigation was identified. The analysis also found that short-term impacts related to construction-related emissions, including PM10 emissions that would exceed MBUAPCD's construction emission thresholds at that time (1999). Mitigation measures were proposed to reduce emissions to less-than-significant levels.

Additional analysis has been undertaken to insure that the air quality impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes an updated discussion of the regulatory setting, significant thresholds, methodology and impact analysis (Rincon 2015a).

The BCCI would not generate any vehicle trips and would not result in any stationary emissions sources. Therefore, operation of the project would result in no impact related to long-term regional criteria pollutant emissions. Criteria pollutant emissions from short-term construction activity associated with the BCCI were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. Construction emissions would not exceed the MBUAPCD's 82 lbs per day guideline for determining the significance of temporary emissions of PM10. In addition the project would not involve the use equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBUAPCD CEQA Guidelines. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and impacts associated with temporary construction emissions would be less than significant.

The project would also be consistent with the existing land use designation for the site, and would not involve the development of new residential units or other land uses that could result in an increase in population, or otherwise cause an exceedance of regional growth forecasts. Therefore, the project would not conflict with or obstruct implementation of the MBUAPCD's 2012 Triennial Plan.

## Greenhouse Gases (GHG)

The Miravale - Hambey EIR was prepared in 1999/2000 and did not address potential impacts of GHG emissions because the EIR was prepared and the project was approved before the 2010 amendments in the State CEQA Guidelines pertaining to GHG emissions. Additional analysis has been undertaken to insure that the GHG impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes a discussion of the regulatory setting, significance thresholds, methodology and impact analysis (Rincon 2015a).

The project would not involve any uses that would generate long-term operational GHG emissions. Construction of the proposed project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Emissions associated with the construction period were estimated using CalEEMod, based on default projections for the amount of construction equipment operating hours that would be required to complete the project. Construction activity is assumed to occur over a period of approximately three months and would include grading, clearing, grubbing, excavation, and other earthmoving activities. Construction activity associated with the project would generate an estimated 80 metric tons of CO<sub>2</sub>e. Amortized over a 25-year period (the assumed lifetime of the project), construction of the proposed project would generate approximately 3.2 metric tons of CO<sub>2</sub>e per year. These emissions would comprise less than one percent of the allowable emissions and would not exceed the applicable threshold of 1,150 metric tons of CO<sub>2</sub>e per year. Therefore, impacts resulting from GHG emissions would be less than significant.

The project would be consistent with the applicable land use and zoning designations, and because the project would not conflict with any State regulations intended to reduce GHG emissions statewide, the project would also be consistent with applicable plans and programs designed to reduce GHG emissions.

## Noise

Additional analysis has been undertaken to insure that the noise impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes an updated discussion of the regulatory setting, significant thresholds, methodology and impact analysis (Rincon 2015a). As a result of this analysis, it has been determined that peak construction noise levels from the highest-volume individual pieces of equipment could be up to 86 dBA at the nearest residential units (approximately 65 feet from the source) and 62 dBA at San Vicente Elementary School (approximately 800 feet from the source). Construction noise levels would exceed the exterior thresholds for the City of Soledad at the nearest residential units, but would be within the City's standards at San Vicente Elementary School.

However, the project would be required to comply with the following mitigation measures included in the Miravale Partnership – Hambey Property EIR. These measures would reduce sounds levels from construction at the nearest sensitive receptors (residences located

approximately 65 west of the project site) to levels below the City's interior thresholds (45 dBA) and reduce potentially significant impacts to levels of less than significant. Due to changes to the project boundary from the previous project to the currently proposed project, some of the measures below may be adjusted to account for new distances to sensitive receptors. Additionally, the construction activities necessary for the current project may not require implementation of measures listed below which pertain to stationary equipment.

- Noise-generating construction activities associated with improvements to the southern portion of the project site and Bryant Canyon Road shall be suspended during periods in which burial activities are occurring at Soledad Cemetery. It will be the responsibility of the cemetery operator to notify the construction contractor when to cease work.
- Grading and other noise generating construction activities shall not occur within 300 feet of the adjacent elementary school during school hours (Monday through Friday, 8:00 a.m. to 3:00 p.m.). Alternatively, if construction must occur during school hours; temporary acoustic barriers (e.g. lead curtains, wooden sound barriers) shall be constructed along the southwestern boundary of the project site, along Orchard Lane, to reduce construction-generated noise levels at the adjacent elementary school. The barriers shall be designed to obstruct the line-of-sight between the nearest occupied school buildings and onsite construction equipment.
- Equipment engine doors on motorized equipment shall be closed during equipment operation.
- Construction operations and techniques shall use the quietest procedures feasible.
- The quietest of alternative items of equipment (e.g. electric instead of diesel-powered equipment, hydraulic tools instead of pneumatic impact tools) shall be selected for use during demolition and construction activities.
- When not in use, motorized construction equipment shall not be left idling.
- Stationary noise generating construction equipment (e.g. generators and compressors) shall be enclosed and centrally located on the project site at the greatest distance possible from the elementary school. Stationary equipment shall be located at least 500 feet from the western property boundary.

Compliance with the required mitigation measures from the Miravale - Hambey EIR (listed above) would reduce noise impacts associated with project construction to less than significant levels.

## Biological Resources

The EIR indicated that development of the site would remove a total of 238 acres of habitat for general biological resources, including 228 acres of agricultural land and approximately 10 acres of ruderal land. The project impacts also include the removal of a storm water detention basin. The only biological resource impact identified in the Draft EIR was to tricolored blackbird nesting habitat associated with the detention basin. Mitigation required that construction activities be limited to the period outside the tricolored blackbird nesting season (March 1 to August 31).

A biological survey report was prepared for the BCCI (MCWRA, 2014a) and identified potential, marginal habitat for California Tiger Salamander (CTS); bank swallow; western burrowing owl; San Joaquin kit fox; Salinas pocket mouse; American badger; and, special status plants including Indian Valley bush-mallow, Jolon clarkia, Monterey spineflower, and robust spineflower in the vicinity of the BCCI. Although there is minimal on-site habitat value due to prior modification of the channel, pre-construction surveys for nesting birds, burrows and plants will be conducted as part of the BCCI. Specific BMPs will be incorporated into the final project plans and/or bid package and include:

1. Conduct an evaluation prior to construction, of available CTS breeding ponds and migration potential from the ponds into the project site. A survey for the presence of burrows, cracks, crevices, or other potential refugia for CTS will be conducted within the footprint.
2. A nesting bird survey will be conducted within 7 days of construction for all migratory birds (including Bank Swallows) within the project footprint. This includes the area of excavation as well as all access roads and staging areas.
3. A burrow survey will be conducted within 7 days of construction for burrows of adequate size for San Joaquin Kit Fox, American Badger, and Burrowing Owls. Burrows should be checked for indicators of the above listed species and monitored for presence or absence.
4. A plant survey will be conducted within 2 months prior to construction to determine the presence or absence of the listed plants known to occur in the region as well as others that could potentially be within the project footprint.

These measures will be implemented by the BCCI sponsor (MCWRA) and/or contractor as BMPs prior to construction of improvements. In the event that a species is encountered during pre-construction surveys or during construction, the sponsor and/or contractor will coordinate with appropriate agencies to develop any additional measures to minimize the potential for direct or indirect loss or disturbance to special status species.

## Conclusions

Based on the analysis of environmental impacts presented above, implementation of the BCCI through the proposed project refinements described in this document would result in none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent EIR. In summary, there are no altered circumstances or new

information of substantial importance since certification of the Miravale - Hambey EIR. More specifically, the proposed project refinements evaluated in this addendum:

- would not result in any new significant environmental effects,
- would not substantially increase the severity of previously identified effects,
- would not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, and
- would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that this addendum to the Miravale - Hambey EIR is appropriate to evaluate the environmental consequences of the proposed project refinements.

## References

- California Air Pollution Control Officers Association (CAPCOA). August 2010. *Quantifying Greenhouse Gas Mitigation Measures*. Available at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>
- California Air Pollution Control Officers Association (CAPCOA). January 2008. *CEQA & Climate Change*. Available at: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>
- California Air Pollution Control Officers Association (CAPCOA). July 2013. *CalEEMod User's Guide*. Available at: <http://www.aqmd.gov/caleemod/user's-guide>
- California Air Resources Board. June 26, 2014. AB 32 Scoping Plan. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
- California Air Resources Board. October 1, 2015. *Ambient Air Quality Standards*. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>
- California Air Resources Board. June 2015. *Greenhouse Gas Inventory Data - 2000 to 2013*. Available: <http://www.arb.ca.gov/cc/inventory/data/data.htm>
- California Climate Action Registry General Reporting Protocol. January 2009. *Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1*.
- California Environmental Protection Agency (CalEPA). April 2010. *Climate Action Team Biennial Report, Final Report*.
- California Environmental Protection Agency (CalEPA), March 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. Available at: [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/2006-04-03\\_FINAL\\_CAT\\_REPORT\\_EXECSUMMARY.PDF](http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF)
- California Natural Resources Agency. 2014 CEQA Statutes and Guidelines. Available at: [http://resources.ca.gov/ceqa/docs/2014\\_CEQA\\_Statutes\\_and\\_Guidelines.pdf](http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf)
- Federal Transit Administration, Office of Planning and Environment. May 2006. *Transit Noise and Vibration Impact Assessment*. Available at: [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf)
- Intergovernmental Panel on Climate Change [IPCC]. *Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. [Penman,]; Gytarsky, M.; Hiraishi, T.; Irving, W.; Krug, T.]. Paris: OECD, 2006.
- Intergovernmental Panel on Climate Change [IPCC], 2007: *Summary for Policymakers*. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to*

*the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Intergovernmental Panel on Climate Change [IPCC], 2013: *Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Monterey Bay Unified Air Pollution Control District (MBUAPCD). 2008. *CEQA Air Quality Guidelines*. Available at: [http://mbuapcd.org/pdf/CEQA\\_full%20\(1\).pdf](http://mbuapcd.org/pdf/CEQA_full%20(1).pdf)

Monterey Bay Unified Air Pollution Control District (MBUAPCD). August 2008. *2008 Air Quality Management Plan*. Available at: <http://www.mbuapcd.org/mbuapcd/pdf/Planning/2008AirQualityManagementPlan1.pdf> Monterey County Water Resources Agency (MCWRA). 2014a. Biological Survey Field Report, May 15, 2014.

Monterey County Water Resources Agency (MCWRA). 2014a. Biological Survey Field Report, May 15, 2014.

MCWRA. 2014b. US Army Corps of Engineers, Clean Water Act Section 404, Nationwide Permit 41 Pre-Construction Notification.

MCWRA. 2014c. Central Coast Regional Quality Control Board (CCRWQCB) Application, Clean Water Act Section 401 Water Quality Certification.

MCWRA. 2014d. California Department of Fish and Wildlife (CDFW), Notification of Lake or Streambed Alteration

Rincon Consultants, Inc. (Rincon) 2015a. Air Quality and Greenhouse Gas Emissions Technical Study, prepared for the City of Soledad, November 17, 2015.

Rincon. 2015b. Noise Technical Study, prepared for the City of Soledad, November 17, 2015.

Schaaf & Wheeler. 2014. Ordinary High Water Mark (OHWM) for the Bryant Canyon Channel – Metz Road to a Point Upstream Approximately 4,400 linear feet, Technical Memorandum prepared for Monterey County Water Resources Agency, June 3, 2014.

Schaaf & Wheeler. 2003. Bryant Canyon Hydrologic Analysis. Technical Memorandum prepared for Monterey County Water Resources Agency, July 29, 2003.

Soledad, City of. 1999. Draft Environmental Impact Report for the Miravale Partnership – Hambey Property, December 1999.

Soledad, City of. 2000. Final Environmental Impact Report for the Miravale Partnership – Hambey Property, May 2000.

Soledad, City of. September 21, 2005. General Plan. Available at:  
<http://www.ci.soledad.ca.us/DocumentCenter/Home/View/223>

Soledad, City of. March 31, 2014. Municipal Code. Available at:  
[https://www.municode.com/library/ca/soledad/codes/code\\_of\\_ordinances](https://www.municode.com/library/ca/soledad/codes/code_of_ordinances)

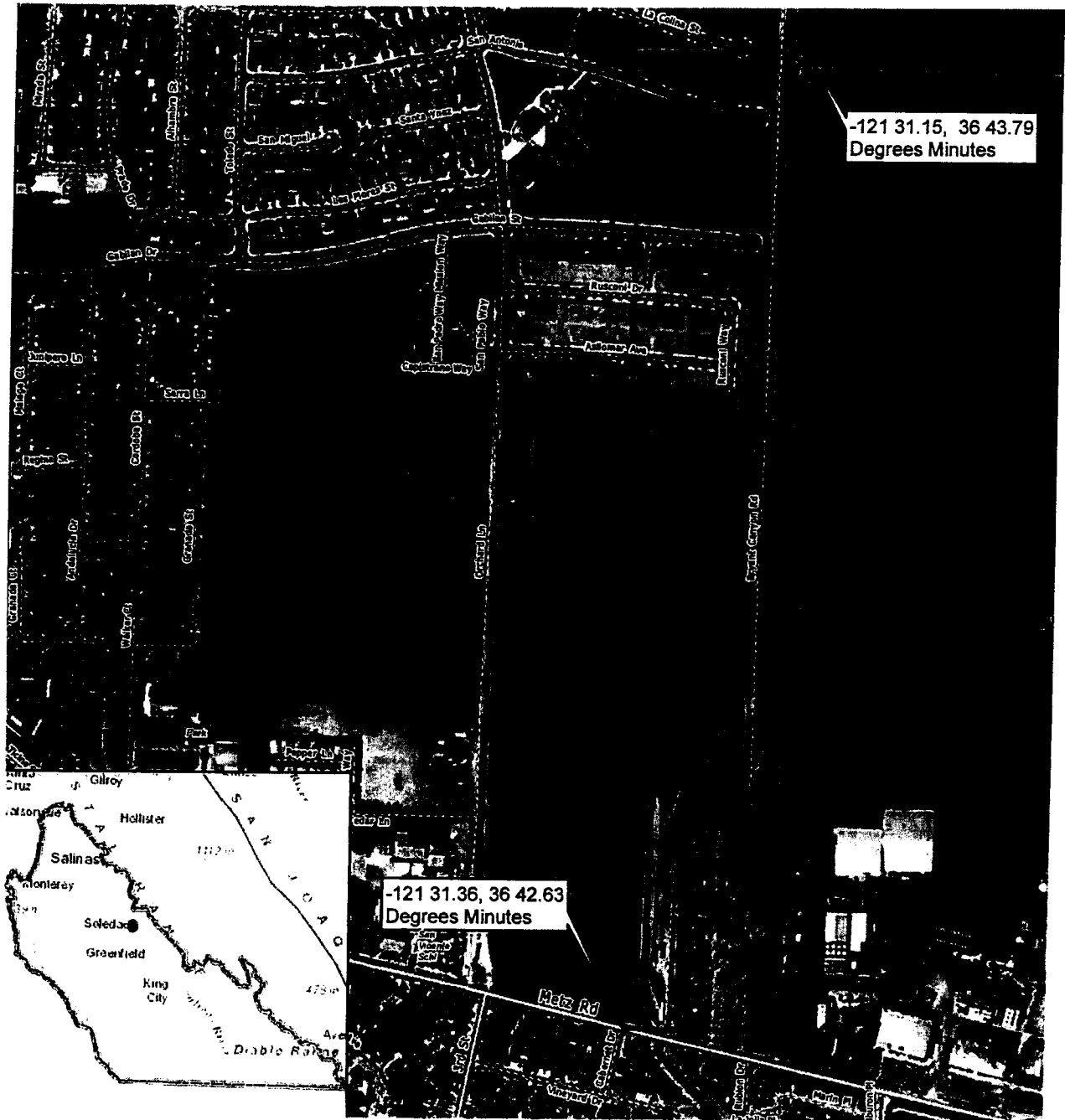
## **Preparers**

This addendum was prepared by the City of Soledad with support from the following consultants:

CEQA Addendum - Laurie Warner Herson, Phenix Environmental Planning

Air Quality and Greenhouse Gas Emissions –Rincon Consultants, Inc.

Noise Technical Study –Rincon Consultants, Inc.



Bryant Canyon Improvement  
Project Area

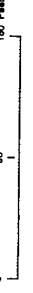
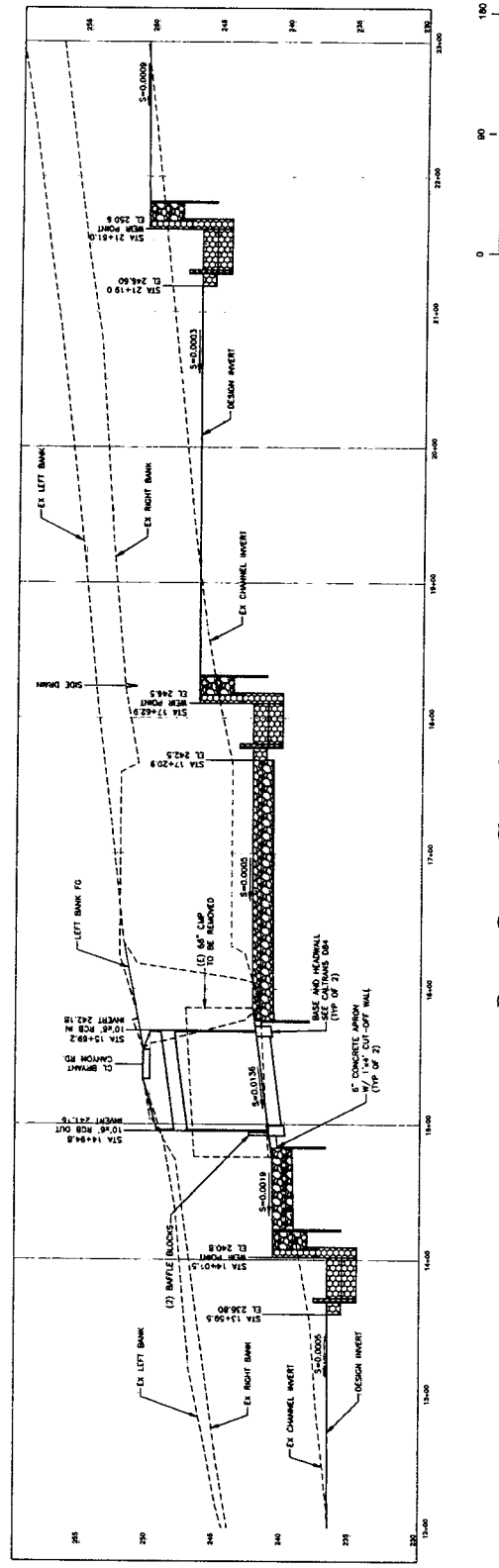
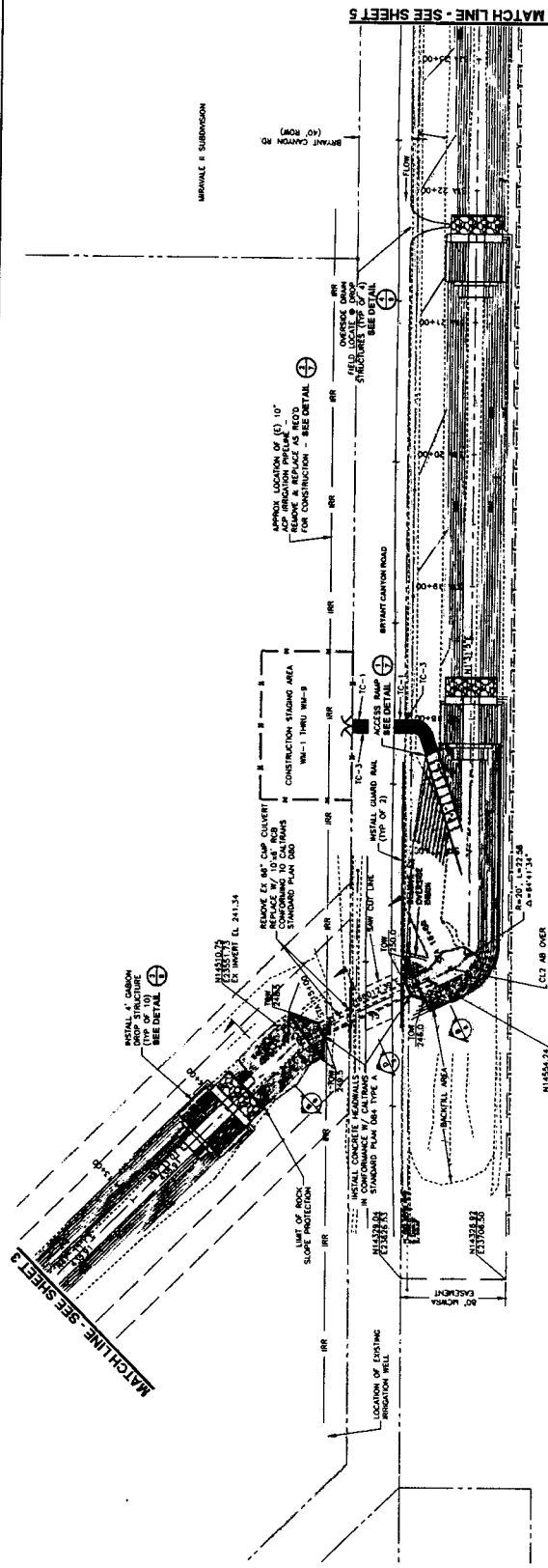
Source: Monterey County Water Resources Agency, June 2014.

Attachment A

City of Soledad

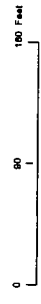
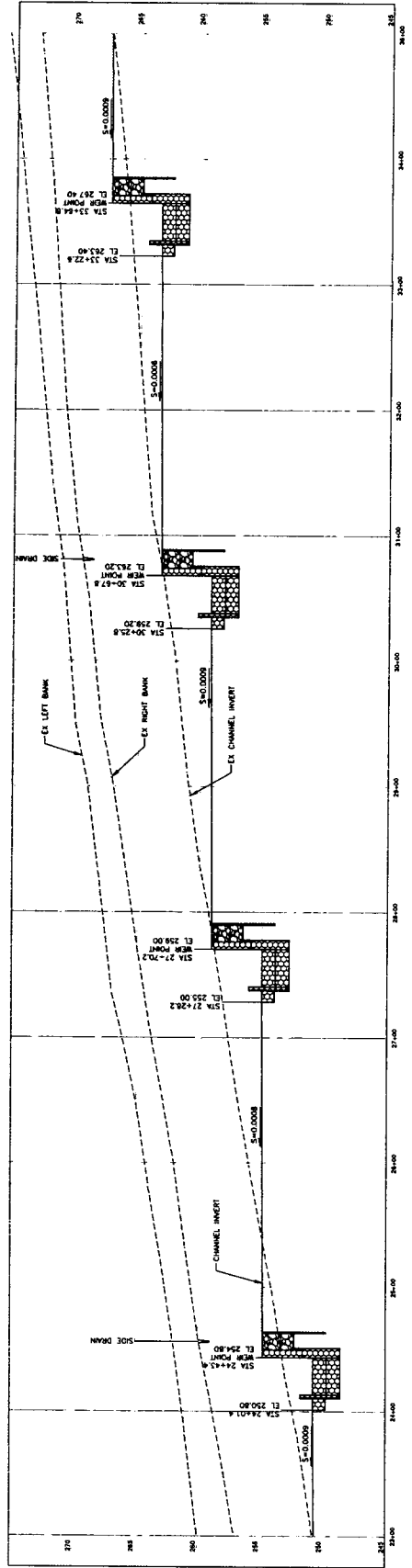
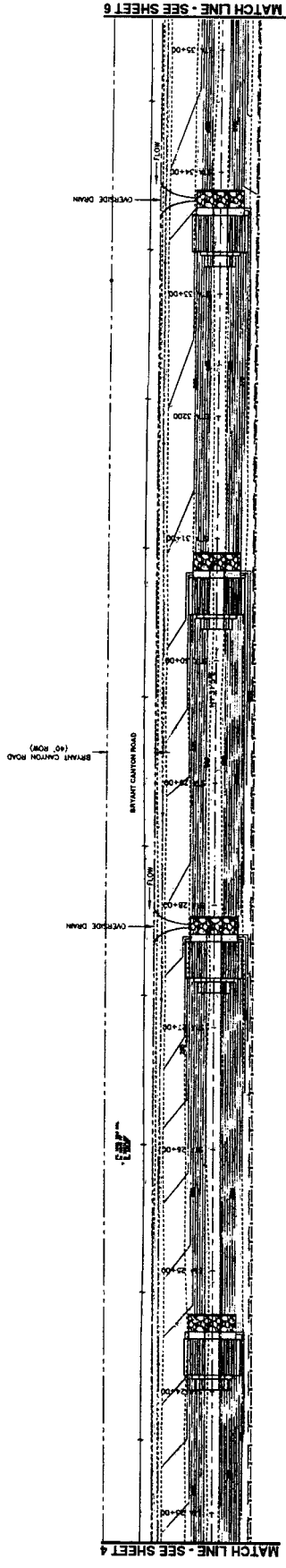


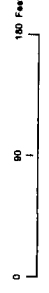
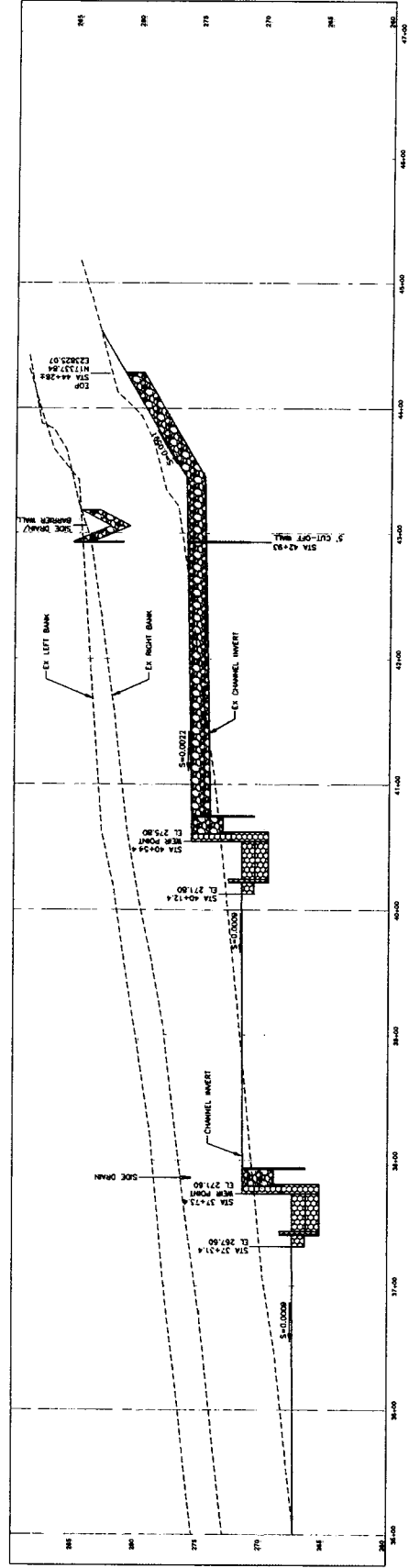
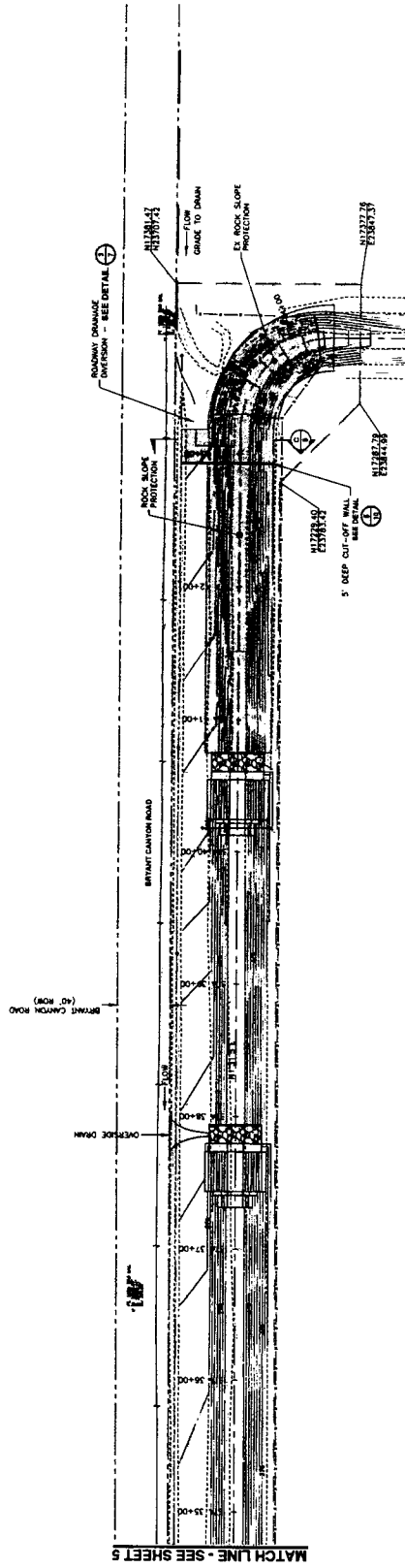
Bryant Canyon Channel Improvement Project  
 Addendum to the Environmental Impact Report for the Miravale Partnership - Hambrey Property



Bryant Canyon Channel Improvement Plan

Source: Schaff & Wheeler, June 2014.





Bryant Canyon Channel Improvement Plan

## **Attachment C - Environmental Analysis Checklist**

The following checklist considers the full range of environmental issues subject to analysis under CEQA (in rows), and then poses a series of questions (in columns) aimed at identifying the degree to which the issue was considered in the Miravale Partnership - Hambey Property EIR, and whether changes to the project constitute new information of substantial importance relative to each environmental issue. The questions posed in each column are described below.

### **Where was impact analyzed?**

This column provides a cross-reference to the portions of the Miravale - Hambey EIR where information and analyses may be found relative to the environmental issue listed under each topic.

### **Do proposed changes require major revisions to the Miravale - Hambey EIR?**

In accordance with Section 15162(a)(1) of the State CEQA Guidelines, this column indicates whether proposed changes to the project would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the Miravale - Hambey EIR.

### **Do new circumstances require major revisions to the Miravale - Hambey EIR?**

In accordance with Section 15162(a)(2) of the State CEQA Guidelines, this column indicates whether changes to the circumstances under which the project is undertaken have occurred that would involve new significant environmental impacts or a substantial increase in the severity of previously identified significant impacts that, in turn, would require major revisions of the Miravale - Hambey EIR.

### **Is there any new information resulting in new or substantially more severe significant impacts?**

In accordance with Sections 15162(a)(3)(A) and 15162(a)(3)(B) of the State CEQA Guidelines, this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Miravale - Hambey EIR was certified as complete, shows additional or substantially more severe significant impacts not discussed in the Miravale - Hambey EIR.

### **Do Miravale - Hambey EIR mitigation measures address and/or resolve impacts?**

In accordance with Sections 15162(a)(3)(C) and 15162(a)(3)(D) of the State CEQA Guidelines, this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Miravale - Hambey EIR was certified as complete, shows that mitigation measures or alternatives in the Miravale - Hambey EIR would now be feasible, or identifies new mitigation measures or alternatives not in the Miravale - Hambey EIR that would reduce significant impacts.

### **Discussion and Conclusion Sections**

The discussion provides information about the particular environmental issue, how the proposed project refinements relate to the issue, and the status of any mitigation that may be required or that has already been implemented. A conclusion that the changes to the project involve no new significant impacts and/or no substantially more severe impacts supports the use of this addendum as the appropriate level of environmental documentation for the proposed project refinements.

**AESTHETICS**

Would the project:	Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
a) Have a substantial adverse effect on a scenic vista?	Pp. 4.11-3 through 4.11-5	No	No	No	Yes
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Pp. 4.11-3 through 4.11-5	No	No	No	Yes
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Pp. 4.11-3 through 4.11-5	No	No	No	Yes
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Pp. 4.11-3 through 4.11-5	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to Aesthetics in Section 4.11, Aesthetics, pages 4.11-1 through 4.11-5. The Miravale - Hambey EIR found that the project would change the visual character of the site from rural/agricultural to developed, semi-urban. Although the project would alter the visual character of the site, the project would include design features that are consistent with development standards of the City’s Zoning Code and policies of the City’s General Plan. The project would include the incorporation of appropriate screening, signage design and placement, and provision of landscaping. The visual change was considered less than significant. However, the Miravale – Hambey EIR also found that the development of the project would result in changes to views of the site from scenic Highway 146 (Metz Road) primarily due to the development of commercial uses adjacent to Highway 146. This was considered a potentially significant impact. Measures were identified to mitigate the impacts resulting from commercial development, including the use of appropriate setbacks, landscape buffers, visual amenities/architectural qualities and the requirement for design review.

**Conclusion**

The Aesthetics section (4.11) of the Miravale – Hambey EIR (page 4.11-1) provides the following description of the visual setting of the Bryant Canyon Channel area:

The Monterey County Water Resources Agency maintains Bryant Canyon flood channel, on the east side of the project site, which conveys drainage for the flow of water from higher elevation lands to the Salinas River. The channel ranges 4 to 6 feet wide along the western side of Bryant Canyon Road until it reaches Metz Road at the southern property boundary. Numerous weeds are growing in and along the

raised banks of the channel, providing a weedy divide between Bryant Canyon Road and the cultivated portion of the site.

Implementation of the BCCI would result in short-term visual impacts similar to those anticipated with development of the project as analyzed in the Miravale - Hambey EIR. The continued maintenance of the channel would not constitute a change in use and would therefore not result in long term visual changes. Therefore, the project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts on visual resources, nor would any change in circumstances occur that would result in significant or substantially more severe visual resources impacts. No additional mitigation would be required. Further, no previously infeasible or new mitigation measures to address aesthetic impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**AGRICULTURE AND FORESTRY  
 RESOURCES**

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Pp. 4.1-8 through 4.1-12 and 4.1-21	No	No	No	N/A
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Pp. 4.1-8 through 4.1-12 and 4.1-21	No	No	No	N/A
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	N/A	No	No	No	N/A
d) Result in the loss of forest land or conversion of forest land to non-forest use?	N/A	No	No	No	N/A
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Pp. 4.1-8 through 4.1-12 and 4.1-21	No	No	No	N/A

**Discussion**

The Miravale – Hambey EIR considered issues related to agricultural lands in Section 4.1, Land Use and Planning, pages 4.1-1 through 4.1-21. The Miravale – Hambey EIR found that the implementation of the project would result in the conversion of 223 acres (94 percent of the project site) of Prime and Unique farmlands to residential and public/quasi-public land uses and concluded that the impact would be significant and unavoidable. No feasible mitigation was identified. The Miravale – Hambey EIR did not address forest land.

**Conclusion**

Implementation of the BCCI would not constitute a change in land use. The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts on agricultural resources, nor would any change in circumstances occur that would result in significant or substantially more severe agricultural resource impacts. No forest land would be

impacted. No additional mitigation would be required. Further, no previously infeasible or new mitigation measures to address agricultural and forest land impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale - Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**AIR QUALITY**

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	Pp. 4.7-12 and 4.7-13	No	No	No	Yes
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Pp. 4.7-9 through 4.7-13	No	No	No	Yes
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Pp.5-5 and 5-6	No	No	No	Yes
d) Expose sensitive receptors to substantial pollutant concentrations?	Pp. 4.7-9 through 4.7-13	No	No	No	Yes
e) Create objectionable odors affecting a substantial number of people?	Pp. 4.7-9 through 4.7-13	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to air quality in Section 4.7, Air Quality, pages 4.7-1 through 4.7-13. The Miravale – Hambey air quality analysis found that the proposed project would have the potential to generate long-term regional mobile source emissions that would exceed thresholds established by the Monterey Unified Bay Area Pollution Control District (MBUAPCD) due to the increase in traffic generated by development of the project. This was considered a significant and unavoidable impact of the project; no feasible mitigation was identified. The analysis also found that short-term impacts related to construction-related emissions, including PM10 emissions that would exceed MBUAPCD’s construction emission thresholds at that time (1999). Mitigation measures were proposed to reduce emissions to less-than-significant levels.

Additional analysis has been undertaken to insure that the air quality impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes an updated discussion of the regulatory setting, significant thresholds, methodology and

impact analysis (Rincon 2015a). The technical memorandum also includes a technical appendix. The impact analysis is provided below.

### Impact Analysis

*Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The California Clean Air Act requires that air districts create a Clean Air Plan (CAP) that describes how the jurisdiction will meet air quality standards. These plans must be updated every three years. The MBUAPCD's 2012 Triennial Plan Revision (revision to the 2008 AQMP) was adopted on April 17, 2013 and serves as the most recent CAP for the area. In order to be determined to be consistent with the plan, a project's direct and indirect emissions must be accounted for in the growth assumptions of the plan, and the project must be consistent with the policies in the 2012 Triennial Plan Revision (MBUAPCD, 2013). The project would be consistent with the existing land use designation for the site, and would not involve the development of new residential units or other land uses that could result in an increase in population, or otherwise cause an exceedance of regional growth forecasts. Therefore, the project would not conflict with or obstruct implementation of the 2012 Triennial Plan, and impacts would be less than significant.

*Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

*Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Criteria pollutant emissions from short-term construction activity associated with the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. The project would not generate any vehicle trips and would not result in any stationary emissions sources. Therefore, operation of the project would result in no impact related to long-term regional criteria pollutant emissions.

Construction of the proposed project would generate temporary air pollutant emissions associated with exhaust emissions from construction vehicles and construction equipment. Construction would generally consist of excavation, culvert replacement, and gabion structure construction. The project would require grading, clearing, grubbing, excavation, and other earthmoving activities. PM<sub>10</sub> emitted during construction activities varies based on the level of activity, the specific operations taking place, the equipment being operated, local soils, and weather conditions. Construction activity would be required to comply with the following standard MBUAPCD emission control measures to reduce fugitive dust and construction related emissions of PM<sub>10</sub>:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).

- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites.
- Sweep streets if visible soil material is carried out from the construction site.

Based on the type of work proposed and total proposed project area, a three month construction schedule is assumed for the project. Table 1 summarizes the estimated maximum daily construction emissions of PM<sub>10</sub> and compares estimated emissions to the MBUAPCD's 82 lbs per day of PM<sub>10</sub> guideline for determining the potential significance of construction emissions. The daily and annual results of the CalEEMod emissions estimate are available as Attachment 1.

**Table 1  
Estimated Construction Maximum Daily  
Air Pollutant Emissions**

<u>Maximum Emissions (lbs/day)</u>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
	3.5	37.7	29.0	7.4	4.3
<u>Threshold</u>	<i>None</i>	<i>None</i>	<i>None</i>	<i>82 lbs/day</i>	<i>None</i>
<u>Threshold Exceeded?</u>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>NO</b>	<b>N/A</b>

*Notes: CalEEMod summer daily emissions output*

As shown in Table 1, construction emissions would not exceed the MBUAPCD's 82 lbs per day guideline for determining the significance of temporary emissions of PM<sub>10</sub>. In addition the project would not involve the use equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBUAPCD CEQA Guidelines. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and impacts associated with temporary construction emissions would be less than significant.

*Would the project expose sensitive receptors to substantial pollutant concentrations?*

Certain population groups are more sensitive to air pollution than others. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. The nearest sensitive receptors are residences located approximately 65 feet to the west of the project site. Adjacent sensitive receptors may be affected by short-term emissions during construction activity on the project site. As described in detail above, the proposed project would not result in an exceedance of any

MBUAPCD significance criteria for short-term construction or long-term operational emissions, and would therefore not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Therefore, impacts to sensitive receptors would be less than significant.

*Would the project create objectionable odors affecting a substantial number of people?*

The project would not involve any long-term uses that would result in substantial objectionable odors that would affect nearby sensitive receptors. Although the project construction may result in temporary odors from diesel equipment, these odors would not be substantial and construction would be temporary (assumed to last three months). Therefore, impacts would be less than significant.

### **Conclusion**

The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts to air quality, nor would any change in circumstances occur that would result in significant or substantially more severe air quality impacts. No additional mitigation would be required. Further, no previously infeasible or new mitigation measures to address air quality impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**BIOLOGICAL RESOURCES**

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or United States Fish and Wildlife Service?	Pp. 4.4-1 and 4.4-9	No	No	No, impacts are still considered less-than-significant with mitigation.	Yes
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or United States Fish and Wildlife Service?	Pp. 4.4-2 and 4.4-9	No	No	No	Yes
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Pp. 4.4-8 and 4.4-9	No	No	No, impacts are still considered less-than-significant with mitigation.	Yes
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Pp. 4.4-2 and 4.4-9	No	No	No	Yes
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Pp. 4.4-1 and 4.4-9	No	No	No	Yes
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	N/A	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to Biological Resources in Section 4.4, Biological Resources, pages 4.4-1 through 4.4-9. The EIR indicated that development of the site would remove a total of 238 acres of habitat for general biological resources, including 228 acres of agricultural land and approximately 10 acres of ruderal land. The project impacts also include the removal of a storm water detention basin. The only biological resource impact identified in the Draft EIR was to tricolored blackbird nesting habitat associated with the detention basin. Mitigation required that construction activities be limited to the period outside the tricolored blackbird nesting season (March 1 to August 31).

In regards to the Bryant Creek Channel area, the biological resources analysis states that the “incised channels...do not represent important habitat for wildlife because these areas are subject to frequent maintenance activity and because they lack vegetation” (City of Soledad 1999, p. 4.4-2). The EIR also did not identify waters of the US associated with the channel. Additional analysis has been undertaken to insure that the biological impacts associated with the BCCI would be analyzed based on changed conditions and current standards and would not constitute a new or substantially more severe significant impact. A field reconnaissance was undertaken in 2014 and a technical memorandum has been prepared that includes an updated discussion of the habitat value, significant thresholds, methodology and impact analysis (MCWRA 2014a). The impact analysis is provided below.

### Habitat Conditions

The habitat along the southern end of the channel is open grass lands to the west and a road to both the south and east. Very few trees are present besides a large pepper tree (*Schinus* spp.) adjacent to the project area. Across Bryant Canyon Road from the project a cemetery with trees create potential nesting habitat. Within the project boundary there is very limited nesting potential for arboreal nesters. As distances progresses upstream the distance from the road increases until the Bryant Canyon Road culvert crossing is reached. Upstream of the road crossing the channel is paralleled by Bryant Canyon Road. The west side of the road along this portion of the channel is dominated by open grasslands with minimal trees along with residential housing and a school. The east bank is bordered by a tall fence and agricultural lands (vineyards). The northern most end of the project footprint has a small stand of trees all with DBH of less than 25 cm.

The primary vegetation consists of non-native grasses (wild oats (*Avena sativa*) and foxtail (*Poaceae* family), Russian thistle, and fennel, intermixed with coyote brush and California poppies. No special status plants were observed in the preliminary evaluation, but the survey was not focused on plants. The soil is easily erodible and supports fossorial animals.

### Biological Resources Evaluation

In order to adequately assess potential impacts of the BCCI on biological resources, The California Natural Diversify Database (CNDDDB) was referenced. A desk audit for all species within 3.0 miles was conducted to determine species likelihood in the area surrounding the project footprint. Factors such as habitat availability and potential anthropogenic impacts were evaluated using GoogleEarth and staff photos. The following species have the potential to occur in the vicinity of the BCCI but are not likely to be affected by construction of the BCCI improvements.

#### **California Tiger Salamander (CTS)**

The habitat surrounding the project footprint meets the requirements to support the upland portion of the CTS life cycle. Areas of annual grasses surround the project, and the soil would facilitate fossorial animals. Two irrigation ponds are located 0.22 miles northeast and 1.18 miles to the east of the project. These are plastic lined ponds with no vegetation or other structures. These ponds are not likely to support breeding CTS. Stock ponds located 1.42 miles and 0.37 miles to the north are the nearest potential breeding pond. The pond 1.42 miles away exceeds the furthest distance CTS have been observed from the breeding area (USFWS, 2003), and the availability of water at the pond 0.37 miles away is unknown as the aerial image shows the pond dry in August.

***Due to the lack of breeding pools near the project and presence of anthropogenic disturbances, CTS are not likely to persist in the area.***

#### **Bank Swallow**

The habitat within the project footprint will not likely support nesting bank swallows. The channel walls are not steep enough to provide adequate protection from predators and have dense vegetation that would not support swallow nesting.

***Based upon the habitat conditions Bank Swallows are not likely to occur within the project footprint.***

#### **Western Burrowing Owl (BUOW)**

The habitat surrounding the project footprint meets the requirements to support foraging and nesting of BUOW. Though the site is heavily disturbed (housing development, agricultural fields, etc.) the low growing grasses and potential for fossorial animals increases the potential for this species.

***The presence of the road and subdivision and the disturbance caused by the agricultural practices adjoining the site make the habitat marginal for BUOW.***

#### **San Joaquin Kit Fox (SJKF)**

The habitat surrounding the project footprint contains the grassland/shrub features that could support SJKF. The erodible dry soils allow for denning and the surrounding habitat would support foraging.

***The presence of the road and subdivision and the disturbance caused by the agricultural practices adjoining the site make the habitat marginal for SJKF.***

#### **Salinas Pocket Mouse (SPM)**

The dry, open, and weedy environment surrounding the project footprint would support SPM. The fine textured soil would facilitate burrowing and foraging is available in the surrounding grasslands.

***The disturbance by agricultural practices and development make the habitat marginal for SPM.***

#### **Western Mastif Bat and Pallid Bat**

The proposed project will not impact any Chiroptera species as no roosting structures will be removed or damaged during the construction, and foraging habitat will not be disturbed during darkness.

***There would be no impacts to Western Mastif Bat and Pallid Bat since there is no roosting habitat associated with the BCCL.***

#### **American Badger**

The habitat surrounding the project footprint contains the grassland/shrub features that could support American Badger. The erodible dry soils allow for denning and the surrounding habitat would support foraging.

***The presence of the road and subdivision and the disturbance caused by the agricultural practices adjoining the site make the habitat marginal for American Badger.***

## Conclusion

Field reconnaissance and desktop audit of species with the potential to occur in the area indicate that there is minimal habitat value in the BCCI footprint; however, the following precautionary actions have been incorporated into the project as BMPs to insure that impacts to biological resources resulting from implementation of the BCCI are less than significant.

5. Conduct an evaluation prior to construction, of available CTS breeding ponds and migration potential from the ponds into the project site. A survey for the presence of burrows, cracks, crevices, or other potential refugia for CTS will be conducted within the footprint.
6. A nesting bird survey will be conducted within 7 days of construction for all migratory birds (including Bank Swallows) within the project footprint. This includes the area of excavation as well as all access roads and staging areas.
7. A burrow survey will be conducted within 7 days of construction for burrows of adequate size for San Joaquin Kit Fox, American Badger, and Burrowing Owls. Burrows should be checked for indicators of the above listed species and monitored for presence or absence.
8. A plant survey will be conducted within 2 months prior to construction to determine the presence or absence of the listed plants known to occur in the region as well as others that could potentially be within the project footprint.

These measures will be implemented by the BCCI sponsor (MCWRA) prior to construction of improvements. In the event that a species is encountered during pre-construction surveys, the sponsor and/or contractor will coordinate with appropriate agencies to develop any additional measures to minimize the potential for direct or indirect loss or disturbance to special status species.

The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts to biological resources than those identified in the EIR, nor would any change in circumstances occur that would result in significant or substantially more severe biological resource impacts. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**CULTURAL RESOURCES**

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?	Pp. 4.12-1 and 4.12-2	No	No	No	Yes
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?	Pp. 4.12-1 and 4.12-2	No	No	No	Yes
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Section 4.2, Geology and Soils	No	No	No	Yes
d) Disturb any human remains, including those interred outside of formal cemeteries?	Pp. 4.12-1 and 4.12-2	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR analysis addresses cultural resources in Section 4.12, Cultural Resources, pages 4.12-1 and 4.12-2 of the Draft EIR. The analysis relies on archival research, no archaeological field surveys were conducted. However, the area is considered of low cultural resource sensitivity. The possibility of impacting unknown resources was addressed through standard mitigation for accidental discovery of buried resources and human remains. The potential to impact paleontological resources was not addressed.

**Conclusion**

Implementation of the BCCI would result in short-term construction impacts similar to those anticipated with development of the project as analyzed in the Miravale – Hambey EIR. The inadvertent discovery of cultural resources during construction would be addressed through mitigation identified in the EIR. Similarly, the likelihood of encountering unique paleontological or geologic features is low due to the thick alluvial deposits that are characteristic of the area (discussed further in the Draft EIR in Section 4.2, Geology and Soils, see discussion below). The continued maintenance of the channel would also not constitute a change over existing conditions. Therefore, the project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts on cultural or paleontological resources, nor would any change in circumstances occur that would result in significant or substantially more severe cultural and/or paleontological resource impacts. No additional mitigation would be required.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

## GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
ii) Strong seismic ground shaking?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
iii) Seismic-related ground failure, including liquefaction?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
iv) Landslides?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
b) Result in substantial soil erosion or the loss of topsoil?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Pp. 4.2-4 and 4.2-5	No	No	No	N/A

## Discussion

The Miravale – Hambey EIR considered issues related to geology and soils in Section 4.2, Geology and Soils, pages 4.2-1 through 4.2-6. No active faults occur in the immediate vicinity of the site although two major faults, the San Andreas and the Reliz occur within 20 miles of the site. The EIR found that the potential for damage during strong seismic shaking would be reduced through adherence to current building code. The EIR also found that the site is not located on an unstable

geological unit or expansive soils. Although the site occupies relatively flat terrain, the potential for soil erosion was identified; however, implementation of a SWPPP and best management practices (BMPs) were considered adequate to minimize erosion. The EIR found that the project would not result in any significant geology and soils impacts. No mitigation was required.

As noted above, both Sheet 11 and Sheet 16 of the BCCI plans (Attachment B) specify erosion control requirements and include a proposed seed mixture for reseeding and stabilizing slopes after construction.

### **Conclusion**

Implementation of the BCCI would result in short-term construction impacts similar to those anticipated with development of the project as analyzed in the Miravale - Hambey EIR. The continued maintenance of the channel would also not constitute a change over existing conditions. Therefore, the project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts associated with geology and soils, nor would any change in circumstances occur that would result in significant or substantially more severe geology and soils impacts. No additional mitigation would be required. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**GREENHOUSE GAS EMISSIONS**

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	N/A	No	No	No	N/A
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	N/A	No	No	No	N/A

**Discussion**

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in greenhouse gas (GHG) emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs the Air Resources Board (ARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill (SB) 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the California Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010.

The Miravale - Hambey EIR was prepared in 1999/2000 and did not address potential impacts of GHG emissions because the EIR was prepared and the project was approved before the 2010 amendments in the State CEQA Guidelines pertaining to GHG emissions. Additional analysis has been undertaken to insure that the GHG impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes a discussion of the regulatory setting, significance thresholds, methodology and impact analysis (Rincon 2015a). The technical memorandum also includes a technical appendix. The impact analysis is provided below.

Significance Thresholds

Based on Appendix G of the *State CEQA Guidelines*, impacts related to greenhouse gas (GHG) emissions would be significant if the project would:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
2. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Neither the City of Soledad nor the MBUAPCD has developed or adopted GHG significance thresholds. The City does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. For purposes of this analysis, the guidance provided by the San Luis Obispo Air Pollution Control District (SLOAPCD) Greenhouse Gas Thresholds, adopted in April 2012 (SLOAPCD, 2012), is used. This procedure provides a quantitative approach for the assessment, and has been developed by the adjacent air district in the same general region. Emissions of all GHGs are reported based on their equivalent weight in CO<sub>2</sub> (CO<sub>2</sub>e). The three criteria are summarized in Table 2.

**Table 2  
SLOAPCD GHG Significance Determination Criteria**

GHG Emission Source Category	Operational Emissions
Residential and Commercial Projects	Compliance with Qualified GHG Reduction Strategy OR Bright-Line Threshold of 1,150 MT of CO <sub>2</sub> e/yr OR Efficiency Threshold of 4.9 MT CO <sub>2</sub> e/SP*/yr
(Industrial) Stationary Sources	10,000 MT of CO <sub>2</sub> e/yr

*\*SP = Service Population (residents + employees)  
For projects other than stationary sources, compliance with either a Qualified Greenhouse Gas Reduction Strategy, or with the Bright-Line (1,150 CO<sub>2</sub>e/yr.) or Efficiency Threshold (4.9 MT CO<sub>2</sub>e/SP/yr.) would result in an insignificant determination, and in compliance with the goals of AB 32. The construction emissions of projects would be amortized over the lifetime of a project (25 years for commercial projects, based on SLOAPCD's CEQA Air Quality Handbook (April, 2012)) and added to the operational emissions. Emissions from construction-only projects (e.g. roadways, pipelines, etc.) would be amortized over the life of the project and compared to an adopted GHG Reduction Strategy or the Bright-Line Threshold only.*

The SLOAPCD “bright-line threshold” was developed to help reach the AB 32 emission reduction targets by attributing an appropriate share of the GHG reductions needed from new land use development projects subject to CEQA. Land use sector projects that comply with this threshold would not be “cumulatively considerable” because they would be helping to solve the cumulative problem as a part of the AB 32 process. Such small sources would not significantly add to global climate change and would not hinder the state’s ability to reach the AB 32 goal, even when considered cumulatively. The threshold is intended to assess small and average sized projects, whereas the per-service population guideline is intended to avoid penalizing larger projects that incorporate GHG-reduction measures such that they may have high total annual GHG emissions, but would be relatively efficient, as compared to projects of similar scale. Based on the nature and size of the project, the bright-line threshold is the most appropriate threshold for this analysis. As such,

the proposed project would have a potentially significant contribution to GHG emissions if it would result in emissions in excess of 1,150 metric tons of CO<sub>2</sub>e per year.

Calculations of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O because these comprise 98.9% of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the project would emit in the largest quantities. Minimal amounts of other main GHGs (such as chlorofluorocarbons [CFCs]) would be emitted, but these other GHG emissions would not substantially add to the calculated CO<sub>2</sub>e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (January 2008) and include the use of the California Climate Action Registry (CCAR) General Reporting Protocol (January 2009).

### Impact Analysis

*Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

As described previously, the project would not involve any uses that would generate long-term operational GHG emissions.

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately addresses impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA, 2008). Nevertheless, air pollution control districts such as the SLOAPCD have recommended amortizing construction-related emissions over a 25-year period for commercial projects and over a 50-year period for residential projects in conjunction with a project's estimated operational emissions. For this project, construction-related emissions have been amortized over a 25-year period for the assumed life of the proposed improvements and as the most conservative approach to analysis.

Construction of the proposed project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Emissions associated with the construction period were estimated using CalEEMod, based on default projections for the amount of construction equipment operating hours that would be required to complete the project. Construction activity is assumed to occur over a period of approximately three months and would include grading, clearing, grubbing, excavation, and other earthmoving activities.

As shown in Table 3, construction activity associated with the project would generate an estimated 80 metric tons of CO<sub>2</sub>e. Amortized over a 25-year period (the assumed lifetime of the project), construction of the proposed project would generate approximately 3.2 metric tons of CO<sub>2</sub>e per year. These emissions would comprise less than one percent of the allowable emissions and would not exceed the applicable threshold of 1,150 metric tons of CO<sub>2</sub>e per year. Therefore, impacts resulting from GHG emissions would be less than significant.

**Table 3**  
**Estimated Construction Emissions of Greenhouse Gases**

	<b>Emissions (Carbon Dioxide Equivalent (CO<sub>2</sub>e))</b>
Total Estimated Construction Emissions	80 metric tons
Amortized over 25 years	3.2 metric tons per year

*See Attachment 1 for CalEEMod Results.*

*Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The City of Soledad has not adopted a Climate Action Plan or other qualified GHG reduction plan. AMBAG has incorporated sustainable community strategy into its Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS), which is designed to help the region achieve its SB 375 GHG emissions reduction target. The AMBAG 2035 MTP/SCS demonstrates that the AMBAG region would achieve its regional emissions reduction targets for passenger vehicles for the 2020 and 2035 target years. The proposed project would not alter the population projections used in the plan, and is consistent with the existing land use designation for the site.

The project would also be required to comply with existing State regulations, which include actions adopted to achieve the overall GHG emissions reduction goals identified in AB 32.

The existing Soledad General Plan does not include goals and policies related to GHG reductions. Because there is no locally adopted GHG Reduction Plan to reduce emissions from new development, because the project would be consistent with the applicable land use and zoning designations, and because the project would not conflict with any State regulations intended to reduce GHG emissions statewide, the project would be consistent with applicable plans and programs designed to reduce GHG emissions. Consistency with these state regulations and goals illustrates that the project would not conflict with the state’s GHG-related legislation and would not conflict with state GHG reduction goals. Therefore, this impact would be less than significant.

**Conclusion**

Implementation of the BCCI would not result in new significant impacts or substantially more severe impacts related to greenhouse gas emissions, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts related to GHG emissions. Further, no previously infeasible or new mitigation measures to address GHG emissions impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale - Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**HAZARDS AND HAZARDOUS MATERIALS**

Would the project:

- |  |                            |    |    |    |     |
|--|----------------------------|----|----|----|-----|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | Pp. 4.8-1 through 4.8-6.   | No | No | No | Yes |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | Pp. 4.8-1 through 4.8-6.   | No | No | No | Yes |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | Pp. 4.8-1 through 4.8-6.   | No | No | No | Yes |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | Pp. 4.8-1 through 4.8-6.   | No | No | No | Yes |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | Pp. 4.8-2 and 4.8-5        | No | No | No | Yes |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | Pp. 4.8-2 and 4.8-5        | No | No | No | Yes |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | Pp. 4.10-2 through 4.10-3. | No | No | No | Yes |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | N/A                        | No | No | No | Yes |

**Discussion**

The Miravale – Hambey EIR considered issues related to hazards and hazardous materials in Section 4.8, Hazards and Hazardous Materials, pages 4.8-1 through 4.8-6. The Draft EIR presented the results of a Phase II site investigation and soil investigation (pages 4.8-1 and 4.8-2). Evidence of waste oil was identified at a former dump and burn site area in the northwest corner of the site and near the southeast corner of the site, near the Bryant Canyon Channel. Elevated levels of diesel

were also found just north and east of the project site. A records search identified two underground storage tanks (USTs) offsite, to the north. A small private airstrip is located approximately ¼ mile to the east, on vineyard property. The EIR found that the project had the potential to expose to on-site health hazards and provided measures to mitigate impacts including the removal and disposal of the dump site and other contaminated soils.

Potential impacts related to emergency response were addressed the Public Services section (4.10) of the Draft EIR.

### **Conclusion**

Implementation of the BCCI would result in short-term construction impacts similar to those anticipated with development of the project as analyzed in the Miravale - Hambey EIR. The continued maintenance of the channel would also not constitute a change over existing conditions. Therefore, the project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts associated with hazards or hazardous materials, nor would any change in circumstances occur that would result in significant or substantially more severe hazardous materials impacts. No additional mitigation would be required. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**HYDROLOGY AND WATER QUALITY**

Would the project:

a) Violate any water quality standards or waste discharge requirements?	Pp. 4.3-2 through 4.3-6	No	No	No	Yes
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Pp. 4.9-1; 4.9-14 through 15	No	No	No	Yes
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
f) Otherwise substantially degrade water quality?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Pp. 4.3-1 through 4.3-6	No	No	No	Yes
j) Inundation by seiche, tsunami, or mudflow?	N/A	No	No	No	N/A

### **Discussion**

The Miravale - Hambey EIR considered issues related to hydrology and water quality in Section 4.3, Hydrology and Water Quality, pages 4.3-1 through 4.3-6. Groundwater (b, above) is addressed in Section 4.9, Public Utilities. The EIR identifies the potential for adverse construction-related water quality impacts and identifies the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) to reduce impacts. The intent of this mitigation was to reduce erosion and concomitant effects to water quality due to run off from upland construction; however, many of the BMPs are relevant to the Bryant Canyon Channel Improvement Project.

As noted above, both Sheets 11 and 16 of the BCCI plans (Attachment B) specify erosion control requirements and include a proposed seed mixture for reseeding and stabilizing slopes after construction.

### **Conclusion**

Implementation of the BCCI would result in short-term construction impacts similar to those anticipated with development of the project as analyzed in the Miravale - Hambey EIR. The continued maintenance of the channel would also not constitute a change over existing conditions. Therefore, the project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts associated with hydrology or water quality, nor would any change in circumstances occur that would result in significant or substantially more severe hydrology or water quality impacts. In fact, the improvements to the channel are intended to provide flood control benefits. No additional mitigation would be required. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**LAND USE AND PLANNING**

Would the project:

a) Physically divide an established community?	Pp. 4.1-13 through 4.1-21	No	No	No	Yes
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Pp. 4.1-13 through 4.1-21	No	No	No	Yes
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	Pp. 4.1-13 through 4.1-21	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to land use and planning in Section 4.1, Land Use and Planning, pages 4.1-1 through 4.1-21. The Miravale – Hambey EIR found that the implementation of the project would result in the conversion of 223 acres (94 percent of the project site) of Prime and Unique farmlands to residential and public/quasi-public land uses and concluded that the impact would be significant and unavoidable. No feasible mitigation was identified. The Miravale – Hambey EIR did not address forest land.

**Conclusion**

Implementation of the BCCI would not constitute a change in land use. The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts on land use, nor would any change in circumstances occur that would result in significant or substantially more severe land use impacts. No mitigation would be required. Further, no previously infeasible or new mitigation measures to address agricultural and forest land impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**MINERAL RESOURCES**

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	N/A	No	No	No	N/A
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	N/A	No	No	No	N/A

**Discussion**

The Miravale – Hambey EIR did not specifically address issues related to mineral resources. There are no known mineral resources or important mineral recovery sites affected by the project.

**Conclusion**

The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts to mineral resources, nor would any change in circumstances occur that would result in significant or substantially more severe mineral resource impacts. Further, no previously infeasible or new mitigation measures to address air quality impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**NOISE**

Would the project:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Pp. 4.6-7 through 4.6-12	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to noise and vibration in Section 4.6, Noise, pages 4.6-1 through 4.6-12. The EIR analysis identifies sensitive receptors at the time of the Draft EIR and potential construction-related noise impacts to those sensitive receptors. Mitigation includes limiting activities to day time hours and further limits construction in areas adjacent to Bryant Canyon Road due to potential conflicts with burial activities at Soledad Cemetery. BMPs are also identified to reduce equipment noise.

Additional analysis has been undertaken to insure that the noise impacts associated with the BCCI would be analyzed based on current standards and would not constitute a new or substantially more severe significant impacts. A technical memorandum has been prepared that includes an updated discussion of the regulatory setting, significant thresholds, methodology and impact analysis (Rincon 2015a). The impact analysis is provided below.

Impact Analysis

*Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?*

The proposed project would involve improvements within the Bryant Canyon Channel along Bryant Canyon Road, approximately 65 feet east of the nearest residential units and 800 feet east of the nearest school. The project would not involve any long-term operations or vehicle traffic that would produce noise in the vicinity. Therefore, there would be no impacts associated with potential new sources of long-term noise.

*Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

*Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

*Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Project construction activity would require the use of heavy equipment for site preparation, grading, clearing, grubbing, excavation, and other construction activities. During each stage of improvements, a different mix of equipment would be operating and noise levels would vary based on the number of pieces of equipment in operation and the location of the activity. Noise levels as a result of project construction activities may impact noise-sensitive residential receptors, the nearest of which are located approximately 65 feet west of the project site. These receptors may experience a temporary increase in noise during construction activities on the project site.

Table 3 shows typical peak noise levels associated with common types of heavy construction equipment anticipated to be used for the channel improvements, based on the FHWA Highway Construction Noise Handbook. As shown therein, noise levels associated with the use of individual pieces of heavy equipment anticipated for the project can range from about 80 to 88 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction (FTA, 2006).

**Table 3  
 Construction Equipment Noise Emission Levels**

Equipment	Typical Noise Level (dBA) 50 ft from Source
Backhoe	80
Compactor	82
Grader	85
Loader	85
Truck	88

*Source: Federal Transit Administration, 2006*

Table 3 shows noise levels at various distances from construction activity, based on a standard noise attenuation rate of 6 dBA per doubling of distance from the highest-volume individual pieces of equipment shown in Table 4.

**Table 4  
 Construction Noise Levels from Project  
 Construction at Sensitive Receptors**

Distance from Construction	Peak Noise Level from Mobile Construction Equipment at Receptor (dBA)
50 feet	88
<b>65 feet</b>	<b>86</b>
100 feet	82
200 feet	76
400 feet	68
<b>800 feet</b>	<b>62</b>

***Bold text indicates distances that represent the distance to the specific receptors evaluated in this analysis.***

As shown in Table 4, peak construction noise levels from the highest-volume individual pieces of equipment could be up to 86 dBA at the nearest residential units (approximately 65 feet from the source) and 62 dBA at San Vicente Elementary School (approximately 800 feet from the source). Construction noise levels would exceed the exterior thresholds for the City of Soledad at the nearest residential units, but would be within the City’s standards at San Vicente Elementary School. It should be noted that construction noise is generally temporary and sporadic, and that the noise levels shown represent line-of-sight attenuation. Topographic and structural features in the vicinity of the project site would further attenuate noise levels below these estimated noise levels.

The homes located nearest to the project site (approximately 65 feet west) have been constructed within the last five years. The exterior-to-interior reduction of newer residential units and office buildings is generally 30 dBA or more. Therefore, interior noise levels at the nearest residential units would be expected to be attenuated by 30 dBA or more from exterior noise levels. Interior noise levels at San Vicente Elementary School would be expected to be attenuated by 20 to 25 dBA from exterior noise levels due to existing school buildings which are 30 years or older. Additionally, a masonry wall has been constructed between the residential properties and Bryant Canyon Road which would attenuate noise levels by approximately 4.9 dBA at the nearest residences (refer to Attachment 1 for barrier attenuation calculations). Accounting for the exterior-to-interior noise reduction and attenuation from the masonry wall between the residences and the project site, interior noise levels would be approximately 51 dBA during construction activities, which would exceed the City’s interior noise standard of 45 dBA for residential uses. Noise levels at San Vicente Elementary School would be approximately 37 to 42 dBA based on exterior-to-interior noise reduction for buildings more than 30 years old. With these features, the interior and exterior noise

levels would be within the City's thresholds at the elementary school approximately 800 feet to the west of the project site.

Despite the presence of already-established noise attenuating features, the project would be required to comply with the following mitigation measures included in the Miravale Partnership – Hambey Property EIR. These measures would reduce sounds levels from construction at the nearest sensitive receptors (residences located approximately 65 west of the project site) to levels below the City's interior thresholds (45 dBA) and reduce potentially significant impacts to levels of less than significant. Due to changes to the project boundary from the previous project to the currently proposed project, some of the measures below may be adjusted to account for new distances to sensitive receptors. Additionally, the construction activities necessary for the current project may not require implementation of measures listed below which pertain to stationary equipment.

- Noise-generating construction activities associated with improvements to the southern portion of the project site and Bryant Canyon Road shall be suspended during periods in which burial activities are occurring at Soledad Cemetery. It will be the responsibility of the cemetery operator to notify the construction contractor when to cease work.
- Grading and other noise generating construction activities shall not occur within 300 feet of the adjacent elementary school during school hours (Monday through Friday, 8:00 a.m. to 3:00 p.m.). Alternatively, if construction must occur during school hours; temporary acoustic barriers (e.g. lead curtains, wooden sound barriers) shall be constructed along the southwestern boundary of the project site, along Orchard Lane, to reduce construction-generated noise levels at the adjacent elementary school. The barriers shall be designed to obstruct the line-of-sight between the nearest occupied school buildings and onsite construction equipment.
- Equipment engine doors on motorized equipment shall be closed during equipment operation.
- Construction operations and techniques shall use the quietest procedures feasible.
- The quietest of alternative items of equipment (e.g. electric instead of diesel-powered equipment, hydraulic tools instead of pneumatic impact tools) shall be selected for use during demolition and construction activities.
- When not in use, motorized construction equipment shall not be left idling.
- Stationary noise generating construction equipment (e.g. generators and compressors) shall be enclosed and centrally located on the project site at the greatest distance possible from the elementary school. Stationary equipment shall be located at least 500 feet from the western property boundary.

Compliance with the required mitigation measures from the EIR (listed above) would reduce noise impacts associated with project construction to less than significant levels.

*For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

*For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?*

The project is not located within an airport land use plan and does not involve any uses that would expose people to excessive noise from aircraft. Therefore, there would be no impact.

### **Conclusion**

Implementation of the BCCI would not result in new significant impacts or substantially more severe impacts related to noise and/or vibration, nor would any change in circumstances occur that would result in new significant impacts or substantially more severe impacts related to noise or vibration. Further, no previously infeasible or new mitigation measures to address noise impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**POPULATION AND HOUSING**

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Pp.1-2 through 1-3	No	No	No	N/A
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Pp.1-2 through 1-3	No	No	No	N/A
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Pp.1-2 through 1-3	No	No	No	N/A

**Discussion**

The Miravale – Hambey EIR considered issues related to population and housing in Section 1.4, Effects Found Not to Be Significant, pages 1-2 through 1-3 of the Draft EIR. Specifically, the EIR found that the project “would not create population or growth rates which would outpace the ability of the City to provide required services, impede employment growth rates, result in household overcrowding, or negatively affect the jobs/housing balance in the City of Soledad.”

**Conclusion**

Improvements to Bryant Channel Creek will be not require a large work force or require housing for workers. The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts to population and housing, nor would any change in circumstances occur that would result in significant or substantially more severe population and housing impacts. Further, no previously infeasible or new mitigation measures to address population and housing impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**PUBLIC SERVICES**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

• Fire protection?	Pp. 4.10-1 through 4.10-5	No	No	No	N/A
• Police protection?	Pp. 4.10-1 through 4.10-5	No	No	No	N/A
• Schools?	Pp. 4.10-1 through 4.10-5	No	No	No	N/A
• Parks?	Pp. 4.10-1 through 4.10-5	No	No	No	N/A
• Other public facilities?	Pp. 4.10-1 through 4.10-5	No	No	No	N/A

**Discussion**

The Miravale – Hambey EIR considered issues related to public services in Section 4.10, Public Services, pages 4.10-1 through 4.10-5. The EIR identified the need for additional police and fire protection to serve the residential and commercial uses at the site. The project would also be required to pay school impact fees, as required by state law. As discussed in the EIR, the Miravale – Hambey Project includes the development of parks consistent with the Soledad General Plan and State standards. No significant impacts or mitigation were identified.

**Conclusion**

The BCCI would not create additional demand for public service facilities. The project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts associated with the provisions of public services, nor would any change in circumstances occur that would result in significant or substantially more severe public service impacts. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**RECREATION**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Pp. 4.10-3 and 4.10-4	No	No	No	N/A
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Pp. 4.10-3 and 4.10-4	No	No	No	N/A

**Discussion**

The Miravale – Hambey EIR considered issues related to recreation in Section 4.10, Public Services, pages 4.10-1 through 4.10-5 of the Draft EIR. As discussed in the EIR, the Miravale – Hambey Project includes the development of parks consistent with the Soledad General Plan and State standards. The BCCI would not create additional demand for recreational facilities.

**Conclusion**

The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts related to construction or use of recreational facilities, nor would any change in circumstances occur that would result in significant or substantially more severe impacts related to construction or use of recreational facilities. Further, no previously infeasible or new mitigation measures related to construction or use of recreational facilities have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.

Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**TRANSPORTATION/TRAFFIC**

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Section 4.5.2	No	No	No	Yes
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Section 4.5.2	No	No	No	Yes
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Section 4.5.2	No	No	No	Yes
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Section 4.5.2	No	No	No	Yes
e) Result in inadequate emergency access?	Section 4.5.2	No	No	No	Yes
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Section 4.5.2	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to transportation and traffic in Section 4.5, Transportation and Circulation, pages 4.5-1 through 4.5-13. Significant impacts to traffic and circulation were identified due to the increased traffic generated by the proposed residential and commercial development. Measures to address these impacts were identified, including the construction of roadway improvements to address project and the project’s cumulative contribution to traffic and circulation effects.

Improvements to Bryant Channel Creek will be not require a large work force. Short-term construction-related traffic will be similar to that anticipated for the project as a whole. It is the

current intent of the project proponent to dispose of fill materials on-site. Minimal off-site haul traffic may occur but would also be consistent with that anticipated for development activities.

**Conclusion**

The project changes associated with the BCCI would not result in new significant impacts or substantially more severe impacts to traffic and circulation, nor would any change in circumstances occur that would result in significant or substantially more severe traffic and circulation impacts. Further, no previously infeasible or new mitigation measures to address traffic and circulation impacts have been identified that would not be implemented. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.



Where Was Impact Analyzed in the Miravale-Hambey EIR?	Do Proposed Changes Require Major Revisions to the Miravale-Hambey EIR?	Do New Circumstances Require Major Revisions to the Miravale-Hambey EIR?	Any New Information Resulting in New or More Severe Significant Impacts?	Do Miravale-Hambey EIR Mitigation Measures Address and/or Resolve Impacts?
---	---	--	--	--

**UTILITIES AND SERVICE SYSTEMS**

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Pp. 4.9-29 through 4.9-31	No	No	No	Yes

**Discussion**

The Miravale – Hambey EIR considered issues related to utilities and service systems in Section 4.9, Public Utilities, pages 4.9-1 through 4.9-31. The EIR identified impacts to water supply, water storage and wastewater facilities due to the need to serve the proposed residential and commercial development of the site. Measures included specific requirements for new wells, storage tank(s) and offsite wastewater collection mains to serve the site. The EIR also identified the need to provide additional storm drain facilities and included specific mitigation for a variety of facilities, including the improvements to the Bryant Canyon Channel.

**Conclusion**

The project changes associated with implementation of the BCCI would not result in new significant impacts or substantially more severe impacts associated with the provision of public utilities, nor

would any change in circumstances occur that would result in significant or substantially more severe public utility facility impacts. In fact, the improvements to the channel are intended to provide flood control and storm water drainage benefits. No additional mitigation would be required. Therefore, no new information of substantial importance has been identified and none of the conditions described in Public Resources Code Sections 15162 and 15163 calling for preparation of a subsequent or supplement to an EIR have been met.



# Rincon Consultants, Inc.

Environmental Scientists      Planners      Engineers

## M E M O R A N D U M

**Ventura**

180 North Ashwood Avenue  
Ventura, California 93003  
805 644 4455  
FAX 644 4240

**San Luis Obispo**

1530 Monterey Street, Suite D  
San Luis Obispo, California 93401  
805 547 0900  
FAX 547 0901

**Carlsbad**

5135 Avenida Encinas, Suite A  
Carlsbad, California 92008  
760 918 9444  
FAX 918 9449

**Monterey**

437 Figueroa Street, Suite 203  
Monterey, California 93940  
831 333 0310  
FAX 333 0340

**Oakland**

180 Grand Avenue, Suite 400  
Oakland, California 94612  
510 834 4455  
FAX 834 4433

**Riverside**

1485 Spruce Street, Suite D101  
Riverside, California 92507  
951 782 0061  
FAX 782 0097

**Fresno**

255 W. Fallbrook Avenue, Suite 204A  
Fresno, California 93711  
559 228 9925

**Sacramento**

2220 J Street, Suite 7  
Sacramento, California 95816  
916 706 1374

**Date:** November 17, 2015

**To:** Brent Slama, Director

**Organization:** City of Soledad, Community and Economic Development Department

**From:** Megan Jones, Rincon Consultants, Inc.

**Email:** [mjones@rinconconsultants.com](mailto:mjones@rinconconsultants.com)

**cc:** Laurie Warner Herson, Principal/ Owner, Phenix Environmental Planning

[laurie.warner.herson@phenixenv.com](mailto:laurie.warner.herson@phenixenv.com)

**Re:** Air Quality and Greenhouse Gas Emissions Technical Study

---

This study is an analysis of the potential air quality and greenhouse gas (GHG) emissions impacts from the proposed Bryant Canyon Channel Improvement Project in the City of Soledad, California. The primary purpose of this study is to analyze the project's potential short-term impacts from construction activities. The project does not propose any uses or post-construction activities that would result in long-term impacts to air quality or GHG emissions.

The study has been prepared by Rincon Consultants, Inc. under contract to the City of Soledad. The City will use the study in support of the environmental documentation being prepared for the project pursuant to the California Environmental Quality Act (CEQA). Environmental documentation for the project will be prepared as an addendum to the previous Miravale Partnership - Hambey Property EIR.

### Project Summary

#### Background

The Bryant Canyon Channel (BCC), located in Soledad, California, was constructed in 2002 from Metz Road to a 90-degree bend approximately 4,400 linear feet upstream. The BCC was constructed in response to significant flooding which occurred along Bryant Canyon Road in March 1995 (Schaaf & Wheeler, 2014). The BCC is an earthen, trapezoidal channel with 2 to 1 slopes and a bottom width of 12 feet. The channel is typically dry, only carrying flows during and following rain events. Prior to channel construction, flows from small seasonal rain events were carried by a roadside ditch along

[info@rinconconsultants.com](mailto:info@rinconconsultants.com) [www.rinconconsultants.com](http://www.rinconconsultants.com)

---

Bryant Canyon Road, with larger flows spread across the alluvial plain. According to Schaaf & Wheeler (2014), the channel slope, approximately 1.2 percent, necessitated the use of drop structures to reduce channel flow velocities to an acceptable level. Three gabion drop structures were constructed in 2002 as well as a 66-inch temporary culvert, placed where the channel crosses Bryant Canyon Road.

### Proposed Bryant Canyon Channel Improvement Project

The project proposes construction of an additional nine drop structures and construction of a new ten-foot wide by six-foot high box culvert to replace the existing temporary culvert described above. Work to be completed as part of the project includes the following:

- Construction of nine gabion drop structures;
- Channel excavation of approximately 1,300 cubic yards (CY);
- Replacement of the existing 66-inch temporary culvert where the channel crosses Bryant Canyon Road;
- Installing rock slope protection with geotextile fabric on the west side of the channel;
- Reinforcement of the 90-degree bend through modification of the outboard rock-slope protected bank by raising it higher and grouting the rock; and
- Construction of an access road for use during construction and maintenance.

In addition to an excavator and/or backhoe, other equipment that may be used during construction of improvements would include a dump truck, compactor, and loader. Construction activities would occur when there are low- or no-flow conditions in the channel.

The project would include modification to 1.9 acres (4,500 linear feet) of intermittent drainage ditch and would result in approximately 4,500 CY of material dredged and 2,400 CY of material discharged during construction. Another 300 CY per structure (or 2,700 CY total) of material would be excavated to install the gabion drop structures. Excavated material would be placed on-site in an area situated between the top of the channel and Bryant Canyon Road.

Contingent upon receipt of all approvals required, the project would be constructed prior to Fall 2018.

## **Air Quality**

### Setting

Federal and state ambient air quality standards for several criteria pollutants have been established to protect human health. Soledad is located within the North Central Coast Air Basin (NCCAB), which includes all of Monterey, San Benito, and Santa Cruz Counties, and is within the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The California Air Resources Board (ARB) has established air quality standards and is responsible for the control of mobile emission sources, while the MBUAPCD is responsible for enforcing standards and regulating stationary sources. At present, the NCCAB is in non-attainment for the state eight-hour ozone standard and the State standard for particulate matter ten micrometers or less in diameter (PM<sub>10</sub>).

### Significance Thresholds

The analysis of the project's air quality impacts follows the guidance and methodologies recommended in the MBUAPCD *CEQA Air Quality Guidelines* (February 2008) and Appendix G of the *State CEQA Guidelines*. Pursuant to Appendix G of the *State CEQA Guidelines*, a project would result in potentially significant air quality impacts if it:

---

- 
1. *Conflicts with or obstructs implementation of the applicable air quality plan;*
  2. *Violates any air quality standards or contributes substantially to an existing or projected air quality violation;*
  3. *Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed qualitative thresholds for ozone precursors);*
  4. *Exposes sensitive receptors to substantial pollutant concentrations; and/or*
  5. *Creates objectionable odors affecting a substantial number of people.*

The *State CEQA Guidelines* further state that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the determinations above.

The MBUAPCD has issued criteria for determining the level of significance for project specific impacts within its jurisdiction in accordance with the above thresholds. Based on criteria applied in or adapted from the *MBUAPCD Guidelines*, the project's impacts to air quality would be significant if the project would:

- *Be inconsistent with the adopted Air Quality Management Plan (AQMP).*
- *During construction:*
  - *Cause a violation of PM<sub>10</sub> AAQS at nearby or upwind of sensitive receptors, based on whether the project would:*
    - *Emit greater than 82 lb/day of PM<sub>10</sub> if located nearby or upwind of sensitive receptors (note: projects which require minimal earthmoving on 8.1 or more acres per day or grading and excavation on 2.2 or more acres per day are likely to exceed this threshold);*
    - or
    - *Use equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBUAPCD CEQA Guidelines.*

In addition to these criteria, the MBUAPCD has also issued criteria for determining the level of significance of long-term, operational impacts. However, as described above, the project does not propose any operational uses or post-construction activities that would result in long-term impacts to air quality.

A project would conflict with or obstruct implementation of the *2008 Air Quality Management Plan (2008 AQMP)* and the *2012 Triennial Plan Revision (2012 AQMP Revision)* for the Monterey Bay Region if it is inconsistent with the plan's growth assumptions, in terms of population, employment, or regional growth in vehicle miles traveled (VMT). These population forecasts were developed, in part, using data obtained from local jurisdictions on projected land uses and population projections identified in community plans. Projects that result in an increase in population that is inconsistent with local community plans would be considered inconsistent with the AQMP.

### Methodology

The analysis of air quality impacts conforms to the methodologies recommended in the MBUAPCD's *CEQA Air Quality Guidelines (2008)*. The handbook includes thresholds for emissions associated with both construction and operation of proposed projects. However, for this analysis, operational emissions have been dismissed because the project would not involve any long-term operations which would emit air polluting contaminants.

---

---

*Construction Emissions.* The California Emissions Estimator Model (CalEEMod, version 2013.2.2) was used to estimate construction emissions from off-road equipment and fugitive dust generated during construction. CalEEMod quantifies emissions associated with the use of off-road equipment, on-road worker commute, and construction delivery and haul trucks. Fugitive dust emissions are quantified for grading and site preparation activities/earthwork, truck loading, demolition, and vehicle trips on paved and unpaved surfaces. The program calculates fugitive dust associated with onsite earthwork, including onsite grading and site preparation phases, based on the construction equipment to be used (e.g., crawler tractors, graders, dozers, scrapers), hours of use, and the estimated area of disturbance calculated for each piece of equipment.

### Impact Analysis

*Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The California Clean Air Act requires that air districts create a Clean Air Plan (CAP) that describes how the jurisdiction will meet air quality standards. These plans must be updated every three years. The MBUAPCD's 2012 Triennial Plan Revision (revision to the 2008 AQMP) was adopted on April 17, 2013 and serves as the most recent CAP for the area. In order to be determined to be consistent with the plan, a project's direct and indirect emissions must be accounted for in the growth assumptions of the plan, and the project must be consistent with the policies in the 2012 Triennial Plan Revision (MBUAPCD, 2013). The project would be consistent with the existing land use designation for the site, and would not involve the development of new residential units or other land uses that could result in an increase in population, or otherwise cause an exceedance of regional growth forecasts. Therefore, the project would not conflict with or obstruct implementation of the 2012 Triennial Plan, and impacts would be less than significant.

*Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

*Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Criteria pollutant emissions from short-term construction activity associated with the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. The project would not generate any vehicle trips and would not result in any stationary emissions sources. Therefore, operation of the project would result in no impact related to long-term regional criteria pollutant emissions.

Construction of the proposed project would generate temporary air pollutant emissions associated with exhaust emissions from construction vehicles and construction equipment. Construction would generally consist of excavation, culvert replacement, and gabion structure construction. The project would require grading, clearing, grubbing, excavation, and other earthmoving activities. PM<sub>10</sub> emitted during construction activities varies based on the level of activity, the specific operations taking place, the equipment being operated, local soils, and weather conditions. Construction activity would be required to comply with the following standard MBUAPCD emission control measures to reduce fugitive dust and construction related emissions of PM<sub>10</sub>:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
  - Prohibit all grading activities during periods of high wind (over 15 mph).
-

- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites.
- Sweep streets if visible soil material is carried out from the construction site.

Based on the type of work proposed and total proposed project area, a three month construction schedule is assumed for the project. Table 1 summarizes the estimated maximum daily construction emissions of PM<sub>10</sub> and compares estimated emissions to the MBUAPCD's 82 lbs per day of PM<sub>10</sub> guideline for determining the potential significance of construction emissions. The daily and annual results of the CalEEMod emissions estimate are available as Attachment 1.

**Table 1**  
**Estimated Construction Maximum Daily**  
**Air Pollutant Emissions**

	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
<u>Maximum Emissions (lbs/day)</u>	3.5	37.7	29.0	7.4	4.3
<u>Threshold</u>	None	None	None	82 lbs/day	None
<u>Threshold Exceeded?</u>	N/A	N/A	N/A	NO	N/A

Notes: CalEEMod summer daily emissions output

As shown in Table 1, construction emissions would not exceed the MBUAPCD's 82 lbs per day guideline for determining the significance of temporary emissions of PM<sub>10</sub>. In addition the project would not involve the use equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBUAPCD CEQA Guidelines. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and impacts associated with temporary construction emissions would be less than significant.

*Would the project expose sensitive receptors to substantial pollutant concentrations?*

Certain population groups are more sensitive to air pollution than others. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. The nearest sensitive receptors are residences located approximately 65 feet to the west of the project site. Adjacent sensitive receptors may be affected by short-term emissions during construction activity on the project site. As described in detail above, the proposed project would not result in an exceedance of any MBUAPCD significance criteria for short-term construction or long-term operational emissions, and would therefore not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a

---

cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Therefore, impacts to sensitive receptors would be less than significant.

*Would the project create objectionable odors affecting a substantial number of people?*

The project would not involve any long-term uses that would result in substantial objectionable odors that would affect nearby sensitive receptors. Although the project construction may result in temporary odors from diesel equipment, these odors would not be substantial and construction would be temporary (assumed to last three months). Therefore, impacts would be less than significant.

## **Greenhouse Gas Emissions**

### Setting

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) are the GHGs that are emitted in the greatest quantities from human activities. Emissions of CO<sub>2</sub> are largely by-products of fossil fuel combustion. CH<sub>4</sub> results from fossil fuel combustion as well as off-gassing associated with agricultural practices and landfills. N<sub>2</sub>O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes.

Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21<sup>st</sup> century than were observed during the 20<sup>th</sup> century. According to the CalEPA's 2010 *Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, April 2010). While these potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general scientific modeling tools are currently unable to predict what impacts would occur locally with a similar degree of accuracy.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO<sub>2</sub>e. The Scoping Plan was approved by ARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and ARB is currently in the process of updating the Scoping Plan.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-

---

term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (ARB, June 2014).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Association of Monterey Bay Area Governments (AMBAG) region, which includes the City of Soledad, was assigned targets of a 0% reduction in GHGs from transportation sources from 2005 levels by 2020 and a 5% reduction in GHGs from transportation sources from 2005 levels by 2035.

Monterey County and the City of Soledad do not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Significance Thresholds

Based on Appendix G of the *State CEQA Guidelines*, impacts related to greenhouse gas (GHG) emissions would be significant if the project would:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
2. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Neither the City of Soledad nor the MBUAPCD has developed or adopted GHG significance thresholds. The City does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. For purposes of this analysis, the guidance provided by the San Luis Obispo Air Pollution Control District (SLOAPCD) Greenhouse Gas Thresholds, adopted in April 2012 (SLOAPCD, 2012), is used. This procedure provides a quantitative approach for the assessment, and has been developed by the adjacent air district in the same general region. Emissions of all GHGs are reported based on their equivalent weight in CO<sub>2</sub> (CO<sub>2</sub>e). The three criteria are summarized in Table 2.

**Table 2  
SLOAPCD GHG Significance Determination Criteria**

GHG Emission Source Category	Operational Emissions
Residential and Commercial Projects	Compliance with Qualified GHG Reduction Strategy OR Bright-Line Threshold of 1,150 MT of CO <sub>2</sub> e/yr OR Efficiency Threshold of 4.9 MT CO <sub>2</sub> e/SP*/yr

(Industrial) Stationary Sources	10,000 MT of CO <sub>2</sub> e/yr
---------------------------------	-----------------------------------

\*SP = Service Population (residents + employees)

For projects other than stationary sources, compliance with either a Qualified Greenhouse Gas Reduction Strategy, or with the Bright-Line (1,150 CO<sub>2</sub>e/yr.) or Efficiency Threshold (4.9 MT CO<sub>2</sub>e/SP/yr.) would result in an insignificant determination, and in compliance with the goals of AB 32. The construction emissions of projects would be amortized over the lifetime of a project (25 years for commercial projects, based on SLOAPCD's CEQA Air Quality Handbook [April, 2012]) and added to the operational emissions. Emissions from construction-only projects (e.g. roadways, pipelines, etc.) would be amortized over the life of the project and compared to an adopted GHG Reduction Strategy or the Bright-Line Threshold only.

The SLOAPCD "bright-line threshold" was developed to help reach the AB 32 emission reduction targets by attributing an appropriate share of the GHG reductions needed from new land use development projects subject to CEQA. Land use sector projects that comply with this threshold would not be "cumulatively considerable" because they would be helping to solve the cumulative problem as a part of the AB 32 process. Such small sources would not significantly add to global climate change and would not hinder the state's ability to reach the AB 32 goal, even when considered cumulatively. The threshold is intended to assess small and average sized projects, whereas the per-service population guideline is intended to avoid penalizing larger projects that incorporate GHG-reduction measures such that they may have high total annual GHG emissions, but would be relatively efficient, as compared to projects of similar scale. Based on the nature and size of the project, the bright-line threshold is the most appropriate threshold for this analysis. As such, the proposed project would have a potentially significant contribution to GHG emissions if it would result in emissions in excess of 1,150 metric tons of CO<sub>2</sub>e per year.

Calculations of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O because these comprise 98.9% of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the project would emit in the largest quantities. Minimal amounts of other main GHGs (such as chlorofluorocarbons [CFCs]) would be emitted, but these other GHG emissions would not substantially add to the calculated CO<sub>2</sub>e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (January 2008) and include the use of the California Climate Action Registry (CCAR) General Reporting Protocol (January 2009).

### Impact Analysis

*Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

As described previously, the project would not involve any uses that would generate long-term operational GHG emissions.

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately addresses impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA, 2008). Nevertheless, air pollution control districts such as the SLOAPCD have recommended amortizing construction-related emissions over a 25-year period for commercial projects and over a 50-year period for residential projects in conjunction with a project's estimated operational emissions. For this project, construction-related emissions have been amortized over a 25-year period for the assumed life of the proposed improvements and as the most conservative approach to analysis.

Construction of the proposed project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Emissions associated with the construction period were estimated using CalEEMod, based on default projections for the amount of construction

---

equipment operating hours that would be required to complete the project. Construction activity is assumed to occur over a period of approximately three months and would include grading, clearing, grubbing, excavation, and other earthmoving activities. The annual results of the CalEEMod emissions estimate and assumptions are available as Attachment 1.

**Table 3**  
**Estimated Construction Emissions of Greenhouse Gases**

	<b>Emissions (Carbon Dioxide Equivalent (CO<sub>2</sub>e))</b>
Total Estimated Construction Emissions	80 metric tons
Amortized over 25 years	3.2 metric tons per year

See Attachment 1 for CalEEMod Results.

As shown in Table 3, construction activity associated with the project would generate an estimated 80 metric tons of CO<sub>2</sub>e. Amortized over a 25-year period (the assumed lifetime of the project), construction of the proposed project would generate approximately 3.2 metric tons of CO<sub>2</sub>e per year. These emissions would comprise less than one percent of the allowable emissions and would not exceed the applicable threshold of 1,150 metric tons of CO<sub>2</sub>e per year. Therefore, impacts resulting from GHG emissions would be less than significant.

*Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The City of Soledad has not adopted a Climate Action Plan or other qualified GHG reduction plan. AMBAG has incorporated sustainable community strategy into its Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS), which is designed to help the region achieve its SB 375 GHG emissions reduction target. The AMBAG 2035 MTP/SCS demonstrates that the AMBAG region would achieve its regional emissions reduction targets for passenger vehicles for the 2020 and 2035 target years. The proposed project would not alter the population projections used in the plan, and is consistent with the existing land use designation for the site.

The project would also be required to comply with existing State regulations, which include actions adopted to achieve the overall GHG emissions reduction goals identified in AB 32.

The existing Soledad General Plan does not include goals and policies related to GHG reductions. Because there is no locally adopted GHG Reduction Plan to reduce emissions from new development, because the project would be consistent with the applicable land use and zoning designations, and because the project would not conflict with any State regulations intended to reduce GHG emissions statewide, the project would be consistent with applicable plans and programs designed to reduce GHG emissions. Consistency with these state regulations and goals illustrates that the project would not conflict with the state's GHG-related legislation and would not conflict with state GHG reduction goals. Therefore, this impact would be less than significant.

## References

California Air Pollution Control Officers Association (CAPCOA). August 2010. *Quantifying Greenhouse Gas Mitigation Measures*. Available at: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

---

- 
- California Air Pollution Control Officers Association (CAPCOA). January 2008. *CEQA & Climate Change*. Available at: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>
- California Air Pollution Control Officers Association (CAPCOA). July 2013. *CalEEMod User's Guide*. Available at: <http://www.aqmd.gov/caleemod/user's-guide>
- California Air Resources Board. June 26, 2014. AB 32 Scoping Plan. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
- California Air Resources Board. October 1, 2015. *Ambient Air Quality Standards*. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>
- California Air Resources Board. June 2015. *Greenhouse Gas Inventory Data – 2000 to 2013*. Available: <http://www.arb.ca.gov/cc/inventory/data/data.htm>
- California Climate Action Registry General Reporting Protocol. January 2009. *Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1*.
- California Environmental Protection Agency (CalEPA). April 2010. *Climate Action Team Biennial Report, Final Report*.
- California Environmental Protection Agency (CalEPA), March 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. Available at: [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/2006-04-03\\_FINAL\\_CAT\\_REPORT\\_EXECSUMMARY.PDF](http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF)
- California Natural Resources Agency. 2014 CEQA Statutes and Guidelines. Available at: [http://resources.ca.gov/ceqa/docs/2014\\_CEQA\\_Statutes\\_and\\_Guidelines.pdf](http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf)
- Intergovernmental Panel on Climate Change [IPCC]. *Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. [Penman, J.; Gytarsky, M.; Hiraishi, T.; Irving, W.; Krug, T.]. Paris: OECD, 2006.
- Intergovernmental Panel on Climate Change [IPCC], 2007: *Summary for Policymakers*. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Intergovernmental Panel on Climate Change [IPCC], 2013: *Summary for Policymakers*. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Monterey Bay Unified Air Pollution Control District (MBUAPCD). 2008. *CEQA Air Quality Guidelines*. Available at: [http://mbuapcd.org/pdf/CEQA\\_full%20\(1\).pdf](http://mbuapcd.org/pdf/CEQA_full%20(1).pdf)
- Monterey Bay Unified Air Pollution Control District (MBUAPCD). August 2008. *2008 Air Quality Management Plan*. Available at: <http://www.mbuapcd.org/mbuapcd/pdf/Planning/2008AirQualityManagementPlan1.pdf>
-

---

National Oceanic & Atmospheric Administration (NOAA). September 2010. *Annual Greenhouse Gas Index*. Available at: <http://www.esrl.noaa.gov/gmd/aggi/>

San Luis Obispo Air Pollution Control District (SLOAPCD). March 28, 2012. *Greenhouse Gas Thresholds and Supporting Evidence*. Available at:  
[http://www.slocleanair.org/images/cms/upload/files/GHG\\_Thresholds\\_and\\_Supporting\\_Evidence\\_3-28-12.pdf](http://www.slocleanair.org/images/cms/upload/files/GHG_Thresholds_and_Supporting_Evidence_3-28-12.pdf)

Schaff and Wheeler Consulting Civil Engineers. June 3, 2014. Ordinary High Water Mark Memorandum.

Soledad, City of. September 21, 2005. General Plan. Available at:  
<http://www.ci.soledad.ca.us/DocumentCenter/Home/View/223>

Soledad, City of. March 31, 2014. Municipal Code. Available at:  
[https://www.municode.com/library/ca/soledad/codes/code\\_of\\_ordinances](https://www.municode.com/library/ca/soledad/codes/code_of_ordinances)

---

## Bryant Canyon Channel Improvement Project

### North Central Coast Air Basin, Winter

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Average	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.8	Precipitation Freq (Days)	53
Climate Zone	4			Operational Year	2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)	641.35	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
--------------------------	--------	--------------------------	-------	--------------------------	-------

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

Project Characteristics -

Land Use - assumed max area of disturbance 1.9 acres based on info provided by MCWRA

Construction Phase - assuming 3 month construction schedule

Grading - assuming up to 2 passes during site prep and grading 2\*1.9=3.8, total exported material

---

National Oceanic & Atmospheric Administration (NOAA). September 2010. *Annual Greenhouse Gas Index*. Available at: <http://www.esrl.noaa.gov/gmd/aggi/>

San Luis Obispo Air Pollution Control District (SLOAPCD). March 28, 2012. *Greenhouse Gas Thresholds and Supporting Evidence*. Available at: [http://www.slocleanair.org/images/cms/upload/files/GHG\\_Thresholds\\_and\\_Supporting\\_Evidence\\_3-28-12.pdf](http://www.slocleanair.org/images/cms/upload/files/GHG_Thresholds_and_Supporting_Evidence_3-28-12.pdf)

Schaff and Wheeler Consulting Civil Engineers. June 3, 2014. Ordinary High Water Mark Memorandum.

Soledad, City of. September 21, 2005. General Plan. Available at: <http://www.ci.soledad.ca.us/DocumentCenter/Home/View/223>

Soledad, City of. March 31, 2014. Municipal Code. Available at: [https://www.municode.com/library/ca/soledad/codes/code\\_of\\_ordinances](https://www.municode.com/library/ca/soledad/codes/code_of_ordinances)

---

## Bryant Canyon Channel Improvement Project North Central Coast Air Basin, Winter

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot/Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.8	Precipitation Freq (Days)	53
Climate Zone	4			Operational Year	2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)	641.35	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
--------------------------	--------	--------------------------	-------	--------------------------	-------

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

Project Characteristics -

Land Use - assumed max area of disturbance 1.9 acres based on info provided by MCWRA

Construction Phase - assuming 3 month construction schedule

Grading - assuming up to 2 passes during site prep and grading 2\*1.9=3.8, total exported material

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	16.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	8.00
tblGrading	AcresOfGrading	6.00	3.80
tblGrading	AcresOfGrading	4.00	3.80
tblGrading	MaterialExported	0.00	8,200.00
tblProjectCharacteristics	OperationalYear	2014	2018

**2.0 Emissions Summary**



**2.2 Overall Operational**  
Unmitigated Operational

Category	lb/day										lb/day					
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Net CO2	Total CO2	CH4	N2O	CO2e
Area	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.4000e-004</b>

Mitigated Operational

Category	lb/day										lb/day					
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Net CO2	Total CO2	CH4	N2O	CO2e
Area	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.4000e-004</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Blow CO2	NBlo-CO2	Total CO2	GHG	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 Preparation	Site Preparation	1/29/2016	2/9/2016	5	8	
2	Grading	Grading	2/10/2016	3/2/2016	5	16	
3	Paving	Paving	3/3/2016	4/27/2016	5	40	

Acres of Grading (Site Preparation Phase): 3.8

Acres of Grading (Grading Phase): 3.8

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
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40

**Trips and VMI**

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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1.025	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**

**3.2 Site Preparation - 2016**  
Unmitigated Construction On-Site

Category	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NIIO- CO2	Total CO2	GH4	N2O	CO2e
lb/day														
Fugitive Dust			5.7731	0.0000	5.7731	2.9508	0.0000	2.9508			0.0000			0.0000
Off-Road	2.4428	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.087 <sub>2</sub>	1,781.087 <sub>2</sub>	0.5372		1,792.369 <sub>3</sub>
<b>Total</b>	<b>2.4428</b>	<b>0.0171</b>	<b>5.7731</b>	<b>1.3985</b>	<b>7.1715</b>	<b>2.9508</b>	<b>1.2866</b>	<b>4.2374</b>		<b>1,781.087<sub>2</sub></b>	<b>1,781.087<sub>2</sub></b>	<b>0.5372</b>		<b>1,792.369<sub>3</sub></b>

Unmitigated Construction Off-Site

Category	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NIIO- CO2	Total CO2	GH4	N2O	CO2e
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
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
Worker	0.0405	7.9000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180		65.5371	65.5371	4.6700e-003		65.6351
<b>Total</b>	<b>0.0405</b>	<b>7.9000e-004</b>	<b>0.0657</b>	<b>6.6000e-004</b>	<b>0.0664</b>	<b>0.0174</b>	<b>6.0000e-004</b>	<b>0.0180</b>		<b>65.5371</b>	<b>65.5371</b>	<b>4.6700e-003</b>		<b>65.6351</b>

**3.2 Site Preparation - 2016**  
**Mitigated Construction On-Site**

Category	CO2e	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	GHG	N2O	CO2e
lb/day																	
Fugitive Dust						5.7731	0.0000	5.7731	2.9508	0.0000	2.9508			0.0000			0.0000
Off-Road	2.4428		16.5144	25.7718	0.0171		1.3985	1.3985		1.2866	1.2866	0.0000	1,781.087	1,781.087	0.5372		1,792.369
<b>Total</b>	<b>2.4428</b>		<b>16.5144</b>	<b>25.7718</b>	<b>0.0171</b>	<b>5.7731</b>	<b>1.3985</b>	<b>7.1716</b>	<b>2.9508</b>	<b>1.2866</b>	<b>4.2374</b>	<b>0.0000</b>	<b>1,781.087</b>	<b>1,781.087</b>	<b>0.5372</b>		<b>1,792.369</b>

**Mitigated Construction Off-Site**

Category	CO2e	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	GHG	N2O	CO2e
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	0.0405	0.0628	0.5478	0.0628	7.9000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180			65.5371	4.6700e-003		65.6351
<b>Total</b>	<b>0.0405</b>	<b>0.0628</b>	<b>0.5478</b>	<b>0.0628</b>	<b>7.9000e-004</b>	<b>0.0657</b>	<b>6.6000e-004</b>	<b>0.0664</b>	<b>0.0174</b>	<b>6.0000e-004</b>	<b>0.0180</b>			<b>65.5371</b>	<b>4.6700e-003</b>		<b>65.6351</b>

**3.3 Grading - 2016**

**Unmitigated Construction On-Site**

Category	lb/day														
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Total CO2	GHG	N2O	CO2e
Fugitive Dust					4.8477	0.0000	4.8477	2.5219	0.0000	2.5219		0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407	1.0494	1.0494	1.0494	1,462.846 8	1,462.846 8	0.4413		1,472.113 0
<b>Total</b>	<b>1.9908</b>	<b>21.0361</b>	<b>13.6704</b>	<b>0.0141</b>	<b>4.8477</b>	<b>1.1407</b>	<b>5.9884</b>	<b>2.5219</b>	<b>1.0494</b>	<b>3.5713</b>	<b>1,462.846 8</b>	<b>1,462.846 8</b>	<b>0.4413</b>		<b>1,472.113 0</b>

**Unmitigated Construction Off-Site**

Category	lb/day														
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Total CO2	GHG	N2O	CO2e
Hauling	1.7565	17.5640	24.1786	0.0477	1.1161	0.2662	1.3823	0.3056	0.2449	0.5505	4,783.714 3	4,783.714 3	0.0352		4,784.453 9
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	0.0405	0.0628	0.5478	7.9000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180	65.5371	65.5371	4.6700e-003		65.6351
<b>Total</b>	<b>1.7970</b>	<b>17.6268</b>	<b>24.7264</b>	<b>0.0485</b>	<b>1.1818</b>	<b>0.2668</b>	<b>1.4487</b>	<b>0.3231</b>	<b>0.2465</b>	<b>0.5685</b>	<b>4,849.261 4</b>	<b>4,849.261 4</b>	<b>0.0399</b>		<b>4,850.089 0</b>

**3.3 Grading - 2016**

**Mitigated Construction On-Site**

Category	CO2	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NOx	CH4	Total CO2	CO2e
Fugitive Dust				4.8477	0.0000	4.8477	2.5219	0.0000	2.5219			0.0000	0.0000
Off-Road	1.9908	21.0361	0.0141	1.1407	1.1407	1.1407	1.0494	1.0494	1.0494		0.4413	1,462.8468	1,472.1130
<b>Total</b>	<b>1.9908</b>	<b>21.0361</b>	<b>0.0141</b>	<b>4.8477</b>	<b>1.1407</b>	<b>5.9884</b>	<b>2.5219</b>	<b>1.0494</b>	<b>3.5713</b>		<b>0.4413</b>	<b>1,462.8468</b>	<b>1,472.1130</b>

**Mitigated Construction Off-Site**

Category	CO2	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NOx	CH4	Total CO2	CO2e
Hauling	1.7565	17.5640	0.0477	1.1161	0.2662	1.3823	0.3056	0.2449	0.5505		0.0352	4,783.7143	4,784.4539
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
Worker	0.0405	0.0628	7.9000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180		4.6700e-003	65.5371	65.6351
<b>Total</b>	<b>1.7970</b>	<b>17.6268</b>	<b>0.0485</b>	<b>1.1818</b>	<b>0.2668</b>	<b>1.4487</b>	<b>0.3231</b>	<b>0.2455</b>	<b>0.5685</b>		<b>0.0399</b>	<b>4,849.2514</b>	<b>4,850.0890</b>

**3.4 Paving - 2016**

**Unmitigated Construction On-Site**

Category	lb/day										CO2e						
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total		Biogenic CO2	NBIogenic CO2	Total CO2	GHG	N2O	CO2e
Off-Road	1.2872	13.2076	9.0880	0.0133	0.8075	0.8075	0.8075	0.7438	0.7438	0.7438		1,368.4366	1,368.4366	0.4053			1,376.9473
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000				0.0000
<b>Total</b>	<b>1.2872</b>	<b>13.2076</b>	<b>9.0880</b>	<b>0.0133</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.7438</b>		<b>1,368.4366</b>	<b>1,368.4366</b>	<b>0.4053</b>			<b>1,376.9473</b>

**Unmitigated Construction Off-Site**

Category	lb/day										CO2e						
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total		Biogenic CO2	NBIogenic CO2	Total CO2	GHG	N2O	CO2e
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	0.0658	0.1020	0.8902	1.2800e-003	0.1068	1.0700e-003	0.1079	0.0283	9.8000e-004	0.0293		106.4977	106.4977	7.5900e-003			106.6570
<b>Total</b>	<b>0.0658</b>	<b>0.1020</b>	<b>0.8902</b>	<b>1.2800e-003</b>	<b>0.1068</b>	<b>1.0700e-003</b>	<b>0.1079</b>	<b>0.0283</b>	<b>9.8000e-004</b>	<b>0.0293</b>		<b>106.4977</b>	<b>106.4977</b>	<b>7.5900e-003</b>			<b>106.6570</b>

**3.4 Paving - 2016**

**Mitigated Construction On-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	MB-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.2872	9.0880	13.2076	0.0133	0.8075	0.8075	0.8075	0.7438	0.7438	0.7438	0.0000	1,368.4366	0.4053		1,376.9473
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			0.0000
<b>Total</b>	<b>1.2872</b>	<b>9.0880</b>	<b>13.2076</b>	<b>0.0133</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.0000</b>	<b>1,368.4366</b>	<b>0.4053</b>		<b>1,376.9473</b>

**Mitigated Construction Off-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	MB-CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0658	0.8902	0.1020	1.2800e-003	0.1068	1.0700e-003	0.1079	0.0283	9.8000e-004	0.0293		106.4977	7.5900e-003		106.6570
<b>Total</b>	<b>0.0658</b>	<b>0.8902</b>	<b>0.1020</b>	<b>1.2800e-003</b>	<b>0.1068</b>	<b>1.0700e-003</b>	<b>0.1079</b>	<b>0.0283</b>	<b>9.8000e-004</b>	<b>0.0293</b>		<b>106.4977</b>	<b>7.5900e-003</b>		<b>106.6570</b>

**4.0 Operational Detail - Mobile**

4.1 Mitigation Measures Mobile

Category	lb/day														
	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SB-CO2	NBB-CO2	Total CO2	GHG	NZD	CO2e
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles						Trip %		Trip Purpose %	
	HEV or C/W	HEV or C/C	HEV or C/NW	BEV or C/W	BEV or C/C	BEV or C/NW	Primary	Diversified	Primary	Diversified
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463934	0.038758	0.210530	0.164352	0.051306	0.007282	0.016583	0.030323	0.003051	0.002171	0.008186	0.000820	0.002705

5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO10-02	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

Land Use	NaturalGas a Use	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO10-02	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas Use	CO	NOx	CO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Net- CO2	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

6.0 Area Detail

6.1 Mitigation Measures Area

Category	CO	NOx	CO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Net- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000		4.4000e-004
Unmitigated	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000		4.4000e-004

**6.2 Area by SubCategory**

Unmitigated

SubCategory	NOx	NDx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SB-CO2	MB-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.5255				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7712				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		4.2000e-004	4.2000e-004	0.0000		4.4000e-004
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>4.4000e-004</b>

Mitigated

SubCategory	NOx	NDx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SB-CO2	MB-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.5255				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7712				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		4.2000e-004	4.2000e-004	0.0000		4.4000e-004
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>		<b>4.4000e-004</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	Hours/Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Vegetation**

## Bryant Canyon Channel Improvement Project

### North Central Coast Air Basin, Summer

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot/Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0

#### 1.2 Other Project Characteristics

Urbanization      Urban      Wind Speed (m/s)      2.8      Precipitation Freq (Days)      53

Climate Zone      4                     Operational Year      2018

Utility Company      Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)      641.35      CH4 Intensity (lb/MW/hr)      0.029      N2O Intensity (lb/MW/hr)      0.006

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

Project Characteristics -

Land Use - assumed max area of disturbance 1.9 acres based on info provided by MCWRA

Construction Phase - assuming 3 month construction schedule

Grading - assuming up to 2 passes during site prep and grading 2\*1.9=3.8, total exported material

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	16.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	8.00
tblGrading	AcresOfGrading	6.00	3.80
tblGrading	AcresOfGrading	4.00	3.80
tblGrading	MaterialExported	0.00	8,200.00
tblProjectCharacteristics	OperationalYear	2014	2018

**2.0 Emissions Summary**



**2.2 Overall Operational**

**Unmitigated Operational**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Area	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.4000e-004</b>

**Mitigated Operational**

Category	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Area	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.4000e-004</b>

	RDD	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MMio-CO2	Total CO2	CH4	NEO	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 Preparation	Site Preparation	1/29/2016	2/9/2016	5	8	
2	Grading	Grading	2/10/2016	3/2/2016	5	16	
3	Paving	Paving	3/3/2016	4/27/2016	5	40	

Acres of Grading (Site Preparation Phase): 3.8

Acres of Grading (Grading Phase): 3.8

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
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40

**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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,025.00	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**

**3.2 Site Preparation - 2016**

**Unmitigated Construction On-Site**

Category	CO2	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NOx-NO2	Total CO2	CH4	N2O	CO2e
lb/day														
Fugitive Dust				5.7731	0.0000	5.7731	2.9508	0.0000	2.9508		0.0000			0.0000
Off-Road	2.4428	16.5144	0.0171	1.3985	1.3985	1.3985	1.2866	1.2866	1.2866	1,781.087 2	1,781.087 2	0.5372		1,792.369 3
<b>Total</b>	<b>2.4428</b>	<b>16.5144</b>	<b>0.0171</b>	<b>5.7731</b>	<b>1.3985</b>	<b>7.1716</b>	<b>2.9508</b>	<b>1.2866</b>	<b>4.2374</b>	<b>1,781.087 2</b>	<b>1,781.087 2</b>	<b>0.5372</b>		<b>1,792.369 3</b>

**Unmitigated Construction Off-Site**

Category	CO2	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NOx-NO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0380	0.5251	8.4000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180	69.6002	69.6002	4.6700e-003		69.6983
<b>Total</b>	<b>0.0380</b>	<b>0.5251</b>	<b>8.4000e-004</b>	<b>0.0657</b>	<b>6.6000e-004</b>	<b>0.0664</b>	<b>0.0174</b>	<b>6.0000e-004</b>	<b>0.0180</b>	<b>69.6002</b>	<b>69.6002</b>	<b>4.6700e-003</b>		<b>69.6983</b>

**3.2 Site Preparation - 2016**

**Mitigated Construction On-Site**

Category	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SO2	NOx	CO	SO2	Total CO2	GHG	N2O	CO2e
lb/day																		
Fugitive Dust					5.7731	0.0000	5.7731	2.9508	0.0000	2.9508					0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171	1.3985	1.3985	1.3985	1.2866	1.2866	1.2866	0.0000	1,781.087 <sup>2</sup>	1,781.087 <sup>2</sup>	0.5372	1,781.087 <sup>2</sup>	0.5372		1,792.369 <sup>3</sup>
<b>Total</b>	<b>2.4428</b>	<b>25.7718</b>	<b>16.5144</b>	<b>0.0171</b>	<b>6.7731</b>	<b>1.3986</b>	<b>7.1716</b>	<b>2.9508</b>	<b>1.2866</b>	<b>4.2374</b>	<b>0.0000</b>	<b>1,781.087<sup>2</sup></b>	<b>1,781.087<sup>2</sup></b>	<b>0.6372</b>	<b>1,781.087<sup>2</sup></b>	<b>0.6372</b>		<b>1,792.369<sup>3</sup></b>

**Mitigated Construction Off-Site**

Category	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SO2	NOx	CO	SO2	Total CO2	GHG	N2O	CO2e
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
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
Worker	0.0380	0.0501	0.5251	8.4000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180					69.6002	4.6700e-003		69.6983
<b>Total</b>	<b>0.0380</b>	<b>0.0501</b>	<b>0.5251</b>	<b>8.4000e-004</b>	<b>0.0667</b>	<b>6.6000e-004</b>	<b>0.0664</b>	<b>0.0174</b>	<b>6.0000e-004</b>	<b>0.0180</b>					<b>69.6002</b>	<b>4.6700e-003</b>		<b>69.6983</b>

**3.3 Grading - 2016**

**Unmitigated Construction On-Site**

Category	lb/day															
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Mobile CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					4.8477	0.0000	4.8477	2.5219	0.0000	2.5219			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141	1.1407	1.1407	1.1407	1.0494	1.0494	1.0494	1,462.846	8	1,462.846	0.4413		1,472.113
<b>Total</b>	<b>1.9908</b>	<b>21.0361</b>	<b>13.6704</b>	<b>0.0141</b>	<b>4.8477</b>	<b>1.1407</b>	<b>5.9884</b>	<b>2.5219</b>	<b>1.0494</b>	<b>3.5713</b>	<b>1,462.846</b>	<b>8</b>	<b>1,462.846</b>	<b>0.4413</b>		<b>1,472.113</b>

**Unmitigated Construction Off-Site**

Category	lb/day															
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Mobile CO2	Total CO2	CH4	N2O	CO2e
Hauling	1.4250	16.6386	14.8510	0.0476	1.1161	0.2653	1.3814	0.3056	0.2440	0.5496	4,795.024	9	4,795.024	0.0347		4,795.754
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
Worker	0.0380	0.0501	0.5251	8.4000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180	69.6002	8	69.6002	4.6700e-003		69.6983
<b>Total</b>	<b>1.4630</b>	<b>16.6886</b>	<b>15.3760</b>	<b>0.0485</b>	<b>1.1818</b>	<b>0.2659</b>	<b>1.4477</b>	<b>0.3231</b>	<b>0.2446</b>	<b>0.5677</b>	<b>4,864.625</b>	<b>1</b>	<b>4,864.625</b>	<b>0.0394</b>		<b>4,866.452</b>

**3.3 Grading - 2016**

**Mitigated Construction On-Site**

Category	R03	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SOx-CO2	NOx-CO2	Total CO2	GH4	N2O	CO2e
lb/day																
Fugitive Dust					4.8477	0.0000	4.8477	2.5219	0.0000	2.5219			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141	1.1407	1.1407	1.1407	1.0494	1.0494	1.0494	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
<b>Total</b>	<b>1.9908</b>	<b>21.0361</b>	<b>13.6704</b>	<b>0.0141</b>	<b>4.8477</b>	<b>1.1407</b>	<b>6.9884</b>	<b>2.5219</b>	<b>1.0494</b>	<b>3.6713</b>	<b>0.0000</b>	<b>1,462.8468</b>	<b>1,462.8468</b>	<b>0.4413</b>		<b>1,472.1130</b>

**Mitigated Construction Off-Site**

Category	R03	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SOx-CO2	NOx-CO2	Total CO2	GH4	N2O	CO2e
lb/day																
Hauling	1.4250	16.6386	14.8510	0.0476	1.1161	0.2653	1.3814	0.3056	0.2440	0.5496		4,795.0249	4,795.0249	0.0347		4,795.7544
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	0.0380	0.0501	0.5251	8.4000e-004	0.0657	6.6000e-004	0.0664	0.0174	6.0000e-004	0.0180		69.6002	69.6002	4.6700e-003		69.6983
<b>Total</b>	<b>1.4630</b>	<b>16.6886</b>	<b>15.3760</b>	<b>0.0485</b>	<b>1.1818</b>	<b>0.2659</b>	<b>1.4477</b>	<b>0.3231</b>	<b>0.2446</b>	<b>0.5677</b>		<b>4,864.6251</b>	<b>4,864.6251</b>	<b>0.0394</b>		<b>4,865.4626</b>

**3.4 Paving - 2016**

**Unmitigated Construction On-Site**

Category	CO2	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Net CO2	CH4	N2O	CO2e
Off-Road	1.2872	13.2076	0.0133	0.8075	0.8075	0.8075	0.7438	0.7438	0.7438	1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			0.0000
<b>Total</b>	<b>1.2872</b>	<b>13.2076</b>	<b>0.0133</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.7438</b>	<b>1,368.4366</b>	<b>1,368.4366</b>	<b>0.4053</b>		<b>1,376.9473</b>

**Unmitigated Construction Off-Site**

Category	CO2	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Net CO2	CH4	N2O	CO2e
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
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
Worker	0.0617	0.0814	1.3600e-003	0.1068	1.0700e-003	0.1079	0.0283	9.8000e-004	0.0293	113.1004	113.1004	7.5900e-003		113.2597
<b>Total</b>	<b>0.0617</b>	<b>0.0814</b>	<b>1.3600e-003</b>	<b>0.1068</b>	<b>1.0700e-003</b>	<b>0.1079</b>	<b>0.0283</b>	<b>9.8000e-004</b>	<b>0.0293</b>	<b>113.1004</b>	<b>113.1004</b>	<b>7.5900e-003</b>		<b>113.2597</b>

**3.4 Paving - 2016**

**Mitigated Construction On-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Total CO2	GHG	N2O	CO2e
Off-Road	1.2872	9.0880	13.2076	0.0133	0.8075	0.8075	0.8075	0.7438	0.7438	0.7438	0.0000	1,368.4366	0.4053		1,376.9473
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			0.0000
<b>Total</b>	<b>1.2872</b>	<b>9.0880</b>	<b>13.2076</b>	<b>0.0133</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.8075</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.7438</b>	<b>0.0000</b>	<b>1,368.4366</b>	<b>0.4053</b>		<b>1,376.9473</b>

**Mitigated Construction Off-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Total CO2	GHG	N2O	CO2e
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
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
Worker	0.0617	0.8532	0.0814	1.3600e-003	0.1068	1.0700e-003	0.1079	0.0283	9.8000e-004	0.0293	113.1004	113.1004	7.5900e-003		113.2597
<b>Total</b>	<b>0.0617</b>	<b>0.8532</b>	<b>0.0814</b>	<b>1.3600e-003</b>	<b>0.1068</b>	<b>1.0700e-003</b>	<b>0.1079</b>	<b>0.0283</b>	<b>9.8000e-004</b>	<b>0.0293</b>	<b>113.1004</b>	<b>113.1004</b>	<b>7.5900e-003</b>		<b>113.2597</b>

**4.0 Operational Detail - Mobile**

4.1 Mitigation Measures Mobile

Category	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SB-CO2	NBjs-CO2	Total CO2	CH4	N2O	CO2e
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Total	0.00	0.00	0.00				

4.3 Trip Type Information

Land Use	Miles										Trip %			Trip Purpose %		
	HWY-DAY	HWY-NIGHT	HWY-DAY	HWY-NIGHT	HWY-DAY	HWY-NIGHT	HWY-DAY	HWY-NIGHT	Priority	Directed	Passive	Priority	Directed	Passive		
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHV	OBUS	UBUS	MCY	SBUS	MH
0.463934	0.038758	0.210530	0.164352	0.051306	0.007282	0.016583	0.030323	0.003051	0.002171	0.008186	0.000820	0.002705

5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	lb/day														
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO2+CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

Land Use	lb/day										lb/day					
	NaturalGas Use (MMBTU/yr)	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO2+CO2	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Exhaust PM2.5	PM2.5 Total	SOx- CO2	NOx- CO2	Total CO2	CH4	N2O	CO2e	
lb/day																				
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SOx- CO2	NOx- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000	0.0000	4.4000e-004
Unmitigated	2.2967	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	4.2000e-004	0.0000	0.0000	4.4000e-004

**6.2 Area by SubCategory**

**Unmitigated**

SubCategory	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SO2	CO	NOx	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.5255				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		0.0000
Consumer Products	1.7712				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		4.4000e-004
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>				<b>0.0000</b>		<b>4.4000e-004</b>

**Mitigated**

SubCategory	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SO2	CO	NOx	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.5255				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		0.0000
Consumer Products	1.7712				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000		4.4000e-004
<b>Total</b>	<b>2.2967</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>				<b>0.0000</b>		<b>4.4000e-004</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
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Vegetation**

## Bryant Canyon Channel Improvement Project North Central Coast Air Basin, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1.90	Acre	1.90	82,764.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.8	Precipitation Freq (Days)	53
Climate Zone	4			Operational Year	2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)	641.35	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
--------------------------	--------	--------------------------	-------	--------------------------	-------

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

Project Characteristics -

Land Use - assumed max area of disturbance 1.9 acres based on info provided by MCWRA

Construction Phase - assuming 3 month construction schedule

Grading - assuming up to 2 passes during site prep and grading 2\*1.9=3.8, total exported material

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	16.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	8.00
tblGrading	AcresOfGrading	6.00	3.80
tblGrading	AcresOfGrading	4.00	3.80
tblGrading	MaterialExported	0.00	8,200.00
tblProjectCharacteristics	OperationalYear	2014	2018

**2.0 Emissions Summary**



**2.2 Overall Operational**  
Unmitigated Operational

Category	ton/yr										MT/yr						
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	MBR CO2	Total CO2	CH4	N2O	CO2e	
Area	0.4191	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	0.0000	4.0000e-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	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste																	
Water																	
<b>Total</b>	<b>0.4191</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

**2.2 Overall Operational**  
**Mitigated\_Operational**

Category	t/yr										MT/yr						
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Area	0.4191	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	4.0000e-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	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4191</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

Percent Reduction	t/yr										MT/yr					
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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 Preparation	Site Preparation	1/29/2016	2/9/2016	5	8	
2	Grading	Grading	2/10/2016	3/2/2016	5	16	
3	Paving	Paving	3/3/2016	4/27/2016	5	40	

Acres of Grading (Site Preparation Phase): 3.8

Acres of Grading (Grading Phase): 3.8

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
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40

**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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,025.00	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**

**3.2 Site Preparation - 2016**  
**Unmitigated Construction On-Site**

Category	ton/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CC2	NOB-CC2	Total CO2	CH4	N2O	CO2e	
Fugitive Dust					0.0231	0.0000	0.0231	0.0118	0.0000	0.0118	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7700e-003	0.1031	0.0661	7.0000e-005	5.5900e-003	5.5900e-003	5.5900e-003	5.1500e-003	5.1500e-003	5.1500e-003	0.0000	6.4631	6.4631	1.9500e-003	0.0000	0.0000	6.5040
<b>Total</b>	<b>9.7700e-003</b>	<b>0.1031</b>	<b>0.0661</b>	<b>7.0000e-005</b>	<b>0.0231</b>	<b>5.5900e-003</b>	<b>0.0287</b>	<b>0.0118</b>	<b>5.1500e-003</b>	<b>0.0170</b>	<b>0.0000</b>	<b>6.4631</b>	<b>6.4631</b>	<b>1.9500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.5040</b>

**Unmitigated Construction Off-Site**

Category	lb/Day										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CC2	NOB-CC2	Total CO2	CH4	N2O	CO2e	
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	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	0.0000
Worker	1.5000e-004	2.3000e-004	2.0600e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2388	0.2388	2.0000e-005	0.0000	0.0000	0.2392
<b>Total</b>	<b>1.5000e-004</b>	<b>2.3000e-004</b>	<b>2.0600e-003</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>0.2388</b>	<b>0.2388</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.2392</b>

**3.2 Site Preparation - 2016  
Mitigated Construction On-Site**

Category	CO2e	CO2	CH4	N2O	Total CO2e	CO2e	CO2	CH4	N2O	Total CO2e
-MT/yr										
Fugitive Dust		0.0231	0.0000	0.0231	0.0118	0.0000	0.0118	0.0000	0.0000	0.0118
Off-Road	9.7700e-003	0.0661	7.0000e-005	5.5900e-003	5.1500e-003	5.1500e-003	5.1500e-003	0.0000	0.0000	6.4631
<b>Total</b>	<b>9.7700e-003</b>	<b>0.0661</b>	<b>7.0000e-005</b>	<b>5.5900e-003</b>	<b>0.0287</b>	<b>5.1500e-003</b>	<b>0.0118</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.4631</b>

**Mitigated Construction Off-Site**

Category	CO2e	CO2	CH4	N2O	Total CO2e	CO2e	CO2	CH4	N2O	Total CO2e
-MT/yr										
Hauling	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
Worker	1.5000e-004	2.0600e-003	0.0000	2.5000e-004	7.0000e-005	7.0000e-005	7.0000e-005	0.0000	0.0000	2.2388
<b>Total</b>	<b>1.5000e-004</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.2388</b>

**3.3 Grading - 2016**

**Unmitigated Construction On-Site**

Category	On-Site										MT/yr					
	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bip- CO2	NIIP- CO2	Total CO2	GH4	N2O	CO2e	
Fugitive Dust				0.0388	0.0000	0.0388	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1683	1.1000e-004	9.1300e-003	9.1300e-003	9.1300e-003	8.4000e-003	8.4000e-003	8.4000e-003	0.0000	10.6166	10.6166	3.2000e-003	0.0000	10.6838	
<b>Total</b>	<b>0.0169</b>	<b>0.1683</b>	<b>1.1000e-004</b>	<b>0.0388</b>	<b>9.1300e-003</b>	<b>0.0479</b>	<b>0.0202</b>	<b>8.4000e-003</b>	<b>0.0286</b>	<b>0.0000</b>	<b>10.6166</b>	<b>10.6166</b>	<b>3.2000e-003</b>	<b>0.0000</b>	<b>10.6838</b>	

**Unmitigated Construction Off-Site**

Category	Off-Site										MT/yr				
	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bip- CO2	NIIP- CO2	Total CO2	GH4	N2O	CO2e
Hauling	0.0127	0.1384	3.8000e-004	8.6600e-003	2.1300e-003	0.0108	2.3800e-003	1.9500e-003	4.3400e-003	0.0000	34.7653	34.7653	2.5000e-004	0.0000	34.7706
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
Worker	3.0000e-004	4.6000e-004	1.0000e-005	5.1000e-004	1.0000e-005	5.1000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4777	0.4777	3.0000e-005	0.0000	0.4784
<b>Total</b>	<b>0.0130</b>	<b>0.1388</b>	<b>3.9000e-004</b>	<b>9.1900e-003</b>	<b>2.1400e-003</b>	<b>0.0113</b>	<b>2.6200e-003</b>	<b>1.9500e-003</b>	<b>4.4800e-003</b>	<b>0.0000</b>	<b>35.2430</b>	<b>35.2430</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>35.2490</b>

**3.3 Grading - 2016**

**Mitigated Construction On-Site**

Category	ton/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BI5- CO2	NI50- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0388	0.0000	0.0388	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1683	0.1094	1.1000e-004	9.1300e-003	9.1300e-003	9.1300e-003	8.4000e-003	8.4000e-003	8.4000e-003	0.0000	10.6166	10.6166	3.2000e-003	0.0000	10.6838
<b>Total</b>	<b>0.0169</b>	<b>0.1683</b>	<b>0.1094</b>	<b>1.1000e-004</b>	<b>0.0388</b>	<b>9.1300e-003</b>	<b>0.0479</b>	<b>0.0202</b>	<b>8.4000e-003</b>	<b>0.0286</b>	<b>0.0000</b>	<b>10.6166</b>	<b>10.6166</b>	<b>3.2000e-003</b>	<b>0.0000</b>	<b>10.6838</b>

**Mitigated Construction Off-Site**

Category	ton/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BI5- CO2	NI50- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0127	0.1384	0.1545	3.8000e-004	8.6800e-003	2.1300e-003	0.0108	2.3800e-003	1.9500e-003	4.3400e-003	0.0000	34.7653	34.7653	2.5000e-004	0.0000	34.7706
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	4.6000e-004	4.1300e-003	1.0000e-005	5.1000e-004	1.0000e-005	5.1000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4777	0.4777	3.0000e-005	0.0000	0.4784
<b>Total</b>	<b>0.0130</b>	<b>0.1388</b>	<b>0.1586</b>	<b>3.9000e-004</b>	<b>9.1900e-003</b>	<b>2.1400e-003</b>	<b>0.0113</b>	<b>2.8200e-003</b>	<b>1.9600e-003</b>	<b>4.8000e-003</b>	<b>0.0000</b>	<b>35.2430</b>	<b>35.2430</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>35.2490</b>

**3.4 Paving - 2016**

**Unmitigated Construction On-Site**

Category	On-Site											MT/yr				
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	Mobile CO2	Total CO2	GHG	N2O	CO2e
Off-Road	0.0257	0.2642	0.1818	2.7000e-004	0.0162	0.0162	0.0162	0.0149	0.0149	0.0149	0.0000	24.8285	24.8285	7.3500e-003	0.0000	24.9829
Paving	0.0000				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>0.0257</b>	<b>0.2642</b>	<b>0.1818</b>	<b>2.7000e-004</b>	<b>0.0162</b>	<b>0.0162</b>	<b>0.0162</b>	<b>0.0149</b>	<b>0.0149</b>	<b>0.0149</b>	<b>0.0000</b>	<b>24.8285</b>	<b>24.8285</b>	<b>7.3500e-003</b>	<b>0.0000</b>	<b>24.9829</b>

**Unmitigated Construction Off-Site**

Category	Off-Site											MT/yr				
	COG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	Mobile CO2	Total CO2	GHG	N2O	CO2e
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	1.8600e-003	0.0168	3.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9405	1.9405	1.4000e-004	0.0000	1.9434
<b>Total</b>	<b>1.2200e-003</b>	<b>1.8600e-003</b>	<b>0.0168</b>	<b>3.0000e-005</b>	<b>2.0700e-003</b>	<b>2.0000e-005</b>	<b>2.0900e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>1.9405</b>	<b>1.9405</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.9434</b>

**3.4 Paving - 2016**

**Mitigated Construction On-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CC2	NIIO-CC2	Total CO2	GH4	N2O	CO2e
Off-Road	0.0257	0.1818	0.2642	2.7000e-004	0.0162	0.0162	0.0162	0.0149	0.0149	0.0149	0.0000	24.8285	24.8285	7.3500e-003	0.0000	24.9829
Paving	0.0000				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>0.0257</b>	<b>0.1818</b>	<b>0.2642</b>	<b>2.7000e-004</b>	<b>0.0162</b>	<b>0.0162</b>	<b>0.0162</b>	<b>0.0149</b>	<b>0.0149</b>	<b>0.0149</b>	<b>0.0000</b>	<b>24.8285</b>	<b>24.8285</b>	<b>7.3500e-003</b>	<b>0.0000</b>	<b>24.9829</b>

**Mitigated Construction Off-Site**

Category	CO2	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CC2	NIIO-CC2	Total CO2	GH4	N2O	CO2e
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	0.0168	1.8600e-003	3.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9405	1.9405	1.4000e-004	0.0000	1.9434
<b>Total</b>	<b>1.2200e-003</b>	<b>0.0168</b>	<b>1.8600e-003</b>	<b>3.0000e-005</b>	<b>2.0700e-003</b>	<b>2.0000e-005</b>	<b>2.0900e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>1.9405</b>	<b>1.9405</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.9434</b>

**4.0 Operational Detail - Mobile**

### 4.1 Mitigation Measures Mobile

Category	to daily										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-OC2	NH3-OC2	Total CO2	CH4	N2O	CO2e
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

### 4.3 Trip Type Information

Land Use	Miles										Trip %				
	H-W or C-W	H-S or C-S	H-D or C-D	H-W or C-W	H-S or C-S	H-D or C-D	H-W or C-W	H-S or C-S	H-D or C-D	H-W or C-W	H-S or C-S	H-D or C-D	Primary	Diversified	Pass-by
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463934	0.038758	0.210530	0.164352	0.051306	0.007282	0.016583	0.030323	0.003051	0.002171	0.008186	0.000820	0.002705

### 5.0 Energy Detail

Historical Energy Use: N



**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

Land Use	ton/yr											MT/yr						
	NaturalGas Use	NO2	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	SiC- CO2	MBis- CO2	Total CO2	CH4	N2O	CO2e	
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		0.0000	0.0000	0.0000	0.0000	0.0000	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**

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

### 5.3 Energy by Land Use - Electricity

Mitigated

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

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

Category	ton/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e	
Mitigated	0.4191	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	0.0000	4.0000e-005
Unmitigated	0.4191	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	0.0000	4.0000e-005

**6.2 Area by SubCategory**

**Unmitigated**

SubCategory	ROG	NOx	CO	SO2	PM10			SO2	PM2.5			Total CO2	CH4	N2O	CO2e	
					Fugitive	Exhaust	PM10 Total		Fugitive	Exhaust	PM2.5 Total					
Architectural Coating	0.0959					0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3232					0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000		0.0000		0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005	4.0000e-005
<b>Total</b>	<b>0.4191</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>		<b>0.0000</b>		<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>

**Mitigated**

SubCategory	ROG	NOx	CO	SO2	PM10			SO2	PM2.5			Total CO2	CH4	N2O	CO2e	
					Fugitive	Exhaust	PM10 Total		Fugitive	Exhaust	PM2.5 Total					
Architectural Coating	0.0959					0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3232					0.0000		0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000		0.0000		0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005	4.0000e-005
<b>Total</b>	<b>0.4191</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>		<b>0.0000</b>		<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Category	MT/yr			
	Total CO2	CH4	N2O	CO2e
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

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

**7.2 Water by Land Use**

Mitigated

Land Use	Index/Out- let Use	Total CO2	CH4	N2O	CO2e	
	Mitigat	MT/yr				
Other Non- Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

**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

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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

---

**10.0 Vegetation**



# Rincon Consultants, Inc.

Environmental Scientists      Planners      Engineers

## M E M O R A N D U M

- Ventura**  
180 North Ashwood Avenue  
Ventura, California 93003  
805 644 4455  
FAX 644 4240
- San Luis Obispo**  
1530 Monterey Street, Suite D  
San Luis Obispo, California 93401  
805 547 0900  
FAX 547 0901
- Carlsbad**  
5135 Avenida Encinas, Suite A  
Carlsbad, California 92008  
760 918 9444  
FAX 918 9449
- Monterey**  
437 Figueroa Street, Suite 203  
Monterey, California 93940  
831 333 0310  
FAX 333 0340
- Oakland**  
180 Grand Avenue, Suite 400  
Oakland, California 94612  
510 834 4455  
FAX 834 4433
- Riverside**  
1485 Spruce Street, Suite D101  
Riverside, California 92507  
951 782 0061  
FAX 782 0097
- Fresno**  
255 W. Fallbrook Avenue, Suite 204A  
Fresno, California 93711  
559 228 9925
- Sacramento**  
2220 J Street, Suite 7  
Sacramento, California 95816  
916 706 1374

**Date:** November 17, 2015

**To:** Brent Slama, Director

**Organization:** City of Soledad, Community and Economic Development Department

**From:** Megan Jones, Rincon Consultants, Inc.

**Email:** mjones@rinconconsultants.com

**cc:** Laurie Warner Herson, Principal/ Owner, Phenix Environmental Planning  
laurie.warner.herson@phenixenv.com

**Re:** Noise Technical Study

This study is an analysis of the potential noise impacts on nearby sensitive receptors from the proposed Bryant Canyon Channel Improvement Project in the City of Soledad, California. The primary purpose of this study is to analyze the project's potential short-term noise impacts from construction activities. The project does not propose any uses that would result in long-term noise impacts.

The study has been prepared by Rincon Consultants, Inc. under contract to the City of Soledad. The City will use the study in support of the environmental documentation being prepared for the project pursuant to the California Environmental Quality Act (CEQA). Environmental documentation for the project will be prepared as an addendum to the certified Miravale Partnership - Hambey Property EIR.

### Project Summary

#### Background

The Bryant Canyon Channel (BCC), located in Soledad, California, was constructed in 2002 from Metz Road to a 90-degree bend approximately 4,400 linear feet upstream. The BCC was constructed in response to substantial flooding which occurred along Bryant Canyon Road in March 1995 (Schaaf & Wheeler, 2014). The BCC is an earthen, trapezoidal channel with 2 to 1 slopes and a bottom width of 12 feet. The channel is typically dry, only carrying flows during and following rain events. Prior to channel construction, flows from small seasonal rain events were carried by a roadside ditch along Bryant Canyon Road, with larger flows spread across the alluvial plain. According to Schaaf & Wheeler (2014), the channel slope, approximately 1.2 percent, necessitated the use of drop structures to reduce

---

channel flow velocities to an acceptable level. Three gabion drop structures were constructed in 2002 as well as a 66-inch temporary culvert, placed where the channel crosses Bryant Canyon Road.

### Proposed Bryant Canyon Channel Improvement Project

The project proposes construction of an additional nine drop structures and construction of a new ten-foot wide by six-foot high box culvert to replace the existing temporary culvert described above. Work to be completed as part of the project includes the following:

- Construction of nine gabion drop structures;
- Channel excavation of approximately 1,300 cubic yards (CY);
- Replacement of the existing 66-inch temporary culvert where the channel crosses Bryant Canyon Road;
- Installing rock slope protection with geotextile fabric on the west side of the channel;
- Reinforcement of the 90-degree bend through modification of the outboard rock-slope protected bank by raising it higher and grouting the rock; and
- Construction of an access road for use during construction and maintenance.

In addition to an excavator and backhoe, other equipment that may be used during construction of improvements includes a dump truck, compactor and loader. Construction activities will occur when there are low- or no-flow conditions in the channel.

The project would include modification to 1.9 acres (4,500 linear feet) of intermittent drainage ditch and would result in approximately 4,500 CY of material dredged and 2,400 CY of material discharged during construction. Another 300 CY per structure or 2,700 CY total of material would be excavated to install the gabion drop structures. Excavated material would be placed on-site in an area situated between the top of the channel and Bryant Canyon Road.

Contingent upon receipt of all approvals required, the project would be constructed prior to Fall 2018. Construction work hours would be restricted to 7:00 am to 7:00 pm Monday through Friday and 8:00 am to 5:00 pm on Saturdays. No construction of improvements would be undertaken on Sundays or observed national holidays.

### **Noise**

#### Setting

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal

---

---

conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units and office buildings is generally 30 dBA or more (FTA, 2006).

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest RMS (root mean squared) sound pressure level within the measurement period, and Lmin is the lowest RMS sound pressure level within the measurement period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a 10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than 1 dB. The State of California requires either the Ldn scale or the CNEL scale to be incorporated into city and county general plan noise elements. The City of Soledad uses the CNEL scale as its General Plan Noise Element measure of scale.

Sensitive Receptors. Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with each of these uses. The Soledad General Plan Noise Element identifies a variety of land use and development types as noise sensitive. These include residential neighborhoods, schools, churches, hospitals, and playgrounds. Sensitive receptors near the project site include residences located approximately 65 feet west of the project site, adjacent to Bryant Canyon Road; and San Vicente Elementary School, located approximately 800 feet to the west of the southern end of the project site. In addition, the Soledad Cemetery is located adjacent to the east side of Bryant Canyon Road which runs adjacent to the southern end of the project site. The cemetery has not been identified as a sensitive receptor in the General Plan; however, due to the sensitivity of the cemetery use and its proximity to the project site, it has been evaluated.

#### Significance Thresholds

Based on Appendix G of the *State CEQA Guidelines*, noise impacts would be significant if the project would result in:

1. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
-

- 
2. A substantial permanent increase in ambient noise levels above levels existing without the project;
  3. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
  4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
  5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels; or
  6. For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise.

The Noise Element of the Soledad General Plan includes exterior and interior noise level guidelines for a range of land uses. For single- and multi-family residential and school uses, exterior noise up to 65 dBA CNEL and interior noise up to 45 dBA CNEL is acceptable. The City has also established noise regulations in Chapters 9.09 and 17.38.240 of the Municipal Code. Chapter 9.09 addresses general noise regulations and prohibits excessive or loud noises that result in a public nuisance. Chapter 17.38.240 establishes exterior noise limits that apply to residential, commercial, and industrial land uses measured at the property line of the receiving land use. Specifically, smooth and continuous noise impacts are limited to 55 dBA at the adjacent residential property lines, 65 dBA at adjacent commercial property lines, and 68 dBA at adjacent industrial property lines. If the noise is not smooth and continuous and is not radiated between the hours of 1:00 p.m. and 7:00 a.m., decibel corrections shall be applied according to the character of noise and as identified in Table 17.38.240 B of the Municipal Code.

In addition, the manner in which older homes and office buildings in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. Homes and office building newer than 30 years old generally provide a reduction of exterior-to-interior noise levels of 30 dBA or more with closed windows (FTA, 2006). Based on this assumed reduction, compliance with the City's exterior noise standard would result in compliance with the interior noise standard of 45 dBA.

### Impact Analysis

*Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?*

The proposed project would involve improvements within the Bryant Canyon Channel along Bryant Canyon Road, approximately 65 feet east of the nearest residential units and 800 feet east of the nearest school. The project would not involve any long-term operations or vehicle traffic that would produce noise in the vicinity. Therefore, there would be no impacts associated with potential new sources of long-term noise.

*Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

*Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

*Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Project construction activity would require the use of heavy equipment for site preparation, grading, clearing, grubbing, excavation, and other construction activities. During each stage of improvements, a different mix of equipment would be operating and noise levels would vary based on the number of

---

pieces of equipment in operation and the location of the activity. Noise levels as a result of project construction activities may impact noise-sensitive residential receptors, the nearest of which are located approximately 65 feet west of the project site. These receptors may experience a temporary increase in noise during construction activities on the project site.

Table 1 shows typical peak noise levels associated with common types of heavy construction equipment anticipated to be used for the channel improvements, based on the FHWA Highway Construction Noise Handbook. As shown therein, noise levels associated with the use of individual pieces of heavy equipment anticipated for the project can range from about 80 to 88 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and phase of construction (FTA, 2006).

**Table 2  
Construction Equipment Noise Emission Levels**

Equipment	Typical Noise Level (dBA) 50 ft from Source
Backhoe	80
Compactor	82
Grader	85
Loader	85
Truck	88

Source: Federal Transit Administration, 2006

Table 3 shows noise levels at various distances from construction activity, based on a standard noise attenuation rate of 6 dBA per doubling of distance from the highest-volume individual pieces of equipment shown in Table 2.

**Table 2  
Construction Noise Levels from Project Construction at Sensitive Receptors**

Distance from Construction	Peak Noise Level from Mobile Construction Equipment at Receptor (dBA)
50 feet	88
<b>65 feet</b>	<b>86</b>
100 feet	82
200 feet	76
400 feet	68
<b>800 feet</b>	<b>62</b>

*Bold text indicates distances that represent the distance to the specific receptors evaluated in this analysis.*

As shown in Table 2, peak construction noise levels from the highest-volume individual pieces of equipment could be up to 86 dBA at the nearest residential units (approximately 65 feet from the source) and 62 dBA at San Vicente Elementary School (approximately 800 feet from the source). Construction noise levels would exceed the exterior thresholds for the City of Soledad at the nearest residential units, but would be within the City's standards at San Vicente Elementary School. It should be noted that construction noise is generally temporary and sporadic, and that the noise levels shown

---

represent line-of-sight attenuation. Topographic and structural features in the vicinity of the project site would further attenuate noise levels below these estimated noise levels.

The homes located nearest to the project site (approximately 65 feet west) have been constructed within the last five years. The exterior-to-interior reduction of newer residential units and office buildings is generally 30 dBA or more. Therefore, interior noise levels at the nearest residential units would be expected to be attenuated by 30 dBA or more from exterior noise levels. Interior noise levels at San Vicente Elementary School would be expected to be attenuated by 20 to 25 dBA from exterior noise levels due to existing school buildings which are 30 years or older. Additionally, a masonry wall has been constructed between the residential properties and Bryant Canyon Road which would attenuate noise levels by approximately 4.9 dBA at the nearest residences (refer to Attachment 1 for barrier attenuation calculations). Accounting for the exterior-to-interior noise reduction and attenuation from the masonry wall between the residences and the project site, interior noise levels would be approximately 51 dBA during construction activities, which would exceed the City's interior noise standard of 45 dBA for residential uses. Noise levels at San Vicente Elementary School would be approximately 37 to 42 dBA based on exterior-to-interior noise reduction for buildings more than 30 years old. With these features, the interior and exterior noise levels would be within the City's thresholds at the elementary school approximately 800 feet to the west of the project site.

Despite the presence of already-established noise attenuating features, the project would be required to comply with the following mitigation measures included in the Miravale Partnership - Hambey Property EIR. These measures would reduce sound levels from construction at the nearest sensitive receptors (residences located approximately 65 feet west of the project site) to levels below the City's interior thresholds (45 dBA) and reduce potentially significant impacts to levels of less than significant. Due to changes to the project boundary from the previous project to the currently proposed project, some of the measures below may be adjusted to account for new distances to sensitive receptors. Additionally, the construction activities necessary for the current project may not require implementation of measures listed below which pertain to stationary equipment.

- Noise-generating construction activities associated with improvements to the southern portion of the project site and Bryant Canyon Road shall be suspended during periods in which burial activities are occurring at Soledad Cemetery. It will be the responsibility of the cemetery operator to notify the construction contractor when to cease work.
  - Grading and other noise generating construction activities shall not occur within 300 feet of the adjacent elementary school during school hours (Monday through Friday, 8:00 a.m. to 3:00 p.m.). Alternatively, if construction must occur during school hours; temporary acoustic barriers (e.g. lead curtains, wooden sound barriers) shall be constructed along the southwestern boundary of the project site, along Orchard Lane, to reduce construction-generated noise levels at the adjacent elementary school. The barriers shall be designed to obstruct the line-of-sight between the nearest occupied school buildings and onsite construction equipment.
  - Equipment engine doors on motorized equipment shall be closed during equipment operation.
  - Construction operations and techniques shall use the quietest procedures feasible.
  - The quietest of alternative items of equipment (e.g. electric instead of diesel-powered equipment, hydraulic tools instead of pneumatic impact tools) shall be selected for use during demolition and construction activities.
  - When not in use, motorized construction equipment shall not be left idling.
  - Stationary noise generating construction equipment (e.g. generators and compressors) shall be enclosed and centrally located on the project site at the greatest distance possible
-

---

from the elementary school. Stationary equipment shall be located at least 500 feet from the western property boundary.

Compliance with the required mitigation measures from the EIR (listed above) would reduce noise impacts associated with project construction to less than significant levels.

*For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

*For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?*

The project is not located within an airport land use plan and does not involve any uses that would expose people to excessive noise from aircraft. Therefore, there would be no impact.

## References

California Natural Resources Agency. 2014 CEQA Statutes and Guidelines. Available at:  
[http://resources.ca.gov/ceqa/docs/2014\\_CEQA\\_Statutes\\_and\\_Guidelines.pdf](http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf)

Federal Transit Administration, Office of Planning and Environment. May 2006. *Transit Noise and Vibration Impact Assessment*. Available at:  
[http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf)

Schaff and Wheeler Consulting Civil Engineers. June 3, 2014. Ordinary High Water Mark Memorandum.

Soledad, City of. September 21, 2005. General Plan. Available at:  
<http://www.ci.soledad.ca.us/DocumentCenter/Home/View/223>

Soledad, City of. March 31, 2014. Municipal Code. Available at:  
[https://www.municode.com/library/ca/soledad/codes/code\\_of\\_ordinances](https://www.municode.com/library/ca/soledad/codes/code_of_ordinances)

---

## SOUND BARRIER LOSS ESTIMATION\*

Scenario: Soledad-Bryant Canyon Channel Improvements

### DATA

	INPUT
Barrier Top Elevation, feet	6
Source Ground Elevation, feet	0
Height of Source above Ground, feet:	6
Observer Elevation at ground or floor	0
Distance from source to barrier, feet:	30
Distance from barrier to observer, feet:	35

### BARRIER EFFECT RESULT

Infinite Barrier Attenuation:	-4.9 dBA
Is Observer at Ground Level (yes or no):	yes
Adjustment for Loss of Ground Attenuation:	0.0 dBA
Infinite Barrier Insertion Loss:	-4.9 dBA
Finite Barrier Adjustment	
Enter angle subtended by barrier :	180 degrees
Enter Noise Level Without Barrier:	86 dBA
Enter Reference Distance for Noise Level:	70 feet
Noise level including insertion loss of Barrier:	81.5 dBA
Noise Level of barrier gaps:	0.0 dBA
<b>SUMMED AVERAGE LEVEL:</b>	<b>81.5 dBA</b>

\* Assumes a sound wavelength of 2 feet (about 550 Hz).

Methodology Source: Harris, C.M. (1979), Handbook of Noise Control, 2nd. Ed.